Queen Anne's Revenge
Shipwreck Project

RESEARCH REPORT AND BULLETIN SERIES
***QAR*-R-10-01**

Conservation Provision for Beaufort Inlet Shipwreck (31CR314), *Queen Anne's Revenge* Shipwreck Project: 1996 - 2009

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Cover photo: Queen Anne coin weight for 1 guinea gold coin. Recovered from site Fall 2006

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Introduction

State government in North Carolina has made provision for the conservation of archaeological artifacts, recovered from underwater environments, since the early 1960s, including for artifacts recovered from the Beaufort Inlet Shipwreck (31CR314). This report introduces the context, and challenges, within which artifacts from this marine archaeological site have been conserved between 1996 and 2009. It also summarizes and updates a previous account of conservation provision for the shipwreck covering the period 1996-2005 (Watkins-Kenney 2005).

This early eighteenth century wreck has been identified as *Queen Anne's Revenge* (*QAR*), flagship of the pirate Blackbeard, which sank in 1718 (Moore 2001; Wilde-Ramsing 2006; Wilde-Ramsing 2009). In 1996, a private company, Intersal Ltd., working with a State permit, found the wreck in Beaufort Inlet, North Carolina, about a mile and a half south of Fort Macon. As the site is within three miles of the coast, the State of North Carolina has title to the wreck. It was designated a Protected Area in 1997 (NCDCR 1997), and listed on the National Register of Historic Sites in 2004, as *Queen Anne's Revenge*. Responsibility for its management rests with the North Carolina Department of Cultural Resources (NCDCR) Office of State Archaeology - Underwater Archaeology Branch (OSA/UAB). The North Carolina OSA/UAB *Queen Anne's Revenge* Shipwreck Project started in 1997. The Project's Archaeological Conservation Laboratory (*QAR* Lab) is tasked with examining, conserving and documenting artifacts and materials from the shipwreck.

Legislative Framework: Conservation and Underwater Archaeology in North Carolina

In the early 1960s concern for the survival of thousands of artifacts' being recovered from *Modern Greece* and other Civil War wrecks in the Cape Fear area prompted an Act of the North Carolina Legislature in 1963 (NC 1963; Watts & Bright 1973). The Act enabled employment of `preservationist´ staff and established a permanent preservation laboratory at Fort Fisher Historic Site, near Wilmington, administered by North Carolina Department of Archives and History (NC A&H) and predated the employment of dedicated State underwater archaeologists (NC 1963; Townsend 1965; Watts & Bright 1973).

The North Carolina General Assembly, in 1967, passed an underwater archaeology law on the Salvage of Abandoned Shipwrecks and Other Underwater Archaeological Sites (NC 1967), which established state ownership of all historical and archaeological material (shipwrecks, vessels, cargoes, tackle and artifacts) unclaimed in state waters within `one marine league seaward of the Atlantic seashore measured from extreme low watermark´ for ten or more years. NC A&H was designated

the State's custodian and gained powers to determine the disposition of material, grant permits for exploration, recovery and salvage, and to employ professional staff for `*conducting and/or supervising the surveillance, protection, preservation, survey and systematic archaeological recovery of underwater materials´* (NC 1967). Funds for these professional staff, however, were not made available until 1971 (Watts & Bright 1973); staff was finally appointed in 1972. The 1967 Act was amended in 1985, and again in 1989, to bring State law in line with the 1987 Federal Abandoned Shipwreck Act, and also confirmed the role of the Department of Cultural Resources – NCDCR- (within NCA&H) as the custodian of shipwrecks to which the State has title. NCDCR was enabled to adopt rules necessary to preserve, protect, recover or salvage any or all of these properties. A North Carolina Administrative Code (NC 1989) further specified definitions, requirements for granting permits and their administration, including provision for conservation.

