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FORTY YEARS BENEATH THE WAVES: UNDERWATER ARCHAEOLOGY IN NORTH CAROLINA

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Over the past forty-five years, North Carolina's underwater archaeology program has undergone dramatic growth. For its first decade the program consisted of one or two staff members operating a modest preservation laboratory on the grounds of the Fort Fisher State Historic Site. By 2006, the state's Underwater Archaeology Branch (UAB) boasted a ten-person permanent staff located at three separate facilities in eastern North Carolina.

The growth of the program has been an evolutionary process. Like its natural counterpart, that process has progressed in fits and starts largely influenced by external events. Some of the program's turning points include the salvage of artifacts from sunken Civil War blockade-runners in the 1960s, the discovery of the USS *Monitor* off Cape Hatteras in 1973, integration into the state's archaeology and historic preservation program in the 1980s, and, most recently, the 1996 discovery of a shipwreck at Beaufort Inlet believed to be the pirate Blackbeard's flagship, *Queen Anne's Revenge*. At each of these junctures increased levels of interest from the public, the media, and administrators in Raleigh allowed the UAB to expand its capabilities and the scope of its mission.

WEIGHING ANCHOR – 1962 TO 1972

The Blockade-Runner Modern Greece

North Carolina's initial involvement with historic shipwrecks came about quite by chance. In March 1962 members of the Naval Ordnance School in Indian Head, Maryland made a holiday trip to Carolina Beach, North Carolina. The navy divers chartered a local boat to take them to a Civil War shipwreck site. Local lore identified the site as the British-built, blockade-runner *Modern Greece*, which was chased ashore by Union warships in June 1862. When the divers entered the water they found that a recent storm had largely uncovered the shipwreck. They emerged from the water with tales of cargo exposed in the hold of the ship and, as evidence, recovered a number of Enfield rifles, Whitworth projectiles, and other Civil War-vintage artifacts (Townsend 1972:15).

Word of the discovery soon reached officials with the North Carolina Department of Archives and History and the response was surprising. Rather than advising a cautious approach discouraging further recovery efforts, the department, along with the Governor's office and the North Carolina Confederate Centennial Commission, immediately contacted the Naval Ordnance School, as well as the US Coast Guard, for assistance in the salvage. Those requests were answered immediately, and within days additional divers and support vessels arrived on the scene. The work continued for several weeks in the spring of 1962 and resumed that summer. By summer 1963, navy divers had recovered over 10,000 artifacts from the *Modern Greece* and a smaller number of items from other Civil War shipwrecks in the area. The navy's activities were very much a salvage effort, with no records kept of artifact provenience or site mapping. In fact, on at least two occasions, the divers used dynamite at the *Modern Greece* to gain access to additional material (Bright 1977:19-22).

In order to understand the frenzied approach to the *Modern Greece* recovery it is necessary to look at the project from that era's perspective. Although by 1960 archaeologists had conducted major terrestrial excavations in North Carolina, there was no model at that time for the archaeological investigation of a shipwreck site. Even on an international level the discipline of underwater archaeology was in its infancy. In addition, from 1960 to 1965 the state and nation were in the midst of commemorating the 100-year anniversary of the Civil War. The discovery of a large cache of Civil War artifacts was too much to resist, and the decision was made to use the navy divers to salvage as much as they could. In addition to unfamiliarity with proper underwater archaeological techniques, the state and navy were only vaguely aware of the special treatment the recovered artifacts would require. Fortunately, project participants, acting on advice from the Smithsonian Institution, had the foresight to keep the recovered material wet. Wet storage space was at a premium, however, and it is reported, "some of the artifacts were even kept in a bathtub belonging to one of the state officials working on the project" (Bright 1977:21).

From today's perspective the uncontrolled recovery of thousands of artifacts from a Civil War shipwreck with no proper facilities to store and conserve the material would be impossible to justify. This is particularly true if the site was under no immediate threat from environmental or human actions. Even though the hurried, uncontrolled salvage of artifacts from the *Modern Greece* seems ill advised by current standards, the project did have positive results and, as will be seen, was the seminal event that launched North Carolina's underwater archaeology program.

Fort Fisher Preservation Laboratory

By 1963, the navy's salvage of the *Modern Greece* and other nearby Civil War shipwrecks resulted in the recovery of several tons of artifacts ranging in size from brass straight pins to 32-pounder cannon. In an effort to deal with this material, the Department of Archives and History (DAH) obtained funding from the state legislature as well as the Confederate Centennial Commission and local municipalities to construct an artifact preservation laboratory on the grounds of the Fort Fisher State Historic Site near Kure Beach (Townsend 1965:1-2).

