

Report of 2001 Field Operations



PaleoAucilla Prehistory Project Underwater Prehistoric Archaeology in Apalachee Bay

June 25th through August 3rd 2001

Research Report No. 15

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Photo Credits

Digital images were taken by Norma Garcia-Huerta. Activity photos are provided courtesy of the Program in Underwater Archaeology. Artifact photos were taken by Maria Camila Tobón. All images are archived with the Program in Underwater Archaeology, Florida State University Department of Anthropology.

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Project Purpose and Description

The *PaleoAucilla Prehistory Project* (PAPP) is an ongoing underwater archaeological research program conducted by the Program in Underwater Archaeology within the Department of Anthropology at the Florida State University. This research represents the prehistoric component of the Department of Anthropology Field School in Underwater Archaeology, now in its fourth year, which is designed to give students experience with submerged prehistoric sites and historic shipwrecks. The *Dog and St. George Island Shipwreck Survey* represents the historic component, and is reported in a separate document (Damour and Horrell, 2002).

This year's field operations were carried out from June 25th through August 3rd 2001. A total of 12 staff, eight students and three volunteer crew members participated in the six-week long field session, which was staged from the Florida State University Marine Laboratory at Turkey Point in Franklin County, Florida. The research was authorized by archaeological permits from the Florida Department of State's Bureau of Archaeological Research, and dredge-and-fill permits from the Florida Department of Environmental Protection and the U.S. Army Corps of Engineers.

The research is designed to discover prehistoric sites submerged by sea level rise on the continental shelf of northwestern Florida, seeking *in situ* sedimentary sequences and intact archaeological deposits. The interpretive goals are to reconstruct human settlement patterns and the pre-submergence landscape, to discover the pattern and process of sea level rise, and to ascertain the kinds of alterations the sites have experienced since they were inundated.

The *PaleoAucilla Prehistory Project* is a long term, dual strategy research operation. One aspect investigates previously identified site locations by excavating and testing stratigraphic sections and by mapping and analyzing local conditions. The other aspect seeks out postulated new sites farther offshore for further assessment. Fieldwork operations in 2001 addressed both strategies with five research components. Research under the first strategy involved manual hammer and vibra-coring of sediment packages, induction dredge excavations, and 1-meter scale mapping of the rock outcrop of J&J Hunt, and research for the second strategy utilized subbottom profiler and side scan sonar remote sensing in conjunction with diver visual survey for the location and identification of new sites.

The *PaleoAucilla Prehistory Project* operations were conducted from two vessels: FSU Marine Laboratory's 48ft. R/V *Seminole* and Florida Institute of Oceanography's 70ft. R/V *Bellows*.

R/V *Bellows* served as the diving platform for the duration of the investigations at J&J Hunt. The vessel was three-point anchored over the site during each of the two workweeks, returning to the Marine Lab at Turkey Point for reprovisioning and crew changeout in between. The offshore testing operations included probing and coring near the J&J Hunt Site and in a sink hole immediately south and west of the site (150 – 200 meters away). Two test pits, totaling two square meters of site area, were exposed to approximately one meter depths, and a total of approximately two cubic meters of sediment was excavated. Mapping covered a total of 198 square meters.

The remote sensing and survey operations were undertaken from R/V *Seminole* out to sea in the PaleoAucilla drainage system, searching for river channel pathways and additional submerged prehistoric sites out to the 9-nautical mile limit of Florida's territorial waters. Six new sites were found this year, and have been registered on the State Master Site File as 8JE1574, 8JE1575, 8JE1576, 8JE1577, 8JE1578 and 8JE1579.

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During the four weeks of offshore operations, 32 person days were spent on the R/V *Seminole* for Survey Operations 2001. There were 18 dives for 36.9 person-hours underwater. A total of 12 days of diving was conducted on the J&J Hunt site with 60 dives logged for a total of 129.5 person-hours underwater. Details of crew, vessel, and site assignment histories during the 6-week field school are presented in the Master Roster (Appendix A).

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Previous Research

Brief Summary of 1986-2000 Offshore Excursions

Since first going offshore in this area in 1986, and before this year's research, survey operations had resulted in the discovery of artifacts at 30 locations (Faught 1996, Faught and Latvis 2000, Latvis and Faught 2001). These sites were identified and sampled by combinations of random and controlled surface collections. The majority of these sites are near high relief chert outcrops and have produced materials suggesting lithic quarry procurement activities. Of all the sites investigated thus far, three of these have produced hundreds of artifacts, including both tools and debitage, which have been interpreted to be the remains of special activity or base camps (Figure 1 shows these three sites: the J&J Hunt Site, the Econfina Channel Site, and the Fitch Site). In all, 2,248 pieces of chipped stone have been recovered, 617 from survey operations (see Table 1 on the following page) and 1,631 from excavations at the J&J Hunt Site (see Table 2 on the following page) (Latvis and Faught 2001).

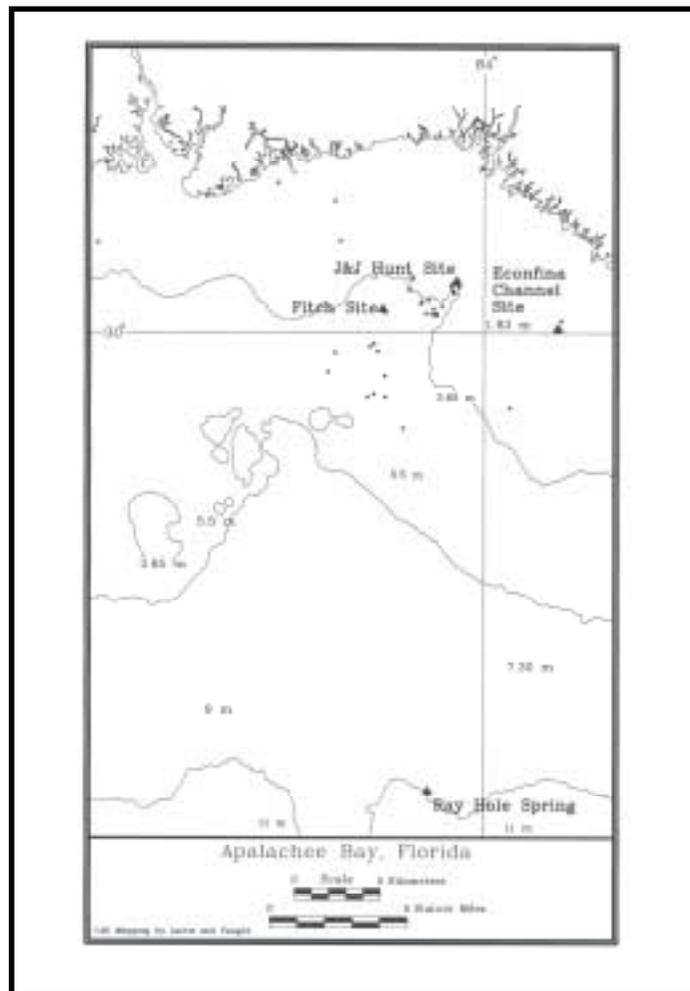


Figure 1: Previous Artifact Findspot Locations in Apalachee Bay, FL

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Table 1: Chipped Stone Artifact Counts in Apalachee Bay per survey year, 1986-2000

Year	Survey Location	Artifact Count
1986	8JE652, 8JE654, 8TA139, 8WA276	242
1988	8TA148	11
1989	8JE740	112
1999	8JE1549-1552	111
2000	8JE1557-1559	141
Total		617

Table 2: Chipped Stone Artifact Count from the J&J Hunt Site (8JE740) per excavation year

Excavation Year	Artifact Count
1991	184
1992	281
1998	191
1999	588
2000	388
Total	1,632

The J&J Hunt Site (8JE740) has been a major focus of our attention since its discovery in 1989. Subsequent research has been conducted there in 1991, 1992, 1998, 1999, and 2000 (Faught 1988, 1996; 2000; Latvis and Faught 2001). As shown in Table 2, a total of 1,632 chipped stone artifacts have been recovered at this site, which is located 6 km (3.5 statute miles) from the mouth of the modern Aucilla River in 3.7 to 4.6 meters (12 to 15 feet) of sea water. The larger general area of the J&J Hunt Site (Faught 1996) includes other well-defined clusters of lithic material that have been designated as Areas B & C (located in the upper reaches of the PaleoAucilla), which are discussed in further detail in (Faught 1996). What was originally called Area A, is now the only place designated as “J&J Hunt.”

Available evidence suggests that J&J Hunt (Area A, the location of the 1998 and 2000 investigations) represents an Early Archaic occupation on the margins of the PaleoAucilla. It was occupied by people who made Bolen notched projectile points (see Figure 18, page 44 of 99 Report) and unifacial scrapers, including at least one diagnostic Hendrix scraper (see Figure 12, page 31 of 99 Report) (Bullen 1975; Purdy 1981; Faught and Latvis 2000). The chipped stone assemblage also provided evidence for Middle Archaic occupation in the form of three stylistically diagnostic projectile points (see Figure 2, page 9 of 2000 Report).

Area B is located NNW of the PaleoAucilla sinkhole and may represent slightly earlier chipping activities by people who made Suwannee projectile points and unifacial scrapers. This interpretation is based on the presence of a thumbnail scraper and a Suwannee preform (see Figure 3, page 10 of 2000 Report) among the debitage (cf Daniel *et al.* 1986; Faught 1996). Artifact density at Area B was concentrated (approaching 9/m³), whereas Area A exhibited more dispersion (3/m³). Study of the debitage revealed that Area B exhibits mostly bifacial reduction strategies from biface blanks, whereas Area A produced evidence for secondary lithic reduction activities using angular blocks of chert that were chipped into bifaces, likely biface blanks. Debitage from Area A also exhibits evidence of tool-edge maintenance, more so than the artifacts from Area B, although both had low frequencies. Additionally, based on the presence of short pieces of unidentifiable terrestrial mammal long bones, some reduction of animal bone may also have been taking place at Area A.

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Activities at Area B could have predated those at Area A on the basis of the diagnostics recovered. Shorelines during the Paleoindian period would have been approximately 130 km (80 statute miles) farther than modern shorelines, based on current paleo-sea level data (i.e. the modern 40 m contour). Area A was probably occupied between 10,000 and 9,000 radiocarbon years BP as an inland setting, with activities taking place around the margins of the initial (upstream) sinkhole of a discontinuous segment of the PaleoAucilla. The coast may have been about 50 km (30 statute miles) farther out on the continental shelf (i.e. at the present day 20 m contour). During the Middle Archaic occupation the coastline would have been very close to, if not at, J&J Hunt.

The base of a fluted bifacial point (see Figure 4, page 10 of 2000 Report) was found on the eastern margins of a channel segment at a third location near the sinkhole, supporting the interpretation that Paleoindians and their progeny were around the channel segment identified at J&J Hunt (Faught 1992). Additionally, random hand fanning near an oak tree stump at Locus L₂ produced another projectile point (see Figure 18, page 44 of 99 Report) of probable Middle Archaic age (see Figure 5, page 10 of 2000 Report) and a broken deer antler. These items suggest the presence of people around this segment of karst features during the final stages of inundation.

A bathymetric reconstruction is shown in Figure 2. Before the 2001 field session the 2 kilometer-squared area had been traversed with subbottom profilers and side scan sonar, and divers had surveyed the northern portions of the channel features.

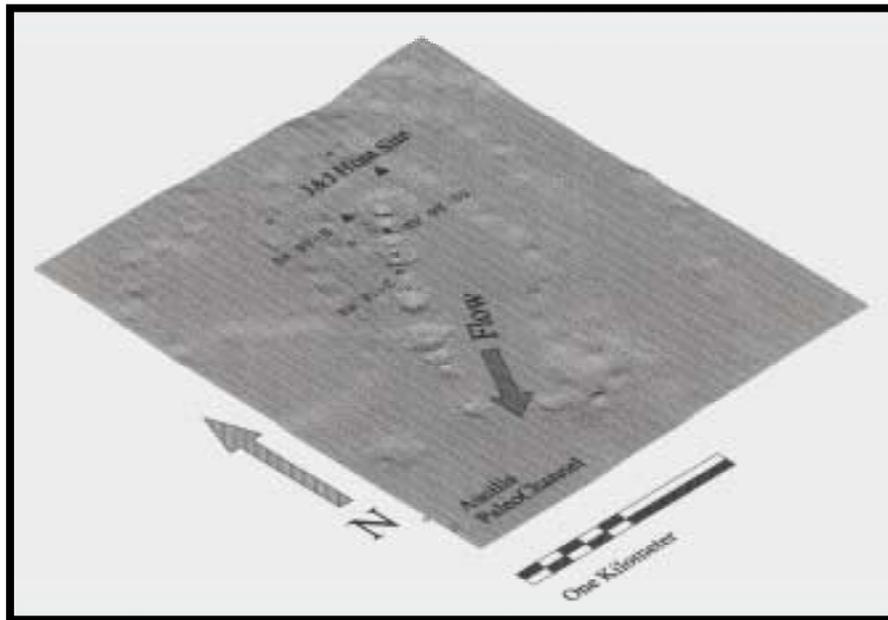


Figure 2: Bathymetric reconstruction of the J&J Hunt Site (8JE740)

In congruence with the predictive site model of the J&J Hunt Site, the Econfina Channel Site (8TA139) is located on the margins of the paleochannel of the Econfina River, or perhaps on a tidal creek of the PaleoEconfina mouth at the time. Based on an analysis of the chipped stone debitage and tools recovered there (Faught 1996; 1988), the assemblage represents the remains of a small Middle Archaic period special activity locus or field camp. The site is located 4.7km (2.9 statute miles) from the mouth of the modern Econfina River and is probably older than a radiocarbon date of 5,140 +/- 100 years BP (A-4696) obtained from wood found in the marine sandy shell “hash” slightly farther upstream. A date between 6,500 and 5,500 BP is probably more appropriate for this occupation based on a depth of 2m.

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The inhabitants of the Econfina Channel Site were people who made Marion or Putnam projectile points/knives (Bullen 1975). They were knapping chert from nearby outcrops, and possibly sharpening some chipped stone tools locally. This inference is based on observations of the debitage. Cortex frequency for the assemblage was relatively high (43%), suggesting a nearby source of chert, and local outcrops were indeed identified in the field. Some oyster shells found at the Econfina Channel Site were subsistence refuse, possibly an expedient resource drawing people to the area. Fish and apple snail (*Pomacea paludosa*) remains found in the associated sandy shell deposits also suggest food discard. Data presented by Russo *et al.* (1992) confirm the use of both fish and apple snails in late Middle Archaic contexts from the Groves' Orange Midden Site of similar age and culture (slightly younger than Econfina) on the eastern side of Florida.

Discovered in 1988, the Fitch Site (8JE739), located 10 km (6.2 statute miles) from the mouth of the modern Aucilla River in 5.2 m (17 ft) of water, appears to be the remains of a large lithic quarry of unknown age. Artifact density was substantial ($n=11/m^3$), but no artifacts of diagnostic value were located. Artifacts were found on bedrock exposures, as well as on and in the upper 10 to 15 cm of the marine sediments surrounding them. It may be that marine processes, such as storm surges, moved and sorted the items out and onto the marine sediments. This is suggested because artifact size decreased on average with distance from the bedrock exposures (Faught 1996:363). The site is probably older than 7,500 years BP, based on its depth and on the proposed sea level scenario prepared for this report and presented below; however, the lithic reduction strategies suggest an earlier, possibly Paleoindian or Early Archaic age.

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Research Design and Methodology

The design for the 2001 research activities included remote sensing and diver survey for new sites as well as continued coring, test excavation, and mapping activities at and around the J&J Hunt Site. The subbottom profiler was used to search for relict channel features and the side scan sonar was used to identify rock outcrop exposures for further diver visual survey.

Remote Sensing Methodology (Subbottom Profiler, Side Scan Sonar)

The subbottom profiler unit used by the Program in Underwater Archaeology is a Benthos Chirp II Subbottom Profiler with a Datasonics CAP-6600 Chirp II Acoustic Profiling System (processor and transceiver). This dual frequency sonar system produces high-resolution profiles of both the shallow and deep subbottom layers.

The side scan sonar unit used by the Program in Underwater Archaeology is a Marine Sonic Technology Sea Scan PC digital image sonar survey system with a 600 kHz towfish, a two-gigabyte hard drive, and a Pentium splash-proof CPU. Locational information is embedded in the digital record by a Lowrance GlobalNav 100 Global Positioning System, which has an accuracy of approximately 5 meters.