Conservation and Beaufort Inlet Shipwreck

Designation of the Beaufort Inlet Shipwreck *(QAR)* as a Protected Area of primary scientific, archaeological, and historical value in 1997 required a management plan to be written, to guide all investigation, access, recovery and conservation. The 1999 Management Plan (Wilde-Ramsing and Lusardi 1999) presented four options for future protection, preservation and study of the site:

1. Non intervention – no further work, minimal monitoring and protection.
2. In Situ preservation (burial) – site burial with annual monitoring and maintenance.
3. Maintenance and Limited Exploration (limited recovery)-site maintenance, surveillance, active monitoring, and mitigating threats to the site by stabilizing or recovery of artifacts and archaeological information;
4. Excavation -recover all or large proportion of site's cannons, anchors, hull structure, and associated materials and information.

Option four was recommended as the optimum plan to maximize archaeological and public benefit, given the location of the site and its vulnerability to continuing damage and dispersal by storms and hurricanes, as well as the uncertainty of success and likely on-going costs of maintaining in-situ preservation. Availability of resources (facilities, staff and funding), however, dictated implementation of Option three, until 2006, when full excavation of the site began, with complete recovery of artifacts from areas as they were investigated.

Conservation Facilities

Not least of the challenges presented by excavation of shipwrecks is that of finding suitable facilities in which to store, process, study and conserve a wide range of artifacts, requiring a lot of both space and clean water - more than was available at the UAB laboratory at Fort Fisher. The

conservation facility for the *QAR* finds moved several times between 1997 and 2003 between facilities in Fort Fisher, Beaufort and Morehead City, before finally coming to rest at East Carolina University's (ECU) West Research Campus following a Memorandum of Agreement between ECU and NCDCR (ECU/DCR 2002). Since 2003, ECU has provided facilities maintenance, student graduate assistants, and consultation with faculty, while NCDCR has been responsible for development of the facility, management of the shipwreck site and direction of the *QAR* Lab. By 2009, the *QAR* Lab facilities comprised a total of about eight thousand square feet and included an office, library, wet/dirty and clean/dry lab spaces, an x-ray system, and a four thousand square foot warehouse for wet storage and treatment of large objects, including cannon and ship's timbers.

Conservation staff

Initially (1996-1997) artifacts from the shipwreck came under the care of the UAB State Conservator, Leslie Bright, at the Fort Fisher lab. Since 1997, there have been three holders (Nathan Henry, Wayne Lusardi and the author, since 2003) of a dedicated post of Chief Conservator, which became a permanent State position in 2001. The post holder is responsible for planning, scheduling, coordinating and keeping oversight of all aspects of *QAR* artifact conservation (and documentation) in coordination with the Project Director. As well as overall administration of the *QAR* Conservation Lab Facility, as an OSA/UAB outstation, located at ECU in Greenville, NC, since 2003.

In 2006, two Assistant Conservator posts also became permanent State positions. Over the years the conservation team has also included volunteers, interns and ECU Graduate Assistants. Since 2003, about thirty semester placements have been provided for ECU Graduate Assistants (from the Department of Anthropology, the Maritime Studies Program and the Coastal Resource Management Program); with about half funded by ECU and half by the *QAR* Project through NCDCR.

Funding

Between 1997 and 2009 funding for the whole *Queen Anne's Revenge* Shipwreck Project totaled approximately $2.3m, from various sources (Mark Wilde-Ramsing 2009, pers. comm.). NC State annual appropriations (in addition to annual salaries of State funded permanent NCUAB *QAR* staff) contributed approximately seventy percent, and major grants to DCR about twenty-three percent of operating costs. The balance was from donations and in-kind support from a wide range of agencies, private businesses, institutions and individuals. Major grants came from the National Endowment for the Arts *Save America's Treasures* program (SAT) and the Golden LEAF Foundation. At least seventy-

five percent of the Project's operating budget goes to conservation and post-excavation work in relation to artifacts recovered.

The State's financial year runs from 1 July to 30 June. In the 2009-2010 State Budget no funds were allocated to the *QAR* Project, apart from continuing salaries for permanently employed staff. Fortunately, a National Marine Sanctuary Foundation (via NOAA) grant, of $32,500, and $5,000 additional funds from Friends of *Queen Anne's Revenge* provided basic running costs for the lab and funded one temporary contract position at the lab for 2009-2010. Without sufficient funds no fieldwork was planned for 2009-2010, apart from occasional one or two-day visits to monitor conditions at the site, including in-situ corrosion monitoring of anchors and cannon.