Although the original preservation lab was a modest facility, it did provide a location where the salvaged artifacts could be safely stored and was in close proximity to the *Modern Greece* and other Civil War shipwrecks. Armed with a copy of H. J. Plenderleith's text, *The Conservation of Antiquities and Works of Art*, and practical advice from archaeologist Stanley South, who served as the manager of the Fort Fisher Historic Site, the preservation lab staff began experimenting with various processes to conserve the *Modern Greece* artifacts. The *Modern Greece* collection presented the conservators with the opportunity of multiple artifacts, such as 1,600 chisels, that they could experiment with to determine the best methods for stabilizing the material. By the time the Fort Fisher visitor's center opened in 1967, there were hundreds of blockade-runner artifacts available for display. Other items from the *Modern Greece* were placed on loan to various museums in North Carolina as well as the Mariners' Museum in Newport News and the Smithsonian Institution (Bright 1977: 22-23; Leslie Bright, personal communication 2008)

In 1964 Leslie Bright was hired as a laboratory assistant (Figure 12-1). Within a few years Mr. Bright was running the lab, and from 1967 to 1972 was the sole staff member. Bright stayed on for 34 years overseeing the conservation lab and playing an integral role in the

development of all phases of the state's underwater archaeology program (Leslie Bright, personal communication 2008).



Figure 12-1. Leslie Bright in the Fort Fisher Preservation Laboratory with conserved artifacts from the blockade-runner *Modern Greece*, ca. 1966.

Legal Action

The publicity surrounding the recovery of artifacts from the *Modern Greece* soon prompted others to become interested in salvaging artifacts from the Civil War shipwrecks in the Fort Fisher vicinity. In the summer of 1965 a group named Flying “W” Enterprises began diving operations on the *Modern Greece* and other shipwrecks with the intention of recovering artifacts for private use. Concerned by those activities, the Department of Archives and History filed a complaint against Flying “W” with the New Hanover County Sheriff’s Office charging, “damage to personal property” (*Wilmington Morning Star* [WMS], June 23, 1965). That complaint led to criminal charges against the group and a restraining order prohibiting further salvage activities.

The state based its ownership claim on the “1783 Treaty of Peace with Great Britain and common law . . . [which] provides that any sunken ship within a marine league reverts to the sovereignty after the ‘reasonable’ salvage period” (WMS, January 12, 1967). Court proceedings drug on for a year and a half, but the superior court judge ultimately sided with the state demanding that Flying “W” refrain from further salvage activities, turn over all recovered artifacts to the state, and pay court costs. On appeal, the Supreme Court of North Carolina upheld the superior court’s decision (WMS, April 11, 1968).

Shipwreck Law

Although North Carolina was successful in prosecuting the Flying “W” case, the incident made it evident a statute was needed that clearly claimed title to abandoned shipwrecks and established a system for managing those sites. In 1967, New Hanover County representatives successfully introduced a bill in the state legislature that claimed title to “all shipwrecks, vessels, cargoes, tackle, and underwater archaeological artifacts which have remained unclaimed for more than 10 years lying on the said bottoms, or on the bottoms of any other navigable waters of the State” (NCGS 121 Article 3). The supporters of the bill were concerned that if it were overly restrictive, particularly in prohibiting private sector recovery of artifacts, the law would not pass. The commercial and private sector nature of the North Carolina statute is certainly reflected in its title “Salvage of Abandoned Shipwrecks and Other Underwater Archaeological Sites,” as well as the law’s language. For example, in describing the entities needing a permit, there is no mention of “archaeologists” or “academic institutions.” Rather the law is directed toward, “Any qualified person, firm or corporation desiring to conduct any type of exploration, recovery or salvage operations.” Furthermore, the statute states:

Such permit or license may include but need not be limited to the following:

- Payment of monetary fee to be set by the Department
- That a portion or all of the historic material or artifacts be delivered to the custody and possession of the Department
- That a portion of all of such relics or artifacts may be sold or retained by the licensee
- That a portion or all of such relics or artifacts may be sold or traded by the Department (NCGS 121-25).

In addition to claiming title to abandoned shipwrecks and establishing a permitting system, the 1967 law authorized the Department of Archives and History (later changed to Department of Cultural Resources) to create a professional staff to manage the state’s submerged cultural resources, and adopt rules to administer the program. The law stated that any violation of the statute or supporting rules would be a misdemeanor and empowered any state or local law enforcement agency to assist the department in enforcing the law’s provisions.

The 1967 statute was a practical response to the status of underwater archaeology at that time. North Carolina’s law was based on a similar Florida statute. The motivation behind those laws was to control, not eliminate, commercial salvage and relic collecting of underwater sites. The advent of academic programs interested in investigating shipwreck sites in U.S. waters was still over a decade away and the states did not have the resources to conduct their own projects. In 1967, and for five years to come, North Carolina’s underwater archaeology program consisted of the Fort Fisher Preservation Lab and one staff member, Leslie Bright. What’s more, the state had no boat or diving equipment and an almost nonexistent operating budget.

