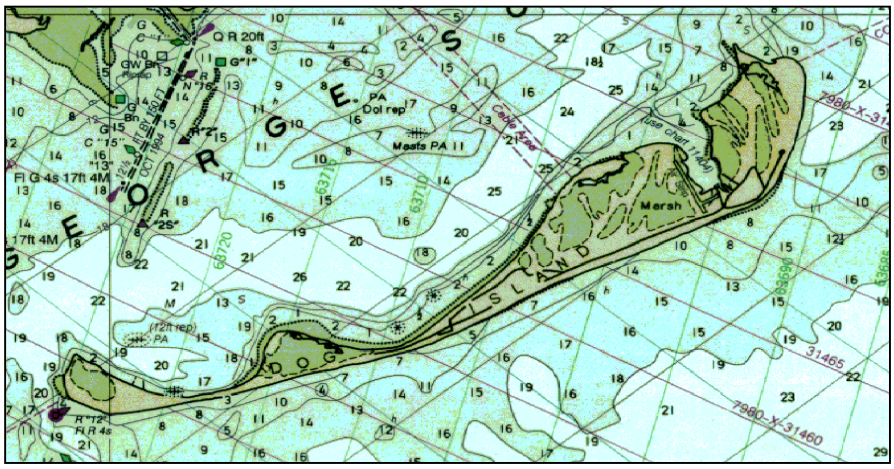
Dog Island Shipwreck Survey

Report of Field Operations:

Spring 2001



Program in Underwater Archaeology
Research Report #17

By
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Report of Field Operations Spring 2001

Table of Contents

List of Figures

Dog Island Shipwreck Survey
Report of Field Operations Spring 2001

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Introduction

This report details the contributions to the Dog Island Shipwreck Survey by the ANT 4131 *Techniques of Underwater Site Research* course during the spring 2001 semester. The Dog Island Shipwreck Survey is an ongoing research project designed to locate, identify and catalogue the historic submerged cultural resources around Dog and St. George Islands within the waters of the Apalachicola and Apalachee Bays (Figure 1). The project operates as part of the Program in Underwater Archaeology through the Florida State University Department of Anthropology. Archaeological permits for the project were issued through the Bureau of Archaeological Research, Florida Department of State. The Department of Environmental Protection and the Army Corps of Engineers issued dredge and Fill permits.

Field activities for ANT 4131 at Dog Island took place on March 24 and April 7 and 8, 2001. This research continued investigations at the site 8FR903 located in Ballast Cove a natural inlet on the bayside of Dog Island. The investigation of this site, designated as Ballast Cove Wreck A, began during the 2000 field school in underwater archaeology with visual survey, surface collections, test excavation and mapping of portions of the exposed hull structure (Damour and Horrell: 2001: 9). Previously during the 1999 field season other sites in Ballast Cove were located and examined including 8FR891 a 19th century ballast scatter and 8FR895 a similar 19th century ballast scatter associated with a 3m by 1m metal feature. Along with the investigation of these sites an extensive historical overview of the region is presented in the 1999 field report (Meide et al 2001).

These archaeological investigations offer the potential to shed light on larger cultural systems shaped by a variety of culture groups and local industries that have relevance beyond Ballast Cove. The waters around Dog and St. George islands experienced the presence of Spanish, French and English groups and were directly effected by 19th century industries such as cotton exportation, commercial fishing, the lumber industry and the turpentine and naval stores industries. Rather than offering a single significant shipwreck the archaeological record in Ballast Cove presents a broad scattering of cultural materials. This offers opportunity for the synchronic study of a multi-component landscape that has experienced a diversity of human behavior and environmental change.

Figure 1. Map of Dog and Saint George Islands.

Spring 2001 Research Objectives

Activities in Ballast Cove during the spring semester of 2001 focused on a ballast pile located to the west of the hull remains of 8FR903. This ballast pile was located during the 2000 field season, however; its exact size and association with the wreck were not determined. Data was collected through the mapping of the extent of the ballast pile, the surface collection of diagnostic artifacts and the excavation of two test units. Emphasis was placed on determining the nature of the relationship with the hull remains of 8FR903, the temporal placement of the ballast pile and the possible cultural context of the ballast deposit. In addition, a side scan sonar survey of the entire cove was conducted to locate targets for future investigation.

Mapping of Ballast Pile

The west ballast pile was mapped in order to tie it into the larger site map for 8FR903 and to assess the extent of the deposit. The ballast pile was mapped by establishing a temporary north-south baseline roughly over the center of the pile. Offsets were taken from this baseline at two meter intervals to determine the east-west extent of the deposit while observations were recorded as to the size and shape of the ballast stones. Any cultural materials were noted and diagnostic artifacts were collected.