Conservation and Documentation

The *QAR* conservation team is involved at all stages of the archaeological process from planning and recovery on site through treatment, documentation and study, to transfer of artifacts to the North Carolina Maritime Museum (NCMM) in Beaufort for storage and display. The various processes or stages in conservation, from recovery to transfer to NCMM, can be described as a Twelve-Step Program, (Table I). Time to complete the program includes both `active´ and 'passive' conservation time. Active conservation includes activities such as examination, cleaning or monitoring solutions. Passive conservation time includes stages such as desalination (removal of soluble salts) or soaking to replace water in wood with a bulking agent, which are usually the longest steps in the process. Total time required for an artifact to complete the program depends on its material, condition and size, and can range from a few days for ballast stones to at least four to five years for cannon. Conservation time in Table I is estimated total time to complete treatment, both active and passive conservation. Conservation time in Table II is estimated active conservation time per artifact type.

Based on materials processed to date, it is safe to assume an average of one hundred individual artifact pieces will be contained within each concretion. Once excavation of the wreck site is completed it is estimated that there could be in the region of 700,000 individual artifacts to be conserved. It would, therefore, take approximately 150 conservator years to complete their conservation (Table I and II); actual time will depend on the number of conservation staff available. With the current staff of three permanent posts, conservation could be finished in approximately 50 years. To complete the process within 20 years would require a conservation team of 12 during excavation years, and then eight after excavations are complete (Table I and II).

STAGE	STEP/ACTIVITY	Estimate Conservator Time per Yr.	Estimated # Years To Complete	Estimated Total # Conservator Yrs. to complete
A Full Excavation of Site: (Assume 3 month (12 week) season per year	1. Recovery: On-site –assignment of *QAR#*, recovery & documentation inc. as recovered photography. Wet storage, transfer wet to *QAR* Lab.	2 (full time)	4 years	4 x 2 = 8 conservator years
	2. Post-Recovery Processing – Analysis I: Measurement, counts, documentation cataloguing, basic id of materials, sorting & preparation for wet storage,			
	3. Wet Storage: Transfer to wet stable storage. Monitor solution levels. Change out solutions as needed.			
	4. Analysis II: Assessment & identification of materials, condition, artifact– inc. X-radiography			
B Treatment: Cleaning and Stabilization (See Table II)	5. Cleaning I: Pre-cleaning documentation inc. photography. Removal of concretions as needed.	8 (full time)	20 years	8 x 20 = 160
	6. Desalination: Metals – Electrolytic reduction (ER).Non-metals – soaking. Monitoring soluble salt (inc. chloride levels). Changing out solutions			
	7. Cleaning II: Removal of stains, fine concretion and desalination solution residues			
	8. Bulking, Consolidation, Dry: e.g Organic materials – e.g. PEG; glass consolidation; Controlled drying			
	9. Protective sealant: e.g. tannic acid and then lacquer/wax on cast iron			
C Examination Analysis Documentation	10. Analysis III: Examination & analysis: recording – confirm identification of artifact and materials	1(full time)	20 years	1 x 20 = 20
	11. Repair/Reconstruction: e.g. reconstruction of ceramic vessels, support mounts to ensure safe handling, and study.			
	12. Final Documentation: Illustration, final photography, completion of records, recommendations, pack for transfer to NCMM			
D Display/Storage	Long Term Care, Curation and Conservation of the Collection; Education, Display, Research	1 conservator (full time)	On going	On going

Table I: Full Recovery of Shipwreck 31CR314: Conservation 12-Step Program and Conservation Time for Treatment of Artifacts within 20 years.

