

The Flotilla Project

Preliminary Report

1997 Field Work

L. E. Babits, Catherine Fach and Ryan Harris

Program in Maritime Studies  
East Carolina University  
Greenville, North Carolina  
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## ABSTRACT

The 1997 Flotilla Project investigated several different areas in the Patuxent River drainage. These include St. Leonard's Creek where three different sites were inspected to the upper Patuxent in the vicinity of Hill Bridge.

Each area had special research interest. In St. Leonard's Creek, Grover's Creek Cove was thought to contain two gunboats dating to the War of 1812 but only a single vessel was actually found. This was a late nineteenth century plank-on-frame bug-eye (Babits 1998). The shoreline and dock area of St. Leonard's Town was also inspected. Here a number of promising features including vessel parts and a wharf were found. Aerial photographs taken in the 1930's suggest the possibility that some remnants of a boom placed across the creek in 1814 might still be present in the narrows between Grover's Creek Cove and St. Leonard's Town.

In the upper Patuxent, magnetic anomalies recorded during the late 1970's and again in 1980 were reinspected and ground-truthed. A major problem surfaced during this effort when it became apparent that considerable silting occurred over the last fifteen years. Additional research shows that the course of the stream migrated south and east since 1814 causing the northern, and western banks to build up as the stream migrated. Consequently, hydroprobing to a depth of fifteen feet proved unprofitable and was an ineffective means of defining potential sites.

#### ACKNOWLEDGEMENTS

This project was accomplished by diverse groups working as a team. The central core of the project was a twelve member field school from East Carolina University, Greenville, North Carolina. The field school crew was led by senior crew chief Deirdre O'Regan and crew chief Rusty Earl. Filippo Ronca served as both an assistant crew chief and dive safety officer after Steve Brodie was reassigned. The students were Paul Avery, Jim Embrey, Jeff Enright, Caren Goldstein, Rod Lender, Suzanna Pavelle, Chris Southerly and the two junior authors. Their recorded observations about the Grover's Creek Cove vessel provided the basic information upon which the vessel description is based.

The field school was assisted by Betty Seifert and Gareth Evans of the Maryland Archaeological Conservation Lab in St. Leonard, Maryland. Harry Sparrow of Jefferson Patterson Park provided interpretations about artifacts and nautical expertise. More importantly, he provided a building for storing equipment and filling dive tanks. Additional support came from the Maritime Archaeological and Historical Society volunteers including Dave Howe, Jamie Henderson, Mike Burkey, and Bill Uttley. Some family members, including Dale, Sharon, and Amy Shomette, and Sara Seifert also participated.

Staff members from the Flotilla Project, a group studying the 1814 Chesapeake Flotilla, were instrumental in completing this project. Chief among them was Don Shomette, an expert on the maritime history of the Patuxent River and its tributaries. At

various times, Eldon Vokmer, his wife Ida, and daughter Lynn were on the different sites. Eldon created, altered, and repaired hydroprobing equipment and oversaw its operation. Ralph Eshelman, a maritime historian with extensive regional experience, participated and helped solve numerous problems with vehicles and boats and provided insights about the region's history. Richard Dodds and Robert Hurry of the Calvert Marine Museum provided information on Chesapeake vessel types and their construction.

The Calvert County Soil Conservation Service provided surveying personnel, two boats, and mapping expertise. We were particularly grateful for the assistance rendered by W. A. "Bill" Clark because his mapping skills enabled us to isolate the vessel location in Grover's Creek Cove. Bill spent much time plotting landscape features, artifacts *in situ*, and the vessels we encountered. Vera Thompson graciously allowed us to dock three vessels at White Sand's Marina. Southern Maryland Dredging lent 500 linear feet of boom and drape for a silt container. The Academy of Natural Sciences at Jefferson Patterson Park provided docking space, mooring points and additional logistical support.

Will Gates, Master of the *Dove*, allowed the field staff an opportunity to sail aboard the vessel. This experience provided considerable insight into seventeenth century ship construction and Chesapeake sailing. Even in light winds, going aloft gave us an appreciation for shipboard life that cannot be obtained through archaeology.

One and all, you have our thanks. Any errors or omissions are our mistakes.

## INTRODUCTION

East Carolina students and staff participated in the 1997 Flotilla Project that investigated the War of 1812 Chesapeake Flotilla's last resting places in the Patuxent River, Calvert County, Maryland. The Grovers Creek Cove Site, was the primary focus of the East Carolina field school, the information recovered there is presented in another report (Babits et al 1998).