Permitting System

With no means to conduct its own research, the department viewed the permitting system as a way to collect information and artifacts from the state’s shipwrecks. In 1968 the department issued a “special annual permit” to the newly formed North Carolina Skin Diving Council. That

permit allowed members to participate in organization-sponsored projects including training dives on the *Modern Greece* and a search for the Spanish privateer *Fortuna* in the Cape Fear River (Watts & Bright 1973:134). The department also issued “Short Term Sports and Hobby Permits” to divers interested in exploring the *Modern Greece*. Those divers “brought back sketches and descriptions of the wreck as well as small samples of cargo and ship fittings” (Watts & Bright 1973: 133). Divers were required to bring their finds by the Fort Fisher lab and, if the artifacts were not unique items, the collectors were allowed to keep the material. By 1973, over 200 divers had participated in this program (Bright 1977:23)

The state’s first salvage contract (1970 To 1973) was issued to Underwater Archaeological Associates, Inc. (UAA), a private group working out of Southport, North Carolina. The permit covered several sunken Civil War blockade-runners in southeastern North Carolina and allowed UAA to retain a percentage of the artifacts they recovered, a fact that would be frowned upon by today’s standards of cultural heritage management. Nevertheless, UAA was a non-profit organization “dedicated to the recovery and preservation of marine history through the careful excavation and . . . documentation of underwater historic sites” (Peery 1973:2). Among its other accomplishments, UAA’s work on the blockade-runner *Ella* produced the first site map of a North Carolina shipwreck.

These early permits were seen as a positive alternative to the uncontrolled commercial salvage of historic shipwrecks that was initiated by the Flying “W” operation. Starting in 1969, the department sponsored annual underwater archaeology seminars at the Fort Fisher visitor’s center in cooperation with the North Carolina Skin Diving Council and UAA. Those conferences featured presentations and discussions on “the proper approaches to historical shipwreck archaeology” (Watts & Bright 1973:134). By the early 1970s, underwater archaeology, both as a discipline and a state program, was taking its first, tentative steps.

EXPANDING HORIZONS – 1972 TO 1981

In 1971, the state legislature appropriated funds to establish the underwater archaeology program envisioned by the 1967 statute. A year later, Gordon P. Watts, Jr. was hired as the first staff member, working out of the Fort Fisher Preservation Lab with Leslie Bright. Watts returned to North Carolina from Florida where he worked and trained under the direction of state underwater archaeologist Carl Clausen. Still lacking funding and equipment to undertake department-sponsored projects, Watts began to explore affiliations with various North Carolina universities as means of initiating fieldwork (Gordon Watts, personal communication 2009).

USS Monitor

One of the individuals Watts contacted was John Newton, director of operations for Duke University’s Research Vessel *Eastward*. Those discussions led to a plan to use the *Eastward* to search for the remains of the *USS Monitor*. One of the country’s most famous shipwrecks, the *Monitor* sank off Cape Hatteras on January 31, 1862, nine months after its famous battle with the *CSS Virginia* at Hampton Roads. Lacking funds for an independent expedition, Watts and Newton were able to team up with geologists who were using the *Eastward* as part of an August 1973 survey in the Cape Hatteras vicinity. Dr. Harold Edgerton of MIT was among the participants in the *Monitor* search. Along with his years of experience, “Doc” Edgerton brought a side scan sonar and a deep-sea camera system. The team located twenty-two shipwrecks and, based on the magnetic, acoustic, and photographic evidence, they identified one site as the *Monitor*. That identification was confirmed during a 1974 expedition to the site using the R/V

Alcoa Seaprobe. The sophisticated positioning and camera systems aboard the *Seaprobe* allowed researchers to compile a detailed photomosaic of the shipwreck site (Watts 1981:22-30).

The discovery of the *Monitor* brought North Carolina's nascent underwater archaeology program international attention. Although the shipwreck was found sixteen miles off the Cape Hatteras—well outside the state's three-mile jurisdiction—North Carolina took the lead in protecting the shipwreck. In 1974 Department of Archives and History nominated the site to the National Register of Historic Places. That same year the governor nominated the shipwreck as a National Marine Sanctuary under the recently enacted Marine Protection, Research and Sanctuaries Act. On January 30, 1975, the National Oceanic and Atmospheric Administration (NOAA) designated the *Monitor* as the nation's first marine sanctuary (Watts 1981:19). From 1975 to 1984 NOAA contracted with the department to assist in managing the Monitor National Marine Sanctuary and conducting research at the site. Financial support from NOAA provided both staff positions and operating funds for the North Carolina's Underwater Archaeology Branch (UAB).

CETA Program

The UAB received additional federal support beginning in 1975 through the Comprehensive Employment Training Act (CETA). The CETA program passed money on to the states to offer work to the long-term unemployed. The UAB received over a dozen CETA positions, hiring individuals with backgrounds in drafting, photography, archaeology, history, and marine technology. Among their many accomplishments, CETA staff played a key role in the following: publication of illustrated catalogs of artifacts recovered from the *Modern Greece* and *CSS Neuse*; participation in field schools and other field projects; excavation of a gun emplacement and bombproof shelter at Fort Fisher; construction and renovation of UAB facilities at Fort Fisher; conversion a surplus landing craft into a research vessel; conservation of artifacts from various underwater sites; and starting the UAB's extensive research files on historic shipwrecks. Two of the UAB's current staff members, Richard Lawrence (1975) and Mark Wilde-Ramsing (1977), began their extended state careers as CETA employees. The CETA program was phased out in 1979 (NCDAH 1979,1981).

