HISTORICAL SITES IN NORTHEAST FLORIDA

WILLIAM M. JONES

JACKSONVILLE, FLORIDA
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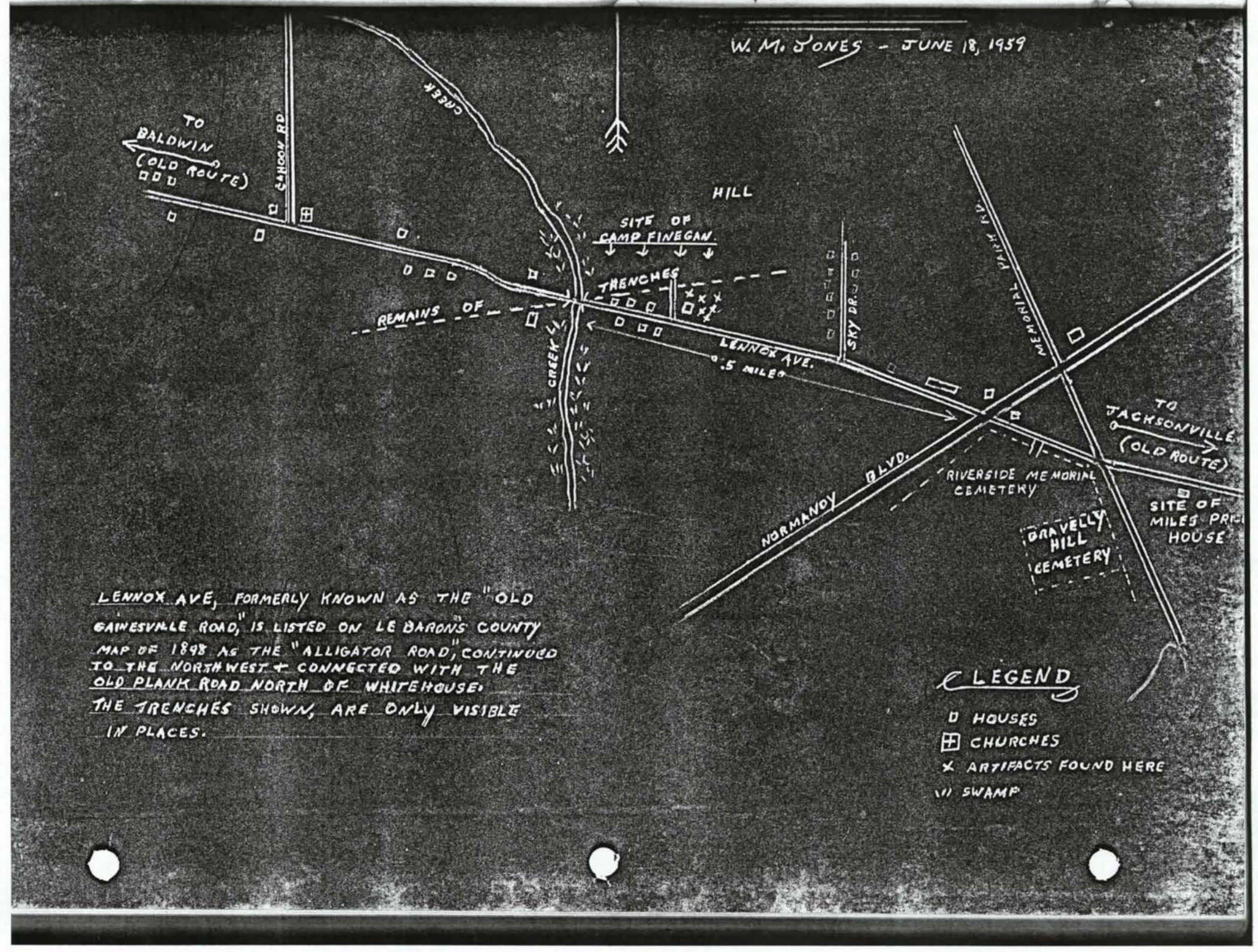
CONTENTS

A REPORT ON THE SITE OF CAMP FINEGAN A CONFEDERATE STRONGHOLD DUVAL COUNTY FLORIDA

By William M. Jones

Jacksonville, Florida July, 1959


W. M. JONES - JUNE 18, 1959
TO BALDWIN (OLD ROUTE)
CAHOON RD.
CREEK
HILL
SITE OF CAMP FINEGAN.
TRENCHES
REMAINS OF
SKY DR.
MEMORIAL PARK AVE.
LENNOX AVE.
.5 MILES
CREEK
TO JACKSONVILLE (OLD ROUTE)
NORMANDY BLVD.
RIVERSIDE MEMORIAL CEMETERY
GRAVELLY HILL CEMETERY
SITE OF MILES PRICE HOUSE
LENNOX AVE, FORMERLY KNOWN AS THE "OLD GAINESVILLE ROAD," IS LISTED ON LE BARONS COUNTY MAP OF 1898 AS THE "ALLIGATOR ROAD," CONTINUED TO THE NORTHWEST & CONNECTED WITH THE OLD PLANK ROAD NORTH OF WHITEHOUSE.
THE TRENCHES SHOWN, ARE ONLY VISIBLE IN PLACES.
LEGEND
HOUSES
CHURCHES
ARTIFACTS FOUND HERE
SWAMP

PREFACE

At the time of this writing, nearly a century has passed since the end of the "War of the Rebellion." Many of the earthworks, and other types of defenses, constructed by the "Boys in Blue and in Gray", have fallen victim to the ravages of time; still others are being leveled to make way for progress.

In time most of these sites will be forgotten, except for vague documentary references which rarely give accurate descriptions as to the actual locations of these places. It certainly behooves those of our generation who are interested to locate and record these earthworks where possible.

Camp Finegan, of which we write, was one of the defenses constructed by the Confederates for the purpose of protecting one of the only two roads leading from Jacksonville to West Florida at that time.

In this paper, we will attempt to describe how, by chance, we discovered this site and how we later identified it as Camp Finegan.

Jacksonville, 1959 — William M. Jones

INTRODUCTION

Having been a resident of the western section of Duval County since the year 1934, we have for many years been aware of the presence of a series of trenches located on Lenox Avenue and at a point one-half mile west of Normandy Boulevard where the road crosses a small creek. Originally these trenches, which today are only visible in places, extended from the northeast to the southwest for an undetermined distance, crossing the road at the creek.*

Our attention was first called to these trenches by local residents who often referred to them as "ditches" with some rancor, because they had to be filled in before their homes could be built. At that time, we were not aware of the nature or significance of these ditches, and consequently for many years ignored them, in spite of the fact we had heard of several weapons that had been found while plowing the fields near this site.

* See Map

MATERIAL EVIDENCE

It was not until years later that our interest in this place was aroused. In 1952, we were approached by Mr. R. V. Pringle, living on the site at that time, who reported finding a number of "bullets" in his yard, usually after heavy rains.

On examination, these "bullets" proved to be a type of shot known as the "Minie Ball" named after the French Army Officer* who designed it. This shot was a fifty-caliber, conical-shaped projectile used in muzzle loading rifles during the War Between the States, and as a rule, by both Union and Confederate Troops.

The presence of this type shot, together with the tales of "weapons" being found in this area, seemed to classify this place with the ditches as the possible site of some fortification related to the Civil War. We immediately began to look on these trenches with additional respect, and decided to determine, if possible, the name and origin of these works.

In the meantime, more material evidence in the form of a large brass "button" was recovered by Mr. Pringle. This button, measuring 2.5 inches in diameter, and showing the American Eagle in relief on one side, was identified by Historian Charles Peterson of the U. S. National Park Service. Mr. Peterson had this to say: "The large flat brass 'button' with an eagle design is in reality a buckle. This type of buckle was

* Bowman, Hank Wieand; Antique Guns, 1953

worn on the Union cartridge box belt and on the sword belt of sergeants. Judging from what remains of the attachments on the back, this was a sergeant's sword belt buckle. It dates from the middle nineteenth century."

While the artifacts that we have described may seem insignificant in the amount recovered, it must be remembered that this material was found by chance rather than by design. Regardless, it was our opinion that the buckle and shot found near these trenches pointed to this area as being a site related to a military operation of the War Between the States.

Arriving at the conclusion that the remains of the trenches located on Lenox Avenue were part of the defenses of a Civil War Fort, our next step was to identify this site, if possible.

As a rule, one can depend to a certain degree on local legend when attempting to identify a place such as this. However, to our great disappointment, after talking to a number of local residents, we were unable to find any "old-timers" who could give us even a hint as to the name or origin of these works.

DOCUMENTARY EVIDENCE

Failing to obtain any information from the local people, we resorted to documentary research, confining our efforts mostly to Gold's "History of Duval County and East Florida" and other local publications. We encountered such names as "Camp Milton", "Yellow Bluff Fort", "Fort Steele", "Camp Finegan", and others too far removed from this site to be considered.

Camp Milton, which has definitely been located on the "Old Plank Road" at McGirts Creek, is still partially visible. Yellow Bluff Fort, a well-known Confederate fortification, can be seen at Dames Point on the St. Johns River. Fort Steele is thought to have been located near the present town of Mayport, while Gold, in his "History of Duval County", locates Camp Finegan "on Cedar Creek near McGirts Creek."*

Now, from a geographical standpoint, only two of these places could be considered, Camp Milton and Camp Finegan, both located west of Jacksonville. Camp Milton, the remains of which can still be seen on the "Old Plank Road" at McGirts Creek, can be eliminated, and at the time, we did not question Gold's location of Camp Finegan.

Unable to find a name that seemed to apply to our site on Lenox Avenue, we were convinced the place had not been important enough to have been graced with a name and decided to give up this project for the time, this being in the year 1955.

* Gold, Pleasant Daniel; History of Duval County, Including Early History of East Florida

During the month of June, 1959, while browsing through a copy of the "Military and Naval History of the Rebellion", by W. J. Tinney, we naturally turned to the chapter pertaining to the Florida campaign, wherein we discovered a statement that, in our opinion, was an important clue as to the identity of the trenches on Lenox Avenue. We quote: "General Seymour, now occupied Jacksonville with his forces, and the enemy (Confederates) took a position at Camp Finegan, eight miles distant towards Baldwin."* (This was after the Battle of Olustee, at which place Seymour was defeated by the Confederates.)

At this point in our narrative, we have two conflicting reports as to the location of Camp Finegan; Gold's location on Cedar Creek near McGirts Creek, and Tinney's claim that Camp Finegan was "Eight miles distant towards Baldwin."

Now the description, "eight miles distant towards Baldwin", certainly does not apply to the location as given by Gold, while on the other hand, it could apply to our site on Lenox Avenue, which happens to be just eight miles from downtown Jacksonville, and is situated on one of the two original roads leading to Baldwin as explained below.

We admit, that from the beginning of our documentary research, we had thought about the possibility of our site being Camp Finegan, but dismissed this as unlikely in view of Gold's description of its location. However, we were not as yet willing to accept Tinney's description as conclusive and decided to search through the "Records of the War of the Rebellion" for additional evidence before reaching a decision.

* Page 505

After many trips to the Jacksonville Public Library, during which time we spent many hours searching through these records, we found evidence that, in our opinion, proved without a doubt that our site on Lenox Avenue was in fact the "Camp Finegan" mentioned many times in publications relating to the campaign in East Florida.

In Volume 35, Pt. I*, we discovered a report written by Confederate Army Captain Joseph L. Dunham regarding the loss of some pieces of ordnance to the Union Forces at Twelve Mile Station (Whitehouse). We present in part Dunham's report: "Colonel: In accordance with your orders under date of the 14th (February, 1864) instant, I have the honor to report the following facts in connection with the loss of five pieces of artillery . . . . . About twilight on the evening of the 8th of February, though not on duty, in consequence of serious indisposition of a months duration, I received a verbal order from Lieutenant-Colonel McCormack, commanding the forces at Camp Finegan, to move my section of artillery immediately to the rear; that the enemy was approaching and near Miles Price's house, some one-half mile distant . . . . ."

While we would like to include Dunham's entire report which is interesting, we are only concerned in this paper with the part that refers to Miles Price's house being one-half mile distant. Miles Price, an early settler in this section of Duval County and owner of the Gravelley Hill Plantation since 1858**, had his residence on what is now Lenox Avenue, and at a point just east of Memorial Park Road; this being one-half mile east of the site of our trenches.

* Page 347
** Legal Papers

. Therefore, if the enemy (in this case a Union Force under Colonel Guy V. Henry), were approaching Camp Finegan and were reported at Miles Price's house one-half mile away, this would prove that the site with the trenches on Lenox Avenue had to be Camp Finegan, because Colonel Henry and his men were advancing on this position.

There are many other references to Camp Finegan in these records, such as: "Camp Finegan, in the direction of Baldwin"; "Crossed Cedar Creek and reached the vicinity of Camp Finegan"; "Came in sight of Camp Finegan on the right"; and others that imply that Camp Finegan was located on the road to Baldwin and west of Cedar Creek (all of which tends to point to our site on Lenox Avenue). Dunham speaks in his report of "Twelve Mile Station", which is known today as "Whitehouse", and in accordance with the distance as given in the records, is three miles west of the trench site. Now, in view of the above evidence, may we be so bold as to state that, in our opinion, the trench site located on Lenox Avenue, and one-half mile west of Normandy Boulevard, represents what remains of Camp Finegan today.

At this time, one might well question the reason for a military installation protecting what appears to be an obscure County Road. In the early days, however, this was not the case. This road, which is shown on LeBaron's County map of 1898 as the "Alligator Road", was one of the only two routes leading to West Florida, the other being the "Old Plank Road", so named because it was once paved with planks.

Originally, the Alligator Road extended to the west from Jacksonville to a point two miles beyond the Riverside Memorial Cemetery, at which place it divided into two separate roads, one bearing to the northwest and

the other to the southwest. The northwest section continued on as the Alligator Road and connected with the Old Plank Road north of Whitehouse. The southwest section, shown on LeBaron's map as the "New River Road", continued in that direction for an undetermined distance, being known in later years as the "Old Gainesville Road." While the northwest section of this road does not exist today, the southwest section is still maintained as a "dirt road" until it connects with Normandy Boulevard near McGirts Creek.

Other documentary evidence* that can be brought to bear indicates the possible existance of this road as early as 1825. All in all, as obscure as Lenox Avenue seems to be today, it obviously was an important link with west Florida in the nineteenth century.

* Legal Papers

SUMMARY AND CONCLUSIONS

While we originally had no intention of presenting evidence other than that pertinent to the origin and identity of Camp Finegan, we feel that we would have failed in our duty if we neglected to include at least several of the "highlights" involving the occupation of this place during the War Between the States.

Among the many officers stationed at Camp Finegan from time to time, was Confederate Captain J. J. Dickison* who became legend by virtue of his audacious attacks on the Union Forces in the Jacksonville, as well as the Palatka and Gainesville areas. Dickison, who was to Florida what John S. Mosby was to Virginia, certainly deserves to be known as the "Gray Ghost" of Florida.

Another officer, Lieutenant-Colonel Charles F. Hopkins, had good reason to remember his stay at Camp Finegan, for it was at this place that Hopkins himself asked for a "court of inquiry" to be called in order to clarify his reasons for evacuating St. Johns Bluff in the face of an enemy attack; "General (Finegan): . . . . I respectfully demand that a court of inquiry be called at the earliest day practicable to examine into the facts of the case and the policy of the course pursued by myself upon that occasion."**

As a result of this inquiry, Hopkins was exonorated at Camp Finegan on October 11, 1862; "We therefore consider Lieutenant-Colonel

* Dickison, Mary Elizabeth; Dickison and His Men, 1890

** War of the Rebellion; Official Records of Volume 14, Series I, Page 143

Hopkins wholly justifiable in the course he pursued in abandoning the batteries on the Saint Johns."* (Lieutenant-Colonel William D. Mitchell)

General Joseph Finegan used this camp as his headquarters on several occasions, which can be attested to by the many letters that originated at this place bearing his signature. We feel, therefore, that this camp received its name in honor of this General, although we were unable to find any reference to the subject.

During the month of February, 1864, and prior to the Battle of Olustee, this place was occupied by the "Second South Carolina and Third U. S. Colored Troops"**, during which time it was known as "Camp Shaw." This probably explains the presence here of the Union Sergeant's buckle which we mentioned earlier in this paper.

On May 25, 1864, according to a report by Brig. General George H. Gordon, U. S. Army***, a Union force under the command of Colonel Shaw left Jacksonville moving in the direction of Baldwin. We quote, in part, General Gordon's report: "The detachment met but few of the enemy until they crossed Cedar Creek and reached the vicinity of Camp Finegan. Here they were opposed by infantry and a few cavalry. Colonel Shaw thinks there might have been 400 or 500 in front of him. Our advance was within less than half a mile of Camp Finegan . . . . .A brief fire of infantry and artillery was maintained for a brief period. The rebels were advancing, but the fire checked them. . . . ." According to the above description, this "skirmish" took place on the present Lenox Avenue, between Cedar Creek and Memorial Park Road. In recent years, the route of this

* Records of the War of the Rebellion; Volume 14, Series I, Page 143
** Records of the War of the Rebellion; Volume 35, Part I, Page 285
*** Records of the War of the Rebellion; Volume 35, Part I, Page 399

road has been changed between these two points, the change being so slight that it is hardly worth mentioning.

In conclusion, we were unable to find any definite information in regards to when Camp Finegan was established or when it was abandoned. The camp probably existed for about two years, or from the early part of 1862 to the end of 1864, and as we have already surmised, was named after General Joseph Finegan.

A person standing on this site today and viewing the present placid scene, would doubtless have some difficulty in visualizing this area as having once been the site of a military installation. Needless to say, Camp Finegan obviously was an important fortified bivouac area to the Confederates, and certainly deserves to be recorded in the annals of Duval County.

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A REPORT ON THE SITE OF SAN JUAN DEL PUERTO A SPANISH MISSION, FORT GEORGE ISLAND, DUVAL COUNTY, FLORIDA

By

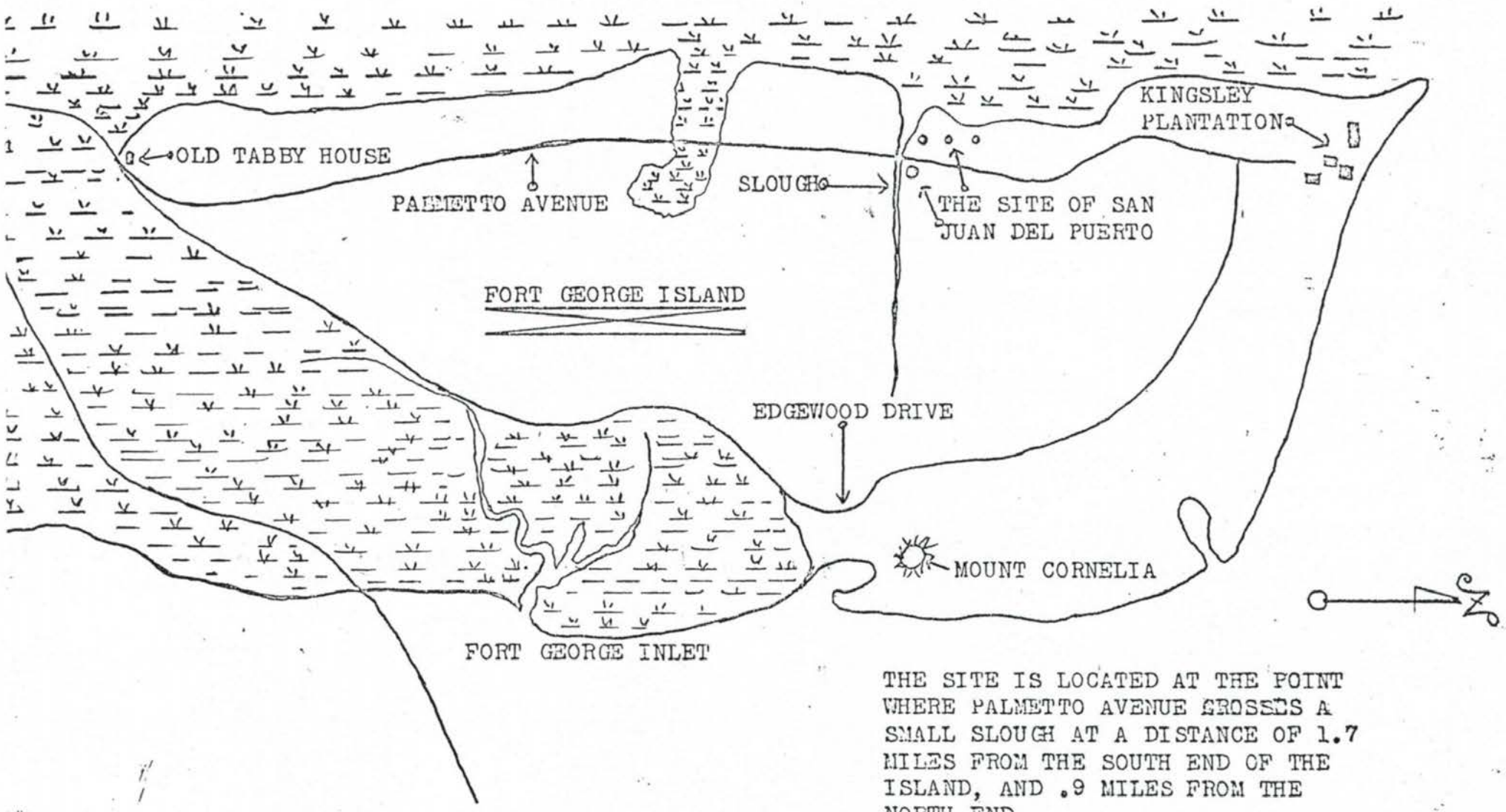
William M. Jones

Jacksonville, Florida

March 23, 1967

A MAP SHOWING THE EXACT LOCATION OF
THE MISSION OF SAN JUAN DEL PUERTO.

MARCH-0-1967 W. M. JONES



THE SITE IS LOCATED AT THE POINT WHERE PALMETTO AVENUE CROSSES A SMALL SLOUGH AT A DISTANCE OF 1.7 MILES FROM THE SOUTH END OF THE ISLAND, AND .9 MILES FROM THE NORTH END.

ACKNOWLEDGMENTS

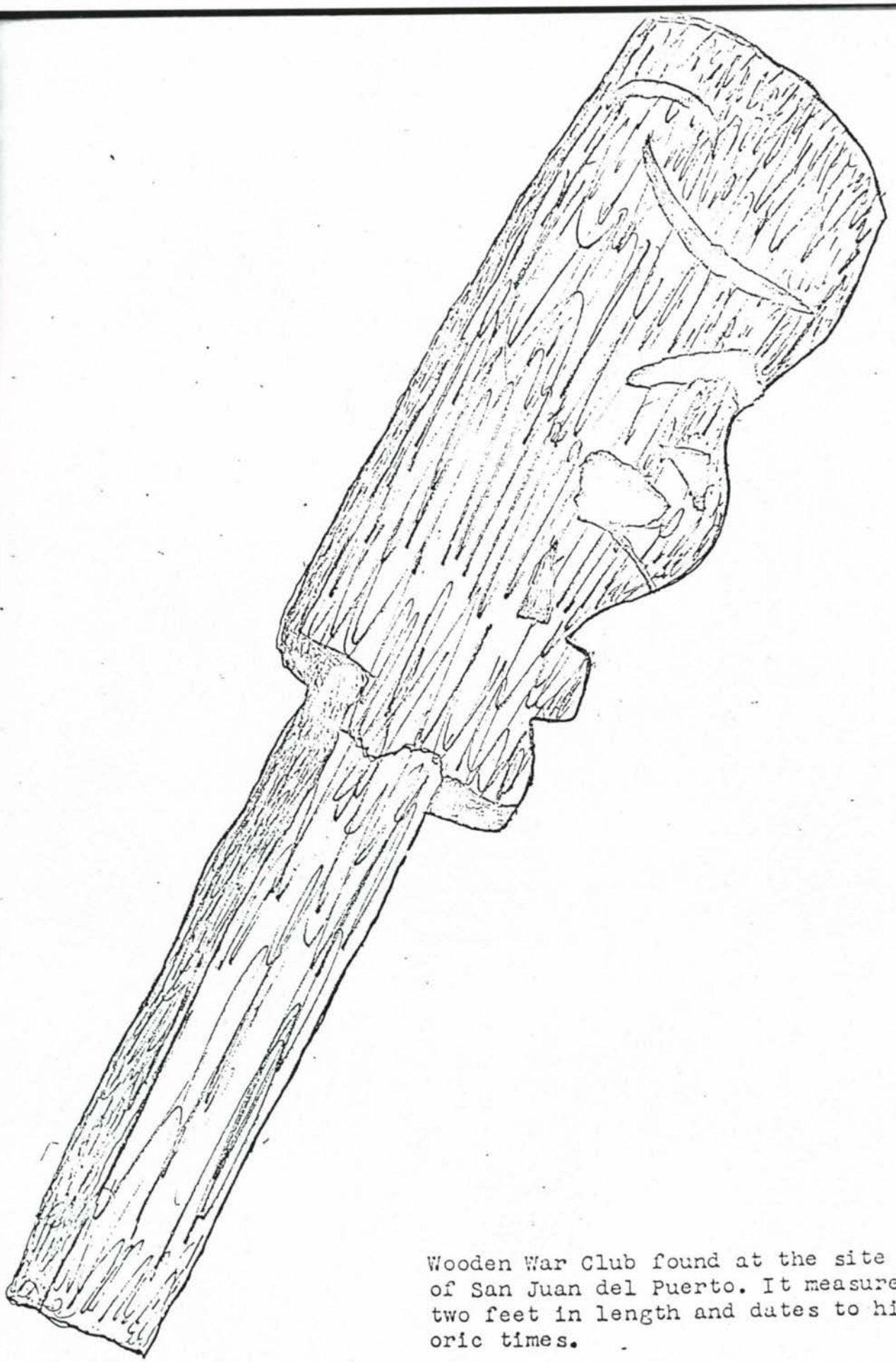
Plotting and excavating the site of Mission San Juan del Puerto was the work of many people. Those involved directly in the field were amateurs, but the late Dr. John M. Goggin, of the University of Florida, gave professional direction and control in the laying out of the site.

Special thanks go to Mr. Victor Blue, owner of the site, who permitted excavation of DU 53, and without whom the task could not have been undertaken.

Those engaged in the actual digging were all residents of Jacksonville at the time. It was through the tireless work of these men that the excavation became a reality. Thanks go to Roger Jones, Charles Williams, Wilbur Simmons, David Jones, Lynn Green, Charles Potter, William Russell, Edward Clark, Jack Hardy, Capers D. Griffith, Neal Hawkinson, John Tubbs, Walter Morrell, Larry Longhi, Walter Doran, A. M. Loveless, Raymond Spruell, R. L. Henderson, John E. Simms, and William Simms. There was also help from Boy Scout groups and the Jacksonville Children's Museum.

In addition to Dr. Goggin, the following professional people helped with administrative and technical problems: Dr. Charles W. Fairbanks, University of Florida; Dr. R. B.

Holliman, Jacksonville University; John W. Griffin, St. Augustine Historical Society; Albert C. Manucy, National Park Service, and Miss Dena Snodgrass, Jacksonville Historical Society.



Wooden War Club found at the site of San Juan del Puerto. It measures two feet in length and dates to historic times.

A REPORT ON THE SITE OF SAN JUAN DEL PUERTO,

A SPANISH MISSION,

FORT GEORGE ISLAND, DUVAL COUNTY, FLORIDA.

HISTORY

San Juan del Puerto may be considered one of the most significant of the many missions established in Spanish Florida. Founded by the Franciscan Order of Friars in the latter part of the sixteenth century, it existed for over one hundred years before being destroyed in 1702. Very likely San Juan was the only mission that managed to survive this long, with the exception of Nombre de Dios at St. Augustine.

It was at San Juan del Puerto that the noted linguist, Francisco Pareja, spent most of his missionary years in Florida. Pareja was born at Auñon, Spain, and came to Florida in 1595.[1] He was a brilliant scholar and authored several works in the Timucuan language while at San Juan del Puerto. These works still exist and are considered invaluable.

In his "Declaration of 1602," Father Pareja stated he had been Vicar of the Town of San Juan del Puerto for the past seven years. He also cared for the following nine towns: Vera Cruz, Arratoba, Niojo, Potaya, San Mateo, San Pablo,

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[1]Maynard Geiger, Biographical Dictionary of the Franciscans in Spanish Florida and Cuba, Vol. XXI (Patterson, New Jersey: 1940), 85.

Hicacharico, Chinisca, and Carabay.[2]

On May 8, 1606, Bishop Altamirano of Cuba, visited San Juan. Father Pareja greeted him and informed the Bishop there were now five hundred Christians under the Vicarship of San Juan.

Francisco Pareja transferred to St. Augustine around 1612, where he was installed as custodian of the Convent. A Lay brother, Pedro Viniegra, replaced him at San Juan.[3]

In 1696, the Quaker Englishman, Jonathan Dickinson, visited San Juan. He had been shipwrecked on the Florida coast and was being returned to the Colonies through the chain of missions. His experiences were later recorded in a journal:

> We had about five leagues to a sentinel's house, where we lay all night, and next morning travelled along the sea-shore about four leagues to an inlet (St. Johns River): Here we waited for canoes to come for us, to carry us about two miles to a town called St. Wans, being on an island. We went through a kirt of wood into the Indian Plantations, for a mile. In the middle of this island is the town of St. Wans, a large town, and a worship house.
>
> The people are very industrious, having plenty of hogs and fowls, and large crops of corn. . . This morning the Indians brought us some victuals for breakfast and the Friar gave my wife some loaves of bread made of Indian corn, which was somewhat

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[2]Maynard Geiger, The Franciscan Conquest of Florida 1573 - 1618, (Washington, D. C.: 1937), 143.

[3]Carita Doggett Corse, The Key to the Golden Islands, (Chapel Hill, N. C.: 1931), 57.

> extraordinary; also a parcel of fowls. About ten o'clock in the forenoon we left St. Wans, walking about a mile to the sound (Fort George River), where were canoes, and Indians ready to transport us to the next town.[4]

In 1702, Governor James Moore of South Carolina launched an invasion into Spanish Florida in an effort to capture St. Augustine and Fort San Marcos. Moore's plan of attack was to divide his forces in such a manner that he would advance by sea, while the remainder of his forces under Colonel Robert Daniel would attack by a land route.

Daniel and his forces moved South, capturing and destroying the Missions of San Pedro, San Felipe, and Santa Maria. On November 5, 1702, they landed on Fort George Island and captured San Juan del Puerto. Daniel also took Santa Cruz at Cedar Point.[5]

Moore's attack sounded the death knell for the coastal missions, including San Juan del Puerto. None of the missions were rebuilt north of the St. Johns River.

The actual date San Juan was founded is not known. Pareja's statement made in 1602 that he had been at San Juan

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[4]Jonathan Dickinson, Gods Protecting Providence, 1759, 106.

[5]Charles W. Arnade, The Siege of St. Augustine in 1702, Published in cooperation with the St. Augustine Historical Society (University of Florida Press, Gainesville, Florida: 1959), 23.

for seven years indicates this mission was in existence in 1595. It probably was established during the ten year period preceding this date.

INTRODUCTION

For many years the site of San Juan Mission was unknown. Some historians had placed it on the North end of Fort George Island, while others felt the site was either on Amelia or Cumberland Islands. Today, the location is known to be in the middle of Fort George Island and on the banks of a tide-water creek and slough, one and seven tenths miles North of the Musilna Tabby House (see map of island).

Prior to the year 1966, the region was covered with a growth of large and small trees. In the area East of Palmetto Avenue and immediately North of the slough, were a number of cleared spots in which Spanish and Indian pottery could be collected.

Had it not been for these open places and the exposed shore of the slough, it is doubtful this site would have been detected, because the remainder of the region was covered with a thick layer of leaves and debris.

At the present time the entire area is open, having been cleared by the owner, Mr. Victor Blue, for the purpose of planting pine trees. We must admit we were dismayed when in 1966, bulldozers started uprooting trees and in general tearing the place apart. However, as we shall explain later, we owe Mr. Blue a vote of thanks because evidence was brought to light that put a fitting climax to the years of work on this complex.

UNIVERSITY OF FLORIDA SURVEY

Credit for the discovery of this site must go to the late Dr. John M. Goggin of the University of Florida. Although we had been active in this area since 1946, Goggin was the first to recognize the character of the place.

In 1951 the University of Florida conducted an archaeological survey of Fort George Island, during which time the area in question was designated as Site DU 53. Later, Goggin had this to say: "There is reasonable probability that DU 53 may have been one of the sites of San Juan del Puerto."[6]

THE 1955 TESTS

In 1955 we approached officials[7] of the Jacksonville Historical Society, informed them of the site, and suggested they obtain the services of an archaeologist who could conduct preliminary tests. While a large amount of pottery had been surface collected, no test excavations had been made.

Since John Goggin was in Mexico at the time and not available, John W. Griffin of the St. Augustine Historical Society agreed to supervise tests for a two-day period. This plan was carried out during the month of June, 1955, with a field party consisting of volunteers from the Jacksonville area.

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[6]John M. Goggin, "Space and Time Perspective in Northern St. Johns Archeology, Florida" (Yale University Press, New Haven: 1952), 25.

[7]Personal communication with Miss Dena Snodgrass.

The results of these tests appear in a preliminary report published in the 1960 printing of the "Papers of the Jacksonville Historical Society."[8] In part Griffin had this to say: "A total of six squares, five feet square were opened and excavated to undisturbed soil. These were clustered in three groups, which we designated Tests A, B, C. In all of these were found Indian pottery of the Mission period and Spanish pottery. . . Late in the last afternoon that we spent at the site we discovered a bead from a rosary. We also found a small chip of red glass that could be interpreted as a part of a virgil (sic) cup."

In view of these encouraging results, Griffin decided to continue these tests at a later date. This plan did not materialize, consequently the site of San Juan del Puerto lay undisturbed for the following six years.

EVENTS LEADING TO THE 1961 EXCAVATIONS

During the late 1950's and the early 1960's, continued talk of industrial development of the region between Jacksonville and the mouth of the St. Johns River, caused us some concern. We could visualize historic sites such as San Juan being destroyed by road building, or industrial complex.

Since the 1955 tests at Site DU 53, little or no interest had been shown in the place. In view of this, we contacted

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[8]Volume IV, P. 63.

John Goggin of the University of Florida, described to him the present situation in the Jacksonville area, and suggested we be allowed to excavate the San Juan site under his technical direction. Goggin not only agreed to sponsor us in this undertaking, but offered to assist from time to time with his people from the University. Unfortunately, his illness and eventual death in May of 1963, prevented him from taking an active part. The field of Archaeology suffered a great loss with the passing of this man.

Mr. Victor Blue, owner of the site, kindly gave permission to excavate, as he had done at the time of the 1955 tests. The Jacksonville Historical Society then agreed to sponsor us on the local level. They not only assisted from an administrative standpoint, but helped in the matter of purchasing wooden stakes, heavy paper bags, and an assortment of tools necessary to this work.

THE 1961 EXCAVATIONS

Actual work on the site was initiated during the month of September, 1961. In accordance with Goggin's instructions an East-West base line was established through what we surmised was the middle of the site (see plan of excavations). Five foot squares were excavated to the left and to the right of this line down to sterile soil. Over forty squares were opened from depths of eighteen inches to six feet, depending on the

conditions encountered in each square.

Spanish and Indian pottery of the mission period, appeared in all of the excavations. One hundred and thirty-six fragments of majolica were found which included the following: Figs Springs Polychrome; San Luis Polychrome; Abo Polychrome; and Puebla Polychrome. These are all seventeenth century types.[9]

Olive jar sherds appeared in the amount of one hundred, all of which were middle style.[10] Indian pottery consisted of over thirteen thousand fragments of San Marcos, St. John Checked Stamped, and other forms.

A group of fiber tempered sherds were recovered in squares 655-L15 and 655-L20, and in the levels below the mission complex. A few fish vertebrae also appeared with these sherds. The presence of this type pottery indicates a minor occupation about fifteen hundred years before the time of Christ. No other Orange period materials were found on the site.

The most unusual feature of the entire dig, was the discovery of the complete skeleton of a young pig[11] in square 655-L10. The presence of the complete skeleton remains a mystery. We can only surmise the animal was buried here because it was diseased.

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[9]Classified at the Anthropological Laboratory, University of Florida.

[10]John M. Goggin, The Spanish Olive Jar, An Introductory Study (Department of Anthropology, Yale University, New Haven: 1960), 11.

[11]Identified by Dr. Elizabeth Wing, University of Florida.

Only two coins were found, one in square 660-L15, and the other in 650-L35. Both of these are Spanish copper coins known as "Maravedis", and were probably minted in Santo Domingo during the mid-sixteenth century.[12]

The metal throat of a sword scabbard appeared in square 650-L35. We assumed the remainder of the scabbard that was missing had been made of leather.[13]

A peculiar looking metal drill was found in 650-L35. This tool obviously was designed to bore wood, and appears to be an early drill known as the "Pod Auger".

A round cannon shot was found in square 600-L15. It was found near the stockade thought to be located at this point.

An iron key also found in the above square was classified as Spanish by Goggin. There was nothing unusual in its appearance.

Comparatively speaking, few religious objects were recovered. A small pewter figure of Christ with out-stretched arms was found in 555-R5. Because of its small size and style, it probably belonged to a rosary. Only one medallion was recovered and this was in square 665-L5. It was made of a substance that resembled a ceramic of some kind, and had an outer rim of copper or brass. The figures on it could only be seen

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[12]William C. Lazarus, "Coin Dating in The Fort Walton Period", (The Florida Anthropologist, Volume XVIII, No. 4, December, 1965), 222.

[13]Harold L. Peterson, "Arms and Armour in Colonial America, 1526-1783", (New York: 1956), 69.

with difficulty. Several rosary beads were found, one in square 665-L10, a couple in 665-L35, and the one recovered during the 1955 tests. All of these had brass wire still attached. No other religious objects were recovered.

The materials we have just mentioned are the ones we considered most significant. Many other objects were found, such as a clay ball, eight hundred and ninety-eight fragments of animal bones, and many fragments of bog iron. The source of the bog iron could have been the North end of the island, since this material can be found scattered along the beach just West of the Kingsley House.

MATERIALS FOUND BY RADIO DETECTING

A number of artifacts were located using radio detectors. Included in this group were large wrought-iron spikes and nails; fragments of iron and copper; several musket shot; the remains of an eye hoe; and the cock from a Spanish gun known as the "Miguelet". This relic was identified by Harold L. Peterson.[14] Peterson had this to say: "The only direct evidence indicating that miguelet locks were used in America consists of two excavated locks, one found at Jamestown and one in Massachusetts, and a very early cock dug up in Florida". This cock was the only artifact located directly east of the main excavations.

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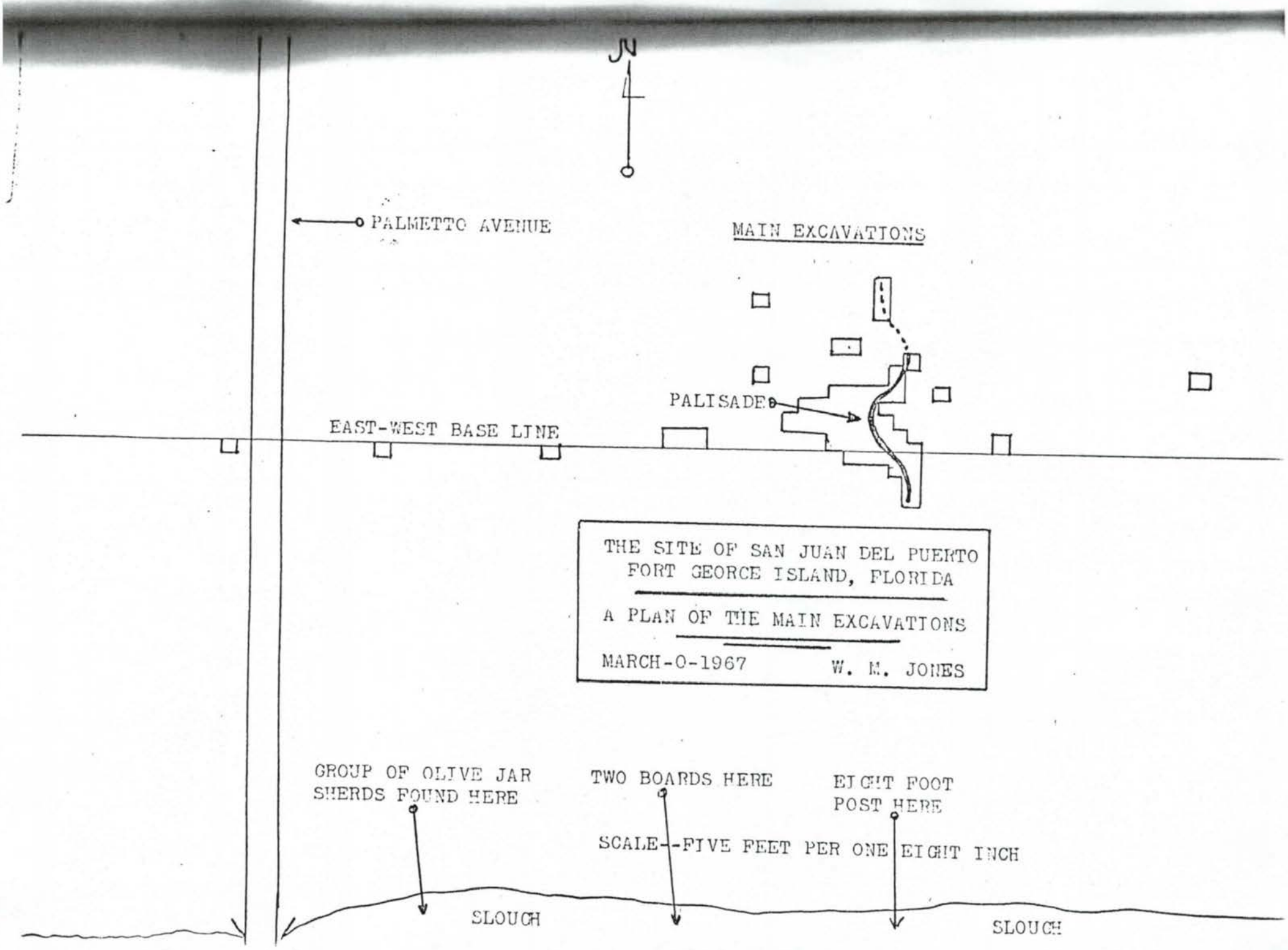
[14] Ibid. This cock is pictured on Page 30 of this publication.


