

*Queen Anne's Revenge*  
**Shipwreck Project**



**RESEARCH REPORT AND BULLETIN SERIES**  
**QAR-B-09-02**

**The Seat of Ease: Sanitary Facilities from**  
**Shipwreck 31CR314**  
*Queen Anne's Revenge Site*

**Shanna L Daniel, M.A.**  
NC Underwater Archeology Branch

August 2009

Underwater Archaeology Branch  
Office of State Archaeology  
Department of Cultural Resources  
State of North Carolina  
[www.qaronline.org](http://www.qaronline.org)

## Introduction

On May 19, 2005, a flat tapered lead artifact (QAR632.000) was recovered from the stern area (Unit #07 E70 N20) of North Carolina Site 31CR314. This shipwreck is believed to be the pirate Blackbeard's flagship *Queen Anne's Revenge (QAR)* lost in 1718 at the entrance of Beaufort Inlet. This particular artifact has been identified as a "seat of ease" [Figure 1]. These devices were also known to many as a ship's "head" or "latrine, and were the sanitary facility aboard the ship.



Figure 1: Seat of ease as recovered from shipwreck (QAR632.000)

## Historical Context

Seats of ease began to be in common use aboard ships by the late seventeenth century (Simmons 1985:36). For the crewmen, these sanitary facilities were located on each side of the ships' bow and equipped with drainage pipes to direct excrement down to the sea. "The accommodations consisted of simple rectangular box(es) [with] a wooden fragment that seems to be a remnant of a "seat" that received the anatomy of the users" (Simmons 1985:37). The tapered lead tubing or soil pipe was attached to the wooden seat to guide discharge downward [Figures 2 and 3]. Surviving archaeological examples of the wood portions of seats of ease are from the 1628 Swedish warship *Vasa* and the *Bremen Cog* (1380) (Simmons 1985: 37-40; Dr. Frederick Hocker 2009: pers. comm.).

