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# The Frigate Strikes Her Colors

DANA M. WEGNER

T his note offers some observations on W. M. P. Dunne's 1993 article, "'The Frigate Constellation Clearly Was No More': Or Was She?"<sup>1</sup> Specific elements of that article are scrutinized but the findings may be of general interest and apply to other writings. The note will conclude with an account of how The American Neptune has figured in the chronology of recent events relating to the Constellation controversy. It ends with a brief review of what has happened to the ship and to the question surrounding its lineage.

Professor Dunne's article provided rebuttal to a two-hundred-page Navy technical report written in 1991 by Colan Ratliff, and Kevin Lynaugh, and me. The report found that the then available architectural, artifactual, and documentary evidence showed that the U.S. warship *Constellation*, at that time exhibited since 1955 as a frigate built in Baltimore in 1797, was really a sloop-ofwar built in Norfolk in 1855. Titled *Fouled Anchors: The* Constellation *Question Answered*, the report was limited to about one hundred copies. It has not been published in *The American Neptune*.<sup>2</sup>

#### SHIP DESIGN

#### Designer's Half Model

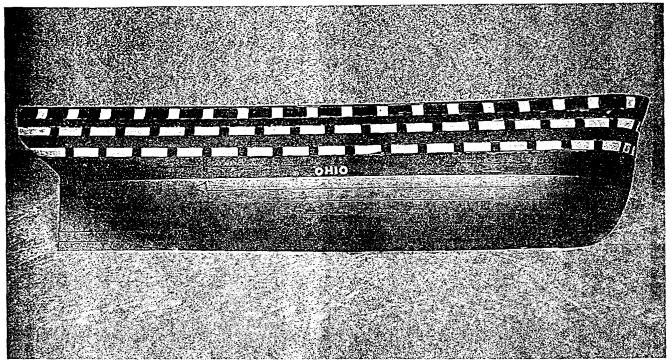
One important clue to the identity of the *Constellation* was her 1853 designer's model. Half hull models were regularly employed by the U.S. Navy in the ship design process from about 1820 until about the 1950s. That is a basic principle commonly recognized by maritime curators and knowledgeable scholars. The half model's role in warship design was considered uniquely American, "a proud emblem of American skill."

was built from a model under the supervision of Mr. Henry Eckford, at the Brooklyn Yard in 1820, and since that time the model has been considered an indispensable feature in the designing of a ship." Today, the Department of the Navy's ship model collection contains over 230 half hulls, and many of them are nineteenth century designer's models.<sup>3</sup>

Five contemporary American technical treatises described the design and building of wooden ships and now liberally document the use of half models in the nineteenth century. They were written by Lachlen McKay (1839), John W. Griffiths (1852), Samuel Pook (1866), Richard W. Meade (1869), and Theodore Wilson (1878). Pook and Wilson were naval constructors. McKay and Griffiths were leading commercial ship designers and Meade was a Naval Academy instructor.<sup>4</sup>

Together with drawings, the dimensions and shape of each warship were developed by making a half model. The model was taken apart, measured, and the readings were enlarged and transferred onto the mould loft floor ("laid off"). Used as tools, design models had several distinct and unmistakable physical characteristics. One common attribute was the inclusion of some means to disassemble the completed object.

A question of whether the offset measurements of the sloop *Constellation* were taken from the half model or whether the model was made later from the offsets has been raised by those unfamiliar with American half model usage and mould loft process. The question is answered "neither." The full-sized drawing on the mould loft floor was laid off using the model and preliminary drafts. Offset measurements were recorded ("taken") from the floor drawing. For example, the sloop *Constellation*'s 1853 offset tables bear the label, "...taken from the mould loft floor."<sup>5</sup>



Lift-style designer's half model of USS Ohio (1820) designed by Henry Eckford. 46.125"x10.125"x5.75" half breadth, scale 1:48, Department of the Navy model 979. "The Ohio 74, was built from a model under the supervision of Mr. Henry Eckford, at the Brooklyn Yard in 1820, and since that time the model has been considered an indispensable feature in the designing of a ship." Stephen B. Luce, Seamanship (1863), 229. Similar models were used in the Navy's design process until the 1950s. Griffiths, *Treatise on Architecture* (1851), 92, wrote that the first lift-style designer half-models in America appeared about 1790. Perhaps the earliest surviving example of the ketch *Eliza* (1794) is in the collection of the Peabody Essex Museum, publishers of this journal. Courtesy Naval Surface Warfare Center, Carderock Division.

After the full-sized drawing on the floor was faired, adjusted, and then approved by the architect, the loftsmen made the moulds. Moulds were full-sized templates used to cut the ship's timbers. Afterward, moulds were sometimes stored for years anticipating the need for sister ships or heavy repairs. Moulds were usually made from 34"x4" ripped pine boards. For durability, they were not particularly thin, were not flexible, and could not be bent to shape. Bevels were the geometrical angles to which the moulded, or outside, faces of the frames were cut. Bevels or bevelings (that is, angles) were computed from the floor or half model and marked indelibly on ten-inch-wide planks of wood called bevel boards. Bevel boards were also kept with the moulds.<sup>6</sup>

#### Provenance of Constellation Half Model

Some have questioned the authenticity of the sloop *Constellation* design model by requiring substantiation of its whereabouts (provenance) since creation. Here was confused artifactual provenance with the so-called "chain of custody" idea applied to evidence in criminal cases.<sup>7</sup> To establish the authenticity of the *Constellation* model, only two questions needed to be answered. First, was it a designer's model? Second, was it *Constellation*? The answers to both questions were affirmative. The model stands as tangible evidence that the sloop *Constellation* was a new design and incorporated none of the hull form of its predecessor.

#### What Is a Sharp Ship?

The frigate *Constellation* was frequently described as a "sharp-built" vessel. Some presume that Joshua Humphreys' 1795 design for the frigate *Constellation* was not sharp and therefore the sharp-built *Constellation* was not built to Humphreys' plans.<sup>8</sup>

"Sharp" was a common phrase used to describe the rise of the floors of a vessel, that is, the tendency toward a v-shaped bottom. All large vessels were commonly classified as either "full" (flat bottomed) or "sharp" (v-shape bottomed.) Constellation, Constitution, and all their sisters were considered sharp. The v-shaped bottom substituted hold space for some improved sailing characteristics. Constellation's floors were sharp, not her lines. Sleek entrance lines were called "clean." The frigate Constellation was constructed as a sharp-built vessel following Humphreys' plans.<sup>9</sup>