University Field Schools

By 1974 the state's original permit holders—North Carolina Skin Diving Council, Underwater Archaeology Associates, and the sport divers searching the *Modern Greece*—were no longer active. Wanting to elevate the program to a more academic level, the Department of Cultural Resources (formed from the Department of Archives and History in 1973) entered into an agreement with the University of North Carolina at Wilmington (UNCW) to host a cooperative field school in underwater archaeology. From 1974 to 1977 UAB and UNCW staff hosted six-week summer field schools. Students were taught the basics of underwater archaeology including historical research, remote sensing, site mapping, underwater photography, and artifact conservation. For the first three years the program focused on southeastern North Carolina, mainly revisiting the region's Civil War shipwrecks but also conducting the first magnetometer survey in state waters to search for additional sites. Field school participants also visited nearby Lake Waccamaw in an effort to locate prehistoric sites. In 1977, field school students took part in the UAB's most ambitious project, the recovery of four

Civil War cannon, complete with gun carriages, and numerous small artifacts from the Roanoke River adjacent to Fort Branch (Watts, et al. 1975; Watts, et al. 1979).

After a one year hiatus, the UAB resumed its summer field school program with East Carolina University (ECU). The association with ECU came about mainly at the urging of Professor William (Bill) Still, who was already recognized as one of the country's leading maritime historians. From 1979 to 1982 the UAB and ECU conducted a series of field schools focused on exploring the state's colonial ports. The summer investigations visited Bath, Edenton, New Bern, and Beaufort (Figure 12-2). In each case, the local community supplied financial or in-kind assistance to support the projects. The fieldwork consisted of a controlled magnetometer survey of each towns' harbor followed by diver investigation of remote sensing targets (NCDAAH 1981, 1983).



Figure 12-2. UAB and ECU staff with visitors from Virginia aboard R/V *Murphy Base* during the 1981 Edenton field school. Left to right, John Broadwater, Dave Hazzard, Richard Lawrence, Dina Hill, Bill Still, Gordon Watts, Mark Wilde-Ramsing, and John Sands.

The 1970s marked a period of tremendous growth for underwater archaeology in North Carolina. Undoubtedly, the discovery of the *Monitor* and the UAB's continued role in management and research at that site was a major factor in that growth. By the end of the decade the UAB had expanded from a single staff member operating the preservation lab to nine permanent and temporary employees with funding provided by the state as well as federal grants from NOAA and the National Park Service. Just as important, the UAB no longer had to rely on efforts of private individuals and avocational groups, but now had the equipment and expertise to conduct its own projects. In addition, the agency expanded the scope of the program beyond southeastern North Carolina, making valuable contacts with local groups up and down the coast.

Finally, the association with Bill Still and ECU's history department set the stage for underwater archaeology to be elevated to the level of an academic program.

INTO THE MAINSTREAM – 1981 TO 1990

By the early 1980s, the UAB's focus shifted from projects to programs. Two major factors brought about this change. First, with the academic program at ECU up and running there was no longer a need for the UAB to participate in the extensive summer field school projects that required a substantial commitment of the branch's staff, equipment, and resources. Second, and more importantly, the UAB became more fully involved with the department's growing resource management responsibilities that were a consequence of federal environmental and historic preservation legislation.

Establishment of ECU's Program in Maritime Studies

1981 marked a significant year in North Carolina underwater archaeology. In the fall of that year, Bill Still, working with ECU administrators, established the Program in Maritime History and Underwater Research (now the Program in Maritime Studies), a graduate level tract within the History Department. Gordon Watts resigned as the state underwater archaeologist to take a position as co-director of the new program.

ECU was one of only two U.S. universities offering a graduate level curriculum in underwater archaeology, and the program attracted students from around the country. Soon, ECU faculty and students were conducting historical and archaeological research on sites in North Carolina and elsewhere including Bermuda, Wisconsin, and Virginia. As the decade progressed, the UAB developed a close relationship with the ECU program and worked with ECU students on several research projects, including documenting nearly two dozen prehistoric canoes in Lake Phelps and investigating the remains of a Federal-period shipwreck at Oriental (Lawrence 1989).

Environmental Review Program and Guidelines

In 1977 the newly created Department of Cultural Resources combined two of its agencies to establish the Archaeology and Historic Preservation Section, later known as the State Historic Preservation Office (SHPO). The impetus for the reorganization was increased federal funding to North Carolina through the Historic Preservation Fund administered by the National Park Service. Along with added funding came added responsibility for administering federal historic preservation programs at the state level. Those programs included environmental review, survey and planning projects and grants, and the National Register program. As part of the SHPO, the UAB received a portion of the Historic Preservation Funds as well as the responsibilities.