Survey Methodology (Diver Location Inspection)

Upon analysis of the collected side scan data, targets with the potential for artifacts are chosen for further investigation by diver survey. If more than 10 artifacts are located after inspection by scuba divers, then rebar datum points and soft tape baselines are established and controlled surface collection transects are conducted.

The main objective of survey is to locate new sites. The process by which a site gets designated as such requires that ten or more artifacts be found. Finding nine artifacts would constitute an 'encounter,' which is considered a potential area for further study. However, if 10 or more artifacts are collected, the site is recorded at the Florida Master Site Files.

Locational data for newfound sites is recorded in ArcView GIS (Geographical Information Systems) format, and inventory of collected artifacts is maintained in Excel using the PUA standard Provenience Designation (PD-FS) System (beginning with PD 00-2000).

Testing Methodology (hand fanning, coring, and hydraulic dredge excavations)

Testing methods include hand fan testing along transect lines, vibracoring, and induction dredge excavations with ¼ inch screens. The protocol for recording testing activities includes a reference to the site grid location (utilizing both the cardinal direction and the distance from the datum), plan and section drawings of all exposures, and video records of selected operational activities. Maps and data are recorded on sheets of Mylar under the water and summarized after the dive on paper. Locational control is maintained with the GPS system for which Selective Availability has been turned off since April of 2000. Location information (remote sensing tracklines, survey activities, and individual site datums) is mapped in ArcView GIS and AutoCAD formats. Artifact inventory is computer based in Excel using the PUA standard Provenience Designation (PD-FS) System (beginning with PD 01-000 for J&J Hunt related collections).

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Shipboard based coring is conducted to recover deep sediment samples that can expose progressive transgression sequences of marine, brackish, and freshwater/terrestrial sediments in addition to allowing for a better understanding of the karst morphology. The 2001 research design called for a better understanding of the geology of the site and the PaleoAucilla drainage. A Chirp II Subbottom profiler, from Benthos Oceanographic, was utilized to identify likely areas of deep sediment that would allow for deep core penetration.

The data obtained from this survey provided locational info on good areas for further testing with a 3.3-meter long water probe. This water probe was powered by an 8hp Briggs and Stratton engine (Model 196437, Type 1041 E1) connected to a water pump. This assembly was mounted on a floating screendeck that could be maneuvered to the different testing locations. The high-pressure water from the pump was fed to the probing device through a 2-inch diameter hose. The actual water probe implement incorporated a 2-inch male or female quick connect fitting on the proximal. This fitting was then reduced to 1-inch diameter by way of standard pipefittings.

In order to allow divers control of the water pressure and to prevent excessive backpressure that could damage the pump from restricted water flow, two PVC ball valves were incorporated into the design, inline from the reducers, on standard T- Joints that vented in opposite directions. This allowed pressures to be counterbalanced so that the probe could be inserted vertically and not be pushed over in one direction. A standard 1-inch diameter nipple attachment was used to connect the proximal end of the probe to the distal end. The probe was then measured and marked in half-meter increments in order for the divers to determine the depth at which the sediments were penetrated.

Probing activities were accomplished to determine the depth of sediments in a location prior to testing by excavation or coring and before a large expenditure of energy and time would be involved. Use of the water probe allowed the researchers to quickly determine the presence of large rocks in an area, or shallow bedrock that would cause coring or excavation operations to be suspended. This device was able to penetrate relatively deeply and determine the potential of an area by focusing a high powered jet of water at the distal tip of the probe, which displaced sediments from directly below the probe. These sediments were redirected back up outside the probe shaft, blowing a 3 or 4-inch diameter hole around the probe and carrying sediments to the surface, where they were displaced around the probe location. This method can, at low power and with vent valves open, verify the presence or absence of hard layers of the stratigraphy such as clays, and impermeable layers such as stones in the sediment and bedrock. With the valves pinched off, the probe is capable of eventually penetrating most hard sediments.

Areas that were identified as containing deep stratigraphy were cored to provide a stratigraphic record of the region. Coring was accomplished using both a manual coring device and a gas powered vibracore, which ran from the pontoon platform. Both techniques employ core tubes of thin wall aluminum irrigation pipe 30 feet long and 3 inches in diameter. The manual coring device is comprised of three parts, a metal ring that fits over the 3-inch tube and serves as an anvil, a heavy iron weight that serves as a hammer by sliding up and down the tube, and the T-bar from the vibracore, a hinged metal cylinder that fits around the aluminum tube. The T-bar has an adjustable bolt that allows for the two halves to be compressed around the core, and two rods that are welded to the outside of the cylindrical halves that serve as handles. In this way the T-bar provides a secure method for grasping the core and manipulating it during the coring process, as well as supporting the anvil ring, which is pounded by the hammer weight.

The vibracore device is powered by an 8hp Briggs and Stratton engine, modified by Stow Manufacturing (Model 803G), to power a flexible driveshaft. This is connected to an offset weight within a tubular casing at the end of the shaft which, when powered, produces an intense vibration. This vibrating head is u-bolted to a metal plate, which can be fastened perpendicularly to the core tube by more u-bolts. The

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agitation of the core tube from this device, coupled with manual manipulation of the T-bar, is sufficient to drive the core through denser sediments. The vibrating head requires immersion or frequent wetting with water to prevent overheating. During our operations both the manual core and vibracore units were operated individually and cooperatively, so as to maximize the potential driving force and recover the longest possible cores.

Excavation, like hand fan testing, exposes sediments as well as chipped stone, faunal, and wood remains. Units are designated by the location of their southwest corner stake and they are delimited by metric PVC grid frames that are pinned to the bottom. Excavation proceeds by arbitrary depth increments, usually in 10 to 20 centimeter intervals, unless a sediment change is observed, such as a change in color, texture, or constituents; in that case excavation can proceed by geologic levels, whereby each new sedimentary context designates a new level. The excavator also inspects intact sediments for preserved botanical specimens, faunal elements or artifacts. Items so encountered are three-dimensionally mapped onto Mylar grid sheets, before being videotaped and collected.

In 2001 operations, test pits were dug with a diver operated 4-inch hydraulic dredge. Excavation was accomplished by hand and dredge in order to systematically peel away sediment deposits in a controlled incremental manner. Tailings from the excavation were transported by the induction dredge suction hose to a screen deck barge on the surface anchored down current of the unit (to prevent unit contamination). The ¼-inch mesh screen deck was monitored and all chipped stone, bone, wood specimens and representative mollusk samples were collected.



Figure 3: Screendeck and engine platform



Figure 4: Screening for artifacts from excavation

Once excavation is completed (either because bedrock has been reached or the sediments are found to be void of artifacts) drawings are made of at least one of the four exposed sediment profiles and video footage is taken. Sediment samples from each geological strata are also collected for subsequent laboratory analysis.

Conservation procedures in the field consist of maintaining the lithic artifacts, wood samples, and faunal elements in salt water, and possibly fresh water depending on its availability. Materials are transferred to the FSU Marine Laboratory at Turkey Point to begin immersion in freshwater as soon as possible.

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Remote Sensing Operations

Subbottom Profiler Remote Sensing

Subbottom profiler remote sensing was conducted from July 2nd, 2001 through July 6th, 2001. A total of 91.92 kilometers of tracklines were accomplished during this cruise as described in Table 3. The researchers were fortunate to have good weather during the remote sensing operations; seas were less than two feet for all courses. The range of the subbottom profiler varied between four and seven meters. The track lines for the subbottom profiler are shown in Figure 5. Images from the subbottom profiler are archived with the Program in Underwater Archaeology, Florida State University.

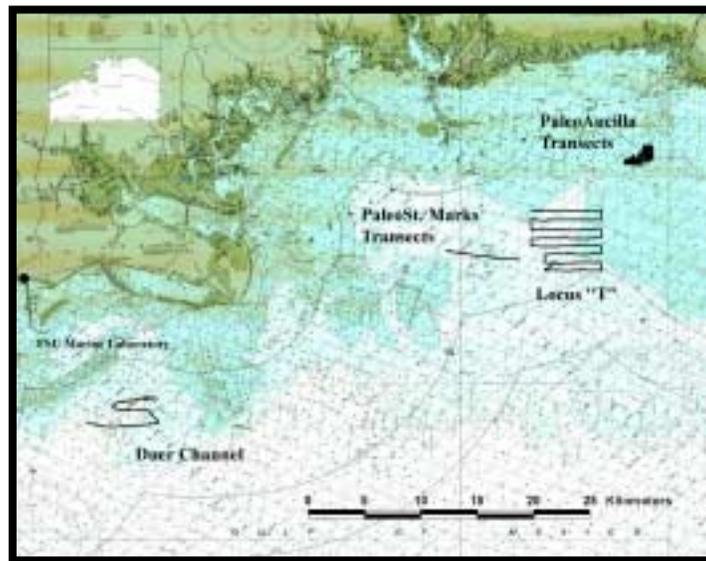


Figure 5: Subbottom Profiler tracklines

Table 3: Subbottom Profiler Survey Information

Location	File Name	Date	Distance
Duer Channel	July2001-1	July 2, 2001	12.37
Locus T abandon	July2001-2	July 2, 2001	NA
Locus T	July2001-3	July 3, 2001	45.34
PaleoAucilla	July2001-4	July 4, 2001	15.96
PaleoAucilla Centerling	July2001-5	July 4, 2001	3.78
PaleoAucilla SW	July2001-6	July 5, 2001	8.22
PaleoSt. Marks	July2001-7	July 6, 2001	5.62
TOTAL			91.29

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Side Scan Survey

The side scan survey was conducted using 75 to 50 meter ranges and locational control was provided by the Lowrance GlobalNav GPS system. The side scan records were saved as *.tif files and imported into Photoshop for mosaicking. This allows the researchers to study the data in its entirety and select targets for further study.

Side scanning was conducted on July 5th, 2001 and July 6th, 2001; however, there was cable failure on the second attempt and the data recovered was rendered useless. The linear distance for the survey conducted on July 5th was approximately four nautical miles and covered an area of approximately 185,000m². The Side Scan was run in combination with the Subbottom profiler and the tracklines are shown in Figure 5 as part of the PaleoAucilla transects; Figure 6 is a close-up of these tracklines.



Figure 6: Combined Side Scan – Subbottom Survey Tracklines at the mouth of the PaleoAucilla River

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Survey Operations 2001

The 2001 Site Survey focused on the discovery of previously unknown submerged prehistoric human occupation sites. These sites were located using remote sensing data obtained from the side scan sonar and subbottom profiler. This section presents the results of the 2001 Survey Operations in the form of activity descriptions, a map of the nine targets of diver investigation, and side scan survey images of the newly identified sites. A table of information lists all locations inspected, brief descriptions of what was encountered, and descriptions of the data collected.

Dive Summary

The 2001 Site Survey occurred over a period of 6 working days. There were 36 person dives for a total of 36 hours and 54 minutes underwater. Thirty two person days were spent on the R/V *Seminole* for Survey Operations 2001. While divers were in the water, there were at least two people, a dive supervisor and a stand-by/rescue diver, observing their movements from the surface.

Activity Summary

Most areas investigated this year were located from side scan sonar data collected on July 5th, 2001. The side scan survey was one hour long along a linear distance of approximately four nautical miles, and covered approximately 185,000m². An additional hour of side scanning was performed on July 6th, 2001, but due to cable failure, this data was unusable for survey. Other areas were located through happenstance; one site was located by students breath-hold diving while the boat was at anchor, and another site was discovered while attempting to locate a site found the previous week but at the wrong GPS coordinates. A total of nine locations were investigated this year, six of which were designated as sites. One previously known site was revisited, though at the time it was believed to be a new site. A total of nine 1m² transect units were hand fanned at two survey areas. A total of 662 pieces of chipped stone were recovered from survey areas, along with 68 faunal remains, and one historic artifact (a shell end or primer from a 50-caliber bullet).

Diver Survey

Those areas found through the use of side scan sonar were chosen on the presence of rocky outcrops and exposures, preferably with high relief and large area. Reviewing the side scan data with the Marine Sonic SeaScan PC Review yielded more than 30 targets, too many to be investigated in a week's time. Each target was ranked in order of preference, and sorted accordingly. More preferable sites showed extensive areas of rocky outcrop with high relief. GPS coordinates for each survey area were obtained through the side scan SeaScan Review program. These coordinates were plotted into Arcview to provide a map of the survey areas (Figure 4, following page). These GPS numbers will facilitate returning to the survey areas.

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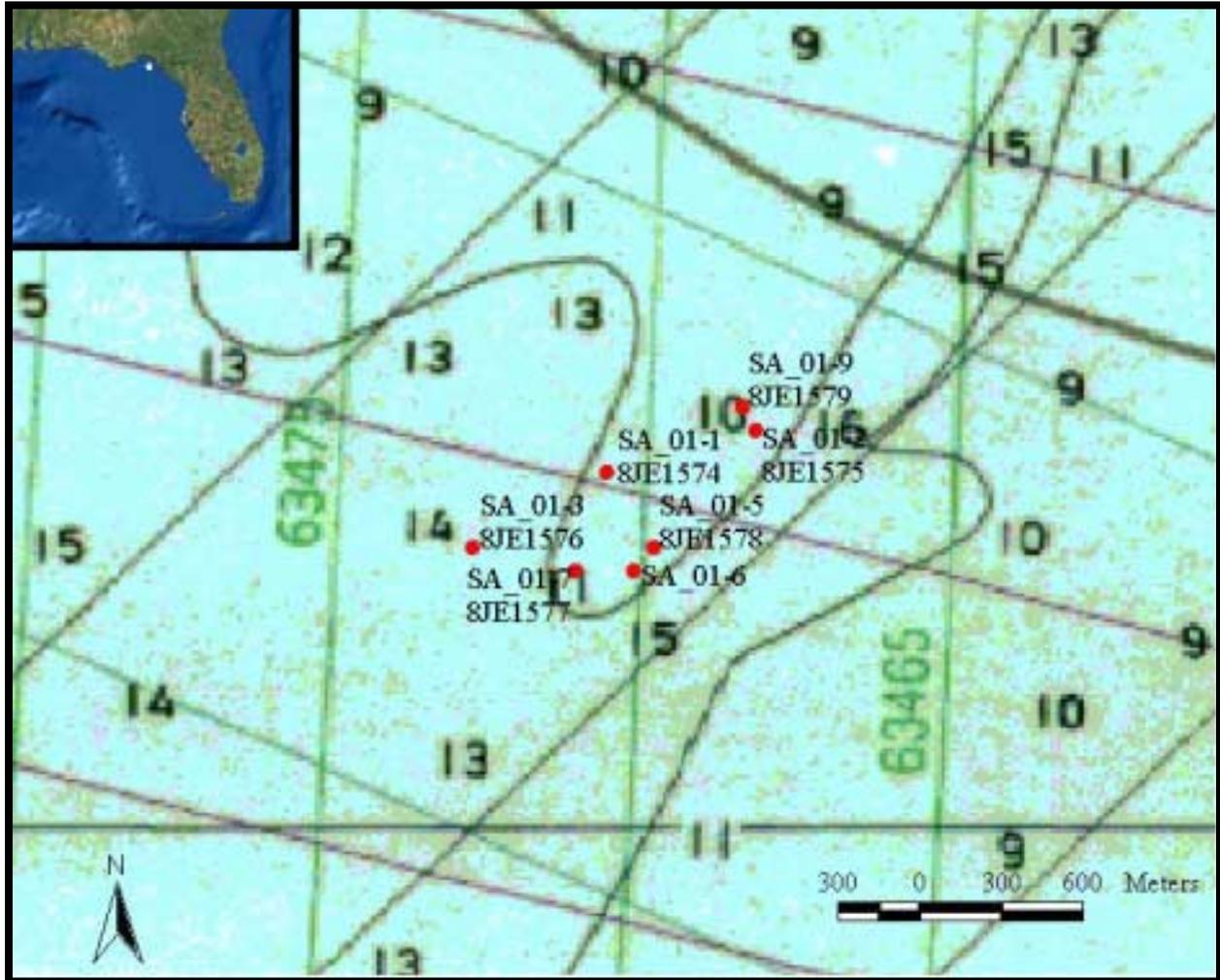


Figure 7: Survey 2001 Locations and Designated Site Numbers
Survey Area 01-6 was not designated as a site because less than ten artifacts were found.

As R/V *Seminole* arrived at the specific latitude and longitude for a survey area, an anchored buoy was deployed and the vessel was anchored down current of the buoy. Divers performed circle searches from the buoy to locate the rocky outcrops, observe the bottom topography, and to look for artifacts. Divers would then swim with measuring tapes in the four cardinal directions to determine the extent of the area and the height of the rocky outcrop. All artifacts found on the surface were collected. Random hand fanning would take place to look for artifacts that might be covered by <1cm of sand.