#### Round Sterns

Two seemingly innocuous paragraphs in our 1991 report have led to unexpected confusion. For simplicity, some knowledgeable authors have considered the structurally rounded ship's stern and the elliptical stern "variations of the same theme." Other authors have considered them as different styles. While both styles outwardly appeared similar, there were differences in underlying ship structure. In chronologically assigning the sloop Constellation's stern style, we chose to consider each variant, round and elliptical, as a distinct design phase. The round stern was introduced in Britain by Robert Seppings in 1817. It was not popular. In 1827, while a sub-surveyor, William Symonds produced one vessel with an elliptical stern. The elliptical stern incorporated some better characteristics of the new round stern and the older flat stern. When Symonds replaced Seppings as surveyor in 1832, the elliptical stern became standard in the British Navy. Progression of the British stern from flat to round to elliptical, and back to round is well defined and illustrated in several fine sources.<sup>10</sup>

Examination of plans for the ships described by American ship designer William Doughty in 1821 and British Lt. F. Fitzgerald De Roos in 1826 as having rounded sterns showed that they had what would later be called elliptical sterns. All of the so-called "river class" (Potomac class) American frigates, and the Boston and Portsmouth class sloops of 1821 and 1843 had elliptical sterns. In summation, the structurally rounded stern was introduced in 1817, first in Britain. The elliptical stern was reportedly introduced in America by William Doughty first in USS Brandywine, launched 1825. The British then generally adopted the elliptical stern in 1832. Both nations returned to the structurally round "steamboat" stern by the 1850s.<sup>11</sup> It is the later structurally rounded stern that *Constellation* has had since 1855.

## REPAIRS TO CONSTELLATION BEFORE 1853

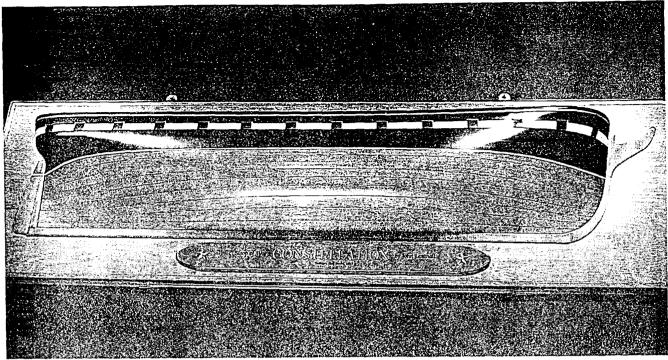
In general, records regarding all repairs to the frigate *Constellation* are not very complete. For example, the mysterious heavy repair done at the Washington Navy Yard in 1812 is, so far, documented by only a few descriptive sentences. Repairs in 1829 and 1834 are better documented, but even these straightforward events have been sources of unwarranted speculation.<sup>12</sup>

#### 1801 Repairs

After discharging men in Philadelphia, before sailing to Washington, DC to place Constellation in ordinary, on April 8, 1801 Captain Alexander Murray wrote that the frigate needed but little repair. On the night of April 10, the ship ran aground on a rocky bottom and when the tide fell uncommonly low, the vessel rolled over nearly to her beam ends. Unable to right herself, she rapidly flooded with the incoming tide. She was fully loaded with provisions and guns, but had previously landed her powder and sails at Philadelphia. The ship remained on her side and totally engulfed in water. Writing on April 26, 1801 Captain Murray expressed relief that his ship, though on the bottom, so far did not appear to suffer any material (structural) damage. She could be pumped out for \$5,000 in about three days.<sup>13</sup>

Requiring a Herculean effort by Joshua Humphreys, the vessel was not righted and dewatered until about May 3. Murray believed it was Humphreys' expertise that prevented complete loss of the *Constellation*. The ship was towed to Philadelphia and everything was hauled from her. Sections of her planking were removed and she was thoroughly cleansed inside. All of her rigging except the lower masts were removed. Though not delineated in Murray's self-protecting correspondence, there is little doubt that *Constellation* had been previously at least partially dismasted and stripped to right her.

In June 1801, it was decided to repair Constellation. Planking was replaced and she was nearly rebuilt from the waterline upward. Repairs



Refurbished designer's half hull model of the sloop-of-war *Constellation* (1853), designed by John Lenthall, 61.5"x10"x7" half breadth, scale 1:36, U.S. Naval Academy model. Contemporary technical treatises, enhanced by several physical characteristics described in *Fouled Anchors*, positively attest to the authenticity and relevance of the *Constellation* half model. Courtesy Naval Surface Warfare Center, Carderock Division.

to the ship were not completed until about December 26, 1801 — some eight months after her unfortunate accident. Except sails and powder, the entire contents of the ship, including the officer's baggage was submerged for three weeks in mud and filth. Rolling on beam ends was a significant disaster for any ship. Indeed, it would appear that the *Constellation* had been severely damaged and extensively repaired in 1801.<sup>14</sup>

#### 1812 Repairs

On October 15, 1814, Captain Thomas Tingey reported that in 1812 Constellation had been repaired and extended "...fourteen inches more beam at the main breadth." The phrasing meant that work was done that resulted in an increase of fourteen inches in her extreme breadth. Main, or extreme, breadth was the maximum width of the ship including at least planking and perhaps wales, back strakes, and any appurtenances protruding from the sides. Moulded breadth, which generally related to the design of the vessel, was measured to the outside of the frame (or inside of the plank.) A change in moulded beam might have signaled a change in hull form but Constel*lation*'s moulded beam remained unchanged in 1812. If Captain Tingey meant *Constellation*'s moulded or designed beam was increased he would have said it.<sup>15</sup>

Tingey's report said that she was "...stripped down to the lower futtocks." However, the entire document must be examined in context to learn what Tingey meant by "stripped down." The full report shows that in 1812, *Scorpion* was "cut down," *Adams* was "stripped down" and *Enterprise* was both "cut down" and "stripped to her floor timbers."<sup>16</sup> Cutting and stripping were clearly different operations, and it is likely "stripping" meant removing internal planking and decks to replace frames.

#### 1829 Repairs

Did *Constellation* receive a new bow and stern in 1829? Repair records mention in one brief phrase that workers were "dubbing off stern." Her galleries, quarterpieces, and taffrail were replaced and the surrounding planking was likely dubbed smooth before priming and painting. Quarterpieces were ornamental boards forming the aft edge of the quarter galleries and bending up to form the taffrail.<sup>17</sup> The repair records do not mention the bow nor the plumbing, planking, keelson piece, knees, deadwood, inner post, stern post, cant frames, and transoms that would be required for a new stern. Light work done on *Constellation* in early 1829 centered on carving, priming, and painting, not rebuilding.

