

SYMPOSIUM

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Small Craft Studies in South Carolina

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The Hunting Island Vessel: Preliminary Excavation of a Nineteenth-Century Fishing Boat

In 1969, during beach replenishment operations on the foreshore of Hunting Island State Park, South Carolina, the remains of a small wooden boat were discovered. The site was reported to the South Carolina Institute of Archaeology and Anthropology (SCIAA) and given a site designation of 38BU157.

A preliminary examination of the site was conducted by the Institute's Underwater Archaeology Division staff in 1987 after the wreck was exposed by high tides and storm activity (Figure 1). At that time the vessel was found to be partially buried in the foreshore and lying on its port side at a forty-five degree angle, bow out to sea. Only the port side, which was buried, remained intact (Newell 1987:2). Initial observations led to the conclusion that the wreck is that of a 7 m-long fishing boat with a "live well," suggesting a 19th-century origin for the vessel. Two grant proposals subsequently submitted to the South Carolina Department of Archives and History to record and preserve the vessel in 1989 and 1990 were not funded.

Since 1987, the site has continued to deteriorate through normal wave action, storm activity, and the hands of collectors. The boat's pump tube was removed by a collector during a period when the site was exposed in the winter of 1988-1989. That winter, a combination of unusually high tides and a severe storm hastened the disintegration of the site by dislodging several of the vessel's timbers and scattering them along the beach while further burying

the remaining structure. The "heel," that timber which makes the transition from the keel to the stempost, was recovered several hundred meters along the beach resting against an early 20th-century house foundation.

Historical references recording a boat being wrecked in that location have not been found. Research into the 19th-century fishing industry on the Atlantic coast has revealed much contemporary literature on the industry (Collins 1891; Goode 1884, 1887; McFarland 1911) as well as descriptions of, and references to, the types of vessels used (Baumer 1988; Chapelle 1951, 1973). However, few examples of "welled" fishing vessels exist; the smack *Emma C. Berry* at Mystic Seaport is a notable example



FIGURE 1. The Hunting Island Vessel in 1987; stem in foreground and live well bulkheads amidships.

