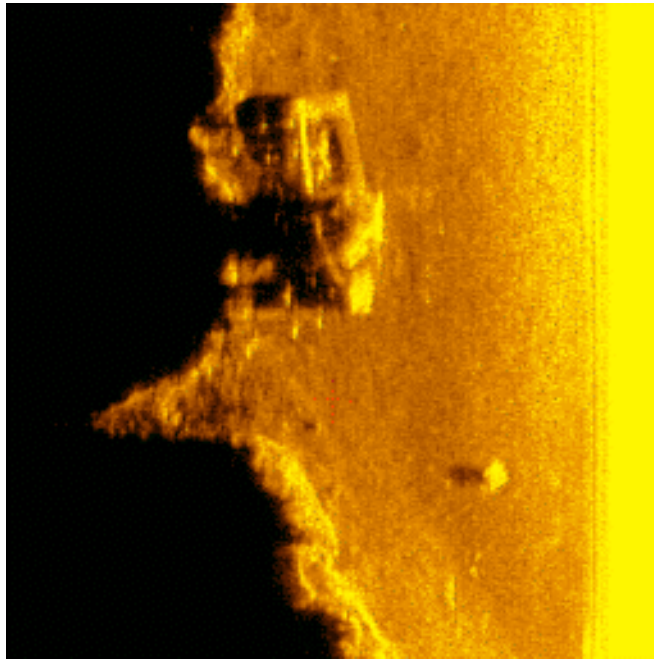


Hard Times for Small Craft: An Archaeological Survey of the  
Wright's Creek Abandoned Vessel Complex



Vessel 14 – Wright' Creek Abandoned Vessel Complex

Report for North Carolina SeaGrant  
Fund 211274

by

Dr. Nathan Richards  
Jacqueline Marcotte

May 6, 2009

## TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
LIST OF FIGURES.....	ii
INTRODUCTION.....	1
LOCATION AND ENVIRONMENT.....	2
METHODOLOGY.....	3
ARCHAEOLOGICAL INVESTIGATION AND FINDINGS.....	10
CONCLUSION.....	14

## LIST OF FIGURES

FIGURE 1: USGS Map of Wright’s Creek, Belhaven, NC.....	4
FIGURE 2: Vessel 14 ground-truthing, October 2008.....	6
FIGURE 3: Contact0014 abandoned vessel.....	7
FIGURE 4: The <i>Betty Rebecca</i> built by area resident Major Wilson Foster.....	8
FIGURE 5: Site plan for Vessel 14.....	11

## Introduction

Understanding the role of maritime activities in a rural environment provides answers to questions concerning economic, social, and technological changes in small communities. The archaeological study of vessel abandonment attempts to understand these changes and provide a model for explaining the evolution of local maritime history and vernacular shipbuilding. Archaeological study of the Wright's Creek Abandoned Vessel Complex occurred over the course of the 2008-2009 year, resulting in the survey of fourteen vessels. Data collection methods utilized include sidescan sonar, GPS documentation, and site mapping in order to facilitate an understanding of site formation processes relating to a rural boat graveyard. The primary research question concentrates on the study of a rural boat graveyard to determine how the archaeological remains represent the economic, social, political, and technological events and processes of the surrounding community.

This report concerns the methodology used, as well as results obtained during side-scan sonar survey completed in August 2008. Investigators surveyed the 1.21 mi<sup>2</sup> area of Wright's Creek locating as many as twenty-seven anomalies. After careful consideration, investigators deemed six anomalies worth further examination, and graduate students in ECU's Maritime Studies Program completed ground-truthing of these anomalies in October 2008. Investigation resulted in the archaeological survey and site plan of Vessel 14, a 26 ft. wooden workboat built by Wright's Creek resident Major Wilson Foster.

In addition to archaeological survey, historical research of the area is pertinent to understanding the local residents' traditional maritime heritage, as well as their interaction with the discarded vessels. Data collection consisted of archival documents and photographs, as well as oral interviews with Wright's Creek residents. The concentration of commercial fishermen

working in the Wright's Creek embayment presents a unique opportunity to study behavioral patterns associated with maritime industries. This area of Belhaven, once a vital waterway for commercial fishermen, is experiencing serious decline as evidenced by the high number of abandonments.