#### 1838-39 Repairs at Gosport

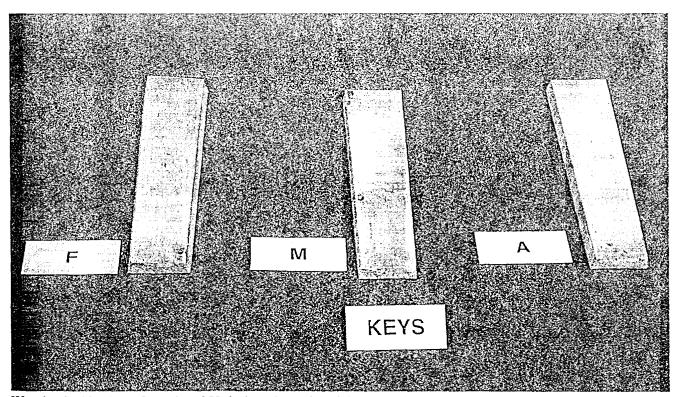
Repair records specify that in the bow area, only a new apron, a piece of keelson, and a piece of stemson were replaced. The apron was a single timber mounted to the stem and used as a foundation for affixing planking at the bow. These three ordinary inboard components were subject to decay and were regularly replaced many times during a vessel's life without altering the hull form. The records do not mention the new cant frames, rising wood, stem, gripe, and general effort required to design, apply, and fair-in a new bow. They simply say that in 1838-39 the apron, a piece of stemson, and a piece of keelson were replaced.<sup>18</sup>

#### Two Constellations at Gosport, 1853-55

### 1853 Docking Plans

Just before the frigate *Constellation* was broken up in 1853, measured hull drawings were made for bracing her while in dry dock. Dated 1853, these plans showed an aged ship, twisted and hogged. However, modern computer programs could reconfigure the data and measure, depict, and analyze the undistorted hull form. The hull form in these drawings was shown by computer studies in *Fouled Anchors* to conform to Joshua Humphreys' 1795 plans for the ship.

The docking plans showed that between 1795 and 1853, the shape of *Constellation*'s hull below the waterline was not altered. No portion of the hull form of the old frigate was carried over to the new sloop in 1853. Unless this evidence is controverted, speculation about changes to the frigate *Constellation*'s hull form before 1853 is largely pointless.<sup>19</sup>



Wooden locking keys from the 1853 designer's model of the sloop *Constellation*. Designer's models were usually made from layers of boards called "lifts." Tapered wooden keys were used to help hold the lifts together while the model was worked. Later, at the mould loft, the keys were removed to disassemble the model into separate lifts for tracing and measuring. Decorative models did not employ keys. Courtesy Naval Surface Warfare Center, Carderock Division.

#### Gosport Store Records

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The store records for the Gosport Navy Yard when the sloop-of-war *Constellation* was built are abundant, complete, and clear. There is no need to speculate about the source of materials. The records concisely list all the materials turned in from the old frigate. They concisely list all of the materials dispensed to the new ship. They do not list any salvaged material from the old ship dispensed to the new ship. The Gosport store records previously have been discussed exhaustively, but apparently require further clarification.

Gosport store records had two distinct components. The returns were organized by the month. Each month had two separate reports — one journal and one ledger.<sup>20</sup>

- The first monthly report, a true ledger, was a printed-form balance sheet. It was an exact accounting of all of the yard's stores. It listed every type of material and the amount on hand on the first day of the month, plus the total of materials added to stock that month, minus the total of materials withdrawn from stock that month, ending with the balance of material remaining in stock on the last day of the month.
- The second monthly report was the chronological journal of the sources, descriptions, and quantities of all materials received. Materials were purchased from contractors and received from ships being overhauled and broken up. Interspersed between entries of materials received were those listing outgoing materials. These formed the chronological journal of materials dispensed to various projects including *Constellation*. This portion of the journal has been the only record recognized by some authors.<sup>21</sup>

As an accounting procedure, both reports balanced at the end of each month. In the bound copies of the Gosport store records, there are then twenty-four reports comprising thirty-six records for each year. All material received from the old *Constellation* was detailed in the journal and added to the monthly balance ledger of material on hand. All material dispensed to the new *Constellation* was detailed in the journal and deducted from the balance ledger of material on hand. This exact accounting system enables the researcher to trace the source and destination of all material used in building the new *Constellation*. There was no evidence found in the Gosport records suggesting that any material was transferred directly from the old ship to the new.<sup>22</sup>

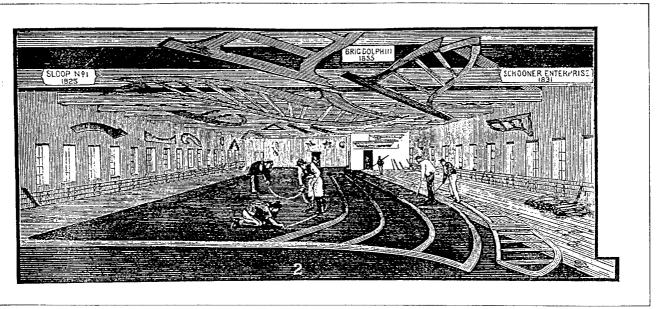
Highlighting an April 1854 disbursement entry from the journal, some speculate about how timbers listed as coming from "old frigate" might have come from the old *Constellation*. The original journal consistently referred to wood withdrawn from "frigates." "Frigates" was plural. In the April 1854 entry the portion, quoted as "old frigate" by some, actually reads "frigates" with the word "old" written over it. The journal refers to the old timber stockpile for frigates. The full record, which includes both the journal and the ledger, shows that none of the timber in that stockpile came from the old *Constellation*.<sup>23</sup>

#### Timber Surplus

Some suppose that, since the supply of live oak timber had been expended on the Sea Islands around 1825, there could be no surplus live oak timber on hand at navy yards in 1853: Building and repair programs depleted the supply of live oak at yards and live oak timber was so rare that every scrap was preserved for reuse. This appears an unsubstantiated presumption. While live oak growth was known to be finite, the product was still available, and as early as 1849, the Navy regularly replenished its stockpiles simply by purchasing more timber.<sup>24</sup>

Fouled Anchors found that the frame for the new sloop Constellation was built primarily from timber stockpiled for the construction and repair of frigates and ships-of-the-line. A smaller amount of wood was taken from the steamer stock and less yet from the sloop reserve. Why did not the new sloop match the shape and dimensions of the precut stockpile? About 78% of the timber used in constructing the new Constellation in 1853 was promiscuous, that is, stockpiled timber that was not precut to frame shape.<sup>25</sup>

Fouled Anchors postulated that in July 1853, the Gosport Yard alone had over 90,400 cubic feet of precut framing timber and ten full sets of beams for ships-of-the-line. Gosport was one of seven naval ship yards with similar stockpiles. In 1852, the Navy had no combat-ready ships-of-the249