Transect Survey

Transect collections were conducted if ten or more artifacts were located at a survey area. A datum pin of iron re-bar was placed in a central location of the site. A section of 4-inch PVC piping with survey area information engraved on it was then attached to the datum pin. Six of the nine areas investigated were designated as sites and transect collections were performed at these sites.

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The 2001 Site Survey also returned to one previously existing site, however this was not realized until later. Divers located a site while at anchorage for the night. A review of the GPS coordinates led us to believe that it was a separate site (Survey Area 2001-4). However, during a later dive at 8JE740 (J&J Hunt), the datum pin was located at 15.35m South and 6.7m West of the main datum at 8JE740. As SA01-4 is actually 8JE740, a well-established site, the datum pin was removed and the artifacts found were placed in the 8JE740 collection.

Chipped Stone Assemblage

This year’s Survey Operations collected over twice as many artifacts as the two previous years combined. Survey Operations 1999 collected 122 artifacts, and Survey Operations 2000 collected 144 artifacts. Site Survey 2001 recovered 677 pieces of chipped stone, including fifteen from 8JE740; therefore, the total number of pieces recovered from 2001 survey areas is 662. Survey Area 2001-1 yielded 32 pieces of chipped stone, Survey Area 2001-2 yielded 19 pieces, Survey Area 2001-3 yielded 13 pieces, Survey Area 2001-5 yielded 94 pieces, Survey Area 2001-6 yielded six pieces, Survey Area 2001-7 yielded 450 pieces, and Survey Area 2001-9 yielded 51 pieces of chipped stone.

Of all the chipped stone artifacts collected, six were diagnostics, or indicative of an age or time period. Of the six, five were collected from Survey Area 2001-7, the most prolific site to be investigated this season. Table 4 is a description of each artifact. Figure 6 is an image of all the diagnostics and Figure 7 is an obverse/reverse view of the Suwannee projectile point, dated to 12,500 years B.P., the oldest diagnostic found offshore in this area thus far.

Table 4: Descriptions of Diagnostic Artifacts Recovered during Survey Operations 2001

Artifact Number	Description	Discovery Location	Weight
01-2024	Kirk Corner Notched Projectile Point	Survey Area 2001-7	32g
01-2029	Kirk Serrated Projectile Point	Survey Area 2001-7	28g
01-2030	Hendrix Scraper	Survey Area 2001-7	68g
01-2032	Wacissa Projectile Point	Survey Area 2001-9	27g
01-2035	Suwannee Projectile Point	Survey Area 2001-7	11g
01-2036	Wacissa Projectile Point	Survey Area 2001-7	13g



Figure 8: Survey 2001 Diagnostic Artifacts
 Top Row: 01-2036, 01-2035, 01-2032
 Bottom Row: 01-2030, 01-2024, 01-2029



Figure 9: Suwannee Projectile Point
 Obverse/Reverse View

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The analysis of the chipped stone found that there were 274 flakes, 63 broken flakes, 183 flake fragments, 79 pieces of shatter, 27 bifacial tools, 32 unifacial tools, and four cores. (Note: Survey Area 2001-6 is not considered in the following analysis because it contained less than ten artifacts.) Survey Area 2001-2 had the highest percentage of flakes with 73.7% and Survey Area 2001-7 had the least with 37.5%. Survey Area 2001-1 had the highest percentage of bifacial tools with 6.5% and Survey Areas 2001-2 and 3 had the least with 0%. Survey Area 2001-7 had the highest percentage of unifacial tools with 6.9% and Survey Areas 2001-1, the only other survey area with unifacial tools, had 3.2%.

Approximately 60% of the chipped stone had less than 5% marine growth on their surfaces, approximately 40% had less than half of the surface covered, six artifacts had more than half of the surface covered, and no artifacts were completely covered with marine growth. Approximately 10% of the total collection was not chipped stone and was not evaluated for marine growth. (Note: Survey Area 2001-6 is not considered in the following analysis because it contained less than ten artifacts.) Survey Area 2001-9 had the highest percentage of chipped stone lacking marine growth with 76.4% and Survey Area 2001-3 had the least with 50%.

Over half of the chipped stone were stained black, nearly 10% were unstained, approximately 25% were half unstained and half stained, over 10% were stained black but mottled with brown corrosion, and fourteen artifacts were totally corroded. Approximately 10% of the total collection was not chipped stone and was not evaluated for staining. (Note: Survey Area 2001-6 is not considered in the following analysis because it contained less than ten artifacts.) Survey Area 2001-1 had the highest percentage of unstained pieces of chipped stone with 22% and Survey Area 2001-2 had the least with 0%. Survey Area 2001-7 had the highest percentage of chipped stone with brown corrosion on black staining with 13% and Survey Area 2001-9 had the least with 2%.

Faunal Assemblage

Survey Operations 2001 also collected more faunal remains than previous years. A total of 68 pieces of fauna were collected. Eleven pieces of fauna were collected from Survey Area 2001-1, five pieces from Survey Area 2001-2, three pieces from Survey Area 2001-3, two pieces from Survey Area 2001-5, one piece from Survey Area 2001-6, 31 pieces from Survey Area 2001-7, and 19 pieces of fauna were collected from Survey Area 2001-9. Eight of these faunal pieces were shell samples collected from Survey Area 2001-1 and Survey Area 2001-7, twelve pieces were wood, two pieces were shark's teeth, and the remaining 46 pieces of fauna were bone material. There was one mammoth tooth fragment, one cancellous long bone fragment, possibly from megafauna, four cancellous long bone fragments, three turtle carapace fragments, one possible turtle carapace fragment, twelve dugong rib fragments, two possible dugong rib fragments, and 22 unidentified fragments. (Note: Survey Area 2001-6 is not considered in the following analysis because it contains less than ten artifacts.) Survey Area 2001-9 had the highest percentage of faunal remains collected with 28% and Survey Area 2001-5 had the least with 2.1%.

Other Recoveries

In addition to faunal remains, four pieces of natural limestone were collected from Survey Area 2001-1 and Survey Area 2001-7 for use as rock samples. One historical artifact was recovered during Survey Operations 2001: a shell end or primer from a 50-caliber bullet was recovered from Survey Area 2001-7.

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Ranking of Potential Survey Areas for Additional Research

Each survey area was assigned a rating for future research potential. The ranking of *Very High Potential* was given to Survey Area 2001-7 only. This site yielded 480 total artifacts, of which 450 are chipped stone, making it the most prolific site in the area. A *High Potential* ranking was given to survey areas that yielded 26 or more artifacts. There were three sites that received this ranking. The *Medium Potential* ranking designates a survey area that produced 10 to 25 artifacts, and two survey areas received this designation. Two sites received a *Low Potential* ranking because less than 10 artifacts were located. In previous years, survey areas that received a *High Potential* ranking also had relief greater than 30 cm. This year, half of the sites to receive a *High* or *Very High Potential* ranking had relief less than 30 cm. Both *Low Potential* sites had relief over 50cm, which is also contrasting to previous years. A detailed description of each survey location is listed in Table 5 below.

Table 5: Results of 2001 Survey Activities

Survey Area 2001-	Location of Area MST File Name	Bottom Character Site Potential	Description of Activities
1 Site # 1574	30° XXX N 84° XXX W 05JUL012	30 cm outcrop High	The outcrop was coral covered limestone with relief about 30 cm high. The site measured approximately 50m X 50m. Free divers located pieces of chipped stone but left them on the site. They donned scuba gear and ran an East transect and hand fanned two 1m ² units at 10m and 20m East. The next day transects were run to the West and North. A hand fan unit was placed at 20m North and a 10m circle search around 30m North was performed. The following week, divers returned to place a re-bar datum pin with a PVC marker. A total of 32 pieces of chert including a large bifacial preform, 11 pieces of fauna, and 3 rock samples were recovered (PD# 2000-2012).
2 Site # 1575	30° XXX N 84° XXX W GV 05JUL002	5 cm outcrop Medium	This area consisted of very low relief (>10cm) rock outcrops covered in coral. The sand was coarse with large shell pieces littering the area. The site measures about 60m East to West and 15m North to South. 19 pieces of chipped stone and 5 pieces of fauna (PD# 2013) were located via surface collection during two separate dives. The divers placed a datum pin and tag. It was named the Wilson Site.
3 Site # 1576	30° XXX N 84° XXX W 05JUL039	10 cm outcrop Medium	This location exhibited extensive rock outcrops. The rock was black and partially covered in coral growth. The maximum height of the rock was 15cm. The area of the site is 80m North to South and 100+m East to West. Small channels or scratches were observed in the rock. 13 chert flakes and 3 pieces of bone (PD# 2014) were located during surface collection. 1 piece of chipped stone (PD# 2015) was located in a 1m ² hand fan unit 20m North. A datum pin and tag were placed prior to hand fanning.

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4	15.45m South 6.7m West of J&J Hunt main datum	15 cm outcrop	The area was located during a late day dive at the anchorage location near J&J Hunt. The site was a rocky outcrop with low relief interspersed with seagrass and sandy areas. Divers located nine pieces of chipped stone on that dive, along with six more artifacts and three pieces of fauna (PD# 2016) during the next dive. These divers placed a datum pin and tag where they located the additional artifacts. Investigating divers performed circle searches out to 15m. Visibility was low, so divers were unable to fully assess the extent of the area. Note: Upon further review of site location, the datum pin for SA01-4 was found at 15.45m South and 6.7m West from the main datum at 8JE740 (J&J Hunt). Therefore, SA01-4 is a part of 8JE740. The pin has been removed and the artifacts were transferred to the 8JE740 assemblage.
	N/A	J&J Hunt	
5	30° XXX N 84° XXX W	60 cm outcrop	After an initial 2m circle search at the buoy marker, divers did transects in the cardinal directions. There was high relief coral covered rocks with some small relief sandy areas. The site measured 59m East to West and 43m North to South, with maximum relief of 60cm on the East side. The area is bordered by seagrass. 94 pieces of chipped stone were collected, including the distal end of a bifacial tool (PD# 2017-2018). Divers placed a datum pin and tag before proceeding to SA01-6.
Site # 1578	05JUL036	High	
6	30° XXX N 84° XXX W	70 cm outcrop	This area contained very high relief coral covered rock but few artifacts. The area measured 14m East to West and 8m North to South, with a maximum relief of 70cm. This area too was bordered by seagrass. A total of 6 pieces of chipped stone and one piece of wood were collected at this survey area (PD# 2019). Due to its proximity to SA01-5 (within 50m), they may be considered part of the same site.
	05JUL036	Low	
7	30° XXX N 84° XXX W	20 cm outcrop	The side scan record for this area showed an extensive rocky outcrop. The extent of the site is more than 100m East to West and over 91m North to South. Divers reached the extent of their tapes in all cardinal directions except to the North. The area consisted of low relief rocks (<20cm) covered in coral. Patches of very low relief rocks (<5cm) in sandy areas were frequent. Investigating divers located more than 10 pieces of chipped stone swimming the two meters to the marker buoy. They immediately began transect runs to the South, North, and West. A second team returned the next day, placed a datum pin and tag, and completed the East transect. 107 pieces of chipped stone were collected on the South transect, 74 from the North, 162 from the West, 69 from the East, and 35 within 2m of the datum. 450 pieces of chipped stone were collected plus an additional 31 faunal remains, one rock sample, and one historic artifact (PD# 2020-2029). 3 diagnostic artifacts were collected as well, a Hendrix scraper, and a Kirk Serrated projectile point (PD# 2029-2030) were found on the East transect, and a Kirk Corner Notch projectile point was found on the North transect (PD# 2024). Note: Visiting state and university officials observed many other pieces of chipped stone while diving on this site. Three additional diagnostic artifacts were collected, a Suwannee projectile point, a Wacissa point, and one large chert flake (PD# 2035-2037). These artifacts are counted in the total listed above. This site was named Ontolo.
Site # 1577	05JUL037	Very high	

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8	30° XXX N 84° XXX W 05JUL007-008	50 cm outcrop Low	This area was rocky with large rocks and patches of coral. Divers ran a North and South transect to 36m and 37m respectively. The maximum relief was over 50cm, but no artifacts were observed or recovered. The side scan record shows extensive rocky outcrops directly West of this area. These areas should be re-investigated.
9	30° XXX N 84° XXX W 05JUL002	15 cm outcrop High	The area was a rocky outcrop with low relief interspersed with patches of sand and surrounded by seagrass. The divers ran an initial North transect, and did not locate any artifacts until 26m. The transect continued to 50m, the extent of the measuring tape. The buoy marker was moved to 25m South, and a datum pin and tag were placed at that location. Transects were run to the East and West, but the dive ended before the South transect could be remeasured from the new datum. The extent of the site is 41m East to West, and over 50m North to South. A total of 51 pieces of chipped stone were collected, 11 from the East transect, 11 from the West, and 29 on the North/South transect. An additional 19 faunal remains were collected as well (PD# 2031-2034). A Wacissa projectile point was located on the South transect (PD# 2032).
Site # 1579			

Side Scan Sonar Images of Survey 2001 Site Locations

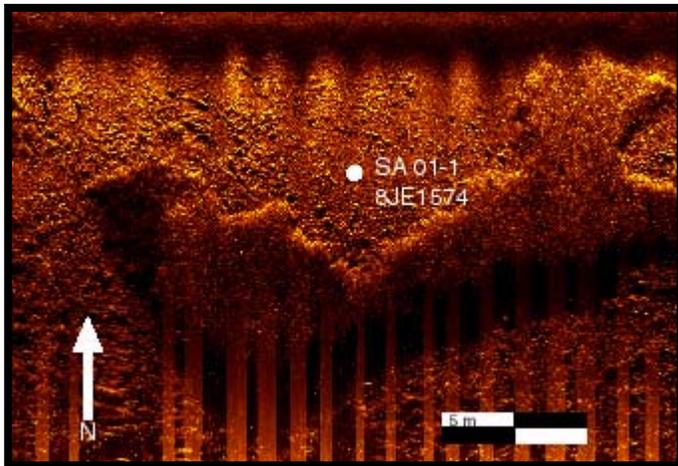


Figure 10: Side Scan Sonar Image of 8JE1574

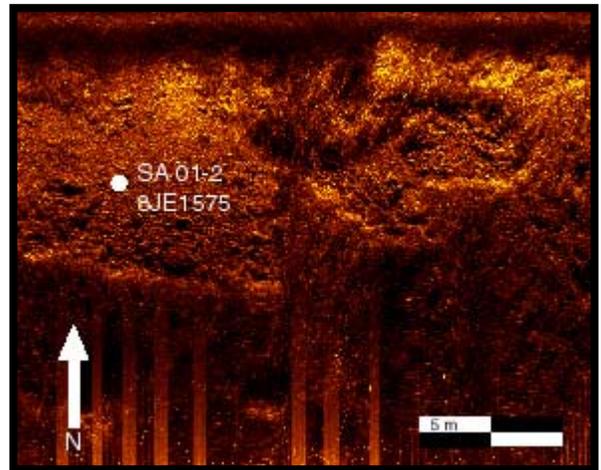


Figure 11: Side Scan Sonar Image of 8JE1575

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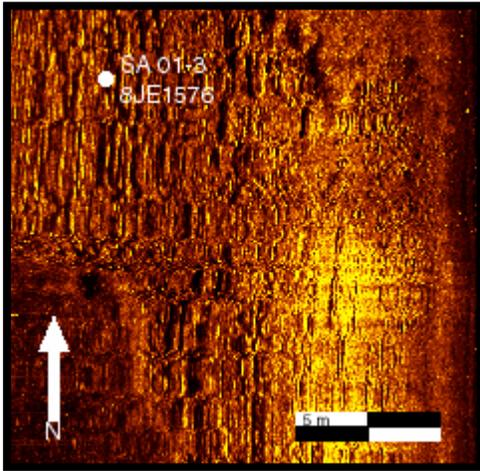