N
PALMETTO AVENUE
MAIN EXCAVATIONS
PALISADE
EAST-WEST BASE LINE
THE SITE OF SAN JUAN DEL PUERTO
FORT GEORCE ISLAND, FLORIDA
A PLAN OF THE MAIN EXCAVATIONS
MARCH-0-1967
W. M. JONES
GROUP OF OLIVE JAR SHERDS FOUND HERE
TWO BOARDS HERE
EIGHT FOOT POST HERE
SCALE--FIVE FEET PER ONE EIGHT INCH
SLOUCH
SLOUCH

MATERIALS FOUND BY SURFACE COLLECTING

After the place was cleared by bulldozers in 1966, it was possible to surface collect the entire region North of the slough. Until now, we had assumed the site consisted of the area near the main excavations, and that the surrounding territory had no meaning to us. We were surprised and pleased when we learned the region North of the slough, and West of Palmetto Avenue contained an abundance of material.

We collected over a hundred fragments of majolica which included the following types: San Luis Polychrome; Abo Polychrome; Puebla Polychrome; Aucilla Polychrome; and Fig Springs Polychrome. These are all seventeenth century forms.

The following sixteenth century types were also found in this area: Isabella Polychrome; La Vega Blue on White; Columbia Plain; and Itchtucknee Blue on Blue.[15]

Over three hundred olive jar sherds were collected, some of which were green glazed. All of these appeared to be middle Style, but it is possible a few sherds from an early form could have escaped detection, since part of the mouth of an early style jar was found in the slough.

Indian pottery appeared in the amount of over three thousand fragments. Most of these were similar to the potsherds found in the main excavations, but some were types that have

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[15] Classified at the Anthropological Laboratory at the University of Florida.

not been classified. The majority of these materials were found in the area North of the slough and West of Palmetto Avenue. This area measures nine hundred feet North from the slough, and seven hundred feet West from the Avenue.

MATERIALS RECOVERED FROM THE SLOUGH

The slough proved to be the most exciting and the most difficult place to excavate. Trenches dug at low tide, would fill with water during the next high tide. In spite of this we managed to recover a few interesting artifacts from the mud.

First we shall deal briefly with the broken pottery that had been thrown in the slough. By far the largest group of olive jar sherds on the site, appeared in a spot just East of the causeway (where Palmetto Avenue crosses the slough). We found one complete side of a jar buried in the mud, and later rebuilt nearly half of another specimen. Many other large and small sherds were also recovered here.

Although the majority of olive jar fragments were found buried East of the causeway, the largest concentration of majolica was centered about fifty feet West of the causeway. All of these were seventeenth century types with the exception of one fragment of Columbia Plain, which belongs to the sixteenth century.

Indian pottery appeared in about the same quantity on both sides of the causeway. Hundreds of San Marco potsherds

were found along with types that have (according to Goggin) not been classified.

The first wooden artifact we found buried was a "bung", or "stopper". Next, we recovered two boards measuring four feet by six inches, buried together in contact with several olive jar sherds. If it had not been for the presence of the olive jar fragments, we would have been suspicious of these boards, and thought of them as driftwood.

An eight foot plank was found near the middle of the slough. Because it was not of uniform width due to deterioration, we would judge it to have been a two inch by ten inch plank originally. Although it obviously had been buried here for a long time, we are not certain it represents structural evidence of this complex. A small fragment of wood three inches long and two inches wide, and bearing tool marks, was found buried in contact with a rew majolica sherds.

One other wooden object was found buried. This was a post measuring seven feet and five inches long, and six inches in diameter. Since this post was found at a depth of two feet, which is below the level most materials were located, and because it bears tool marks on the ends, we believe it is related to the mission in some manner.

In the year 1966, a deep ditch was dug in the middle of the slough to improve drainage from low places inland. The dragline employed here, removed a lot of tree trunks and limbs that had been buried for many years. Along with this

debris came to light a carved wooden war club, two feet in length. It was found six hundred feet East of the causeway where it had been deposited on the bank along with the usual spoil. When detected, it was in a vertical position with about three inches of the top protruding from the muck. It was delivered the next day to Dr. Charles W. Fairbanks of the University of Florida, where it was preserved using the alum method. Dr. Fairbanks described the club in this manner: "The carving represents a highly stylized and quite grotesque human face in profile on one face of the club. The club is surely aboriginal but seems to have been carved with an iron knife and thus belongs to the Spanish Mission period."

The only other object found in the slough was a bone handle from a dagger or knife. This was identified by Dr. Goggin as being of French origin, and dating to the seventeeth century.

Since water-logged artifacts must be treated after removal, the small wood chip was preserved by soaking it in a solution of polyethylene glycol 4000 and ethyl alcohol, in the ratio of 1:1 for thirty days.[16] The seven foot post was too large to be treated in this manner so we applied successive coats of

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[16]Alan B. Albright, The Preservation of Small Water-Logged Wood Specimens with Polyethylene Glycol, (Department of Armed Forces History, Smithsonian Institution), 233.

boiled linseed oil instead.[17] One of the two boards we found was treated in the same manner.

STRUCTURAL EVIDENCE

Structural evidence was encountered in several forms. The first that appeared was a group of post holes in the main excavations; the second was wooden artifacts buried in the slough; and the third was evidence found West of Palmetto Avenue that indicated sites of structures.

We shall discuss the post holes first. Over forty of these were found in the excavated squares. They varied in depths of from thirty inches to six feet, and were from six to twelve inches in diameter. Most of these were scattered about in such a manner they could not be aligned in any fashion. They probably represent flimsy structures that had been built and rebuilt many times. In addition it is known this place was cultivated during the nineteenth century, a process that would tend to destroy all structural evidence near the surface.

An interesting feature we found, was a trench that appeared serpentine in form (see plan of excavations), and in which large deep posts had been mounted at regular intervals. No doubt smaller posts had been placed between these, but if so, they could not be detected. Only fifty feet of these

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[17] Personal communication with Dr. Charles W. Fairbanks, University of Florida.

works were exposed because large trees were encountered on the North and South extremes, making it impossible to continue excavating in either direction. This feature likely represents the remains of a palisade that once stood here. Dr. Charles Arnade speaks of a stockade that was located at San Juan del Puerto.[18]

Only three of the wooden artifacts found in the slough represent structural evidence. The speciments that fall in this category are the seven foot five inch post; the two four foot long boards, and possibly the eight foot plank found near the middle of the slough.

Since we have discussed the post holes and the wooden artifacts, we shall now describe the structural evidence found West of Palmetto Avenue. In 1966 the owner of the site cleared the above area in order to plant pine trees. In so doing, Spanish and Indian pottery was exposed over the entire region. During the following months, this material was surface collected until such time the area was covered with a growth of weeds, vines, and small pine trees.

In the early part of 1967, for reasons unknown to us, this area was cleared once again. It was during this time, and after an especially hard rainfall, that we detected groups of broken oyster shell placed at intervals over this region.

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[18] Dr. Charles W. Arnade, "The Siege of St. Augustine in 1702", published in cooperation with the St. Augustine Historical Society (University of Florida Press, Gainesville: 1959), 21.

We investigated these shell concentrations, and in every instance found Spanish and Indian pottery of the period. In some groups, wrought iron spikes and fragments of metal appeared along with the other materials. In view of this evidence, it would seem these groups of oyster shell represent the remains of structures that once stood at these points.

A total of twelve structural features were plotted, placed in position on the map of the site, and designated A through L. On this map the features are shown in the irregular form in which they were found. On the plan of structures presented with this paper, they are shown as block drawings (see plan of structures).

On the East side of Palmetto Avenue, and within the stockade, we show three other structures which are designated M through O. These shall be dealt with separately.

Feature A was the first to be investigated. From this place came one fragment of majolica, a number of olive jar sherds, a few wrought iron spikes, a spent musket shot, and some fragments of metal.

Features B, C, D, E, F, H, I and K produced San Marco pottery and olive jar sherds. Feature J, which is the Northernmost feature to be found, yielded one fragment of majolica, and a number of San Marco potsherds. It is interesting to note that very little Mission period materials were found in the area surrounding this place.

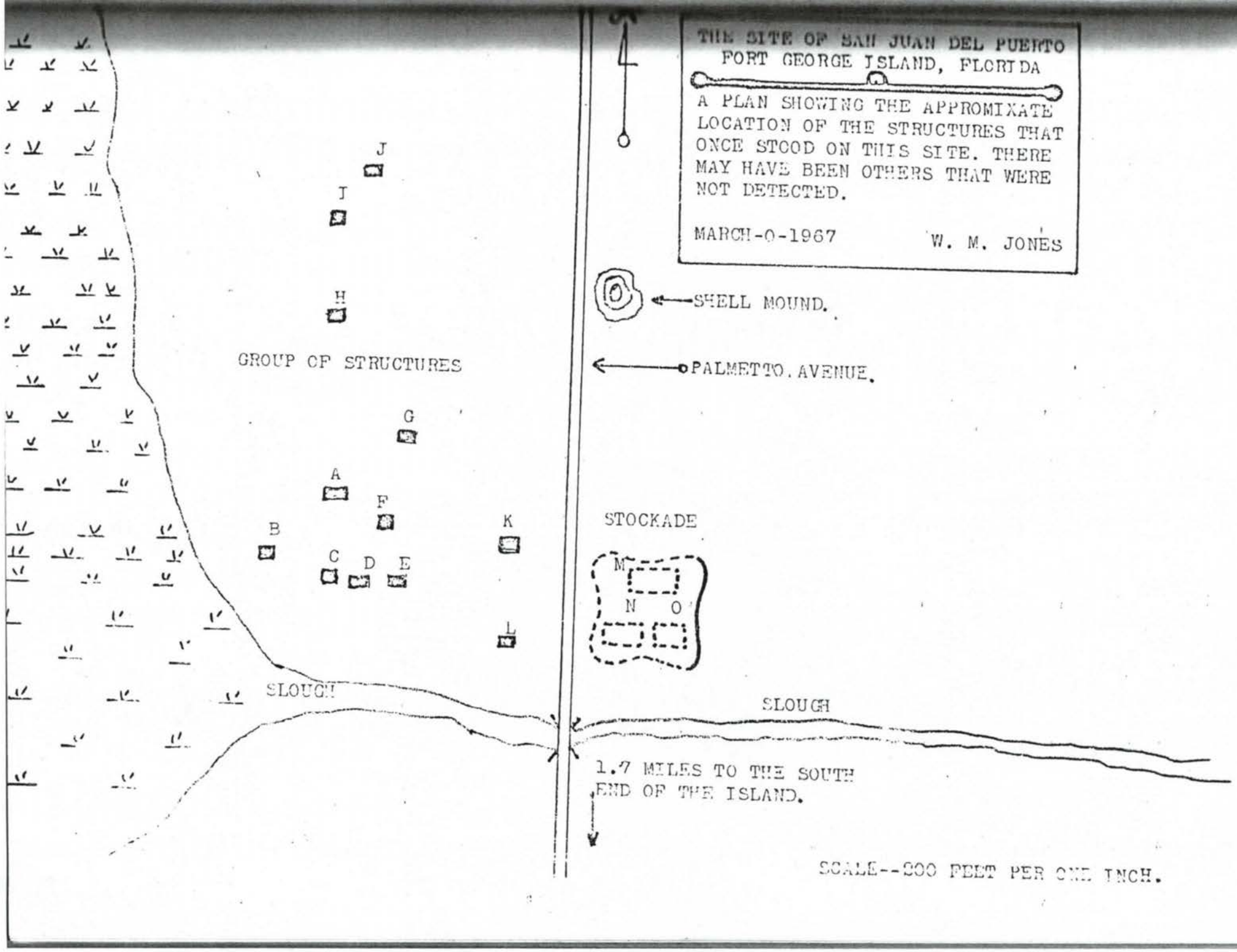
In and near feature L was found a considerable amount of majolica, including the specimens from the slough immediately South of this point. San Marco pottery also appeared but no iron spikes or other metal were found.

Feature G produced olive jar sherds; San Marco potsherds; and wrought iron spikes. The following majolica types were recovered: Isabella Polychrome; La Vega Blue on White; Columbia Plain; and Itchtucknee Blue on Blue.

Since we have mentioned all of the structural features West of Palmetto Avenue, we shall now discuss the structural situation East of the Avenue. On the plan of structures presented with this paper, we indicate a stockade and three structures East of Palmetto Avenue and North of the slough. We have taken the liberty of placing these buildings in this position because of material evidence encountered here, and because of documentary evidence mentioned below.

The stockade shown on the plan was placed there because as we stated earlier, we found evidence of a palisade wall at this point which ran in a North-South direction. We were only able to expose fifty feet of this feature. Consequently, we have re-created the other three walls (indicated by dotted lines) in such a manner as to encompass the area in which the most activity was indicated by the presence of artifacts.

As to size and shape, the stockade was patterned after another defensive works, the plan of which was discovered among


THE SITE OF SAN JUAN DEL PUERTO
FORT GEORGE ISLAND, FLORIDA
A PLAN SHOWING THE APPROMIXATE LOCATION OF THE STRUCTURES THAT ONCE STOOD ON THIS SITE. THERE MAY HAVE BEEN OTHERS THAT WERE NOT DETECTED.
MARCH-0-1967
W. M. JONES
SHELL MOUND.
PALMETTO AVENUE.
GROUP OF STRUCTURES
J
J
H
G
A
F
B
K
C
D
E
L
STOCKADE
M
N
O
SLOUGH
SLOUGH
1.7 MILES TO THE SOUTH END OF THE ISLAND.
SCALE--200 FEET PER ONE INCH.

the Stetson Papers by Dr. Charles W. Arnade in 1958. This structure which was said to have been located on Amelia Island, was known as the "Stockade and Mission of St. Catherine," and had within its confines four buildings. It measured two hundred and ten feet on each side.

We have indicated three buildings inside the stockade at San Juan. Structure M has been designated as a church because all of the religious objects from the site were found in this immediate area.

Structure N was selected as a storage building because of the concentration of broken olive jars directly South of here in the slough. At no other place on the site did we meet with a similar situation.

Building O we have designated as the rectory or Priest's abode because a building of this nature is generally located in close proximinity to the church. In addition, majolica was found concentrated at this point. It is our understanding this type pottery was only used by the clergy and high ranking officials (we surmise this means in the New World).

The question now arises as to how the buildings at San Juan del Puerto were constructed. We found little evidence to the effect any real substantial structures had been erected. If Wattle-and-Daub was employed, little evidence of it appeared. We are uncertain as to whether this type material could have

survived the agricultural activity here in later years.

We would guess some of the structures were covered with palmetto thatch, both on the sides and on the roof. However, some could have been built of logs.

Until now, we have not discussed the area North of the main excavations, and East of Palmetto Avenue. Briefly, we found little evidence of mission activity in this place. A few olive jar sherds were collected just East of the Avenue, but beyond this point, materials of the period were practically non-existant. The shell mound located in the Northern part of this region, and immediately East of the Avenue, contained no mission materials, and obviously was not related to that complex.

SUMMARY AND CONCLUSIONS

All things considered, the overall results obtained at site DU 53 were somewhat disappointing. For an occupation that extended for more than one hundred years, the yield of European artifacts was surprisingly low. We are at a loss to explain this, unless it was because the Spanish were forewarned of the coming attack in 1702, and retreated towards St. Augustine, carrying all objects that could be moved.

With the exception of the palisade wall, we were especially disappointed in not being able to detect the actual outlines of any structures. Here again, we stress the fact this

place was cultivated many times during the nineteenth century. There are early photographs available that show this region as an overgrown field in the 1880's.

On the other hand, we were fortunate in being able to find the structural features we have presented in this paper. The buildings erected here, were probably relocated from time to time because of fire or normal deterioration. As we have already stated, these structures were in all probability flimsy affairs that had to be built with the materials close at hand. With the exception of Nombre de Dios at St. Augustine, there is no evidence that any of the early missions were built of masonry.

There are indications that the Friar and the Spanish soldiers stationed here, lived on about the same cultural level as that of the Indians. European ceramics were found in small numbers compared to San Marcos and other Indian types.

Kaolin pipe stems and bowls were few. One bowl found in the slough, and a metal button found North of the slough, were classified (by Goggin) as belonging to the eighteenth century.

John Goggin intimated that DU 53 may have been only one of the sites of San Juan del Puerto, and that it could have been moved here from another location. Perhaps in years to come, documentary evidence now buried in some archive will resolve this problem.

Today, a casual visitor might visualize the structures that once stood here, or the brown-robed Friars who trod these

very grounds centuries ago. The thought might also arise as to what manner of men were these who came to this wilderness, and risked their lives in an effort to Christianize a few savages.

In any case their efforts were in vain. The Spanish eventually lost Florida, and the work of the Franciscans became just another colorful episode in the pages of American History.

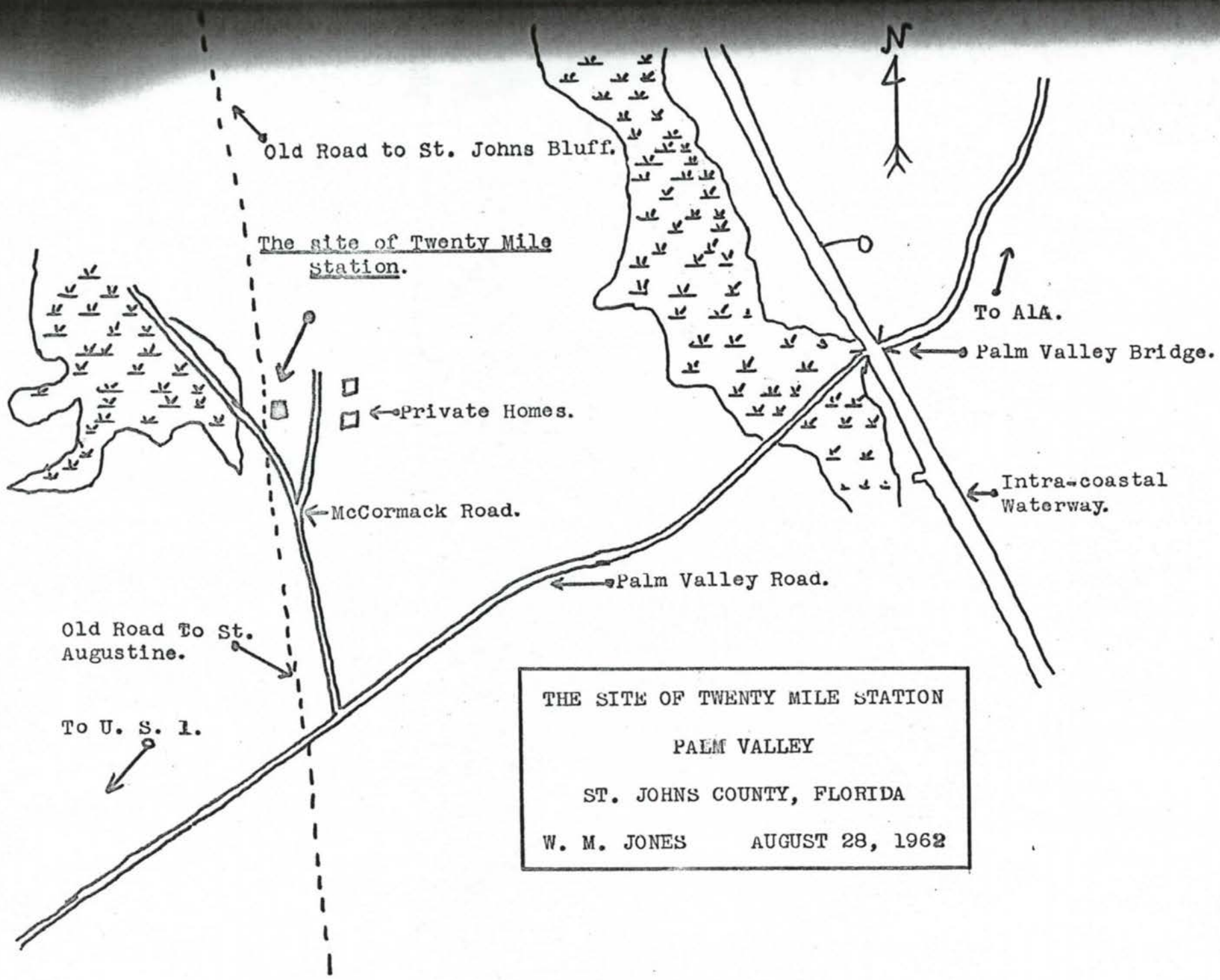
THE SITE OF TWENTY MILE STATION
ST. JOHNS COUNTY, FLORIDA

By

William M. Jones

Jacksonville, Florida

May 17, 1969


N
Old Road to St. Johns Bluff.
The site of Twenty Mile Station.
To AlA.
Palm Valley Bridge.
Private Homes.
Intra-coastal Waterway.
McCormack Road.
Palm Valley Road.
Old Road To St. Augustine.
To U. S. 1.
THE SITE OF TWENTY MILE STATION
PALM VALLEY
ST. JOHNS COUNTY, FLORIDA
W. M. JONES AUGUST 28, 1962

ACKNOWLEDGMENTS

We owe many thanks to J. E. Davis of Jacksonville, owner of the site who kindly allowed us to investigate the place. We also owe thanks to the late G. W. McCormack of St. Johns Bluff, who called our attention to Twenty Mile Station; to the late George Oesterricher of Palm Valley, who directed us to the site; to Roger Jones and Richard Henderson of Jacksonville, who accompanied us on both field trips; and last but not least, we owe thanks to Baynard Kendrick who supplied details, and Luis R. Arana, who later discovered the Spanish letters relative to Twenty Mile Station.

THE SITE OF TWENTY MILE STATION
ST. JOHNS COUNTY, FLORIDA

INTRODUCTION

While doing research on Twenty Mile Station, we were obliged to depend on local legend since documentary sources available to us failed to mention it. While some early maps indicated its general geographical position, references to this site were not to be found in Jacksonville.

Fortunately, Mr. Baynard Kendrick of Leesburg, Florida[1] supplied some details, and later, after this report had been written, Mr. Luis Arana, of St. Augustine, Florida,[2] discovered a group of letters relating to the place. These letters, found among the East Florida Papers, Library of Congress, were translated from the original Spanish by Mr. Arana and will be presented in the Appendix.

This complex was apparently referred to in a number of ways. Mr. G. W. McCormack called it "Twenty Mile Station", or "Half Way House"; Baynard Kendrick called it "La Posada Media", while the Spanish called it "La Casa de la Veinte Millas".

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1. Author of the "Flames of Time", and other publications.
2. National Park Service Historian, St. Augustine, Florida.

TWENTY MILE STATION

Information regarding Twenty Mile Station first came to us from Mr. G. W. McCormack, a life-long resident of St. Johns Bluff in Duval County. "In early times", according to McCormack, "horsemen, traveling the forty miles from St. Johns Bluff to St. Augustine over an old road now abandoned, often stopped at a place known as 'Twenty Mile Station' or 'Half Way House'". He further stated the place had been located in the Palm Valley section of St. Johns County.

An examination of early maps verified McCormack's statement. One of these maps[3] indicated the site to be in the area West of the present Intracoastal Canal, and in the Palm Valley section of St. Johns County. Still another map, dated 1791,[4] shows a road leading South from St. Johns Bluff to the "Twenty Mile District".

We visited the Palm Valley section in August of 1962, and were fortunate in being able to locate the actual site with the help of the late Mr. George Oesterricher, a life-long resident of that area. The site is situated just East of "McCormack Road", and near a group of large oak trees (see map). At the present time the place is occupied by a group

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3. Anonymous map from the British Colonel Record Office showing the St. Johns River and coastal regions of Northeast Florida. (Copy in the Stetson Collection at the University of Florida.)

4. A Spanish map of the St. Johns River from the Bar to the Pass of St. Nicholas (Jacksonville). (St. Augustine: December 24, 1791. Copy in the Jacksonville Public Library.)

of deserted buildings built in modern times.

We returned to the site again the following year, and with the kind permission of Mr. J. E. Davis, the property owner, searched the area for material evidence of an early occupation. We found the site to be covered with an abundant growth of grass and weeds, but were pleased that we were able to surface collect a few artifacts along an exposed dirt road that runs through the place.

The following ceramic types were found: Spanish olive jar sherds; English creamware and slipware; and a few fragments of a transfer-printed ware. The presence of the above materials, although small in number strongly suggests an occupation here during the late 18th Century and the early 19th Century.

According to Baynard Kendrick[5] of Leesburg, Florida, a Spanish citizen of Northeast Florida, one "Juan Jimenez", was the inn-keeper of "La Posada Media" during part of the period, 1800 - 1823.

How long this way station and the old road existed poses an interesting question. It is likely the Spanish and English both traveled this route during their respective occupations, and it is possible this is the same general route taken by Pedro Menendez on his way to attack Fort Caroline.

As we stated earlier, Luis Arana, Historian, located a

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5. Baynard Kendrick spent considerable time researching the history of Northeast Spanish Florida while writing the "Flames of Time", a historical novel based on facts.

group of letters relating to Twenty Mile Station. These letters, seven in number, range from June 18, 1787, to April 14, 1796, and refer to the rebuilding and maintenance of the structures at Twenty Mile.

The letters written, first between Governor Manuel de Céspedes and Engineer Mariano de la Rocque, and then between Governor Bartolomé Morales and Engineer Pedro Díaz Berrío, mention the fact that "Dragoons" were stationed at Twenty Mile. So it would seem that in addition to being a way station, it was also a minor military outpost for the Spanish, at least during the late 18th Century and the early 19th Century.

Today, as mentioned earlier, the site is occupied by a number of deserted buildings that were built in recent times. There is nothing left that would remind the visitor of the way station that once was here. Although the station probably played a minor role in the history of Spanish Florida, it still deserves to be recorded along with other historic sites.

APPENDIX

EFP
Series 170, No. 109

1787
June 18

Engineer Mariano de la Rocque of East Florida to Governor Vicente Manuel de Céspedes of East Florida, St. Augustine, 3 ff.

Lord Captain General

The Chief Master Carpenter Martín Hernández, who on my orders went to inspect the house at Twenty Miles, where the dragoons assigned to communications with the advanced posts of St. Johns and St. Mary's are quartered, has informed me that the house cannot be repaired and it is necessary to build it anew. Because of this, what I expressed to Your Lordship in my communication of the 16th of the present month cannot take effect. Since it is unavoidable, as Your Lordship has expressed to me, that the troops remain on that site and consequently have basic cover, it is my opinion, excepting the higher one of Your Lordship, that for the time being the kitchen be made of pales considering that it has a masonry chimney with tree bark cover. When the time comes for tree cutting, lumber could be cut to build houses capable of sheltering said troops and the detachments at St. Johns and St. Mary's and for other purposes that may come up in the Royal Service. Twenty Miles is halfway the distance to St. Johns, and when said house is finished it will be delivered per inventory so that it may have the proper care. I hope that everything will meet the approval of Your Lorship so that I can make the provisions with the speed required by the urgency.

May God keep Your Lordship many years. St. Augustine in Florida, June 18, 1787.

Mariano de la Rocque

Sr. Don Vicente Manuel de Céspedes.

EFP
Series 170, No. 114

1787
June 21

The Governor of East Florida to Engineer Mariano de la Rocque of East Florida, 2 ff.

Florida, June 21, 1787
To the Commanding Engineer

Answering his of the 18th
about the need to repair
the House at Twenty Miles

In consequence of the communication from Your Grace of the 18th instant, about the rúined condition of the house at Twenty Miles, I have sent the pertinent communication to the accountant of the Royal Treasury; in this intelligence, Your Grace will make provisions as soon as possible because the repair of the said kitchen, in the terms expressed in your communication, is urgent.

May God keep Your Grace many years. Florida, June 21, 1787.

[Vincente Manuel de Céspedes]

Sr. Don Mariano de la Rocque

Bundle 170, No. 64

1787
November 10

Statement of the number and amount of the rations which have been used by the commanding engineer, as well as by the employees of royal works, on the trip to, and residence at, the Veinte Millas House during the time of its construction, which was begun the 25th day of June of the current year and concluded on this date, crediting each one at the rate of one peso:

	Days	Pesos
Commanding engineer	8	8
Overseer, Don Fernando de la Maza Arredondo .	24	24
Chief master carpenter, Martín Hernández. . .	18	18
	50	50

St. Augustine in Florida, November 10, 1787.

Fernando de la Maza Arredondo.

I, Don Mariano de la Rocque, captain of infantry, engineer in ordinary in the royal armies, garrisons, and frontiers, commander of the royal works of fortification in the City of St. Augustine in Florida and its province,

Do certify that the fifty pesos contained in the preceding statement are the same as the number of days that I, as well as the employees of royal works, have been present in fulfilling and carrying out the work on said house, which gratification is based on a peso daily, in consideration of rations during their stay, and so that it may be paid, I give these presents in St. Augustine in Florida, on the eleventh of November, one thousand seven hundred eighty seven.

Mariano de la Rocque.

The engineer delivered it to me on September 9, 1788.

EFP
Series 170, Page No. 170-889

1787
December 31

Mariano de la Rocque. Year of 1787, Repairs made on the Royal Property in the Garrison of St. Augustine in Florida. St. Augustine, 8 ff.

Twenty Miles

The lumber for a house built on this site was cut and shaped. The house, 22 feet long, 16-1/2 feet wide, and 22 feet high, is on poles and has a four-slope, wood-shingle roof, and a floor of thick boards. It has a 5-1/2 foot wide room with a sleeping bunk of thick boards, three single-leaf doors with their ironwork, five two-leaf windows with their ironwork, a chimney with wood-framed exterior but the opening of the hearth lined with stone and brick, and an ordinary-mix flue.

The 16-1/2 foot long, 13-1/2 foot wide board-walled, two-slope, wood-shingle roofed stable is separate from the house. It is divided into two rooms, one of which is the stable itself and the other one contains a sleeping bunk. In the middle of the yard, there is a well with wooden curb.

EFP
Series 170, No. 32

1789
December 31

Mariano de la Rocque. Report on the repairs performed on the properties of the King . . . . St. Augustine, 4 ff.

House at Twenty Miles

A stone chimney, 7 feet wide and 22 feet high, has been built for use in said house.

EFP
Series 171, No. 202

1796
April 13

The governor of East Florida to Engineer Pedro Díaz Berrío of East Florida, Florida, 2 ff.

St. Augustine in Florida, April 13, 1796
To the Commanding Engineer

> So that he may provide for the prompt repair of the damage noticed in the House which serves the dragoons at Twenty Miles, and enclosing the communication which he has received from that commanding officer.

I send to Your Grace the attached communication, which I have received from the Officer in charge of the Dragoons detached at Twenty Miles, so that you may provide as early as possible for the repair of everything contained therein, in the intelligence that on this date I send communication to the accountant of the Royal Treasury, so that he may facilitate the means convenient to that effect.

May God keep Your Grace many years. Florida, April 13, 1796.

(Don Bartolomé Morales)

Senor Don Pedro Díaz Berrío

EFP
Series 171, No. 203

1797
April 14

Engineer Pedro Díaz Berrío of East Florida to Governor Bartolomé Morales of East Florida, St. Augustine, 2 ff.

The defects that are found in the King's House assigned to the detachment at Twenty Miles and expressed in the communication from the commanding officer to Your Lordship, will be repaired as soon as possible, as Your Lordship is pleased to order me in his communication of yesterday's date, and to the end that it may be done with the least expense, the Chief Master Carpenter Martín Hernández will go to said site and determine everything that may need repairs for the better comfort of the assigned detachment; I remain aware that Your Lordship has sent communication to the accountant of the Royal Treasury so that he may facilitate the means that might be required.

May God keep Your Lordship many years. St. Augustine in Florida, April 14, 1796.

Pedro Díaz Berrío

Sr. Don Bartolomé Morales

FORT HEILEMAN, AN INDIAN WAR FORT
MIDDLEBURG, CLAY COUNTY, FLORIDA

By

William M. Jones

Jacksonville, Florida

June 25, 1969

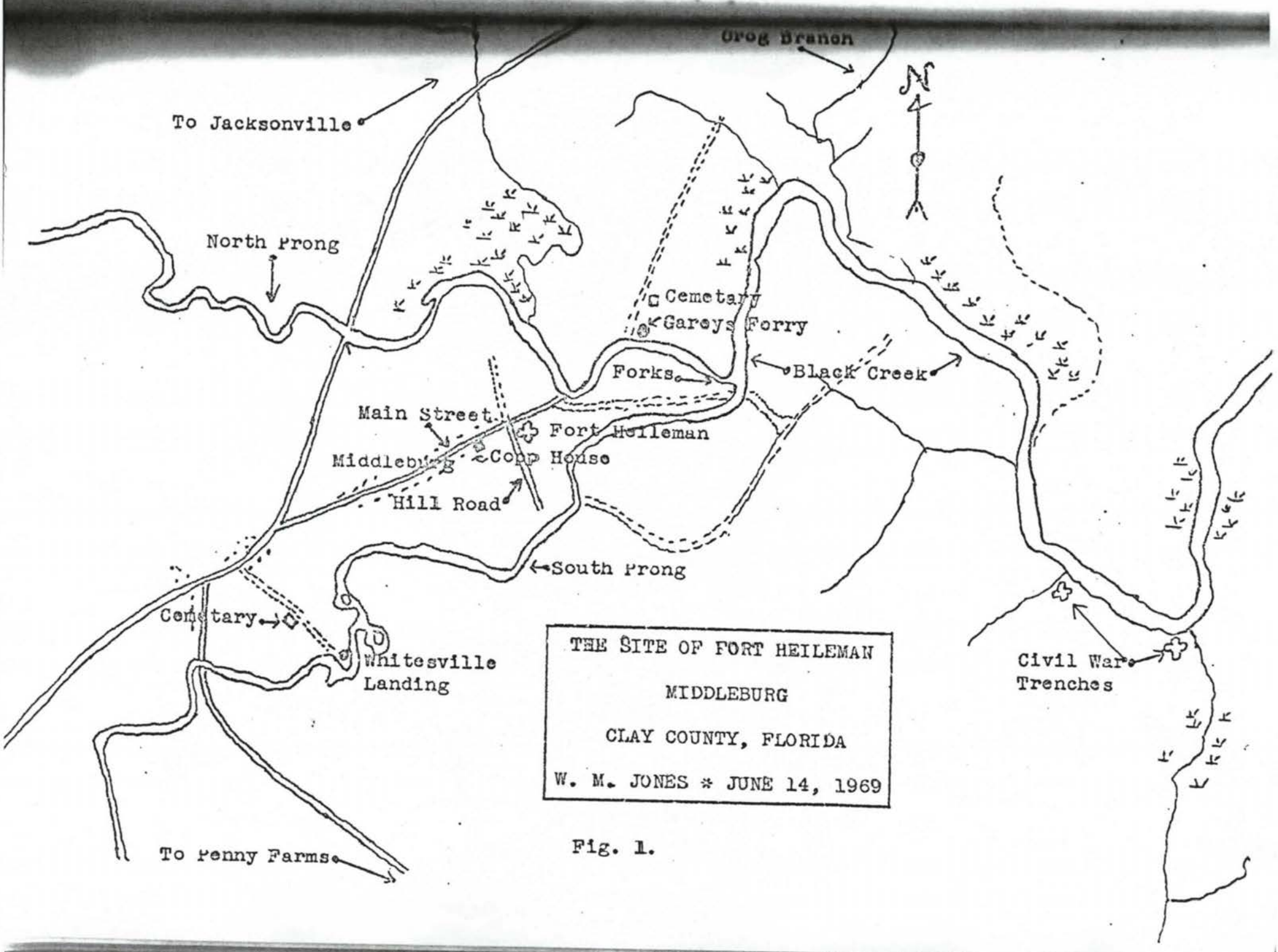

Crog Branch
To Jacksonville
North Prong
Cemetary
Gareys Ferry
Forks
Black Creek
Main Street
Fort Heileman
Middleburg
Copp House
Hill Road
South Prong
Cemetary
Whitesville Landing
Civil War Trenches
To Penny Farms
THE SITE OF FORT HEILEMAN
MIDDLEBURG
CLAY COUNTY, FLORIDA
W. M. JONES * JUNE 14, 1969

Fig. 1.

FORT HEILEMAN, AN INDIAN WAR FORT
MIDDLEBURG, CLAY COUNTY, FLORIDA

William M. Jones

Introduction

The second Seminole Indian War began officially in December, 1835, with the murder of General Wiley Thompson by Osceola, and the massacre of Major Dade and his command. Eventually, the United States Army established a number of military posts throughout Florida, one of which was "Fort Heileman".

During the month of January, 1836, Major Hart, with seventy men under his command, arrived at Black Creek near the present town of Middleburg and established his headquarters at that point.[1] On July 4th of the same year, Captain Charles S. Merchant, then commanding, named that post in honor of the late Major Julius F. Heileman.

Heileman, a career officer, was born in Massachusetts and appointed to West Point from the State of Vermont. He was commissioned 2nd Lieutenant, Artillerists, on March 6, 1806, and was promoted to the rank of Brevet Major on May 5, 1823, for ten years faithful service in one Grade.[2]

Major Heileman died on the 27th day of June, 1836, from the effects of over-exertion at the Battle of Micanopy. For his conduct on the above occasion, the Brevet of Lieutenant-Colonel was conferred upon him by the Senate of the United States, on the 26th of June, the day previous to his death.[3]

During its existence, Fort Heileman was a major military post, arsenal, quartermaster's depot, hospital, rest camp, and a haven for refugees from the second Seminole Indian War.[4] It was often referred to as "Garey's Ferry", or "Black Creek". Today, the site of Fort Heileman is located within the town limits of Middleburg, an unincorporated community located southwest of Jacksonville on Highway 21.

Material Evidence

This site first came to our attention during the latter part of 1962 when Richard L. Henderson of Jacksonville reported finding artifacts in the area between Hill Road and the North Prong of Black Creek, and within the confines of Middleburg (Fig. 1). As it has been our policy for many years to establish the geographical position of historical sites when possible, we made several field trips to the place during 1963.

Searching the area in question,we were able to surface collect a number of artifacts that relate to the first part of the 19th Century. Ceramic types were found in the following amounts: Agate wares, 14; shell-edged wares, 35; banded wares, 47; painted white wares, 49; and transfer-printed wares, 160 (Fig. 2).

Kaolin clay pipe stems and bowls were found in the amount of: 8 undecorated bowl fragments; 60 decorated bowl fragments; and 65 undecorated stems (Fig. 2).

Objects of a military nature were found in the form of musket shot, gun flints, a gun wormer, military buttons, pewter buttons and an unidentified object of pewter, tubular in form, and flared out on one end (Fig. 3). Metal artifacts of a non-military nature consisted of a group of nails, and a brass watch key (Fig. 2).

In addition to the artifacts found by our group, we examined a collection of artifacts in the possession of the late Mrs. Alice Masters who resided on the site. Mrs. Masters was a native of Middleburg and had collected these materials over a period of many years. The artifacts in the Masters' collection are similar to the ones we recovered.

The material evidence found on the site, together with the artifacts from the Masters' collection, points to the area between Hill Road and the North Prong of Black Creek as the location of the Fort Heileman complex.

The exact location of the stockade that may have been part of this post is not known. We would surmise it was near the present intersection of Hill Road and Main Street East, as most of the artifacts of a military nature were found nearby.

Local Legend

While there are no known visible traces of Fort Heileman today, an old dwelling house situated on Main Street, just west of Hill Road, is alleged to

have been used as officers' quarters during the Indian Wars. This building with the colonial-type facade, and known as the "Chalker" or"Copp House", is undoubtedly an old structure. We visited the place on two occasions and found that part of the building was built of hand-hewn lumber. We would judge these parts to be the original section of the structure, since there have been additions to the building in recent years.

Mrs. Alice Masters stated the Copp House was built by the Government to house officers during the Indian Wars, and was later sold to W.S. Bardin who lived there until his death. Whether the place was used by army officers of that day, is a matter for speculation.

In addition, it was reported that Fort Heileman included the area from the Copp House to the Forks of Black Creek. We stated earlier in this paper that Fort Heileman extended only from Hill Road to the North Prong of Black Creek. We arrived at this conclusion because that was the only section open to exploration. The other sections were occupied by buildings, and it was not possible to search these areas. To accurately outline the entire complex in its original form would be next to impossible.

Conditions During the War

Few people today realize how frustrating and deadly the Seminole Indian War in Florida really was. Soldiers travelling from post to post were often killed in ambush; there was at least one suicide among the officers, and a mutiny at one post. The conditions at Fort Heileman were not much better than

those that existed at other posts.

In order that the reader will better understand the conditions that existed at Black Creek and in the surrounding country, we shall present news items and other information concerning the events of that time. In addition, we will include in the back section of this paper a list of soldiers who died at Fort Heileman including their rank, detachment, cause of death, and the date thereof.