Loftsmen laying off the battleship *Maine*, New York Navy Yard, 1889. The kneeling worker in the foreground is holding the end of a batten that will be used to scribe a sweeping line on the floor. Nearby, two figures adjust a measuring tape. Ceiling joists are adorned with plaques commemorating previous designs laid off in the loft. ("Sloop No. 1" became USS *Lexington*.) Sturdy moulds are stored overhead. Two old half models are mounted on the far bulkhead. *Harper's Weekly*, March 9, 1889.

line, and the future prospects of building any new liners or sailing frigates was nil. Live oak timber stockpiled for construction of these obsolete vessels was, indeed, potentially surplus. The USS *Franklin* and all five *Merrimack* class screw frigates were also built from obsolete timber.<sup>26</sup>

A recently discovered newspaper article revealed that four floors and four third futtocks of the sloop *Constellation* were made from the frigate's 1853 floors.<sup>27</sup> The news article showed that the transfer occurred informally and probably outside the Gosport records system. The amount of wood reported transferred would amount to about ninety-three net cubic feet of more than 16,500 gross cubic feet of timber consumed by the new sloop. Unidentified in the ship's structure, it is unlikely much of this wood has survived until today.

#### SHIPS NOT BUILT TO PLAN

#### Wandering Dimensions

Using general dimensions to identify ship designs is a risky premise. The chart in "'The Frigate *Constellation* Clearly Was No More': Or Was She?"<sup>28</sup> is an example of combining data accrued from different sources, comparing that data, and then drawing broad conclusions. The general conclusion was that Navy ships were not built according to their plans and specifications. One would therefore judge that the Navy Department did not know how big its ships were nor what they looked like.

For the large Table 1 appearing in that article, the gun deck lengths specified by Humphreys in 1795 were to be measured from the rabbet of the stem to the post. In 1806 Fox measured the gun decks of ships listed on Table 1 from the fore part of the stem rabbet to the after part of the wing transom. The 1795 and the 1806 gun deck measurements appearing in that table were taken from different places and were not comparable.<sup>29</sup>

In this chart, the peculiar variation of *Congress* deserved attention. The listed spar deck length of *Congress* was derived from a third source, a September 1799 report. The remaining dimensions in the column were from Josiah Fox's 1806 measurements. Using two different sources diminished the difference between *Congress*'s gun deck and spar deck lengths. Mixed-source measurements increased the disparity between *Constellation*'s gun deck length compared to *Congress*'s. Based upon the mismatched figures and a significant error in subtraction, much was

speculated about *Constellation*'s "raking stem" compared to the Charles Ware drawing of *Congress*.<sup>30</sup>

Other measurements of Congress certified correct in the September 1799 report are equally valid, but were not employed in Table 1. In that document her gun deck was the same length as the design specifications. Her moulded breadth probably measured one inch more in 1799 than designed. Further, a journal kept aboard Congress 1815-20 recorded that then the length of Congress's gun deck was still the same and her extreme breadth was two inches less than the original 1795 Humphreys design. According to either the 1799 or the 1815-20 figures, Congress conformed well to the original important dimensions. According to the Fox 1806 measurements, Constellation, the subject of discussion, very nearly matched Humphreys' 1795 major dimensions.<sup>31</sup>

Sweeping conclusions based upon a small variation of only inches, measured by different people years apart would be ill-advised. Gross dimensions might vary many inches because of measuring accuracy, normal structural deformation over time, tune of the rig, temperature, humidity, and even declination of the sun. We would strongly discourage sole reliance upon dimensions to make conclusions about design variations. Drafts, offset tables, or designer's models would be superior sources.

#### Government Controls

A popular view holds that the frigate *Constellation* of 1797 was not built according to the official plans issued by the Secretary of War. This idea is occasionally applied to other vessels by authors and curators stymied by apparently otherwise unexplainable inconsistencies between ships' measurements and their plans.<sup>32</sup>

For *Constellation*, the War Department issued several directives ordering that the 44- and 36gun frigates be built as ordered.<sup>33</sup> Changes were permitted if approved and several design changes were excellent examples of how the controls functioned properly. Each example was an approved deviation. For identical reasons, the system of proposed and approved change orders is still used in shipbuilding today.

The Fox to Truxtun letter of April 2, 1795,<sup>34</sup>

reinforced the fact that the government was suspicious of builders like Stodder. Fox wrote, warning Truxtun to remain alert regarding unapproved changes to the design. There is no reason to believe that controls were largely bypassed and each builder secretly created his own new unrecorded design.

British observer Lt. F. Fitzgerald De Roos noted about American warships in 1826, "On the model of every ship a committee is held — the draft determined on, and transmitted to the builders of the dockyards; and as periodical inspections take place, no deviation from the original model can occur. This system of classification and admirable adherence to approved models have been attended by the most beneficial results, which are visible in the beauty and excellent qualities of the ships of the United States."<sup>35</sup>

### **PROMISCUOUS MATTERS**

#### **Oozing Mud Flats**

Suggesting that substantial portions of her were destined for reuse in the new sloop, the question has been raised whether the frigate *Constellation* was more gently torn apart than other ships at Gosport. It has been claimed that, unlike the frigate *Constellation*, other vessels like *Guerriere*, *Java*, and *Congress* had been unceremoniously taken out to a marsh near Gosport, hacked down, and abandoned to sink into the ooze.<sup>36</sup>

By September 1840, *Guerriere* was taken out to a mud flat near Gosport and cut up. The process consumed over 5,036 man-days of labor, cost the Navy \$6171.72, and spanned ten months. The record shows that a great deal of time and effort was expended to cut up *Guerriere*. She was not rebuilt and she was not abandoned to sink into the ooze.<sup>37</sup>

In 1853, the *Constellation* was carefully brought into a building slip; at that time, the Navy was considering converting her into a sloop. The idea was abandoned and the old ship was cut up, probably when John Lenthall drew his plans for a new ship in May 1853.<sup>38</sup>

## Armament in the 1856 de Simone Painting

The painting of the sloop *Constellation* in 1856 by de Simone has been described as show

