

QAR PHOTOMOSAIC PROJECT PROPOSAL



North Carolina Department of Cultural Resources
Office of State Archaeology – Underwater Archaeology Branch
Queen Anne's Revenge Shipwreck Project

BACKGROUND

Work on the *Queen Anne's Revenge* Shipwreck Project (*QAR*) has been carefully progressing since the discovery of the wreck site in November 1996. As the oldest discovered shipwreck in North Carolina waters and its probable association with Blackbeard, the most notorious representative of the Golden Age of Piracy, the shipwreck's significance and importance to the State of North Carolina, the general public, and the fields of archaeology and history cannot be overemphasized. The project has received, and continues to receive, national and international attention. The Discovery Channel, BBC, National Geographic Channel, Good Morning America, CNN, and a host of local and regional television stations have covered the *QAR* project. Numerous articles and reports have been published in scientific journals and popular magazines worldwide. Archaeological investigation of the site and the recovered artifacts has shed light on a number of subjects, not simply piracy and colonial history. Public fascination with a colorful, historical figure like Blackbeard has the potential to heighten public awareness of local colonial history as well as making them aware of the need for preservation of invaluable historic resources.

JUSTIFICATION

The development of a digital mosaic image of the shipwreck site will enhance archaeologists' ability to interpret the site and facilitate sharing information about the site with the public, as well as other academic and scientific researchers. A mosaic image is helpful on sites such as underwater shipwrecks where it proves impossible to capture an image of the entire site, with any detailed clarity in a single photo. Comprehensive, quality images are also difficult to obtain on the *QAR* site because of frequent limited visibility.

Currently only portions of the site have been photographed with still and video images. A completed mosaic image of the wreck site would provide important data for archaeological interpretation. When incorporated and layered in a GIS environment with other collected data, such as the magnetic gradiometer surveys, bathymetric surveys, and detailed archaeological mapping conducted in specific areas of the site, the mosaic image becomes a valuable element in not just site interpretation but predictive modeling.

FIELDWORK

The necessary fieldwork to produce the video mosaic has five key elements: platform, equipment, personnel, financial support, and timeframe.

Platform: The *QAR* Project anticipates support from the NC Division of Marine Fisheries for this project in the use of their vessel R/V *Shellpoint*. The vessel has been used at the *QAR* site on previous expeditions and provides an excellent working platform for diving and research operations. NC Underwater Archaeology Branch will provide R/V *Snap Dragon* and R/V *North State* as tenders and escort boats.

Equipment: The *QAR* Project will be relying on participating National Undersea Research Center, UNC-Wilmington and Marine Sanctuary Program, NOAA, and ECU to provide the following equipment support: an underwater digital still camera with strobes, an underwater digital video camera with lights, a DPV for towing the camera diver, and standard SCUBA equipment for NOAA/NURC/ECU personnel for 5 days of shallow water diving operations. Data acquisition and processing (computers and programming) and technical support are also requested from NOAA/NURC to complete the photomosaic. The *QAR* project will provide equipment and supplies related to establishing reference positions and grid work as needed at the site for project operations.

Personnel: The *QAR* Project staff and associates will conduct preliminary diving operations to prepare the site for the video documentation session by reestablishing reference points and grid frame construction. Two NURC underwater video specialists assisted by *QAR* staff and/or ECU divers will participate in in-water video operations and topside data acquisition and processing of images in cooperation with *QAR* personnel. The *QAR* Project will be using AAUS certified scientific divers to perform the work and the NCUAB Diving Safety Officer will be on site to support and conduct other diving operations.

Financial Support: The Comfort Inn of Morehead City is generously providing rooms for out-of-town scientists at no charge in support of the *QAR* Project. A charitable grant from Wachovia Foundation, Inc. provides funding for equipment and supplies to support the project. Each participating institution is covering travel and meal expenses for their personnel.



Timeframe: The working plan for the video mosaic allows two days setup (September 11 & 12) and up to five days for photography (September 15 - 19). September 15th will be used to orient photographers to the site, and setup and test equipment for optimum quality of image data recovery. The remaining four days will be used to record video and still images of the site area. While the actual documentation will likely take less than four full days, this plan allows for poor weather or poor visibility conditions preventing data collection. The week of September 15th will provide a good window for operations, allowing for high tide and therefore best visibility, during mid-day.

Photo-Video Mosaic Project Itinerary

Thu-11-Sep:

Set moorings; Place baseline for reference; Check/replace reference lines from moorings; Re-label/replace artifact tags; Tag/label baseline stakes; Place transect line endpoints; Dust off/cleanup any recent sedimentation of south exposure; Pour footings for photo-grid verticals

Fri-12-Sep:

Finish incomplete Thu tasks; Assemble photo-grid on Shellpoint; Test computer hardware/software setup on Shellpoint

Mon-15-Sep:

Orientation dive for divers onsite; Shoot test photos and video for visibility-elevation-spacing; Set photo-grid as necessary on first location (100,70-90); Shoot digital stills

Tue-16-Sep/Wed-17-Sep/Thu-18-Sep:

Shoot and move with photo-grid until exposed areas are covered; As the last digital still work is being completed, place transect lines for digital video; Scoot and shoot N-S video lanes, starting from the east side of site and moving west; Locate and run line/tape(s) from south baseline (100,0) to south anchor; Shoot out and back video to moorings, screw-eye, and south anchor to tie into overall mosaic

Fri-19-Sep:

Finish incomplete target tasks; Clean-up and secure site for winter inspection dives

Peripheral Tasks as time permits

Baseline stake elevations; Control-point elevations; Triangulation of screw-eyes and moorings to baseline;

Divers:

Digital Still (2-4):

1 Photographer and 1+ Assistants (if necessary) for shooting; 4 divers for moving photo-grid

Digital Video (4):

1 Videographer and 1 DPV Pilot; 2 divers for line tending/moving

Elevations/Triangulations (2+):

Buddy teams as assigned

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