Figure 12: Side Scan Sonar Image of 8JE1576

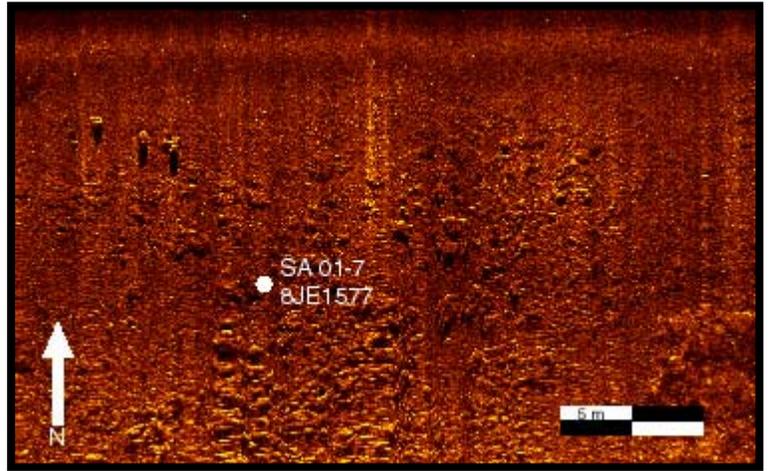


Figure 13: Side Scan Sonar Image of 8JE1577

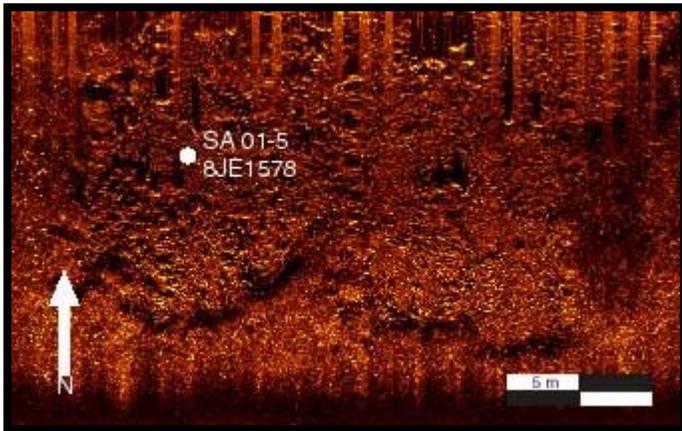


Figure 14: Side Scan Sonar Image of 8JE1578

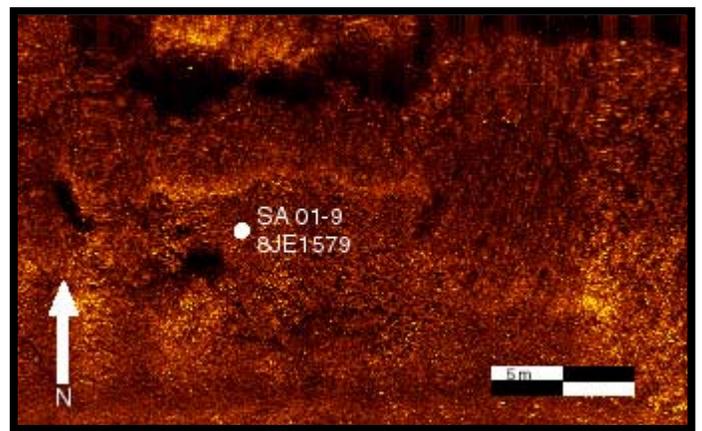


Figure 15: Side Scan Sonar Image of 8JE1579

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Summary and Conclusions

This year's Survey Operations were extremely successful, despite limited boat time and bad weather. Nine areas were investigated, six new sites were located and over 600 pieces of chipped stone were recovered. In previous years, survey areas containing high relief rocks were more desirable. During this year, staff and students noticed that the artifacts were always found in areas with low relief rock interspersed with sandy patches. The sites with a rocky relief of approximately 15-25cm yielded the majority of the artifacts. Survey Area 2001-7 produced the most chipped stone and diagnostic artifacts of any other site ever surveyed in the Apalachee Bay. This area should be the target of intensive investigation, as the full extent of the site is not known. The areas investigated during Survey Operations 2001 have been untouched by humans for thousands of years. They are what diver/collectors in the 1960's were seeing when they first began diving in the rivers. These areas need to be investigated before collectors become more aware of how rich the offshore is in diagnostic artifacts. The public also needs to be aware that artifacts located in the offshore are not covered in Florida's Isolated Finds Policy, even those found on the surface of the ocean bottom; therefore, artifacts can not to be collected without proper permits.

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Operations at J&J Hunt (8JE740)

Mapping

Mapping was conducted during the third and fourth cruises, from July 15th through July 27th. In general, comfortable water temperatures and good visibility provided divers with optimal conditions for data collection. Dive teams illustrated an average of 11.65 1m² units per dive. Twelve divers mapped 198 1m² units in the two-week period. Total minutes spent underwater mapping was 3348, equaling 55.8 hours. There were 34 total mapping dives, equaling 17 team dives. Mapping for the 2001 field season focused on the southwest, northwest, and northeast quadrants. This season's mapping area remained within 10 square meters of the datum (500,500).

Table 6: Mapping Operation 2001 Statistics

Total minutes mapping:	3348
Hours:	55.8
Units mapped per team per dive:	11.65
Avg. Dive Time:	98.5 min.
Dives mapping	17

The primary goal of the mapping project is to understand the extent of the exposed limestone bedrock in relationship to sand deposits and to overlay this map with previous side scan sonar imaging. This will enable researchers to interpret a rough contour of the subsurface limestone and topographic features such as paleochannels, tributaries, and rock outcrops. The location and the distribution of artifacts and bone within this rock matrix are also of interest.

Dive teams consisted of two divers, using SCUBA and/or hookah. Divers on hookah were encouraged to make 2-hour dives; however, dives averaged 98.5 minutes.

Locational control was maintained by attaching baselines (polypropylene line) to tape measures running in the cardinal directions from a rebar datum marker. This marker was reworked this year by cementing the base and building a two-layer structure made up of eight cement building blocks (Figure 16).

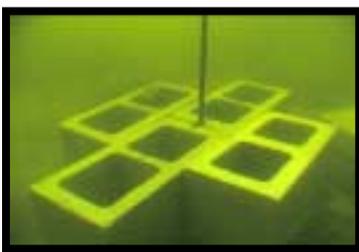


Figure 16: J&J Hunt Main Datum

Temporary baselines/measuring tapes were laid down in an east-west direction and used by divers to guide their grid during positioning. Divers used a 1x2 meter PVC grid divided into 10cm increments with electrical tape. Extendable and retractable legs on the grid corners allowed divers to compensate for uneven topography.

Divers were instructed to map the rock-sand interface within each 1m² grid. They documented the presence of artifacts, flint/chert debitage, and bone. Unit maps were drawn on mylar sheets (8.5x11 in.) that were divided into 4 sections, each being 10cm². The rock-sand interface in each 1m² grid was reduced by the mapper to fit into the 10cm² box. This box was divided into 1cm increments to assist in mapping accuracy. Four 1m² units could be drawn per page. Mechanical pencils were used for all illustrations. Figures 17 and 18 demonstrate mapping activities.

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Figure 17: Positioning the PVC Grid Frame



Figure 18: Mapping Underwater

Before mapping, divers lightly hand fanned each unit, exposing a greater extent of the limestone bedrock, if present. Loose rock, coral, sea-life, and other ephemeral elements were not mapped. Divers were asked to map and collect diagnostic artifacts and tools, as well as potentially identifiable pieces of bone. All other artifacts were left *in situ*. At the end of the dive, the mylar sheets were rinsed in fresh water and hanged to dry. Afterwards, 10cm² illustrations were reduced to 2cm² drawings on a master map in pencil and still later digitized into an AutoCAD rendering of the site in the State Plane Coordinate System grid.

Divers faced several challenges while mapping underwater. Biotic life, primarily jellyfish and remoras, pestered divers during the two-week mapping period. This season's oceanic conditions produced abundant jellyfish of various size and species. Their presence was responsible for the termination of two dives. Remoras, though unnerving, did not lead to the termination of mapping. The rare appearance of sharks led to the delay of two dives on separate days. Other challenges included the interpretative aspects of determining the rock-sand interface. Divers interpreted immovable rocks as bedrock. However, without probing and dramatically disturbing the sediments around the rocks, it is likely some rocks not attached to the bedrock were mapped – deeply embedded rocks are apparently bedrock according to our noninvasive methods, and simply hand fanning would not expose these rocks.

The master map allows one to view the J&J Hunt site from a macro-perspective rarely open to underwater researchers. The map will enable researchers to interpret a variety of anthropological issues, including site formation processes, artifact and bone distributions, as well as paleolandscape reconstructions. Additionally, the master map will be correlated to other data sets, including side scan sonar, subbottom profiler, fathometer, and artifact provenience data. Preliminary analysis already reveals correlations to side scan sonar data and to known contour variations.

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Coring

Areas that were probed and cored during the PAPP 2001 field season were those initially targeted through remote sensing, either by the Benthos Chirp II Subbottom profiler, or the Marine Sonic Side Scan Sonar. These surveys identified areas suspected of containing deep sediment beds, such as river channels or sinkhole features. These locations have been shown to harbor archaeological sites, and potentially intact sedimentary levels. These levels have the potential to provide us with a great deal of valuable information about the site formation processes at work in the area and the influence of sea-level rise and inundation processes on the archaeological and geological record.

Probing in 2001 was targeted at the locus L1 area, a potential sinkhole, in order to identify its margins. Probing was conducted on two separate days, and a total of 10 probes were conducted. Table 7 denotes the GPS coordinates of Targets 1-4, which were taken on July 17, 2001. The table lists the water depth at each target and the penetration of the water probe into the sediments.

Table 7: Water Probe Results for July 17, 2001

Target	Lat/Long Coordinates	Water Depth	Probe Penetration
1	30 XXX N / 84 XXX W	15 feet	2.75m
2	30 XXX N / 84 XXX W	16 feet	>3m
3	30 XXX N / 84 XXX W	12 feet	
4	30 XXX N / 84 XXX W	12 feet	2.75m

The general area was a sandy bottom to the SW of J&J Hunt, and the targets generally followed a southwesterly path from the primary location until an area of patchy surface rock was encountered. The second probe location, which was W/SW of the first location, was chosen as the site for core 01-01. This was because the probe successfully reached the limit of penetration (3m) in sediments with little gravel and no rock. Core 01-01 was slightly offset from this particular target in order to avoid the disturbed sediments and hole created by the probe. Locational control for this point was achieved with a Lowrance GPS and the use of the waypoint averaging feature to maximize accuracy. The sediments encountered at Target 3 were rocky and much rock was discovered after moving a bit more to the SW, at the location of 30' XXX N / 84' XXX W. Target 4 was placed between #2 and #3 at a bearing of 78 degrees from Target 3; the sediments were made up mostly of gravel and rock was encountered at a depth of 2.75m.

Probing was also conducted on July 23, 2001 to the NE of the first location. A series of six probes were conducted in the area of 30' XXX N / 80' XXX W, leading in a generally southwesterly direction towards the location of the first core, in order to identify the sinkhole margins. There was a primary attempt at 30' XXX N / 84' XXX W, which was where the buoy marker was dropped; however, the engine platform was not close enough. Therefore, the first successful probe (at the second location) was made slightly offset towards the west of the buoyed location to accommodate the high pressure water hose's short length. Table 8 denotes the GPS coordinates of Targets 1-6 for July 23, 2001. The table lists the water depth at each target and the penetration of the water probe into the sediments.

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Table 8: Water Probe Results for July 23, 2001

Target	Lat/Long Coordinates	Water Depth	Probe Penetration
1	SW of 30 XXX N / 84 XXX W	16 feet	2m
2	further SW, within 1 meter	16 feet	1.5m
3	3m SW of previous probe	17 feet	2.2m
4	5m at 220 degrees from previous	17 feet	2.5m
5	30 XXX N / 84 XXX W	18 feet	1.75m
6	at anchor of screendeck	20 feet	1.4m

The second probe (third location) was located within a meter of this first probe, in order to ascertain whether the probe was being blocked by a single large boulder or by bedrock. The third probe was located 3m SW of the previous location and reached a depth of 2.2 meters, in 17 feet of water. A GPS location was recorded for the fourth probe, which registered as 30' XXX N / 84' XXX W; however, this is probably only generally accurate due to the GPS reading being taken from the buoy at the surface, which was influenced by the current and waves. The location of this probe was determined by traveling five meters at a bearing of 220 degrees from the previous probe and towards the first core location. Here, the probe reached a depth of 2.5 meters, in 17 feet of water. The fifth probe, which was located another 5m at 220 degrees, was correspondingly located by GPS numbers taken from the buoy location at 30' XXX N / 84' XXX W and reached a depth of only 1.75m, where it struck a dense layer of sediment or bedrock. Water depth for this test was 18 feet deep. The final probe was placed at an anchor location off the screendeck where the depth had been recorded as 20 feet. This sixth test yielded a probe depth of only 1.4 meters. GPS control on this location was lost when the GPS batteries died, while weather precluded another attempt. These probes demonstrated conclusively that there was a hard boundary, possibly bedrock, between 1.5 and 2.5m below the surface of the seafloor, and that the area being tested was not likely associated with the deep sinkhole we were investigating. While further progress towards the core's location was halted due to weather, further investigation, possibly outward from the successful core location, should generate better results.

Table 9: Coring Results for July 2001

Core Number	Location	Penetration	Compaction
01-01	30' XXX N / 84' XXX W	3.85m	2.04m
01-02A	TP 35S/5W	1.26m	0.85m
01-02B	TP 35S/5W	2.82m	1.39m

The first core of PAPP 2001 was taken at 30' XXX N / 80' XXX W, offset from the successful 3 meter probe of July 23, 2001. The manual core device was employed first to anchor the core in place and gain a foothold, while later work was accomplished with both the vibracore and manual core devices operating at the same time. The vibracore head, attached to the upper section of the core tube, agitated the core, and was controlled by the archaeologists on the screendeck platform. Figures 19 and 20 illustrate the operation. The manual core device was operated below the surface by divers who guided the operation. Manual coring consisted of lifting and lowering a heavy weight upon the anvil iron, which impacted the T-Bar pushing down the core into deeper sediments. These heavy items were lowered to the dive team on strong lines to prevent injury to the workers on the bottom. Upon full penetration, 3.845 meters, the core was cut above the seabed with a pipe cutter, plugged with an expanding rubber stopper and extracted by way of a ¾-ton come-along jack that was supported on the surface by an angle iron transversely attached

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across the middle of the screendeck platform. This easily removed the core from its sediment base, and allowed the surface crew to support the core tube while the divers affixed the core tube cap and duct taped the ends. Upon return to R/V *Bellows*, the sediment depth was measured at 2.04m, which indicates the compaction ratio for the core that will be used in post-analysis.



Figure 19: Positioning core tube



Figure 20: Using the vibracore device

A second core, entirely manually driven, was attempted in the base of excavation unit 01-02 (with coordinates 35S/5W) on the 27th of July 2001. This core, core 01-02A, was located in the center of the excavated unit, approximately 100cm below the datum. This core penetrated 1.26m into the sediments below the floor of the test pit. This core was then removed by the divers and a second core tube, core 01-02B, was set up to continue testing the sediments. This next core, which was also manually driven into the sediments, penetrated 2.82 meters below the bottom of the unit (including the previous core distance). During the operation the T-Bar broke and became unusable. The core was extracted, capped and returned to R/V *Bellows*. On board measurements were made to determine the depth of sediments within the core tubes; core 01-02a compacted from 1.26m to .85m and core 01-02b compacted from 2.82m to 1.39m.



Figure 21: Manually driven core in TP01-02



Figure 22: Capping the core tube from TP01-02

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Description of Core Stratigraphy and Sampling

Once back at the Florida State University Marine Laboratory, the cores were cut using a circular saw, opened and interpreted. Levels were identified by color, constituents, and marine or brackish characteristics. Colors were identified and recorded by comparison with Munsell color charts, and interpretations of marine, brackish, and other strata were determined by inclusions of shell types and comparisons with previously encountered stratigraphic layers from the site. Wood from several layers will be sampled for radiocarbon dating.



Figure 23: Opening core 01-01
at Florida State University's Marine Lab

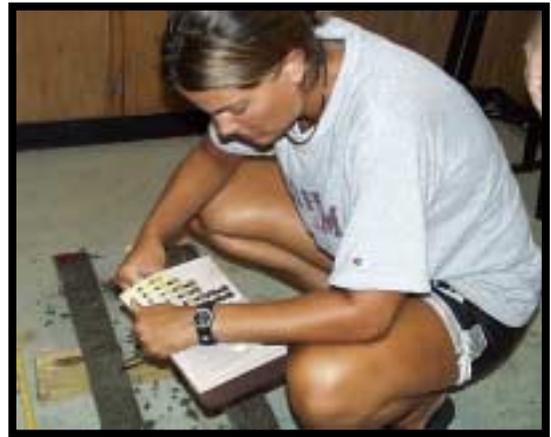


Figure 24: Analyzing core sediments
using the Munsell Color Chart

Figures 25, 26, and 27 are photographic mosaics of the three cores. Tables 10 and 11 show the sediment analysis on the opened cores: 01-01 and 01-02a and 01-02b. The sediments contained therein were analyzed upon first opening, when they were still moist, and then afterwards, in the lab, after the sediments had dried. There was a marked change in color, but this change was uniform for all levels analyzed.