Artifact Type	Estimated Total Number	Conservator Time	Estimated Total Conservator Time (hands on)	No Full Time Conservators to complete work in 20 years
Concretions	7,000	2 year per 100 concretions*	140 years	7
Cannon	25	0.5 years per cannon**	12 years	0.6
Anchors	4	0.5 years per anchor***	2 years	0.1
Ships timbers	200 + sq ft	1 year per 100 sq ft	2 years +	0.1
Total Conservator years (hands on) to conserve all artifacts from full recovery of wreck			156 years	c. 8

Assuming Full Recovery: Total Area Excavated = c. 7, 500 sq feet (300 x 5 ft x 5 ft)

*Based on work done in 2003-2005: hands on conservator time to complete Stage B (Steps 5-9). Hands on Time Estimate for just Cleaning I (Step 5) = 100 concretions per 1 conservator (full time) per year, based on work done by WMW and MT in 2002-2003.

** Based on work done 1997-2004 hands on time to take 5 cannon from site through to museum display.

***Only 1 anchor has been recovered and none have completed conservation process so this is very much an estimate.

Table II: Estimate of Active Conservation Time (as equivalent conservator years): Full Recovery of Shipwreck Site (c. 7,500 sq feet).

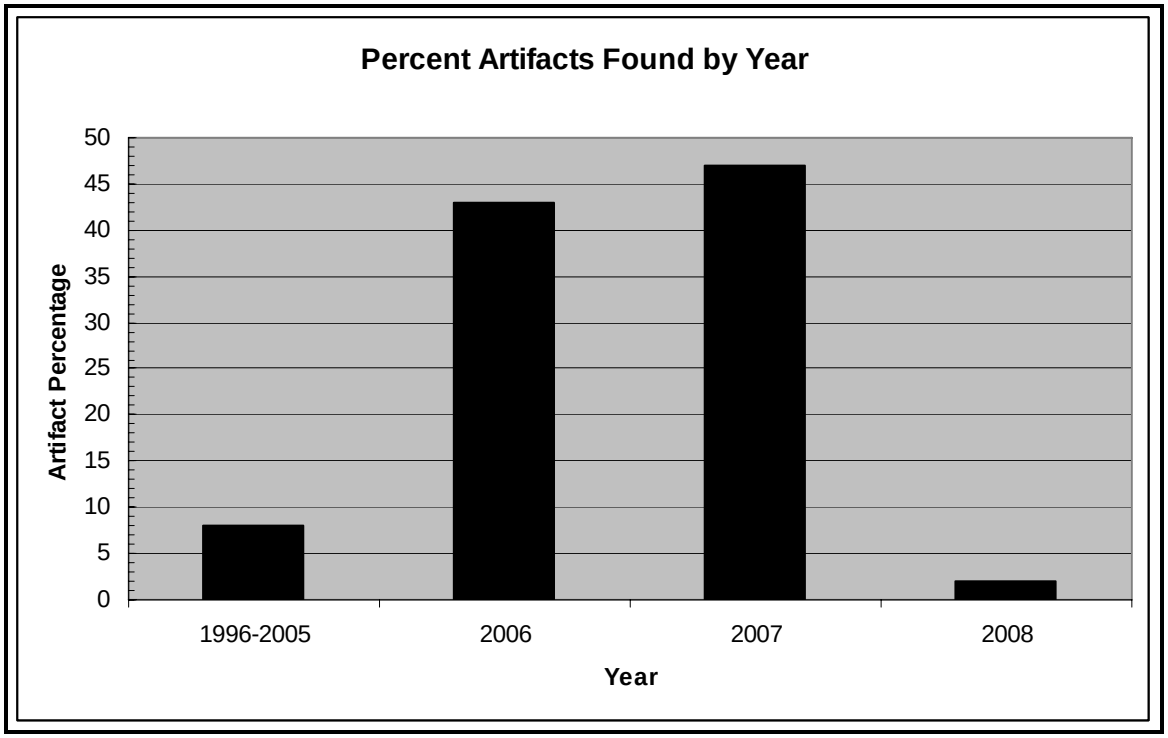

Figure 1: Number of artifacts (pieces) recovered 1996-2008, as percentage of total number of pieces (271,053) recovered by the end of 2008.