The ballast pile extends 11.40 meters along a north-south axis and is composed of various sizes of ballast stone ranging from worn cobble-like stones of chert 3 to 5 cm in length to larger square-shaped stones 30 to 50 cm in length of an unidentified stone (Figure 2). The ballast pile has relief of up to 30 cm in the densest areas and is partially covered by sediments in less dense areas. The densest deposit of ballast is directly in the center while the northern and southern edges are sparse.

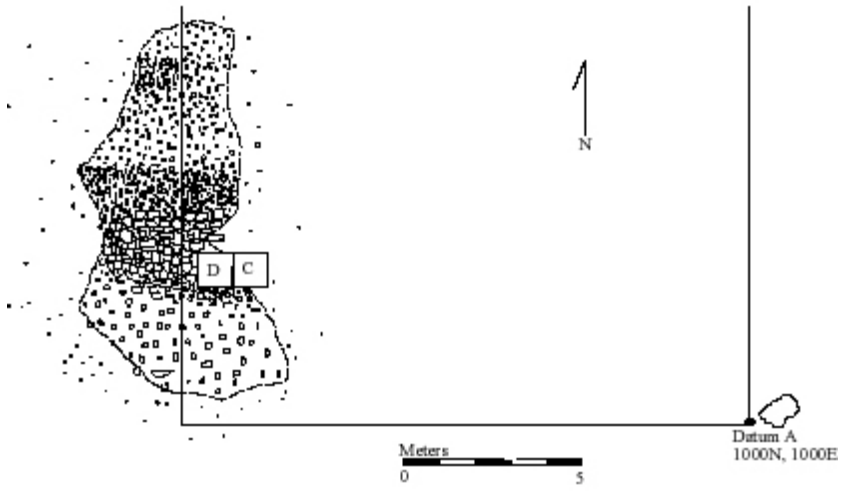

Figure 2. Map of west ballast pile.

There was no exposed evidence of wooden hull structure indicating that the ballast pile is from a wreck or associated from 8FR903. Earthenware roofing tile and brick fragments were observed but not collected. Surface collections include a pipe stem, two diagnostic ceramic sherds and glass. In addition, a representative sample of ballast was collected for future sourcing. These artifacts are discussed in detail below.

Dredging of Test Units

Two 1 meter by 1 meter test units were excavated in the west ballast pile. These units, C and D, were positioned along the eastern edge of the ballast pile in an area of the densest ballast deposit (Figure 2). It was hypothesized that this dense area would reveal a solid representation of the deposition and wooden structure if it was present. These units were positioned along the eastern edge of the ballast pile in hopes that they would reveal if there is a structural relationship with the hull remains of 8FR903 or if the ballast pile was unrelated with the wreck.

Test units were excavated using a 4-inch induction dredge. Sediments were filtered through ¼ inch mesh screen. Large ballast stones were removed by hand from the units and then used to backfill the units at the extent of excavation. The units were excavated in 5 cm arbitrary levels. Artifacts recovered from these units include ceramics, glass, smoking pipes and metal. A discussion of these artifact groups follows, while the

complete provenience log of artifacts recovered is presented in appendix A. The artifact assemblage is too small at present to allow an in depth analysis, however; the diagnostic attributes as indicators of time and cultural affiliation are considered.

Ceramics

Ceramics recovered from the test units include stonewares (7 sherds) and whitewares (2 sherds). Gray-bodied salt-glazed stoneware sherds (figure 6) are possibly from English cylindrical bottles manufactured from 1840 and into the beginning of the 20th century (Noel Hume 1969:79). These bottles were produced in a variety of capacities and for a variety of materials including mineral water, ginger beer and ink. Figure 8 is an example of a whiteware with a blue transfer print design. The process of mass production transfer printing developed around the 1750s, however; blue underglaze designs were most popular at the end of the 18th century (Noel Hume 1969:129). Figure 7 is a pearlware sherd with a blue underglaze design that appears to be writing. English pearlware production began in the 1780s and was popular until the 19th century (Noel Hume 1969:130). USING SOUTH PRESENCE ABSENCE A DATE OF>>>>

Glass

Glass recovered from the test units include clear glass (6 sherds), green bottle glass (2 sherds) and milk glass (1 sherd). No diagnostic features or clues to production technique are present on any of the glass artifacts making it difficult to date the clear and green bottle glass. The milk glass (figure 3), or opaque white pressed glass, was a type first produced in the early 19th century which remained popular into the early 20th century (Jones 2000:147). Figure 5 is an example of unidentified encrusted glass chunks that were recovered from the test units and observed on the surface.