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Figure 25: Core 01-01



Figure 26: Core 01-02A



Figure 27: Core 01-02B

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Table 10: Sediment Analysis of Core 01-01

CORE 01-01		Location	Penetration			Compaction							
		30 01.215N		3.85 m		2.04 m							
		84 01.070W											
CORE NUMBER	DATE	CONTEXT	UNIT	DEPTH	COLOR (moist)	COLOR (dry)	COLOR (description)	TEXTURE	MATRIX	INCLUSIONS	LOWER CONTACT	COMMENTS	
01-01	7-30-2001	Marine	I	0-5 cm	2.5y 3/0	2.5y3/0	very dark gray	Fine sand	Mostly fine - medium sand		diffuse conformable		
01-01	7-30-2001		II	5-20 cm	5y 3/1	2.5y6/2	very dark gray	Fine sand	Mostly fine - medium sand		diffuse but distinct mottled with Level III 5 cm	Increasing shell content, juvenile shell	
01-01	7-30-2001	Marine	III	20-33 cm	5y4/1	2.55/1	dark gray	fine - medium sand	sand with organic	marine shell and organics	upper contact mottled with level 2	Larger shell	
01-01	7-30-2001		IV	33-49cm	5y4/1	2.5y5/1	dark gray	sand silt	sand and shell	marine shell and organics	mottled with 5y6/1 gray over 2 cm	more similar to unit III than V	
01-01	7-30-2001	Marine	V	49-80cm	5y4/1	2.5y4/1	dark gray		sandy shell	pectin	over 3 cm conformable	less sandy - stringers of sand/organics evident	
01-01	7-30-2001		VI	80-89cm	5y4/1	2.5y4/1	dark gray	same as above/more compact	sand with fine shell, with more whole specimens at the base	oyster	increased sand content, large shell at base	larger particles of shell	
01-01	7-30-2001	Brackish Water	VII	89-113	5y3/1	2.5y2.5/1	very dark gray	increasing compaction and "clay" content	organics with sand	wood, oyster	particles larger than below	fine shell, like level VI	
01-01	7-30-2001		VIII	113-129	5y2.5/2	2.5y3/1	very dark gray	as above	sand shell matrix mottled with blebs of the lower unit (IX)	bone, wood, shell	diffuse over 3 cm	mottled with level IX	
01-01	7-30-2001	Fresh Terrestrial	IX	129-141	5y4/1	2.5y5/1	gray brown	sandy clay	no inclusions	fine shell	undulating, distinct		
01-01	7-30-2001		X	141-159	5y3/2	2.5y4/2	dark olive gray	clay with organic staining?	increasing organic content	bone, wood, shell	diffuse but distinct because of color difference	organic wood or organic pocket	
01-01	7-30-2001	Dolomite	XI	159-205	2.5y7/2	2.5y8/2	light gray	rocky mud	Dolomite				

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Table 11: Sediment Analysis of Cores 01-02A and 01-02B

CORE 01-02		Location	Penetration			Compaction								
CORE NUMBER	DATE	CONTEXT	UNIT	DEPTH	COLOR (moist)	COLOR (description)	COLOR (dry)	COLOR (description dry)	TEXTURE	MATRIX	INCLUSIONS	LOWER CONTACT:	COMMENTS	
01-02A		tp 35s/5w		1.26m			.85m							
01-02B		tp 35s/5w		2.82m			1.39m							
01-02a	8/1/01	Marine	I	0-32	5y3/1	very dark gray	2.5y2.5/1	black	sandy organic	organic sand	shell fragments	undulated, less shell	Lower contact has blebs of white sand	
01-02a	8/1/01	Brackish	II	32-46	10yr2/1	black	Gley 1 2.5/N	black	organic	organic clay		Wood plug, conformable over 5cm	Organic layer w/ wood mottled	
01-02a	8/1/01		III	46-50	5y3/1	very dark gray	2.5y 2.5/1	black	sandy clay	sandy clay	fine shell fragments		same as level I (may be the contact between II and IV)	
01-02a	8/1/01	Fresh water	IV	50-64	2.5y5/2	grayish brown	2.5y2.5/1	black	clean white sand	clean sand with stringers of clay	no shell	abrupt over 3 cm sand to clay	mottled gray sand	
01-02a	8/1/01		V	64-88	2.5y3/0	very dark gray	2.5y 4/1	dark gray	very sandy clay	massive	no shell wood near bottom	NA (see Core B)	color is more pronounced as it gets deeper	
01-02b	8/1/01		I	0-22			2.5y2.5/1	black	clayey organic	massive	wood		both organic layer & level I of Core 2a	
01-02b	8/1/01		II	22-32			2.5y2.3/1	very dark gray	sandy	sand stringers with gray	sand stringers	conformable	like Level II of core 2a w/ less shell fragments	
01-02b	8/1/01		III	32-46			2.5y 3/1	very dark gray	sandy clayey	more white sand	sand stringers	conformable	same as level III of 2a	
01-02b	8/1/01		IV	46-75			2.5y4/1	dark gray	clayey, very sandy	massive	none	conformable	from 46-55, light to dark transition	
01-02b	8/1/01		V	75-81	10yr2/1	black	10yr3/2	very dark grayish brown	sandy zone or area	may be intrusion from above	high organic content	conformable		
01-02b	8/1/01		VI	81-95	10yr3/1	very dark gray	2.5y3/1	very dark gray	sandy clayey		none	abrupt		
01-02b	8/1/01		VII	95-139	10yr8/1		2.5y8/2	pale yellow	dolomite		organic disturbance??			

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At the most basic level of interpretation, what was expected was found. That is, the sediments in the core tube progressed from fresh terrestrial to brackish to marine. This follows the model for inundation at the end of the last ice age when fresh terrestrial sediments came in contact with salt water. The combination of seawater with fresh water (as in the mouth of a river) creates a brackish water context. And finally, once the area has been completely inundated, marine sediments would be deposited on top of this stratigraphic progression.

Induction Dredge Test Pit Excavations and Stratigraphy

Test excavations were conducted at the J&J Hunt Site to better understand the geomorphological characteristics of the sediment beds, as well as discovering in-place terrestrial or fresh water sediments which may prove as old as, or older than either of the two prehistoric occupations identified by stylistic means. J&J Hunt (8JE740) is a multi-component site with Early and Middle Archaic occupations, located within a broad expanse of the drowned Woodville Karst Plain (Rupert and Spencer 1988). This operation was undertaken from the Florida Institute of Oceanography's 72' R/V *Bellows*. Testing was accomplished by the placement of two test pits at the site, south and west of the main datum. Test pits had previously been opened to the south and to the west of the site in 1998, east and north in 1999. The methodology for testing offshore is presented below, and results in the following section.

The objectives of the 2001 testing program, which were similar to 1999 and 2000, focused on uncovering marine sediment beds, intact terrestrial sediments and the patterns of artifacts. Methodology entailed dredge excavations of 1m² Test Pits (TPs) in specified areas of the J&J Hunt site. The TPs were measured in distances east or west, and then north or south of the main datum, which is located at 5m North and 500m East. Each TP used the southwest corner as an arbitrary reference point for excavation control and to numerically place each individual TP within a coordinate plane for locational data (see Figure 28, the J&J Hunt Site Map).

Testing for the 2001 field season concentrated on sampling to the south and west of the site's main datum. A total of two Test Pits (TPs) were dug using the 4-inch induction dredge, which removed a total of 211 cubic meters of sediment. The TPs were designated 01-1 and 01-2. In both TPs, level 1 (0-20cm) was dug as an arbitrary level. The remaining sediments of both TPs were excavated by geologic levels. At each one, whether arbitrary or geologic, a plan view was drawn depicting the bottom of that level. Once a TP was completed, profile maps of the North or South wall, as well as the East or West wall were drawn depicting the stratigraphic profiles. Additionally, sediment samples were taken from each stratigraphic level.

The artifact inventory of collections from the TPs was computer based in Excel using a provenience designation field specimen (PD-FS) number system, 01 – 1-1000. The total number of artifacts along with location, depth, and area of each TP from the 2001 field season is shown below in Table 10.

Table 12: J&J Hunt (8JE740) excavation unit statistics

Excavation Unit Designation	SW Corner Coordinates (500N/500E) Datum	Number of Levels in Unit	Max Depth (cm)	Artifact Count
TP01-1	475N/495E	3	97cm	233
TP01-2	465N/495E	2	104cm	30

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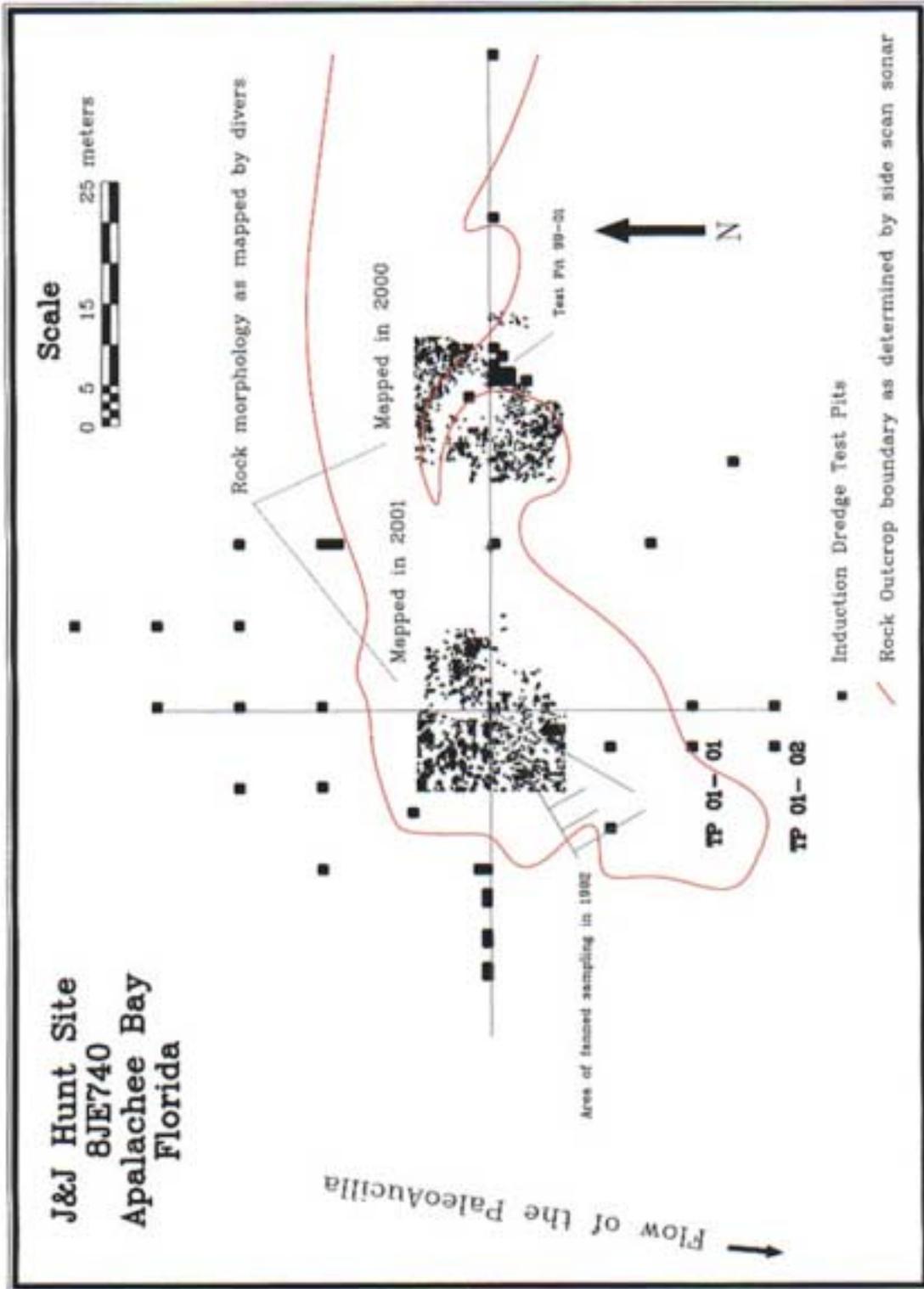


Figure 28: J&J Hunt Site Map, including test pit locations and rock/sand interface

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Summary of 2001 Test Pits

Test Pit 01-1, 475N 495E, was a 1m² unit dug to a depth of .97 meters. The sediment profile, which is different from the excavation levels, consisted of an intricate system of five individual layers. The first layer, 0-10 cm, consisted of medium sand. After the first layer was cleared away, dolomitic rock started appearing in the southwest corner, and eventually overtook the pit when the excavation was done. The sandy, rubbery-feeling second layer, 10-35cm, was composed of organic material with broken shell. The third layer, 35-50cm, was similar in consistency to the second layer. However, it contained whole shell, such as oysters and some gastropods. The clay silky textured fourth layer, 50-63cm, was made up of small pieces of broken shell. Finally, the last layer, 63-97cm, consisted of gray clay and contained many roots. Wood was found in all sediment layers, except layer 1. Figures 30 and 31 are the stratigraphic profile drawings for this test pit.

As mentioned earlier, the excavation levels differed from the stratigraphic layers. This test pit was excavated in three levels: Level 1 (0-20cm), Level 2 (20-63cm) and Level 3 (63-97cm). Numerous artifacts were recovered from TP 01-1, including chipped stone, fauna, burned wood, and wood. A total of 180 pieces of chipped stone were recovered from the three levels. Debitage type totals include 6 whole flakes, 3 broken flakes, 6 flake fragments, and 3 pieces of shatter. A total of 52 pieces of fauna was recovered from the three excavation levels and clean up of the TP. A bone pin was found in the transition from Level 2 to Level 3 in the western section of the TP. A large quantity of wood was pulled from each of the excavation levels due to an intricate system of roots that started in Level 2. A general shell sample was taken from the TP.

Test Pit 01-2, 465N 495E, was a 1m² unit dug to a depth of 1.04 meters. The sediment profile of TP 01-2 was less complicated than that of TP 01-1. The first layer, 0-10cm, consisted of gray marine sand. The second layer, 10-40cm, was a brownish, sandy organic layer with large fragments of shell. The third layer, 40-58cm, was more organic than the second layer due to the presence of clay and the decrease of sand. The fourth layer, 58-70cm, was basically the same texture as the third layer but it contained larger shell. The final layer, 70-104cm, was exactly the same texture and composition as the third layer. Figure 32 is the stratigraphic profile drawing for this test pit.

The same categories of artifacts were found in TP 01-2 as in TP 01-1. However, TP 01-2 yielded fewer artifacts in the two levels (level 1, 0-20cm; level 2, 20-104cm) that were excavated. A total of 2 pieces of chipped stone were recovered from the two excavation levels. Debitage type totals include 1 flake and 1 flake fragment. A total of 28 pieces of fauna were recovered from level 2, including an *Auriculatis* shark tooth. In contrast, no fauna was found in level 1. A small amount of wood was found in level 2. Shell samples were taken from both levels 1 and 2.