## METHODOLOGY

The different areas were investigated in slightly different manners. The upper reaches of the Patuxent River were subjected to magnetometer, probing, hydroprobing and hands-on diver inspection. A similar approach was utilized in the water off St. Leonard's Town. Aerial photographs were also used at St. Leonard's Town and in the "narrows," a stretch of St. Leonard's Creek between Grover's Creek Cove and the town site.

## FINDINGS

Research on the upper Patuxent proved frustrating for students and staff. Old magnetic data was often misleading. Additional debris in the river may well have masked known sites. The depth of silting on the river was unexpected and made testing difficult. These problems can all be seen at the Turtle Shell Wreck which is thought represent the *Scorpion*, Barney's flagship

(Shomette 1995:187-217).

The Turtle Shell Wreck is oriented with its stern toward the bank and is now buried under at least fifteen feet of silt. This confirmed site yielded a magnetic signature that also occurred at several other locations where no evidence of vessels was found. It is possible that the sunken vessels, if they were parallel to the stream flow, might have acted as groins to direct and impound riverborne silt that buried them even deeper.

Initial probing did not confirm the vessel site. Eventually, using much longer probes, the site was relocated. The probing revealed that a second vessel may lie immediately adjacent to the *Scorpion*, buried well beneath the river bottom. Upstream from the *Scorpion* as far as Spyglass Island, many magnetic targets were located. The divers did not identify these as vessels, probably because the remains may be some distance beneath the surface. Alternatively, there were no vessels there.

The second area is off St. Leonard's Town point. Documentary sources indicate the town was destroyed by the British in 1814 but other research, including an archaeological survey, show that the site may have been occupied by a very small group long afterwards. At least five buildings still extant in 1900 were not present in 1928. This interpretation is based on USDA Soil Conservation Service maps provided by W. A. Clark.

Two aerial photographs provide additional information (USDA SCS 1936, 1938). There is a rectangular land feature that might be significant but this was not investigated. Immediately north

of the point is a discoloration suggesting, in outline, a vessel. In the stream off the point, an area was inspected that might be the remnants of a wharf known as early as 1757 (Ralph Eshelman, personal communication, 27 July 1997).

This was probed and the possible wharf was staked out. It was marked by a line of shell and stone. Another long feature turned out to be a clay bank that was probably natural. An area just south of the point in the mouth of Quaker Swamp Creek was also probed. A number of ship timbers were found and at least one concentration of timbers was tentatively identified as a relatively intact vessel.

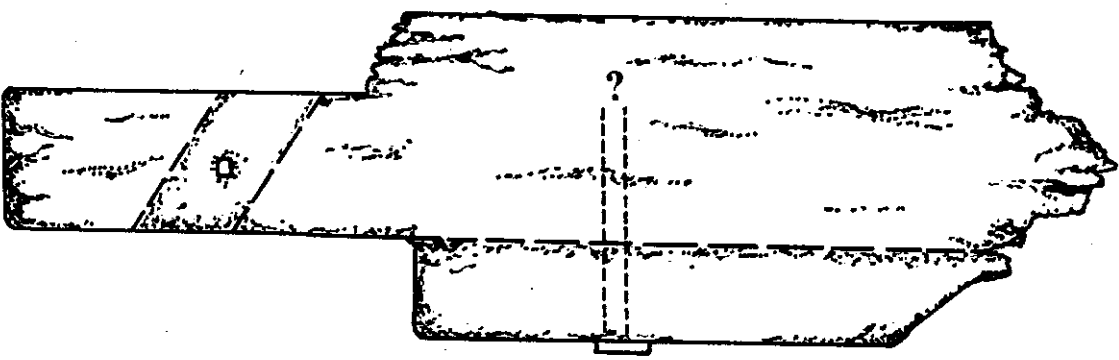
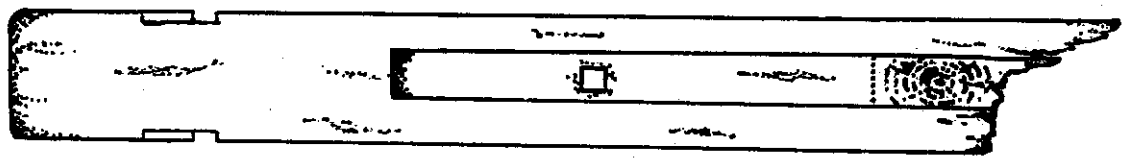
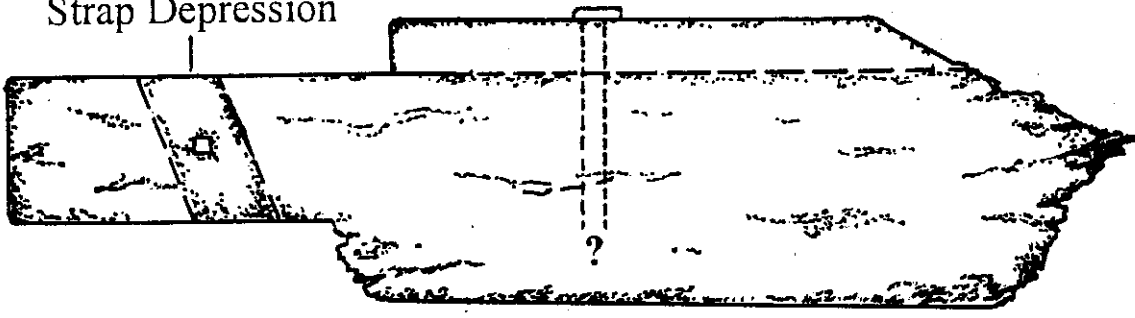
The articulated timbers were approximately 84 feet in length and about 40 feet in width. These figures are somewhat misleading, however, as the vessel is possibly splayed out and some scattering has obviously occurred. Elements which were inspected include copper sheathing nails virtually identical to those on the 1790's era *DeBraak*, frames along both sides and other timbers between the lines of vertical frames.