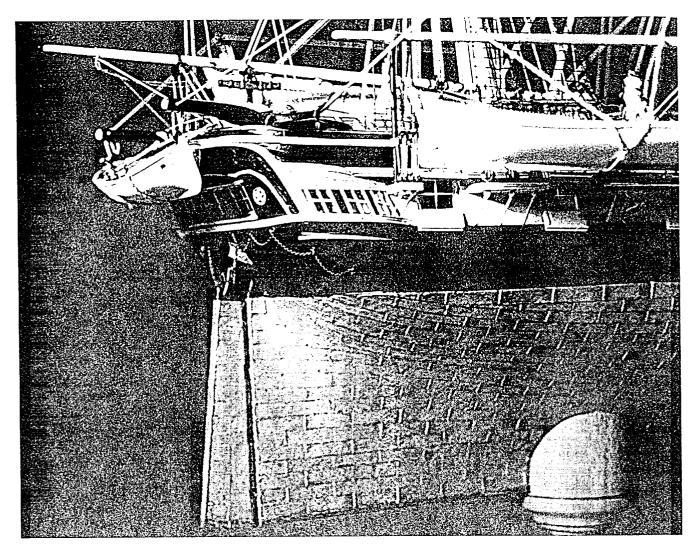
ing her armed with "ten carronades in broadside."39 Unusual armament for an 1856 sloop to be sure; the U.S. Navy began to phase out carronades in 1844. They were all but gone from the fleet by 1850 and failed to be listed in the 1852 naval ordnance manual. Bauer suggests *Constellation* that probably had two 10", sixteen 8", and four 32-pounder guns at the time.<sup>40</sup>

#### Sail Plan of Congress

Sailmaker Charles Ware's renderings should be approached with caution. Categorized as sail plans, further aspects of the drawings should not be accepted without confirming data from other sources. The late Merritt A. Edson, Jr. believed that the Ware drawings were created, but not used, as general illustrations for the Navy's 1826 Tables of Allowances. He believed the Ware drawing-set depicted the recommended rig of existing and anticipated types of ships. Edson thought the drawings were not intended to reflect the rig of specific vessels at exact mo-

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Portion of "Dimensions of the Spar Deck Sloop of War Constellation taken from the Mould loft floor." After the shape of the ship was laid off full size on the mould loft floor, the floor drawing was measured and placed in tabular form accurate to 1/8". "Taken from the floor," these were not theoretical measurements. The table of offsets could be used to reproduce another set of moulds to build a duplicate ship. Plan 142-1-7, entry 126, Record Group 19, NA.



Elliptical stern of USS *Vincinnes* in 1838. The elliptical stern configuration was reportedly introduced by William Doughty in *Brandywine*, launched in 1825. Compare *Vincennes*' stern to the earlier flat stern seen on the half model of *Ohio*, 1820, and the later rounded stern displayed by the half hull model of *Constellation*, 1853. Despite the chronological differences, some authors have considered the elliptical and rounded sterns as the same, only variations of a single principle. Others have not. 1:48 scale full exhibition model by Colan Ratliff, 1990. Courtesy Naval Surface Warfare Center, Carderock Division.

ments in time, although some of his delineations might have done so. With Mr. Edson's death, the purpose of the drawings has yet to be defined, and it is not fully clear if the Ware collection does represent a record of employed sail plans or proposed plans or both. Ware also copied other artist's drawings and illustrated several ships that he had no opportunity to view firsthand. His profiles of hull form do not appear highly reliable. Countermarks (now called "watermarks") on the Ware drawing papers range from 1809 to 1820. The undated drawing of *Congress* bears a countermark of 1819.41

### CONSTELLATION CONTROVERSY, 1989-1995

The American Neptune's role as recorder and sometimes promoter of the renewed Constellation controversy is considerable. Spurred by W. M. P. Dunne's article on Howard Chapelle that appeared in the winter 1989 issue of Neptune, we began what would become a study of the origin of USS Constellation. Fouled Anchors: The Constellation Question Answered was publicly

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Enlargement of one line in the April 1854 journal of materials disbursed to the new sloop *Constellation* at the Gosport Navy Yard. The line does not read "old frigate," but "Frigates (old)." It is plural and refers to old timber selected from the frigates stockpile at Gosport. None of the timber in that stockpile came from the old *Constellation*. Entry 320, Record Group 19, NA.

released on September 12, 1991. The report briefly outlined the construction history of the ship, depicted the historical controversy from 1947 until 1975, and presented our recent findings about her age. The operational history of the frigate had only small relevance to the inquiry. Also, because it was beyond the scope of the story, no comment was made about the contemporary management and condition of the vessel or *Constellation*'s prospects for preservation.<sup>42</sup>

#### Firsthand View, 1991-93

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The Navy Department was well prepared for the excitement *Fouled Anchors* was expected to generate. Details of findings were deliberately held close until I presented a paper synopsizing our report on September 12, 1991, at the Tenth Naval History Symposium at the Naval Academy in Annapolis. Within hours, the newspapers from Annapolis and Baltimore were arranging for interviews, followed by coverage on several Baltimore news television programs and then national and newswire articles.<sup>43</sup>

Ship's management, the USF Constellation Foundation, did not welcome the report and did not accept major portions of the findings. Several Foundation directors silently attended the history symposium session and expeditiously commissioned Professor W. M. P. Dunne to prepare a rebuttal. News reporters were invited to view the lower regions of the vessel where, they were apparently told, experts could clearly see substantial portions of the frigate's original timbers. At the time, tourists visiting the ship who asked about the controversy might hear, spoken in tones of derision by docents, how the report was written by misguided Navy "civilians" and "hobby model builders" who had never visited. Certainly, one volunteer said, had the authors ever bothered to tour the ship, the unmistakable eighteenth century aura pervading the relic would have set the matter straight. The 1797 roots of the ship continued to be cultivated by the ship's management until at least February 1994.<sup>44</sup>

By early January 1992, Evan Randolph, a longtime supporter of the 1797 origin of the ship, had come forward with a proposed article critical of Fouled Anchors. I was invited by Dr. Timothy Runyan, editor of The American Neptune, to prepare an expanded synopsis of the Navy report to be published in the same issue as Mr. Randolph's piece. I was not furnished a copy of Mr. Randolph's manuscript. My article, "An Apple and An Orange: Two Constellations at Gosport, 1853-1855" and Mr. Randolph's essay, "Fouled Anchors? Foul Blow" appeared in the Spring 1992 issue. A brief response by Professor Dunne was in the summer issue and my letter offering explanation of several areas of criticism mentioned by Mr. Randolph appeared in Fall 1992.45

On January 19, 1993, I was invited, along with Professor Dunne, to participate in a panel discussion to be held regarding the identity of *Constellation*. Also contributing would be Mr. Frederick Leiner from the USF *Constellation* Foundation, and Commander Richard B. Amirault, commanding officer of the USS *Constitution*. Vice Admiral Joseph Metcalf III USN (Retired) would chair the panel. To be convened on April 28, 1993, the discussion would be a feature of the 119th annual meeting of the U.S. Naval Institute in Annapolis.

Coinciding with the annual meeting, Neptune Vol. 53, No. 2 (Spring 1993) was released bearing a second rebuttal to the Fouled Anchors report of 1991, "'The Frigate Constellation Clearly Was No More': Or Was She?" The article had originated as the piece written by Professor Dunne for the *Constellation* Foundation shortly after the release of the Navy report.<sup>46</sup> The new essay, like Evan Randolph's earlier "Foul Blow," tended to befog the issue; *Neptune* readers had never been presented with the Navy report that each rebuttal selectively quoted, cited, and critiqued. Readers only had the standalone article "An Apple and an Orange" which had been prepared blind to accompany Mr. Randolph's earlier work.