A wealth of information relating to the Seminole Indian War in Florida may be found in "Niles Weekly Register, 1811-1849", and other publications. We herewith present a few of these items that should be of interest:

> Thomas S. Jesup to Secretary of War, Gareys Ferry, August 16th, 1837:
>
> "I am apprehensive of the Indians obtaining powder from Havanna on the one side, and New Providence on the other; if a small force, or even the cutters which were under the direction of the Navy last winter, could be spared, much advantage would result to the service."[5]
>
> Ibid: p. 101 (1841):
>
> Dispatches from Florida: Indians killed Jonathan Thigpen and a Mr. Barber eight miles from Garey's Ferry. Sept. 29, near Black Creek, two white men, Bleach and Penner,

were fired on by Indians; Bleach was killed.[6]

August 22, 1840: p. 388:

From St. Augustine:

"Every day brings us details of small parties of dragoons and artillerymen and infantry, passing from fort to fort, shot down, murdered, and mutilated by straggling Seminoles in ambush. And what is this prolonged carnage for? It results in nothing but prodigal waste of the treasury, already nearly or quite exhausted, and the beneficiaries are the grasping, greedy, unprincipled contractors."[7]

St. Augustine, May 8, (1840):

There has been a serious mutiny of a company at Picolata.[8]

From Florida, February 29, 1840:

"On the 5th instant, a train of 12 wagons returning from the interior were attacked about 10 miles from Garey's Ferry by 12 or 15 Indians. One man named Farson Camel was killed. Also killed were 2 mules and 4 others wounded. The wagons were plundered. When the wagon master arrived at Garey's Ferry, the quartermaster's men were sent immediately in pursuit, but no signs could be found."[9]

April 4, 1840:

From the Jacksonville Advocate on the 17th (?): The "Bloodhounds" alias "Peacehounds", we understand arrived at Garey's Ferry on Friday last. Our informant stated they are the most ferocious looking animals he ever saw...[10]

May 2, 1840:

A letter from Garey's Ferry, (E F) published in the Army and Navy Chronicle, states that various and repeated trials have been made in pursuing the Indians by the bloodhounds, all of which have proved ineffectual. An effort was made at Garey's Ferry to track down "Indian Billy". This effort ended in failure.[11]

September 3, 1836:

"...Between seven hundred and eight hundred civilians left their homes in the surrounding area and gathered there (Garey's Ferry) seeking safety and protection from the warring Indians. Housed in miserable shanties--four sticks supporting a roof with boards on the ground for a floor. These refugees existed in poverty and squalor. Sickness and disease ran rampant. A visitor to Garey's Ferry in 1836 wrote that in each of the three hundred huts he visited he found two or three people sick with some type of serious

> disease. In one shanty the mother and father were found dead, and the five children, the oldest of which was thirteen, were deathly ill. Conditions such as these were typical of the first few years of the war."[12]

Earlier in this paper, we mentioned the conditions that existed in Florida during the Seminole Indian War and further stated there was at least one suicide among the officers. Lest we be accused of fabrication, we quote part of a news item that appeared in the "Florida Herald" (St. Augustine), on October 27, 1836:

> "He (Colonel Lane) had been sick several days and complained of a great distress in his head. Just before the melancholy event took place, he complained of the heat of the weather. Captain Galt, in whose tent he was, proposed raising the tent and went out for that purpose...he heard a fall and then a groan within. On going in he saw Colonel Lane on his knees with the point of his sword thrust into his left eye, and the hilt resting on the ground, and which penetrated into the brain. It is supposed that he committed the fatal act while in a fit of insanity produced by brain fever. Colonel Lane was only twenty-six years of age. His military career had been brilliant, his promotions rapid...Jim Boy, one of the Creek Chiefs of the regiment, addressed the assembled warriors at the funeral, saying "it was to be regretted that their white brother had

> left them so soon but there was no use lamenting his decease, for all here below, the white man as well as the red, had a certain race to be fulfilled, and these must be accomplished."[13]

The "melancholy" death of Colonel John F. Lane, who commanded the Creek Volunteers, occurred at Eort Drane, Florida. There are many interesting and informative news items and reports to be found in these publications, but lack of space will not allow us to present more of these.

Summary and Conclusions

Generally speaking, May 5th, 1836 is accepted as the date that Fort Heileman was established. There is every indication, however, that Black Creek was occupied by troops earlier that same year.

According to a news item in Niles Register of 1836, a Major Hart and seventy men established a post at Black Creek during January in order to patrol the country from Picolata to Santaffee (sic). As Captain Charles S. Merchant, who named Fort Heileman on July 4th, 1836, appears to have been the first regular army officer to command the post; we must assume Major Hart and his men were a group of volunteers who preceded the regular troops to that place.

As we stated earlier, Fort Heileman was a major military post, arsenal,

quartermaster's depot, rest camp, and hospital. It was also used as a staging area for troops being sent to other parts of the state. In addition to being headquarters of the 2nd Dragoons under Colonel David E. Twiggs, the Army of the South was located there at various times.

In October, 1838, the army units in Florida comprised 10 companies of Dragoons, the first infantry, five companies of the 2nd infantry, four companies of the 6th infantry, and some five or six companies of volunteers; these troops being divided among the following posts: Fort King, Fort Walker, Newnansville, Fort Peyton, Fort Heileman, and Fort White.[14]

As the Florida War progressed into the early 1840's, the Seminole Indians, who had refused to be moved to reservations in the western states, gradually withdrew toward the southern part of the state. Fort Heileman's importance to the U.S. Army diminished, and the post at Black Creek was abandoned on June 18th, 1841.[15]

At the present time, nearly all of the region from the Copp House to the Forks of Black Creek is occupied by dwelling houses. The few empty fields that still remain are gradually being developed by homeowners, and in time the site of Fort Heileman will be completely covered by structures.

The site of Garey's Ferry, located on the north bank of Black Creek, (Fig.1) is completely deserted at this time. An old forgotten cemetery is the only visible sign of an early occupation at this point.

Among the many officers who were stationed at Fort Heileman from time to time was Captain Nathaniel Wyche Hunter, a native of the State of Georgia and a graduate of West Point. Hunter was especially outspoken in his criticism

of the tactics employed by his superior officers while in the field.

We would like to conclude our paper on Fort Heileman with certain remarks by Captain Hunter regarding troop movements through the dense woods of Florida:

> "Then that damned bugle is sounding again, as if the trampling of two hundred horses and the shouts of two hundred men and the occasional firing of a gun were not sufficient to notify the enemy of our approach, and impress upon them the necessity of making themselves scarce. On such a night as this, sound can be heard five miles and I would not care to capture an Indian who is such a fool as not to profit by the information it conveys. The Major says he will cease to have the usual calls blown when he ascertains proximity to the enemy. Well, I hope I am wrong in anticipating unfortunate circumstances from such indiscretion, but it does strike me as a piece of damned foolishness."[16]

FIGURE 2

A. Painted white ware

B. Banded ware

C. Transfer-printed wares

D. Spanish olive jar sherd (from Garey's Ferry)

E. Kaolin pipe stems and bowls

F. Nineteenth century lock

G. Metal buckle

H. Small metal button

I. Watch key

FIGURE 3

A-D. Early nineteenth century military buttons

E. Pewter buttons

F. Gun wormer

G. Gun Flints

H. Unidentified pewter object

I-K. Musket Shot

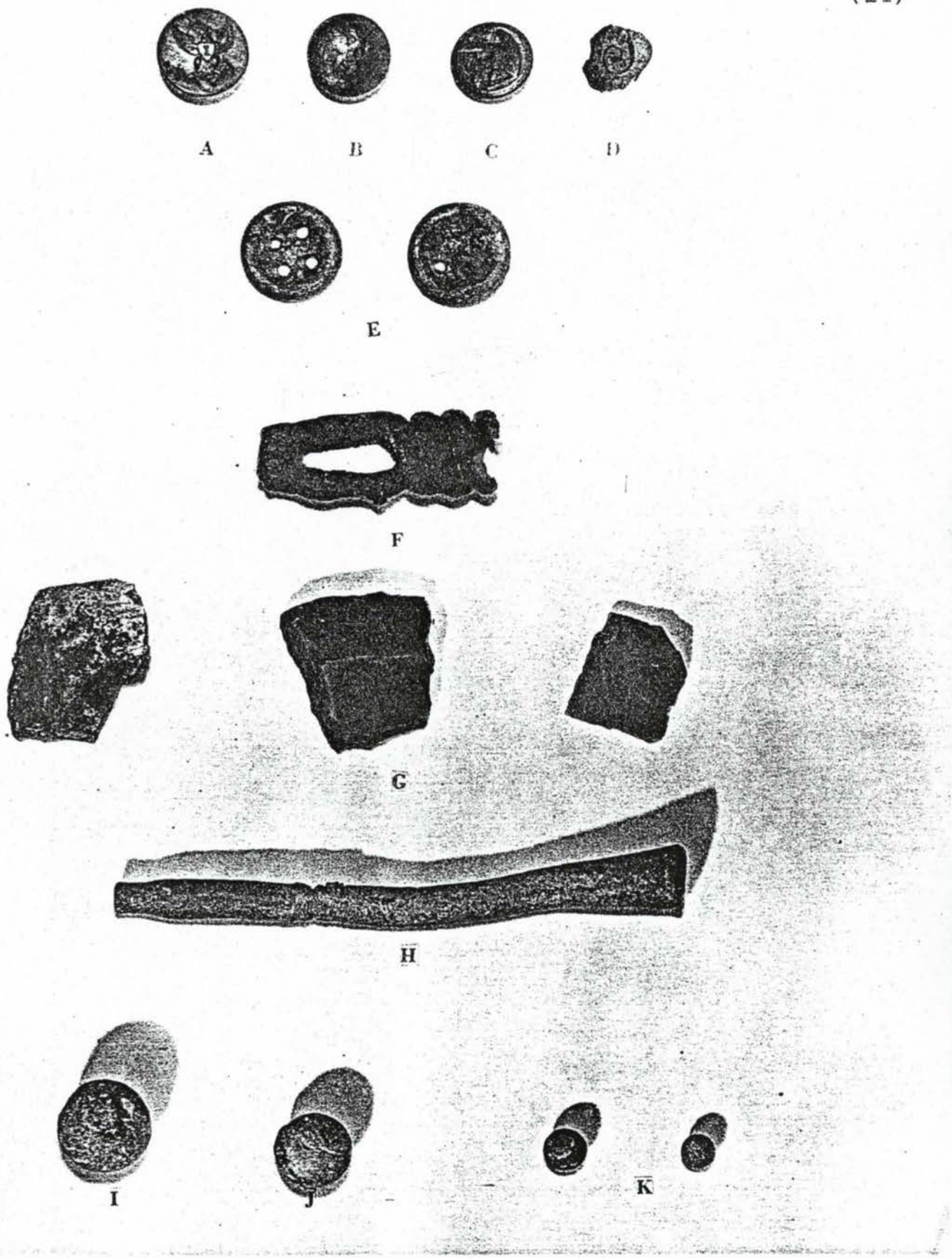


Figure 3.

Figure 2.

APPENDIX

A LIST OF SOLDIERS WHO DIED AT FORT HEILEMAN

Second Regiment of Dragoons

No.

1. Pvt. S. Augustanovizt, Company E, Died: Fort Heileman, October 20, 1838 of Dysenteria.
2. Pvt. Fredrick Brewer, Company B, Died: Fort Heileman, December 27, 1839 of Drowning.
3. Pvt. Cornelius Boling, Company G, Died: Fort Heileman, November 26, 1840, Consumption.
4. Pvt. Charles Dubois, Company A, Died: Black Creek, June 10, 1839, Debility.*
5. Pvt. Francis Dantz, Company G, Died: Fort Heileman, January 1, 1841, Fever.
6. Pvt. Thos. B. Faulkner, Company B, Died: Near Garey's Ferry, October 6, 1837, Dysenteria.
7. Pvt. Paul Flaherty, Company D, Died: Fort Heileman, July 31, 1838, Effects of Heat.
8. Pvt. David Halstead, Company D, Died: Fort Heileman, September 30, 1836, Unknown.
9. Pvt. Joseph M. Hamblin, Company G, Died: Fort Heileman, November 29, 1840, Fever.
10. Pvt. John H. King, Company A, Died: Fort Heileman, December 20, 1839, Dysenteria.

ss of Strength

Pvt. Charles Leman, Company G, Died: Garey's Ferry, December 13, 1839, Unknown.

Pvt. Michael McDonald, Company A, Died: Black Creek, June 19, 1939, Unknown.

Pvt. William McDonald, Company D, Died: Fort Heileman, October 25, 1836, Unknown.

Pvt. Albert Marks, Company G, Died: Fort Heileman, September 16, 1840, Unknown.

Pvt. Jacob Marta, Company G, Died: Fort Heileman, January 5, 1841, Consumption.

Pvt. Henry W. Pheiffer, Company B, Died: Garey's Ferry, October 11, 1840, Debility.*

Pvt. John Purdy, Company K, Died: Fort Heileman, August 24, 1840, Chronic Diarrhea.

Pvt. Nicholas Stankel, Company K, Died: Black Creek, May 27, 1838, Dysenteria.

Q.M. Sgt. James Willis, Died: Fort Heileman, October 28, 1840, Disease of the Lungs.

First Regiment of Artillery

Pvt. Sam'l Brittingham, Company E, Died: Near Garey's Ferry, September 1, 1836, Fever.

Pvt. James M. Benner, Company F, Died: Black Creek, October 25, 1836, Fever.

Pvt. Patrick Campbell, Company C, Died: Fort Heileman, December 12, 1836, Pleurisy.

Loss of Strength

4. Pvt. Charles Lawler, Company C, Died: Fort Heileman, December 4, 1836, Dysentery.
5. Pvt. Benjamin Mayfield, Company F, Died: Garey's Ferry, June 18, 1836, Fever.
6. Pvt. Michael Shay, Company B, Died: Garey's Ferry, July 7, 1836, Bilious Fever.

Second Regiment of Artillery

1. Pvt. John Barr, Company F, Died: Fort Heileman, June 3, 1837, Disease Unknown.
2. Pvt. Engleman Frams, Company E, Died: Garey's Ferry, August 14, 1836, Disease Unknown.
3. Pvt. James McFeeley, Company D, Died: Garey's Ferry, May 9, 1836, Hepatitis.
4. Pvt. Hugh McEnery, Company E, Died: Fort Heileman, October 24, 1837, Disease Unknown.
5. Pvt. William Roache, Company E, Died: Fort Heileman, December 27, 1837, Consumption.
6. Pvt. John Scanlon, Company E, Died: Garey's Ferry, August 5, 1836, Disease Unknown.
7. Pvt. Joseph Streeter, Company E, Died: Fort Heileman, December 16, 1837, Accidently shot.
8. Pvt. A.J. Brunham, Company K, Died: Fort Heileman, June 10, 1839, Diesease Unknown.

9. Pvt. Abram Concklin, Company D, Died: Fort Heileman, May 13, 1837, Scurvy.

10. Pvt. William Donagan, Company B, Died: Fort Heileman, June 10, 1839, Disease Unknown.

11. Pvt. Aaron Heyer, Company B, Died: Fort Heileman, August 27, 1836, Brain Fever.

12. Pvt. Isaac R. Kingsley, Company H, Died: Garey's Ferry, Date Unknown, Disease Unknown.

13. Pvt. Charles Treat, Company H, Died: Fort Heileman, August 28, 1836, Wounds received at Battle of Fort Drane.

Fourth Regiment of Artillery

1. Pvt. Christian A. Eckhart, Company F, Died: Fort Heileman, June 3, 1837, Acc. wound in eye.

2. Pvt. Fredrick Fisher, Company A, Died: Fort Heileman, August 11, 1837, Fever.

3. Pvt. James Murty, Company H, Died: Garey's Ferry, November 21, 1838, Dysentery.

4. Pvt. John Pardon, Company A, Died: Fort Heileman, August 1, 1837, Drowned.

5. Corp. John Powers, Company F, Died: Fort Heileman, November 4, 1838, Disease Unknown.

6. Pvt. Francis Schultz, Company B, Died: Fort Heileman, September 4, 1838, Disease Unknown.

First Regiment of Infantry

1. Pvt. James Douglass, Company E, Died: Fort Heileman, August 2, 1838, Disease Unknown.
2. Pvt. Jacob Fenn, Company G, Died: Black Creek, September 27, 1837, Fractured Skull.
3. Pvt. Samuel Glenn, Company E, Died: Fort Heileman, July 5, 1838, Shot by citizen.
4. Pvt. John Griffiths, Company G, Died: Black Creek, October 8, 1839, Fever.
5. Pvt. Dennis Lappin, Company G, Died: Black Creek, July 14, 1839, Fever (On escort).
6. Pvt. David Robinson, Company G, Died: Black Creek, July 4, 1839, Drowned.

Second Regiment of Infantry

1. Pvt. Sheppard Brown, Company F, Died: Fort Heileman, November 23, 1839, Disease Unknown.
2. Pvt. Michael McCullen, Company B, Died: Fort Heileman, October 13, 1839, Fever.
3. Pvt. Killan Winne, Company F, Died: Fort Heileman, July 26, 1837, Disease Unknown.

Recruits - U.S. Army

1. Recruit Joe E. Flowers, Died: Fort Heileman, March 25, 1838, Disease Unknown.

List of Marines

1. 1st Lieut. Ross Andrew, Died: Fort Heileman, December 11, 1836, Wound received November 21, 1836 in Battle at Wahoo Swamp.
2. Pvt. Steel William, Died: Black Creek, August 11, 1837, of Disease.[17]

1. "Niles' Weekly Register", 1811-1849, Vol. 49: Page 394.
2. Thomas H. S. Hammersly: "Complete Army and Navy Register of the United States", 1776-1887, (New York: 1887).
3. John T. Sprague: "The Origin, Progress, and Conclusion of the Florida War", (New York: 1847), Pages 159-160.
4. John M. Goggin: "Space and Time Perspective in Northern St. Johns Archeology, Florida." (Yale University Press, New Haven: 1952), Page 62.
5. Clarence Edwin Carter: "Territorial Papers of the United States", The Territory of Florida, 1834-1939, Vol. XXV, (Washington, D. C.: 1960), Page 416.
6. T. Fredrick Davis: "Digest of the Florida Material in Niles' Register, 1811-1849", (Jacksonville, Florida: 1939), Page 170.
7. Ibid., Page 157.
8. Ibid, Page 154.
9. "Niles' Weekly Register", 1811-1849, Vol. VII: Page 419.
10. Ibid., Vol. LVIII: Page 72.
11. Ibid., Vol. LVIII: Page 137.
12. Jacob Rhett Motte: "Journey into Wilderness, An Army Surgeons Account of Life in Camp and Field During the Creek and Seminole Wars, 1836-1838", Ed. James F. Sunderman: (University of Florida Press, Gainesville, Florida: 1953). Editors Notes: Page 259.
13. Ibid., Editors Notes: Page 259.
14. T. Fredrick Davis: "Digest of the Florida Material in Niles' Register, 1811-1849", (Jacksonville, Florida: 1939), Page 135.

15. National Archives and Records Service, Washington, D. C.: Febuary 1, 1963, (Personal Communication).

16. Reynold M. Wik: "Captain Nathaniel Wyche Hunter and the Florida Indian Campaigns, 1837-1841". (Published in the Florida Historical Quarterly, Vol. XXXIX No. 1, July, 1960), Page 68.

17. John T. Sprague: "The Origin, Progress and Conclusion of the Florida War", (New York: 1847), (Taken in part from Appendix).

Jacksonville, Florida
June 25, 1969

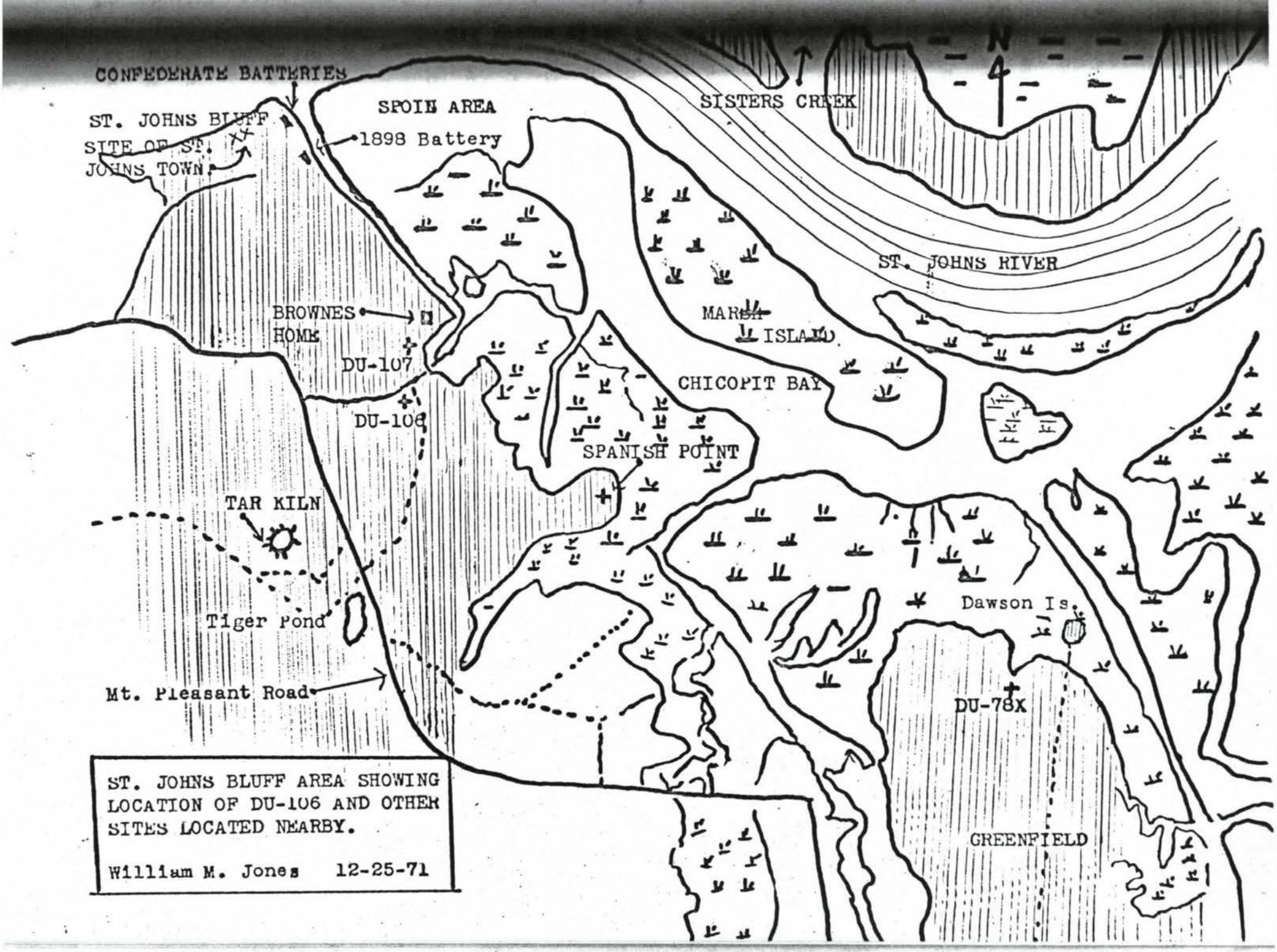
A LATE EIGHTEENTH CENTURY WORK CAMP
ST. JOHNS BLUFF
DUVAL COUNTY, FLORIDA

By

WILLIAM M. JONES

Jacksonville, Florida

January 2, 1972



ST. JOHNS BLUFF AREA SHOWING LOCATION OF DU-106 AND OTHER SITES LOCATED NEARBY.

William M. Jones 12-25-71

ACKNOWLEDGMENTS

The work on Site DU-106 could not have been carried out to its completion, without the help of the following people, who were kind enough to assist in the actual excavating: Richard L. Henderson, Steven Roger Jones, David M. Jones, and Jack E. Hardy, all of Jacksonville, Florida.

We owe a debt of gratitude to the following people, who advised us in matters of a technical nature: Paul C. Hudgins, Research Chemist, St. Vincent's Hospital, Jacksonville, Florida; H. Cherry, British Museum, London, England; Molly Pearce, the City Museum, Weston Park, Sheffield, England; Harold L. Peterson, National Park Service, Washington, D.C.; Albert C. Manucy, National Park Service, St. Augustine, Florida; Ripley P. Bullen, Florida State Museum, Gainesville, Florida; S. David Webb, Florida Museum, Gainesville, Florida; the late Dr. John M. Goggin, University of Florida, Gainesville, Florida; Dr. Charles H. Fairbanks, University of Florida, Gainesville, Florida; Antoinette Porter, Jacksonville, Florida; Arthur E. Jordan, Jacksonville, Florida; and Frank S. Hill, County Forester, Jacksonville, Florida.

We owe special thanks to the late William H. Browne, owner of Site DU-106, who not only led us to this site, but pointed out a number of other sites in the vicinity. The community lost a good friend when Mr. Browne passed away in December of 1970. At his request, his entire property passed into the hands of "The Nature Conservancy," a national organization devoted to preserving wildlife in America. Today, the tract is known as the "Honorable Theodore Roosevelt Preserve."

A LATE EIGHTEENTH CENTURY WORK CAMP
ST. JOHNS BLUFF
DUVAL COUNTY, FLORIDA

HISTORY

In order to bring this report into proper focus, we shall be obliged to present, briefly, the history of St. Johns Bluff during the British Occupation of Florida, 1763 to 1783.

In the year 1762, the British captured Havana from the Spanish. By a treaty in 1763, England acquired Florida in exchange for Havana. The British took actual possession in 1764, when most of the Spanish population left the country.[1]

During the American Revolution, many of the colonists remained loyal to the English king. In time, many of them departed the country because of the hostility displayed by their neighbors. Quite a few of these colonists settled in Florida, most at St. Augustine, St. Johns Bluff or in the nearby regions. This brings us to "St. Johns Town," established at St. Johns Bluff during this period.

> The site of this town was a tract of two hundred acres owned most of the 1770's by William Hester. As early as June, 1771, Hester had sold a lot to a settler and about 1779, conveyed the rest of the tract to Thomas Williamson. . . The first dwellings were small log houses, but when the refugees began to flock in in the Summer and Autumn of 1782, numerous frame houses with detached kitchen and other structures, were hastily built. The town soon numbered about three

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[1]T. Frederick Davis, "History of Jacksonville, Florida and Vicinity 1513 to 1924": Published by the Florida Historical Society (St. Augustine, Florida: 1925), 25.

hundred houses, according to Governor Tonyn, had two taverns, a public house, a livery stable, a dry goods shop, a storehouse for "coarse and wet goods," a shop where plantation tools could be bought, and even a small Free Mason's Lodge.[2]

Due to better harbor facilities, St. Johns Town was beginning to replace St. Augustine as the major seaport, when in 1783, England ceded Florida back to Spain, ending the English Occupation of twenty years.

By 1785, most of these "refugees," who were loyalists from the American States to the North, had departed for the West Indies and other British possessions, leaving St. Johns Bluff to gradually sink back into obscurity.

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[2]Wilbur Henry Siebert, "Loyalist in East Florida, 1763 to 1783," Vol. I (Deland, Florida: 1929), 117.

INTRODUCTION

Our interest in the St. Johns Bluff area goes back to the middle 1940's, when we were attracted to it by the legends of the French Huguenots and Fort Caroline. Several years were spent searching along the ridge[3] and in the nearby regions for material evidence that might point to the French Occupation of this site. Not one artifact or feature was found that would relate to the French or their fort. This is not surprising, in view of the tremendous amount of erosion that has occurred here and which seemingly has erased all evidence of these early adventures.

Although we failed to find evidence of the French, we were fortunate in locating the site of late Eighteenth Century St. Johns Town. Artifacts pertaining to that place were recovered in the region between the east boundry of the national park and the summit.

We continued our search well into the 1950's. During that time we made the acquaintance of the late William H. Browne, whose family settled at St. Johns Bluff, in 1884. Browne, who was the largest landowner in this section, lived here nearly eighty years and made many valuable observations during that time.

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[3]St. Johns Bluff is a high sand ridge located on the south shore of the St. Johns River, six miles from the Atlantic Ocean. It is a fossil sand dune dating from Pleistocene times and was formed when the adjacent marshes were inundated by water. (Florida Geological Survey, "Florida Dunes and Scrub Vegetation and Geology,") Bulletin 23, (Tallahassee, Florida: 1942), 73.

It was he, who pointed out the historic site we are going to discuss and which later was designated as "Site DU-106," in accordance with the recording system used by the University of Florida and Florida State University.

Browne found this site during the middle 1920's, while working on his access road. He reported finding bits of tabby, china, glass and a few wrought iron nails. The site is located one hundred feet south of a small, fresh water creek and in the midst of a group of trees, vines and palmetto. Browne's road that connects his home with Mt. Pleasant Road, eight-tenths of a mile to the south, passes directly through the middle of the site at this point.[4]

The results of our investigation of Site DU-106, will be presented in this report. We shall attempt to explain why we believe DU-106 represents the remains of a timber and/or Naval Stores Work Camp, operated during the British Occupation of 1763 to 1783.

EXCAVATIONS AT DU-106

We initiated work here during the month of September, 1962, and continued excavating at intervals, during the following four years. When we first arrived on the scene there were no visible signs that would denote activity during earlier times. Therefore, test holes were dug in the regions to the east and west of the road, until artifact bearing sections were located.

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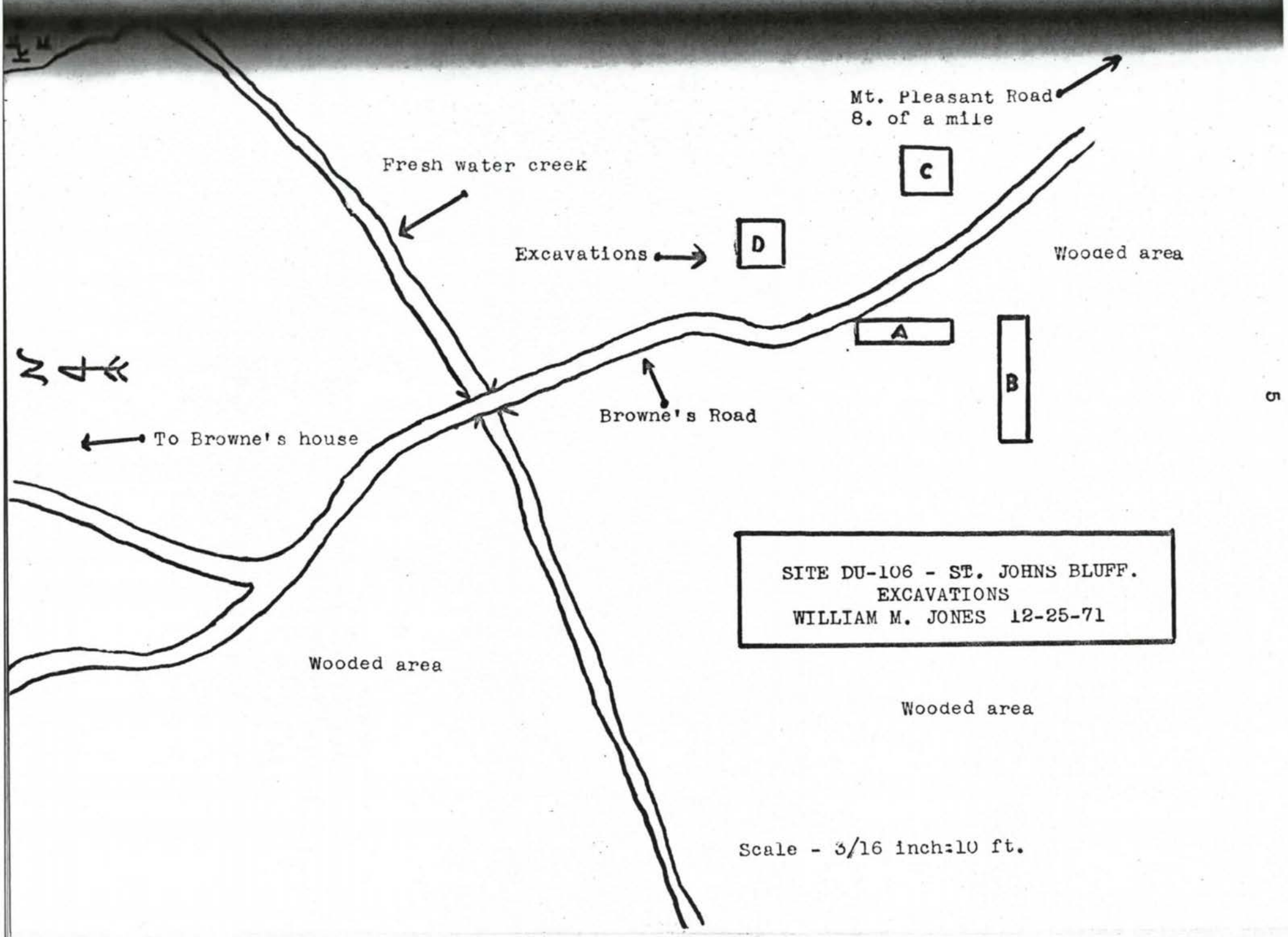
[4]See Map of Site.


Mt. Pleasant Road
8. of a mile
Fresh water creek
C
Excavations
D
Wooded area
A
B
N
To Browne's house
Browne's Road
SITE DU-106 - ST. JOHNS BLUFF.
EXCAVATIONS
WILLIAM M. JONES 12-25-71
Wooded area
Wooded area
Scale - 3/16 inch=10 ft.

Four trenches were established and designated as tests, A, B, C, D. Tests A and B were on the west side of the road, while C and D were located east of the road. Most of the artifacts that were recovered were found within a fifty foot square area and seldom deeper than twelve inches.

Throughout the excavations, vertical distribution of materials was not uniform. Aboriginal pottery appeared above and below historic materials and in some cases, in direct contact. It is doubtful this obvious percolation was caused by cultivation, since the soil is dry and sandy and does not appear suited to agriculture.

ABORIGINAL POTTERY

Only fifty Indian potsherds were found on DU-106. The majority of these were recovered in trench B but some were found in the other three trenches. As we have previously stated, these sherds were found at all levels and in direct contact with historic materials. They were classified by Ripley P. Bullen, of the Florida State Museum at Gainesville. Bullen had this to say:

> . . . These sherds include those from what appears to be two periods. There are a lot of sherds which seem to be San Marcos Stamped, a pottery type of the Spanish Mission period.
>
> There are also two Deptford Simple Stamped sherds and part of a vessel with a Rocker Stamped plus Deptford Linear Check Stamped imprints on the lower side of the out-turned rim. This is new to us but it must be of the Deptford time period or a little before the birth of Christ. Other sherds which seem to belong to this same period are those of a thin, sandy paste, complicated

stamped vessel which also is new to us. Included are a Swift Creek Complicated Stamped and a couple of cord marked sherds, all probably early. . .[5]

The presence of the above potsherds should indicate a minor occupation by Indians during the St. Augustine and Deptford periods. There is also the possibility these sherds were brought here from a distant midden, along with oyster shell, used to make tabby. This building material appeared in all of the excavations.

EUROPEAN CERAMICS

The first European ware to appear was a fragment from a honey-colored, lead glazed earthenware that was new to us. We eventually found twenty-eight of these sherds that constituted the remains of two vessels.

We were able to reconstruct one of these sufficiently to make measurements. It was seven inches in diameter at the top, and seven and one quarter inches deep and was glazed on the inside only. The vessel is "potbellied" in appearance with a round rim and flat bottom. It was made of a tan-colored paste in which the throwing marks can be seen but are not outstanding.

The sherds that represent the other vessel are lead glazed on both sides and were made of a red paste. Although we were unable to reconstruct this vessel, it appeared to have had a rim that was intricate in its design and equipped with handles and a flat bottom.

We discussed these vessels with both the late Dr. John M. Goggin and Dr. Charles H. Fairbanks. Dr. Goggin was of the

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[5]Personal Communication.

opinion they were of Spanish origin and belonged to the late Eighteenth Century, while Dr. Fairbanks theorized they could be either Spanish or English.

Four fragments of English slipware were found. These were made of a tan-colored porous paste, with lead glazing on the inside only. The decorations that could be seen, were brown dots near the serrated edge. In form, it appeared to have been a shallow dish and likely had other decorations near the center. Slipware is a traditional pottery of Eighteenth Century England.[6]

White, salt glazed stoneware, appeared in the amount of four fragments. This was a light, thin, vessel, with no decoration and probably was a small pitcher or vase. This ware was made in England throughout most of the 1700's.[7]

Three bits of porcelain were recovered that were not decorated. This ware was made in England during the Eighteenth Century but originally came from China during the days of Marco Polo.[8]

Only two fragments of delftware were found. These constituted the remains of an earthenware vessel made of a cream-colored paste, with a tin glaze on the inside and outside. The

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[6]Alice Winchester, "How to Know American Antiques," A Signet Key Book, Published by the New American Library, (New York and Toronto, The New English Library Limited, London: 1951), 55.

[7]Ibid., 56.

[8]Ibid., 58.

decoration was a blue-on-white but the design could not be defined, since only one blue line could be seen. This ware was made in England during the Eighteenth Century.[9]

The dominant ware on the site was creamware. A total of fifty-eight fragments were recovered, most of these in trenches A and B. Three types of vessels were detected among these sherds. One was a dinner plate, with raised decorations near the scalloped edge. The other two were a cup and a saucer, both decorated with raised beading. Creamware is an English ware developed by Josiah Wedgewood, about the year 1763.

KAOLIN PIPES

Kaolin clay pipes were present in the amount of forty-eight fragments, of which, thirty-three were stems and fifteen bowls. Four of the bowls carried the small extension, often found on the bottom of clay pipes. On one of the bowls, the letters "WC" appeared on the extension and on the side of the bowl, facing the smoker.

The pipes were dated using the Binford Formula.[10] They date to 1740, which is too early for this site, but is in accordance with Binford's theory, that the method is not accurate on sites dating around 1780.

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[9]Ibid., 56.

[10]Lewis R. Binford, "A New Method of Calculating Dates from Kaolin Pipe Stem Samples," A Special Issue of the Southeastern Archaeological Conference Newsletter, Vol. 9, No. 1, Edited by Stanley A. South, (Cambridge, Mass.: 1962), 20.

GLASS BOTTLES

English wine bottles were present in the amount of two hundred and ninety-one fragments. In this group appeared eleven necks, and a number of broken indented bottoms. One bottle was reconstructed to the extent it could be dated in the period 1770 to 1790.[11] Most of the necks seemed to be the same type, but it is possible some may belong to the period 1750 to 1770.

Two fragments of a square moulded bottle were also found. In addition, the neck of a very thin, pale green bottle was located, in which, the lip was completely flat and extended outward from the neck. It appeared to have been a small medicine bottle. One fragment of flat, clear glass appeared. Very likely this was the remains of a mirror.

WROUGHT IRON NAILS

Wrought iron nails and spikes were, by far, the most numerous of the many metal objects found on DU-106. They appeared in the amount of two hundred and ninety-six and ranged in size from small nails, one inch in length, to spikes, six inches long.[12]

Some of these were fragmentary or badly bent, while others

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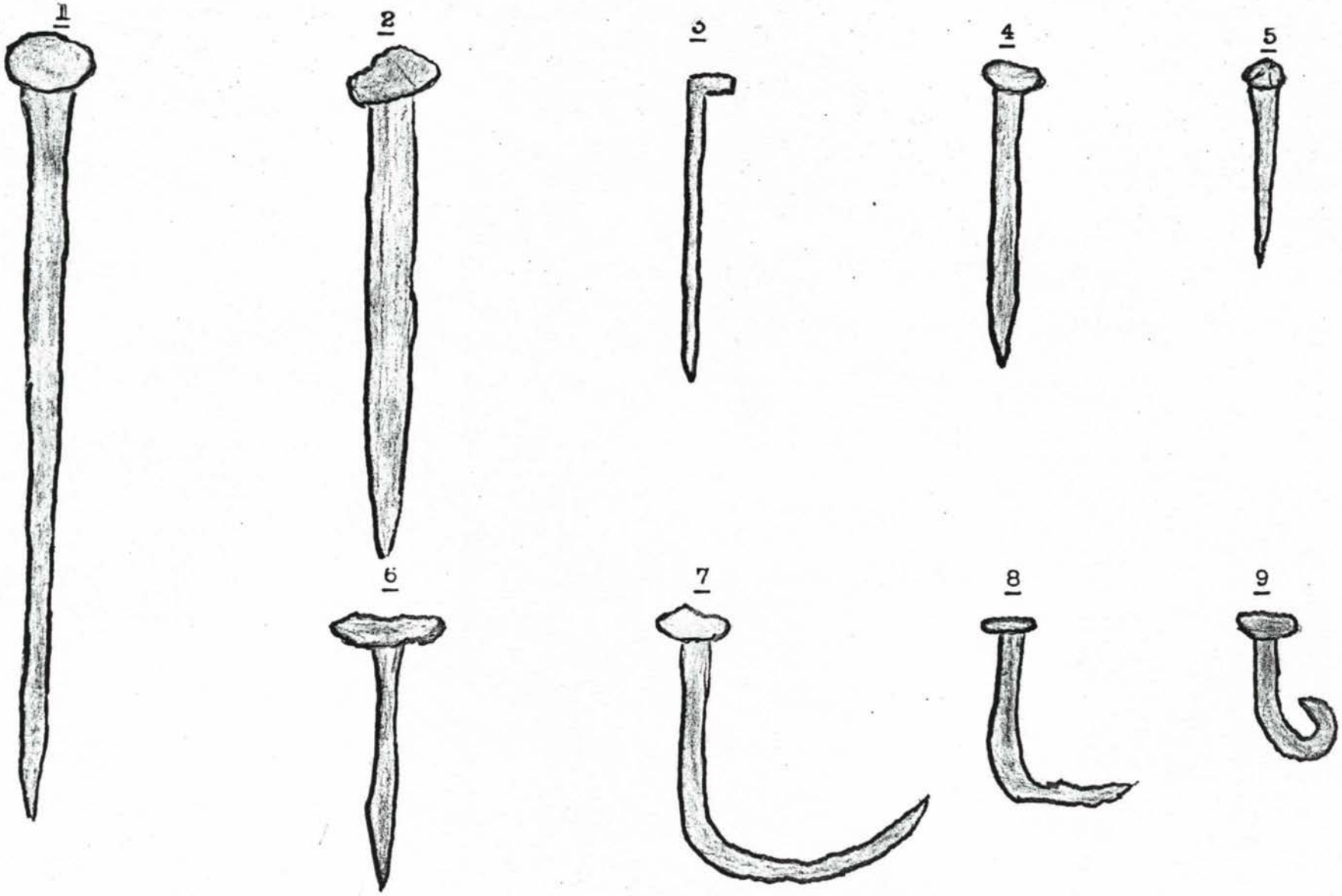
[11]Paul Hudson, "English Glass Wine Bottles of the 17th and 18th Centuries," A Special Issue of the Southeastern Archaeological Conference Newsletter, Vol. 9, No. 1, Edited by Stanley A. South, (Cambridge, Mass.: 1962), 6.

[12]See Sketches of Nails.

HAND WROUGHT NAILS
DU-106



were in excellent condition and could be used today. Among the common wrought iron nails were found several brad nails. Because the brad nails appear to be cut, rather than hand wrought, we are not sure they belong to the site. Since Browne's access road passes through the place, they could have been lost by a passerby.

WEAPONS

A number of gun parts relating to flintlock weapons were found, both in the excavations and in the road. One octagon shaped musket barrel, nine and one quarter inches in length was found in the road with a radio detector. A gun tool came from trench A and a brass trigger guard from trench B.

Trench C produced seven round musket shot, two gun flints, a lockplate, a cock and a battery (frizzen). These last parts are probably from the same weapon. Most likely they were made during the last half of the Eighteenth Century.