Within the outlined area of this vessel, one detached timber suggestive of a stern post with gudgeon strap impression was found (Fig. 1) The positioning of fasteners and the depression caused by an iron band are not conclusive because this timber was not associated any other parts. Other timbers noted within the parameters of the site, but not formally documented, include frames and planks. Outside the outlined vessel remains, a number of unattached timbers were recovered. These include a section of



Figure 1.

Strap Depression



Possible Rudder Fragment

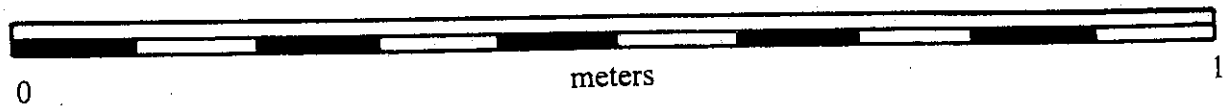
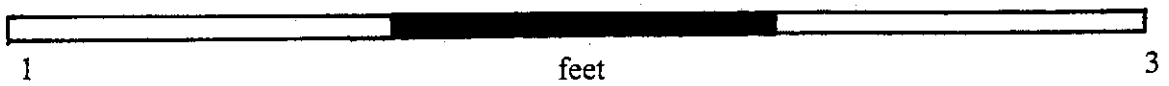
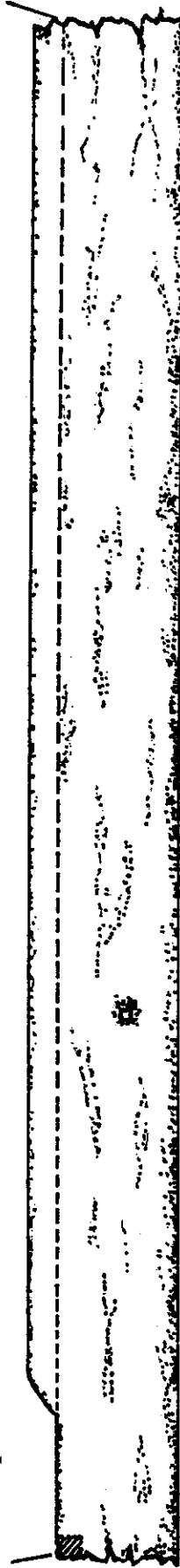


Figure 2.



Wood Sample Removed

Cut Rabbet



Profile View of Rabbet



Possible Keel Fragment



keel, a piece of compass timber and a possible breasthook. All three timbers pose interpretive problems.