### Location and Environment

Wright's Creek runs through a bay into the Pungo River between Harris Point and Dave Moore Point (Figure 1). Upstream from its mouth approximately 0.6 mi., Wright's Creek divides into North and South Prongs. One site, an iron barge, is evident upon entering the bay of the creek. Six other sites are located in the south prong at Bradley Creek. The remaining six sites are located in the North Prong of Wright's creek; four at Schoolhouse Landing to the south, one near working docks in the northwest, and one at the westernmost portion of the prong. During survey, the majority of sites were located at an average depth of 2 ft. of water. The substrate is a thick layer of soft mud, at times demonstrating a depth of more than 6 ft. Debris from surrounding vessels and human activity permeate the deep sediment layer.

Environmental conditions on the Pamlico's northern bank are affected by a combination of natural factors including: wind, water depth, stream configurations, and dry land (Babits et al. 1995:4). Sea level change causes slow erosion damage, while wind and wake damage rapidly alter the terrain. Storms have the most dramatic effect on the topography (Garrett 1983:39). According to Babits (1995:4), this survey area suffers from a combination of northeasters and hurricanes on a regular basis.

Formation processes at this site involve a combination of cultural and natural transforms. Non-cultural or natural transforms can be seen in damage to the vessels wrought by wind, wave action, water pH and salinity, as well as sulfuric acid in the mud. Cultural transforms are

witnessed through the actions of deliberate discard of the vessel, possible conversion, and salvage. These transforms are better understood through the concept of reuse, whereby an artifact undergoes change to its intended form or use. Further processes of recycling, and lateral cycling can be seen at this site, through the evidence of salvage, and possible conversion of this vessel from pleasure craft to workboat.

### Methodology

Data collection of information pertaining to the history of Wright's Creek occurred at the North Carolina State Archives (NCSA), North Carolina Maritime Museum (NCMM), Core Sound Museum, and the Beaufort County Courthouse. Oral interviews with local residents also played an important part in understanding the history of Wright's Creek, as well as the abandoned vessels discarded within its waters. Information pertaining to specific vessels was obtained from Beaufort County Vessel Registration Records in some instances where identification was possible. Identification of Vessel 14's builder occurred through contact with local informants, as no registration or hull numbers are extant due to the advanced state of degradation present.

The initial archaeological survey of thirteen Wright's Creek vessels occurred during Dr. Nathan Richards' spring 2008 Research Methods in Nautical Archaeology course. Graduate students recorded six wooden vessels in the north prong of Wright's Creek, one iron barge in its south prong, and six small, wooden workboats in its tributary, Bradley Creek. Although many of the vessels in the north prong of Wright's Creek and Schoolhouse Landing have been identified, the boats in Bradley Creek remain unidentified, and local informants have no recollection of their origins or disposal, except to comment they have been there for a long time.

Sidescan sonar of Wright's Creek was conducted on 7 August 2008 using a Klein towfish with Hypack hydrographic survey software. Topographic maps of Wright's Creek were georectified into the GPS system of the software program used to track the tow-lanes. In this way, investigators tracked the progress of the survey in real time during the sonar survey. Using the *Flounder*, a 24 ft. ECU skiff, investigators motored into the creek's mouth near the Wright's Creek Marina & Seafood, beginning the sonar track between Dave Moore Point and Harris Point (Figure 1).



Figure 1: USGS Topographic Map showing the location of Wright's Creek.

The tow lanes progressed in a generally east to west direction, set approximately 30 ft. in width. The first channel surveyed was the south prong, followed by the north prong. Several difficulties arose during the tow due to the shallowness of the creek and its tributaries, as well as hang-ups in the water, including old crab-pots and tree limbs. At one point, investigators were forced to halt towing in order to dig the towfish from the deep mud. Several smaller tributaries of Wright's Creek, known to possess strata of abandoned vessels, were too shallow to record. For this reason, investigators confined the tow lanes primarily to the major channels. The shallowness of the channels also posed problematic for adjusting towfish height while attempting to minimize feedback from the output of the *Flounder's* motor. Investigators positioned the towfish on the starboard side of the vessel with approximately 3 ft. of line allowing it to play out slightly to the side of the vessel, behind the motor. Although some feedback occurred while recording progress along the tow lanes, distortion was minimal and did not detract from the intended results.