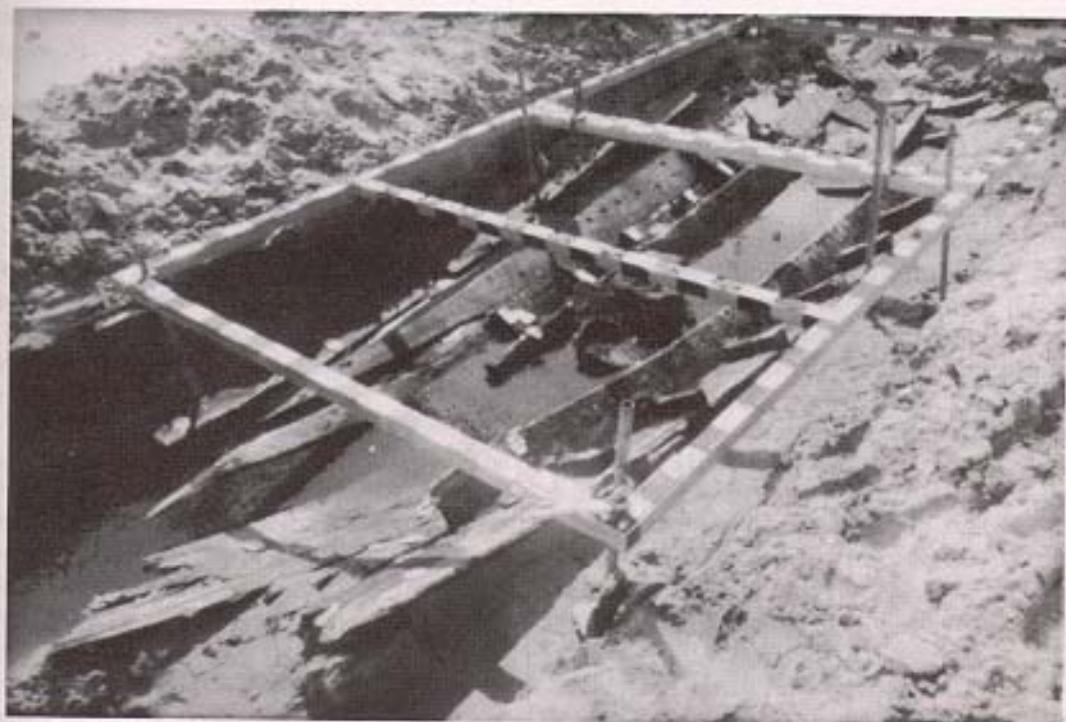


FIGURE 2. Remains of the port side of the vessel in 1991; torn planks of the bow in the foreground and holes in the hull planks for the live well at top center.

(Ansel 1973). According to David Baumer, who has done extensive research on the subject, this site is possibly the only known walled fishing boat to be recorded in an archaeological context (David R. Baumer 1990, pers. comm.).

During 1990 plans were made to relocate the site and record the remaining structure, particularly that of the live well. In the fall of 1990, as part of SCIAA's response to a public notice for yet another beach renourishment project on the island, Underwater Archaeology Division staff marked the site to protect it against accidental destruction during removal of beach debris prior to deposition of sand. It was evident that the site would very soon be extensively covered by sand from the renourishment project, north of the site, via deposition by the ambient currents moving sands from the north to the south.

In the Spring of 1991, a four-person team from the Division worked for three days to relocate, uncover and record the site. Of the 7 m-long boat examined in 1987, only a 4.5 x 2 m section of the central port side remained. This section, which was lying horizontally, was fairly intact up to the gunwale. Working against the encroaching tide, the crew was afforded less than five hours per day during which the site was relatively dry.

During the brief time allowed, the crew tagged timbers with sequentially numbered plastic tags, triangulated, measured, and photographed loose timbers and other artifacts in situ, and prepared the site for mapping. A levelled 2 x 2 m grid was used to map the site in plan and from which elevations of hull components were taken (Figure 2). Using this information, a site plan was produced that includes a