The oldest gun part from Site DU-106 was an "English Dog Lock,"[13] also found in trench C. Since this was the first lock of this type we had found in Northeastern Florida, we contacted Harold L. Peterson[14] regarding this artifact. Peterson had this to say:

> . . . The gun lock which you found is a very good one indeed. If I judge it correctly from the photograph it would have come from the English musket that immediately preceded the Brown Bess. To be absolutely

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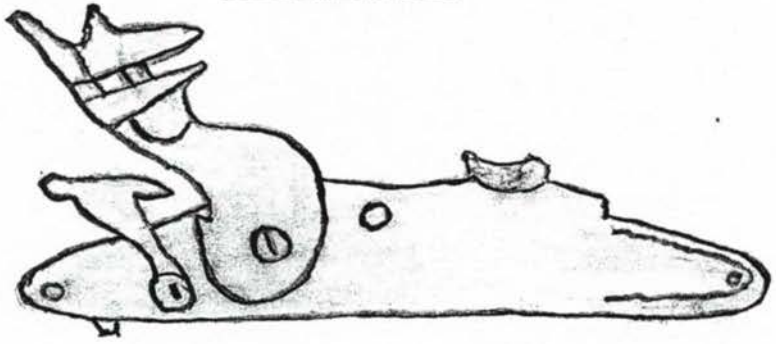
[13]See Sketch of Doglock.

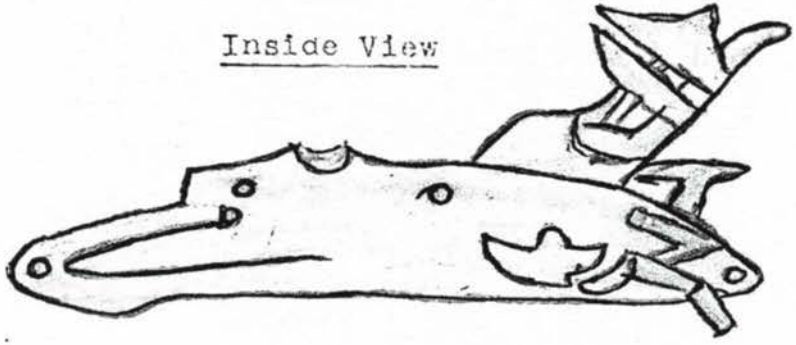
[14]Chief Curator, National Park Service, Washington, D.C.

ENGLISH DOG LOCK FROM DU-106

Outside View



Inside View



> correct, I suppose one could call it a flintlock with a dog catch. I would date its manufacture somewhere between 1690 and 1720. . . We have found locks of this type at Fort Frederica National Monument where they must have been used in the 1740's. . . Now yours appears in a context of 1780 so the old guns appear to have had a long life. . .[15]

Before we contacted Mr. Peterson, we had already visited Fort Frederica and had examined the collection of locks stored in the type cases. They were interesting and in some respects, similar to the ones from DU-106.

COINS

Although Site DU-106 represents a minor occupation, the place produced a surprising number of coins. A total of seven pieces were recovered, which included the following: one American dime; three British half-pennies; and three Spanish silver coins.

The American dime was badly worn and dated 1910. It obviously does not belong to the site and must have been lost here in recent years. One of the British coins was in poor condition, the remaining two were well preserved. They carried dates of 1731, 1737, and 1775 respectively.

The three Spanish coins were of a type known as "cob," which are irregular in form, having been cut from a bar of silver. Two of these were of half-real value, with no visible dates. The third was of one-real value and carried the date

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[15]Personal Communication.

1662. The mint mark "P" appears on this coin, which presumably means it was minted in either Potosi or Lima, Peru.[16]

The presence of these coins would indicate our group visited St. Johns Town occasionally since that community supported a dry goods shop, a storehouse for "coarse and wet goods," a shop for plantation goods and two taverns.

WROUGHT IRON AXES

A total of twenty-two edged tools appeared on Site DU-106, of which seven were wrought iron axes. Four of these were a type known as "box axes,"[17] two were conventional "chopping axes," and the last was a "trade axe," or "tomahawk." All of these, except the trade axe, carried marks indicating they were of British origin.

In this report we have included sketches of four of these axes in order to show how the marks appeared after the coating of rust was removed. The sketches are numbered one through four but are not drawn to scale.[18] The trade axe is also shown, although it carries no marks.

On box axe number one we saw a crown with four dots impressed directly below and arranged in the form of a square. Below this square appeared a "heart-shaped" mark. Within the

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[16]Albert C. Manucy, National Park Service Historian, Castillo de San Marcos National Monument, St. Augustine, Florida, (Personal Communication).

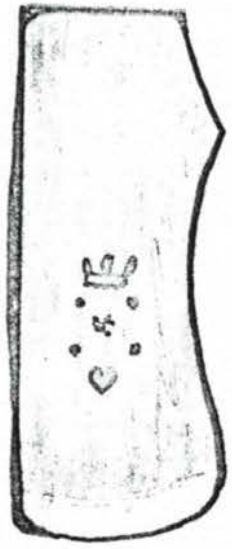
[17]Identified by Arthur E. Jordan, of Jacksonville, Florida, who spent a lifetime in timber.

[18]See Sketches of Axes.

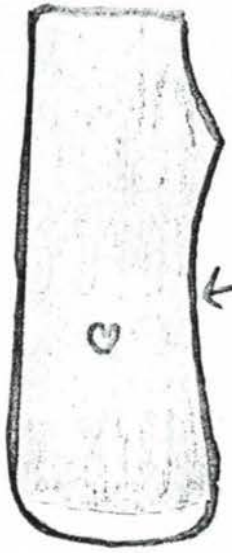
BOX AXES

CHOPPING AXES

1.

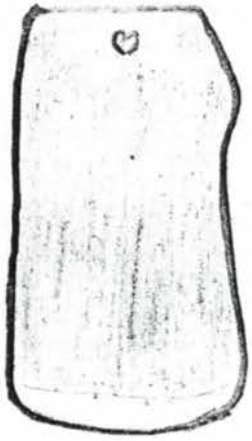


2.

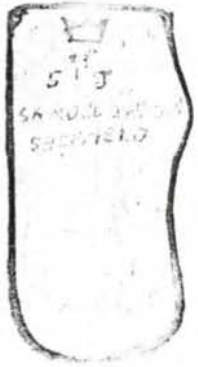


This mark on reverse side

3.



4.



Sketches of axes found on Site DU-106 showing marks as they appeared

FIGHTING AXE

The sketches are not drawn to scale.

W. M. Jones 1-20-72

square formed by the dots, could be seen a mark that could not be recognized.

On box axe number two, which represents two other box axes as well, the marks are different. On all of these the "heart" is situated in the middle of the blade on the obverse side, while a rectangular shaped impression shows on the reverse side. Within these impressions could be seen figures that could not be identified.

The chopping axes were also marked in a different manner than the others. Number three axe carried a heart above the hafting hole on the obverse side, with no marks on the reverse side.

According to Ivor Noel Hume, heart-shaped merchants marks were stamped on the East India Company weapons.[19] Perhaps the heart-shaped marks on our axes have the same meaning.

Chopping axe number four had by far, the most significant marks of the entire group. On one side appeared a crown, with the letters "SJ," directly below. Beneath the letters "SJ" was written, "Samuel Jackson," and below that, "Sheffield."

When the coating of rust was removed from this axe, the above marks could be seen but not identified. In view of this,

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[19]Ivor Noel Hume, "A Guide to Artifacts of Colonial America," (New York, New York: 1970), 219.

we solicited the help of Paul C. Hudgins, a Research Chemist.[20] He was successful in revealing the hidden information and briefly describes the method he used:

> The area was heated with an oxygen-gas torch to a yellow heat temperature. The "memory" effect of the metal revealed the data even after the original surface imprint could no longer be recognized.

Mr. Hudgins also used a powerful glass to read the imprints that showed in the heated metal. We owe him a vote of thanks. because without his assistance, the information on the axe would have been lost.

We contacted the British Museum, London, England,[21] regarding the marks on the various axes. Since they had no comparable axes in their collection, they referred us to the City Museum, Weston Park, Sheffield, England.

That museum replied with the following information:[22]

> ...I have managed to trace a Samuel Jackson, son of John Jackson, cutler of Crookes, Sheffield, who became a Freeman of the Cutler's Company of Sheffield in 1762. There is no other Samuel Jackson in the records of the Cutler's Company at that date. He need not necessarily have followed his father's occupation as cutler and could quite well have produced axes. The Cutler's Company admitted makers of all edge tools to its Freedom...

As we stated earlier, the trade axe that was found on the

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[20] Director of Medical Research, Research Laboratory, St. Vincent's Hospital, Jacksonville, Florida.

[21] J. Cherry, Assistant Keeper, British Museum, London, England.

[22] Molly Pearce, Keeper of Applied Art, The City Museum, Weston Park, Sheffield, England.

site, carried no identifying marks that could be found. It measured six inches in length, with the blade being very narrow below the hafting hole and gradually extending outward to a width of two and a half inches at the cutting edge. Dr. Fairbanks, of the University of Florida, termed it a "fighting axe," of either the Seventeenth or Eighteenth Century.

EYE HOES

Three "eye hoes" were recovered on the site. One of these was similar to the hoes usually found on plantation sites but the other two had been sharpened to a point,[23] in the manner of the "Warren Hoe." Both of these appeared to have been sharpened in the field, rather than being manufactured in this style. Most likely, they were used to make small furrows for planting vegetables.

CLASP KNIVES

Six clasp knives came to light on DU-106. Two of these were complete, while the remaining were fragmentary. Both of the complete knives were folded when found and measured four inches in length. We managed to open one of these, in spite of the rust, and found the overall length to be seven inches.

MISCELLANEOUS EDGED TOOLS

The remaining edged tools that were found on our site

---

[23]See Sketches of Hoes.

1.

2.

3.

EYE HOES FOUND ON THE SITE DU-106

W. M. Jones ---- 1-2-72

consisted of three scissors, that were fragmentary, and four small tools that have not definitely been classified. I discussed these tools with Dr. Fairbanks of the University of Florida and he was of the opinion that they were wood working tools of some kind. They appeared to be gouges, with the handles missing. They all varied in size.

MISCELLANEOUS METAL OBJECTS

In addition to the edged tools we mentioned above, there were a number of metal artifacts recovered that we will mention briefly. Among these were the following: one small fish hook; five large lead sinkers, probably used on nets; one pewter spoon with the handle missing; one engraved brass handle, thought to be from a "candle snuffer;" one bronze furniture castor; one brass sewing thimble; one silver chain, two and one-half inches long; two small iron buckles; three brass buckles; twelve metal buttons, some decorated; and four iron keys.[24]

FOOD REMAINS

Food remains, in the form of animal bones, appeared in the

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[24]The rust was removed from most of the iron objects, by heating to a red hot temperature and then emersing in cold water. This causes the body of the object to expand and contract to such a degree, most of the rust falls away when the artifact is struck a blow. This method is not recommended for use on fragile iron objects. (This writer introduced this method to the late Dr. John M. Goggin at the University of Florida in 1951).

amount of nine hundred and seventy-nine, of which, some are fragmentary and some are whole.[25] Among this group the following four species were found: mammals, reptiles, fish, and birds.

The mammal bones were found in the following amounts: opossum, nine; racoon, fourteen; deer, three; pig, thirty-two; and cow, forty-one. Reptiles were represented by the following: alligator, one; turtle, ninety-nine. The fish vertebra appeared in the amount of two hundred and thirty-five. A few of these were classified and found to be: drum (Sciaenidae), bowfin (Amidae), and catfish (Ictaluridae).[26] The bird bones were not too numerous, fifteen were found. They have not been classified as to the specie of fowl.

A total of five hundred and thirty bones from the entire group could not be classified. Most of the bones were found in the vicinity of trenches A and B, west of the road. S. David Webb of the Florida State Museum, Gainesville, called our attention to the fact that many of the bones were hacked, presumably with an axe.

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[25]The entire group of bones was identified, in general, by S. David Webb, Assistant Curator of Natural Sciences, Florida State Museum, Gainesville, Florida.

[26]The fish vertebra were identified by Dr. Kenneth Relyea, Assistant Professor of Zoology, Department of Biology, Jacksonville University, Jacksonville, Florida.

SUMMARY AND CONCLUSION

Structural evidence on Site DU-106, appeared in the form of wrought iron nails, tabby fragments and the remains of two tabby floors, one near trench B and the other near trench D. Not one post hole was detected on the entire site. This would indicate the structures here were not the post-in-the-ground type, but rather log or frame buildings. (By contrast, on Site DU-107, seven hundred feet north of this point, we found a twenty-six foot square tabby floor, with eleven decayed posts still buried around the outer edge).

The fate of the structures, that once stood here, is unknown. We found little evidence there had been a fire of any consequence and we doubt they were dismantled and carted away, such as others were when the British evacuated Florida in 1783.

Most likely, they rotted to the ground, after being abandoned. The presence of wrought iron nails and spikes scattered about the place seems to bear out this theory. The tabby floors that would have survived were probably destroyed by tree roots, age, or some unknown activity in the interim. We were not able to outline any structure.

The question now arises as to why the site was placed at this point. While there could be a number of reasons, certainly the nearby freshwater stream was a deciding factor.

According to William Browne Senior, the remains of a dam were found here when he arrived in 1884. Because the flow of water is not sufficient to power a wheel of reasonable size,

the dam was probably built to secure a larger supply of water for domestic purposes.

Another reason for the presence of the site here would be the supply of fish in the nearby St. Johns River. The lead fishing sinkers, the fish hook, and the two hundred and thirty-five fish vertebra should indicate our occupants spent some time replenishing their larder with fish from the river.

In addition to the above, there is fertile land located to the north, that is suitable for gardening. Browne reported that this place had been cultivated long before his arrival on the bluff. The three eye hoes found on the site, would indicate some agricultural activity.

Since we have discussed the reasons for DU-106 being located at this point, we shall now explain why we believe the site represents the remains of a work camp, established during the time of the British Occupation, 1763-1783.

We had only been working on the site for a short period of time when it became apparent the situation here was not typical of the usual domestic complex, but pointed to the activities of a group of men. For instance, while ninety-seven fragments of ceramics were found, wine bottle fragments amounted to two hundred and ninety-one, which seems out of proportion when applied to the average household.

In addition, we recovered six clasp knives, seven axes, three eye hoes, forty-eight fragments of clay pipes, six coins, sufficient gun parts to indicate at least two weapons, a fighting axe and nine hundred and seventy-nine bones of mammals, reptiles, birds and fish.

In view of the number of axes and other types of artifacts we have just mentioned, and because of the large number of animal bones found on the site, we may conclude DU-106 represents the remains of a work camp of the late Eighteenth Century.

We stated earlier in this report we had found four "box axes" along with other types. The presence of these four axes strongly suggests our occupants were engaged in turpentine work in this area.

In early times, box axes were used in the Naval Stores Industry and as the name implies, were used to "box" trees. This meant cutting a hole or box in the base of the tree to receive the flow of gum resulting from repeated chopping above.[27] This practice continued until about 1900, when with the advent of the "cup and gutter" method, the box axe faded from the scene.

The box axes from DU-106 weighed three pounds each and measured eight and three quarters inches in length. In the Nineteenth Century, these axes became longer, until lengths of nearly a foot were reached.

At this point, we must mention that the box axes found here were damaged and obviously had been discarded when the site was abandoned. There may have been a greater number of tools here when the place was in operation and which could have been carted away when the English left the bluff area.

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[27]Carl E. Ostrom, "History of Gum Naval Stores Industry," Southern Forest Experiment Station, New Orleans, Louisiana, 2.

In addition to turpentine work, the occupants of DU-106 may have been engaged in extracting tar from the nearby pine forest. William H. Browne reported the existence of six old "tar kilns" in the region one mile south of the site. Since five of these were in places difficult to reach, he directed us to one located on the north slope of an oak ridge, south of Mt. Pleasant Road.[28]

We returned in October of 1967 and with the permission of the property owner, dug a test hole in the top of the kiln. After the layers of dirt were removed, we found a mass of fully combusted pine limbs. The kiln measured forty feet in diameter and about four feet in height.

At first sight, these kilns appear to be simple sand mounds, with no particular meaning. They are usually situated on an incline so the extracted tar will flow downward from the center, to a container placed on the low side of the kiln.

This process was brought from Europe by the early settlers. Carl E. Ostrom explains this method:

> . . . This practice was widespread in North Carolina shortly after its settlement in 1665. The common method commenced with the building of a saucer-like mound of clay containing a funnel at the center which led to a buried drain pipe. The dead wood was piled several feet high over this mound, then covered with clay and ignited at the top. Tar from the burning wood seeped downward into the drain pipe, from which it was led to a ditch or hole in the ground. From there it was either scooped into barrels or ignited for a time to produce pitch. . .[29]

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[28]See Map of St. Johns Bluff area. (The oak ridge on which the tar kiln is located, was once covered with pine trees that were felled long ago).

[29]Carl E. Ostrom, "History of Gum Naval Stores Industry," Southern Forest Experiment Station, (New Orleans, Louisiana), 2.

Very likely, the chopping axes we found on the site were used, among other things, to break up the dead limbs before being placed in the kilns.

The British exported large quantities of timber and Naval Stores products during their stay in Florida. Available records indicate that in the year 1776, shipments included fifty thousand feet of pine boards, one hundred and ninety barrels of tar and fifty-six barrels of turpentine.[30] During 1777, shipments of forest products showed a large increase over the preceding year. The shipments consisted of five hundred and fifty-three thousand feet of pine boards and timber, two thousand, two hundred and forty-one barrels of tar and four hundred and seventeen barrels of turpentine. In 1778, exports of forest products amounted to four hundred and sixty-eight thousand, eight hundred feet of pine boards and timber, eight thousand, one hundred barrels of tar and one thousand, nine hundred and eighty barrels of turpentine.[31]

In September, 1783, when the British were in the process of evacuating Florida, about twenty thousand barrels of tar and turpentine, were waiting shipment. Since the British were having a transportation problem, some of these products were left behind, including one hundred and fifty barrels at St. Johns Town.

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[30] Wilbur Henry Siebert, "Loyalist in East Florida, 1763 to 1783," Vol. I, (Deland, Florida: 1929), 68.

[31] Ibid., 150.

In conclusion, the occupants of DU-106, could not be identified. Property descriptions in the British records are vague from a geographical standpoint, and it was impossible to make a positive identification. The site was likely established in the years following 1775, and was abandoned before 1785,[32] or during the time St. Johns Town was evacuated.

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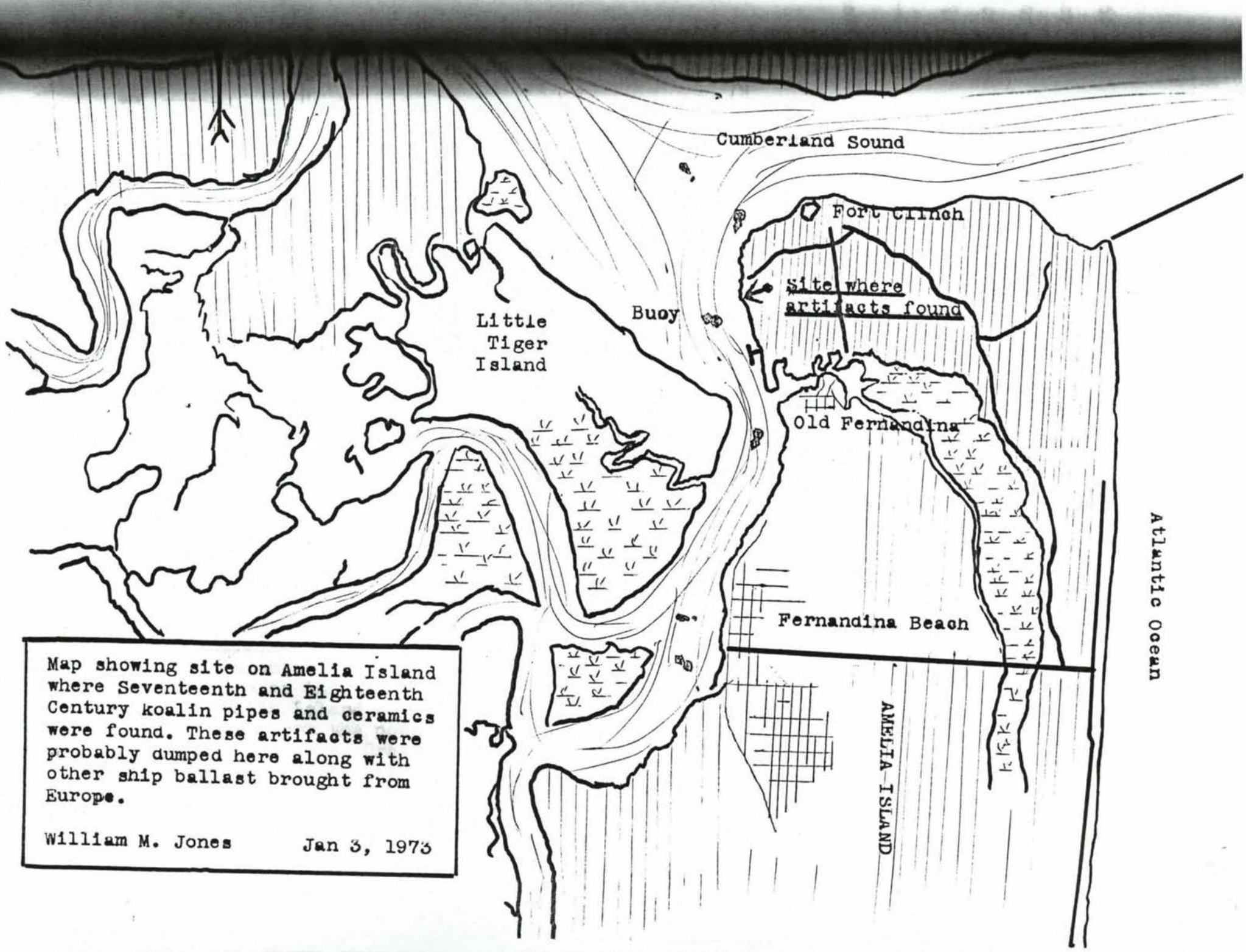
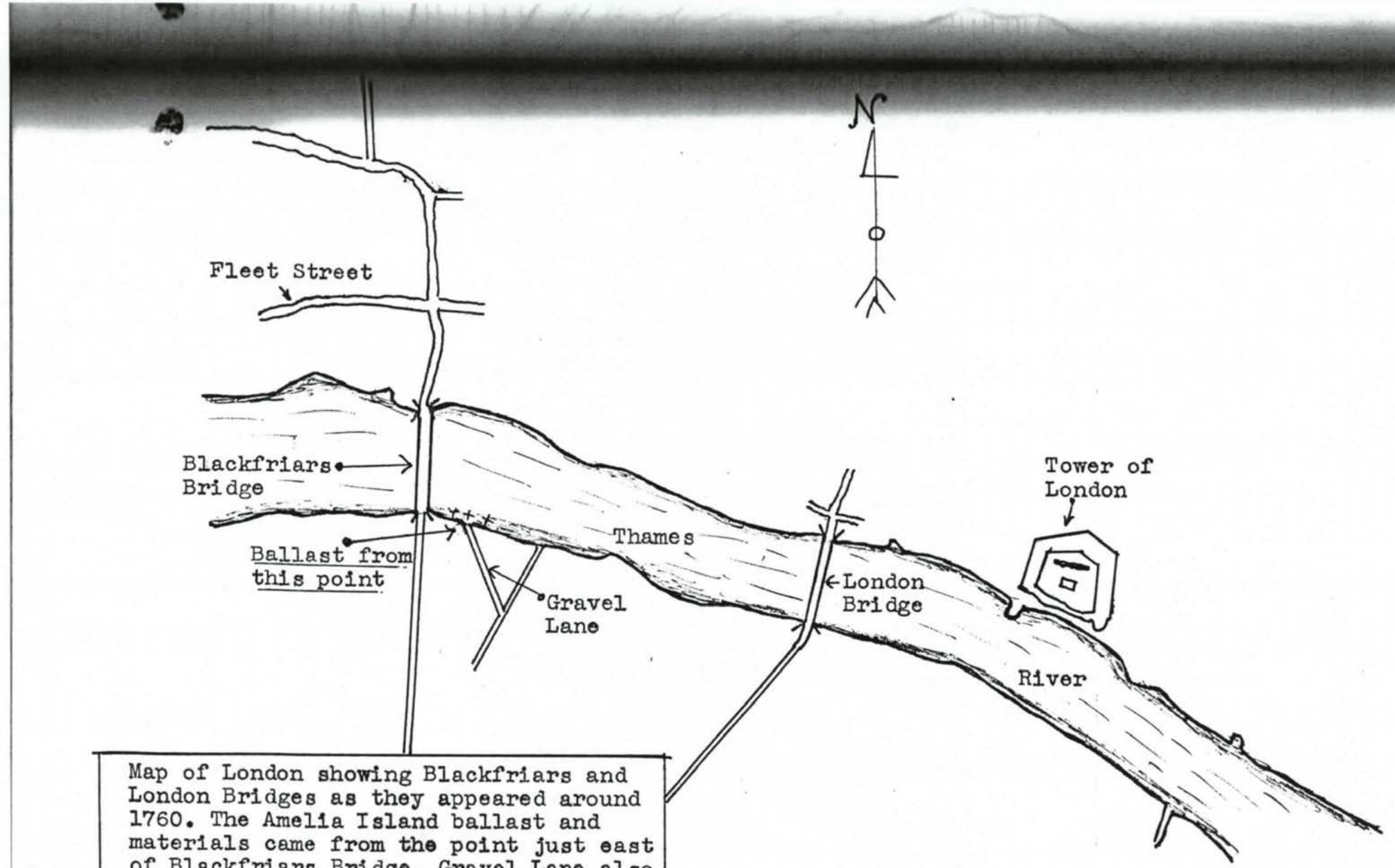
[32]Although the British Occupation ended officially in 1783, some of the English did not depart until about 1785.



Map showing site on Amelia Island where Seventeenth and Eighteenth Century koalin pipes and ceramics were found. These artifacts were probably dumped here along with other ship ballast brought from Europe.

William M. Jones Jan 3, 1973



Map of London showing Blackfriars and London Bridges as they appeared around 1760. The Amelia Island ballast and materials came from the point just east of Blackfriars Bridge. Gravel Lane also shown at this point, no longer exists.

WMJ ********** June 20, 1977

THE SOURCE OF BALLAST AT A FLORIDA SITE

By

William M. Jones

Jacksonville, Florida

Jan. 3, 1973

THE SOURCE OF BALLAST AT A FLORIDA SITE

William M. Jones

Seemingly anomalous materials reported cover a span of time from late Medieval until the later part of the 19th century. They include ceramic sherds, white clay pipe stems, glass, bricks, and gravels as well as clay deposits. The evidence points to their origin in the vicinity of the present Bankside Power Station on the south bank of the Thames between London and Blackfriars Bridges (see London Map).

The Fernandina, Florida area in which the artifacts were found, was a quarantine station after 1880 where ships were required to discharge ballast during the yellow fever months of the summers. The site illustrates the necessity of identifying whether or not artifacts in coastal or estuarine areas are of primary deposition. Ballast sites are common and their origins may present very diverse cultural contexts.

The site was discovered early in December, 1972 by William M. Jones, Jack Hardy, and Dean Henderson as part of an on-going survey of the coastal parts of Nassau and Duval Counties. It is now identified as Na-57 in the Florida Statewide Archaeological Site File. Located along the beach, mostly below mean low water, it rather clearly represents a deposit of discharged ballast. As Fernandina has long been a

busy port, first for the shipment of cotton and rice, later for lumber, it is not uncommon to find ballast piles near the older parts of the extensive harbor. After the first collection at the site, continued gathering of artifacts was undertaken whenever low tides occurred during the winter months.

A collection of white clay pipes and a small sample of other ceramics were taken to the University of Florida where Dr. Charles H. Fairbanks of the Department of Anthropology agreed that the pipe bowls were clearly of British manufacture and as there were no British settlements in that area until 1763, it was felt that further collection was warranted. Early in February, a substantial collection having been made, the artifacts were taken again to the Department of Anthropology at the University of Florida. There Dr. Charles H. Fairbanks and Dr. Kathleen A. Deagan discussed the classification and dating of the materials. In May it was possible for William M. Jones to take the major part of the collection to Colonial Williamsburg where Ivor Noel Hume kindly helped with the identification and dating of the artifacts. It is at his urging that this report of the surface collection at a Florida ballast site is prepared. Both Mr. Noel Hume and his wife have assisted with many references to the location of possible sites along the Thames in the vicinity of London.

The collection consists of 320 sherds and 289 white clay pipe fragments. The bulk are of course lead glazed earthern wares ranging in date from about 1650 to well within the 19th century. The following discussion will deal with the more exotic pieces or those that helped in the identification of the original site. They illustrate the range of materials that are likely to occur on ballast sites of any date.

Two green glazed sand tempered earthernware sherds of medieval type. They could date from the 13th to the 16th centuries, more probably in the earlier part of that range (Fig. 1, a, b).

One basal sherd of Tudor Green earthernware, a soft white fabric with a spill or drip of green glaze along the curved side well above a flat base. Dates probably from about 1490 to 1540 (Fig. 1, c). These three sherds are the oldest in the collection and ones that might be taken, out of context, as indicating a pre-Columbian or very early visit to the Florida coast by the British.

One blue on white sherd of Puebla Spanish majolica, dating from the 18th century. It is obvious that this one sherd does not identify the site as Spanish, nor do the two olive jar sherds which also occurred in the site.

One Tygware sherd from a drinking mug of redware with black lead glaze and greyish spots. Dating from 1600-1650 it is clearly too early for primary deposit at this site.

Six pipkin sherds, four with yellow lead glaze on a light creamy body, two redware with a thick tan lead glaze. While these are typical of British country potting of the 17th century, they should not appear in any Florida sites of colonial date.

Among a number of saltglazed stoneware sherds were five leopard ("Tiger") jug wasters with the edges of the sherds showing glazing. There are also six stoneware sagger sherds with the typical arched openings and heavy salt glaze (Fig. 2, a-e). Two have attached masses of clay pads and some kiln slag. The type occurs at both Bristol and Fulham where they date from about 1690 to 1750. These evidences of kilns give us good leads for the location where the ballast must have been originally collected.

English delftware of early types was rather well represented with several sherds of a bottle base with a very weak foot and a speckled manganese enamel, dated 1630-1650. There were also 23 British delftware sherds, 12 white, 1 polychrome, blue, yellow and brown on white that appear to be kiln wasters and date from about 1650-1700. There were 21 delftware unglazed bisque kiln wasters, also probably dating from the last half of the 17th century. Along with these were four delftware sagger sherds, two with drips of

enamel (Fig. 3, a-d). Again, they seem to date from the same period as the other delftware sherds. These rather clearly indicate the original collection was in the vicinity of a delftware manufactory.

Four sherds of glass siege pots, thick stoneware with white interior enamel and exterior streaked with glass, mostly of a brown color (Fig. 4, a-d). These sherds limit the choices for the original location of the ballast materials as glasshouses were less common than potteries.

One neck and shoulder of a Mediterranean unglazed buff earthernware amphora with two arched handles above a ridged shoulder. Lip is scalloped (Fig. 5). Probably post-eighteenth century. By itself this would be a puzzling piece but clearly relates to the Port of London, rather than to a Mediterranean import directly to North America.

There were 289 sherds of white clay pipes, including 273 measurable stem segments and 16 pieces of bowls without stems. Included in the total were 69 with more or less complete bowls. The stem hole diameters were as follows:

4/64"	- 23	
5/64"	- 50	Mean hole diameter 5.8/64"
6/64"	- 61	Standard Deviation 1.7
7/64"	- 93	
8/64"	- 28	

A number of the pipes, including seven bowls with a milled dentate line just below the lip (Fig. 6, a-f), clearly seem to be of London style of

about 1660-1680 (Atkinson and Oswald 1969, 175-185; Iain C. Walker, Personal Communication).

According to the Heighton - Deagan formula the date should be 1717, by the Binford Formula 1709. 97, rounded to 1710 (Heighton and Deagan 1971; Binford 1962). Both dates are too early to be within recognized British sites in this part of the southeast. What the statistical manipulation does not show is that the river gravels from which this ballast was derived received a heavy increment of debris in the late 17th century.

The dates derived from the pipe stems are really quite immaterial as the collection clearly represents a long time span and the significant date is the terminus post quem, the time after which the material was deposited, later than the most recent type at the site. This terminus post quem must lie somewhere in the late 19th century after the appearance of the bandedware, ridge-backed ceramic tile, salt-glazed drain pipe, and fire bricks with inset centers that are present. In the same way, the fact that the collection represents a secondary deposit must mean that the exotic items such as Spanish ceramics, Tudor Green, glassmaking siege pots, and kiln wasters do not indicate those activities or sources at Fernandina. Rather they give evidence of the primary deposit location from which they were derived. Further, increased knowledge of ballast dumps will help to explain the presence of these

and other exotic items in coastal and estuarine situations.

On May 18, 1885 the Board of Health of Nassau County, Florida adopted a new set of rules and regulations relating to Quarantine. All ships from ports south of 25 degrees north latitude must discharge ballast at the quarantine station on Tiger Island during the season of quarantine (Florida Mirror, May 18, 1885). It is believed that the quarantine station was changed subsequent to 1885 to the place where this ballast was found. The fact that the ship discharging this ballast was from England, and thus well north of the yellow fever latitudes, may mean that it was not in fact a quarantine station. It has not yet been possible to locate ballast sites off Tiger Island.

As early as 1740 ships were coming to the American colonies with ballast of Thames gravel as is indicated by a letter from Robert Pringle, a shipper in Charleston, to Andrew Pringle in London. Robert complained that Captain Craig of the Ship St. Andrew had "thrown Shingle or River of Thames Ballast over the Rice that is stow'd in the Hatchway in order to bring down in the Waters & stiffen his ship..." (Edgar, 223). Additional information was called to our attention by Harold S. Sniffen of the Mariners' Museum in Newport News. In the Mariner's Mirror, Vol. 6 for 1920 a correspondent "Ailsa", in

response to earlier discussion of an old coat of arms of Trinity House, reports that Thames gravel was formerly gathered as high up as Windsor and Eton. As ships could not travel above London Bridge or the numerous other fixed spans at London, the gravel collected must have been barged downstream. Another writer, Douglas Owen, recalled the dredging in London as late as 1853 (Mariner's Mirror, 123-124). The dredging was in early times done from "a boat manned by two seamen and apparently steadied by an oar in the bottom of the river on each side. One man in bow hauling in a line apparently fast to a kedge, the other standing aft handling a dipper, which is out of the water, by a long shaft" (ibid).

Trinity House was an association of English mariners first established in 1514 at Deptford, Kent, just downstream from London near Greenwich. It was a corporation that at first supplied pilots for ships but gradually assumed the duties of also providing lighthouses and became a quasi-public board. It is logical to suppose that it was also concerned with ballast as its coat of arms depicted a gravel dipper. At any rate, there seems to be sufficient documentation of the use of Thames gravel as ballast.

Ivor Noel Hume, in a recent book, has referred to the Amelia Island ballast finds as evidence of the use of Thames gravel and has pinpointed the original Thamsides site (Noel Hume 1974, 123-124).

His argument seems entirely valid as he points out that the most logical site was along the south (right) bank of the Thames in Southwark where the Bankside Power Station now stands. He points out that when the station was being constructed sherds of brown stoneware, saggers similar to those from Amelia Island, delftware wasters, and glassmaking siege pots were recovered (Oswald, 1950, 183-185). H. J. Powell's "Glass-making in England" shows a glass-making site at the present Bankside location (1923, facing p. 92). This was the Falcon glass house in Holland Street near Gravel Lane. That particular Gravel Lane is no longer in existance, but the name might well refer to the noticeable quantities of gravel in that area. Noel Hume believes the Bankside location is the best possibility because of the scarcity of medieval or Roman material in the Amelia Island collection.

Another possibility that Noel Hume considers slightly less likely is in the vicinity of St. Mary Ovaries Dock, near Montague Close and Southwark Cathedral. There was a glass house at that point and delftware manufacturing as early as circa 1613. There is no evidence, says Noel Hume, that an eighteenth century stoneware potter was at work in the vicinity. In addition, the area has large amounts of late medieval sherds as well as Roman material.

A third, and even less likely site, is at Pickleherring Quay, just West of Tower Bridge and nearly a mile east of Bankside. Large quantities of delftware were excavated by Francis Celoria, but there was no evidence of brown stoneware kilns or glass making.

A fourth possibility is a short section of foreshore immediately downriver from Queenhithe Dock and just above modern Southwark Bridge. Noel Hume reports that he found sherds of late seventeenth and early eighteenth century delftware biscuit. He feels that the fragments were dumped there from kiln sites elsewhere. There have not been sherds of glass-making siege pots or of brown stoneware wasters found at that location.

It seems clear that the area of the modern Bankside Power Station is a most likely spot for the gravel and other artifacts to have been dredged. Tall ships, whether sail or steam, could not pass up the Thames so far because of the many fixed bridges. Barges were evidently used to lighter the gravel and Thames garbage downstream. The Amelia Island site seems especially interesting because it documents the presence of artifacts representing a fairly long time span and that came to America from a site that can be described with fair accuracy in the London area. The mixture of Medieval and more modern artifacts from the seventeenth to nineteenth

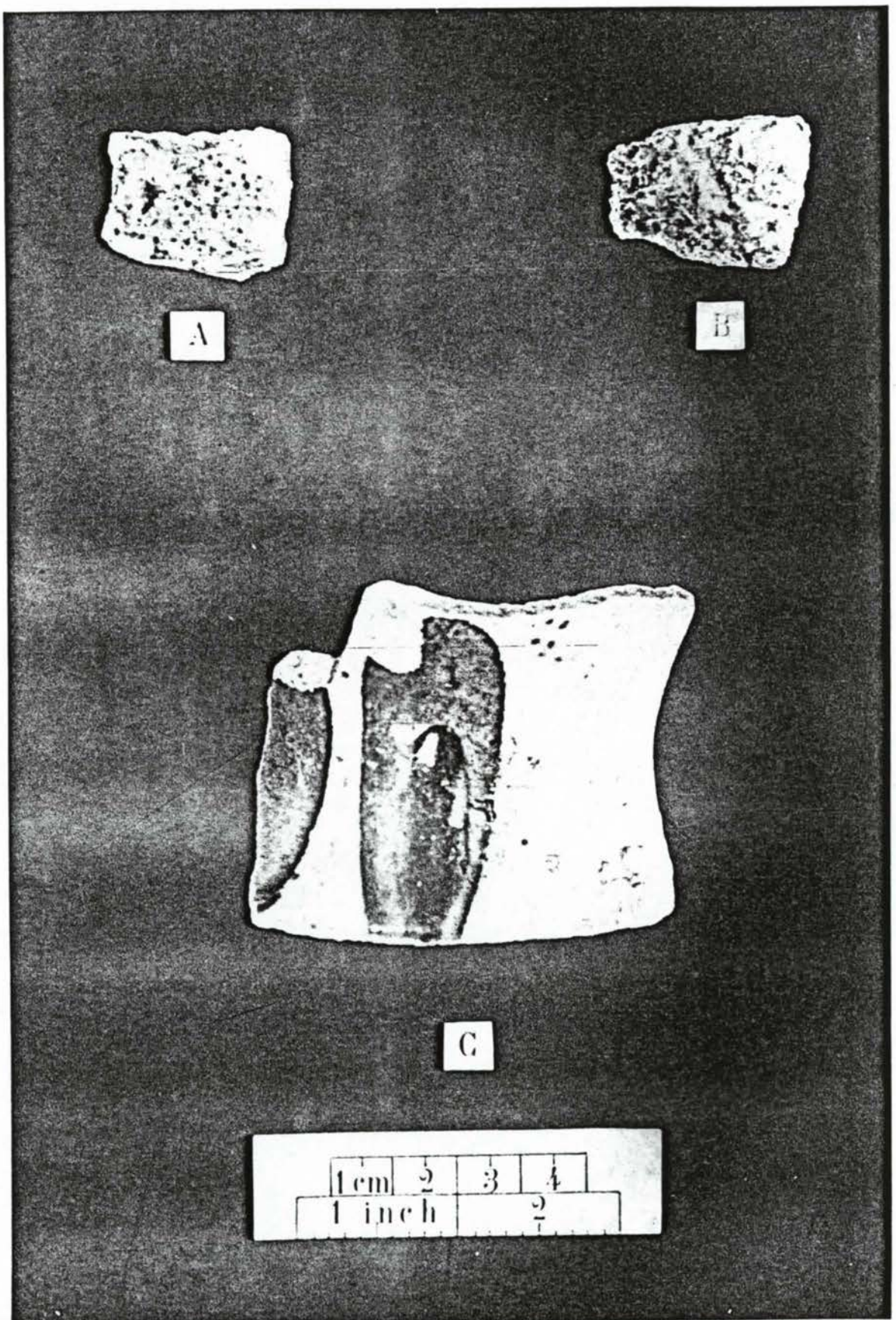


Fig. 1, a,b, Green Glazed earthernware, medieval type, 13th to 16th centuries. c, Tudor Green eathernware, 1490-1540.