Ninety percent of the artifacts recovered since 1996 were recovered in 2006 and 2007 (Figure 1). Full recovery excavations began in the fall of 2006, and by the end of the 2008 field season approximately fifty percent of the wreck's footprint had been excavated (Chris Southerly 2009, pers. comm.). By the end of the 2008 fall field season approximately 270,000 individual pieces, including cannon (11); ballast stones (c.6000); gold grains (c.1500); lead shot (c.220,000); pewter plates (c.30); and concretions (c.2000) had been recovered from the site. Table III summarizes artifacts recovered, 1996-2008, by material groups as recorded in the *QAR* artifact database in January 2010. It is principally the material an object is made of rather than the artifact type that determines the nature of the conservation treatment applied.

All stages of conservation are documented and recorded. The conservation team is responsible for keeping track of all artifacts and their associated information. In order to do this a unique *QAR* number is assigned on site to each artifact or artifact group. The *QAR* number assigned may be to a single object, such as a whole wine bottle or lead cannon apron, or a conglomerate of objects concreted together. When concretions are taken apart in the *QAR* Lab, sub numbers of the original *QAR* number are assigned to each artifact as it is extracted. Where a group of pieces, such as lead shot or ballast stones are found together within a 1.52m x 1.52 m (5-foot by 5-foot) excavation unit, a single *QAR* number may also be assigned to the group (Welsh et al 2008). The *QAR* number links the artifacts to their original locations on the site at the time of recovery. The numbering system is crucial to the archaeological process, as the means of knowing and preserving the provenience record and the original context of every object recovered. By the end of 2009, approximately 7,000 *QAR* numbers had been assigned to individual artifacts or groups of artifacts.

Extensive records are completed for each artifact including its provenience, date of recovery, condition, conservation procedures, results of examination and analysis, and physical characteristics. This information is written on Laboratory Record Sheets and entered into the DCR *QAR* Artifact Database (electronic). The *QAR* Artifact Database will be part of the DCR Office of State Archaeology's statewide artifact database held centrally at the Office of State Archaeology in Raleigh, and available to future researchers. In addition, by the end of 2009, an image database held approximately 16,000 images, documenting all stages of processing artifacts from recovery through to transfer to NCMM.

Material Type	Object Types Include:	Total No. Pieces Recovered 1996-2008
Ceramic	Vessels, tobacco pipes	177
Chemical Compound	Gunpowder (from cannon and grenades), mercury (from urethral syringe)	5
Concretion	Concretions (contain wide range of artifacts, including iron)	2,300
Glass	Shards, bottles, window glass, beads	1,370
Aluminum	Modern intrusives – e. g food cans, beer cans	7
Copper Alloy	Bells (2), pins, sheet, buckles, cannon (1), mortar, weights, navigation and scientific instruments, fittings for personal arms	283
Gold	Grains, jewelry (2)	14,329
Iron, Cast	Cannon (11), cannonballs (40), vessel fragments (20)	405
Iron, Wrought	Fasteners, e.g. nails (c790), barrel hoops (89), hooks, bars, jacks (2)	961
Iron – wrought –epoxy castings	Epoxy casts of wrought iron fasteners and cask hoops	301
Lead	Strips, patches, weights, bilge strainers, draft marks, cannon aprons, tacks, seat of ease (1), window cames, fragments	19,649
Lead	Shot	220,207
Lithic	Ballast (c. 6,200), gunflints (10), muller (1), coal , clinker	6,800
Pewter	Flatware –plates and dishes (31), syringes (2), spoon fragments (2),	101
Silver/Silver alloy	Sail needle (1), coins (2), buckle (1), spoon fragment (1), unidentified tube (1)	11
Bone	Sustenance debris (most pig or cattle)	132
Hair	Caulking	21
Leather	Piece with lead tacks	7
Other Plant Product	Tar, resin, food – bark, coconut (1), stones, nuts	41
Plant Fiber	Rope, cordage – (cannon wads), textile - (sail cloth)	136
Wood	Hull planks (16), frames (16), sheathing (11), stern post (1), cannon tampions (2), button (1), knife handle (1), fragments	1,636
Modern Synthetic	Intrusives –various plastic items – e.g. golf balls, fishing line	34
TOTAL		**268,913**

Table III: Artifact Assemblage by Material Type, Recovered 1996-2008

Conservation of Artifacts Recovered from Underwater Environments: Process, Principles and Profession

Excavation of an archaeological site, even by archaeologists, can be a completely destructive process. Artifacts and materials recovered may be the only contemporary material evidence of a shipwreck that remains if full recovery proceeds. Survival of the artifact assemblage with detailed provenience and contextual data is crucial for research, education and enjoyment. Upon excavation there is often a sudden and drastic change to an object's environment that can destabilize it and cause rapid and irreversible deterioration unless subjected to immediate and appropriate post-excavation storage and conservation treatment.