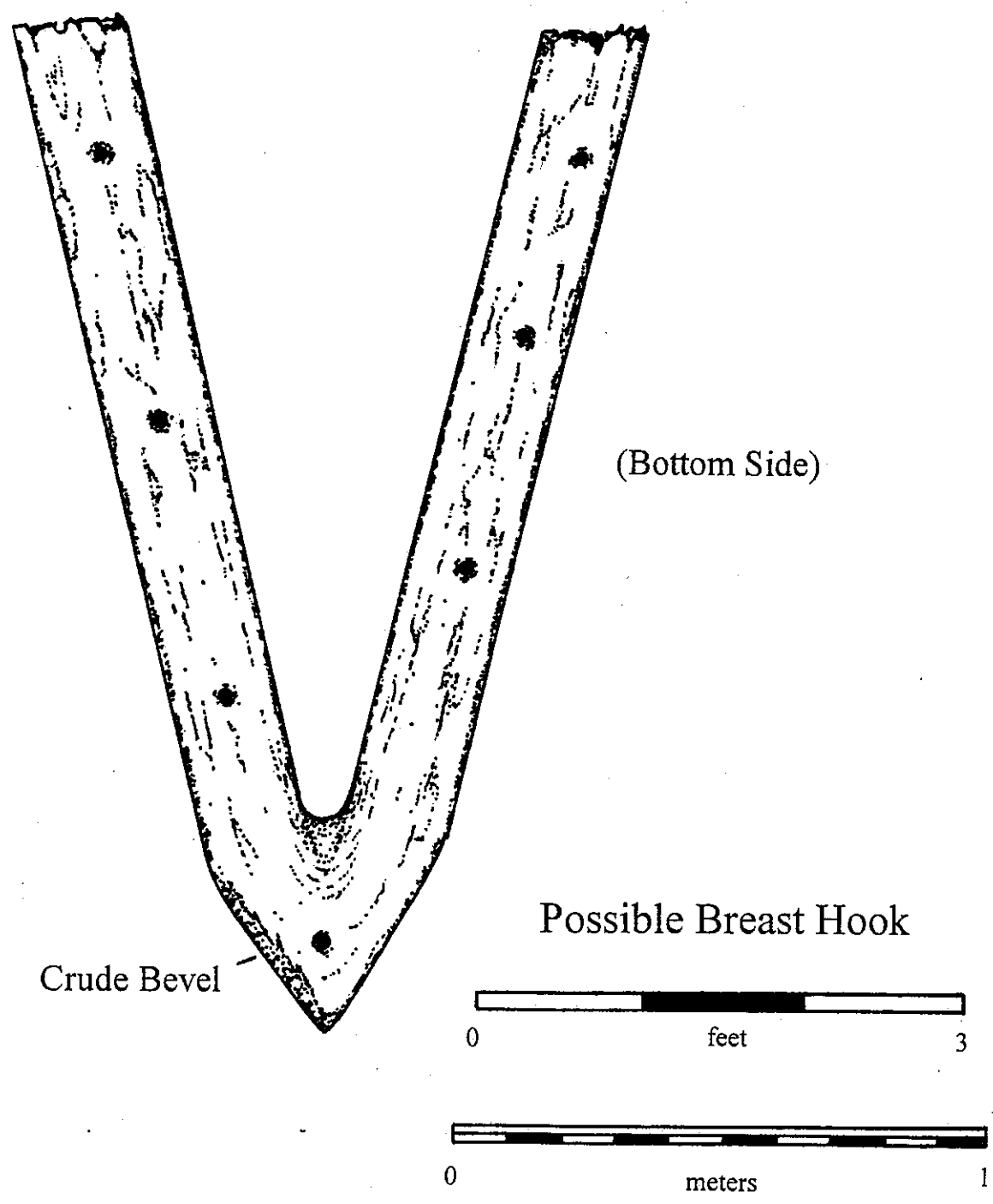
The keel (Fig. 2) was split vertically along its length, perhaps because too many fasteners had been placed through it or because the heavy weight of the vessel timbers pulled it apart. There is also a possibility that it was deliberately split to salvage parts of the vessel.

This timber was almost nine inches high. It was identified on the basis of a rabbet for the garboard strake. An estimated width of ten inches is very subjective as the timber was broken. No estimation of length is possible. A rabbet over two inches wide was let into one part of the timber to take the garboard strake. The fasteners were both iron drifts and wood treenails.