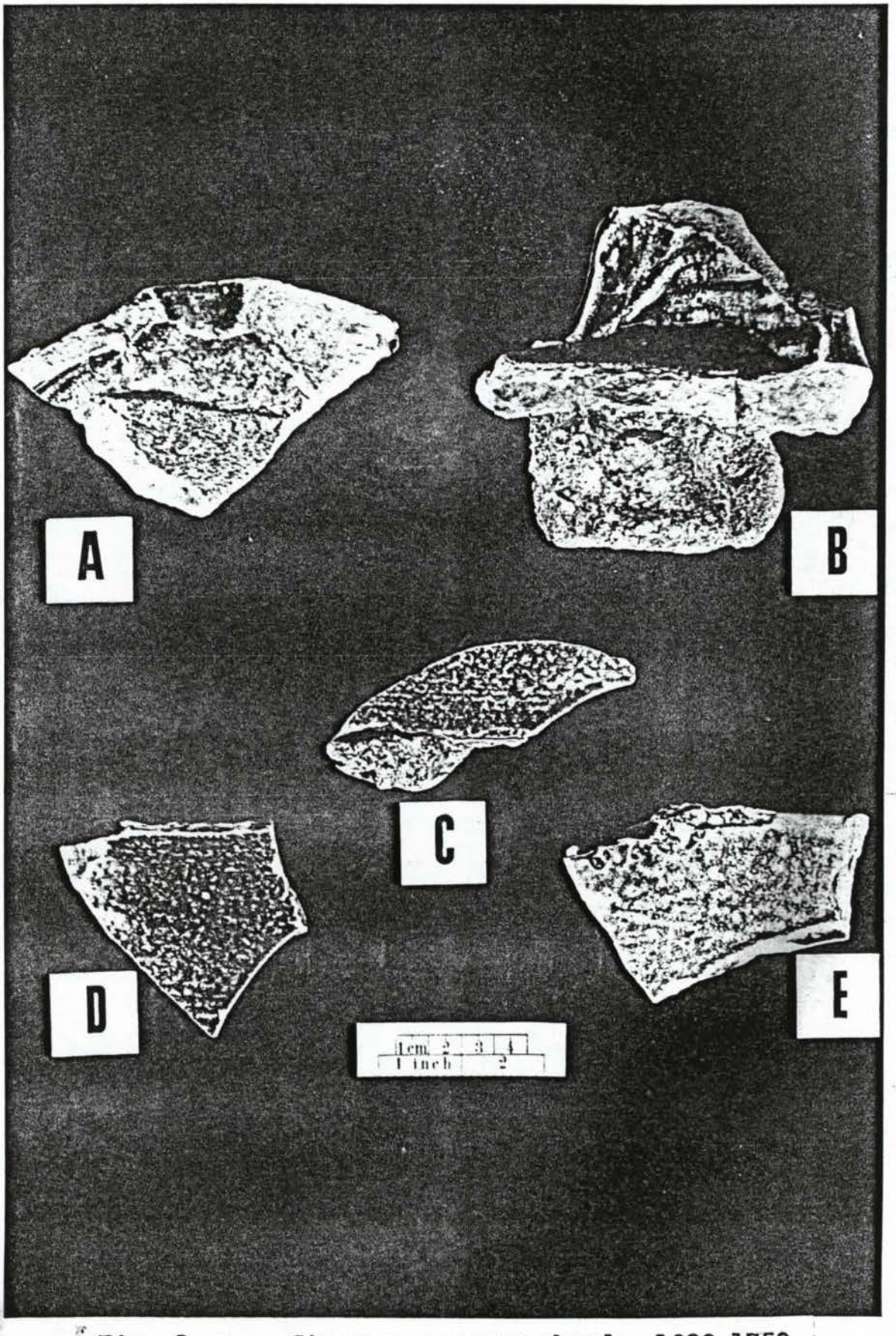


Fig. 2, a-e, Stoneware sagger sherds, 1690-1750.

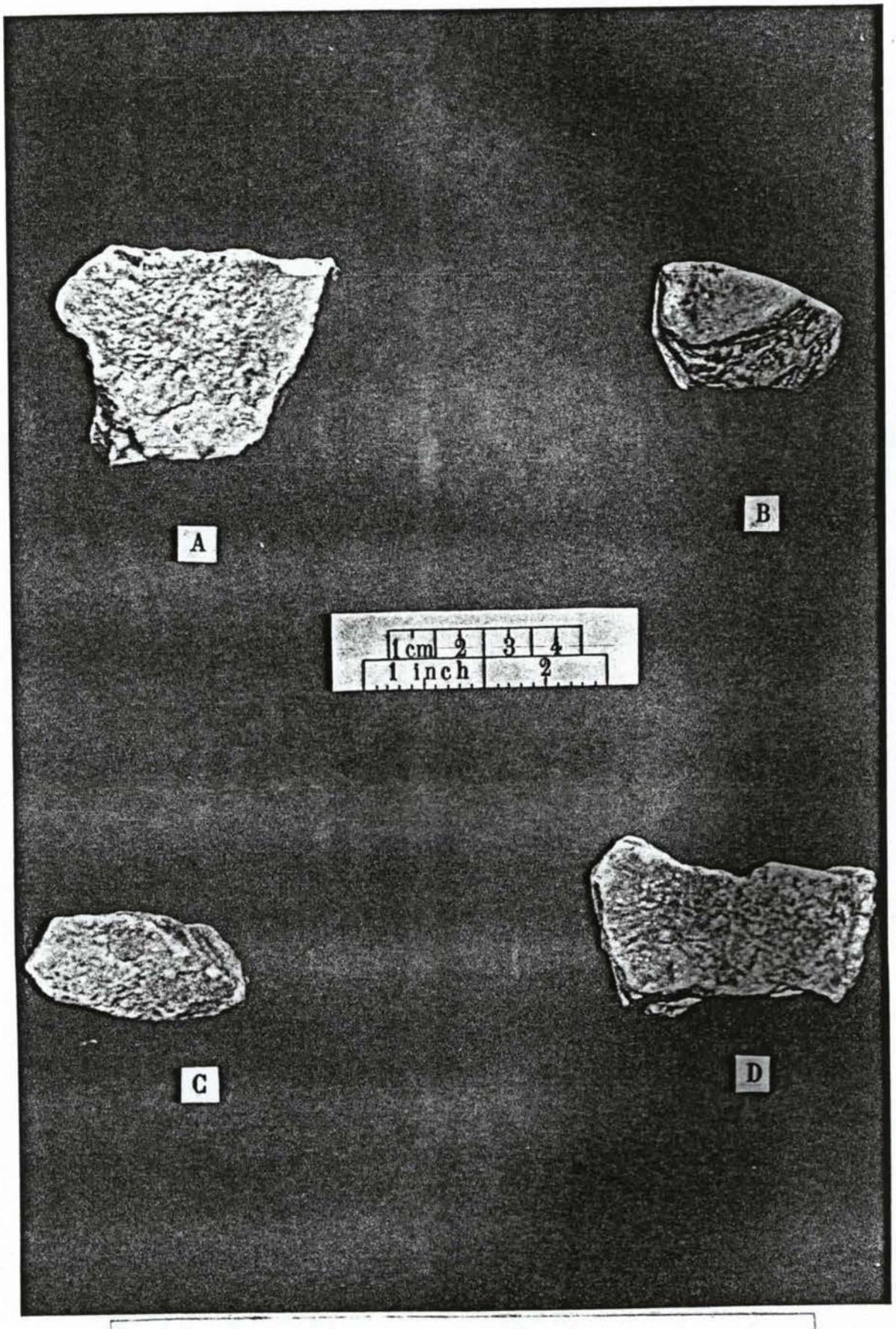


Fig. 3, a-d, Delftware sagger sherds, c, 1650.

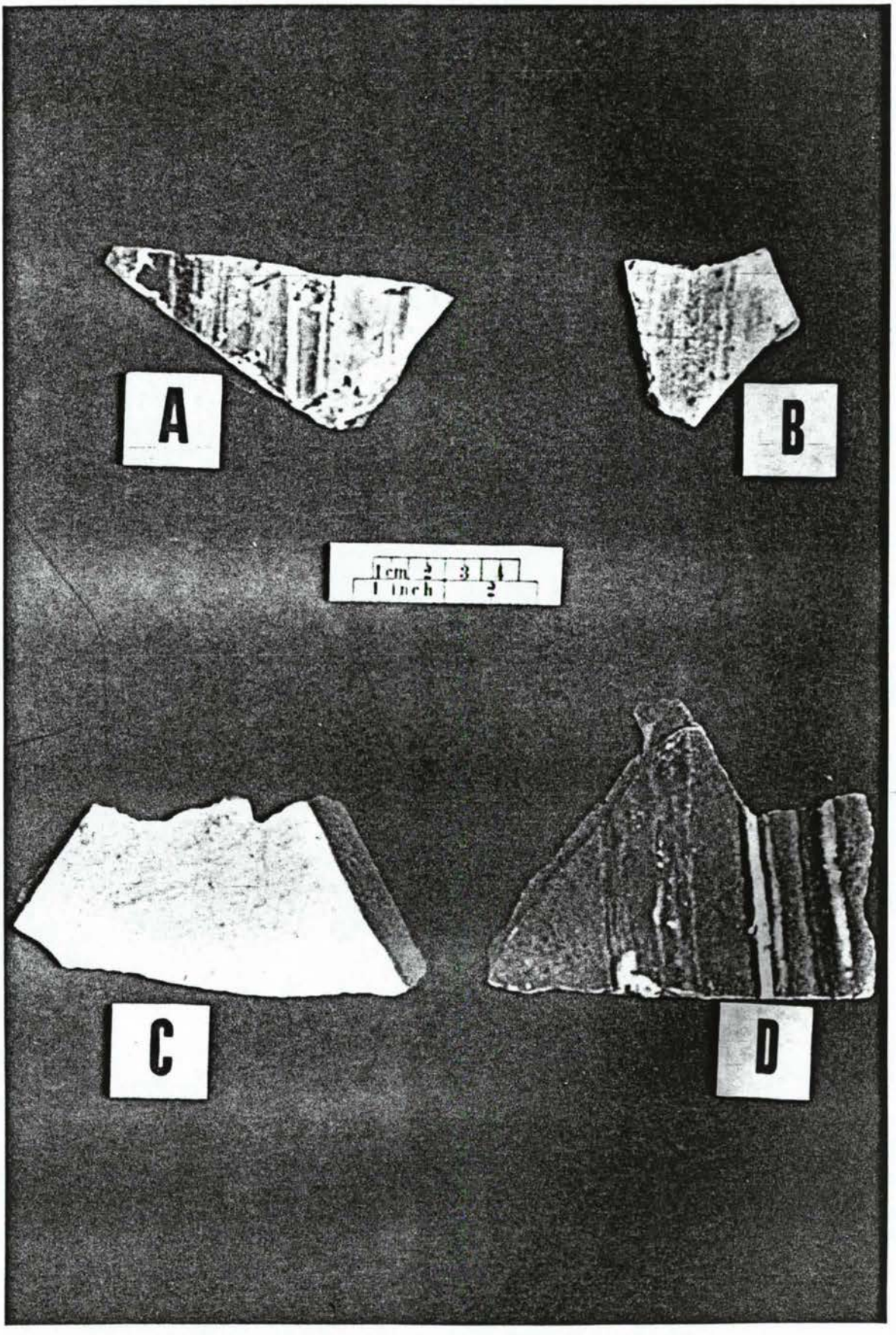


Fig. 4, a-d, Glass siege pot sherds.

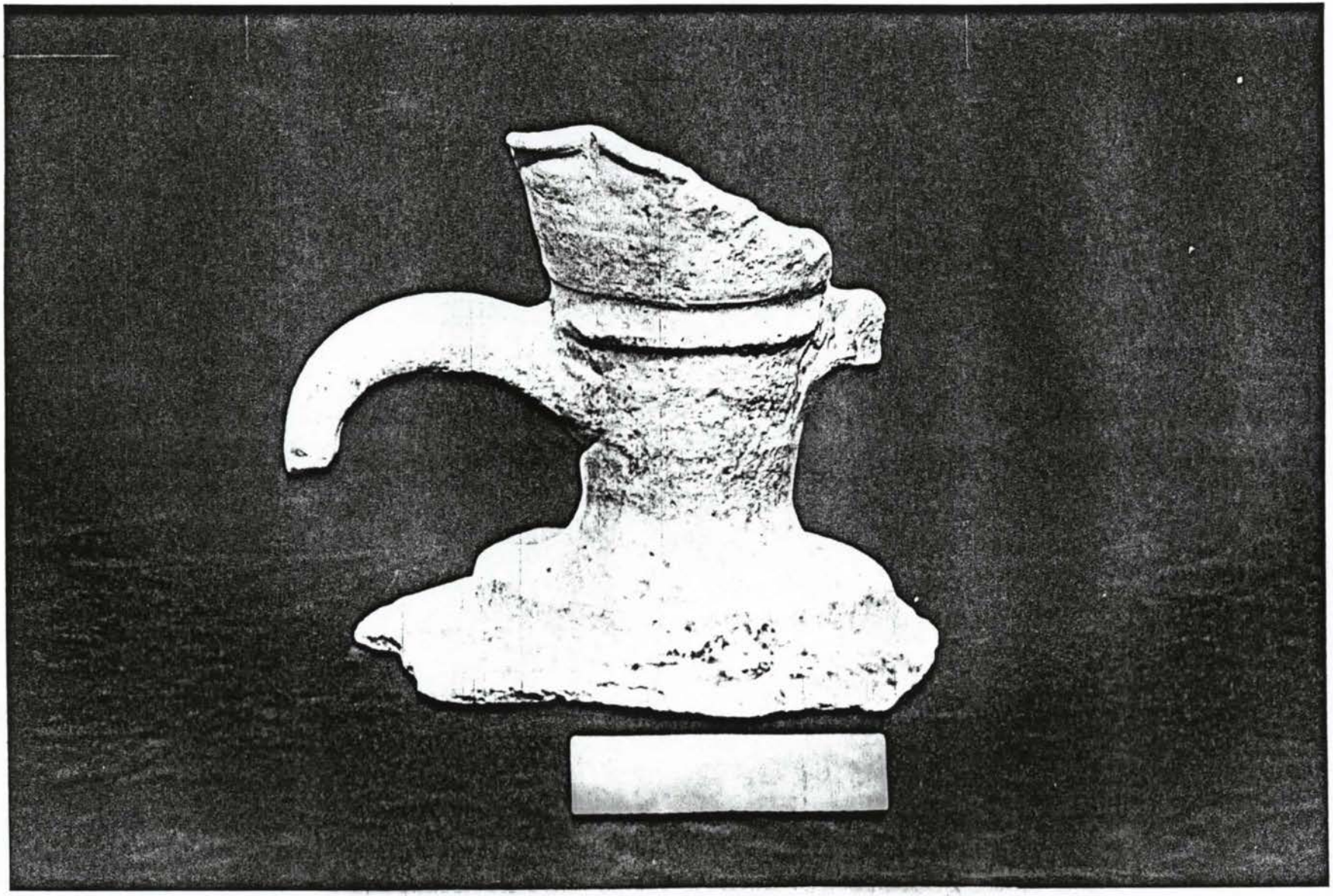


Fig. 5. Fragment of Mediterranean amphora.

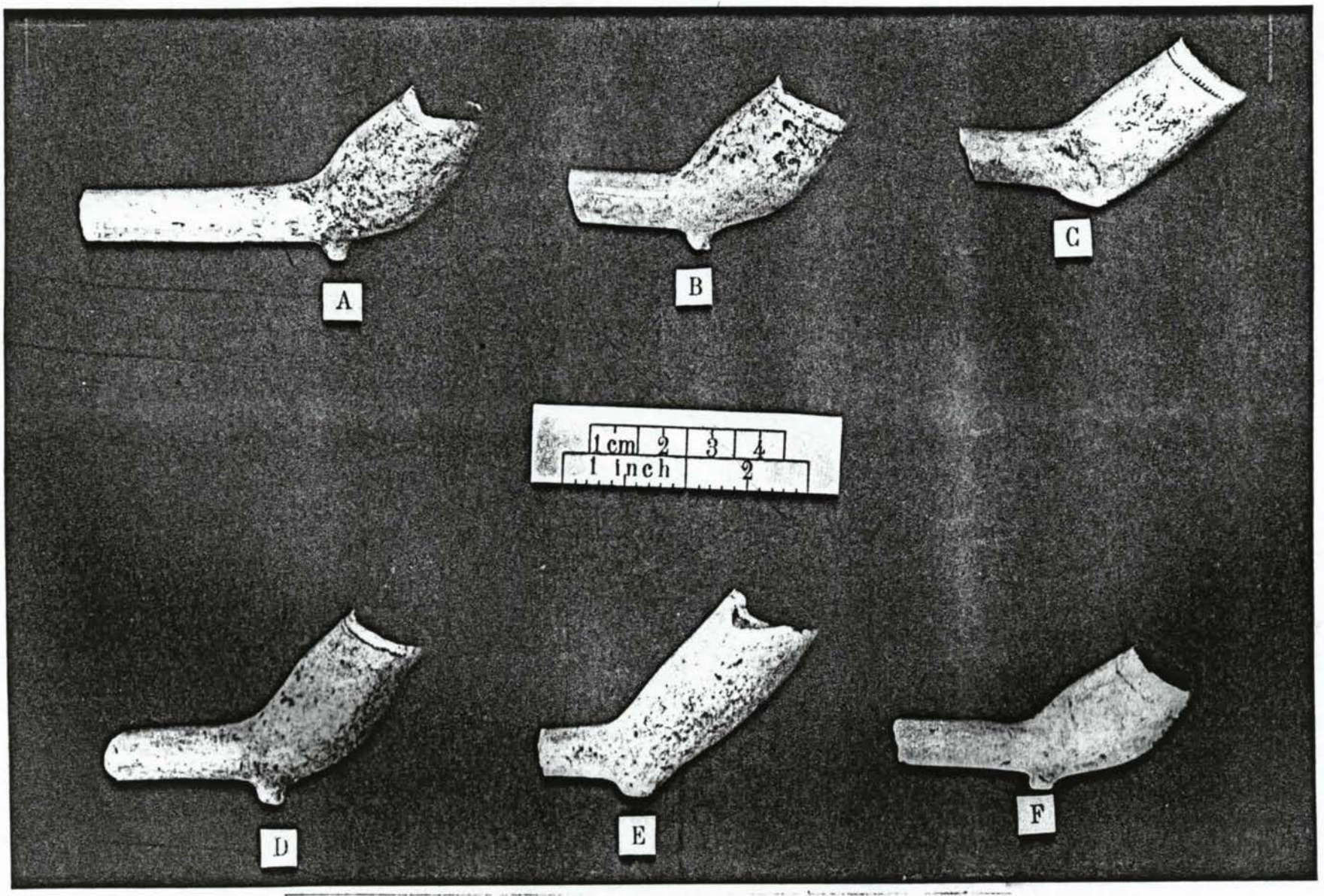


Fig. 6, a-f, Koalin clay pipe bowls, 1660-1680.

centuries were mingled with a Mediterranean amphora neck and other items illustrative of Britain's far flung trade. It is hoped that additional ballast sites will be investigated and their contents described. As the range of ballast-derived objects is defined we will be able to accurately assess the occasional sporadic exotic items that appear in coastal regions as evidence of this maritime activity rather than continuing to fuel the controversies about early and undocumented voyages.

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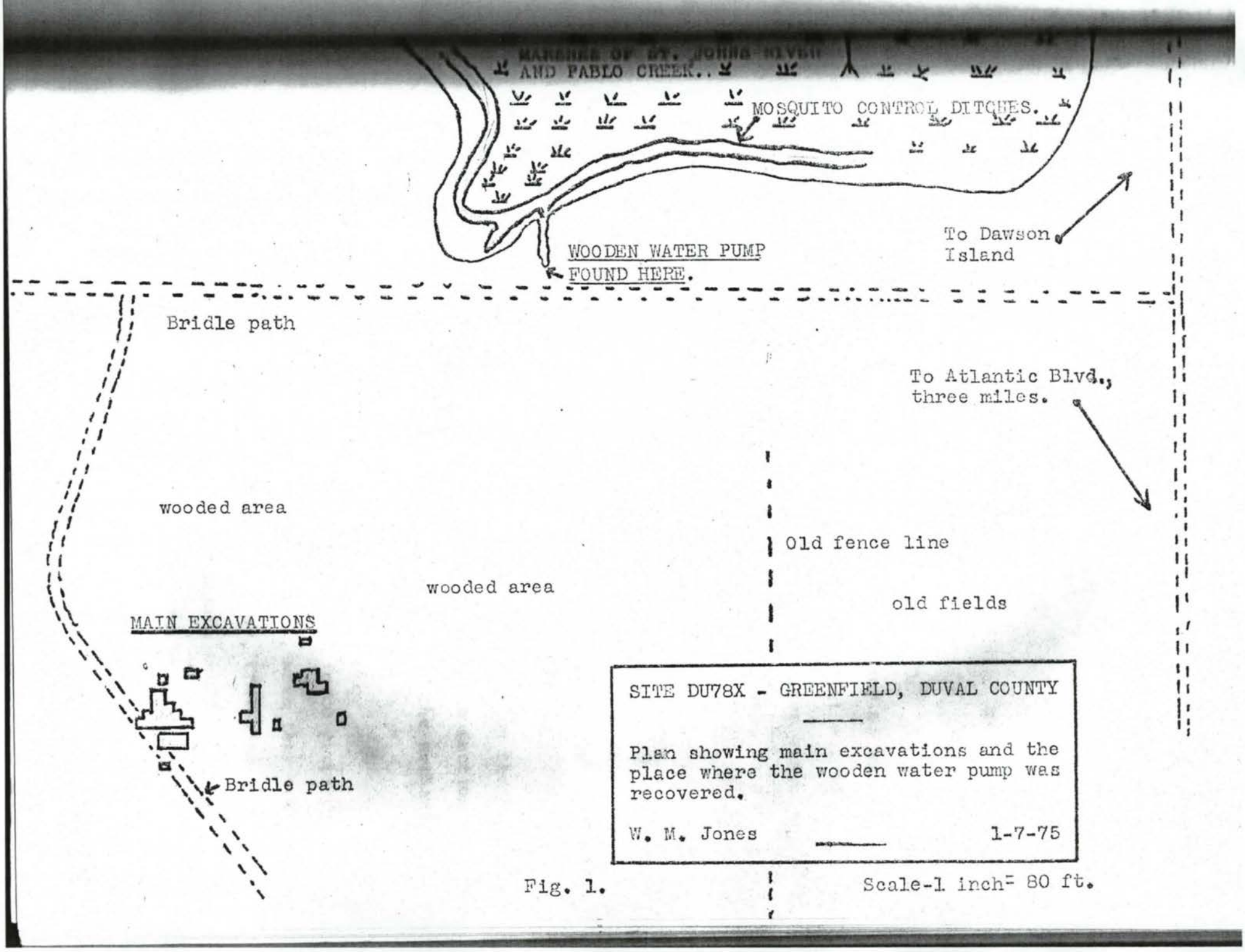
AN EARLY LOG WATER PUMP
SITE DU78X, GREENFIELD
DUVAL COUNTY, FLORIDA

by

William M. Jones

Jacksonville, Florida

May 11, 1976



SITE DU78X - GREENFIELD, DUVAL COUNTY

Plan showing main excavations and the place where the wooden water pump was recovered.

W. M. Jones 1-7-75

Fig. 1. Scale-1 inch= 80 ft.

AN EARLY LOG WATER PUMP
SITE DU78X, GREENFIELD
DUVAL COUNTY, FLORIDA

Description and History
of the Water Pump

According to Webster, the "pump" is defined as "any of various machines that force a liquid or gas into, or draw it out of something, as by suction or pressure." There are two basic types, the "lift" or "suction", and the "force" pumps, both of which are reciprocal in motion.

The lift or suction pump consists of a cylinder in which a piston moves up and down. Two valves are usually employed which open upward, allowing water to flow in that direction. The "foot valve" is located in the lower section of the cylinder, while the other valve is mounted directly on the moving piston. Since we are only concerned with the suction or lift type, it will not be necessary to explain the mechanics of the force pump.

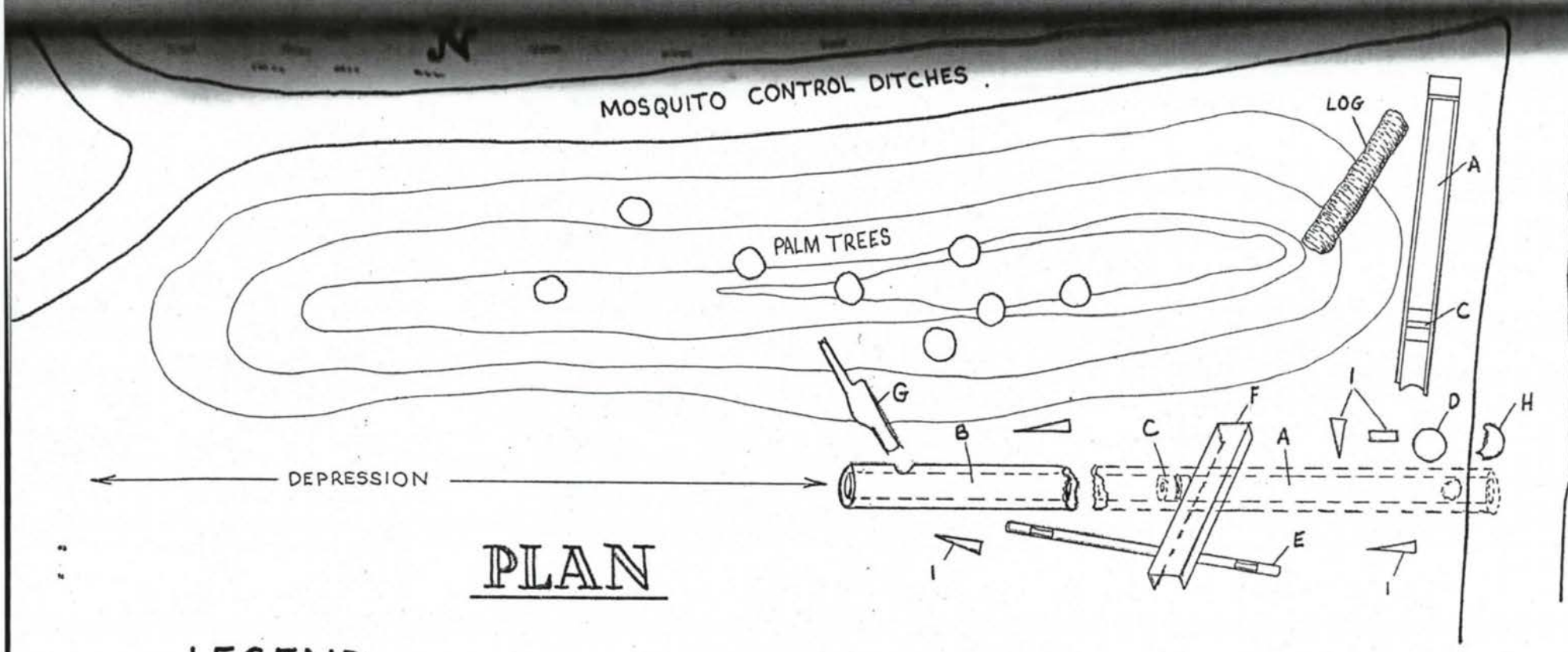
From an historical standpoint, the suction and force pumps both date as early as the second century B.C., when they were developed by the Greek physicist and inventor, Ctesibius of Alexandria. [1] In the middle of the sixteenth century, Georg Bauer Agricola of Saxony, said to be the founder of the sciences of mineralogy and geology, employed suction pumps in mining

operations in Bohemia. In his published work De re Mettallica (Bern: 1556), p. 135, [2] there appears a woodcut showing a suction pump that had been made from a tree trunk (Fig. 4). We are especially interested in this method because the pump we are going to discuss was made in a similar fashion.

The Log Pump and Other Artifacts

The log pump featured in this report was found in May, 1960, adjacent to historical site DU78X during the time it was being excavated (Fig. 1). At this same time, a mosquito control unit was digging ditches along the marshy shoreline in this region. After these people completed their project, we surveyed the nearby ditches and found a number of logs, tree limbs and other debris that had been removed from the mud along with the usual spoil. In the midst of this debris at a point northeast of the main excavations, the remains of the pump and other artifacts were found (Fig. 2).

The pump cylinder appeared in the form of a hollow log broken into two sections by the machine that was operating here. One of these sections that will be referred to as "A", had been placed on the side of the ditch while the other section referred to as "B", was still buried nearby (Fig. 2A and 2B). After



PLAN

LEGEND

A, B — CYLINDER SECTION

C — PISTON

D — PEWTER PLATE

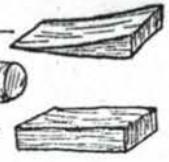
E — UNKNOWN PART

F — TROUGH

G — UNKNOWN PART

H — BROKEN DISH

I — WEDGES, PLUGS, BLOCKS



SITE DU 78X - GREENFIELD - DUVAL COUNTY SHOWING POSITION OF PARTS OF WOODEN WATER PUMP WHEN DISCOVERED. SECTION "A" OF CYLINDER, REMOVED FROM GROUND BY "DRAGLINE" WHEN DITCH WAS "DUG", WAS PLACED ON BANK IN POSITION SHOWN, LEAVING SECTION "B" OF CYLINDER IN GROUND. ORIGINAL POSITION OF SECTION "A" IS INDICATED BY DOTTED LINES. THESE SECTIONS WERE PROBABLY BROKEN BY SAME MACHINE. THE PISTON OF THIS PUMP, INDICATED BY "C", IS SHOWN IN POSITION IN BORE OF SECTION "A" AS DISCOVERED. FIFTY (50) WOODEN PLUGS, WEDGES AND RECTANGULAR BLOCKS WERE ENCOUNTERED THROUGHOUT AREA IN ADDITION TO A COMPLETE PEWTER DISH AND A BROKEN PLATE.

5/14/60 — 5/15/60

EXCAVATORS

W.M. JONES, J.E. SIMMS, W.H. SIMMS, C.G. POTTER, & C.H. JONSSON

R.L. HENDERSON.

FIGURE 2

removal, both sections of the pump cylinder and other wooden artifacts were immersed in a nearby pool of water so as to maintain them in their present waterlogged condition. The other artifacts that were found in contact with the pump cylinder are as follows:

a total of fifty pine wedges;

rectangular pine blocks;

oak and pine plugs, all of which varied in size (Fig 2I); it is doubtful these wooden objects were related to the log pump and the reason for their presence at this point is unknown;

another wooden object that appeared was a section of plank that had been cut in the "two forked" configuration, with one fork missing. It was probably made from a 5.1 cm. by 15.1 cm. pine plank, and was .91 m. in length. It may have been used as the piston rod in this pumping system (Fig. 3);

a pine plank with rectangular slots near each end, and measuring 5.1 cm. by 15.1 cm. by 1.81 m. in length. It has not been identified (Fig. 2E);

a complete wooden trough made of pine measuring 1.4 m. in length, and 28 cm. wide inside. It was constructed of 5.2 cm. thick planks with the mark "XIIII" showing on one side. This is an assembly mark used by early builders.[3] This trough was likely placed under the pouring spout of the pump to carry excess water from the immediate area (Fig. 3);

an oak "collar", measuring 8.21 cm. in length by 12. cm. wide on one end, and slightly smaller on the other. Nail or tack holes were in evidence on the larger end, and a 1.255 cm. wide groove appeared around the middle. It was found inside

the bore of cylinder section "A", and could have been either the piston, or part of the foot valve assembly;

two odd shaped oak blocks[4] measuring roughly 7.6 cm. wide by 4.53 cm. thick. Nail or tack holes show on one flat side of each block, with facets cut around the edges (Fig. 3). We assume these blocks were used as check valves in a manner that will be discussed;

one complete 25 cm. diameter pewter plate with an obscure hall mark on the bottom that resembles a crown over the Roman X;

one large and one small fragment of a creamware vessel. The presence of this ware is important because it relates to nearby site DU78X which produced the same type ware in quantities.

Description of the Log Pump

As we stated earlier, the log pump cylinder had been broken into two sections by the dragline that exposed it. Placing the two jagged ends together as best we could, the cylinder totalled a length of 4.56 m. with a diameter of 30.53 cm. at the top and 20.51 cm. at the bottom, and was made from a cypress tree trunk. In early England the elm tree trunk was selected for the purpose.[5]

The log cylinder had been drilled throughout its length, with a 12.55 cm. bore in the top section, a 12 cm. bore in the middle section, and a 8.2 cm. bore in the bottom section. A pine plug had been driven into the bore at this point (Fig. 3).

The water intake holes were 5.1 cm. in diameter and were bored through the sides near the bottom of the cylinder in the fashion shown in Figure 3. The outlet was a 10 cm. hole bored through one side near the top of the cylinder and in which a pouring spout was likely placed(Fig 3).

Directly opposite the outlet hole a flat place had been mortised in the outside wall and from which protruded two "treenails", and several rusty wrought iron nails (Fig. 3). The pump handle could have been anchored at this point, or the cylinder may have been secured to a supporting surfact with the treenails.
SURFACE

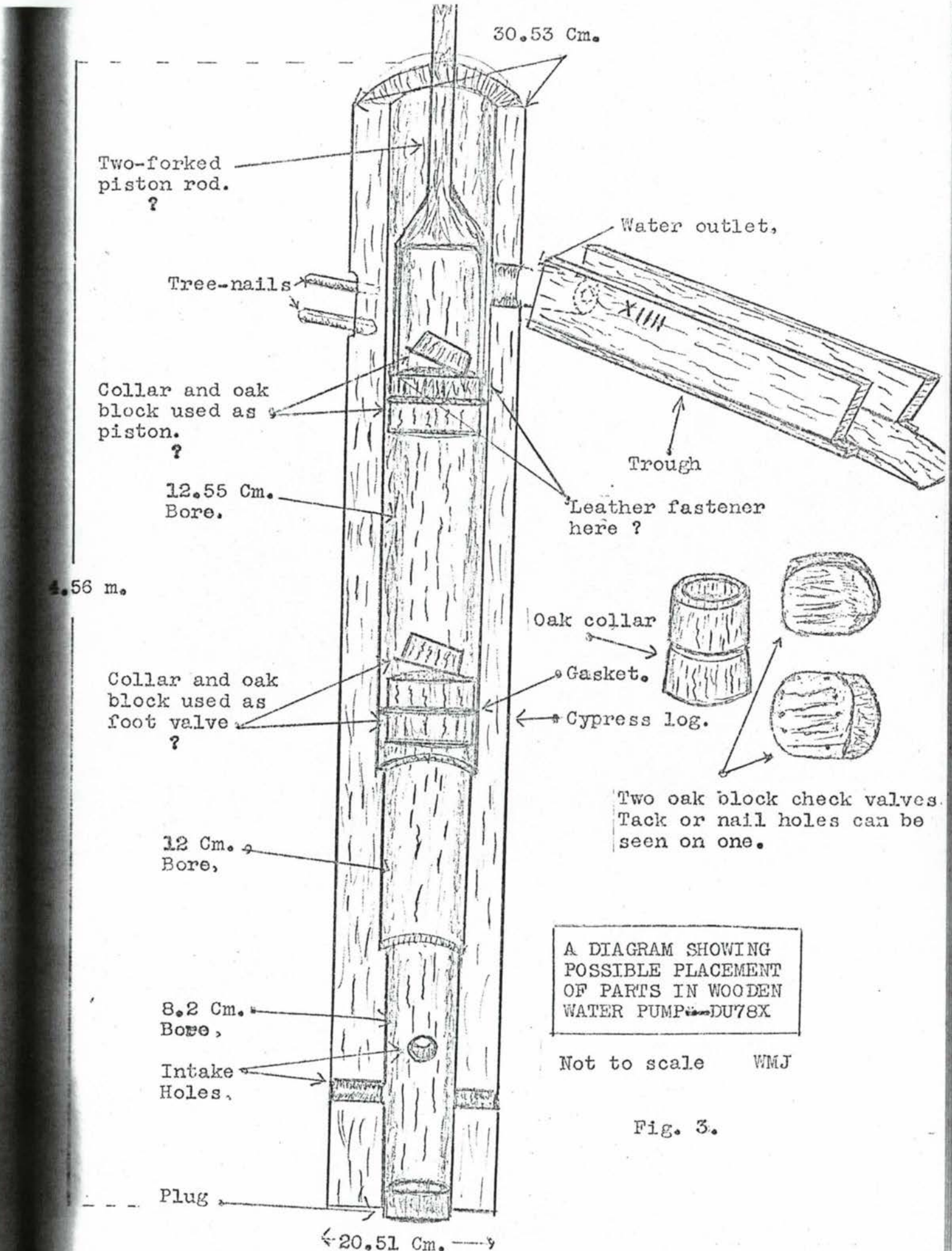
As we mentioned earlier, the log pump here was the suction type that employed a moving piston and check valve in the upper bore of the cylinder, and a foot valve in the lower section. It is quite likely the oak collar and oak blocks with tack holes appearing on one surface, were used as one or the other, as we shall explain below.

We concluded that one of these blocks, with leather attached, was fastened on top of the oak collar so the leather would serve as both hinge and gasket in the style of the "swing valve", allowing water to flow upward only. In addition, the groove situated around the middle of the collar would have held a gasket so water would be forced through the open collar and check valve.

As stated above, the oak collar could have been used as either the piston or as part of the foot valve assembly. It is quite likely, however, that it served as the piston because it was found resting in the upper 12.55 cm. bore, and has a width of 12 cm. which is just enough tolerance to allow unimpeded movement during the pumping cycle, (Fig. 3). This would not be possible in the lower sections of the cylinder because the bore diameters are smaller and would not allow freedom of movement.

Just how the piston rod could have been connected to the top of the collar in a manner that would not restrict movement of the check valve, is not known. In this type of pump, there are two accepted methods of doing this. In one, the piston rod connects to the center of the piston with two or more valves mounted on either side. In the other method, the rod is equipped with a yoke that extends out to the edges of the piston, allowing the check valve to be mounted in the center. The two-forked section of wood found on the site may have served as the rod in this instance (Fig. 3).

On the other hand, if the collar <u>had</u> been used as the foot valve assembly, it would have been a simple matter to push the collar down in the bore to its resting place, which in this case



A DIAGRAM SHOWING POSSIBLE PLACEMENT OF PARTS IN WOODEN WATER PUMP—DU78X

Not to scale WMJ

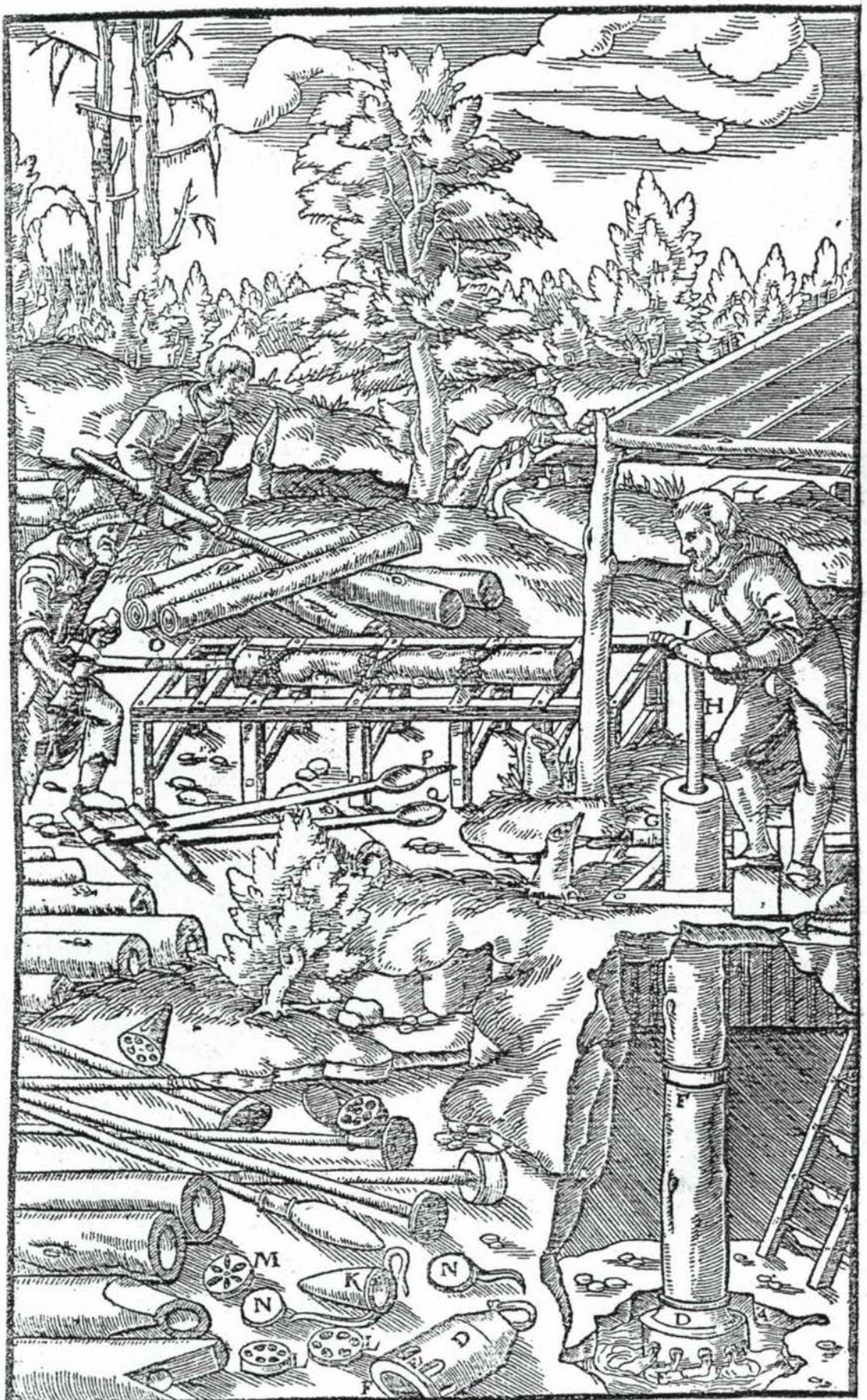
Fig. 3.

would have been where the 12.55 cm. bore reduced to 12 cm. (Fig. 3). Once the wooden parts and leather gasket became waterlogged and expanded, it is doubtful the collar would move during the pumping cycle. There is an early sketch that shows a foot valve very much like the one above.[6]

At this point, we are unable to explain how the remaining oak block was used. It is obvious it was equipped with a leather gasket similar to the other block, but how it could have been installed in the cylinder bore to act as a valve, escapes us. Possibly some moving parts are missing from the site inventory.

Suction pumps such as the one in this report must be equipped with a strainer[7] on the bottom of the cylinder, or the cylinder must be mounted in a "sump" so as to prevent sand and organic materials from being drawn into the bore with the incoming water. It is likely the log pump was mounted in a sump on this site.

In early times, log pumps and log pipes were bored by hand in the manner shown in Agricola's drawing in Figure 4, or they were bored using water power. The first boring was usually done with a small "pod auger" which established a "pilot hole" throughout the log. Larger pod augers were then used to increase the size of the bore to the desired diameter, which was about 12.55 cm. These augers may also be seen in Agricola's drawing.



A—Sump. B—Pipes. C—Flooring. D—Trunk. E—Perforations of trunk. F—Valve. G—Spout. H—Piston-rod. I—Hand-bar of piston. K—Shoe. L—Disc with round openings. M—Disc with oval openings. N—Cover. O—This man is boring logs and making them into pipes. P—Borer with auger. Q—Wider borer.

