



## ***Queen Anne's Revenge***

Conservation Laboratory Report, May/June 2005

UAB Conservation Laboratory, Greenville

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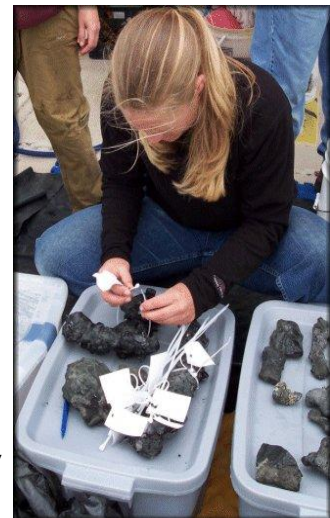
On May 2, the month long field season of further excavations at the wreck site began; it was time to put our preparations and the conservation protocols as written in the [Recovery Plan](#) into practice. For the whole four weeks there were always two people in the conservation team in the field; the field team rotated with the lab team in Greenville.

The dive team archaeologists were responsible for excavating and uncovering artifacts, mapping their location, bringing them to the surface and getting them on board the recovery vessel R/V Martech. Once the object was on board the conservation team took over. Their main tasks were documentation of the finds and taking steps to prevent deterioration.



Each object was immediately assigned a unique find number as a means of keeping track of it and associated information including its exact provenience on the site. A Tyvek tag was secured to each object with a cable tie. On the tag was written, in pencil, the find number, east and north provenience coordinates, unit number, date recovered and initials of diver who recovered it. Tags were placed on the topside of the object indicating its in situ orientation. Some artifacts were tagged in-situ by a conservator. At the end of each day the conservators and mapping archaeologist exchanged notes to ensure that the finds number for each artifact was also recorded on the site plans. After tagging the objects' dimensions (LxWxT) were measured, identifying characteristics noted and a digital

field image taken. Digital images were also taken of unique finds like the glass bottle, pewter plates and ceramics to document their status at recovery and to track any changes that may occur after recovery and during transfer.



Information about each object recovered (its find number, dimensions, provenience, date of recovery etc.) was recorded in the Conservation and Documentation Field Log and also on Conservation Lab Sheets on which will eventually be recorded, for each object every conservation step from recovery through to transfer to the museum once conservation and study completed. There were eight conservation steps from recovery to storage at the lab. As a total of 185 unique find numbers were assigned to the objects recovered multiplying that by 8 a total of 1,480 steps had to be written up!

At all times after recovery objects were kept wet - essential to prevent damaging effects which could result if they were allowed to dry out before conservation. Objects were placed in tap water or in tap water/sea water mix in containers on the ship's deck. At the end of each day

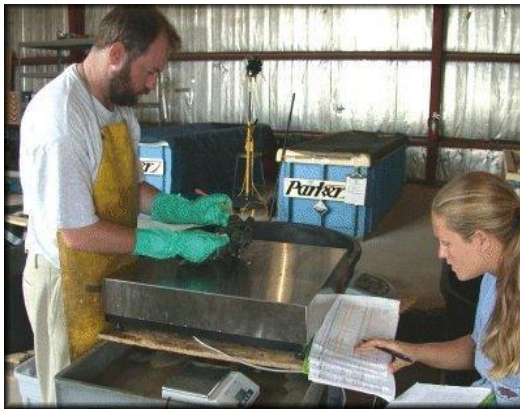


finds were transferred from R/V Martech to tanks containing tap water on the dockside at the US Coast Guard Station at Fort Macon. At the end of each week conservators packed the artifacts in wet foam and rags and transferred them to the lab in Greenville where they were placed in tanks and containers filled with plain tap water (for organics, ceramics and glass) or tap water with 2.5% sodium carbonate to inhibit corrosion of metals.

The majority of artifacts recovered (c. 150 including 2 cannon) were heavily covered by concretions of sand, shell and corrosion obscuring the form and even number of objects within. Some artifacts however were recovered 'clean' from the site - for example a

complete glass wine bottle, a folded copper alloy sheet, pewter vessels and the lead pisdale. Ballast stones (c. 100) and many lead shot (not yet counted) were also recovered.

#### **June Artifact Processing at the QAR Lab.**



Most of the time in June has been dedicated to processing the new finds recovered in May's field season. Once the handwritten work was finished those 1,480 steps had to be entered into the QAR Projects main computerized database. We divided the work up amongst the three of us and are proud to report that all of the records have been completely entered into the database. To complete the initial documentation of the objects all (apart from the two cannon) have been weighed and most photographed (both sides). An inventory listing objects by find number in each wet storage tank has been compiled.

The ceramics recovered last month have already started [desalination](#). The sherds that were not in concretion have been cleaned free of shell with a metal spatula and then placed in fresh tap water to begin the process. The solutions' conductivity and chloride levels will be monitored over the next weeks and months.

Our next major task in the post recovery stage of conservation is to find out what is in all the concretions by obtaining x-radiographs of them. We are now in search of an industrial x-radiography source of 120-150 kVp, tube current between 3 and 5 mA fixed, and exposure time of 20 seconds or more -needed to penetrate the hard concretions and reveal their contents. In the past the project has been helped by the Marines at Cherry Point, by local hospitals, and by the Maryland Archaeological Conservation Lab. While we may need to ask their help again our aim now is to obtain an x-ray machine for the QAR Lab. A floor standing shielded cabinet with digital x-ray scanner, capable of [x-raying](#) the majority of our concretions, would cost between \$50,000 and \$80,000. If we succeed in raising the money for this it need not be just for the QAR Project but could provide a facility available to other archaeological projects in North Carolina.

## **QAR Lab Improvements**

We do not yet have a sink in our warehouse lab but thanks to Dr. Billy Oliver of the State Archaeology lab and the ECU Industrial Technology Department we are now a few steps closer to having a proper sink. Dr. Oliver informed us of a surplus sink available from a building being renovated in Raleigh. An excellent sink for our purposes but with one problem - it had no legs or stand. Once again ECU's Industrial Technology Department has helped us out. Dr. Craig Sanders had student John Bassack to build a stand from surplus metal from around the shop, to support the sink. The ECU engineers have donated their time and resources to help the project once again and we thank them very much and have taken the steps for them to be able to take academic credit for their services. Now, if we could just get it hooked up to running water....



Although most of June was spent processing the new artifacts, there were still a few days set aside to work on Bertha. After the 60th object was removed, no more ballast could be removed because the objects remaining did not yet have XYZ coordinates. It became evident that the third layer was ready to document. Bertha was placed under the planning frame, drawn and 59 points were trilaterated. The top, east and west views were also photographed. Bertha is now in a state to continue removing artifacts. We'll keep her progress posted.