#### Beleaguered Relic

Naval Institute publicity proclaimed both the historical controversy surrounding the ship and the need to better preserve her. At the April 1993 panel, Admiral Metcalf was determined to emphasize saving the vessel. He strictly limited me and Professor Dunne to ten minutes of historical remarks each and the audience to three questions regarding the controversy. Commander Amirault expressed his sincere concern about the deteriorated condition of *Constellation*. Mr. Leiner from the ship had no prepared statement. The audience was not mobilized.

Responding to the pre-panel publicity issued by the Naval Institute, in April 1993 Navy officials noted that the artifactual condition of Constellation had never been documented. In 1955, Constellation had been donated by the U.S. Navy to the predecessors of the USF Constellation Foundation under a conditional contract. The contract required the Foundation to maintain the ship in a manner that created the best possible image of the Navy when viewed by the public. A team of Navy experts from USS Constitution was dispatched from Boston and inspected Constellation between August 2 and 6, 1993. The condition of the ship was immediately found to be very poor and in some respects unsafe for visitors. A formal report was sent to the Foundation in October 1993, and in May 1994, the dire condition of the ship first drew public attention. Rotted and leaking, the ship was faced with massive costs to keep her afloat.47

On May 24, 1994, Baltimore Mayor Kurt L. Schmoke added an adjunct committee of Baltimore business executives to the directors of the USF *Constellation* Foundation. The new group was empowered to formulate cost estimates for repairing the ship, to raise money, and deal with the Navy regarding restoration plans. In June 1994, the National Trust for Historic Preservation donated \$5000 and nationally listed *Constellation*, "Launched in 1854...the last sailing warship built for the U.S. Navy," as one of the nation's eleven most endangered historic places. Mainly due to the *Fouled Anchors* report and the forum provided by *The American Neptune*, the identity of *Constellation* as a nineteenth century sloop-ofwar had become generally accepted by historians, the press, and the public.<sup>48</sup> Now at rest, the former controversy has not distracted from the need to raise money and awareness to save the ship.

# Dead Skunk

On September 25, 1994, The Baltimore Sun published a lengthy article by reporter Frank D. Roylance about the condition of the ship. Roylance stated, "Most naval historians now agree that the ship moored in Baltimore is not the frigate built at Fells Point and launched in 1797...the Constellation Foundation plans to restore the ship as a sloop of war." With the egress of most of the standing directors of the USF Constellation Foundation in late October 1994, the adjunct committee took over the day-today management of the ship. Employing a twist to the old albatross legend, the new executive director has said, "The whole frigate thing is like a dead skunk around our necks, especially with the historical community."49 After a nearly fifty-year battle, the frigate Constellation has struck her colors. The sloop-of-war Constellation has prevailed.

As of May 1995, *Constellation* is closed to visitors, dismasted, and trussed with cables and straps to ease her thirty-four-inch hog. Speaking of the condition of the vessel, the executive director declared, "She's a real sick puppy." Her future is yet to be determined.<sup>50</sup>



Dana M. Wegner is Curator of Ship Models for the Department of the Navy.

# Notes

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 W. M. P. Dunne, "'The Frigate Constellation Clearly Was No More': Or Was She?" The American Neptune vol. 53, no. 2 (spring 1993): 77-97 (hereafter, "Clearly No More.")

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- 2. Fouled Anchors: The "Constellation" Question Answered was not published in Washington by the Government Printing Office as in "Clearly No More" 77, n.2. It was an internal publication printed by the Navy's David Taylor Research Center in Bethesda, Maryland. Copies of the report are available for a fee from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (703 487-4650). Reference report AD A241-916 (hereafter Fouled Anchors.)
- 3. S. B. Luce, Seamanship (Newport, RI: James Atkinson, 1863), 229 quoting Griffiths. Lachlen McKay, Practical Ship-builder (New York: Collins, Keese, 1839); John W. Griffiths, Treatise on Marine and Naval Architecture, or Theory and Practice Blended in Ship Building (New York: D. Appleton, 1852), 92; Samuel M. Pook, A Method of Comparing the Lines and Draughting Vessels Propelled by Sail or Steam (New York: D. Van Nostrand, 1866); Richard W. Meade, Treatise on Naval Architecture and Ship-Building (Philadelphia: J. B. Lippincott, 1869); Theodore D. Wilson, An Outline of Shipbuilding, Theoretical and Practical (New York: John Wiley, 1878). "Clearly No More," 78, n.6, and n.93, dismissed the designer's half hull model of the sloop-of-war Constellation by terming it "mysterious," "anachronistic," and strenuously asserting several times that half models were not used by U.S. Navy ship designers in the 1850s. The assertions are false and not supported by any documentation.
- 4. Four of these significant and widely recognized primary sources were brushed aside by "Clearly No More," 91 as "...only four secondary references to shipbuilding in general". They are neither secondary nor general sources. All five authors were contemporaries of John Lenthall, designer of the new sloop *Constellation* in 1853.
- "Clearly No More," 91. The offsets are plan 142-1-7, entry 126, Record Group 19, National Archives and Records Administration, Washington, DC (hereafter this repository will be cited as NA.) The model, design, and lofting processes have been described and documented in both Fouled

Anchors (1991) and Dana M. Wegner, "An Apple and an Orange: Two Constellations at Gosport, 1853-1855," The American Neptune vol. 52, no. 2 (Spring 1992):77-93 (hereafter "Apple and Orange.")