Fig. 4.

The log pump from DU78X had three diameter bores starting with 12.55 cm. at the top and graduating down to 8.2 cm. at the bottom. This was probably the results of the boring procedure. It was noted that the wall of the 12.55 cm. bore was exceptionally smooth with no decernable imperfections. It must have been bored with a very sharp and efficient tool.

When we found the pump located along the shoreline of the salt marshes we were skeptical of the idea of pumping fresh water under such conditions, and dug a test hole that soon filled with water. An assay was done later by flame photometry, and it was found that the water from the site contained less sodium chloride than the domestic water of nearby Jacksonville, Florida.[8] The soils here were also checked, and were found to be typical of the "Ridgeland Series".[9]

Site DU78X

Site DU78X was found during the year 1957 by William M. Jones and a group of volunteers (Fig. 2) from the Jacksonville area. Later, it was excavated by Jones and the same group under the sponsorship of the late Dr. John M. Goggin of the University of Florida.

Among the many artifacts that were found on the site were 3044 fragments of ceramics that included Creamware, delftware, white

salt glazed stoneware, scratch blue salt-glazed stoneware, and other types that all belong to the eighteenth century. The only nineteenth century wares were several bits of edged pearlware and banded ware. The remainder of the recovered artifacts will not be discussed since this report deals mainly with the log pump found nearby.

As the excavations progressed and materials were brought to light, Goggin theorized the site belonged to the British period, 1763-1783. As time passed, however, it became evident the site was established during the second Spanish occupation, 1783-1820. There were several reasons for this last conclusion. Site DU78X is located on a peninsular that is bounded on the west by Greenfield Creek and marshes, on the east by Pablo Creek and marshes, and on the north by the St. Johns River and its marshes. During Spanish times this area was known as "Punta del Cano de San Pablo", and approximated one thousand acres.

According to the Spanish land grant records, Robert Clarke Maxey of South Carolina, settled in this area in 1791 with his family and slaves, a total of nineteen persons. Later, he received this one thousand acre tract as a grant from the Spanish government.[10]

According to the same records, Maxey lived on and improved the Punta de San Pablo Creek lands for the following thirteen years or until 1804, when he sold the tract to John McQueen. McQueen,

in turn, conveyed the tract to George Taylor the following year.

In addition to the above evidence, an early map of this region [11] shows Maxey's name on the north end of the peninsular, near site DU78X. Also, a Spanish one real milled silver coin dated "1780" was found. The appearance of this coin might place this site in a later period than the English occupation, since the coin would likely circulate some time before it reached this remote area. The recovery of several fragments of edged pearlware and banded ware would suggest some activity here during the very early nineteenth century.

In view of the above evidence we may reason that site DU78X was occupied during the second Spanish period and represents the dwelling house of the Punta del Cano de San Pablo Plantation of Robert C. Maxey. We may also conclude that the log water pump, found nearby on the marsh, was part of that complex.

According to a deposition by Jan Eduardo Fate on May 17, 1821,[12] Robert C. Maxey, a lieutenant in the Spanish militia, died at "Small Hope Plantation", the home of his son, Peter Maxey. Today, the site of his San Pablo dwelling and the log pump are covered with a thick growth of trees and brush, and other than a few bits of tabby scattered about, there are no signs of an early occupation.

In conclusion, we regret our failure to find any early sketches

or information that might have explained the function of the many unidentified objects found with the log pump cylinder. No doubt some of the objects were thrown into the marsh to dispose of them, while others were likely part of the log pump system.

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A BRITISH PERIOD WATER SAWMILL
FLAGLER COUNTY, FLORIDA

By

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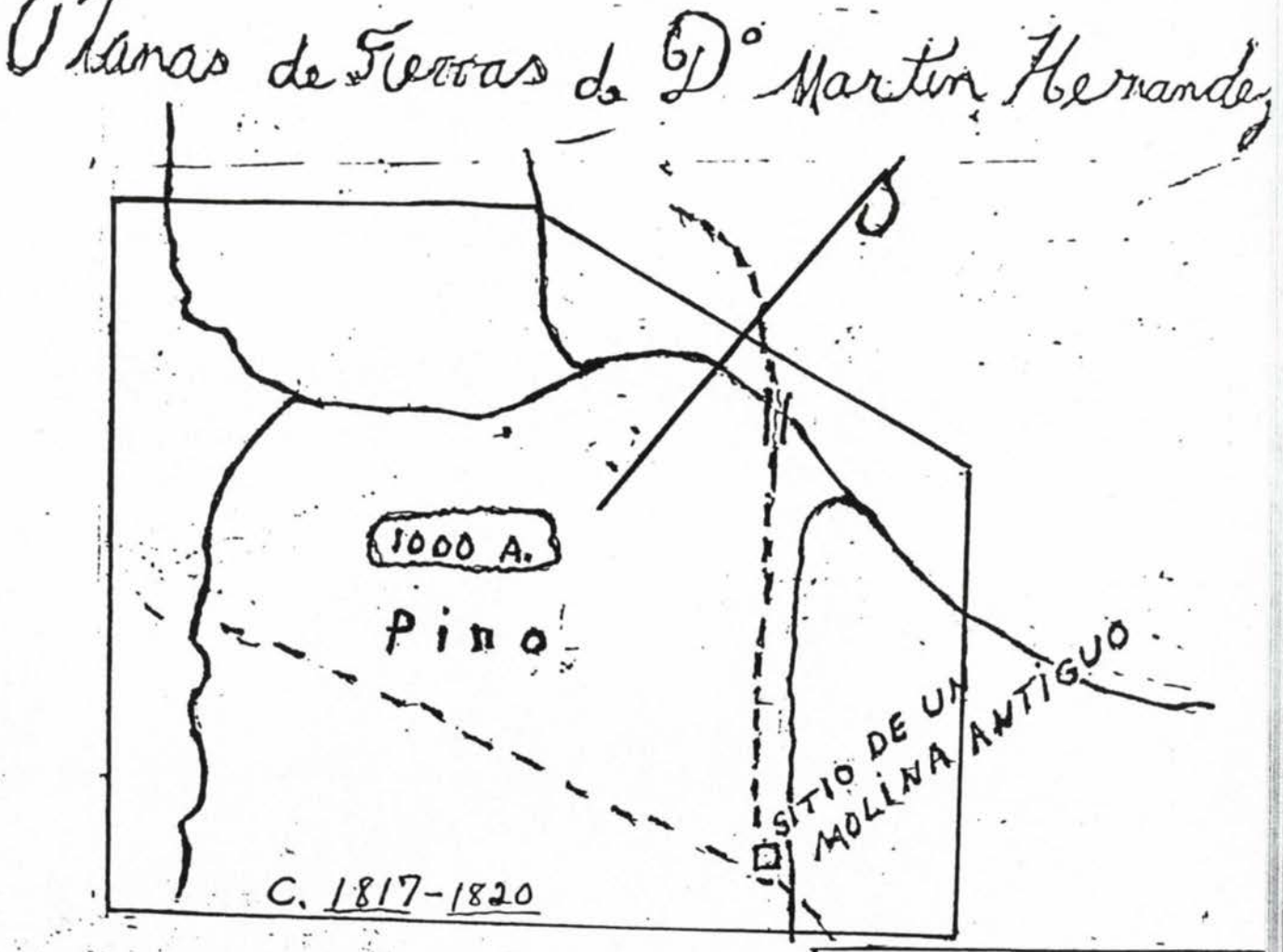
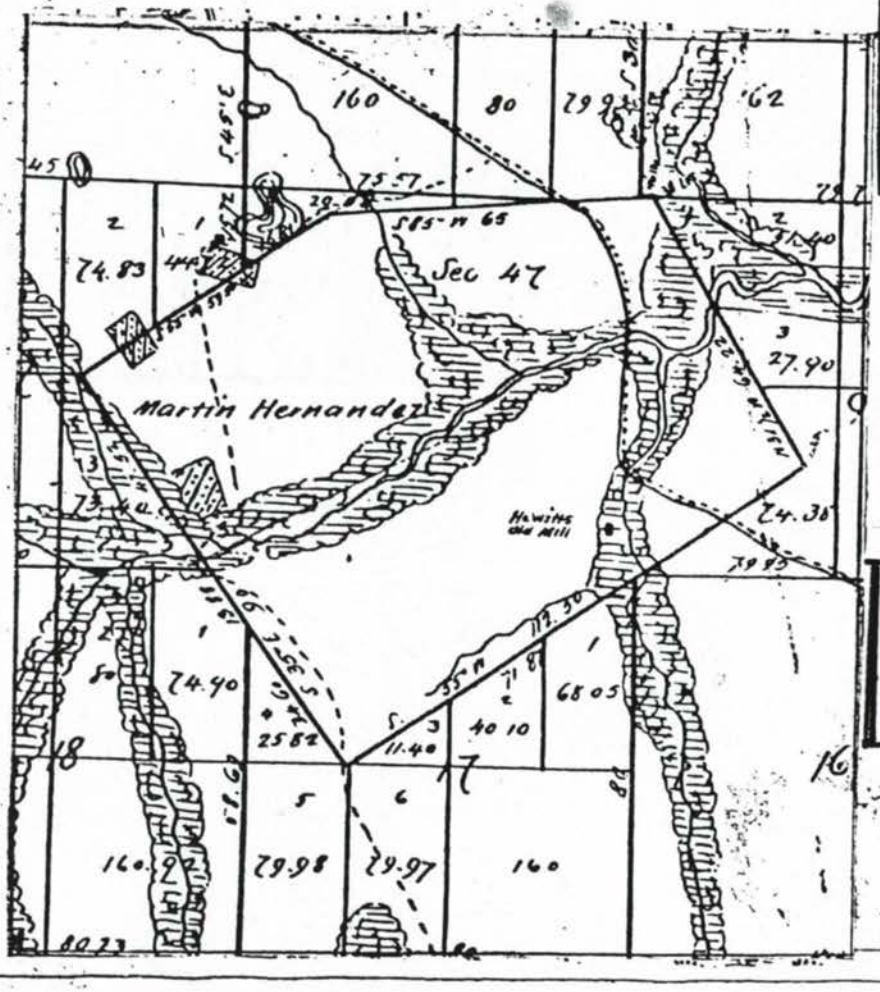
June 15, 1981



Spanish Map of Martin Hernandez grant showing Site of an Old Mill.



Clements Survey Map of 1834 showing "Hewitts Old Mill".

Figure 1.

ACKNOWLEDGMENTS

We must take this opportunity to thank the many people who assisted with this project. First, William F. Oliver, of ITT Rayonier Inc., who gave us permission to excavate the site.

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We owe special thanks, however, to Frank Tiller and John Simms, who worked with us during the entire three year period. Without the help of these two people, the project would have been abandoned for lack of sufficient help. The working conditions on this site were horrendous, and would have discouraged many others.

A BRITISH PERIOD WATER SAWMILL
FLAGLER COUNTY, FLORIDA

Introduction

During the late 18th and the early 19th centuries, several water sawmills were established along the Old Kings Road, ranging from the Jacksonville area to the region South of St. Augustine.

The Fredrick Rolfe Mill,[1] built on Trout Creek near present day Dinsmore, and the Hewitt Mill, built on Pellicer Creek 18 miles South of St. Augustine, were constructed during the British period, 1763 - 1783. The Eusebio Bushnell Mill[2] on Moultrie Creek, and the William Mills Mill[3] on Mulberry Creek, were built during the second Spanish period, or around 1804. Both of these mills were situated South of St. Augustine.

Of this group, the "Hewitt Mill" is the one we are concerned with and as the name implies, was likely built by "John Hewitt", a citizen of St. Augustine during the British occupation.

Hewitt, who came to St. Augustine around 1768, owned seven parcels of land including 1300 acres and a house, on a branch of the Matanzas River (Pellicer Creek).[4]

The site, situated on a tributary of Pellicer Creek known as "Hulett Branch" (sic), is mentioned on several maps of the 19th century. Clements survey map of 1834 lists it as "Hewitts Old Mill";[5] McClelland's survey map lists it as "Hewlitts Mill"[6] (sic); and a Spanish survey map of around 1820, refers to it as "Sitio de un Molino Antiguo"[7] (Site of an Old Mill). (Figure 1).

As early as 1769, William Gerard de Brahams, Surveyor General for the British, pointed to the Hulett Branch area as a

"Fit Place for a Mill".[8] De Brahams was justified in this statement since the banks on either side of "Sawmill Swamp"[9] rise to a height of around 3 to 4 m., thus creating an ideal situation for a mill dam.

When the first field party arrived on the scene in June, 1977, the only visible signs denoting early activities, was an earthen dam traversing the swamp, two borrow pits, and the ruins of a structure. During the following months, the site was surveyed resulting in the discovery of a trash pit, a buried wooden platform, (Figure 7) and a number of metal artifacts.

Since the site is an industrial complex with some evidence of domestic activity, this activity will be dealt with briefly, followed by a description of metal objects and other artifacts. The earthern dam and mill machinery will then be discussed.

DOMESTIC ACTIVITY

Evidence of domestic activity in the region West of Sawmill Swamp appeared in the form of a ruined structure, situated 32 m. Northwest of the dam. At the present time the ruin shows as a low mound of soil, coquina and tabby; and is identified on the "Plan of the Site" as structure "A" (Figure 7).

On July 23, 1977, tests were conducted on the South fringes of the ruin, resulting in the recovery of 18th century ceramics, wine bottle fragments, and a number of wrought iron nails. In view of these encouraging finds, a 6 x 9 m. grid was established in such a manner as to encompass the ruin. A total of nine 1.52 m. squares were then opened down to undisturbed soil (Figure 2).

followed by vandalism. Two old excavations are present, one in the center of the ruin, and the other near the South side. In addition, tabby and coquina is scattered over a much larger area than was ever encompassed by the original building.

Since most of the artifacts are of British manufacture of the late 18th century, and because they are of a domestic nature, we may conclude this ruin represents the remains of a dwelling house of the late 18th century. Because of its proximity to the Hewitt site, it is likely part of that complex.

The only other signs of domestic activity appeared on the East side of the swamp, where refuse pit "C" was located 27 m. Northeast of the mill dam. The materials found here are similar to the ones recovered at the dwelling house West of the swamp.

Ceramic fragments numbered 12 that included: delftware; white saltglazed stoneware; and slipware. White saltglazed stoneware was the dominant ware at this place. Only two bits of glass were found along with a trade bead.

Building materials were found in the form of eight fragments of red brick and one partially burned bit of wood.

Two metal artifacts were recovered, one of which was a pair of octagon shaped cuff links, 1.3 cm. diameter, with a floral design on each button. The other metal object consisted of an oval button 2.6 cm. in diameter, with a "sun-burst" decoration in the center.

A refuse, or trash pit, such as above should indicate the presence of a nearby dwelling house, but since there were no visible signs in the area, additional research would be needed in

order to arrive at some conclusion.

METAL TOOLS AND ARTIFACTS

The majority of metal tools and artifacts were found East of the swamp. Some of these were recovered near the buried wooden platform and the dam, while others were found scattered over a large wooded area Northeast of the dam. These objects were found with a radio metal detector, and the areas in which they were recovered will be designated "1 through 8" on the Plan of the Site (Figure 7).

AREA 1, near the East end of the dam: one "cold chisel" was found that measured 2.3 cm. in diameter, and 22.5 cm. in length. This item is badly deteriorated.

AREA 2, also near the East end of the dam, produced a cast iron collar, or "hub", 8.8 cm. in length, with an inside diameter of 12 cm. on one end, and 12.3 cm. on the other. Two flanges, or "keys" extend out 1.5 cm. on opposite sides. This collar or hub, could have been the device used to mount the pit wheel on the axle of the water wheel (Figure 4 E).

AREA 3, located in the place designated as the "millrace", produced a 4 mm. thick metal plate with a diameter of about 35 cm. This plate is octagon in shape and has a 1.8 cm. hole drilled in each squared corner. An opening also appears in the center and measures 12.5 cm. square. This plate is probably part of the mill machinery, but has not been identified.

AREA 4, also in the millrace, produced a tool thought to be a "Bark Spud" similar to the ones featured in Eric Sloan's "Museum

of American Tools".[10] It measured roughly 53 cm. in length. The bark spud was used to remove bark from a log. There is also the chance this tool could have been a "Dipping Spoon" that was used to remove gum from a "Boxed Tree". A number of old boxed stumps still stand in the swamp. The boxed stumps do not relate to Hewitt's Mill and fall in a much later time period.

AREA 5, located about 10 m. Northeast of the dam, produced a total of seven metal artifacts:

1. Two "clasp knives" that measured 8.7 and 10.7 cm. in length respectively. When recovered they were in very poor condition.
2. The other metal objects consisted of five sections of a toothed bar that is used in a "rack-and-pinion" arrangement (Figure 4 C). These bar sections will be discussed later since they are considered to be part of the automatic feed system on the sawmill carriage.

AREA 6, located near the buried wooden platform, produced four metal objects:

1. One "gimlet-pointed" two blade auger. Since only the lower part of the auger was recovered and the shank is missing, it would be difficult to determine whether it was turned with a cross-bar handle, or one of the early braces. The diameter of the auger is 2.2 cm., or 7/8 of an inch.
2. Three wrought iron "timber dogs" were found. The first two measured 9 cm. and 23 cm. (Figure 4 D) in length respectively, while the third was fragmentary. These devices were used to "dog down" a timber or plank being worked.[11]

AREA 7, located 41 m. Northeast of the dam produced 55 metal

objects:

1. A wrought iron bolt and nut (Figure 3 D). This bolt is 2.2 cm. (7/8 inch) in diameter with right hand threads that number 10 per 2.6 cm. (1 inch). The modern bolt of this diameter has 11 threads per 2.6 cm. (personal communication, Lewis E. Cheatham, Master Machinist, Jacksonville, Florida).

2. A wrought iron poless broadaxe, weighing three pounds. This axe measures 22.5 cm. in length, with a width of 17 cm. at the cutting edge. One wall of the hafting hole is missing. No marks appeared (Figure 3 A).

3. Four wrought iron horseshoes. These shoes were compared with modern shoes and appeared to be similar, with the exception most modern shoes are cast rather than being hand wrought. Three of the shoes had four nail holes on both sides, while the remaining shoe had three on one side and four on the other.

4. One rabbit plane blade measuring 13 cm. in length, and 5.2 cm. in width. The lower half of the blade is split into two sections in order to make two simultaneous cuts. The top end of the blade is slightly mushroomed indicating it was struck with a hammer, likely to set the desired depth of cut (Figure 3 B).

5. One small wrought iron "timber dog", measuring 11 cm. in length, and 1.5 cm. square (Figure 3 G).

6. One wrought iron staple measuring 5 cm. in length and 4.5 cm. in width.

7. One wrought iron object thought to be a "barking iron". It is equipped with an iron cross-bar handle and a flat curved shank that extends outward 18 cm. to a cutting edge with raised lips on

either side (Figure 3 C). This tool is similar to the barking irons featured in Eric Sloan's "Museum of Early American Tools".[12]

8. A triangular shaped cast iron deck flange with bolt or screw holes in each corner, and a 2.2 cm. diameter in the center. The flange measures 7 cm. in width. Its purpose is unknown.

9. A wrought iron "eye-hook", 15.5 cm. in length. Hooks of this type were often fastened to the middle of a "singletree" or "doubletree" related to horse drawn devices such as a drag-scoop or plow (Figure 3 F).

10. A wrought iron pin with rounded head on one end, and a slot near the other designed to receive a key or wedge. It measures 9 mm. diameter and 7.7 cm. in length.

11. One section of toothed bar similar to the others recovered in Area 5 (Figure 4 C). As stated earlier, these bars will be discussed later in this report.

12. One unidentified object of wrought iron. Appears to have been a tool of some kind and measures 13 cm. in length and 5.5 cm. in width. It is split on one end as though to receive a steel cutting edge, and has a head on the other end likely designed to be struck with a hammer or mallet.

13. Thirty-four 18th century wrought iron nails and spikes ranging from 4 cm. to 13 cm. in length. Among this group the following types were detected: Headless; Rosehead flat; and the Rosehead sharp.

14. Eight 19th century cut nails were also recovered in this area ranging from 4.5 to 10.3 cm. in length. It should be mentioned here that a number of these nails had been driven into

the trunk of a dead oak tree nearby.

15. A total of eight unidentified metal objects were also recovered with the above artifacts. Several of these could be cast iron stove fragments.

AREA 8, located 10 m. North of the West side borrow pit, produced a total of 15 metal artifacts:

1. A wrought iron pin 37.5 cm. in length and 15mm. diameter. Has a rounded head on one end and a slot near the other end designed to receive a key.
2. One wrought iron staple 7.5 cm. long, with three links of 6 mm. chain attached.
3. Eleven links of 9 mm. wrought iron chain, all connected.
4. One wrought iron stape 8 cm. in length.
5. One wrought iron gate pintle, 9.5 cm. in length.
6. Four 18th century wrought nails in very poor condition.
7. Three 19th century cut nails.
8. Three unidentified scraps of metal.

As stated earlier, the majority of metal tools and other artifacts were found Northeast of the mill dam. Because of this concentration of tools and other metal objects, a group of utility buildings likely stood in this area.

The 19th century cut nails, and the fragments of a cast iron stove found here, are out of context and not related to the Hewitt Mill. Since there are a number of old "boxed" stumps still standing in the swamp, we may surmize there was a turpentine and/or timber operation here during the late 19th century.

THE EARTHEN DAM

The Hewitt dam was constructed across Sawmill Swamp and Hulett Branch in such a manner as to attain the height of water needed to power the mill wheel at this place. At the present time the dam has a total of five "breaks" or "openings", and two "doglegs" that extend outward in a Northerly direction (Figure 7). The total length of the dam including the doglegs is approximately 144 m., and the present height about 2.43 m. (8 feet) above the swamp floor, and 3 m. (10 feet) above the buried floor.

For purposes of identification, the openings in the dam have been designated "D through H" on the Plan of the Site (Figure 7). Openings D, E, and G are probably "washouts", or places where water escaped over the dam. Opening F, located at Hulett Branch was part of the "spillway" that was employed to control the water level in the mill pond. The remains of the cofferdam and various worked timbers were found on the creek bed at this point.

Opening H, near the East end of the dam, has been identified as the place where the water wheel and related machinery were mounted. Evidence appeared here in the form of metal artifacts and a wooden floor buried nearby. Of the two existing doglegs, the one on the East end of the dam, worked in conjunction with the millrace, and the one on the West end of the dam cannot be explained at this time (Figure 7).

The borrow pits from which soil was taken to build the

dam, are quite large. The one situated East of the swamp measured 41 m. in length, 10 m. in width, and 3 m. in depth. The pit located West of the swamp is somewhat smaller and is almost circular in shape. It measures 22 m. in diameter and 4 m. in depth at the lowest point (Figure 7). Dams of this size were probably built with the aid of horse-drawn scoops.

THE MILL FOUNDATION

As we stated earlier in this report, the first group of workers to arrive at Hewitt's Mill Site found that with the exception of the earthen dam built across the tidewater swamp, there were no visible signs denoting early industrial activity.

Several months later, however, the structural ruins of the mill were discovered resting under 45.78 cm. of mud and water, adjacent to opening "H" in the dam (Figure 7). The condition of the site was such that in addition to the ruins being buried under mud and water, trees and cypress knees were found growing above the ruins.

We soon found that it was impossible to dig test holes until the water level over the site was lowered to a reasonable depth. We, therefore, reopened the still existing No. 2 Tail Race (a ditch) leading to Hulett Branch and succeeded in drawing the water level down to within 10.16 cm. above the ruins. During the following three years we spent on the site, the water remained at that level, or higher, depending on the water level in Hulett Branch, a tidewater stream.

After the water had been lowered to an acceptable level,

work was initiated on the buried ruins. During the time spent on the site, the North and South sections of the structure were cleared of a number of cypress knees, trees, and mud, revealing the presence of the planked floor and a number of hewn timbers (Figure 8).

The entire ruin appeared in the form of a rectangle that measured around 15.55 m. in a North-South direction, and 5.63 m. wide in an East-West direction; and represents the foundation that supported Hewitt's Mill house. We found to our surprise that the floor did not cover the entire ruin, but only extended a distance of 12.19 m. from the North end (Figure 8). The structural details of the entire works will be dealt with later in this report.

ARTIFACTS FOUND IN THE RUINS

During the same period of time that the foundations were being cleared, a large number of mill related artifacts were recovered. These consisted of both metal and wooden objects and are listed below:

A large "cant hook" that measured 1.79 m. in length, 10 cm. thick on the lower end, and 5.5 cm. on the upper end. This tool was equipped with a wrought iron hook, and handle that appears to have been made from a pine sapling. Cant hooks are used as levers to move heavy logs into position (Figure 4).

The next object recovered was an oak arm with a wrought iron "pawl" extending out from one end. This device was 1.37 m. in length overall, and was equipped with a mortised opening near one end. This device was part of the automatic feed system in Hewitt's

mill, and was used to engage the ratchet wheel (Figure 9 S).

Two related objects were found that consisted of a rolled iron plate almost half round in shape, with numerous drilled holes. This plate measured 1.04 m. in length, and 31.8 cm. at the widest point. The other metal object was a cast iron weight, quarter round in shape, and designed to be mounted on the above rolled plate. It should be mentioned here that the mounting plate was drilled in such a manner as to accept two of the above weights, but unfortunately, only one was recovered (Figure 6).

The last tool to be found in the ruins resembled a wrought iron paddle with two slots on either side. It was eventually identified as an 18th century "Saw Wrest", or "Saw Set" (Figure 5) (Thomas N. Tully, Smithsonian Institution, Washington D. C., and Fred Blyer, Sawmill Operator, Jacksonville, Florida). This tool, as the name implies, was used to set the teeth on early sash saws, and measured 29.5 cm. in length.

The last iron object to be found was a wrought iron washer measuring 9.5 cm. in diameter. This washer was likely used as a retainer to secure the pittman arm to the pittwheel crank-pin (Figure 9 J).

In addition to the artifacts that we have described, a number of wooden objects were also found amidst the ruins on the South end. These are listed below:

A group of ten oak blocks with trunnel holes drilled near one end, and the remains of "tenons" on the other (Figure 3). These odd looking devices were likely used to "key" the vanes of a "Flutter Wheel" to its axle, employing the mortise and tenon

method.

One oak "yoke" was found resting on the floor under a burned timber. This device was used in conjunction with the automatic feed system of the mill (Figure 9 A). Its purpose was to allow lateral as well as vertical movement of the feeder arm (Figure 9 C). It measured 28 cm. in length.

A total of eighteen trunnels and dowels were found, some of which were oak, and some pine. These were not measured since most of them had suffered at the hands of vandals and were not complete.

Eleven pine wedges were found scattered around the South end of the ruin. They ranged from 13 to 33 cm. in length. These wedges were a necessary item in water powered sash mills because the various parts of the mill had to be realigned frequently because of vibration, and/or because they became wet and dry alternately. With the exception of a tool mark or two, these wedges appeared to have escaped damage.

The remains of the ratchet wheel of this mill were recovered and appeared in the form of two outer rim fragments, and the fragments of four oak spokes. One spoke fragment was nearly complete and measured 32 cm. in length. Judging from the length of the one spoke, the diameter of the ratchet wheel should have been around 80 cm. The ratchet wheel actually consisted of a wooden wheel with an iron ratchet secured to the back side. On the front side could be found a series of wooden dowels extending out. These were used to "walk the carriage back" if it became necessary (Figure 9N).

The remains of still another wheel appeared in the ruins on the South end. Sixteen fragments were found that represented the

remains of a large, solid, frabricated wheel without spokes. There was evidence that grooves had been cut across the face of the wheel, to accept wooden strips that served as keys in order to strengthen the fabricated sections.

Using the remains of the outer rim as a standard, the wheel should have been around 1.22 m. in diameter. Because of its heavy construction, and because of its location in the ruins, the wheel probably represents the "pittwheel" that was used in this mill (Figure 9 K).

Our next move on the site was to investigate the situation on the North end of the ruins. Because of the presence of large trees, only a small section of the planked floor was cleared back from the end.

Although the floor was devoid of any artifacts, we managed to measure the planks and found them to be around 3.5 cm. thick, and about 10 to 15 cm. in width. In addition, we found the builders failed to cut off the planks in an even manner, but allowed them to protrude beyond the supporting timber in a haphazard fashion. The above measurements were made through a few centimeters of water that covered the floor.

An excavation was then established in the area just off the end of the structure, revealing a number of wooden objects related to the mill. We found that in addition to a number of large and small timbers that had fallen away from the main building, there existed a group of pine boards and two oak "struts" with mortised openings arranged in such a fashion as to support the above boards.

This group of wooden objects were removed from the site and the various parts reassembled so it was possible to make the sketch that appears in this report (Figure 6). It is quite possible these remains represent a small "race" in which the paddles of an undershot water wheel were placed (Figure 10).

More evidence appeared in the form of a complete oak spoke from a water wheel, that measured 95.2 cm. in length. This spoke was probably part of the undershot wheel that was mounted in the above race. Judging from the length of the spoke, the wheel should have been around 1.83 m. in diameter, and about 1.21 m. wide to coincide with the width of the race (Figure 10).

As mentioned earlier, a number of timbers were found in the area just off the North end of the mill ruins. Most of these were fragmentary and had little meaning. The largest of this group had fallen away from the main structure when it collapsed, and appeared to have escaped major damage.

It measured around 6.7 m. in length, and had a large trunnel hole drilled through one side at a point 3.35 m. from the bottom end. It was about 35.5 cm. square, and was likely one of the main vertical supports on the North end of the building.

THE MILL STRUCTURE AND LOCATION OF MACHINERY

Based on the results of our discoveries here, we can describe Hewitt's Mill as having been a two story building 15.55 m. (51 feet) long, 5.63 m. (18.5 feet) wide, 6.7 m. (22 feet) high at the top plate; with the second story sawing floor at 3.35 m. (11 feet) above ground. The entire structure was supported by a group of

timbers resting on a strata of consolidated white sand that underlies the swamp floor by 76 cm. (Figure 10).

As mentioned earlier, the building was held together with trunnels (wooden pegs), a few of which survived the axes and fire of the early 19th century vandals. An examination of the "Plan of the Excavated Timbers" (Figure 8) will show a network of timbers with trunnel holes and mortised openings at various points. These were used to secure the vertical suppots to the foundation and to secure cross beams that no longer exist.

Since only a few fallen timbers and the foundation of Hewitt's Mill have survived the ravages of time, it would be impractical to attempt an accurate description of how the upper works were constructed. Consequently, we have included a conjectural drawing based on an illustration of an 18th century sawmill;[13] and by applying common-sense structural principles (Figure 10).

This drawing represents a side view of the building from the East, and shows the likely position of the sills, posts, plates, and braces. In addition, the drawing indicates the probable location of the water wheel, the pittwheel, the ratchet wheel, and the go back wheel.

As a rule water powered mills are pictured with tall wheels mounted alongside the mill house with water pouring over the top of the wheel. This was not the case with Hewitt's Mill. It was equipped with a small diameter, broad undershot wheel known as the "flutter wheel".

Although flutter wheels could vary in size, they were

usually around 91.44 cm. (3 feet) in diameter, and 3 m. (10 feet) in length; with heavy vanes "keyed" directly to a large diameter axle (Figure 3 E). The purpose of the heavy vanes and axle was to attain the "fly wheel" effect.[14] With a proper head of water, flutter wheels would reach speeds of around 120 RPM, thereby eliminating the use of "lantern gears". They could be used where the head of water was at least 1.82 m. or higher.

The flutter wheel at Hewitt's was mounted on timbers No. 4 and 5 on the South end of the structure in such a manner that the water released from the forebay gate in dam opening "H", would strike the wheel vanes; then pass under the wheel into the discharge pond located West of the mill (Figure 7). The expelled water then left the pond and flowed through tail race No. 1 (a ditch) to Hulett Branch. The presence of the oak block "keys" (Figure 3 H) was the deciding factor as to the type of water wheel that was employed here.

The "pittwheel" that was part of the mill machinery, was mounted directly on the axle of the flutter wheel, using the cast iron "collar" or "hub" shown in Figure 4 E. It was positioned just North of timber No. 5 and between timbers No. 6 and 7. Its purpose was to move the sash, or saw frame, up and down in its guides on the fender posts (Figure 9 K). To accomplish this, a crank-pin was mounted on the pittwheel in such a manner a connecting rod (pittman arm) could transmit the movement of the wheel to the saw frame above. In other words, as the pittwheel turned, the sash moved up and down at the same speed.

The counter weights recovered in the ruins, were fastened

to the back of the pittwheel, opposite the crank in order to offset the weight of the saw frame and its hardware (Figure 9 L). Not all sash mills used similar weights but employed a "spring pole" attached to the top of the sash to assist the frame on its return upward after a saw cut. There is evidence some mills did not use either method, but depended on the ability of the water wheel to lift the saw frame on the initial start.

The ratchet wheel that was part of the automatic feed system of the mill, was situated on the second story sawing floor, immediately behind a fender post (Figure 10). This wheel was activated by the oak arm and pawl (Figure 4 A), through a complicated system of levers (including the oak yoke in Figure 4 B), connected to the top of the saw frame. At each stroke of the saw, the pawl engaged the ratchet wheel, inching a log carriage forward through a rack and pinion arrangement beneath the carriage (Figure 9 Q).

When the saw had cut within 7.6 cm. of the end of the log, a device fastened to the moving carriage, caused the forebay gate to drop, cutting off the flow of water to the flutter wheel, stopping the saw and carriage.

Water was then released to the "go back" wheel in the Northeast corner of the mill (Figure 10), drawing back the carriage for the next saw cut. Exactly how water was fed from the forebay to this wheel on the North end is not known. An apron of logs buried just off the structure at this point, clearly indicates a volume of water was discharged into the tail race No. 2 (a ditch) at this point (Figure 7). The purpose of the buried logs was to

prevent a washout near the mill foundations.

We also found evidence that saw dust had been flushed down the planked floor and into the above race. When this race was reopened to allow better drainage, a large amount of saw dust was found mixed with the mud and other debris. This condition existed the entire distance to Hulett Branch.

It should also be mentioned here a deposit of saw dust was discovered at the intersection of timbers No. 2 and 5, on the South end of the building. A sample of this was removed and tested by a chemist and declared to be "pine saw dust" (Paul C. Hudgins, Research Chemist, Jacksonville, Florida).

THE MILL OWNERSHIP

While we have intimated throughout this report that John Hewitt was the founder of the Pellicer Creek Mill, there are still questions that could be raised regarding the ownership of this complex. According to the Spanish Land Grant Records of 1818, "Andrew Burgevin", a surveyor, asked for permission to install a sawmill on Pellicer Creek, at the point where the road to "Chocochate" (sic) crossed the creek.[15]

While this appears to be the same place our mill ruins are located, there is no evidence Burgevin ever built a mill; and if by chance he did, it is not likely it would have been referred to as the "Site of an Old Mill", on a survey map of 1820 (Martin Hernandez Grant Survey).

On the other hand, certain documentary evidence, along with artifacts recovered on the site, suggests John Hewitt of St. Augustine, may have been associated with the Pellicer Creek Mill.

As we stated earlier, Hewitt was said to have owned a 1,000 acre tract of land complete with a house in the region of Pellicer Creek. Later research showed the present mill ruins to be located near Pellicer Creek, and on what was once a 1,000 acre tract. In addition, the remains of an 18th century dwelling house was discovered West of the mill site; and an 1834 survey map by J. B. Clements, referred to the place as "Hewitts Old Mill".

Artifacts found on the site such as: delftware; creamware; white salt glazed stoneware; and fragments of blown bottles, all 18th century, suggest activity here during that time. Also, the appearance of a Spanish silver coin, dated 1776 (Structure A), should place the site in the late 1770's at least. In view of this evidence, we may conclude the present mill ruins and the house ruins are located on the same tract owned by John Hewitt during the British Period (later the Martin Hernandez Grant).

Hewitt's activities in St. Augustine should also have some bearing on the matter since he was a "Joiner" (Chief Carpenter), and served as a building contractor for the British Government in St. Augustine. What better person to build a sawmill than a contractor who has need of sawn lumber to carry out his building and/or maintenance assignments.

According to available British records, John Hewitt, who came to St. Augustine in 1768, was quite active between 1771 and 1775,[16] at which time he served on the Grand Jury. After that date he was not mentioned in these records.[17]

Hewitt's family was mentioned in 1783, however, when "Sara Hewitt", a widow with two daughters retired from the protection

of the Spanish Government, destination unknown.[18] Sara and John had lived on Charlotte Street, where he owned two houses on one lot,[19] near the present telephone company building. Apparently Hewitt died during the period 1775-1783, and is probably buried in an unknown grave in St. Augustine.

THE FATE OF THE MILL

While we assume John Hewitt founded the Hulett Branch Sawmill during the 1770's, we have no chronological yardstick by which to determine when it was abandoned; although circumstances surrounding the site disclose it may have been destroyed during the "Patriots War", around 1812. It is known that during that time, vandals roamed throughout Northeast Florida burning and destroying buildings and property.

There can be no question but this mill was deliberately destroyed, since wooden artifacts recovered in the ruins showed unmistakable signs of having been damaged with axes and strewn about the place in a haphazard manner. Also, the South end of the structure was consumed by fire, causing the remainder of the mill house to collapse because of the lack of support.

Another bit of evidence that tends to confirm the above time of destruction, was the appearance of a blown bottle fragment of the period 1800-1810. Since this fragment was resting directly on the wooden floor, it is obvious it was placed there prior to the buildup of debris such as we encountered when exposing the ruins in 1977-1980.

The absence of these materials on the floor would mean

that the upper works of the mill were more or less intact, protecting the floor below from falling debris. Therefore, if the bottle fragment dated to the period 1800-1810, it would indicate the upper story of the mill was destroyed after that time, and likely during the Patriots War.

Further evidence of the continued buildup was the recovery of several fragments of "shelledged ware" resting in the midst of the existing debris, 15 cm. above the hewn timbers. It is likely these were thrown into the ruins during the time of "John Hewlitt" who owned the property during the 1830's (not related to John Hewitt who died in the late 18th century).

Additional evidence appeared with the finding of a fragment of a round bottom Irish drink bottle resting 30 cm. above the ruins, and which was probably tossed into the ruins around mid 19th century. We mentioned earlier in this report that we found evidence of some unknown activity in this area throughout most of the 19th century, although it is doubtful any of it was related to the sawmill.

Since the Hernandez Survey of 1820 shows the Kings Road and another road from the West converging at the mill site, we suspect the earthen mill dam was used as a means of crossing Hulett Swamp. This may explain why this mill appeared as a landmark on several maps of the early 19th century, while the ruins of the Moultrie Creek Mill, and the Mulberry Creek Mill, both dated 1804, were not shown.

Before closing out our discussion of the fate of this sawmill, we should point out here there was every indication this

complex had been abandoned before it was destroyed. For instance, the presence of three washouts along the line of the dam, shows clearly the forebay wall near the mill house, and the tumbling vent cofferdam at Hulett Branch were still intact, or the washouts would not have occurred.

While the remains of the tumbling vent showed no signs of fire, the forebay wall at the mill had been burned to the ground, pointing out there was no water in the forebay at the time, or ignition would have been next to impossible. Therefore, we can say that at the time Hewitts Mill was destroyed, it was abandoned and the mill pond was dry.

SUMMARY AND CONCLUSIONS

The basic design of these early sawmills changed little from their inception in the late 15th century,[20] until mid and late 19th century when they were gradually replaced by steam powered circular and band sawmills. The old fashioned machines were often referred to as "up and down mills", and as one old timer remarked, "they were up one day and down the next."[21]

The sash mills, although primitive when compared to modern mills of today, were capable of cutting around 500 to 1,500 feet of lumber a day, depending on the design of the individual mill and the volume of water that was available.[22] This amount, although small by today's standards, was far in excess of the timbers and planks that could be cut by the most skilled team of hand sawyers with their "pittsaw". So it would appear these crude machines played an important role in the building industry of that time.

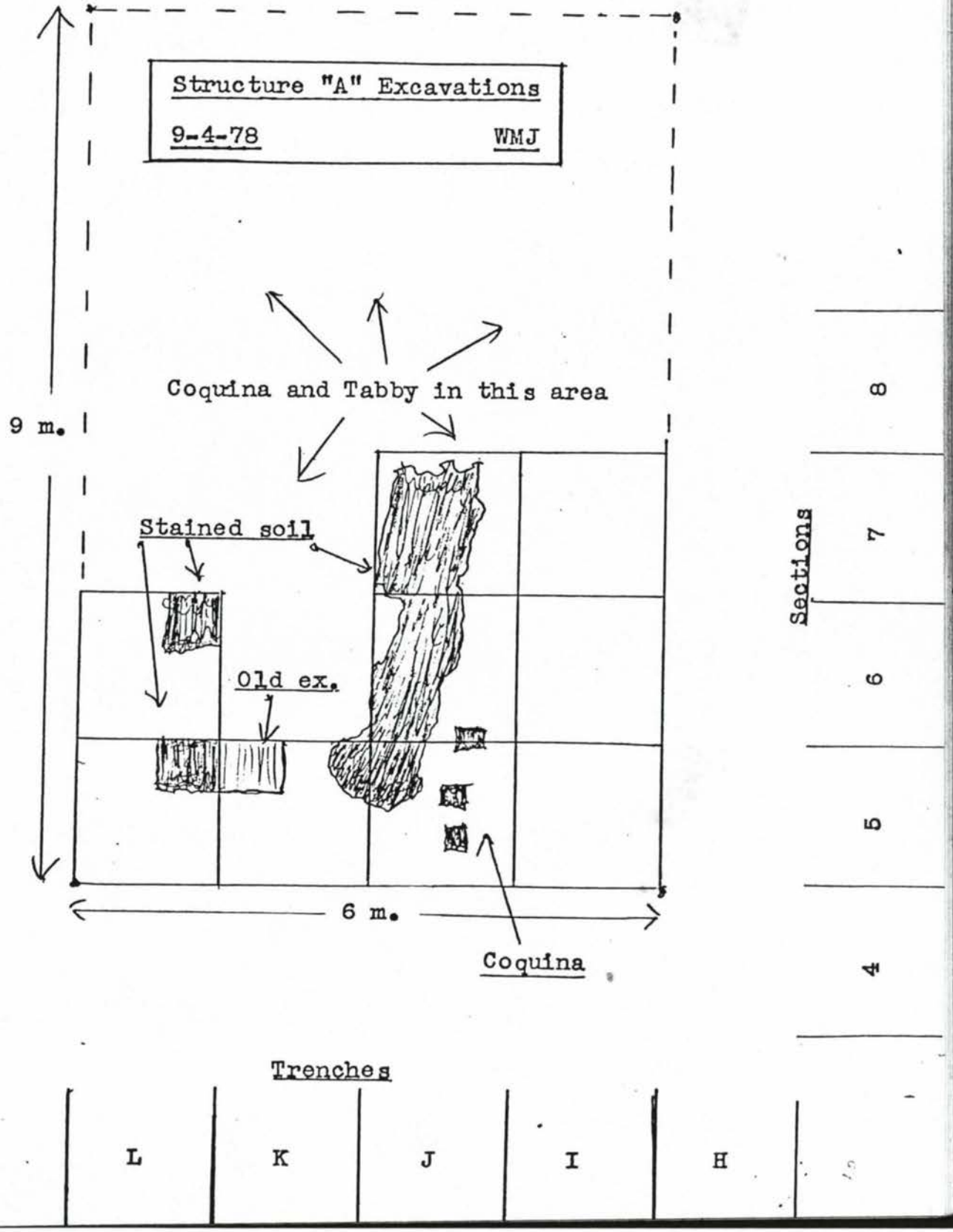
In conclusion, we must say that because of the constant flooding on the site, Hewitts Sawmill was an extremely difficult place to excavate and we were fortunate in that we were able to recover the mill related artifacts presented in this report. While we were disappointed the great saw blade and its associated hardware failed to appear, the artifacts that did appear were meaningful and pointed to this complex as the remains of an "Automatic Feed Sash Sawmill" of the late 18th century.