Chief among those responsibilities was the review of federal undertakings on public lands (including submerged lands) to determine their affect on archaeological resources. The environmental review process, mandated by Section 106 of the National Historic Preservation Act, applied to government sponsored projects as well as private development activities that received federal funds or required federal permit. For the UAB that meant working with the U.S. Army Corps of Engineers (USACE), the federal agency that has the most impact on the state's waters through its projects and permits. By 1980, the relationship between SHPO and the

USACE had reached an adversarial level. The poor relationship began with disputes on the effectiveness of USACE contracted surveys of Oregon and Beaufort inlets. Relations were strained further by increased USACE dredging in the vicinity of three Civil War shipwrecks at Lockwoods Folly Inlet. That dispute eventually made its way to the Advisory Council on Historic Preservation for resolution.

In an effort to improve relations with the USACE and to clearly articulate the state's review procedures, the UAB developed environmental review guidelines. Drafted by Mark Wilde-Ramsing, UAB and USACE staff met and agreed to the guidelines in September 1981. By 1982 the UAB and USACE worked together to develop plans for investigating the shipwrecks at Lockwoods Folly Inlet. The corps conducted an initial magnetometer survey, and in 1984 contracted with the firm Tidewater Atlantic Research (TAR) to investigate the remote sensing targets. Prior to this, safety and liability concerns prevented the corps from contracts that involved diving operations. The Lockwoods Folly project marked the first time the Wilmington District hired archaeologists to conduct underwater exploration. TAR documented the three shipwrecks in Lockwoods Folly Inlet and made recommendations for avoiding the sites (Watts 1986). That work was followed by a similar investigation of Civil War shipwrecks at Carolina Beach Inlet (Watts 1984). Since that time, the USACE has routinely considered submerged cultural resource surveys and assessments as part of the planning process for any major project. Similarly, the North Carolina Department of Environment and Natural Resources, which is responsible for issuing Coastal Area Management Act (CAMA) permits, has been responsive to UAB comments, requiring private developers to hire qualified archaeologists to survey high potential areas prior to major projects such as marina construction.

Survey and Planning

The decision to abandon large-scale projects did not mean that the UAB abandoned fieldwork. In fact, locating and recording new sites throughout the state became a priority. The UAB staff felt that in order to effectively manage a resource it was necessary to define the resource base. That meant having and maintaining the equipment—boats, magnetometer, dive gear, excavation equipment, etc.—necessary to conduct field research in a wide variety of environments. Administrative staff in Raleigh were supportive of this policy, but operating funds were often in short supply. As a result UAB projects tended to be of short duration, generally limited to one or two day trips and never more than two weeks. Often a field trip combined a number of objectives. For example, during an August 1987 trip two staff members and a volunteer traveled to Ocracoke to inspect a shipwreck on the beach reported by National Park Service personnel. The next day the UAB team met town of Nags Head staff and made inspection dives on two Outer Banks' shipwrecks: USS *Huron* and *Oriental*. On the third and final day of the trip, the UAB staff conducted magnetometer surveys and diver inspections of two CAMA-permitted project sites in Elizabeth City. Throughout the 1980s and into the 1990s, the UAB averaged fifty field projects and site inspections a year (Lawrence 1995).

These small-scale projects had the added advantage of creating a network of contacts throughout eastern North Carolina including museums, historic sites, national seashores, state parks, municipal governments, and historical societies, as well as individual divers, fishermen, and local historians. Those groups and individuals provided a wealth of information on the local waterways and often provided material support such as housing and meals.

Coupled with fieldwork to record new sites, UAB staff focused on expanding its files for historic shipwrecks. The shipwreck files were first organized in the 1970s based on the landmark research of David Stick. During the 1980s Wilmington historian Bill Reaves and Division of Archives and History researcher Wilson Angley supplemented Stick's work extracting North Carolina shipwreck accounts from eighteenth and nineteenth-century newspapers.

Gradually, the UAB expanded its database of underwater sites. A 1985 paper reported less than 300 documented sites in the state and records on approximately 2,000 historic shipwrecks (Lawrence 1985). By 1989 the UAB had recorded over 400 underwater sites that included prehistoric dugout canoes, colonial sailing ships, dozens of Civil War shipwrecks, and a number of nineteenth and twentieth-century steamboats (Lawrence 1989). That steady growth in site documentation has continued over the past two decades. A query of the UAB's databases in December 2008 tallied 927 submerged sites and over 5,000 historically documented shipwrecks.

In an effort to manage this expanding resource base, UAB staff, working with researchers from ECU, the North Carolina Maritime Museum, and the USACE, started looking at shipwrecks within the wider context of North Carolina's maritime history. Those efforts were best exemplified by a series of six workshops on small craft remains. In addition to discussing the basics of small craft construction, function, and typology, the workshops grappled with larger issues of significance, management, and preservation (Wilde-Ramsing 1990).