Pipe Stems

Three pipe stems were recovered from the west ballast pile. This sample size is too small for the application of stem-bore diameter dating techniques as proposed by Harrington (1978) and Binford (1978).

Metal

One fragment of metal was recovered from test unit D. It is possible that this fragment is copper-alloy sheathing used to protect the bottom of wooden hulled ships. The use of pure copper sheathing was innovated by the British Royal Navy in 1761 (Steffy 1994: 175). Later protective sheathings were produced of cheaper copper alloys. The most popular of these was Muntz metal which was developed in 1832 and used until the 20th century (Stone 1993: 23).

PD 1025 FS 4

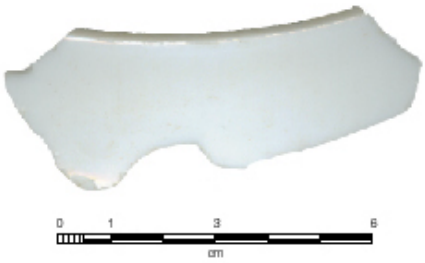

Figure 3. Milk glass

PD 1027 FS 5

Figure 4. Sheathing

PD 1024 FS 4

Figure 5. Glass chunk

PD 1027 FS 1

Figure 6. Stoneware

PD 1026 FS 1

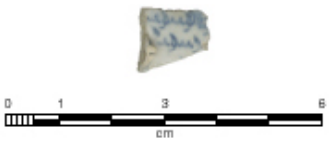

Figure 7. Whiteware

PD 1023 FS 1

Figure 8. Transfer print

Side Scan Survey of Ballast Cove

A remote sensing survey of Ballast Cove was conducted using a Marine Sonics 600 kHz side scan sonar. The goal of this survey was to locate targets for future investigation. The strategy of the survey was to cover 100% of the cove using both east-west and north-south tracklines with the sonar swath at 100m. Line spacing was difficult to control since a small vessel was used. Figure 9 shows the extent of the survey area which apporimately covered 1.62 square nautical miles.

All potential targets were recorded; however, ballast features were the most recognizable and the focus of the survey. Ballast features were characterized as either ballast piles or ballast scatters. Ballast piles are defined as small and discrete areas of ballast with high relief. Ballast scatters are defined as larger areas of ballast with low relief. This dichotomy is made in an attempt to differentiate ballast features that may be associated with wrecks and ballast features that are associated with the intentional offloading of ballast in order to take on cargo. Appendix B is a table of the targets identified. Dimensions listed on this table are only rough estimates and were taken across the longest axis of the sonar image. Figure 10 shows the distribution of these ballast features throughout Ballast Cove.

Figure 9. Side Scan Sonar track lines.