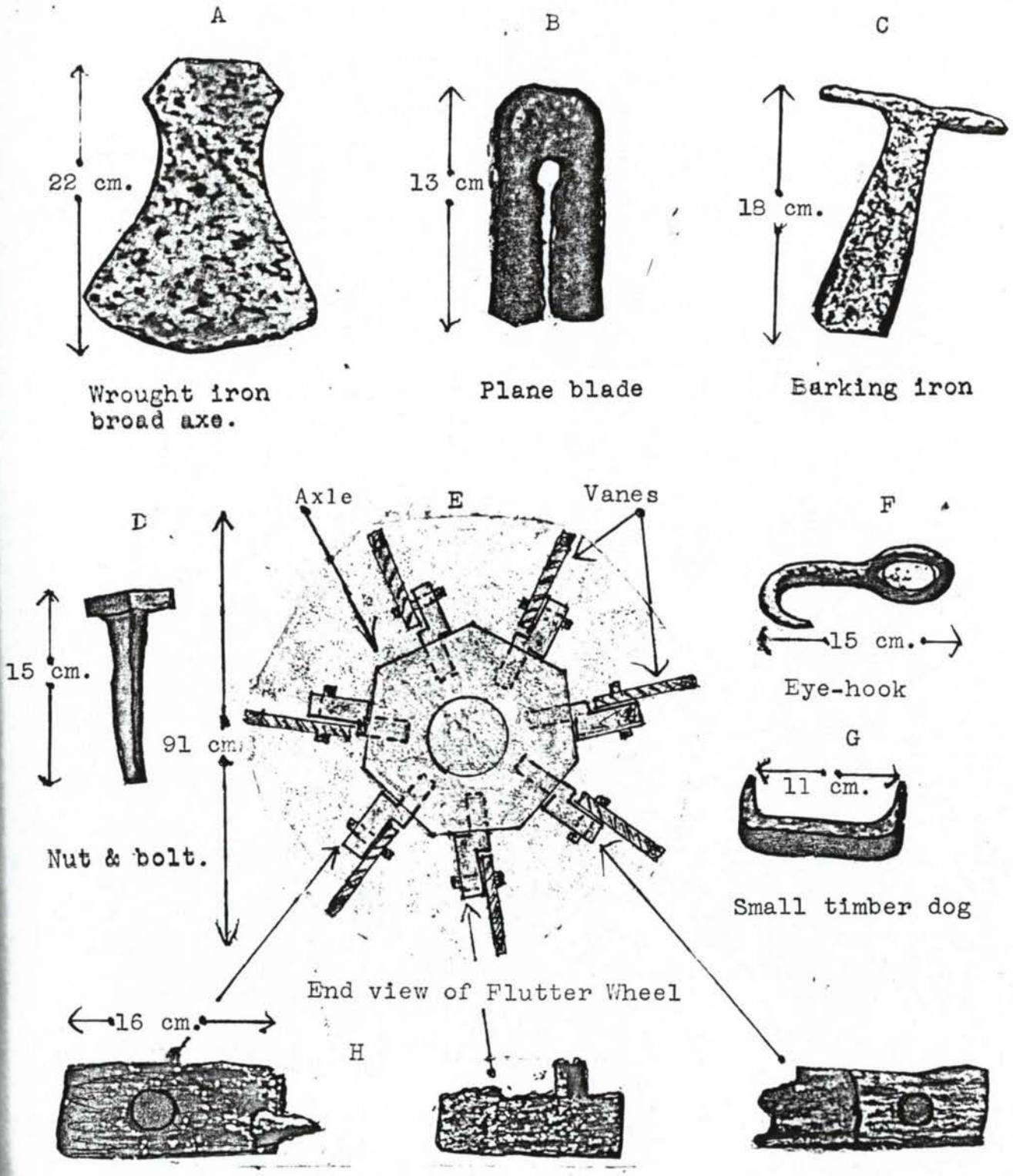
It is only proper to mention here that a conjectural, scale working model of Hewitts Mill was constructed by the author and is presently on exhibition in the Research Library of the St. Augustine Historical Society.

Jacksonville, Florida

June 15, 1981

Figure 2.


Structure "A" Excavations
9-4-78 WMJ
Coquina and Tabby in this area
9 m.
Stained soil
Old ex.
6 m.
Coquina
Sections
8
7
6
5
4
Trenches
M
L
K
J
I
H

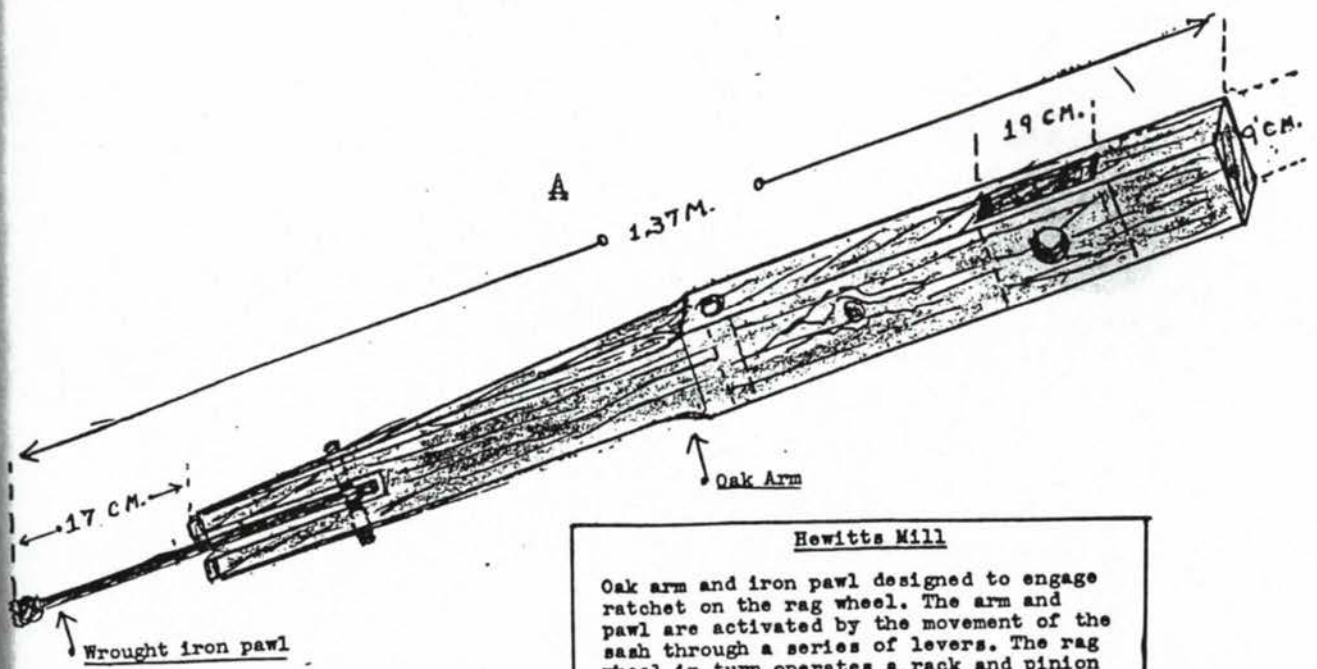


Artifacts from Hewitts Mill & a drawing showing how oak blocks could have been used to key vanes to a Flutter wheel axle.

3-2-80 WMJ.

Figure 3

A



Hewitts Mill

Oak arm and iron pawl designed to engage ratchet on the rag wheel. The arm and pawl are activated by the movement of the sash through a series of levers. The rag wheel in turn operates a rack and pinion system that inches the carriage and log into the saw. WMJ 5-12-79

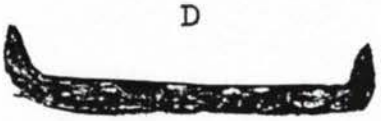
B

Oak yoke

C

Rack

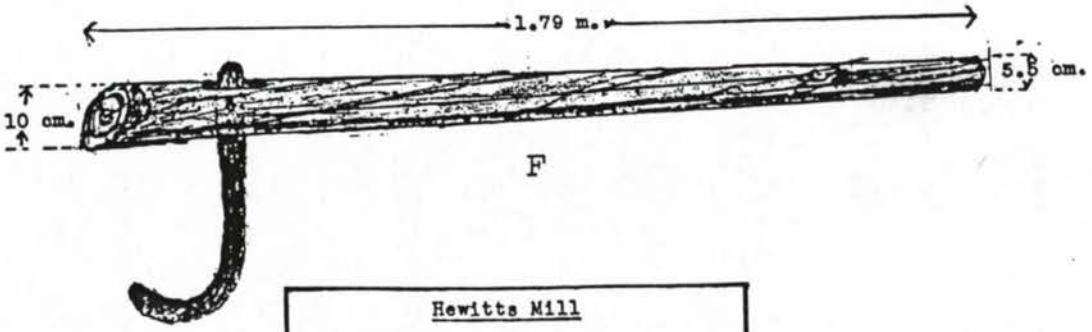
D



Timber dog

E

Iron collar



F

Hewitts Mill

Cant Hook found on east side of wooden platform. Handle was made from a pine sapling, the hook is wrought iron. WMJ 4/1/79

Figure 4

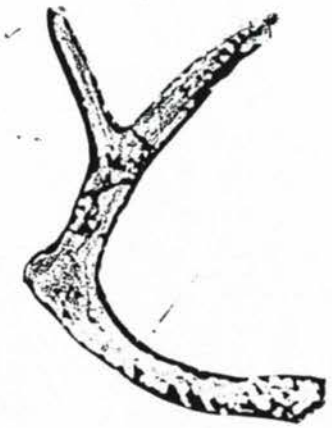
A

Blue shell-edged ware found on south end of buried floor.

B

An 18th-century bottle fragment found in discharge pond.

C



Deer antlers from Pit "C".

D

Late 19th-century bottle fragment found in debris above buried floor.

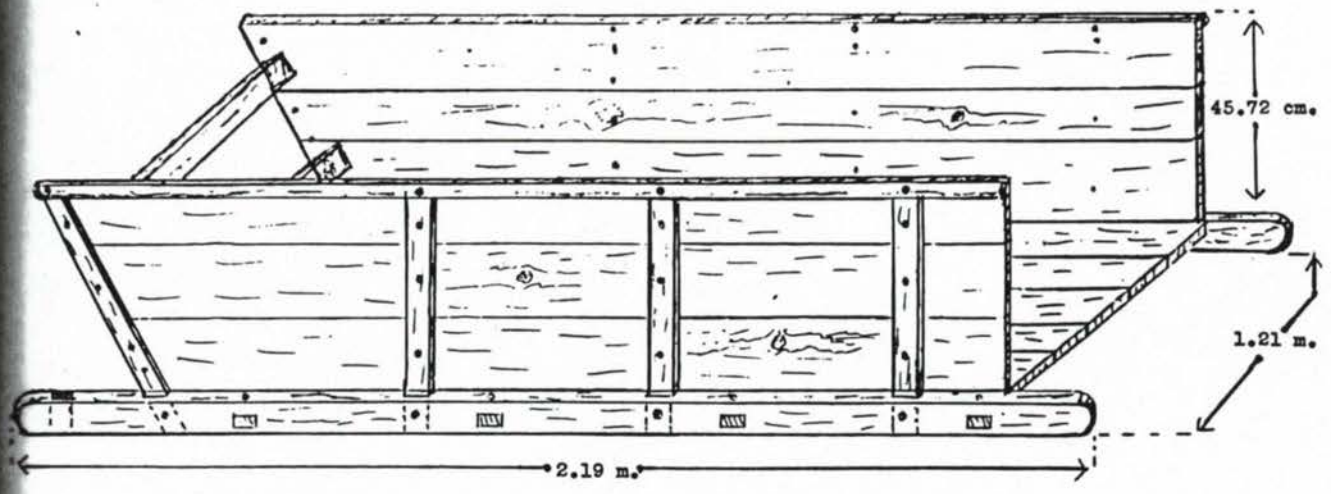
E

Two Reales Spanish silver coin, from ruins of Structure "A".

F

An 18th-century saw set swage found on mill floor.

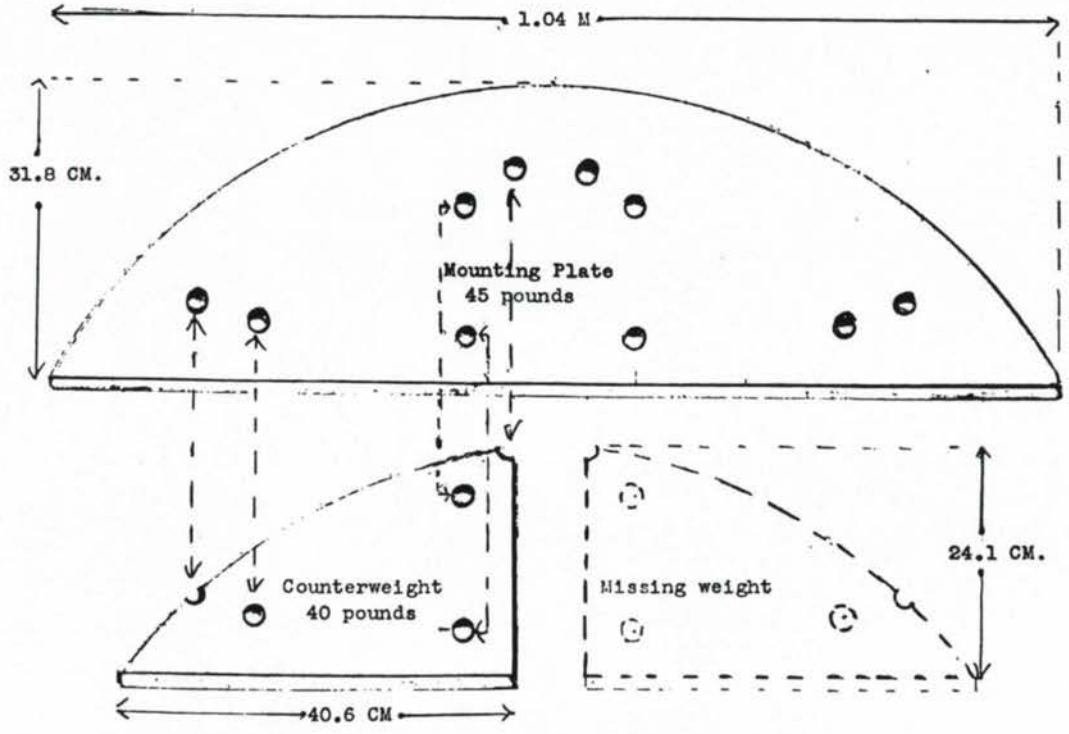
Figure 5



Hewitts Mill

Sketch showing possible undershot wheel race. All supporting surfaces employed mortise and tenon joints secured with trunnels. The pine sides and floor were secured to oak supports with nails. The half-round oak trim was secured to top edge of sides with carriage bolts.

WMJ 4/30/79



HEWITTS MILL, FLAGLER COUNTY

Mounting plate and counterweight found on wooden platform. One weight is missing. The plate and weights were probably mounted on the pitt-wheel to counter balance weight of the sash and saw blade.

wmj

Figure 6.

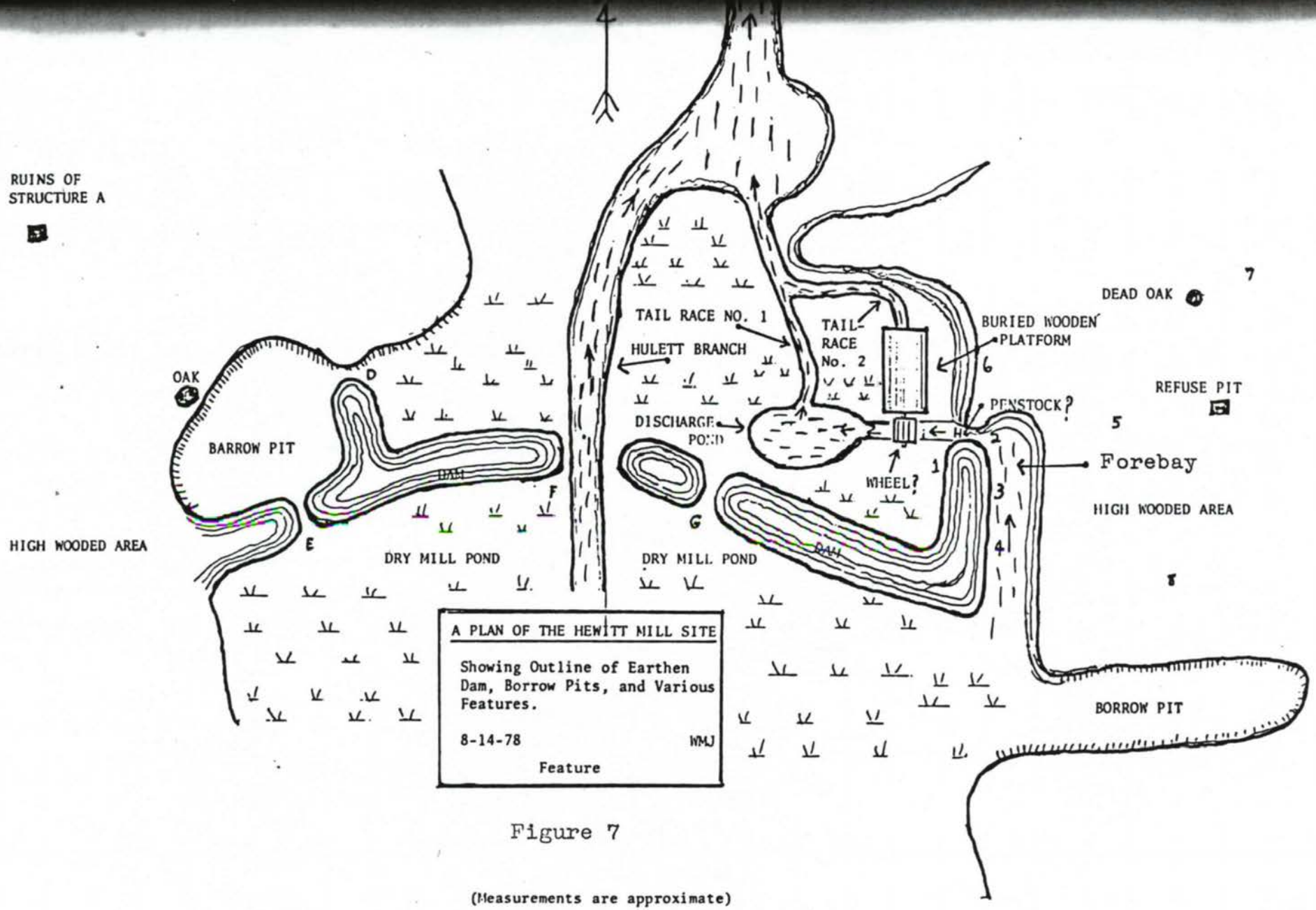
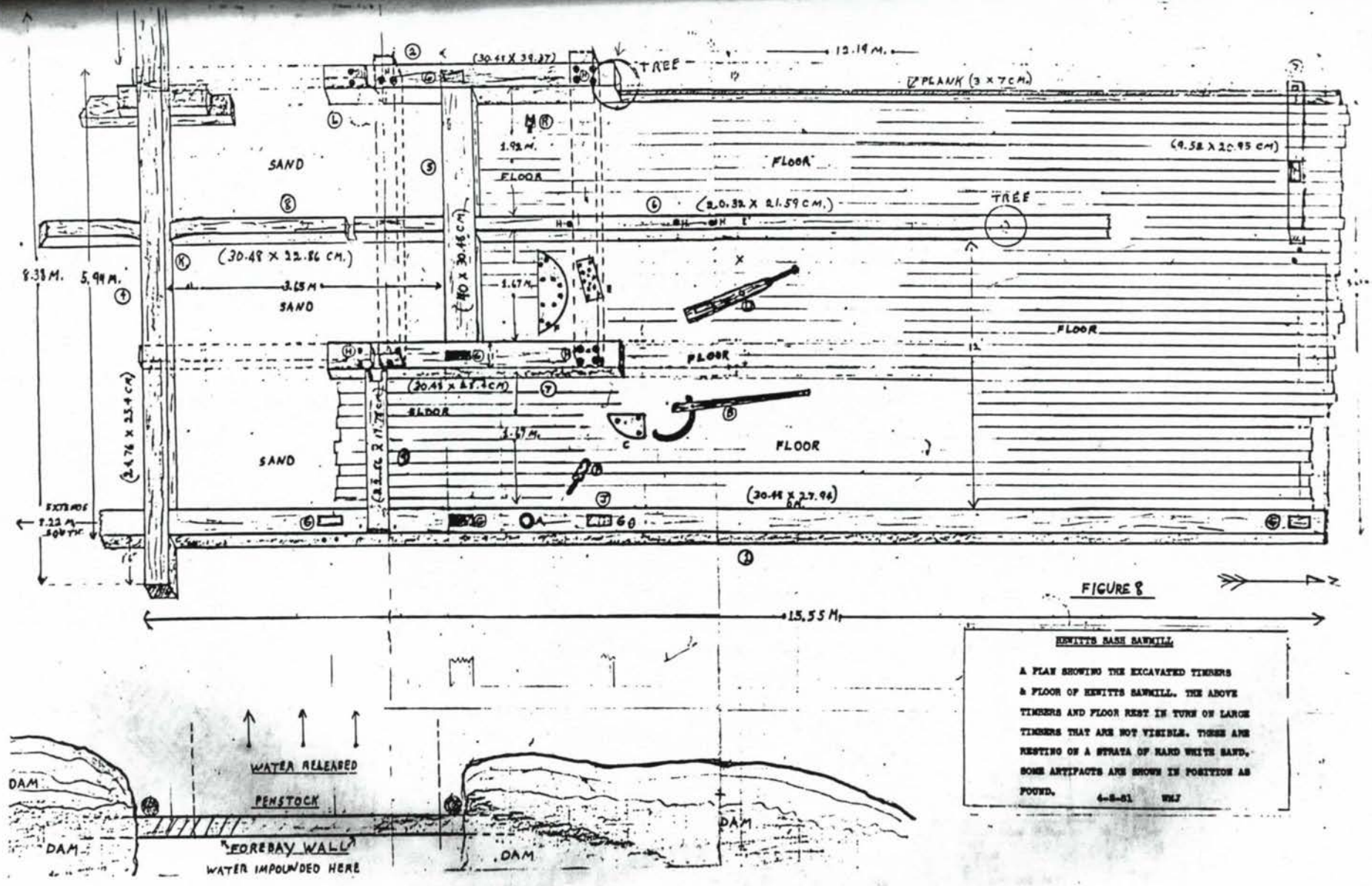


Figure 7

(Measurements are approximate)

Scale = 3 m. per .5 cm.


12.19 M.
TREE
PLANK (3 x 7 CM.)
(30.48 X 39.37)
SAND
FLOOR
1.92 M.
(9.52 X 20.95 CM)
(20.32 X 21.59 CM.)
TREE
(30.48 X 22.86 CM.)
3.65 M
SAND
1.67 M.
FLOOR
8.38 M.
5.94 M.
(30.48 X 27.4 CM)
FLOOR
SAND
1.37 M.
FLOOR
(20.48 X 27.94)
EXTENDS 7.22 M SOUTH
15.55 M.
N
FIGURE 8
KENITTS SASH SAWMILL
A PLAN SHOWING THE EXCAVATED TIMBERS & FLOOR OF KENITTS SAWMILL. THE ABOVE TIMBERS AND FLOOR REST IN TURN ON LARGE TIMBERS THAT ARE NOT VISIBLE. THESE ARE RESTING ON A STRATA OF HARD WHITE SAND. SOME ARTIFACTS ARE SHOWN IN POSITION AS FOUND. 4-8-81 WHJ
WATER RELEASED
PENSTOCK
FOREBAY WALL
WATER IMPOUNDED HERE
DAM
DAM
DAM
DAM

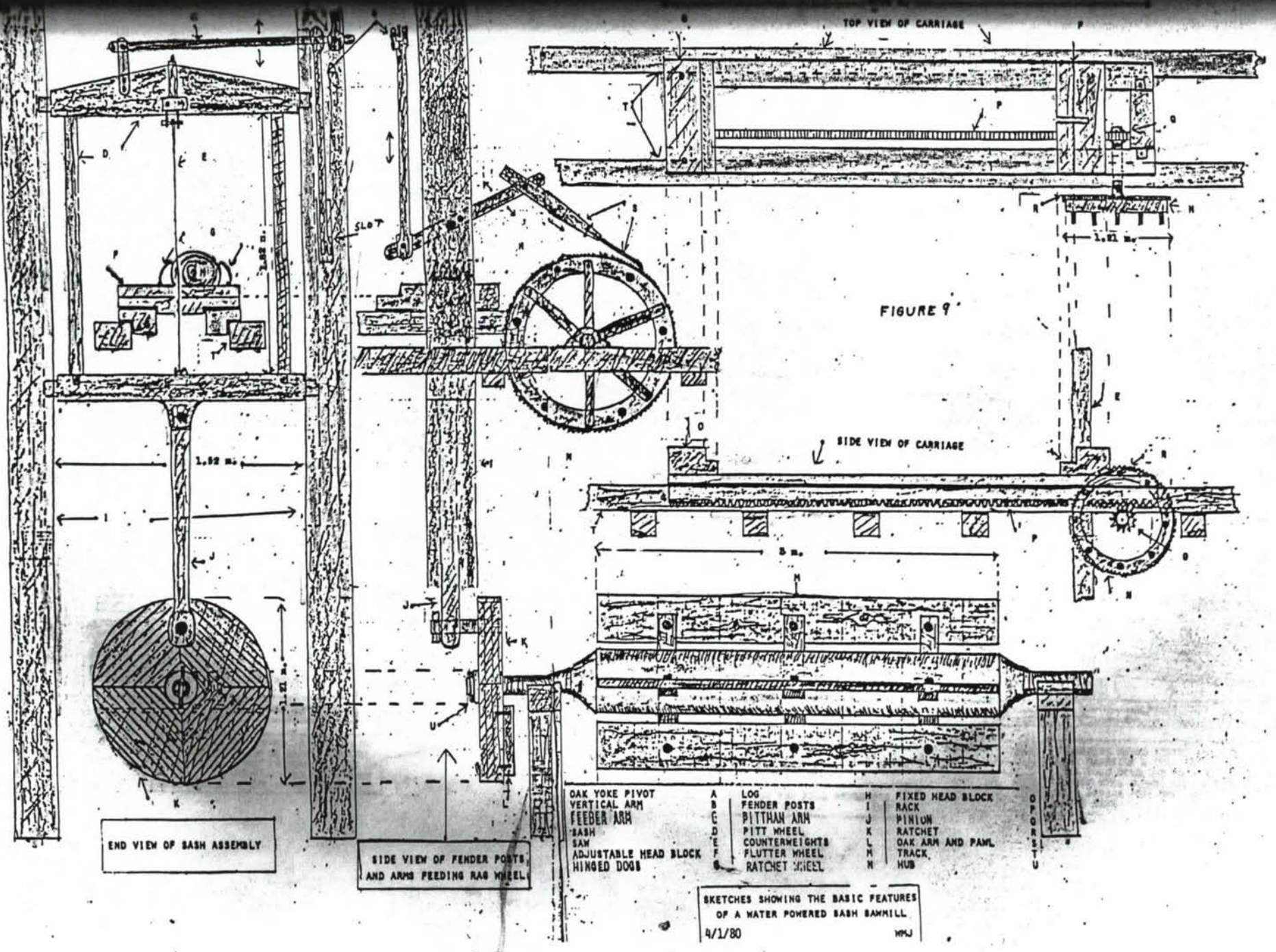


FIGURE 9

SKETCHES SHOWING THE BASIC FEATURES OF A WATER POWERED BASH SAWMILL.

4/1/80 MMJ

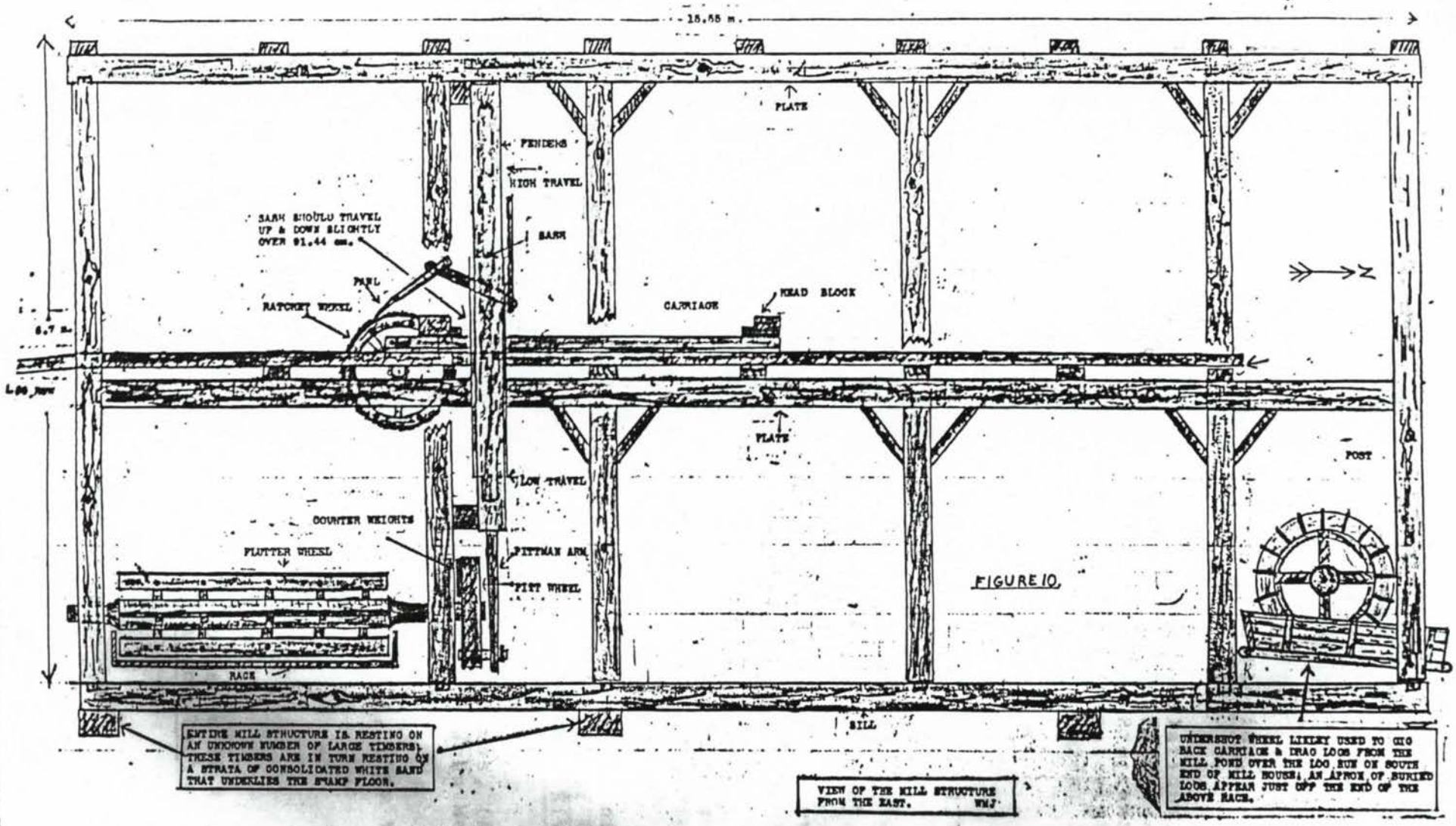


FIGURE 10.

VIEW OF THE MILL STRUCTURE FROM THE EAST. WMJ

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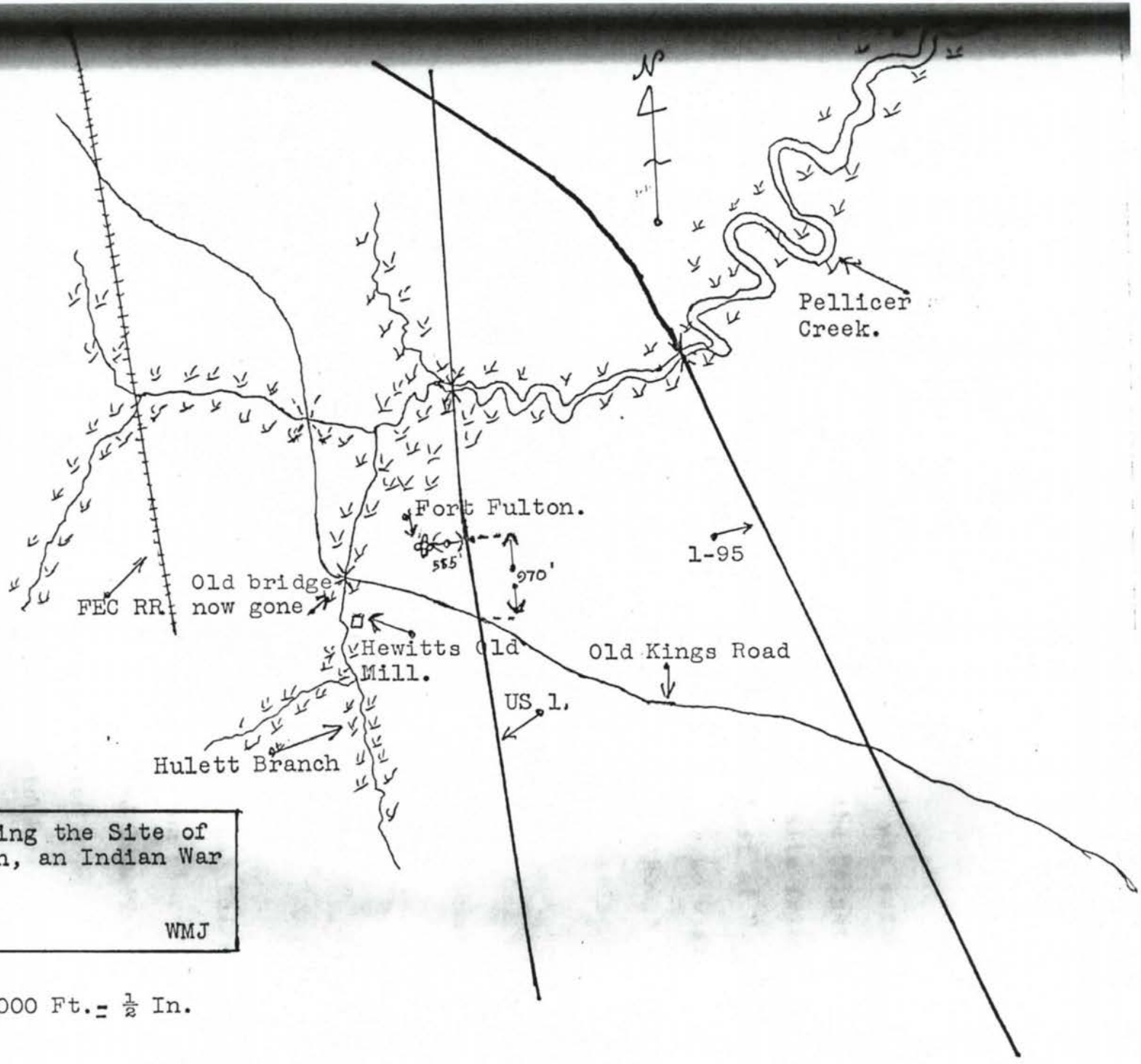
FORT FULTON,
A SEMINOLE INDIAN WAR FORT,
FLAGLER COUNTY, FLORIDA

BY

WILLIAM M. JONES

JACKSONVILLE, FLORIDA

OCTOBER 28, 1983



A Map Showing the Site of Fort Fulton, an Indian War Fort.

10-9-83 WMJ

Scale: 1000 Ft. = ½ In.

Figure 1.

FORT FULTON,
A SEMINOLE INDIAN WAR FORT,
FLAGLER COUNTY, FLORIDA

Fort Fulton, according to Charles H. Coe,[1] was established as a military post on February 21, 1840, on the "right bank of Pellicer Creek." By today's landmarks, the site falls between Pellicer Creek and the Old Kings Road, and West of U. S. Highway One (Figure 1). At the present time there are no visible signs on the site that would denote early activity, although several excavations may be found, probably the work of relic collectors.

Other evidence relative to a post at Pellicer Creek, may be found in a letter from the Secretary of War to General Walker K. Armistead, dated May 13, 1840:[2]

> ...it will be better to establish three posts from Dunn's Lake to Peliciers Creek (sic)--one at Rowls Town (sic)--one at the creek--and one between them which will allow Fort Hanson and Fort Payton to be abandoned...(Figure 2).

It is doubtful the above plan was implemented fully, since, while a Florida map of 1846[3] shows Fort Fulton near Pellicer Creek, no other posts appear between that point and Dunn's Lake. In any case, assuming Coe's date is correct, Fulton would have already been in operation for some two months before the above letter was received by General Armistead.

In addition to the above evidence of a post near Pellicer Creek, there is also information relative to the presence of Volunteer Troops in the Pellicer Creek area as early as January,

1840, or about a month before the time Fulton was said to have been established. We quote from the "Florida Herald," St. Augustine, Florida, January 17, 1840:

> "Can anyone inform us why the mounted Volunteer Company, raised in this city, and now stationed at Hewlett's Mill, is weakened by a detail of ten men subject to the order of the City Council, and kept in town idle."

The "Hewlett's Mill" mentioned in the above news item was the site of the 18th century sawmill built by "John Hewitt," a citizen of St. Augustine during the British Period.[4] This site is located some 1500 feet Southwest of the place where Fort Fulton was established later (Figure 1). At this point, there appears to be some confusion regarding the similarity of the names "Hewitt" and "Hewlett." Quite likely, the name Hewlett became attached to the mill site and surrounding area, because a "John Hewlett" did, in fact, own the mill site during the 1830's. Hewitt and Hewlett were not related and belonged to different periods of time.

As stated earlier in this report, several excavations appear on the site of Fort Fulton, pointing to the activities of relic collectors. These people have been credited with the removal of military artifacts including a cache of 150 musket shot; a brass butt plate from a firearm; and a number of military and pewter buttons. These materials, along with others not reported, are now scattered about the State, and it would be next to impossible to compile an accurate list of these recovered items. In any case, these artifacts point to the former existence of a military post of the early 19th century at this location.

Apparently, Fort Fulton was not a very active military post since a number of publications related to the Seminole Indian War failed to mention the place. Quite likely, it was established near Pellicer Creek in order to "protect" the Kings Road, located about 800 feet to the South, and was probably manned by Volunteer troops rather than regulars.

Whatever its purpose at this point, a Florida map shows Fulton near Pellicer Creek as late as 1846. Also the military objects discovered on the site should indicate it was occupied for some time.

How the fort acquired its name is not clear, but there is the possibility it would have been named in honor of either Captain William M. Fulton, or William S. Fulton, a public official, both of whom were on the miliary scene during that period of time.