National Register of Historic Places

Another major responsibility of the SHPO is to identify properties that are eligible for listing on the National Register of Historic Places (NRHP). In addition to the prestige of being determined "significant," sites listed on the NRHP receive added protection through the Section 106 review process. For shipwreck sites, NRHP eligibility became an important criterion for protection under the Abandoned Shipwreck Act when that law was passed in 1988. Prior to 1985, only two North Carolina shipwrecks, USS *Monitor* and USS *Peterhoff*, were included on the National Register. By the end of that year, two major initiatives by the UAB increased the number to 49.

Wilmington Waterfront Survey. When the Wilmington National Register Historic District was created in 1974 researchers included a portion of Cape Fear River and the Eagles Island shoreline opposite to downtown within the district boundaries. Although the UAB staff was aware of numerous vessels along the Eagles Island shoreline, as well as reported losses along the Wilmington waterfront, it was not until the summer of 1983 that the branch conducted a project to survey and record those shipwrecks. That project identified the remains of thirty-seven vessels within the boundaries of the existing Wilmington Historic District. Those sites included three paddlewheel steamboats, nine tugboats, five small craft, one ferryboat, and fourteen barges of various sizes and styles. The UAB was able to identify many of the vessels by name and found that most dated to the late-nineteenth and early-twentieth-centuries, while at least two of the steamboats were built in 1860. As a collection, the vessels represented a cross section of the utilitarian craft that played a critical role in development and expansion of the state's leading port. Recognizing the significance of these vessels and their link to the history of Wilmington, the UAB prepared an addendum that added the shipwreck sites as contributing properties to existing Wilmington Historic District nomination. The NRHP approved that addendum in 1985 (Lawrence 1985).

Cape Fear Civil War Shipwreck District. In the early 1980s the UAB began to sort through the accumulated information on Civil War shipwrecks in southeastern North Carolina. For 20 years those shipwrecks, primarily British-built blockade-runners, attracted attention and study including the work of the navy divers and early permit holders in the 1960s, the UNCW/UAB field schools in the 1970s, and USACE contractors in the 1980s. The UAB expanded on that research, revisiting many of the sites, and conducted surveys to locate new wrecks. That research culminated in 1985 with the nomination of twenty-one Civil War-period shipwrecks to the National Register of Historic Places. The shipwrecks include sixteen blockade-runners, four Union blockaders, and one Confederate ironclad (Wilde-Ramsing 1985).

Adding the Wilmington shipwrecks and the Civil War sites to the NRHP had positive benefits beyond recognition of their archaeological and historical significance. Several of the Civil War sites located in or near coastal inlets received additional study by the USACE and protection from dredging activities based on the shipwrecks' National Register status. Likewise, the lost and abandoned vessels along the Wilmington waterfront were a major concern for staff in the USACE's Wilmington District office as they developed plans to deepen the river channel in that vicinity. As a result, the corps contracted with the firms Tidewater Atlantic Research and Mid-Atlantic Technology and Environmental Research to conduct a dozen additional Phase 1, 2, and 3 investigations in the Cape Fear and Northeast Cape Fear rivers near downtown Wilmington (Figure 12-3).



Figure 12-3. 1988 investigation of a sunken colonial sailing vessel at the Rose Hill Plantation landing, Northeast Cape Fear River. During the week-long project, the UAB was assisted by staff from the Office of State Archaeology and the North Carolina Maritime Museum, as well as volunteer divers.

Revisions to the Permitting System

The underwater archaeology law passed in 1967 assigned the Department of Cultural Resources (DCR) responsibility for issuing permits to “any qualified person, firm or corporation desiring to conduct any type of exploration, recovery or salvage operations.” The procedures developed by DCR at that time to administer the permitting system were very much geared toward commercial salvage of shipwreck sites. Even permits like the ones issued to Underwater Archaeological Associates, which professed to be for archaeological investigation, allowed the permittee to retain a portion of the recovered artifacts.

In the early 1980s, UAB staff drafted changes to the North Carolina Administrative Code (NCAC) that would prohibit salvage of historically significant shipwrecks for commercial or personal gain. After legal review, however, those changes were eliminated since the statute itself clearly allowed awarding artifacts as part of the permitting process. The revised guidelines, eventually approved in 1984, did not exclude commercial recovery from historic shipwrecks, but attempted to ensure that all projects adhere to accepted standards of underwater archaeological investigation and reporting. The new guidelines also authorized the Secretary of DCR to designate “certain abandoned shipwrecks or underwater archaeological artifacts as areas of primary scientific, archaeological or historical value” (NCAC T07:04R.1009). The guidelines stipulated that all artifacts recovered from one of these “Protected Areas” must remain as an intact collection in an appropriate curation facility. While the protected area status was applicable to known sites with significant value, such as the Civil War shipwrecks, it could not be applied preemptively to undiscovered shipwrecks such as the Spanish “treasure wreck” *El Salvador* that was lost somewhere in the Beaufort Inlet/Cape Lookout vicinity in 1750.