Post-processing of the sonar data was accomplished using SonarWiz.MAP, generating a report of the anomalies including sonar image, and dimensions based off the measurement of the anomaly's shadow (Appendix I). Investigators discovered twenty-four anomalies during post-processing, many representing pilings from the remains of old docks, or large logs. Based on the presence or absence of angular or symmetrical features, six anomalies stood out as possible sunken vessels. These anomalies range in size from 19 ft. in length, to 44 ft., some appearing with intact vessel-like shapes, others as curious piles of sunken debris.

Reconnaissance or ground-truthing of these anomalies occurred on 11 October 2008. Accompanied by a dive safety officer, graduate students proceeded into Wright's Creek to investigate these anomalies. Reconnaissance began in the western section of the north prong of

the creek at Contact0017, discovering immediately a small, wooden boat hereafter described as Vessel 14 (Appendix I). The vessel's attitude in the water is precarious as it rests in the silt listing to port, still tied to a decayed dock on its starboard side. Only the starboard corner of the pilothouse and the rusted rigging show above the water's surface (Figure 2).



**Figure 2: Grad students assisting with ground-truthing on Vessel 14. From top: Morgan MacKenzie, Jeanette Hayman, and Lyz Wyllie. Photo by Jacqueline Marcotte October 2008.**

Proceeding directly north, investigators discovered the identity of Contact0018 as Vessel 1 (possible 0026PUR), previously recorded in spring 2008. Continuing on an eastward heading, investigators discovered the source of Contact0014 (Appendix I). This vessel is in a highly deteriorated state, with only a portion of the stern visible above the water, and a large amount of rusted rigging listing dangerously to starboard. During recording of the vessel's stern, large amounts of oil began belching from the vessel, and lines still tied to its stern danced dangerously near investigators in the water. Due to these complexities, the dive safety officer deemed Contact0014 too dangerous to dive or investigate from close proximity (Figure 3).



**Figure 3: Contact0014, abandoned vessel across from Foster's Seafood Landing.**

Continuing in a northeast heading, investigators encountered the source of Contact0021, an abandoned vessel located in front of Foster's Seafood (Appendix I). This vessel is the *Betty Rebecca*, a 54 ft. wooden trawler built by Major Wilson Foster, and area resident, in the 1970s (Figure 4). The final two anomalies, Contact0007 and Contact 0008, were tracked to the south prong of Wright's Creek (Appendix I). Unfortunately, they lie beneath two working fishing vessels, the *Brittany Faye* and *Cathy Gail*. For this reason, the dive safety officer allowed no further investigation of the anomalies, which appear as curious, almost oblong shapes in the sonar image.



**Figure 4: The *Betty Rebecca*, built by Major Wilson Foster in the 1970s. Left: *Betty Rebecca* awash during October ground-truthing, photo by Jacqueline Marcotte. Right: *Betty Rebecca* in 1997, photo courtesy Captain Carl Wilson Foster.**

Upon completion of ground-truthing, investigators deemed one vessel worthy of archaeological survey, the remaining vessels were judged too dangerous to dive, or were previously recorded. Archaeological survey work completed on Vessel 14 during the 24 October 2008 field expedition was concerned with the creation of a site map scaled at 1:36, and observations of formation processes as they relate to the archaeological record. Transportation to the site was made possible via the *Flounder*. The vessel put in at the Wright's Creek Seafood & Marina, located on the north shore of the mouth of the creek, approximately 1 mi. from the site. The north prong of Wright's Creek is characterized by a deep layer of mud, surrounded by drained parcels of *Spartina* ringed swampland that tinges the water brown with tannin.

Although the use of SCUBA was anticipated for recording this vessel, a malfunction of dive gear resulted in a change to recording methodology, as divers surveyed the vessel using snorkel gear. Water temperature was approximately 50°, depth 8 ft., and visibility was a

pleasant 3 ft. Length and width measurements of the vessel occurred on a previous reconnaissance in August 2008. These measurements were rechecked using a baseline offset method; however, exact measurements were made difficult due to the degraded state of the vessel, low visibility, and lack of SCUBA gear. In addition, the vessel's presence next to a decaying dock, its position in the water, and the presence of rusting fishing gear, makes access to certain elements of the vessel difficult. Nevertheless, pertinent elements of the vessel's structure were observed and accurately recorded, aiding in its identification.