****


MILITARY MAP OF 1846 SHOWING

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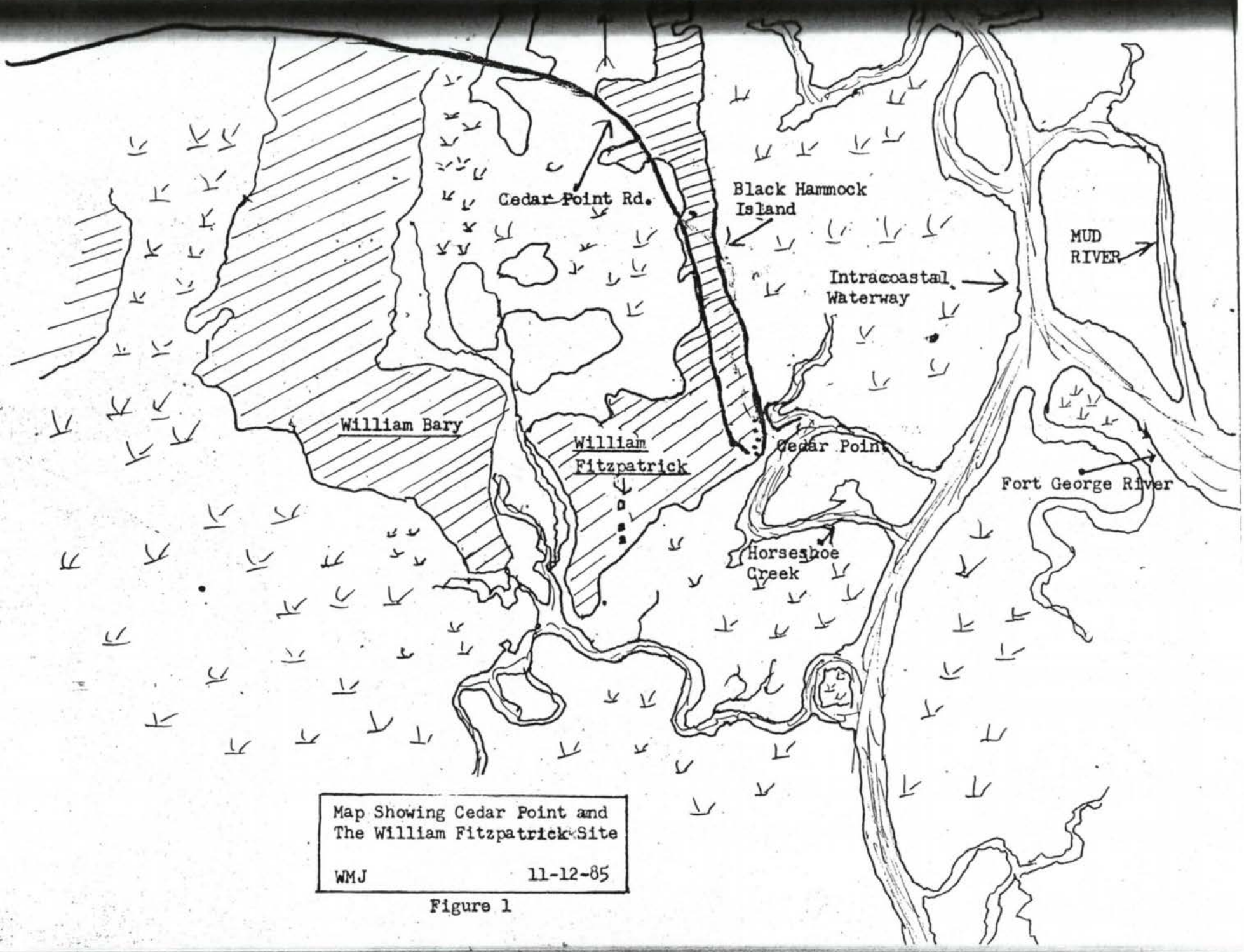
A REPORT ON THE CEDAR POINT RUINS, BLACK HAMMOCK ISLAND, DUVAL COUNTY, FLORIDA

BY

WILLIAM M. JONES

JACKSONVILLE, FLORIDA
NOVEMBER 5, 1985



Map Showing Cedar Point and The William Fitzpatrick Site

WMJ 11-12-85

Figure 1

A REPORT ON THE CEDAR POINT RUINS, BLACK HAMMOCK ISLAND, DUVAL COUNTY, FLORIDA

INTRODUCTION

During the late 18th Century, the King of Spain issued a proclamation, known as the "Royal Order of 1790," whereby aliens were invited to take up land in Spanish Florida in order to populate the territory. As a result, a number of planters from the American States to the North, came to St. Augustine and applied for land grants.

Among this group was "William Fitzpatrick," a native of Georgia, who in 1795 asked for and received a 440 acre tract at "Punta de las Sabinas" (Cedar Point), located on Black Hammock Island (Figure 1), in Duval County.[1/] Fitzpatrick eventually established a plantation at Cedar Point, and improved the tract to such a degree the place was confirmed to him in 1808[2/] along with an additional 100 acres situated nearby (Figure 2).

At the present time, the Cedar Point section of the island is occupied by several wooden structures situated on Horseshoe Creek, and the only signs denoting an early occupation, is the presence of three ruined tabby structures located in the Southwestern part of the Point, 236 feet North of the marshy shoreline (Figure 3).

The largest of the above three ruins, with one wall still standing on the North end, represents the remains of a dwelling

house that had been built with large tabby bricks measuring 4 x 5 x 10 inches. The floor plan of this structure, as it now exists, indicates the building originally consisted of two "wings," one measuring 18 x 28 feet, and the other 14 x 28 feet, outside measurements (Figure 4). These wings, referred to as the Northeast wing and the Southwest wing, were joined together in such a manner it was obvious there was no inside opening between the two sections, giving the impression the Southwest wing was constructed at a later date. Also, the Northeast wing had been a two-story structure complete with a large fireplace in the South wall, while the Southwest wing appears to have been a one-story building equipped with an inside chimney designed for cast iron stoves.

The second ruin, with one wall still standing on the West side, appears to have been an outbuilding of some sort, and is located 65 feet directly North of the dwelling house. It was also constructed with the same size tabby bricks used in the dwelling house, and measured 17 x 30 feet, outside measurements.

The third tabby ruin, located 350 feet North of the other ruins, was constructed with poured tabby rather than with tabby bricks. It was not possible to obtain any measurements because of the condition of the ruin. This former structure has not been identified as to its purpose.

It is obvious these structures have been vandalized in past years, and the three large excavations dug here are likely the work of treasure hunters. One of the excavations is located

just West of the outbuilding, and the other two may be found within the ruins of the dwelling house.

In any case, these ruined structures have been for many years, identified as the remains of buildings likely built by William Fitzpatrick around 1795. While this seems to be a reasonable conclusion based on Fitzpatrick's presence at Cedar Point during that time, there has never been a criteria established by which to judge the age of these ruins. Therefore, they could have been built during Fitzpatrick's time, 1795-1825, or they could have been built later in the 19th Century, by another owner.

Hence, a study of the Cedar Point complex was initiated by William M. Jones with the kind permission of the "North Shore Corporation," present owners of the site. The main objective of the study was to determine the approximate time frame in which the structures were built, and to identify if possible, the land owner who built them.

THE SITE STUDY

Actual work on the site was initiated in January, 1983, with the help of Jacksonville volunteers: Roger Jones; Richard Henderson; Frank Tiller, and Don Summerfield. For purposes of identification, the dwelling house was referred to as Structure A, the outbuilding as Structure B, and the tabby ruin to the North as Structure C.

The first tests on the site consisted of a series of holes

dug around Structure A at a distance of 50 feet resulting in the recovery of only one fragment of ironstone china. While this ware is considered to be roughly a mid-19th Century ceramic, one fragment would not be considered conclusive.

A radio metal detector was then employed to scan the inside of Structure A, resulting in the recovery of a number of "stamp-head" cut nails. Next, the areas near Structures B and C were also scanned during which time the same type of cut nails were found. In addition, one cut nail was observed protruding from the outside wall on Structure B.

During the time the ruins of Structure A were being searched, a concentration of materials were discovered on the South end of the Southwest wing; and immediately South of one of the old excavations mentioned above. Although it was obvious the area had been disturbed by treasure hunters in past years, the place was excavated and screened. The following items were recovered:

Ceramics

(a) Creamware appeared in the amount of fourteen small fragments none of which were decorated although the rim of a "Royal Pattern" plate was detected. This ware dates 1750-1830.

(b) The next ware to appear was fifteen fragments of undecorated pearlware, dating 1780-1830.

(c) This was followed by ten fragments of annular ware, dating 1795-1830.

(d) Only three fragments of painted pearlware were found. Dates 1780-1820.

(e) Shelledged ware appeared in the amount of thirteen fragments, dates 1795-1840.

(f) Transfer printed ware appeared in the amount of twenty-five fragments, dates 1795-1840.

(g) Undecorated white ware was found in the amount of twenty fragments, dates 1820-1900.

(h) White ware decorated with brown floral design appeared in the amount of four. The "RD" number on bottom of this vessel indicated a date of 1891.

(i) The most dominate ware on the site was ironstone which was found in the amount of forty fragments, dates 1813-1890.

(j) Brown stoneware was found in the amount of eleven. Likely dates mid-19th Century.

(k) One large fragment of a white stoneware bottle. Should date around mid-19th Century.

Glass

(a) Twenty fragments of dark and light brown glass related to bottles; should also date around mid-19th Century.

(b) Flat clear glass appeared in the amount of eight and are likely the remains of window panes of house. Date should coincide with that of the house.

Kaolin Pipes

(a) Decorated kaolin pipe stems appeared in the amount of three. These should date 1830-1850.

Indian Potsherds

(a) Indian potsherds were found in the amount of fourteen. These included: San Marcos; St. Johns check stamped; St. Johns

plain; Cob marked; and Shell tempered.

Food Remains

(a) Food remains appeared in the form of twenty fragments of animal bones that included: raccoon, opossum; pig; deer, and one fragment of a crab claw.

Buttons

(a) Only four buttons were recovered. Two of these were pearl four hole clothing buttons similar to ones in use today.

(b) The other two were flat spun metal buttons with eye attached. One of these had no decorations or marks, while the other one was plain with the following inscription on the back, "Double Quality, London." It also had the British Crown impressed in the middle, with a floral wreath around the outer edge. These buttons belong to the first half of the 19th Century.[3/]

MISCELLANEOUS ITEMS

(a) A lead sinker.

(b) A metal clip for man's trousers.

(c) A brass shell casing, center fire, 32 caliber.

(d) Two metal window shade pullers.

(e) A scissors blade.

(f) A fragment of a porcelain tube related to the "knob and tube" method of electrical wiring.

(g) A fragment of a dry battery carbon.

(h) A brass assembly for oil lamp wick.

(i) One fragment of a cast iron waffle iron, the type used on cast iron cook stoves (Figure 6C).

(j) An eye hoe.

(k) One cast iron skillet, similar to the ones that can be purchased today (Figure 6A).

(l) A 1-1/2 inch diameter brass or copper thimble, the type used in conjunction with rope or cable.

(m) Two handles from unidentified kitchen utensils.

(n) Four twenty penny wire nails.

(o) Four large spikes ranging from 3-1/2 to 8 inches in length.

(p) One cast iron rim door lock. The precise dating on this item has not been established but it likely ranges from the 1860's throughout the 19th Century (Figure 7).

(q) The head of a wrought iron hewing hatchet. This item should date in the very early 19th Century (Figure 6B).

With the exception of the wrought iron hatchet, most of the above artifacts should date in the latter part of the 19th Century.

EXCAVATIONS IN THE NORTHEAST WING

After the work was completed on the South end of the Southwest wing, a small trench was established inside of the Northeast wing. Digging down through the fragments of tabby and other debris, a number of objects were found which included the following:

Ceramics

(a) One fragment of creamware dating 1750 - 1830.

(b) One fragment of transfer printed ware dating 1795 - 1840.

(c) A fragment of white ware undecorated, dating 1820 - 1900.

Glass

(a) Twelve fragments of flat clear glass was recovered. This glass is similar to glass found on the South end of the structure.

(b) The following glass related to bottles was found: three fragments of clear; one of light brown; and three of dark brown. These likely date in the last part of the 19th Century.

Metal Objects

(a) One scissors blade.

(b) One pointed wood screw, dates after the 1840's.

(c) One metal button of the type used on overalls, likely dates late 19th Century.

(d) Cut nails in the amount of eleven. These are similar to the ones found throughout the ruin.

(e) One complete wrought iron nail and part of another; should date in the late 18th Century.

(f) Three scraps of unidentified metal.

This trench was continued down to the outside ground level at which point a strata of oyster shell was encountered along with a few Indian potsherds. These sherds appeared as follows: four fragments of St. Johns cob marked, and one rim of a sand tempered sherd. It would appear the dwelling house may have been built over one of the numerous middens that exist at Cedar Point. In any event, the artifacts found in the Northeast wing are similar to the ones found in the Southwest section, and should date in the same period of time.

As stated earlier in this report, the main objective of this study was to determine if possible, the approximate age of the ruined buildings at Cedar Point. From a structural standpoint, if the buildings had been erected during the late 18th Century, or around 1795, one would expect to find hand wrought nails scattered throughout the ruins indicating the wooden sections of the tabby buildings had been secured with early nails of that type.

As it happened, the Cedar Point ruins only produced a total of five wrought iron nails, while a total of 104 cut nails (Figure 6H) and 11 modern wire nails were recovered, both with a metal detector, and by excavating in the ruins. The cut nails found here are the type known as "stamp headed," and came into use around 1830. This type of nail was in use throughout the remainder of the 19th Century, and, therefore, from a chronological standpoint, could only suggest a building date after at least 1830.

Since ceramics are considered to be excellent time markers, the group from the dwelling house were brought into play in an effort to establish a firm date in the 19th Century. Employing the ceramic formula developed by Mr. Stanley South, a well-known archaeologist, it was possible to assign a mean date of 1832 to the above group.

Another date comes from the cast iron rim lock reported earlier in this paper. This lock was found to be similar in style to other locks dating in the early and mid-1860's, and should, therefore, date in the same period of time.

Still other evidence comes from the Southwest wing where there were signs indicating this section was built with an inside

chimney designed for use with cast iron stoves. The cast iron stoves for cooking purposes were unknown prior to 1830, and did not appear in remote areas until around 1850.[4/] Additional evidence that a cook stove was used in this wing appeared in the form of a cast iron skillet and part of a cast iron waffle iron, both of the type used on stoves rather than in the fireplace of earlier days. Many fragments of a cast iron stove were also found in the area immediately West of the ruin where they had been thrown, likely by the same vandal who destroyed the stove in the first instance.

Hence, assuming the cut nail and ceramic chronology is correct, and the rim lock and cook stove dates reasonably accurate, one might conclude the Northeast wing of the dwelling house was obliged to have been built in the years following 1830, followed by the Southwest addition later in the century.

Since it would appear the above buildings were likely built in the years after the death of William Fitzpatrick in 1825, the question arises as to where his 1795 dwelling house could have been located in this area. The answer to this question may well lay in the region 75 feet West of the present ruins, where the site of another dwelling was discovered in the midst of a group of trees (Figure 3). For purposes of identification, the newly discovered dwelling was designated "Site D" on the plan of the Site.

Work performed on Site D was rather limited because the property owners objected to any of the numerous trees being disturbed. As a result, only two controlled five foot squares were

opened down to sterile soil, and the area was scanned with a metal detector in order to recover metal objects buried between trees. In spite of the above restrictions, a number of artifacts were found, both in the excavations and with the detector.

The following materials were recovered:

Ceramics

(a) Creamware in the amount of 35; dates 1750-1820.

(b) Pearlware in the amount of 32; dates 1780-1830.

(c) Painted pearlware appeared in the amount of 32; dates 1780-1820.

(d) Annular ware was found in the amount of five fragments; dates 1795-1830.

(e) Shell-edged ware recovered in the amount of 13; dates 1795-1840.

(f) Ironstone ware appeared in the amount of five fragments; dates 1813-1890.

(g) Transfer printed ware, in the amount of 39; dates 1795-1840.

(h) Slipware in the amount of four; dates 1670-1775.

(i) Brown saltglazed ware, in the amount of one; dates 1690-1775.

Glass

(a) Brown bottle glass appeared in the amount of 16 fragments; dates late 18th Century.

Kaolin Pipes

(a) Seven fragments of undecorated kaolin pipe stems were also recovered; dates around 1800.

Food Remains

(a) Thirteen fragments of animal bones recovered, not classified

as yet.

Miscellaneous Items

(a) The remains of a three tined fork, probably late 18th Century.

(b) One pointed wood screw; dates after 1840.

(c) Three modern wire nails; dates after 1900.

(d) Eleven cut nails similar to nails from tabby dwelling house ruins; dates after 1830.

(e) Twenty-seven wrought iron nails and spikes, dates in the late 18th Century (Figure 6I).

(f) One branding iron, representing the letter "G". The owner could not be identified because the 19th Century branding iron records were destroyed in the Jacksonville fire of 1901 (Figure 6D).

(g) Part of a cast iron "Spider" (frying pan with legs designed for use on an open fire). Probably dates around 1800 (Figure 6E).

(h) Large fragment of cast iron pot in addition to a number of smaller fragments, also dates around 1800 (Figure 6F).

(i) One gimlet pointed, two blade auger; dates early 19th Century.

(j) One pewter spoon, half of handle missing; dates around 1800.

(k) Two padlocks with several links of chain attached to both. One lock has brass gate for keyhole. These locks have raised decorations and likely date from mid-19th Century to 1900.

(l) Two "eye hoes" of the type with the eye being bolted to the blade rather than molded in one operation. The dates on these

items are uncertain but likely fall in the early 19th Century (Figure 6G).

(m) One "sad iron." Probably ranges throughout the 19th Century.

The materials from Site D and Structure A were similar in some respects, but there were differences. The following chart will show how the artifacts varied in dating and quantity.

Ceramics	Date	Site D	Structure A
Creamware	1760-1830	35	14
Pearlware	1780-1830	32	15
Annular Ware	1795-1830	5	10
Painted Pearlware	1780-1820	32	3
Shelledged Ware	1795-1840	13	13
Transfer Printed	1795-1840	39	25
White Ware	1820-1900	--	20
Decorated Whiteware	1891	--	4
Ironstone	1813-1890	5	40
Slipware	1670-1775	4	--
Brown Saltglaze	1690-1775	1	--

Metal Objects	Date	Site D	Structure A
Wrought nails	Late 18th Century	27	5
Cut nails	1830 - 1900	11	104
Modern wire nails	1900 ----	3	11
Cast Eye Hoe	Mid-19th Century	--	1

Metal Objects	Date	Site D	Structure A
Bolted Eye Hoe	Early 19th Century	2	--
Cast iron spider	Early 19th Century	1	--
Cast iron skillet	Late 19th Century	--	1
Cast iron pot (frag.)	Early 19th Century	1	--

It should be pointed out here that while the dates attached to the above metal objects are conjectural, the dates assigned the nails should be reasonably accurate.

Since the dating on the group of ceramics from Site D had not been established, the Stanley South dating formula was employed once again. A mean date of "1804" emerged from this procedure as opposed to the date of "1832" assigned to the Structure A ceramics. This, in addition to the above chart, points to Site D as the older of the two sites, and further suggests this could be the actual location of the dwelling that was built by the Fitzpatricks around 1795.

Therefore, if Site D is thought to be the actual site of the Fitzpatrick dwelling house, then the three tabby structurs were obliged to have been built by a succeeding owner later in the century. Before this subject can be discussed, however, it will be first necessary to present a brief history of the Fitzpatricks at Cedar Point, followed by the people who appeared on the scene at a later date.

WILLIAM FITZPATRICK

As stated earlier in this report, William Fitzpatrick came to Cedar Point in 1795 and established a plantation. According to his deposition presented to the Spanish authorities in 1808, his household consisted of his wife, Susana; Maria, 14; Dorcas, 12, William, 10; Samuel, 7; Mariana, 2; Tomas, 1; and a total of 15 slaves, ranging from three years to 30 years of age. Two additional children were born to the Fitzpatricks later, one named Cornelia, and the other, Joseph (Figure 8).

Still later in the Spanish census of 1814, William, who was then 50 years of age, and Susana, 46, still listed six children (Cornelia and Joseph had not as yet arrived), but only 11 slaves. The fact that Fitzpatrick had lost several of his slaves by 1814, may have been the harbinger of things to come, because in the following years he encountered financial troubles and by 1824 was obliged to mortgage his plantation to Samuel Philbrick for the sum of $1,217.17.[5/] There was no indication the mortgage was satisfied at that time.

Again in July of 1825, Fitzpatrick failed to pay his taxes amounting to $115.00 and they were taken up by Edwin H. Alberti, who acquired the property by virtue of a U. S. Marshal's Deed.[6/] In June of 1826, however, Alberti allowed Susana (now a widow) to redeem the Cedar Point tract at a cost of $159.62-1/2.[7/]

Whatever the reasons for Fitzpatrick's financial difficulties, he died during the period 1825-1826, leaving his wife Susana with additional problems. During the years after 1826, the Fitzpatrick

children disposed of their shares of the plantation and their tenure at Cedar Point ended.

In the year 1850, Cornelia was living with the Maxey family in Jacksonville. Thomas was deceased, William, Jr., was overseer for Kingsley B. Gibbs on Fort George Island, while Mary, Dorcas (also Dorothy), and Maria were married to local men. Susana, the mother, who would now be 78 years of age if still living, and the two remaining children, Joseph and Samuel, could not be accounted for.8/

COLONEL JOHN BROWARD

Colonel John Broward, a prominent and wealthy citizen of Duval County during the first half of the 19th Century, was born at Georgetown, All Saints Parish, South Carolina, November 17, 1795. John was brought to Florida in 1800 by his father, Francis Broward, and spent most of his youth at Drummond Point, the home of Charles Broward.[9]

In 1816, John Broward received a mill grant of 10,000 acres at the forks of Big and Little Cedar Creeks (Broward River). He erected a sawmill here and later sold lumber to the British in the West Indies.[10] (The remains of Broward's mill dam and timbers relating to the sawmill, can still be seen at the forks of the above creeks.) Broward apparently maintained this place as his home until the occasion of his death, November 9, 1865.

John Broward became involved with the Cedar Point Plantation when in 1848 he purchased 140 acres from William Fitzpatrick, Jr. and Mary Fitzpatrick Teasdale. Again, in 1850, he purchased two other parcels of land amounting to 146 acres from Cornelia Fitzpatrick and from Maria Fitzpatrick Maxey.[11]

The above sales only amounted to a total of 286 acres of the entire tract of 577 acres, and while Broward presumably had acquired the entire tract by 1860, it is not known how or when he obtained the remaining 291 acres. Apparently these other transactions were not recorded in the records of the County Courthouse. According to Ms. Margaret Smith of the "Title and Trust Company of Florida," these transactions are also missing in their records.

While the Browards had gained control of Cedar Point by mid-19th Century, they were not without their troubles. During the Civil War, the Cedar Point property was impounded by the U. S. Government by virtue of the "Confiscation Act of 1861."[12] Charles Broward, however, redeemed the tract in 1869 for the sum of $250.00 and was awarded a U. S. Marshal's Deed.[13] The status of Cedar Point during the time it was impounded is not known.

In the year 1871, Charles Broward, who still appears to control the Cedar Point property, mortgaged the tract to Theodore Hartridge for $1,409.67, and then again to Wilson Bro, for the sum of $725.36.[14] Both mortgages were satisfied and the 577 acres seemed to be clear again.

The next Broward to become involved with Cedar Point was "Pulaski Broward," one of the sons of John Broward. In 1884, an entry appears in the Archibald Abstract Books, stating "The heirs of John Broward are granting to Pulaski Broward 577 and 80/100 acres, more or less. At the same time, Elizabeth, wife of Pulaski, was said to hold her share of her husband; and there was a further statement saying "Promised partition was executed November 19, 1873."[15]

Nevertheless, Pulaski likely moved to Cedar Point in the early 1870's and may have remained there as late as 1898 since the Duval County Map of that date still shows him at Cedar Point under the name, "P. Broward." The Duval County census of 1900, however, places Pulaski in the "Duval Station" section of the county where he and his second wife, Vira, had a farm. He probably remained at that location until 1910 when he moved to Jacksonville.[16]

While Pulaski Broward was known to have lived at Cedar Point for sometime, it is not known whether John Broward himself ever established a residence there during his time. According to his biography as presented in the "History of Duval County" by Gold, "He lived at his Cedar Creek home from 1816 until the occasion of his death in 1865."

Since Cedar Point was a working plantation, it should be obvious the three existing tabby ruins do not represent the entire complex as it was in the first part of the 19th Century, regardless of the structure dating. While searching the area South of the tabby ruins, another structure site was located and recorded as "Site E" on the "Plan of the Site." There were also indications there may have been other buildings erected in this area (Figure 3).

SUMMARY AND CONCLUSIONS

To summarize, judging from the artifacts that were recovered during the study of the Cedar Point Complex, the three tabby structures here were probably built during the years following 1830, and since William Fitzpatrick was in financial difficulties at the time of his death in 1825, it is very doubtful he was associated with these structures in any manner.

In addition, there is the possibility, as stated earlier in this paper, that Fitzpatrick built his 1795 dwelling house in the area West of the present tabby ruins, designated as "Site D" on the Plan of the Site. The many artifacts recovered here pointed to this place as the remains of a dwelling house dating to earlier times than the nearby tabby works, and unlike the tabby building, the structure here appeared to have been a wooden affair, probably with tabby floors.

Hence, if Fitzpatrick did not build these ruined structures, then the most logical owner to have done so would be John Broward, who not only controlled the Cedar Point tract by mid-19th Century, but was also fully capable of erecting a home such as the one represented by the tabby dwelling house. Unfortunately, the time during which Broward presumably built these buildings, is not known. Therefore, it can only be said they were probably erected during the period 1830-1860, with emphasis on the latter part of that range.

Had it been possible to establish the time when the Fitzpatricks tenure at the Point actually ended, or when John

Broward purchased the first parcel of Cedar Point land, then a reasonably accurate building date could have been assigned to the three ruins. Perhaps in time, documents now hidden in some archive will be brought to light and the above problem solved.

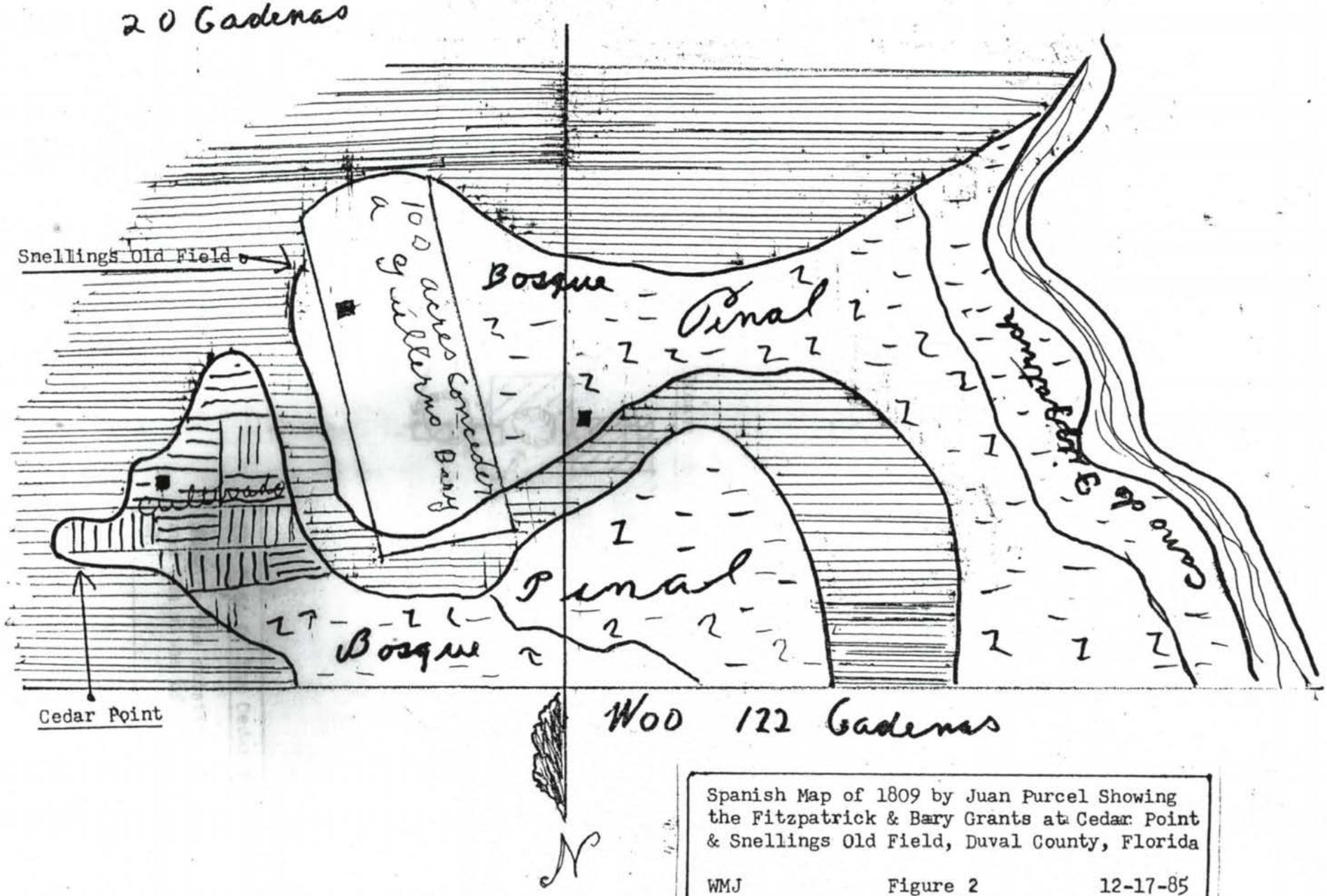
In conclusion, when William M. Jones first visited Cedar Point many years ago, the East wall of the dwelling house was partially standing and the outline of the door and the windows could still be seen. The South wall of this section was also partially standing and some woodwork still existed inside the structure. Some years later, however, an article relative to this place appeared in one of the local newspapers, prompting the local vandals to converge on the place. Within a year's time, the above walls were completely destroyed and all of the woodwork had vanished.

The casual visitor to Cedar Point today, might have difficulties visualizing this place as having once been a working plantation, complete with the dangers that attended such isolated spots. The so-called "Patriots' War" of 1812-1816, was a good example of what could be expected during those turbulent times. The renegade members of the patriot group roamed throughout Northeast Florida burning and pillaging the property of friend and foe alike.

It is not known if William Fitzpatrick's Plantation suffered at the hands of these vandals, but if so, it may well point to the reason for his financial difficulties prior to his death in 1825. In any case, Cedar Point, like other areas in present day Florida,

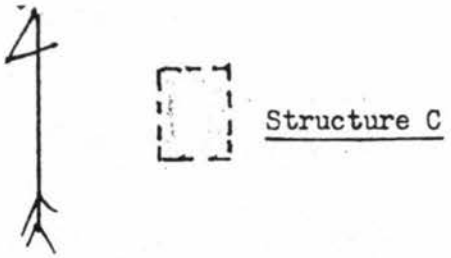
will eventually fall victim to the ravages of the "land developers," and the plantation of the Fitzpatricks and Browards will soon be forgotten.

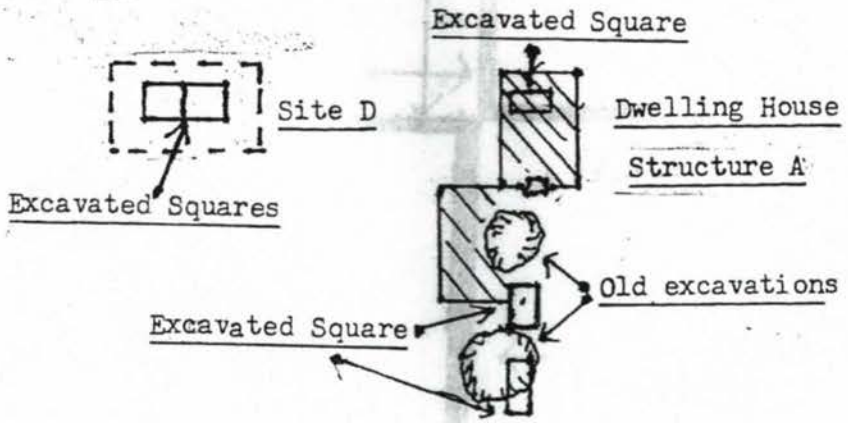
Jacksonville, Florida November 5, 1985



Spanish Map of 1809 by Juan Purcel Showing the Fitzpatrick & Bary Grants at Cedar Point & Snellings Old Field, Duval County, Florida

WMJ Figure 2 12-17-85





The Plan Of The Cedar Point Site

Showing the existing tabby ruins and the sites of other structures

WMJ 10-12-85

Not to Scale

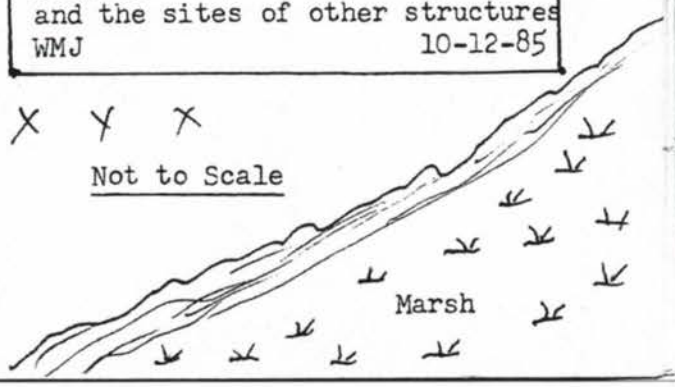


Figure 3

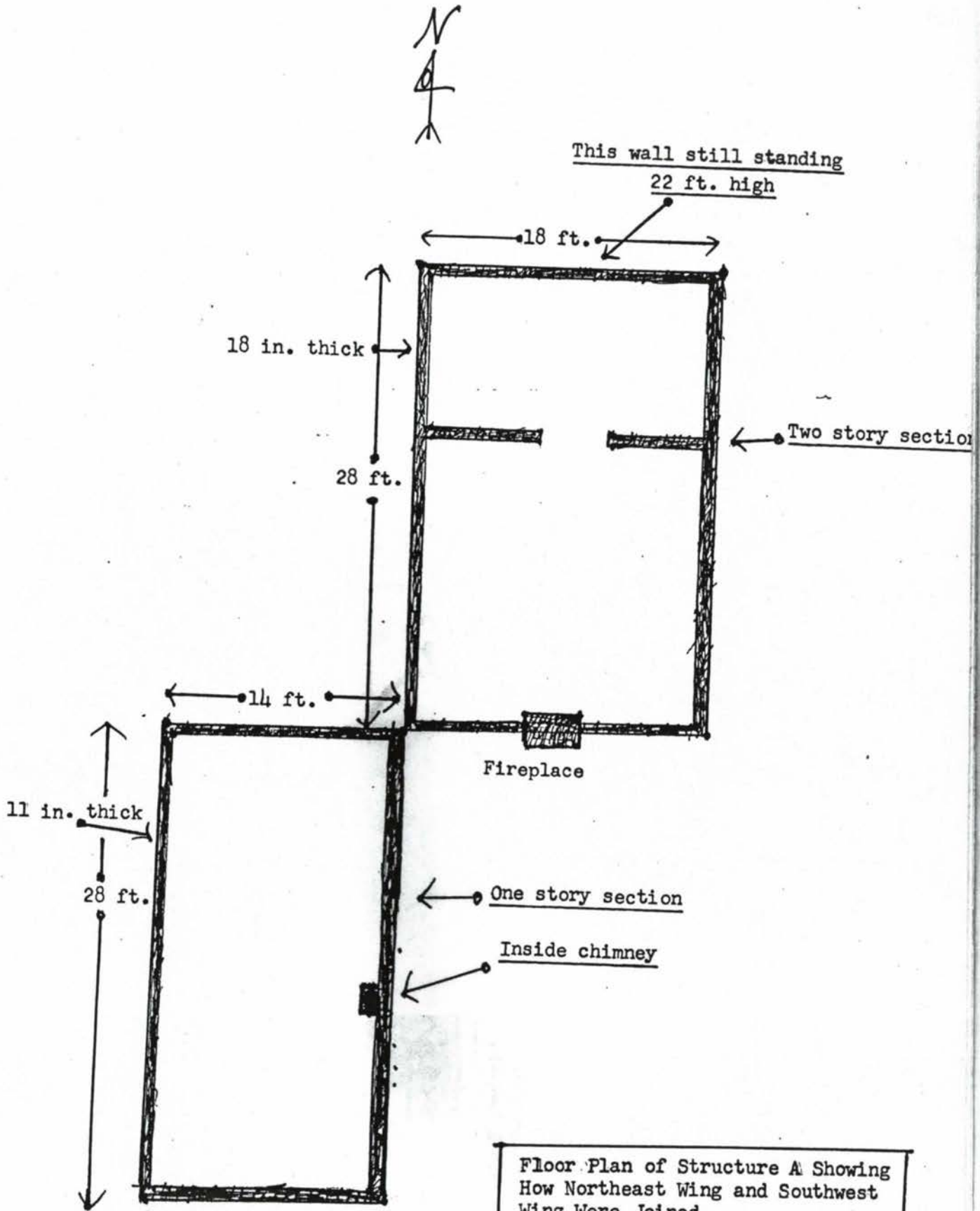

N
This wall still standing
22 ft. high
18 ft.
18 in. thick
Two story section
28 ft.
14 ft.
Fireplace
11 in. thick
28 ft.
One story section
Inside chimney
Floor Plan of Structure A Showing How Northeast Wing and Southwest Wing Were Joined
WMJ
Oct. 12, 1985

Figure 4

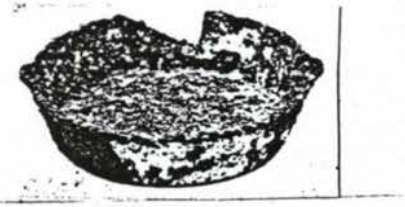


Fig. A-Cast iron skillet
Structure A

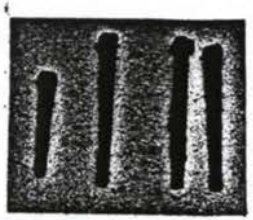


Fig H-Cut nails,
Structures A,B,C,

Fig E-Cast iron spider
Site D.

Fig B-Wrought iron
Hatchet, Structure A.

Fig D-Branding iron,
Site D

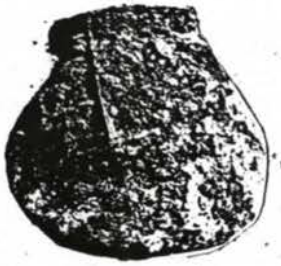


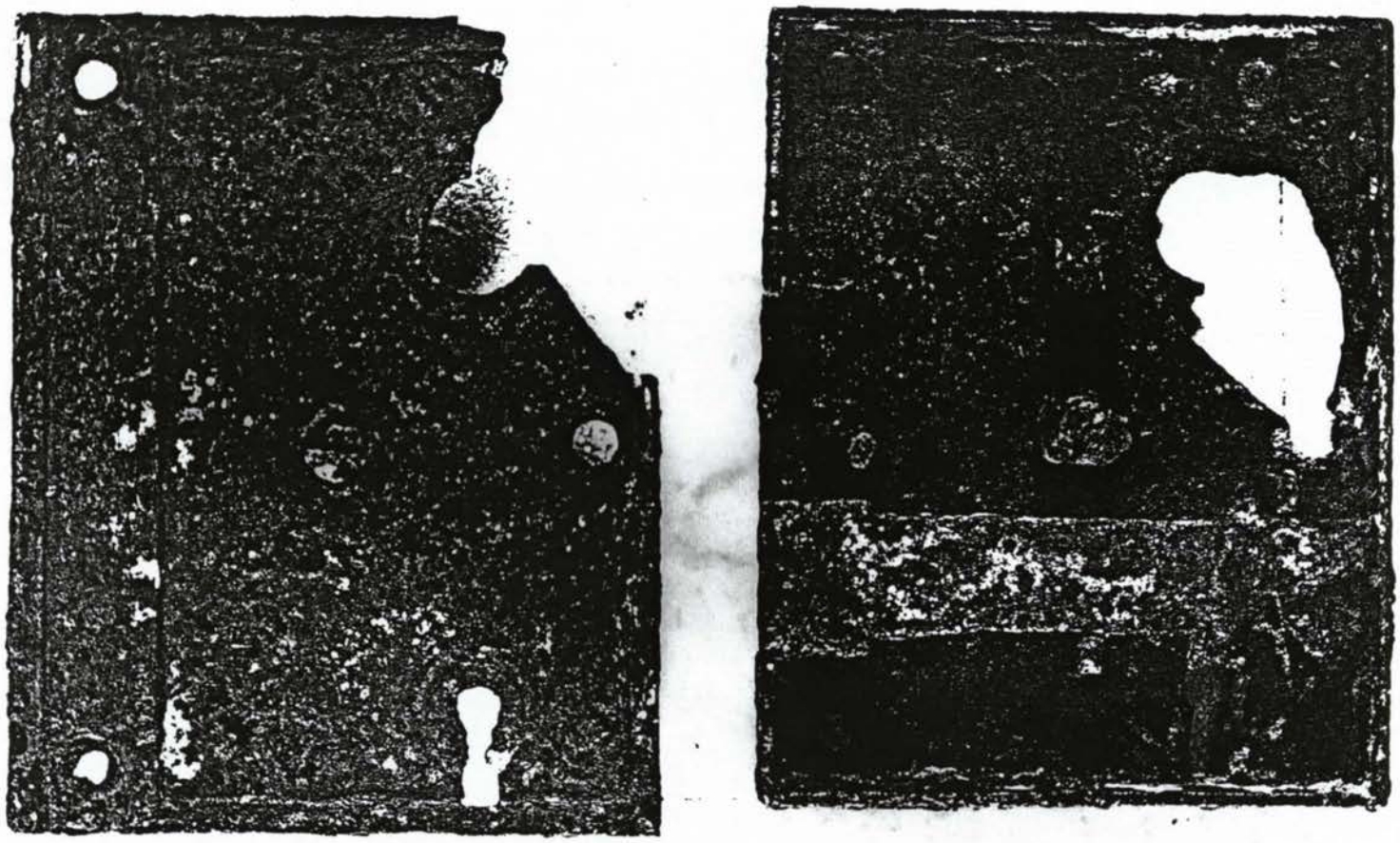
Fig F-Cast iron pot
Site D

Fig C-Waffle iron Frag.,
Structure A.

Fig I-Wrought nails
Site D.

Fig G-Bolted Eye hoe
Site D.

Figure 6



Front

Back

Rim Lock From Structure A

Figure 7

Nombres		Años
Dn Guillermo Fitz-Patrick		50
Su Esposa	Susana Fitz-Patrick	50
	Maria	14 ... 15
	Dorcas	12 ... 15
	William	10 ... 15
	Samuel	7 ... "
	Maria	3 ... "
	Frances	1 ... "
Negros		
	Dongres	30 ... 25
	Moffat	28 ... 25
	Salomon	24 ... 25
	Derry	22 ... 25
	Pompey	17 ... 25
	Charls	15 ... 15
	Juvenils	14 ... 15
	Tim	16 ... 25
	Harreat	36 ... 25
	Tibby	28 ... 25
	Amey	16 ... 25
	Billind	14 ... 15
	Mary	11 ... 15
	Bick	7 ... "
	Sophia	3 ... "
		440

Florida 15 de Enero de 1808

Will Fitz-Patrick

Figure 8

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(13) Ibid., Book A2 or 2, p. 297

(14) Ibid., Book A2 or 2, p. 308.

(15) Ibid., Book B2 or 4, p. 296.

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APPENDIX

THE MEAN DATE CERAMIC FORMULA

DEVELOPED BY SOUTH IN 1974

Midpoint date for each type of Ceramic recovered X Number of Sherds = PRODUCT.

$$\text{Mean Ceramic Date} = \frac{\text{Sum of Products}}{\text{Total Number of Sherds}}$$