

Fall 1998 Field Summary

The archaeological field work conducted from September 14th to October 16th, 1998, at shipwreck site 31CR314, believed to be Blackbeard the pirate's flagship *Queen Anne's Revenge*, was a continuation of efforts begun in 1997 to assess the site and develop a site management plan.

The field crew and visiting scientists were comprised of divers from the North Carolina Underwater Archaeology Branch (UAB), Intersal Incorporated, Maritime Research Institute (MRI), North Carolina Maritime Museum (NCMM), UNC-Wilmington, UNC-Chapel Hill/Institute of Marine Sciences (IMS), UNC-TV and East Carolina University/Maritime History Program (ECU). Cape Fear Community college/Marine Tech Program (CFCC) provided valuable topside assistance to record water quality and lift the cannon.



During the 5-week project researchers were able to work at the shipwreck site on 19 days. In that time 36 divers conducted 501 dives for a total of 507 hours and 25 minutes on the bottom. Some of the highlights of field activities and preliminary laboratory analysis of recovered artifacts and samples are as follows:

1. The IMS current meter, which records current strength and direction, and wave height and duration, has been stationed on the bottom next to the shipwreck site for six months in 1998. This included the period when Hurricane Bonnie swept across the site. Preliminary analysis of that data indicates that the shipwreck site and its associated artifacts are exposed to severe underwater currents during major storm events. Understanding these forces will help untangle how natural vs. cultural causes affected the distribution of artifacts at the shipwreck site.



IMS current meter awaiting placement on site.

2. Because of the currents generated by Hurricane Bonnie, the long-sought after section of hull was partially exposed on the north side of the exposed mound. This approximately 27-foot by 8-foot section consists of frame timbers, exterior hull planking and hull sheathing. It is uncertain what part of the vessel it represents but is likely a portion of the side. The timber sizes fit well with those expected on an early eighteenth century ship of approximately 200 tons (i.e., *Queen Anne's Revenge*). It is uncertain whether more of the ship's hull survives in other areas of the site, but in itself this portion provides a wealth of data for researchers in terms of determining the kind and origin of the woods used for building the ship, and through radiocarbon dating can provide an absolute period of construction. Timber sizes, fastening patterns, and building characteristics may also help identify the shipwreck.
3. Excavation trenches were employed to determine the extent of the artifact debris field. Radiating out from the exposed portion of the mound, the scatter of cultural materials increased in depth below the sand (in excess of three feet) In general, materials appear to be scattered over an area approximately 150 feet by 75 feet. Past magnetometer surveys support this limited dispersion of artifacts.
4. The south anchor, which was found approximately 400 feet south of the main shipwreck site, has a wooden stock and is similar in style to the north anchor and the two in the main mound. Its size, however, is less than 3/4 the size of the others with a shaft length just under 9 feet. Unlike the north anchor the south anchor has been 'set' in the sand and is in line with the main wreckage. This suggests that, if it is associated with the shipwreck, it might have acted as a kedge anchor in an attempt to free the grounded vessel from the inlet bar. Samples taken from the wooden stock and fabric found on the anchor ring are being examined to determine an association to the north anchors and the ship's hull.
5. Artifacts recovered from an area just south of the exposed mound proved to be both delicate and of an interesting nature. The existence of two intact hand-blown wine bottles shows that despite harsh natural conditions, preservation of fragile objects can be expected. Other artifacts include large numbers of lead shot and several ornamental lead tacks, parts of several brass scientific instruments, three pewter plates and a syringe, shards of both salt-glazed crockery and at least one large earthenware storage jar. A small amount of gold dust was also recovered during trench excavation. Items of these sorts are expected to have come from the officers' quarters and/or magazine, both of which would most likely have been located in the stern of the vessel. Therefore, not only can we surmise that the shipwreck's orientation is north/south as implied by the debris scatter, the alignment of the hull section, and the placement of the south (kedge) anchor, but that the bow is to the north. This position is very likely to be at the point where the vessel originally ran aground. If this is the case then during the wrecking and for a period immediately following the grounding, the seas were calm enough to allow the vessel to settle to the bottom and become permanently entrenched. Most shipwreck sites have been twisted around by wave action and their remains are often scattered over large areas.
6. While much of the artifact analysis is pending, the collection in general fits neatly within the late 17th and early 18th century time period. Several of the classes of artifacts, such

as the lead tacks, lead shot, lead cannon aprons, and the pewter wares are nearly identical to those recovered from the pirate ship *Whydah* (1717). The pewter plates were made by the same pewter smith as those found on the slave ship *Henrietta Maria* (1700). Preliminary analysis of the ballast rock samples indicate that most originated from the Caribbean, which suggests the vessel operated in these waters. An initial examination of the gold samples has indicated that it is very unlikely that it would be found naturally at the site.

7. Three more cannon were located this year bringing the total to eighteen. The cannon (C4) selected for recovery this year is smaller at about 6 feet in length than most of the others which measure approximately 9 feet. Cannon C4 also had a part of the ship's rigging, which was also a desirable piece to recover and analyze. Cleaning of the cannon will begin soon and may very likely reveal markings that will indicate a date and country of manufacture.



Recovery of C4



The examination of concretions and the analysis of artifacts and samples gathered from the site is on-going. Significant information will be released to the public as it becomes available. The remaining fieldwork for the 1998/99 investigation will concern two magnetometer surveys. One will examine the shipwreck site in close detail, hopefully revealing the location of additional cannons and other large ferrous objects. The other will be conducted in the waters surrounding the site in an attempt to locate the *Adventure*, which was reportedly lost at the same time as *QAR*. A project report detailing the two-year archaeological investigation of 31CR314 and a site management plan are expected to be completed and released this summer.

C4 concretion placed in wet storage.