Photography of the site was performed with a digital camera; underwater shots lacked clarity due to reduced visibility and kept to a minimum. Photographs of the site aided in developing analyses of the formation processes affecting the site, and enhanced scaled drawings. The position of the site was fixed with a GPS unit using WGS 84 datum:

18S 0354588 3919851

The scale map was drawn on vellum, followed by reduction and digitization. Due to the degraded nature of the vessel, cartography concentrated on the general shape of the remains, similar to a plan view of ship lines' drawings, by taking measurements at regular intervals along the baseline to the outside of the starboard hull. Scantling dimensions were not recorded due to the absence of SCUBA gear, coupled with the low visibility environment.

Given the depth of the mud surrounding the vessel, its distance from shore, and the frail state of the vessels remaining structure, metal stakes were not appropriate for construction of a baseline near the bow. Instead, the baseline was attached to the forward section of the stem, and run to the remains of the pilothouse, offsets were taken from this forward baseline. After measuring the pilothouse, an attempt to obtain offsets from the midsection was attempted, but

failed due to lack of SCUBA, low visibility, and obstructions in the water. The baseline offset method was continued abaft the pilothouse running toward the stern of the vessel.

Using this method, approximate vessel dimensions were recorded as 26 ft. length, and 8 ft. beam. The vessel rests at a depth of 8 ft., with a portion of its rigging and pilothouse still visible above the water's surface. Portions of the internal structure of the hull bottom are visible through tannin stained water and mud on the starboard side, but measurements were difficult to acquire, and the lack of visibility made timber alignment difficult to discern. Although set up for motorized propulsion, the vessel's motor is no longer extant.

#### Archaeological Investigation and Findings

The scaled site plan (Figure 5) reveals the location of prominent features in relation to the baseline, such as the extant hull line, pilothouse, sampson post, and raised forward and aft decks. Site and historic photographs disclose pertinent information regarding cultural and natural transforms on the site, and aid in our understanding of construction. The wavy lines encompassing the pilothouse reflect the waterline; the entire vessel is submerged save this small portion. An interpretation of ceiling or deck planking is noted with solid and dashed lines. Toward the midline of the vessel, deck equipment still exists, but only a glimpse of this was visible during survey and has been delineated with diagonal lines. Although decking was not located, it is likely extant as glimpses of fishing equipment still attached to the vessel occurred briefly during breath-hold dives. Placement assurance in the form of small, cross-hatched lines is depicted attaching the boat to the dock, and straight lines moving away from the boat, and toward the stem, represent the remainder of the rigging.