The possible breasthook (Fig. 3) is a roughly worked timber about 6.5 feet on each arm. Saw scarring is present on the flat, possibly upper, side. The treenail holes run at an oblique angle through the timber rather than horizontally through the arms. On the rounded side, they are centered in the timber but on the flat side they are very close to the inside edge of each arm. This is perplexing for any interpretation as a breasthook or an internal stern timber. The spacing of treenail holes is close to treenail spacing on the keel. The angled treenail holes may be an indication that this timber was added later or that it was fitted to a vessel that was already planked.

It is possible that this timber once rested on floors with its underside beveled to fit the curve of planking in the bow, or

Figure 3.



stern if the vessel were double ended. If so, then this timber may have supported decking on its flat side. In that case, it might have been a reinforcing piece for a gun mounted in the bow of the vessel. A more thorough examination after thorough cleaning of the timber might reveal additional features such as stains where fasteners have eroded on the flat side.

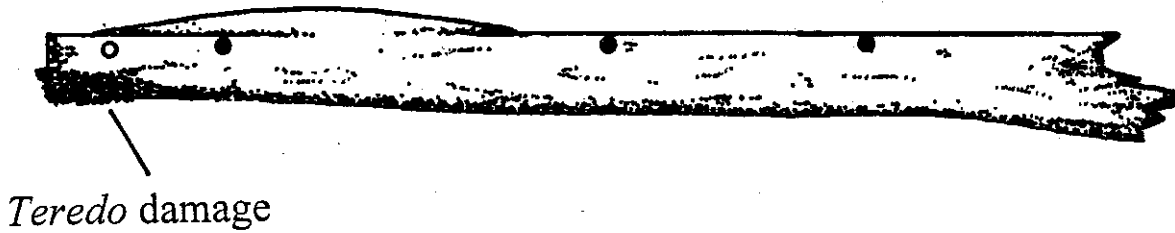
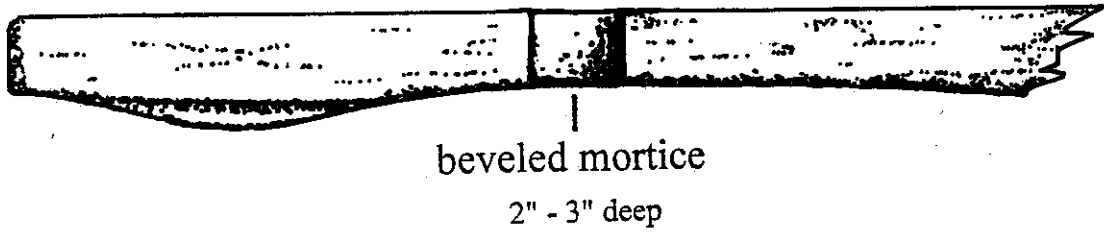
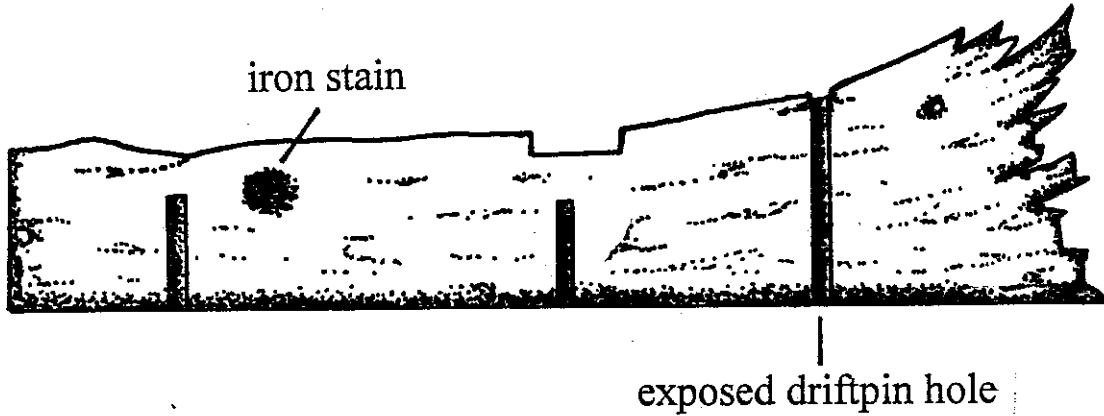
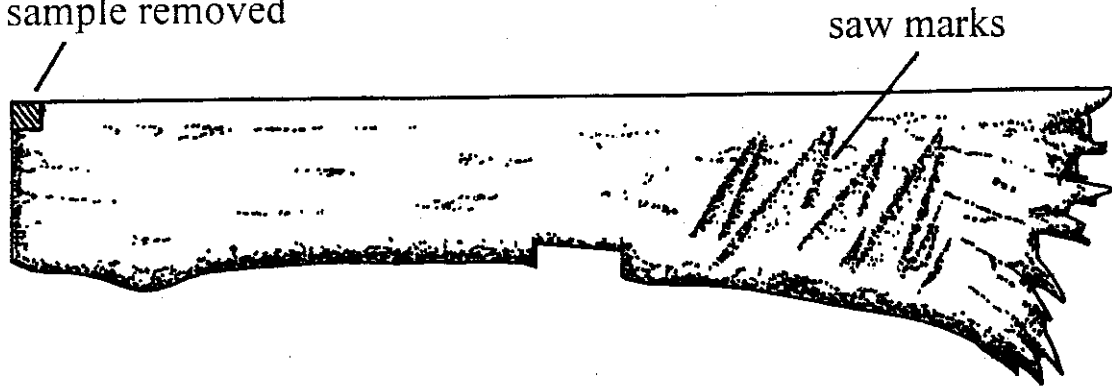
The compass timber (Fig. 4) was a massive piece of wood 5.5 x 1.5 feet along the two arms. It was cut from a limb utilizing the natural curve by a straight saw. A mortise was cut two inches deep into the inside curve. The inside edge is slightly beveled at one end. Three iron fasteners were once present, judging from staining around their holes. A fourth fastener ran through the timber perpendicular to the other three. The timber has suffered from teredo damage in the past but tight graining of the wood was still noticeable.