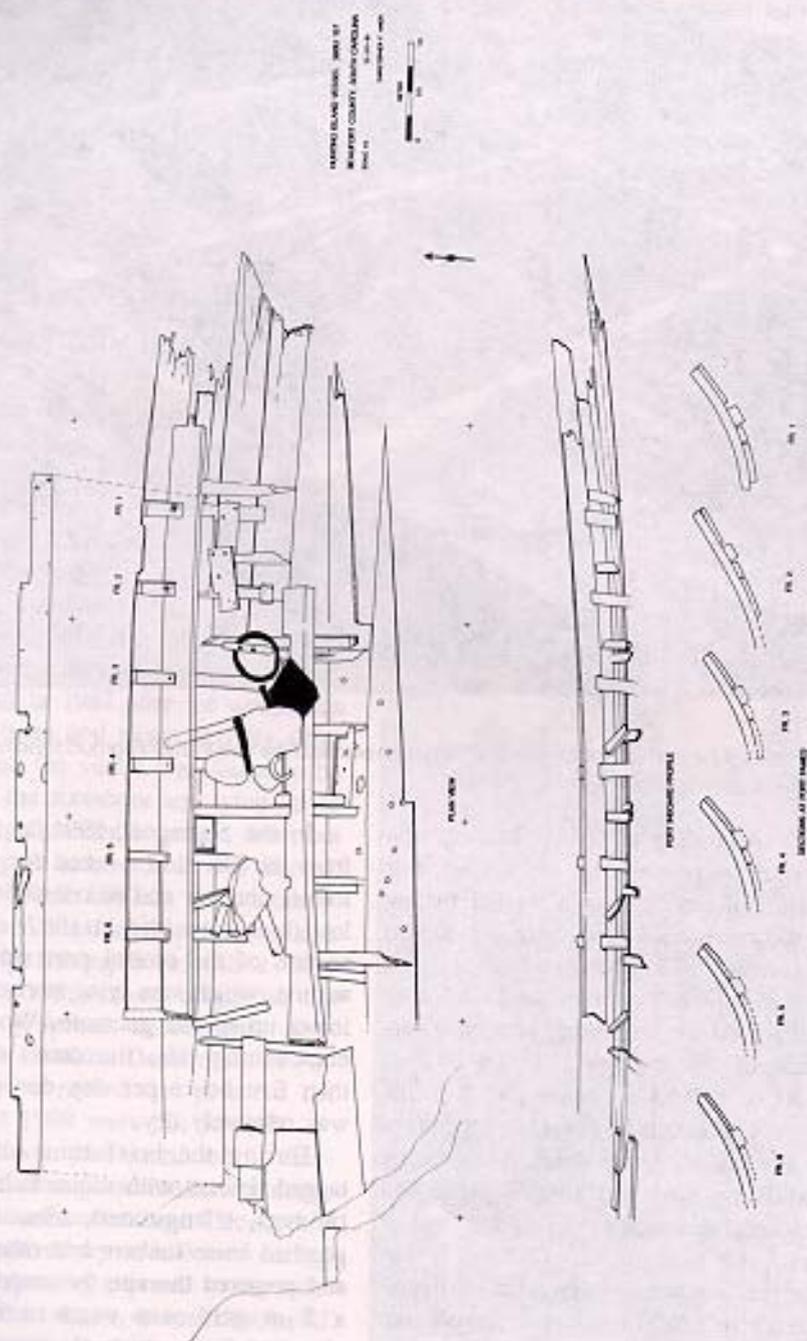


FIGURE 3. Site map of the hull remains as found in 1991; bow is to the right.

plan view, inboard elevation of the extant port side, and hull curvatures at each of the frames (Figure 3).

Results

Due to the paucity of hull remains present on the site during excavation, the hull could not be reconstructed with any degree of certainty. Interpretation of the site relies heavily on the presence of the live well and associated artifacts as well as observations made during the 1991 excavation of the site and those made during the brief 1987 site visit.

The Hunting Island Vessel had a keel that was 19 cm sided and moulded 36 cm. The curved stem was 6 cm sided but flared out to over 17 cm at the aft side of the apron to accept the inward-curving hull planks. In 1987, 15 sets of frames were visible along the hull's length - 10 sets of double floor timbers and 5 single frames. Single component floor timbers were 6.3 cm sided, half that of double floor timbers, and were moulded 7.5 cm. Single component frames were located within the live well and at the vessel's extremities. Futtocks averaged 6-7 cm sided and moulded 4-5 cm at the timber heads and ranged in length from 60-70 cm. Room and space averaged 43 cm at the turn of the bilge. Nine deck beams were visible along the length of the hull (Figure 1).

Hull planks ranged in width from 7 cm to over 21 cm and varied in thickness from 2-3 cm. The hood ends of the planking in the stern once ended in a widely flared transom. A single wale, placed high on the hull, was 8 cm wide and 5 cm thick.

The presence of a live well suggests that the wreck was a "well smack," a type of fishing vessel that incorporated a live well. The live well was a new development in the American East Coast market fisheries during the 1830s-1840s that allowed the catch to remain alive during transportation to market thereby ensuring a fresh product. These vessels were an integral part of the Southern offshore hook and line fisheries that supplied fresh fish and seafood to southern Atlantic coastal markets from the

1830s through the latter half of the 19th century. Charleston and Savannah were the largest of the southern Atlantic coastal markets that were controlled by Connecticut fishermen who spent their winters fishing for these and other southern markets (Baumer 1988:1, 11-14). Before the Civil War, markets in these two centers received virtually all the catch from southern Atlantic commercial fishing to keep a steady supply of fresh fish for the southern labor force then being employed in agriculture. By the 1880s Charleston had become the principal port for the southern offshore fishery. The industry was also undergoing a small boom in the South as live wells were the most efficient means of storing fish (Fleetwood 1982:147-148). However, as ice was becoming commonly available during the latter quarter of the 19th century, and at a steadily lower price than before, keeping the catch on ice slowly became the preferred method of transporting fish rather than keeping them alive (Baumer 1988:15).