- "Clearly No More," n.11, confused moulds with 6. "battens" or thin strips of wood used to draw the full-sized ship on the loft floor. Note 118 erroneously described how ships' frames were "rabetted" [sic] into the keel. The only rabbet in the keel was to accept hull planking. Frames were affixed by bolting the floors to the top of the keel, not by rabbeting. Note 84 incorrectly stated that there were three pairs of futtocks comprising each half frame. There were only three, not three pairs. Note 25 incorrectly defined "bevel" as the moulded surface of the ship's frame. Meade, Treatise on Architecture, 456, 475; John Knowles, Elements and Practice of Naval Architecture (London: W. Simpkin, 1822), 7; L. McKay, Practical Ship-builder, 45; Wilson, Outline of Shipbuilding, 149.
- 7. For evidential chain of custody see, for example, *People vs. Orenthal James Simpson*, Los Angeles, CA, 1995.
- Five times "Clearly No More," 81, 82-83, n.33, defined "sharp" as a hull with "sleeker" or "narrow" lines.
- Abraham Rees, Rees's Naval Architecture, 1819-20 (reprint Annapolis: Naval Institute, 1970), 3-5; John Fincham, Introductory Outline to the Practice of Shipbuilding (ca. 1852, reprinted by the Ship Model Society of RI, 1933),11; L. McKay, Practical Ship-builder, 103; Griffiths, Treatise on Architecture, 64; B. J. Totten, Naval Text-Book and Dictionary (New York: D. Van Nostrand, 1862), 401.
- Fouled Anchors, 139. Chapelle considered the round and the elliptical variants of the same principal: History of the American Sailing Navy (New York: W. W. Norton, 1949), 365; G. S. Laird Clowes, Sailing Ships: Their History & Development2 (London: H.M. Stationery Office, 1948), 82, 94-95; James A. Sharp, ed., Memoirs of the Life and Services of Rear-Admiral Sir William Symonds (London: Longman, Brown, Green, Longman's & Roberts, 1858), 192; Robert Gardiner, ed., Line of Battle (Annapolis: Naval Institute, 1992), 43; Peter Goodwin, Construction and Fitting of the English Man of War, 1650-

1850 (Annapolis: Naval Institute, 1987), 34, 36; E. H. H. Archibald, *Wooden Fighting Ship* (New York: Arco, 1969), 72.

11. "Clearly No More," 87; Niles Register, Nov. 19, 1825. The shift in terminology may be seen in two quotations in "Clearly No More," 87. In 1821 Doughty refers to Brandywine's "round" stern and in 1823 he refers to her sister's identical stern as "elliptic."

U.S. Navy historians prefer to class American warships by the name of the lead ship. Terms like "river class" and "city class" have a British flavor and have not been encouraged.

- 12. For this section about repairs before 1853, some of the documentation was reprinted in "Clearly No More," 95-96 and can be read by reference to Appendix 1 accompanying that article. All of the material presented there had been previously reviewed and cited in 1992 in "Apple and Orange," n.3.
- 13. "Clearly No More," 84, apparently confused the pumping expenses with the total amount of damages and largely underestimated the extent of injury and repair. Captain Alexander Murray's letterbook is found in NA Record Group 45, note 24, as indicated by note 38 in that essay.
- 14. See for example, Darcy Lever, Young Sea Officer's Sheet Anchor (reprint New York: Sweetman, 1963), 96; William Brady, Kedge-Anchor (New York: William Brady, 1859), 187; and R. H. Dana, Seaman's Manual (London: E. Moxon, 1871), 67-68. "Clearly No More," 84 stated the incident caused only minor hull damage and "... water soaked her rigging, sails, powder, and the contents of her main hold."
- 15. "Clearly No More," 85, 95, vigorously insisted that *Constellation*'s moulded beam was increased fourteen inches. This matter had been previously discussed in "Apple and Orange," 88.
- 16. "Clearly No More," 85-86, 95, stated that in 1812 Constellation was "cut down" and "torn down" and "Although she remained afloat,... only her keel, floor timbers, keelson, stem, stern post and lower futtocks remained...." A ship composed of only these features cannot float. The actual report states only that she was "stripped down to the lower futtocks". "Apple and Orange," 88 and n.36; "Clearly No More," Appendix 1, Part 1, 95; American State Papers, Naval Affairs 1: 342.
- "Clearly No More," 85; Evan Randolph, U.S.S. Constellation, 1797 to 1979," The American Neptune vol. 39, no. 4 (Oct 1979): 235-255; Knowles, Elements of Naval Architecture, 53.
- 18. Mariner's Dictionary (Washington: William Duane, 1805), 8. "Clearly No More," 83, 86,

spoke of "a complete rebuild of the internal forward section" and "a new internal forebody structure.... In addition (to)...a new apron." The three pieces were broadly interpreted in the article as an "internal forebody structure." "Internal forebody structure" appears to be a vague and technical-sounding term perhaps misleading the reader into thinking that it was another name for a complete bow.

- The docking plans are 107-13-4A, entry 126, Record Group 19, NA. Though acknowledged (91), the 1853 docking plans were never directly confronted by "Clearly No More." One goal of that article was to resurrect the idea that some of the hull form of the frigate was carried over into the sloop. See also various writings by Leon D. Polland, 1962-1970, and Evan Randolph, "U.S.S. Constellation." The carry-over concept and its shortcomings had been previously discussed in "Apple and Orange," 87-93.
- C. C. Marsh, Science of Double-Entry Book-Keeping(New York: D. Appleton, 1864); Lorenzo Fairbanks, Science and Practice of Book-Keeping (Philadelphia: Sower, Barnes & Potts, 1866), 13-24.
- 21. This portion of the record was selectively quoted in "Clearly No More," Appendix 2 (96-97) and was ill-named "Boykin's ledger," 92. It is a journal, not a ledger.
- 22. "Apple and Orange," 91; Fouled Anchors, 5.
- 23. The September 12, 1853 minutebook entry was significantly misquoted in "Clearly No More," 93 as, "For authority to dispose of the old timber, etc., of the Constellation." It should read, "For authority to dispose of at auction the old timbers, etc., of the Constellation." Several entries were poorly transcribed in Appendix 2 (96-97) and omit the final "S" in "frigates."
- 24. "Clearly No More," 90, 91-92, n.86; Secretary of the Navy Reports: 1849, p.470; 1853, p.310; 1855, p.15; 1856, p.592; 1857, p.810; 1858, p.552.
- 25. Fouled Anchors, 5; "Clearly No More," 91.
- 26. Fouled Anchors, 3,5.
- 27. "Clearly No More," 89, n.77, quoting Portsmouth (VA) Daily Transcript, 28 August 1854.
- 28. "Clearly No More," Table 1, 80.
- 29. Ibid.
- 30. Naval Documents Related to the Quasi-War With France 4 (Washington: GPO, 1936), 140-141.
  "Clearly No More," 80, stated the gun deck of Congress was "...more than four feet longer" than Constellation's. Table 1 on the same page showed it was only 2'9" longer. (165'7"-162'10"=2'9").
- 31. U.S. Naval Academy Special Collections, Henley/

Sinclair, mss 24. There were many transcription errors in Table 1 of "Clearly No More" (80), and some numbers and measurements that do not appear in the original sources were added. For United States, depth of hold was incorrectly transcribed as 26'2" and should read 21'2". Berth deck to gun deck was incorrectly transcribed as 6'6" and should read 6' 9". The numbers of quarterdeck and forecastle gunports and gun deck beams were not given by Fox and, for United States, should all read "N/A." For the design specifications for the 36-gun frigates, the extreme breadth was listed as 41'0" in the table. The extreme breadth is not given in the original Humphreys design specifications in American State Papers. There, moulded beam is specified as 40'0", to which was probably added two main wales, each 7" thick. The corrected extreme beam would then be 41'2". For Constellation, the number of gun deck beams was incorrectly transcribed as 26 and should read 24. The number of berth deck beams was incorrectly transcribed as 26 and should read 25. The berth deck to gun