This compass timber might well be a stern knee. It is split vertically in line with the missing treenails. In this damaged form it has the same thickness as the keel. Whether or not this is coincidental is unknown. The ruptured end on the long arm seems to match similar damage on one end of the keel. At this juncture, additional information must be sought about the finer points of the damaged edges and the location of fasteners.

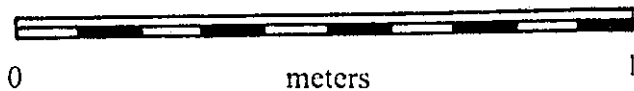
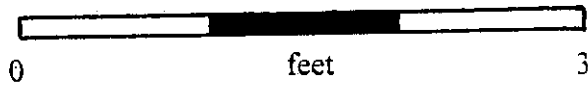
#### INTERPRETATIONS

Confirmation of sites in the upper reach of the Patuxent River above Hills Bridge with magnetic profiles matching the

Figure 4.  
wood sample removed



### Compass Timber



*Scorpion* is heartening. The presence of considerable overburden will make ground-truthing difficult. The northern bank's marsh has built up in an easterly direction while the existing stream has moved to the south. A more detailed examination of the soil profiles may reveal the course of the now-buried streambed where the vessels were sunk in 1814. Based on documentary records and the 1980 investigation, the presence of some Flotilla vessels in this zone should be expected. Since these vessels were not stripped prior to scuttling, they will contain a great deal of material related to the daily life of the Flotillamen and operations of the vessels.

In the area around St. Leonard's Town, the aerial anomaly with a possible ship outline may represent a buried vessel. The confirmed vessel that was outlined is difficult to assess without excavation. The presence of sheathing nails indicates that it was coppered and thus dates after the 1780's, but the nails suggest an early date range because of their resemblance to those on the *DeBraak*.

It is unknown whether or not the gunboats were sheathed. The remains might argue against this being one of the 1814 gunboats given the length and beam. However, if the vessel is splayed out at both ends and along the sides, it would, of course, have much smaller dimensions. If this vessel is a gunboat, this would make some sense given documentary evidence that citizens of St. Leonard Town looted the gunboats while the soldiers and sailors were away. Placing the vessels upstream, above the 1814 boom

would also make sense.

If it is not a gunboat, then it might well be a coasting vessel or bay workboat of a period predating involvement in the oyster trade. If it is a workboat, comparison with the Grover's Creek Cove vessel might prove very useful in examining the early Chesapeake workboats and their evolution about which very little is known.

