

1

Maritime Heritage Stewardship and Citizen Science in Virginia

ELIZABETH A. MOORE AND JOHN D. BROADWATER

The Virginia Department of Historic Resources (VDHR) is the State Historic Preservation Office for the Commonwealth of Virginia. Virginia has a rich archaeological heritage dating back at least 16,000 years BCE (Boyd 2020). There are nearly 48,000 archaeological sites identified in the Commonwealth site files, ranging from Paleoindian sites that represent some of the earliest occupations in eastern North America to mid-twentieth-century sites that inform us of more modern events and cultural changes in the United States. VDHR serves as a repository for the archaeological material recovered at many of these sites, with an estimate of more than six million artifacts curated in the Richmond facility. VDHR also manages the data files pertaining to all identified cultural resources.

The Virginia Cultural Resources Information System, VCRIS, is the VDHR's statewide electronic cultural resources GIS and database. It provides an interactive view of information in the VDHR Archives related to properties, historic districts, and archaeological sites, and presents evaluative information about the historic significance of resources. The VCRIS public viewer provides access to limited information about each resource; site licenses for increased data access to VCRIS data are granted to qualified applicants. Data accessible through site licenses include architecture/above-ground polygons, archaeology polygons, archaeological survey boundaries, detailed information about each resource, and digital photos, reports, and documents. Recent digitization efforts include the scanning of older catalogue cards and records, linking them to site records. Expanded licenses include access to the

VDHR GIS, allowing for mapping functions and research using geographic data. This level of access meets the requirements for Section 106/Project Review background research and is the primary research source for cultural resource management (CRM) consultants who need information on cultural resources in a project area. It is also often the starting point for researchers searching for sites that meet research project criteria.

As of August 2020, 259,792 cultural resources are recorded in VCRIS. The majority of these are architectural resources; 47,829 are archaeological sites. Most archaeological sites are terrestrial; 353 are in caves or rock shelters and 46,228 are open air. There are 687 submerged sites recorded in VCRIS. They include a variety of site types, many of which are former terrestrial sites that have been submerged through the creation of water features (lakes, ponds, etc.) or through erosion and deflation (Table 1.1). There are 100 shipwreck sites; some of these contain multiple vessels. Dyke Marsh in Fairfax County (44FX3863 and 44FX3864) (Morris and Daniel 2018) contains 6 vessels; the North Landing River Nautical Graveyard (44VB0411; Blondino and McCoy 2020) contains the remains of over 40 vessels; at least 10 vessels are associated with the Nansemond River “Ghost Fleet” (Burke et al. 2020); and the Yorktown Shipwreck Archaeological Project’s 9 vessels (Broadwater 1979, 1988) are a few examples of the multiple wreck sites. Five dugout canoes are listed, all representing European adaptation of Indigenous watercraft.

VIRGINIA’S UNDERWATER ARCHAEOLOGY PROGRAM

Following the early stages of European exploration, Virginia was the choice for the first English settlers. Jamestown was established in 1607 and, despite severe hardships, managed to survive. From there, scores of English settlements and plantations developed along Virginia’s great Chesapeake Bay coastline and intricate riverine system that made exploration and settlement possible well into the western interior. In addition to the thousands of terrestrial archaeological sites representing Virginia’s rich colonial history, there are hundreds of submerged sites as well. Ships brought more settlers and manufactured goods, returning to England with tobacco, timber, and other natural products. Frequent storms and shoal waters resulted in the loss of numerous sailing ships during this period of settlement and growth. Later, wars, erosion, and other factors led to the formation of additional submerged cultural sites.

Despite the exceptional archaeological potential, Virginia did not have an underwater archaeology program until the 1970s. At that time there was

Table 1.1. Virginia submerged site types (Courtesy Virginia Department of Historic Resources)

Site Type	No. of Sites	Site Type	No. of Sites
Artifact Scatter	19	Mine	2
Bridge	8	Other	108
Camp	64	Palisaded Settlement	1
Canal	19	Quarry	4
Cemetery	3	Railroad	1
Church-related Residence	1	Railroad Bridge	1
Dam	18	Road	1
Dwelling	30	Shell Midden	10
Farmstead	1	Shipwreck	100
Fish Dam	23	Shipwreck, Canoe	5
Ford	8	Springhouse	1
Fort	1	Tavern/Inn	1
Grave/Burial	3	Trash Pit, Scatter	4
Hotel	1	Vessel, military	1
Indeterminate ^a	183	Vessel, unknown	1
Iron Furnace	1	Village/Town	28
Lithic Quarry	2	Warehouse	1
Lithic Workshop	6	Well	2
Military Base/Facility	1	Wharf	15
Mill, Mill Dam, Mill	8		
Warehouse			