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Description of Sediments

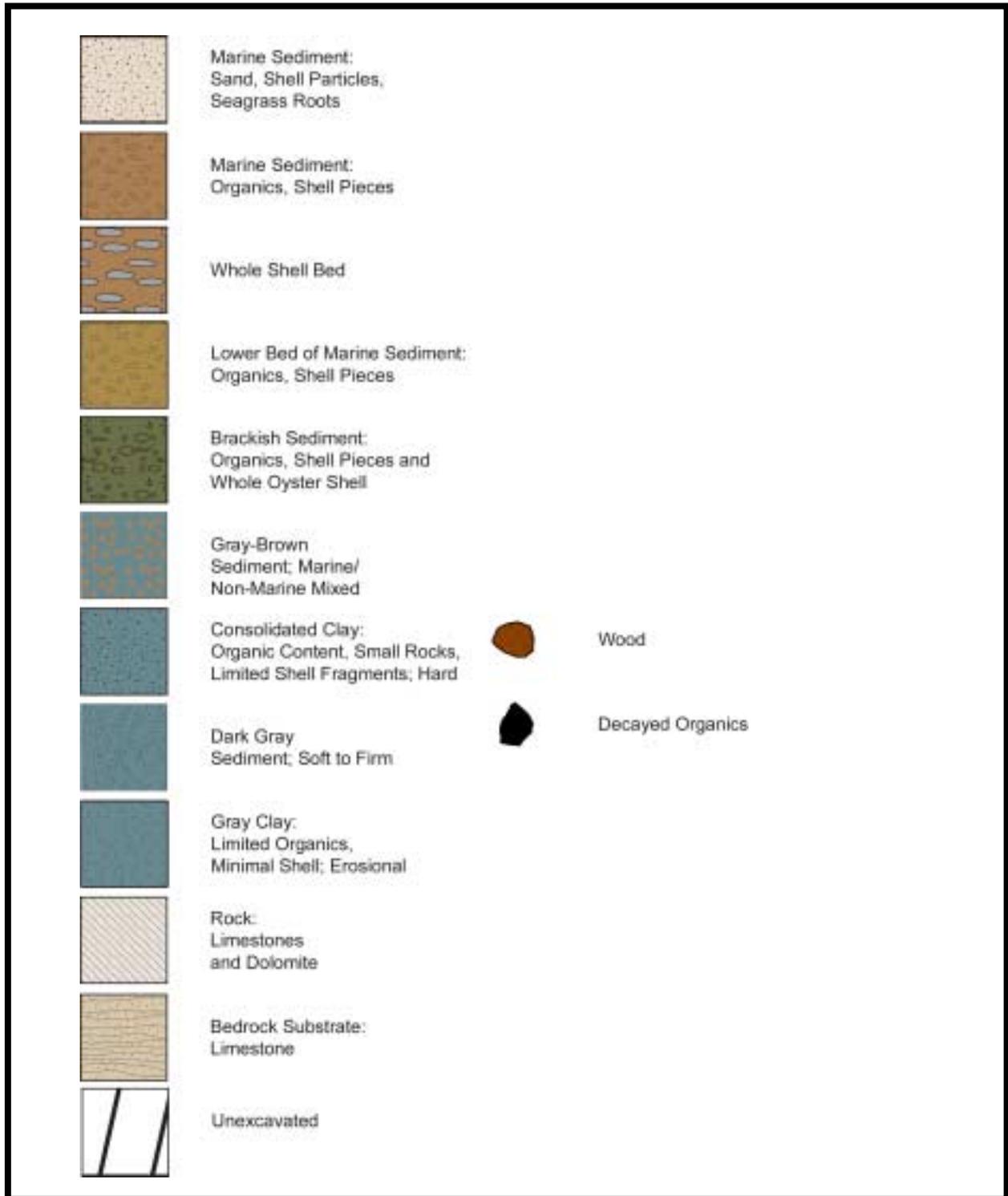


Figure 29: Stratigraphic profile drawing sediment legend

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Test Pit #01-1 SW Corner 475N/495E

Number of Stratigraphic Levels: 5
Maximum Penetration Depth: 97cm

Description of Sediment Layers

- Level 1: Marine Sediment (fine grained)
- Level 2: Marine Sediment (coarser grained)
- Level 3: Whole Shell Bed
- Level 4: Marine Sediment (similar to Level 2)
- Level 5: Consolidated Clay (indicative of a fresh water context)

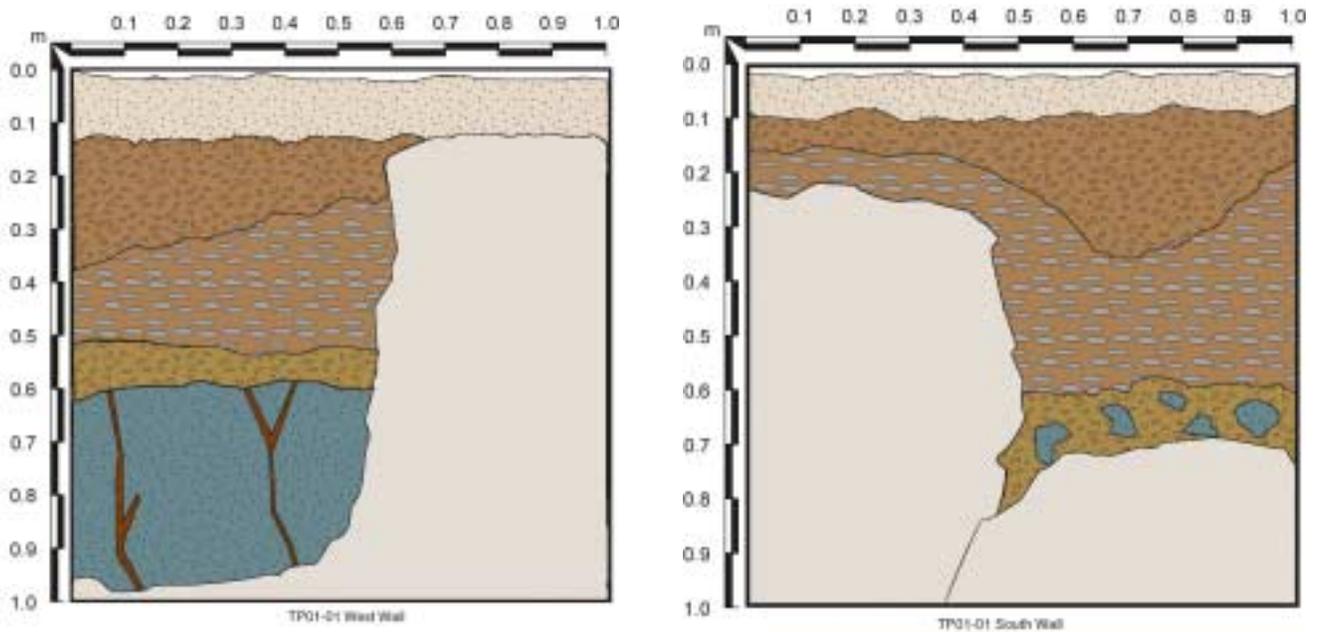


Figure 30: Test Pit #01-1 Stratigraphic Profiles

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Test Pit #01-2 SW Corner 465N/495E

Number of Stratigraphic Levels: 5
Maximum Penetration Depth: 104cm

Description of Sediment Layers

- Level 1: Marine Sediment (fine grained)
- Level 2: Whole Shell Bed
- Level 3: Marine Sediment (coarser grained)
- Level 4: Brackish Sediment (indicative of a transition phase from fresh water to salt water contexts)
- Level 5: Gray-Brown Sediment (a mixture of marine and non-marine sediments)

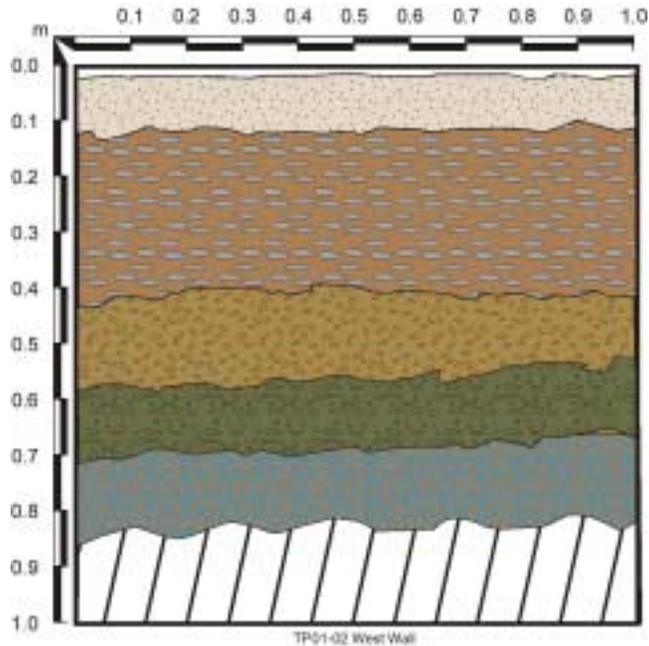


Figure 31: Test Pit #01-2 Stratigraphic Profile

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Wood Analysis

Fragments of wood were gathered from each stratum of the two excavated test pits during the 2001 field season. TP 01-1 contained four levels of strata: 1, 2, 3, and clean up. TP 01-2 contained two levels: 1 and 2. Large amounts of wood were recovered from test pit 01-1, which was located on a rocky outcrop. TP 01-2 was located in a nearby sinkhole.

The majority of wood excavated was recovered from a rocky outcrop. Numerous pieces of roots were found within the sediments of the TP, leading one to believe that these sediments were in fact natural terrestrial layers. Fundamentally, this rocky outcrop had once been a bank of the Paleo-Aucilla River; any wood and archaeobotanical resources found within the natural terrestrial layers on this outcrop will help to define the vegetative environment of the site.

All wood samples from the two test pits were transported back to Florida State University for further analysis. A sampling technique was applied to sort and organize the wood into categories for analysis. Any pieces that were smaller than 2 by 2 cm on the transverse section of the wood or were too soft were not used. A 24 by 24 cm grid was made on a tray; the grid was then divided into four equal sections. After this was done, a wood subsample was taken for each level in the test pits from the northeast section of the grid. The grid size: 24 by 24 cm, 12 by 12 cm and 6 by 6 cm changed according to the amount of identifiable wood at each level.

After the wood was subsampled, the samples were cut for microscopic analysis. To use a microscope in the identification of the species of wood, a portion of the wood must be delicately macerated from the specimen to show the transverse, radial and tangential planes of reference; these three sections aid in determining the species at hand. The transverse section is macerated at a right angle to the grain of the wood. The radial section is macerated along the grain at a right angle to the growth rings and parallel to the rays. The tangential section is macerated along the grain at a right angle to both the tangential and radial section, as a "tangent" to the growth rings (Friedman 1978: 2). The rays, a significant characteristic of wood that can sometimes be observed by the naked eye on all three sections, also aid in determining the orientation of the wood.

Once the correct sections were identified in each piece of wood, thin slices of only the transverse section were cut from each and mounted on slides - other sections were cut if a species identification was possible. Although a microtome might be preferable for dried specimens, a very sharp-single edged razor blade was sufficient to provide the transverse section. The sections were mounted on a microscope slide in a solution of glycerin to retain moisture. A cover slip was placed over the wood and sealed with clear nail polish. Each slide was labeled accordingly, with the test pit number, level, and type of section. This labeling was vital for distinguishing the species of the wood, and for cross-checking, comparison and discussion (Friedman 1978: 4-5). A total of eleven transverse, one tangential and one radial section were prepared on slides.

Once the slides were prepared and a drawing of the section was made, analysis of the characteristic of the wood began. Identification began with the transverse section so determinations could be made between soft (conifer) and hardwood (broadleaf) species. In the cross section of a standard softwood, the vast majority of cells noted are arranged in orderly radial rows, similar to a "honeycomb" (Friedman 1978: 6). These are the cross sections of tracheids; they are longitudinally situated within the wood material. Distinct tracheids consist of a cell wall and lumen, the cavity of a cell. Each growth ring is made up of two zones of longitudinal tracheid cells; the earlywood (springwood) cells develop in the early section of the growing season during the period of maximum growth. These cells are thin-walled, and primarily

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hexagonal or square in comparison to the thick-walled, rectangular latewood cells formed during the summer and fall period of slow growth (Friedman 1978: 6). It is the unvarying and rarely unbroken sequence of longitudinal tracheids, which differentiates the quality of softwood from that of hardwood in the transverse section.

With a special key, found in the Textbook of Wood Technology, the wood samples in all levels of the test pits at J&J Hunt were identified as softwood, more specifically pine (*Pinus*) (Panshin and Zeeuw 1980: 411-414). The transverse sections of the slides were all nonporous. Two key factors led to the identification of the wood as pine: resin canals and growth rings. Large amounts of resin canals were present in each slide; the presence of resin canal reveal the wood species to be one of four genera: Douglas-fir, larch, pine or spruce (Friedman 1978: 12). The resin canal emerged as a cavity surrounded by epithelial cells. In larches, spruces, and Douglas-fir, the epithelial cell walls are noticeably thicker. Pines can be identified from other genera due to the greater quantity and larger size of their resin canals. This identification tool was used the analysis of the J & J Hunt wood.

The second characteristic which finalized the genus identification involved the growth rings; the transition of early wood into late within a single growth ring was rather abrupt. "Growth increments stand out in wood to varying degree because the growth intensity, and consequently the cell size and arrangement and the density of wood produced, are not uniform throughout the growth period." (Panshin and deZeeuw 1970: 48). The growth rings within the J&J Hunt samples were a major factor in identifying the genus, *Pinus*. Width of the growth rings typically vary from species to species, and even from the same tree, nevertheless, the width of the J&J Hunt samples appear uniform, suggesting a single genus.

One wood sample was identified to the species level. It was the only piece of wood which produced an adequate transverse section to make a species identification. Tangential and radial sections were also made from the well preserved piece of wood. The wood is thought to represent *Pinus banksiana*, commonly known as Jack Pine. Many characteristics, such as color, parenchyma, growth rings, and resin canals, of this wood sample lead its identification as *Pinus banksiana*. The color of the wood was light orange to light brown. The growth rings were discrete and defined by a band of darker late-wood; the early-wood zone fluctuated in width. The transition to early to late-wood was sudden and the late-wood zone was narrow to moderately, darker and noticeably denser than the early-wood zone (Panshin and deZeeuw 1980: 451). The parenchyma were not detectable. In the cross section, the resin canals were present in all sections of the wood sample: transverse, tangential, and radial. In the longitudinal section the canals were unable to be seen by the human eye; the canals were located in the central and outer portion of the ring, "mostly solitary, forming inconspicuous, brownish streaks along the grain (Panshin and deZeeuw 1980: 451).

The information collected from these analyses suggests that pine was present at the J & J Hunt site until its inundation around 7,000 years B.P. Although implications of the paleo-environment can be made, one must recognize the constraints of such evidence and keep the conclusions at a much more local level. Analysis of more wood and an extraction of pollen cores at or around the site will help build an increasingly solid paleoenvironmental model of this Florida area.

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Chipped Stone Artifact Inventory

Excavations from 2001, 2000, 1999, and 1998 have resulted in the discovery of a dense, localized lithic scatter, yielding diagnostic artifacts that date from late Paleoindian to Middle Archaic times.

Inventory and analysis of the chipped stone assemblage recovered from the J&J Hunt site in 2001 is designed to help reconstruct culture history and site formation processes that affect inundated sites. The intent of our analysis is to determine reduction strategies and site activity areas based on the type and frequency signatures left behind in the assemblage. The analysis will also demonstrate the significant research potential of these inundated sites.

Total chipped stone artifacts recovered from each unit and their corresponding weight and type are described in Table 13.

Table 13: J&J Hunt Site (8JE740) Chipped Stone Artifact Inventory

Collection Unit	Artifact Provenience Designation (PD) Number	Count	Weight	Type
Surface Collection	1	1	16.9g	Blade
Surface Collection	2	1	35.5g	Point Base
Surface Collection	5	1	133.4g	
Surface Collection	6	1	5.6g	
Surface Collection	7	2	43.3g	Fragments
Surface Collection	10	1	7.8g	
Surface Collection	11	1	128g	Scraper
Surface Collection	12	1	129.6g	
Surface Collection	14	1	12.6g	Tool
Surface Collection	15	1	299.4g	
Surface Collection	16	1	207.2g	Tool or Core
Surface Collection	17	1	11.6g	Blade
Surface Collection	19	1	33.1g	
Surface Collection	20	1	45.3g	Stem Point
TP01-1	21	9	51.7g	Fragments
TP01-1	22	7	15.8g	
TP01-1	23	3	6.4g	Fragments
TP01-1 Clean-Up	25	1	.9g	
Surface Collection	26	1	10.6g	Edge Field Scraper Fragment
Surface Collection	29	1	10.9g	
Surface Collection	30	1	30.9g	
Surface Collection	31	1	15.8g	Archaic Stemmed Point
Surface Collection	32	1	10g	Bolen Point
TP01-2	33	1	.7g	
TP01-2	34	1	1.0g	
Surface Collection	35	1	103.1g	Tool
Surface Collection	45	6	101.3g	
Surface Collection	45	9	94.8g	

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Faunal Collections

As in Field Operations 2000, the vast majority of faunal specimens recovered during excavation were fragmentary, severely degraded and indeterminate of species. Many specimens displayed no discernible natural surface morphology, making identification difficult. One must consider that these faunal specimens are located in a hydrodynamically high-energy and chemically corrosive environment due to the evolution of marine transgression. Interim identifications of faunal artifacts collected during this year's field season are presented in Table 14.