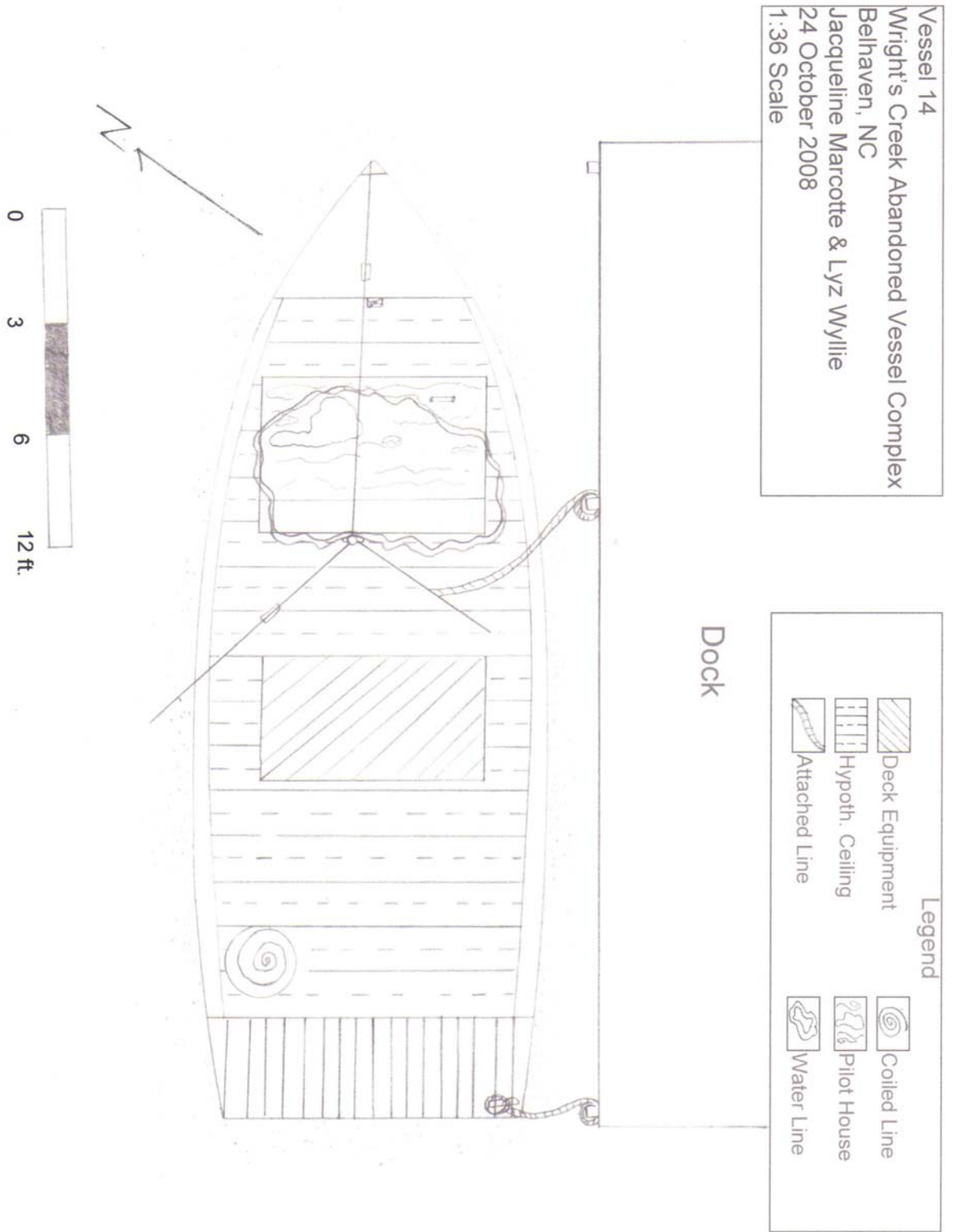


Figure 5: Vessel 14 - a 26 ft. x 8 ft. wooden fishing vessel built by Major Wilson Foster, area resident.

A sampson post sits approximately 3.6 ft. abaft the stem, with line still attached around its body (Figure 6). The remains of a raised forward deck span the expanse between the stem and the forward part of the sampson post, floating unattached to port or starboard planking. The vessel has a raised deck with longitudinal planking at its transom stern section. In addition, the rub-rails or guards have a slight, rounded flair. The pilothouse is located forward midships, approximately 5.2 ft. feet from the stempost.



**Figure 6: Vessel 14's sampson post located in the forward section 3.6 ft. abaft the stempost. Note the aft edge of the raised decking to the left.**

The historic photograph of Vessel 14 yields views of the vessel's bow, hull, and pilothouse, recording the vessel's condition sometime prior to discard (Figure 6). The vessel's rigging appears in tact, attached to the stempost. Wear is present on both the stempost of Vessel 14, and the starboard rub-rail, as large gashes expose unpainted wood. A sampson post is visible some distance abaft the stempost, with line wrapped around it securing the vessel to shore. The

exact location of the vessel during the taking of this photograph is unknown, although it is likely within Wright's Creek, as the owners of the vessel, the Fulford family, are area residents (Personal Communication, Carl Wilson Foster, 16 April 2009).



**Figure 7: Vessel 14 in working condition, built by Major Wilson Foster, a Wright's Creek resident and boatbuilder.**

There is no known abandonment date for this vessel, but it appears to be in an advanced state of deterioration, comparable to vessels surveyed near Schoolhouse Landing in spring 2008. Placement assurance can be seen in the form of lines still attaching the sunken vessel to its decaying dock (Figure 7). The vessel's forward, raised deck is deteriorated, only a small portion remains attached to the stempost.

