

QAR 2006 Fall Field Summary Report

The most recent field expedition to the *Queen Anne's Revenge* shipwreck site marked several milestones for the project. The completion of the Fall-06 work on November 8, 2006 closed a decade of research on the wreck site. The site was discovered in November 1996 by the private research firm Intersal, Inc., working under a North Carolina survey permit. The Fall-06 expedition also marked the beginning of the next stage of archaeological documentation and research at the wreck site. Establishment of permanent staff, a fully equipped conservation facility, and adequate project funding allowed researchers to begin full excavation, documentation, and recovery of the wreck site. While archaeologists prefer to minimally disturb sites, preserving them in situ, total mitigation has always been the recommended management action because of the dynamic and degrading environment at the site. Initially made in 1999 after the site management summary was completed, a national panel of underwater archaeologists strongly reinforced the recommendation after reviewing additional research presented at an April 2005 symposium.



This season, as in the past, the staff of the NC Underwater Archaeology Branch received support from numerous contributors. NC Marine Fisheries made R/V Shell Point and her crew available with her ample deck space for operations and recovery and her high volume diesel pump for excavation. USCG Station Fort Macon provided dock space and secure shore storage for recovered objects, right across the street from where the field crew stayed in the barracks at Fort Macon State Park. Comfort Inn in Morehead City provided rooms for visiting scientists and VIP guests.

The expedition was planned for 29 working days from October 2nd through November 9th, 6 of which were expected to be lost because of weather. The fall project ended with 20 workable field days (18 full and 4 half), 7 shore-work/weather days, and 2 complete down days. Eight divers worked the entire six-week project, with 4 additional staff divers rotating in and out for 3-weeks each, and 4 visiting/volunteer divers working one week each.



Over the course of the project, archaeologists logged a total of 405 hours and 13 minutes of bottom time on the site. The majority of diving (392 dives @ 0:59/dive) was conducted with open-circuit SCUBA and Divator MkII full-face masks with wireless communication. Near the end of the expedition the crew supplemented diving operations with a surface-supply hookah system (11 dives @ 1:59/dive). With the relatively shallow depth of the site (30 fsw max) and

the minimal need for divers to move around on the bottom during excavation and documentation, the hookah system proved very efficient and economical.



Given that most scour and re-deposition should move materials north or west toward shore, based on the environmental conditions, the general excavation/documentation/recovery (EDR) plan was to begin at the offshore side of the site and systematically move shoreward using rigid framework consisting of one or more 5'x5' reference units. One team started at BL10 and moved south and west until a two negative unit boundary was established. A second team started at the previously discovered sternpost near BL50 on the east side and moved generally south and east when necessary to establish the two negative unit boundary. As work moved into the N20-N25 area, heavier artifact concentrations and the presence of

extensive lead shot, gold flakes and dust, and smaller concretions necessitated the use of the sluce recovery system, even when removing overburden. With only a single sluce with a 3" suction intake onsite, progress was slowed. Archaeologists tested a larger sluce system with a 6" suction intake, available locally, but this proved too large and unwieldy for divers to use around the smaller concretions. It also produced considerably more sand and sediment at the completion of an excavation unit that needed to be screened/panned for lead shot, gold and small artifacts, while producing no greater recovery. Arrangements were made to get a second 3" sluce system but it was not operational until the final week of the expedition, which was cut short by weather.



The EDR goal was to reach the N50 line, completing sixty (60) 5'x5' units, covering 1500 square feet of bottom, and recovering up to four cannon. The fall fieldwork only reached a diagonal from N40 along the west to N50 along the east. The site area was larger than expected and a total of seventy-six (76) 5'x5' units were completed, 68 new units and 8 re-excavated units from the stratified sampling done in May 2005 and May 2006. Researchers covered an area over twenty-five percent (25%) more than expected, 1900 square feet of bottom, despite not reaching the N50 goal, and not being able to recover cannon.

Archaeologists documented 338 features within the excavation units that were recovered. The majority of these were unidentifiable concretions (circa 60%) or lead shot and lead objects (circa 10%). The remainder included ceramics, glass, lithics, other metals (copper, gold, iron, pewter, and alloys), wood, other organics (bone, animal and plant products), and some modern synthetic intrusives. Upon closer

examination these recovered features represent around 700 identifiable components, totaling approximately 1800 individual pieces, excluding lead shot. The quantity of lead shot recovered is extensive with an estimated count, based on mean weight, of around 71,000 individual shot. One 5'x5' unit alone contained over 29,000. Researchers are anxiously awaiting the new information that will come from the "excavation" of individual artifacts out of their feature concretions. As work progresses, laboratory and research updates will become available.



The site's environment and stability continues to be monitored and studied by researchers and specialists from various fields. Everyone hopes that the full excavation, documentation, and recovery can be completed in the next few years to take the artifacts out of harm's way and get the extensive conservation process started. Roughly 60% of the recovered objects from the wreck site have come up in the last two years (May 2005 & May 2006 Stratified Recovery 28%; October-November 2006 Mitigation 32%). To date approximately 20% of the wreck site area has been excavated, documented and recovered but probably only 10-15% of the material from the site has been recovered. Project personnel are currently preparing for another potentially longer fall field season that will be moving into and working in the high artifact concentration areas.