^a Sites in the Indeterminate category are those unidentified in legacy data imported from older data sets.

no federal legislation for the protection of shipwrecks and other submerged cultural resources, and few states had laws and programs directed specifically at underwater archaeological resources. Beginning in 1975 a series of fortuitous events set in motion the establishment of a protective state law, a new program, and a world-class underwater archaeology project.

THE YORKTOWN SHIPWRECK ARCHAEOLOGICAL PROJECT: AN EXPANDED CITIZEN SCIENCE INITIATIVE

In 1978 Virginia initiated a major underwater investigation that stemmed from the discovery that significant Revolutionary War shipwrecks in the York River near Yorktown were being looted (Sands 1983). The looting was

first documented by volunteers in October 1975, and by the following July the Virginia General Assembly had enacted the Virginia Underwater Historic Properties Act to protect and manage the state's submerged cultural resources, both shipwrecks and inundated terrestrial sites (Code of Virginia 1976). At the same time, VDHR was developing plans for further exploration of the sunken ships in the York River.

In 1977 building on volunteer-led surveys during the previous two years, VDHR obtained a grant from the National Endowment for the Humanities (NEH) for a one-year survey to determine the archaeological potential for the shipwreck site. That grant was the basis for VDHR's initiation of the Yorktown Shipwreck Archaeological Project. The survey, conducted during 1978, was remarkably successful, locating and identifying nine shipwrecks believed to be British vessels sunk during the Siege of Yorktown in 1781, the last major battle of the American Revolutionary War (Broadwater 1979, 1980). The location of so many shipwrecks associated with one of the most significant battles in American history led to additional grants from public and private sources including NEH, the National Park Service (NPS), the Commonwealth of Virginia, the County of York, and in-kind support from many corporations. Therefore a project that began as a partnership in citizen science burgeoned into a major underwater archaeological project that continued for a decade, revealing new and exciting information about the naval aspects of the Siege of Yorktown.

VDHR relied heavily upon volunteers throughout the project to supplement the relatively limited grant funding. Certified divers received basic training in ship construction and archaeological excavation, after which they were given the opportunity to work with the project's professional staff to excavate the best-preserved of the wrecks, later identified as the British transport brig *Betsy*. Non-divers assisted with a variety of "topside" tasks, including sorting excavated sediment for cultural material, maintaining a daily activities journal, assisting with the cleaning and temporary storage of artifacts, and monitoring and maintenance of diving compressors, filtration systems, and other equipment. The project sought volunteers from many diverse sources, including public school and university programs, county programs for disadvantaged youth, and even minimal security prison work release programs.

Thanks to a special grant from the NPS, supplemented by enthusiastic support from state and local officials, *Betsy's* excavation became the first in the world to take place within a cofferdam, where the enclosed water was filtered to improve visibility from a few centimeters up to as much as 10 meters



Figure 1.1. Excavation within the cargo hold of the British transport brig *Betsy*, Yorktown Shipwreck Archaeological Project (Image by Broadwater, 1988).

(Figure 1.1). This was also the first major underwater excavation that was accessible to the public. Visitors walked out along a 100-meter-long pier where they were greeted by volunteers trained to describe the site and explain the history and technology being employed in the excavation (Broadwater 1988, 1992).

VDHR also formed educational partnerships with universities, including Texas A&M University and East Carolina University, that provided advice and assistance throughout the excavation. Texas A&M's Nautical Archaeology Program conducted two graduate field schools at the site and East Carolina's Program in Maritime History and Archaeology (now the Program in Maritime Studies) conducted two graduate-level field schools at the site each year during the cofferdam excavation, thus providing students with unique archaeological experience and skills within the safe confines of the cofferdam. Eventually a group of local businessmen and county officials formed the Yorktown Maritime Heritage Foundation to provide additional support for continuation of the project. The foundation supported the volunteer program, sought grant funding, and generated cash and in-kind support from local businesses. They even published a periodic newsletter that was given to visitors and used for fundraising (Yorktown Maritime Heritage Foundation [1984]).