- deck measurement was incorrectly transcribed as 6'2", and should read 6'0".
- 32. "Clearly No More," 79.
- 33. Fouled Anchors, 2.
- 34. "Clearly No More," 81.
- 35. Frederick Barley, "A British Sailor Looks At the United States Navy of the Early Nineteenth Century," *The American Neptune* vol. 21, no. 1 (Jan. 1961): 68. The implication in "Clearly No More" 79 and n.37, that modern Navy ships are not built to centralized plans and are never repaired before mothballing are personally verifiable misstatements.
- 36. "Clearly No More," 92.
- 37. "Clearly No More," 92, stated to the contrary, "No attempt was made to dismantle ... Guerriere...." The "definitive evidence" (92) that Guerriere, Java, and Congress were all treated worse in their breaking up than Constellation was not produced by the documentation. Documentation cited does not contain any information about the location and manner of Congress's end. It states that Java was taken to the mud flats several times between 1840 and 1842 and repaired. She was not cut up there at that time. Record Group 45, Subject File, U.S. Navy, 1775-1910, AL -Laid up ships 0-1859, Ships in Ordinary or Reserve, Norfolk Navy Yard, boxes 69, 71, NA. For the mud flats, see William S. Forrest, Historical and Descriptive Sketches of Norfolk and Vicinity (Philadelphia: Lindsay & Blakiston, 1853), 486.
- 38. "Apple and Orange," 80.

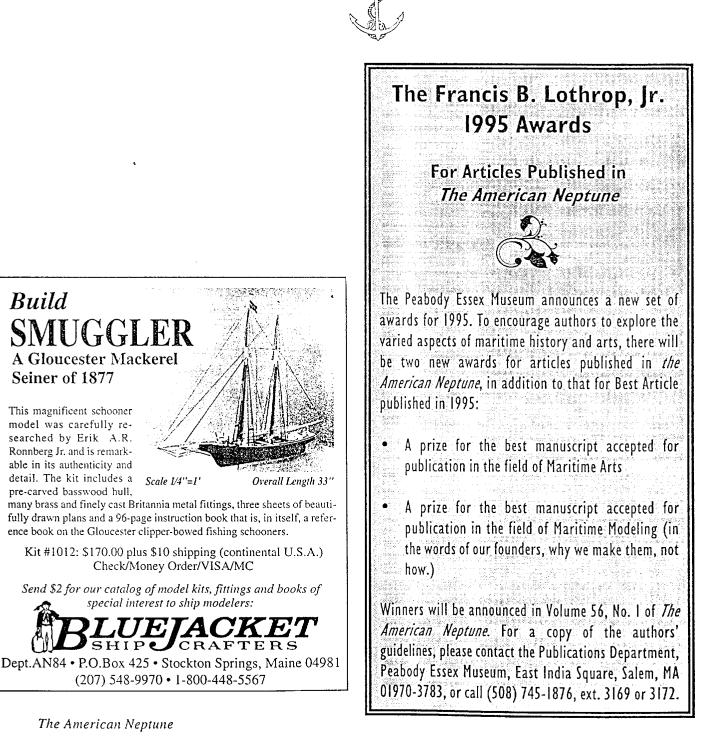
- 39. "Clearly No More," 83.
- Spencer Tucker, Arming the Fleet (Annapolis: Naval Institute, 1989), 151; William N. Jeffers, Concise Treatise on the Theory and Practice of Naval Gunnery (New York: D. Appleton, 1850), 193; Navy Department, Instructions In Relation to the Preparation of Vessels of War for Battle (Washington: C. Alexander, 1852); K. Jack Bauer, Ships of the Navy 1 (Troy, NY: Rensselaer Polytechnic Institute, 1969), 31.
- 41. Ware's sail plan of *Congress* is reprinted in "Clearly No More," 82. See also "Documents: Charles Ware, Sail-Maker," *The American Neptune* vol. 3, no. 3 (July 1943): 267-268.
- 42. W. M. P. Dunne, "An Inquiry into H. I. Chapelle's Research in Naval History," The American Neptune vol. 49, no. 1 (winter 1989): 39-55. The lively exchange in Neptune regarding a ship thought to be Constellation in a painting by Antoine Roux is not covered here. Those arguments did not consider the possibilities that the painting did not date from ca. 1805, that the painting was created from accumulated sketches, and the three vessels were not in the same place simultaneously, and that the frigates depicted may have been the same ship depicted twice with different rigs.
- 43. The Sunday Capital (Annapolis), 15 September 1991; The Sun (Baltimore), 16 September 1991; The Washington Post, 17 September 1991; USA Today, 20 September 1991. Unless otherwise noted, this, and the following four paragraphs are based upon the author's notes and recollections.
- 44. "Clearly No More," 97; Baltimore WMAR television evening news, Sept. 16, 1991; USF Constellation Foundation press release, 15 February 1994. The Fouled Anchors authors had, with the ship's staff permission, visited and studied Constellation June 13, 1991. This same erroneous charge was repeatedly leveled against critic Howard Chapelle in the 1960s.
- 45. Evan Randolph, "Fouled Anchors? Fouled Blow," The American Neptune, vol. 52, no. 2 (spring 1992): 94-101; Query and Response, The American Neptune, vol. 52, no. 3 (summer 1992): 202, and no. 4 (fall 1992): 262-263. For the most part, "Apple and Orange" was not an abbreviated version of Fouled Anchors.
- 46. That article did not have any reference to "Apple and Orange" until, apparently at my prompting, a single citation was tacked to a footnote when production of that issue was in the page proof phase: "Clearly No More," 77, n.2. The essay would have contributed more to the debate had it appeared prior to, or alongside, "Apple and Or-

ange" in the spring 1992 Neptune.

- 47. The Capital (Annapolis), 3 May 1994; The Sun (Baltimore), 19 May 1994.
- 48. The Sun (Baltimore), 19, 26 May 1994. A companion article about the historical controversy and document forgeries was written by then Sun reporter Patrick McGuire, but the Sun did not schedule publication of the piece. Washington Times, 30 August 1994. National Trust for His-

toric Preservation member's mail-out, June 1994.

- 49. The Sun (Baltimore), 25 September 1994; 9 February, 16 May 1995.
- 50. The Capital (Annapolis), 21 March 1995. The opinions in this note are the author's and not necessarily those of the Naval Surface Warfare Center, the Naval Sea Systems Command, or the Department of the Navy.



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