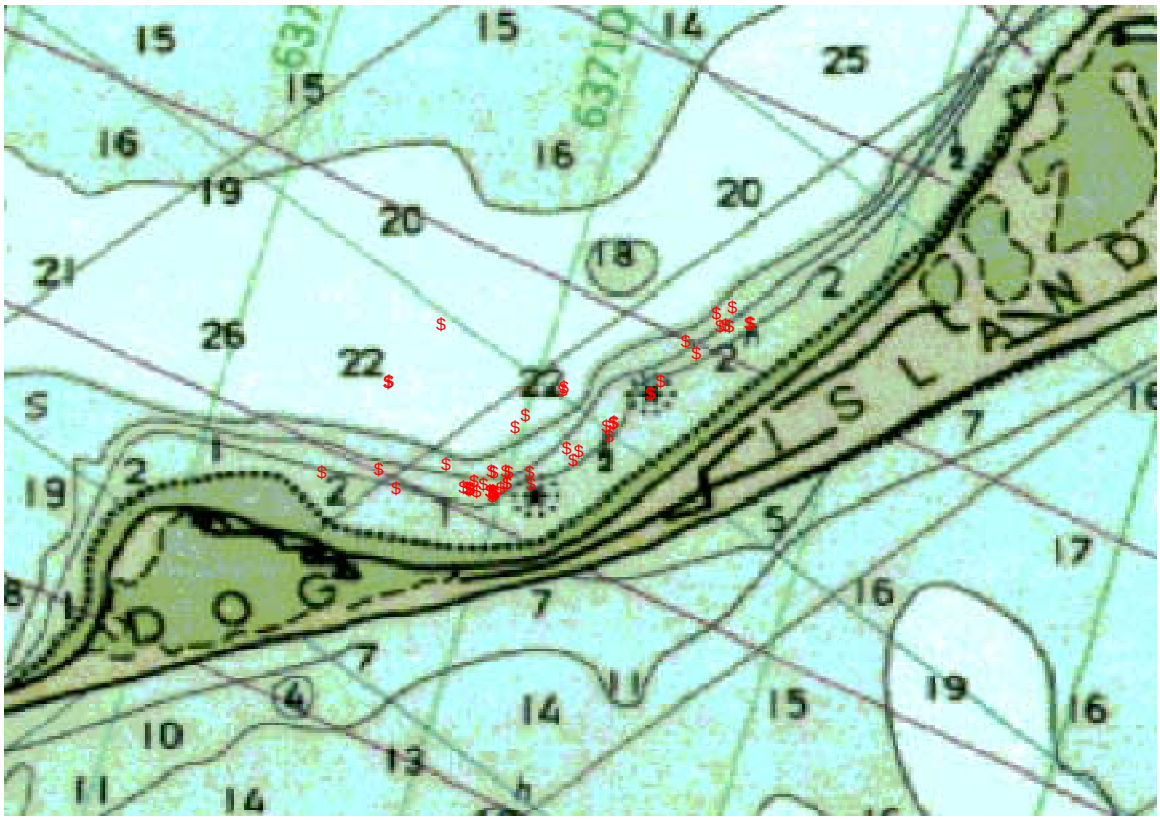

Figure 10. Side Scan Sonar targets.

Conclusions

Research in Ballast Cove during the spring of 2001 focused on the west ballast pile in order to determine the relationship with 8FR903, the date and the cultural affiliation of the deposit. The evidence from the artifacts recovered reveal that the ballast pile was possibly deposited during the late 19th century from a European vessel. However, it is still not known whether the ballast pile is associated with 8FR903 or if it is a separate site. The lack of wooden hull remains indicates that the ballast pile may not be from a wrecking event, but rather from the offloading of ballast to take on cargo. However, further investigation is necessary. In addition, the side scan sonar survey located a number of potential targets that warrant further investigation.

Date Recovered	Locus or Site	Unit	Level	PD	FS	Count	Contents/Material	Comments/ Description	Divers
4/7/01	8FR903	Surface Collection	x	1022	3	1	Pipe stem	Located at 1000.29N 999.60E	WH/ZG
4/7/01	8FR903	Surface Collection	x	1023	1	1	Whiteware	Located at 997.75N 896.44E/ blue on white decoration	WH/RG
4/7/01	8FR903	Surface Collection	x	1024	4	1	Glass chunk w/ concretion	Located at1005.61N 983.4E	DL/RG
4/7/01	8FR903	Surface Collection	x	1024	1	1	Stoneware base	Located at1005.61N 983.4E	DL/PG
4/7/01	8FR903	Surface Collection	x	1024	10	1	Ballast	Located at 1005.61N 983.4E	DL/PG
4/8/01	8FR903	C	1	1025	4	1	Milk glass		ZG/BM/BD
4/8/01	8FR903	C	1	1025	4	1	Clear glass		ZG/BM/BD
4/8/01	8FR903	C	1	1025	6	1	Brick fragment		ZG/BM/BD
4/8/01	8FR903	C	1	1025	1	1	Stoneware base	Brown glaze	ZG/BM/BD
4/8/01	8FR903	C	1	1025	10	1	Ballast cobble		ZG/BM/BD
4/8/01	8FR903	C	1	1025	12	1	Coal		ZG/BM/BD
4/8/01	8FR903	D	1	1026	4	1	Green bottle glass	Possibly melted	MD/RG/SD
4/8/01	8FR903	D	1	1026	1	1	Whiteware	Blue on white decoration/ possible writing	MD/RG/SD
4/8/01	8FR903	D	2	1027	4	4	Clear pane glass		MD/RG/ZG
4/8/01	8FR903	D	2	1027	1	4	Stoneware	White glaze	PG/WH/ZG
4/8/01	8FR903	D	2	1027	1	1	Stoneware	Brown glaze	PG/WH/ZG
4/8/01	8FR903	D	2	1027	3	2	Pipe stems		PG/WH/ZG
4/8/01	8FR903	D	2	1027	4	1	Clear bottle glass		PG/WH/ZG
4/8/01	8FR903	D	2	1027	4	1	Green bottle glass		PG/WH/ZG
4/8/01	8FR903	D	2	1027	5	1	Copper sheathing		PG/WH/ZG
4/8/01	8FR903	D	2	1027	6	4	Brick fragments		PG/WH/ZG
4/8/01	8FR903	D	2	1027	10	14	Ballast stones		PG/WH/ZG
4/8/10	8FR903	Surface Collection	x	1028	10	1	Ballast sample		CH/MD

Appendix A. PD/FS Artifact Inventory

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