Major conservation challenges with underwater materials from a marine environment include: soluble salts, concretions, and drying organic materials. Due to their time in the ocean, all artifacts will be saturated with soluble salts, particularly chlorides, which must be removed before they are dried. If not removed, soluble salts can promote corrosion of metals and disrupt the physical structure of porous objects, as they expand on crystallization. Hard deposits, known as concretions, comprising calcium carbonate, shells, sand and iron corrosion, may envelop many artifacts of all materials, from large iron cannon to tiny copper alloy pins and fragments of cloth. Wood may look good and appear to be in strong condition while wet – but this can be deceptive with much of its physical structure being supported only by water at a cellular level. If allowed to dry without replacing the water with another bulking agent, collapse of cell structures is manifested in irreversible shrinkage and distortion of the artifact.

Internationally, since the 1970's, the practice of archaeological conservation has developed as a profession. There are now dedicated training courses at first degree and postgraduate level. Professional organizations, such as the American Institute for Conservation (AIC), and the Institute for Conservation (ICON -formerly the UK Institute for Conservation –UKIC) have developed codes of ethics principles and guidelines for practice, by members (UKIC/ICON 1990; AIC 1994). In the mid 1990s, UKIC/ICON introduced an Accreditation for conservators.

Conservation of archaeological artifacts aims to preserve them through control of the environment and/or treatment to minimize deterioration and loss of information and evidence. Conservation aims to reveal, retrieve, preserve and record all archaeological evidence and information through examination, analysis and cleaning. An object may be restored to a condition in which it can be understood, studied and exhibited – e.g. through cleaning or re-assembly of broken parts – however, not falsified. Principles for archaeological conservation include:

- Respect for the integrity and true nature of the object (UKIC 1990).
- Reversibility and retreat-ability (Oddy and Carroll 1999).

- Minimum intervention – which has become a guiding principle as the realization of the extent to which actions are irreversible has come to be recognized.
- Documentation through written and visual records of all physical attributes of the object, its condition, treatments, results of examination and analysis; information revealed.
- Dissemination of findings and conservation techniques and processes furnished to colleagues, the profession and the general public.

Not Sunk Without Trace - Outreach, Education, and Access

Full excavation of a shipwreck, with the recovery of thousands of objects, can generate much initial excitement and publicity. It can take many years, however, before all objects are conserved, studied, published and passed on to a museum. In this post-excavation phase it is all too easy for it to appear that the artifacts, have again, sunk without trace (Watkins-Kenney 2009).

Archaeologists and conservators investigating the Beaufort Inlet Shipwreck strive to maintain accessibility to the artifact assemblage for many different interested groups, as conservation and analysis proceeds. Conservation reports are posted regularly on the Project's web page at **www.qaronline.org**. The *QAR* Lab disseminates information through publications and presentations at seminars and conferences. Once a year, a free Open Day at the lab provides the general public with an opportunity to view and discuss artifacts still in conservation, with conservators and archaeologists. In April 2008, over five hundred people took up this opportunity (*QAR* 2008).

As a working conservation lab linked to a major on-going archaeological project, the *QAR* Lab provides a unique resource in North Carolina for research and education in conservation and artifact studies, for students at ECU and potentially for the wider community of archaeologists, museum staff, and public. Opportunities for ECU students have included class visits, graduate assistantships and volunteering, as well as topics for Master's thesis and term papers (e.g. Focht 2008; Smith 2009). Collaborative work with researchers in a variety of departments and programs at ECU (e.g., Maritime Studies, Anthropology, Coastal Resources Management, Physics; Interior Design & Merchandising; and Chemistry), as well as other universities, including UNC Asheville (Schleicher et al 2008) and Penn State (Newsom and Miller 2009), supports and extends understanding and effectiveness of conservation treatments for different materials. For example, in 2009 conservators began working with ECU Chemistry researchers to investigate bulking agents (sucrose and polyethylene glycol) used in wood treatment.