Table 14: Faunal remains recovered from the J&J Hunt Site (8JE740)

PD Number	Quantity	Weight	Description
3	1	141.6g	Dugong nail
4	1	N/A	Phalange
8	1	32.6g	Dugong rib
9	1	94.3g	Dugong rib
13	1	12.5g	Unidentifiable bone fragment
18	1	91.1g	Dugong rib
21	3	N/A	Unidentifiable bone fragments
22	13	N/A	Unidentifiable bone fragments
23	19	59.6g	2 Dugong ribs/Unidentifiable fragments
23	1	N/A	Bone pin
25	17	159.4g	2 Dugong ribs/Unidentifiable fragments
27	1	41.4g	Dugong rib
28	1	N/A	Unidentifiable bone fragment
34	28	N/A	Unidentifiable bone fragments
45	1	N/A	Unidentifiable bone fragment

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Conclusions and Recommendations

After four years of investigation at the J&J Hunt Site (including this year's work), sampling is nearing completion. Suggestions for next year's operations include continuation of mapping activities and excavation in the SW quadrant of the site, running into sinkhole L1.

At present J&J Hunt is mapped on both the east and west ends in two, roughly 20-meter blocks. The mapped sections are separated by roughly 20-meters of unmapped area. It is recommend that future mapping efforts document the unmapped area separating the two mapped regions. Additionally, it is recommended that future efforts extend their mapping range in all directions to include the full-extent of the rock outcrop.

Locus L1, a probable sinkhole located southwest of the datum, presently holds the greatest promise of revealing high concentration artifact assemblages in stratigraphic context. An excavation trench in this area would significantly add to the artifact assemblage as well as to the sedimentary sequence accounting for the various successive environmental evolutions. Sediment facies between this sinkhole at Locus L1 and the adjacent rock outcrops should especially be examined.

Artifact conservation should be completed and analyses should be finalized. This will allow the researchers to test the project's fundamental hypothesis and predictive model further offshore at formerly terrestrial sites of even earlier age.

PaleoAucilla Prehistory Project
Report of Field Operations
2001

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Glossary of Terms

Alluvium	sediments deposited by moving water which has been slowed or overflowed its banks
Biogenesis	formation by the actions of living organisms
Bioherm	rock built by sedentary organisms, such as corals, enclosed in a different kind of rock
Cenote	term for sinkholes in Mesoamerica; a circular depression in a karst area
Clast	a fragment of broken down sedimentary rock
Colluvium	loose deposits at the foot of a slope or cliff
Deflated	having loose material eroded by wind or water
Diagnostics	materials whose presence indicates the presence of other materials or conditions
Doline	sinkhole
Eustatic	changes of sea level
Indurate	hardened by pressure, cementation or heat
Isostatic	referring to the rise and fall of a land mass as weight is added to or removed from it
Karst	geologic formations resulting from the chemical erosion of limestone in contact with acids found in soil, water, or atmosphere. The primary agent for this chemically erosive process is carbonic acid (H ₂ CO ₃) which is formed at fresh water - air interfaces and accumulates in the water column.
Lacunae	missing layers of stratigraphy
Lithologic	having to do with the description of the characteristics of rock
Marl	unconsolidated deposits of clay and calcium carbonate usually including shell fragments
Mud	(calclitic or dolomitic), a sticky fine-grained marine sediment, usually described by color, e.g. red mud
Pedogenesis	the formation of soils
Strand	beach or shore
Subaerial	on dry land
Transgression	the sea encroaching on the land
Woodville Karst Plain	an area of karstic topography located in northcentral Florida

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2001

List of Appendices

Appendix A: Master Roster

Appendix B: Organization Chart

Appendix C: PDFS Log for the J&J Hunt Site (8JE740)

Appendix D: PDFS Log for Survey Operations

Appendix E: Updated Site File Form for 8JE740

Appendix F: Master Site File Forms for Sites 8JE1574, 8JE1575, 8JE1576, 8JE1577, 8JE1578, 8JE1579

Appendix G: Survey Log Forms

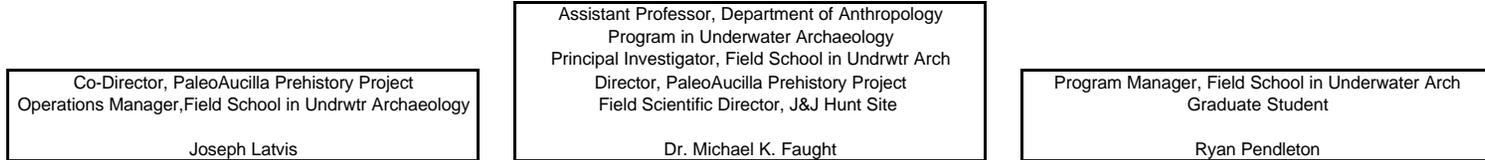
Organization Chart

2001 Field School in Underwater Archaeology

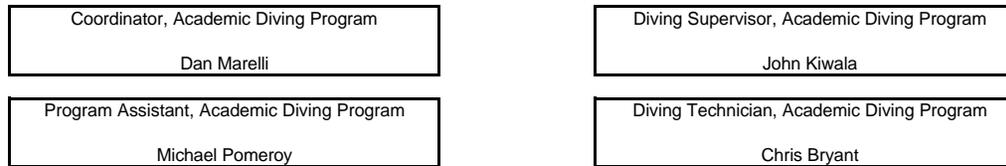
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The Florida State University
Department of Anthropology
Program In Underwater Archaeology

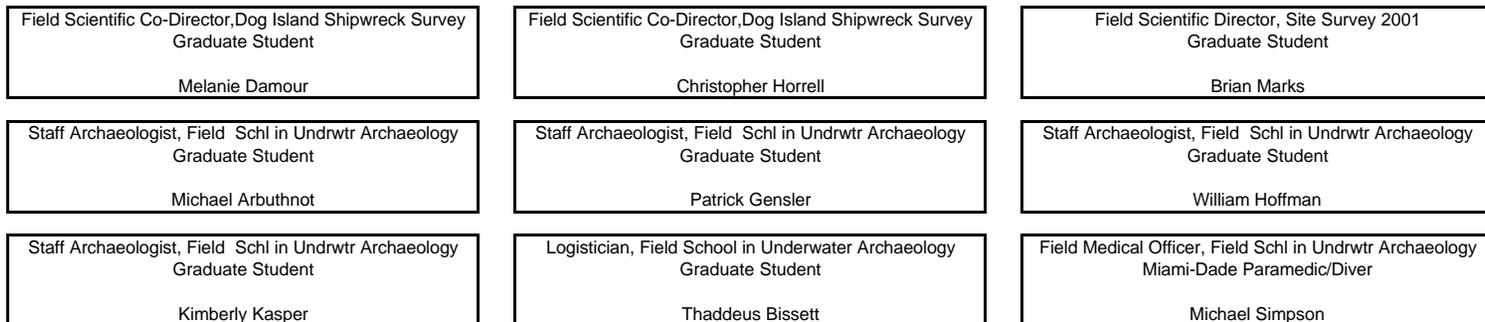
Management



Academic Diving Program



Staff



Graduate Students

Lori Jacobs
Christopher Schaefer
Camila Tobon

Volunteers

Grayal Farr
Norma Garcia-Huerta

Undergraduates

Carrie Bell
Zuleyha Gokay
Ronald Grayson
Douglas Lewis
Kayla Price

APPENDIX C

Provenience Designation & Field Specimen Log

Project_PAPP_____

Year_01_____

Date Recovered	Area, Locus or Site	Unit	Level	PD	FS	Count	Contents or Material	Comments or Description	Divers
7/3/2001	8JE740	Surface Collection		1	1	1	Chipped Stone	Blade- 21 m 180 Degrees South of Datum	MKF/KP/CB
7/3/2001	8JE740	Surface Collection		2	1	1	Chipped Stone	Point base - 300 Degrees from Datum	MKF/KP/CB
7/15/2001	8JE740	Surface Collection		3	2	1	Fauna	Dugong Nail, 280 Degress from Datum and 10m West	DL/MA
7/16/2001	8JE740	Surface Collection		4	2	1	Fauna	Phalange - 2m W of Datum	KK/CT
7/16/2001	8JE740	Surface Collection		5	1	1	Chipped Stone	1m W, 20cm N of Datum	KK/CT
7/17/2001	8JE740	Surface Collection		6	1	1	Chipped Stone	8 W, 4S from Datum	KK/DL
7/17/2001	8JE740	Surface Collection		7	1	2	Chipped Stone	10m W, 2m S of Datum	KK/DL
7/17/2001	8JE740	Surface Collection		8	2	1	Fauna	Dugong Rib - 10m W, 2m S of Datum	KK/DL
7/17/2001	8JE740	Surface Collection		9	2	1	Fauna	Dugong Rib - 7.3m W, 3.6m S of Datum	KK/DL
7/17/2001	8JE740	Surface Collection		10	1	1	Chipped Stone	9m W, 1m N of Datum	KK/DL
7/17/2001	8JE740	Surface Collection		11	1	1	Chipped Stone	Scraper - 2m W, 4m S of Datum	MS/LJ
7/18/2001	8JE740	Surface Collection		12	1	1	Chipped Stone	6m W, 5m S of Datum	NG/KK
7/18/2001	8JE740	Surface Collection		13	2	1	Fauna	6m W, 5m S of Datum	NG/KK
7/18/2001	8JE740	Surface Collection		14	1	1	Chipped Stone	Tool - 3.2m S, 3.2m W of Datum	MKF
7/18/2001	8JE740	Surface Collection		15	1	1	Chipped Stone	3.4m S, 3.6m W of Datum	KK/CT
7/18/2001	8JE740	Surface Collection		16	1	1	Chipped Stone	Tool or Core - 8.2mN, 80cm E	MKF/CT
7/19/2001	8JE740	Surface Collection		17	1	1	Chipped Stone	Blade - 30cm N of Datum	MA
7/19/2001	8JE740	Surface Collection		18	2	1	Fauna	Dugong Rib - 3m W, 11m S of Datum	BM
7/19/2001	8JE740	Surface Collection		19	1	1	Chipped Stone	9m S, 1.5m W of Datum	MA
7/19/2001	8JE740	Surface Collection		20	1	1	Chipped Stone	Stem Point - 7.6m N, 4m W of Datum	MA

7/18/2001	8JE740	TP01-1		1	21	1	9	Chipped Stone		
7/18/2001	8JE740	TP01-1		1	21	2	3	Fauna		
7/18/2001	8JE740	TP01-1		1	21	5		Wood		
7/19/2001	8JE740	TP01-1		2	22	1	7	Chipped Stone		
7/19/2001	8JE740	TP01-1		2	22	2	13	Fauna		
7/19/2001	8JE740	TP01-1		2	22	5		Wood		
7/19/2001	8JE740	TP01-1		2	22	8	24	Burned Wood		
7/19&25/01	8JE740	TP01-1		3	23	1	2	Chipped Stone		
7/19&25/01	8JE740	TP01-1		3	23	2	19	Fauna		
7/19/2001	8JE740	TP01-1		3	23	2	1	Fauna	Bone Pin	MS/CT
7/19&25/01	8JE740	TP01-1		3	23	5		Wood		
7/19&25/01	8JE740	TP01-1		3	23	8		Burned Wood		
7/19/2001	8JE740	TP01-1			24	9		Shell	Sample	NG
7/25/2001	8JE740	TP01-1	CIn-Up		25	1	1	Chipped Stone		PLG/KK
7/25/2001	8JE740	TP01-1	CIn-Up		25	2	17	Fauna		PLG/KK
7/25/2001	8JE740	TP01-1	CIn-Up		25	5		Wood		PLG/KK
7/25/2001	8JE740	TP01-1	CIn-Up		25	10		Other	Ceramic Fragment	PLG/KK
7/25/2001	8JE740	Surface Collection			26	1		Chipped Stone	Edge Field Scraper Frag - 4m N, 4m W	MA
7/25/2001	8JE740	Surface Collection			27	2		Fauna	2m N, 9m W	MA
7/25/2001	8JE740	Surface Collection			28	2		Fauna	Surface near TP01-1	NG/MKF
7/25/2001	8JE740	Surface Collection			29	1		Chipped Stone	16.3m S, 70cm E	MA/MS
7/25/2001	8JE740	Surface Collection			30	1		Chipped Stone	40 Degrees from Datum @ 7.745m	BSM/CS
7/25/2001	8JE740	Surface Collection			31	1		Chipped Stone	Archaic Stemmed Point - 2m N, 6m W	MA

7/25/2001	8JE740	Surface Collection		32	1		Chipped Stone	Bolen Point - 6.3m N, 1.7m W	MA
7/26/2001	8JE740	TP01-2	1	33	1		Chipped Stone		NG/MKF
7/26/2001	8JE740	TP01-2	1	33	9		Shell		NG/MKF
7/26/2001	8JE740	TP01-2	2	33	1		Chipped Stone		NG/MKF
7/26/2001	8JE740	TP01-2	2	34	2	28	Fauna		NG/MKF
7/26/2001	8JE740	TP01-2	2	34	5		Wood		NG/MKF
7/26/2001	8JE740	TP01-2	2	34	9		Shell		NG/MKF
7/27/2001	8JE740	Surface Collection		35	1		Chipped Stone	Tool - 7.3m N, 1.9m E	KK/CT
7/25/2001	8JE740	TP01-1		36	6		Sed Sample	Sample #1	MKF
7/25/2001	8JE740	TP01-1		37	6		Sed Sample	Sample #2A	MKF
7/25/2001	8JE740	TP01-1		38	6		Sed Sample	Sample #2B	MKF
7/25/2001	8JE740	TP01-1		39	6		Sed Sample	Sample #3	MKF
7/25/2001	8JE740	TP01-1		40	6		Sed Sample	Sample #4	MKF
7/27/2001	8JE740	TP01-2		41	6		Sed Sample	Sample #2	MKF
7/27/2001	8JE740	TP01-2		42	6		Sed Sample	Sample #3	MKF
7/27/2001	8JE740	TP01-2		43	6		Sed Sample	Sample #4	MKF
7/27/2001	8JE740	TP01-2		44	6		Sed Sample	Sample #5	MKF
7/10/2001	8JE740	Surface Collection		45	1		Chipped Stone	15.45 m S, 6.7 m W circle search 15m radius	NG/CB/LG
7/11/2001	8JE740	Surface Collection		45	1		Chipped Stone	15.45 m S, 6.7 m W circle search 15m radius	DG/LG
7/11/2001	8JE740	Surface Collection		45	2	3	Fauna	15.45 m S, 6.7 m W circle search 15m radius	NG/CB/LG

APPENDIX D---Provenience Designation Field Specimen Log Project: Survey 2001

Year: 2001

Date Recovered	Area or Site	Collection Type	PD	FS	Count	Contents or Material	Comments or Description	Divers
7/4/2001	Survey Area 01-1	Transect	2000	1	2	chert	10m East, chipped stone	MA/CB/KP
7/4/2001	Survey Area 01-1	Transect	2001	2	1	tooth	10m East	MA/CB/KP
7/4/2001	Survey Area 01-1	Surface	2002	1	8	chert	Along East transect line / narrow biface frag	MA/CB/KP
7/4/2001	Survey Area 01-1	Surface	2003	1	1	chert	Surface	MA/CB/KP
7/5/2001	Survey Area 01-1	Transect	2004	1	1	chert	9m N, 50m West	MKF/KK
7/5/2001	Survey Area 01-1	Transect	2005	7	2	rock sample	20m N	MKF/KK
7/5/2001	Survey Area 01-1	Transect	2006	9	6	shell	20m N	MKF/KK
7/5/2001	Survey Area 01-1	Surface	2007	1	1	chert	20m N	MKF/KK
7/5/2001	Survey Area 01-1	Surface	2008	1	13	chert	Surface collection around 30m N	MKF/KK
7/5/2001	Survey Area 01-1	Surface	2009	1	1	chert	Surface collection around 30m N	MKF/KK
7/5/2001	Survey Area 01-1	Transect	2010	2	4	fauna	Surface collection around 30m N	MKF/KK
7/5/2001	Survey Area 01-1	Surface	2011	1	1	chert	Surface	MKF/KK
7/10/2001	Survey Area 01-1	Surface	2012	1	1	chert	Bi-facial knife/preform (diagnostic?)	LJ
7/9/2001	Survey Area 01-2	Surface	2013	1	9	chert	Chert flakes (bag 3 of 3)	BSM/NG/LJ
7/9/2001	Survey Area 01-2	Surface	2013	2	4	fauna	Bone and other stuff (bag 2 of 2)	BSM/NG/LJ
7/9/2001	Survey Area 01-2	Surface	2013	1	5	chert	Small chert flakes (bag 2 of 3)	DL/CB
7/9/2001	Survey Area 01-2	Surface	2013	1	5	chert	Medium chert flakes (bag 1 of 3)	DL/CB
7/9/2001	Survey Area 01-2	Surface	2013	2	1	fauna	Bone (bag 1 of 2)	DL/CB
7/9/2001	Survey Area 01-2	Surface	2013	5	1	wood		
7/10/2001	Survey Area 01-3	Surface	2014	1	5	chert	Large chert flakes (bag 1 of 2)	DL/CB
7/10/2001	Survey Area 01-3	Surface	2014	1	7	chert	Small chert flakes (bag 2 of 2)	DL/CB
7/10/2001	Survey Area 01-3	Surface	2014	2	3	fauna	Bone	DL/CB
7/10/2001	Survey Area 01-3	Transect	2015	1	1	chert	Chert flakes, 20m N, 1x1m	BSM/NG
7/11/2001	Survey Area 01-5	Surface	2017	1	78	chert	Small chert flakes (bag 2 of 2)	BSM/LJ
7/11/2001	Survey Area 01-5	Surface	2017	1	13	chert	Large chert flakes (bag 1 of 2)	BSM/LJ
7/11/2001	Survey Area 01-5	Surface	2017	2	1	bone		
7/11/2001	Survey Area 01-5	Surface	2018	1	1	chert	Distal end of biface	BSM/LJ
7/11/2001	Survey Area 01-6	Surface	2019	1	6	chert	Chert flakes	DL/CB/NG
7/11/2001	Survey Area 01-6	Surface	2019	3	1	wood	Wood	DL/CB/NG
7/11/2001	Survey Area 01-7	West transect	2020	1	128	chert	Small chert flakes (bag 3 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2020	1	27	chert	Medium chert flakes (bag 2 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2020	1	5	chert	Large chert flakes (bag 1 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2020	3	1	wood	Wood	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2020	2	5	fauna	Bone (bag 1 of 2)	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2020	2	1	fauna	Shark's tooth (bag 2 of 2)	BSM/LJ
7/11/2001	Survey Area 01-7	West transect	2021	1	3	chert	Projectile point tips	BSM/LJ
7/11/2001	Survey Area 01-7	North transect	2022	1	11	chert	Medium chert flakes (bag 1 of 2)	BSM/LJ
7/11/2001	Survey Area 01-7	North transect	2022	1	59	chert	Small chert flakes (bag 2 of 2)	BSM/LJ