The lack of rigging remaining on the vessel, and its lack of a motor may in fact demonstrate salvage of gear and equipment before purposeful abandonment. For the purposes of this discussion, abandonment of a vessel is defined as one that has been "relinquished, left, or given up by the lawful owner without the intention to later resume any right or interest in the vessel" (Hills 2007:21). Salvage is an example of cultural transforms occurring in the

archaeological record, specifically that of reuse. *Reuse* is a change in use of an artifact following original use. The cycling of an object back into the systemic context occurs as an object breaks, wears out, or is no longer useful for its utilitarian or symbolic function (Schiffer 1996:28). More specifically, salvage of a vessel before abandonment falls into the category of recycling.

*Recycling* is the return of a used artifact to a manufacturing process, wherein the artifact undergoes transformation to a point that its use is completely different. This typically occurs when an object has fulfilled its original use function and has no further use in its original capacity, such as that seen in salvage situations (Schiffer 1996:29).

### Conclusion

The location of derelict vessels in an abandoned boat graveyard has many implications for archaeological and historical study. Oral interviews with local residents played a key role in historical research, adding pertinent information to the study of individual vessels and complexes. The local community is intimately associated with the abandoned vessels in Wright's Creek embayment, providing insight into the behavioral aspects of material culture discard. Further research will concentrate on collecting regional and historical background, site-specific vessel histories, and graveyard accumulation histories.

The Wright's Creek community provides an opportunity to document a maritime way of life that is quickly fading. Through archaeological and historical research, the economic, social and technological changes that affect this small community are more clearly understood. Intertwining the archaeological study and historical research of abandoned vessels provides a model to explain the evolution of local maritime history and vernacular shipbuilding.

## References Cited

Babits, Larry E. and Annalies C. Kjorness.

1995 *Final Report on an Archaeological Survey of the Western Shore of the Pungo River from Wade's Point to Woodstock Point.* East Carolina University, Greenville, NC.

Garrett, Susan E.

1983 *Coastal Erosion and Archaeological Resources on National Wildlife Refuges in the Southeast.* Archaeological Services Branch, National Park Service, Atlanta GA.

Hills, Judith A.

2007 *Abandoned and Derelict Vessels and Debris Study: Coastal North Carolina.* Eastern Carolina Council, New Bern NC.

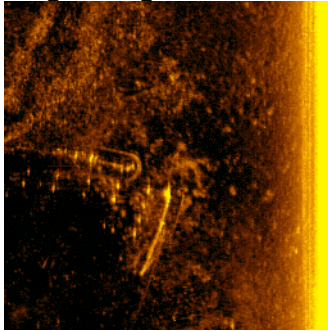
Schiffer, Michael B.

1996 *Formation Processes of the Archaeological Record.* University of Utah Press, Salt Lake City, UT.

APPENDIX I  
Wright's Creek Sidescan Survey Report

# WC Side Scan Survey

## Target Image



## Target Info

### Contact0007

- Sonar Time at Target: 08/07/2008 19:18:28
- Click Position (Lat): 35.4091532
- Click Position (Lon): -76.5933822
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 355,322.52
- Click Position (Y): 3,919,583.92
- Acoustic Source File: C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-024.XTF
- Ping Number: 4433
- Range to Target: 20.54 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-024
- Area / Block:

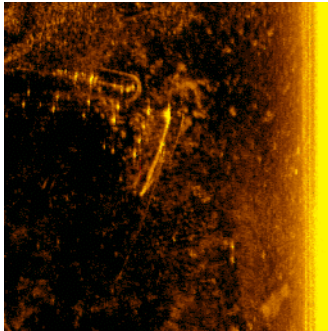
## User Entered Info

### Dimensions

Target Description:  
Target Height = 0.00 Meters  
Target Length: 10.60 Meters  
Target Shadow: 0.00 Meters  
Target Width: 3.97 Meters

### Magnetic Anomaly Assoc

### Avoidance Criteria



### Contact0008

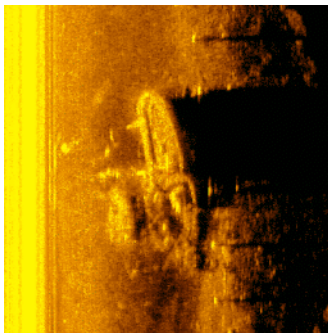
- Sonar Time at Target: 08/07/2008 19:18:24
- Click Position (Lat): 35.4090775
- Click Position (Lon): -76.5934464
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 355,316.56
- Click Position (Y): 3,919,575.62
- Acoustic Source File: C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-024.XTF
- Ping Number: 4287
- Range to Target: 14.56 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-024
- Area / Block:

### Dimensions

Target Description:  
Target Height = 0.00 Meters  
Target Length: 9.53 Meters  
Target Shadow: 0.00 Meters  
Target Width: 2.33 Meters

### Magnetic Anomaly Assoc

### Avoidance Criteria



### Contact0014

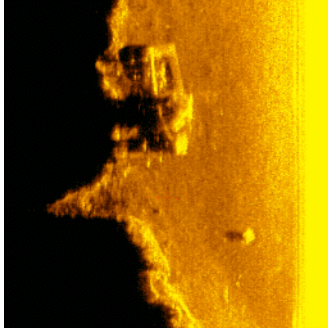
- Sonar Time at Target: 08/07/2008 17:50:22
- Click Position (Lat): 35.4115387
- Click Position (Lon): -76.6015282
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 354,587.10
- Click Position (Y): 3,919,860.47
- Acoustic Source File: C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-012.XTF
- Ping Number: 4621
- Range to Target: 10.58 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-012
- Area / Block:

### Dimensions

Target Description:  
Target Height = 0.60 Meters  
Target Length: 13.38 Meters  
Target Shadow: 7.62 Meters  
Target Width: 3.34 Meters

### Magnetic Anomaly Assoc

### Avoidance Criteria



#### Contact0017

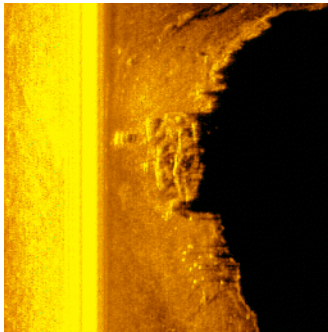
- Sonar Time at Target: 08/07/2008 18:35:21
- Click Position (Lat): 35.4101989
- Click Position (Lon): -76.6032412
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 354,429.14
- Click Position (Y): 3,919,714.38
- Acoustic Source File:  
C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-018.XTF
- Ping Number: 2244
- Range to Target: 11.65 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-018
- Area / Block:

#### Dimensions

Target Description:  
Target Height  $\geq$  0.33 Meters  
Target Length: 6.13 Meters  
Target Shadow: 3.52 Meters  
Target Width: 2.50 Meters

#### Magnetic Anomaly Assoc

#### Avoidance Criteria



#### Contact0018

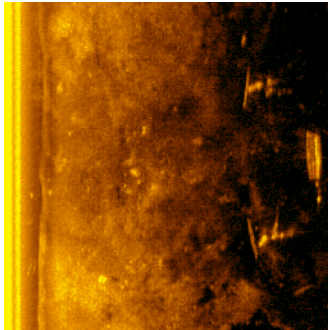
- Sonar Time at Target: 08/07/2008 17:47:05
- Click Position (Lat): 35.4106469
- Click Position (Lon): -76.6035043
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 354,406.05
- Click Position (Y): 3,919,764.46
- Acoustic Source File:  
C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-011.XTF
- Ping Number: 27138
- Range to Target: 5.97 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-011
- Area / Block:

#### Dimensions

Target Description:  
Target Height  $\geq$  0.40 Meters  
Target Length: 9.81 Meters  
Target Shadow: 2.39 Meters  
Target Width: 3.42 Meters

#### Magnetic Anomaly Assoc

#### Avoidance Criteria



#### Contact0021

- Sonar Time at Target: 08/07/2008 17:42:54
- Click Position (Lat): 35.4121751
- Click Position (Lon): -76.6008317
- Map Projection: WGS 1984 UTM, Zone 18 North, Meter
- Click Position (X): 354,651.48
- Click Position (Y): 3,919,930.03
- Acoustic Source File:  
C:\Users\admin\Desktop\Pungo20080807\XTF\LINE-1-011.XTF
- Ping Number: 19616
- Range to Target: 23.59 Meters
- Fish Height: 1.46 Meters
- Event Number: 0
- Line Name: LINE-1-011
- Area / Block:

#### Dimensions

Target Description:  
Target Height = 0.00 Meters  
Target Length: 5.87 Meters  
Target Shadow: 0.00 Meters  
Target Width: 1.33 Meters

#### Magnetic Anomaly Assoc

#### Avoidance Criteria