Discussion

Three challenges - change, continuity, and controversy - have all been part of, and continue to be part of, the *Queen Anne's Revenge* Shipwreck Project. Since 1997, change has included gain and loss of resources (funding, staff, and facilities). The site itself has changed both due to the effects of the environment and its excavation. Staff, including the Project Director, who has been with the *QAR* Project since the beginning and with UAB for many years before that, provides continuity. Rigorous and thorough documentation of the excavation and artifacts as they progress through conservation also provides for continuity of information and knowledge about the site. Although the Project has been continuously funded since 1997, the level of funding has greatly fluctuated on an annual basis and caused uncertainty that has limited the extent of forward planning that can be done. State funding, as an annual appropriation, apart from permanent positions has varied with political and economic climates.

The *QAR* Project is no stranger to controversy. To date the identification of the wreck, as *Queen Anne's Revenge,* still rests on interpretation of circumstantial evidence related to historical records, location of the wreck; nature and dating of the artifact assemblage. Archaeologists have debated whether evidence, as gathered and reported professionally in the early years of the project, permitted positive identification of the wreckage (for example: Babits 2001; Rodgers et al 2005; Lusardi 2006). The extensive nature and amount of circumstantial evidence gathered by the end of 2008, however, has led to the general opinion among professionals identifying the site as *Queen Anne's Revenge* is a safe conclusion (Wilde-Ramsing 2009:8-9). Controversy aside, the wreck is one of the earliest available for study along the Atlantic Seaboard. It remains an invaluable material culture resource, with thousands of artifacts and ship's parts recovered, all needing conservation and study.

Collaboration between State archaeologists and the finders of the wreck, Intersal – now partners with Odyssey Marine (a larger organization searching for historical shipwrecks for profit) - is also likely to continue as a potential source of tension for State archaeologists and colleagues within the profession. Although many states, including North Carolina, permit private investigation and recovery of shipwrecks lying in their waters (NC 1967), most professional archaeological codes of conduct proscribe commercial archaeology (e.g. SAA 1996) – including working with those who condone the sale of artifacts recovered, as private property, rather than ensuring they remain in the public domain.

Managers need to maintain a balance between these challenges to ensure that the project progresses. Too much change can lead to loss of expertise, lack of progress, too much time spent in adapting, reviewing and revising, and never getting the job done. Too much emphasis on continuity

could lead to stagnation, unwillingness to accept change, and an inability to handle controversy. Too much controversy could result in neither change nor continuity but lead to the end of the project. Management of a resource such as the Beaufort Inlet Shipwreck involves a continuous cycle of planning, practice, review and revision. As this process is continuous through time the planning cycle could be viewed as a coil - or even a 'slinky' – with the time axis perpendicular to the plan, practice, review, revise cycle. A healthy project needs to be flexible - as a slinky – not too rigid or tightly coiled. Over management would be a tight coil with too short a time period between each stage, leaving no time to actually put plan into practice (Watkins-Kenney 2005).

Likewise, the practice of archaeological conservation should not be seen as a linear process but a cycle - a continuing cycle of planning, practice, review, and revision rather than a linear `cook book' approach. Feedback from dissemination of findings, and review, particularly as conservation research/science deepens understanding of effects and effectiveness of treatments, should lead to continuous reassessment of methods and treatments used.

For much of the time since 1997, archaeologists and conservators have primarily focused on the historical and archaeological aspects of the site; this focus is now shifting to planning and provision for the future in terms of long-term storage and curation and to the use of the *QAR* collection as an education and research resource. To quote Project Director Wilde-Ramsing, "It is not just an archaeological site. It is an educational resource for the state." (Letchworth 2009). While reduced funding in 2009-2010 curtailed continued excavation, it also provided an opportunity for review and revision of the Project's Management Plan, including the need for continuing provision for care and conservation of the collection.

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