In the southern market fisheries there were two principal types of fishing; offshore or from 10 to 20 miles out, and shore fisheries in the rivers, sounds, and tidal marshes (Fleetwood 1982:147). These methods necessitated the use of specific types of vessels especially suited to the environment in which they were used. For offshore use the smack was the principal vessel. These sailing boats, which varied from 10 to 30 tons, generally were fitted with a live well and were called a well smack (Baumer 1988:2; Fleetwood 1982:148). Although the origin of the well smacks lies along the New England shores, the influence of these vessels spread southward and they were, no doubt, copied by local shipwrights and constructed of local materials. Unlike the offshore fishing craft, the boats in use for the shore fisheries were varied, using traditional area small craft types, including the dugouts often fitted with live wells (Amer 1990; Baumer 1988:15-16).

Live wells, used in fishing smacks of the American market fisheries on the East Coast, were generally of two types, the "decked well" and the "box well." Both types involved having a watertight structure within the hull of the

vessel that allowed seawater to freely enter through holes drilled in the bottom of the boat, thereby enabling the fish to remain alive during the trip to market. Decked wells were characterized by having a watertight bulkhead at either end, with a deck laid over them. Box wells generally were pyramidal in shape and were not decked (Baumer 1988:17-20).

The evidence indicates that the Hunting Island Vessel was fitted with a decked live well spanning seven frames in the middle third of the vessel's 7 m length. The central three floor timbers within the well were single timbers, as at the vessel's extremities. Elsewhere however, the boat was framed with doubled floor timbers to increase each frame's sided dimension. Watertight bulkheads, which once extended from floor timber to deck beam, were placed 2.58 m apart and defined the fore and aft extent of the well. Each bulkhead was 7.6 cm thick. The boat's bilge pump was placed against the aft side of the well's aft watertight bulkhead. Holes in the hull planks, measuring 2.5 cm, allowed sea water to enter and circulate within the live well. All that remains of the well structure now are the holes and a number of loose timbers whose function has yet to be determined (Figure 2).

A pulley block, a single sheave, and some lengths of hemp rope found near the forward end of the well indicate the presence of running rigging and hint at a possible location of a mast. Several concreted iron artifacts may be hull fittings or artifacts associated with standing rigging. Cobbles, 20-45 cm in diameter, found within and aft of the well location, suggest this was the method of ballasting the boat. The vessel's rig could not be determined from the available evidence. However, many of the smacks used in the offshore fishery industry during the 19th century were either sloop or schooner rigged (Fleetwood 1988:148).

The well area also contained two ceramic sherds and a number of iron artifacts, including two pots associated with food preparation. These indicate a late 18th- or early 19th-century

provenance, while the presence of the live well on the wreck suggests a period of use after the 1830s.

Having established the vessel's function and a time period during which the boat could have been used, further questions need to be addressed. First, was this vessel built along the shores of New England as the majority of these vessels were, or was it crafted of local timber by local shipwrights? Species identification of the hull timbers, when complete, may provide an answer. Second, how did the vessel arrive at its present location? Even forty years ago the shoreline of Hunting Island was more than 100 m seaward of its present location. During the 19th century it would certainly have been even farther seaward. Yet the wreck lies only 30 m from the present-day dunes. Did the boat come to an untimely demise as the presence of artifacts associated with day-to-day shipboard life suggests—possibly at the hands of a hurricane like the "Great Storm" of 1893 that deposited a trio of lumber carriers along the South Carolina coast? Or was it dragged into what was then the interior of the Island and abandoned? Perhaps we'll never know. Or perhaps the answer lies with the rest of the wreck, which is no doubt now buried elsewhere in the shifting sands of this barrier island.

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