APPENDIX D---Provenience Designation Field Specimen Log Project: Survey 2001

Year: 2001

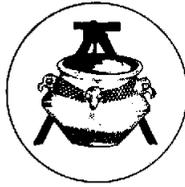
Date Recovered	Area or Site	Collection Type	PD	FS	Count	Contents or Material	Comments or Description	Divers
7/11/2001	Survey Area 01-7	North transect	2022	2	5	fauna	Bone	BSM/LJ
7/11/2001	Survey Area 01-7	North transect	2022	10	1	historic	0.50 caliber primer	BSM/LJ
7/11/2001	Survey Area 01-7	North transect	2023	1	1	chert	Projectile point tips	BSM/LJ
7/11/2001	Survey Area 01-7	North transect	2024	1	1	chert	Kirk corner notch projectile point	LJ
7/11/2001	Survey Area 01-7	South transect	2025	1	5	chert	Large chert flakes (bag 1 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2025	1	30	chert	Medium chert flakes (bag 2 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2025	1	70	chert	Small chert flakes (bag 3 of 3)	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2025	2	2	fauna	Bone	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2025	3	7	wood	Wood	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2025	6	1	other	Rock sample	BSM/LJ
7/11/2001	Survey Area 01-7	South transect	2026	1	1	chert	Projectile point tip	BSM/LJ
7/11/2001	Survey Area 01-7	Surface	2027	1	4	chert	2m radius from datum, large chert flakes (bag 2/4)	BSM/LJ
7/11/2001	Survey Area 01-7	Surface	2027	1	14	chert	2m radius from datum, medium chert flakes (bag 3)	BSM/LJ
7/12/2001	Survey Area 01-7	Surface	2027	1	2	chert	2m radius from datum, large chert flakes (bag 1/4)	BSM/LJ
7/12/2001	Survey Area 01-7	Surface	2027	1	13	chert	2m radius from datum, medium chert flakes (bag 4)	DL/NG
7/12/2001	Survey Area 01-7	Surface	2027	2	3	fauna	2m radius from datum, bone	DL/NG
7/12/2001	Survey Area 01-7	East transect	2028	1	8	chert	Large chert flakes (bag 1 of 2)	DL/NG
7/12/2001	Survey Area 01-7	East transect	2028	1	59	chert	Small chert flakes (bag 2 of 2)	DL/NG
7/12/2001	Survey Area 01-7	East transect	2028	2	2	fauna	Bone	DL/NG
7/12/2001	Survey Area 01-7	East transect	2028	3	3	wood	Wood	DL/NG
7/12/2001	Survey Area 01-7	East transect	2029	1	1	chert	Kirk serrated projectile point (diagnostic)	NG
7/12/2001	Survey Area 01-7	East transect	2030	1	1	chert	Hendrix scraper (diagnostic)	DL
7/12/2001	Survey Area 01-9	N/S transect	2031	1	7	chert	North/South transect, medium chert flakes (bag 1/2)	NG/BSM
7/12/2001	Survey Area 01-9	N/S transect	2031	1	21	chert	North/South transect, small chert flakes (bag 2/2)	NG/BSM
7/12/2001	Survey Area 01-9	N/S transect	2031	2	9	fauna	North/South transect, bone	NG/BSM
7/12/2001	Survey Area 01-9	N/S transect	2032	1	1	chert	North/South transect, Wacissa projectile point	NG
7/12/2001	Survey Area 01-9	East transect	2033	1	10	chert	Chert flakes	NG/BSM
7/12/2001	Survey Area 01-9	East transect	2033	2	3	fauna	Bone	NG/BSM
7/12/2001	Survey Area 01-9	West transect	2034	1	11	chert	Chert flakes	NG/BSM
7/12/2001	Survey Area 01-9	West transect	2034	2	5	fauna	Bone (bag 1 of 3)	NG/BSM
7/12/2001	Survey Area 01-9	West transect	2034	2	2	fauna	Bone (bag 3 of 3)	NG/BSM
7/12/2001	Survey Area 01-9	West transect	2034	2	1	fauna	Bone (bag 2 of 3)	NG/BSM
7/17/2001	Survey Area 01-7	120° to boat, 150° to datum	2035	1	1	chert	Suwannee projectile point	CW/MKF
7/17/2001	Survey Area 01-7	7.4m a 240°	2036	1	1	chert	Wacissa projectile point	CW/MKF
7/19/2001	Survey Area 01-7	Surface	2037	1	1	chert	7.30m , 240 degrees	MKF
7/19/2001	Survey Area 01-7	Surface	2037	9	3	shell	7.30m , 240 degrees	

APPENDIX D---Provenience Designation Field Specimen Log Project: Survey 2001

Year: 2001

Date Recovered	Area or Site	Collection Type	PD	FS	Count	Contents or Material	Comments or Description	Divers
			Total		733			
7/10/2001	Survey Area 01-4	Surface	2016	1	9	chert	Chert flakes	DL/CB
7/11/2001	Survey Area 01-4	Surface	2016	1	6	chert	Chert flakes	CB/LJ/NG
7/11/2001	Survey Area 01-4	Surface	2016	2	3	fauna	Bone	CB/LJ/NG
Survey Area 01-4 was discovered to be J&J Hunt, at 15.35m South and 6.7m West of main datum, will reference to J&J Hunt PDFS when a number								

Original
 Update
(give site#)



ARCHAEOLOGICAL SITE FORM

FLORIDA MASTER SITE FILE

Version 2.2 3/97

Consult *Guide to Archaeological Site Form* for detailed instructions.

Site #8 JE740

Recorder Site#

Field Date 8 / 3 / 00

Form Date 7 / 1 / 02

Site Name(s) J&J Hunt 8JE740 Multiple Listing[DHR only]

Project Name PaleoAucilla Prehistory Project FMSF Survey #

Ownership: private-profit private-nonprofit private-individual private-unspecifd. city county state federal foreign Native American unknown

USGS 7.5 Map Name & Date N/A County Jefferson

Township N/A Range N/A Section N/A Check if Irregular Section; Qtr. Section (check all that apply): NE NW SE SW

Landgrant Tax Parcel # (s)

City / Town (if within 3 mi.) In Current City Limits? yes no unknown

UTM: Zone 16 17 Easting _____0 Northing _____0

Address / Vicinity of / Route to

Name of Public Tract (e.g., park)

TYPE OF SITE (Check all choices that apply; if needed write others in at bottom)

SETTING *

- Land - terrestrial
- Cave/Sink - subterranean
- terrestrial
- aquatic
- intermittently flooded
- Wetland - palustrine
- usually flooded
- sometimes flooded
- usually dry
- Lake/Pond - lacustrine
- River/Stream/Creek - riverine
- Tidal - estuarine
- Saltwater - marine
- marine unspecified
- "high energy" marine
- "low energy" marine
- Other _____

STRUCTURES - OR - FEATURES *

- aboriginal boat
- agric/farm building
- burial mound
- building remains
- cemetery/grave
- dump/refuse
- earthworks
- fort
- midden
- mill unspecified
- mission
- mound unspecified
- plantation
- platform mound
- road segment
- shell midden
- shell mound
- shipwreck
- subsurface features
- surface scatter
- well

FUNCTION *

- none specified
- campsite
- extractive site
- habitation (prehistoric)
- homestead (historic)
- farmstead
- village (prehistoric)
- town (historic)
- quarry

HISTORIC CONTEXTS (Check all that apply; use most specific subphases: e.g., if Glades Ia only, don't also use Glades I)

Aboriginal *

- Alachua
- Archaic, Early
- Archaic, Middle
- Archaic, Late
- Archaic unspecified
- Belle Glade I
- Belle Glade II
- Belle Glade III
- Belle Glade IV
- Belle Glade unspcific.
- Cades Pond
- Deptford
- Other (Less common phases are not check-listed. For historic sites, also give specific dates if known.)
- Englewood
- Fort Walton
- Glades Ia
- Glades Ib
- Glades I unspcific.
- Glades IIa
- Glades IIb
- Glades II unspcific.
- Glades IIIa
- Glades IIIb
- Glades IIIc
- Glades III unspcific.
- Glades unspcific.
- Hickory Pond
- Leon-Jefferson
- Malabar I
- Malabar II
- Manasota
- Mount Taylor
- Norwood
- Orange
- Paleoindian
- Pensacola
- Perico Island
- Safety Harbor
- St. Augustine
- St. Johns Ia
- St. Johns Ib
- St. Johns Ia unspcific
- St. Johns IIa
- St. Johns IIb
- St. Johns IIc
- St. Johns II unspcific
- St. Johns unspcific
- Santa Rosa
- Santa Rosa-Swift Creek
- Seminole: Colonization
- Seminole: 1st War To 2d
- Seminole: 2d War To 3d
- Seminole: 3d War On
- Seminole unspecified
- Swift Creek, Early
- Swift Creek, Late
- Swift Creek, unspecified
- Transitional
- Weeden Island I
- Weeden Island II
- Weeden Island unspcific.
- Prehistoric nonceramic
- Prehistoric ceramic
- Prehistoric unspecified

Nonaboriginal *

- First Spanish 1513-99
- First Spanish 1600-99
- First Spanish 1700-1763
- First Spanish unspecified
- British 1763-1783
- Second Spanish 1783-1821
- American Territorial 1821-45
- American Civil War 1861-65
- American 19th Century
- American 20th Century
- American unspecified
- African-American

* Consult *Guide to Archaeological Site Form* for preferred descriptions not listed above (data are "coded fields" at the Site File).

SURVEYOR'S EVALUATION OF SITE

Potentially eligible for a local register? yes: name register at right no insufficient info Name of local register if eligible: _____

Individually eligible for National Register? yes no insufficient info _____

Potential contributor to NR district? yes no insufficient info _____

Explanation of Evaluation (Required if evaluated; limit to 3 lines; attach full justification) _____

Recommendations for Owner or SHPO Action _____

DHR USE ONLY OFFICIAL EVALUATIONS DHR USE ONLY

NR DATE ____/____/____	KEEPER-NR ELIGIBILITY: <input type="checkbox"/> yes <input type="checkbox"/> no	Date ____/____/____
DELIST DATE ____/____/____	SHPO-NR ELIGIBILITY: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> potentially elig. <input type="checkbox"/> insufficient info.	Date ____/____/____
	LOCAL DESIGNATION: _____	Date ____/____/____
	Local office _____	

National Register Criteria for Evaluation a b c d (See National Register Bulletin 15, p. 2)

ARCHAEOLOGICAL SITE FORM

Site #8JE740

Consult *Guide to Archaeological Site Form* for detailed instructions.

FIELD METHODS (Check one or more methods for detection and for boundaries)

SITE DETECTION*

- no field check
- literature search
- informant report
- remote sensing
- exposed ground
- posthole digger
- auger--size: _____
- unscreened shovel
- screened shovel

SITE BOUNDARIES*

- bounds unknown
- none by recorder
- literature search
- informant report
- remote sensing
- insp exposed ground
- posthole tests
- auger--size: _____
- unscreened shovel
- screened shovel
- block excavations
- estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan) _____

Hand fanned testing, induction dredges, 1/4" screen excavations _____

SITE DESCRIPTION

Extent Size (m²) _____ Depth/stratigraphy of cultural deposit _____ From 40cm to 1.5m _____

Temporal Interpretation* - Components (check one): single prob single prob multiple multiple uncertain unknown
Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations: _____

Integrity Overall disturbance: none seen minor substantial major redeposited destroyed-document! unknown
Disturbances/threats/protective measures Possible vandalism in the form of hand fanned pits (round) _____

Surface: area collected _____ m² # collection units _____ ; Excavation: # noncontiguous blocks 2m² _____

ARTIFACTS

Total Artifacts # 170 (Count) Surface # 34 (E) Subsurface # 136 (E)

COLLECTION SELECTIVITY*

- unknown unselective (all artifacts)
- selective (some artifacts)
- mixed selectivity

SPATIAL CONTROL*

- uncollected general (not by subarea)
- unknown controlled (by subarea)
- variable spatial control
- Other _____

ARTIFACT CATEGORIES* and DISPOSITIONS* (example: A bone-human)

- Pick exactly one *code* from Disposition List ⇔ ⇔ ⇔
- A bone-animal
 - bone-human
 - bone-unspecified
 - S bone-worked
 - brick/building debris
 - ceramic-aboriginal
 - ceramic-nonaboriginal
 - daub
 - exotic-nonlocal
 - glass
 - A lithics-aboriginal
 - metal-nonprecious
 - metal precious/coin
 - S shell-unworked
 - shell-worked
 - Others: _____

Disposition List*	
A	- category always collected
S	- some items in category collected
O	- observed first hand, but not collected
R	- collected and subsequently left at site
I	- informant reported category present
U	- unknown

Artifact Comments _____

DIAGNOSTICS (Type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

- | | | |
|---|-------------------|--------------------|
| 1. <u>Edgefield Scraper</u> N= <u>1</u> | 5. _____ N= _____ | 9. _____ N= _____ |
| 2. <u>Archaic Stemmed Point</u> N= <u>1</u> | 6. _____ N= _____ | 10. _____ N= _____ |
| 3. <u>Bolen Point</u> N= <u>1</u> | 7. _____ N= _____ | 11. _____ N= _____ |
| 4. _____ N= _____ | 8. _____ N= _____ | 12. _____ N= _____ |

ENVIRONMENT

Nearest fresh water type* & name (incl. relict source) PaleoAucilla River Distance (m)/bearing 20m

Natural community (FNAI category* or leave blank) Sea Grass

Local vegetation _____

Topography* _____ Min Elevation _____ meters Max Elevation _____ meters

Present land use N/A Submerged

SCS soil series N/A Soil association _____

FURTHER INFORMATION

Informant(s): Name/Address/Phone/Email MK Faught 1847 W Tennessee Street 32306-4531 (850) 644-9347 mfaught@mailier.fsu.edu

Describe field & analysis notes, artifacts, photos. For each, give type*(e.g., notes), curating organization*, accession #s, and short description.
Notes, artifacts, samples of FSU Program in Underwater Archaeology _____

Manuscripts or Publications on the site (Use continuation sheet, give FMSF# if relevant) _____
MKFaught PhD, Report of 1999 Field Operations, Faught and Latvis 2000, Tobón and Pendleton 2001

Recorder(s): Name/Addr./Phone/Email MK Faught 1847 W Tennessee Street 32306-4531 (850)644-9347 mfaught@mailier.fsu.edu