El Salvador is the only North Carolina shipwreck that has attracted the attention of treasure salvors, though others have also searched for this shipwreck as an academic pursuit. Of the 134 permits issued by DCR since 1981, 12 have been issued to various groups to search for *El Salvador*. Of those, eight permits contained a condition that allowed for the division of artifacts if the permittee conclusively located *El Salvador* and demonstrated they had the resources to conduct all phases of the project in an acceptable manner. To date, the remains of *El Salvador* have not been found.

FAMILIAR WATERS – 1990 TO 1996

The first half of the 1990s saw a continuation of the UAB’s research and management activities that marked the previous decade. Branch staff worked with ECU students on a dozen thesis projects throughout the state with an emphasis on Civil War shipwrecks in northeastern North Carolina. That research, coupled with the branch’s own investigations, led to a second National Register nomination for Civil War shipwrecks, this time for 15 sites in the state’s sounds and rivers. With grant funds provided by the American Battlefield Protection Program, the UAB contracted with Dr. Lindley Butler to prepare the multiple property nomination for those Civil War sites (Butler 2003)

In 1993 the UAB conducted its largest field project to that time: the Cape Fear River Comprehensive Survey. Plans by the USACE to deepen thirty miles of the Cape Fear River channel provided the impetus for the yearlong study. Using a special legislative appropriation, the UAB was able to supplement its permanent staff by hiring temporary employees including Claude Jackson, who compiled a 400-page overview of the river’s maritime history, and Glenn

Overton, who directed field operations. During the three months of fieldwork, the UAB crew made over 150 dives on 102 targets, locating 33 new shipwreck sites. (Overton and Lawrence 1996:39-44).

Public Outreach and Education

The 1967 legislation that created the UAB did not mention public outreach and education as a function of the agency. Nevertheless, branch staff has always recognized the tremendous public interest in underwater archaeology and have done their best to keep the public informed on new and exciting discoveries as well as the state's rich maritime history. To that end, the UAB maintains a small museum on the grounds of the Fort Fisher State Historic Site. Since 1991, over a half million visitors have toured the exhibit building. In addition, staff members give an average of 50 presentations a year to various school, civic, and professional groups. The UAB also has a policy of working with local museums and historical societies so that artifacts conserved in the preservation lab can be displayed as near as possible to the site where they were recovered.

In the early 1990s, the UAB launched two major outreach initiatives—one designed to make shipwrecks more accessible, and the other to bring underwater archaeology into the public school system. The first project involved the USS *Huron*, a navy ship lost off Nags Head during a violent storm in 1877. Prompted in part by public access recommendations in the federal Abandoned Shipwreck Act of 1987, UAB staff explored the idea of establishing a shipwreck park in North Carolina. After looking into issues of liability, funding, and legal authority, DCR entered into agreements with the U.S. Navy and the Town of Nags Head to create the USS *Huron* Historic Shipwreck Preserve, the state's first underwater park. Since its 1991 designation as a preserve, approximately 300 divers a year visit the *Huron* and countless beach goers learn about the shipwreck's history at a nearby exhibit gazebo (Lawrence 2003).

The second initiative was a cooperative effort between the UAB and the Cape Fear Museum. Over a two-year period, Mark Wilde-Ramsing worked with museum staff to develop an underwater archaeology educational kit. Entitled *Hidden Beneath the Waves*, the self-contained outreach kit was designed for the eighth grade classroom and provided video presentations, historical research exercises, quiz games, and a mystery wreck to be identified by students. The kit debuted in 1993 and, for the next decade, was used by 600 middle school students a year (Wilde-Ramsing 1995).

WAYLAID BY PIRATES – 1996 TO 2008

The Queen Anne's Revenge Shipwreck Project

Although it was not apparent at first, 1996 marked the next major turning point for North Carolina's underwater archaeology program. On November 22 of that year, researchers working for Intersal, Inc. discovered an 18th century shipwreck in Beaufort Inlet. Intersal was operating under a permit from DCR to search for the Spanish vessel *El Salvador*, lost in 1750, as well two shipwrecks, *Queen Anne's Revenge* and *Adventure*, associated with Blackbeard, the infamous pirate captain. Blackbeard lost the two ships in June 1718 just five months before he was killed in battle at Ocracoke Inlet.

Based on the large number of cannon visible on the seafloor and a bronze bell recovered on Intersal's first dive that bore the date 1705, the researchers felt it likely the new shipwreck was Blackbeard's flagship, *Queen Anne's Revenge (QAR)*. When North Carolina Governor Jim Hunt announced the discovery at a March 1997 news conference there was flurry of media attention and enormous public interest. For the next eight years, DCR obtained appropriations and grants that allowed the UAB to spend one to two months a year investigating the *QAR* site. That research resulted in the recovery of thousands of artifacts and supported the identification of the shipwreck as Blackbeard's flagship (Wilde-Ramsing 2006). In an effort to determine past, present, and future environmental impacts to the site, the UAB enlisted the help of geologists from the University of North Carolina at Chapel Hill's Institute of Marine Science. The geologists concluded that the shipwreck was resting on a scour-resistant layer of sand and that the remaining artifacts were in a precarious position, particularly during major storm events (McNinch et al. 2001).