The other timbers may represent a variety of other vessels. The keel is very interesting. The spacing of the frame fasteners indicates that frames were fastened less than every two feet and other fasteners were much closer. If these frames were composed of sistered timbers, they could have been as close as ten inches or so along the bottom of the vessel. In comparison with the Bodie Island wreck thought to be gunboat 140, the frame spacing seems a bit wide but neither the Bodie Island wreck nor the St. Leonard's Creek vessels have been confirmed as gunboats. Furthermore, the St. Leonard's Creek fastener positioning was based on only half of the keel.

The keel is for a small vessel. Framing indicated by fasteners is inconclusive. The garboard rabbet indicates a plank at least two inches, and probably more, thick. Since the keel's timber is broken on its long axis as well as across its length, projections about vessel size are moot.

The potential breasthook's fastening pattern is odd and this may not be a breast hook or stern timber at all. Given the width, it would have been well down in the hull. If it is not a



breasthook, then it might represent some undocumented structural feature. Arguing from negative evidence, most vessel's timbers are somewhat well known, so this timber might possibly be from a gunboat because their structural elements, especially those supporting cannon, are not well known. The compass timber seems too large to have been used on a vessel such as a gunboat unless it is a stern knee. It may be a lodging knee or a deck knee for a merchantman not yet located.

The third area is the narrows between Grover's Creek and St Leonard's Town. This is marked by a linear feature in the water. This location is the alleged site of a boom erected by American forces during 1814. It is also the site of a cable crossing. Whether or not this feature relates to the 1814 era depends on when the cable was placed here.

#### CONCLUSIONS AND RECOMMENDATIONS

Three project areas are discussed in sequence, conclusions reached, and recommendations for additional work suggested. The upper Patuxent River above Hills Bridge has apparently silted quite extensively since 1980. Nevertheless, identification of magnetic targets with profiles almost identical to the known *Scorpion* site, suggests additional investigation; either using remote sensing such as subbottom profiling, or excavation might well prove useful.

Sites at the head of St. Leonard's Creek compose a second area warranting additional investigation at the Phase II level.

The short time spent probing the shallow water revealed at least one vessel and parts of others, as well as evidence for a wharf, a prehistoric midden, and materials related to the town burned in 1814. Given that it is a known town site utilized as a base by the Flotilla and that it was destroyed by the British in 1814, the potential for locating naval and maritime related materials is very good.

Timbers inspected include a portion of keel, a very large compass timber and a possible breast hook. A line of collapsed frames and exterior hull planking was defined as a reasonably intact vessel. On the basis of framing evidence, keel size and the presence of sheathing nails, it is possible that at least one vessel is a gunboat abandoned by the Americans in 1814. Measurements taken from disassociated timbers suggest at least two other vessels may be present in the mud.

In retrospect, this seems a perfect site for the gunboats to be found. First, it is upstream beyond the boom erected by Barney to protect his base. Second, the actual site is located slightly away from the wharf area in shallow water with little use, and ideal for floating in vessels for abandonment. Documentary sources suggest that St. Leonard Town residents were stripping the gunboats when the military came to retrieve them, suggesting close proximity to the town. Finally, removing guns would have been easier at a wharf than in an open cove.

Opposite the point at St Leonard's Town is what seems to be a cribbed wharf. This ought to be examined. North of the point is

an area that was not subjected to systematic investigation, but where aerial photographs suggest another vessel might be found. In conjunction with a town that made its living through maritime activity and farming, insert sites and abandoned vessels suggest that a Phase II investigation would shed a great deal of light on the history of the lower Patuxent River.

The third area lies between St. Leonard's Town and Grover's Creek Cove; the underwater linear feature at the creek's narrowest point is worthy of additional research. This location is the alleged site of a boom designed to deny British vessels access to the upper creek. It is also the location of a modern cable crossing. If the cable was not here before 1940, then it is possible that the linear feature may relate to the 1814 boom. It may be the actual boom or it might be part its anchor system. At any rate, this linear feature ought to be subjected, first to documentary research about the cable crossing, then magnetic sensing, and finally, ground truthing to learn if it relates to the 1814 era.

A last recommendation about the Flotilla should also be made. The names of Flotilla personnel are known. A thorough search of the National Archives should be conducted in both the service records and the pension files. These two record classes have great utility in providing minutiae about past events (Babits, in press). The potential for documentary information about the flotilla, based on the personal recollections of its sailors should not be overlooked.

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United States Department of Agriculture

1936 Aerial Photograph of Saint Leonard's Creek Area. USDA,  
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