Aware of the significance of a shipwreck associated with history's most notorious pirate, and concerned with the potential loss of artifacts from the site, DCR decided on a course of complete excavation and recovery. Such a project was in marked contrast to the UAB's past field efforts and certainly beyond the scope of the agency's small operating budget. The department's commitment to the project, coupled with financial support from the legislature, allowed the UAB to establish a new conservation lab on the grounds of East Carolina University's West Research Campus near Greenville and to create five new permanent positions to run the lab and oversee field operations.

In the fall of 2006, *QAR* and UAB staff, supplemented with temporary personnel, began systematic excavation of the shipwreck site. That effort continued through the 2007 and 2008 field seasons, and the archaeologists have excavated, mapped, and recovered approximately 55% of the site (Figure 12-4). Team members transported the recovered artifacts to the Greenville lab, where they have been cataloged, assessed, and placed in wet storage (Wilde-Ramsing 2009). A number of conserved *QAR* artifacts are on display at the North Carolina Maritime Museum in Beaufort, and the museum is developing plans for a new exhibit hall to house the complete collection.



Figure 12-4. Aboard the North Carolina Marine Fisheries' barge *R/V Shell Point* during the 2007 *QAR* project. Below the surface, divers excavate two 5-foot-by-5-foot grid squares with handheld dredges. The dredged material passes through the screen/slucice boxes seen amidships. At the bow, team members process the captured sediment to extract small lead shot and gold dust.

FUTURE DIRECTIONS

This paper has focused on the growth and development of the UAB; however, any discussion of North Carolina underwater archaeology must acknowledge the significant contributions made by other groups, most notably ECU's Program in Maritime Studies. Since its creation in 1981, Program in Maritime Studies (PMS) students have completed 37 theses related to North Carolina maritime history and underwater archaeology. With its regional and contextual studies the ECU program has taken underwater archaeology well beyond examining shipwrecks as individual sites. Sami Seeb's recent thesis on the abandoned vessels on Eagles Island is a prime example of how PMS faculty and students have built on the UAB's original inventory of sites. Seeb employed principles of behavioral archaeology, such as patterns of abandonment, to explore changes in Wilmington's cultural, economic and technological history (Seeb 2007). Undoubtedly, the ECU program will continue to expand our knowledge and understanding of North Carolina's maritime history.

Contract archaeology firms, especially Tidewater Atlantic Research and Mid-Atlantic Technology and Environmental Research, have conducted major remote sensing surveys in North Carolina, as well as site documentation and mitigation projects. As development continues in coastal North Carolina, those firms and others will surely play an important role in locating and protecting significant submerged archaeological sites.

The state has also benefitted from the efforts of various individuals and groups working under permit from DCR. Groups such as Surface Interval Dive Company (SIDCO) rely on a volunteer membership to undertake a variety of survey, mapping, and recovery projects. Participants donate their time and equipment to pursue those projects and are willing to work under the guidance of the UAB. During those projects, artifact retrieval is kept to a minimum and permittees do not keep any of the material they recover. These groups and individuals are motivated by their interest in the state's history and "learning to do things right." The UAB will continue to support and encourage avocational interest and participation in examining shipwrecks and other underwater archaeological sites.

As for the UAB, fieldwork at the *Queen Anne's Revenge* site will dominate staff for the next several years. Conserving artifacts from the shipwreck, and analysis and reporting on that material, will continue for years after that. It is not unreasonable to predict that by 2018—the 300-year anniversary of the *QAR's* sinking—a new exhibit hall will be in place in Beaufort displaying artifacts from Blackbeard's ship and that, it will be a major tourist attraction for decades to come.

This paper began with a discussion of the evolutionary course North Carolina underwater archaeology has taken over the past five decades. At each stage of that journey it was difficult to predict what future direction the program would take. It seems every year brought its own surprises—a drought uncovering prehistoric canoes in Lake Phelps, a storm exposing long buried shipwrecks along the Outer Banks, or a private research group discovering a pirate ship. Similarly, it is impossible to predict what the next turning point will be—perhaps a Corps of Engineers' contractor will find Vasquez de Ayllon's lost ship from 1526 off the mouth of the Cape Fear River, or archaeologists will locate evidence of the Lost Colony in Roanoke Sound, or maybe someone will finally find the treasure of *El Salvador*. Any of those or similar events is liable to take the UAB in a new direction. What will be critical in the future, as it was in the past, is that a program remains in place with adequate staff, experience, and equipment to respond and adapt to whatever new challenges and opportunities tomorrow may bring.

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