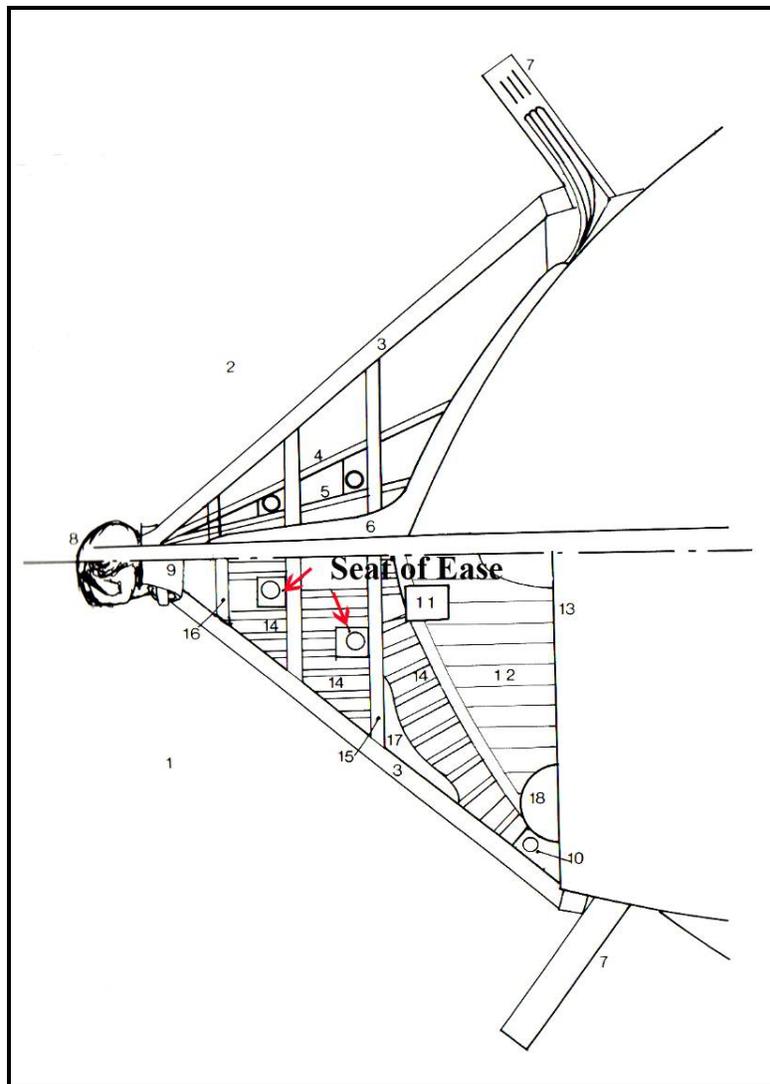
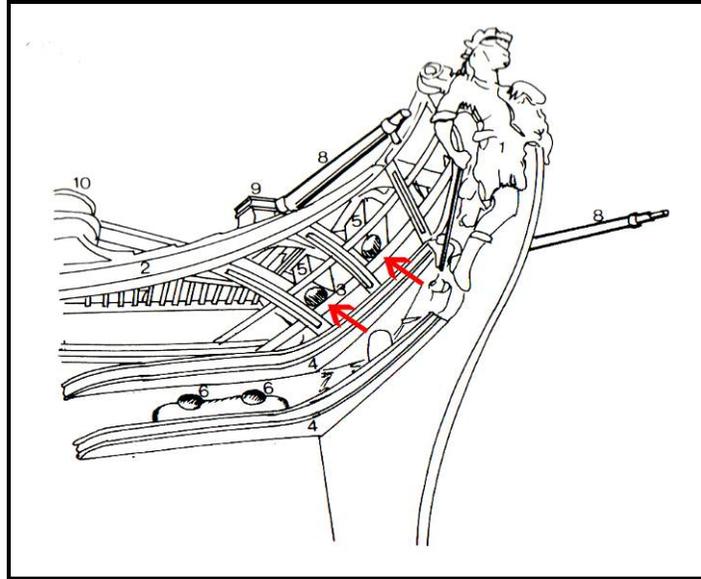
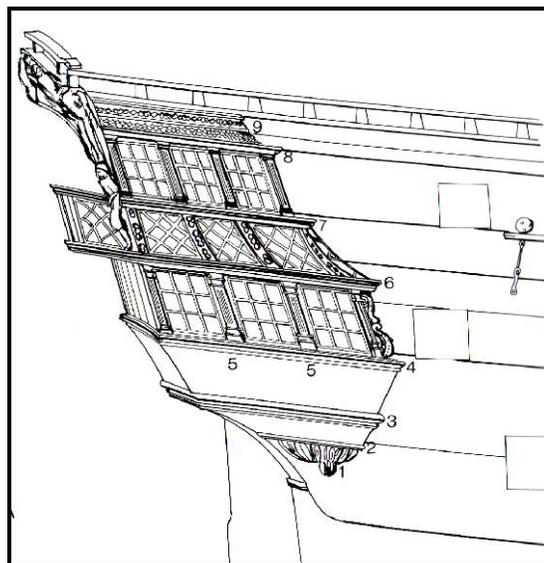


Figure 2: Drawing showing arrangement of seat of ease on bow of ship ca. 1760 (Lavery 1985)



**Figure 3: Bow drawing with arrows representing discharge pipes from seat of ease ca. 1760 (Lavery 1985)**

For the captain and officers, these accommodations were located at the ship's stern area, known as the quarter galleries [Figure 4]. On a ship of war or large merchantman, these galleries or balconies projected from the stern area. (King 2000: 208). This arrangement was not much more sophisticated than the "heads" used by the crew, just a little more private. Many of these enclosed quarter galleries were arranged on two levels; each level had sanitary accommodations installed [Figure 5]. The upper galleries would have had lead drainage piping [Figure 6] leading to the external piping [Figure 6] leading to the external vents below while the lower galleries were fitted with a short length of lead drainage pipe leading directly down through the structure to the sea (Simmons 1985: 48).



**Figure 4: Stern drawing with quarter galleries circa 1760 (Lavery 1985)**

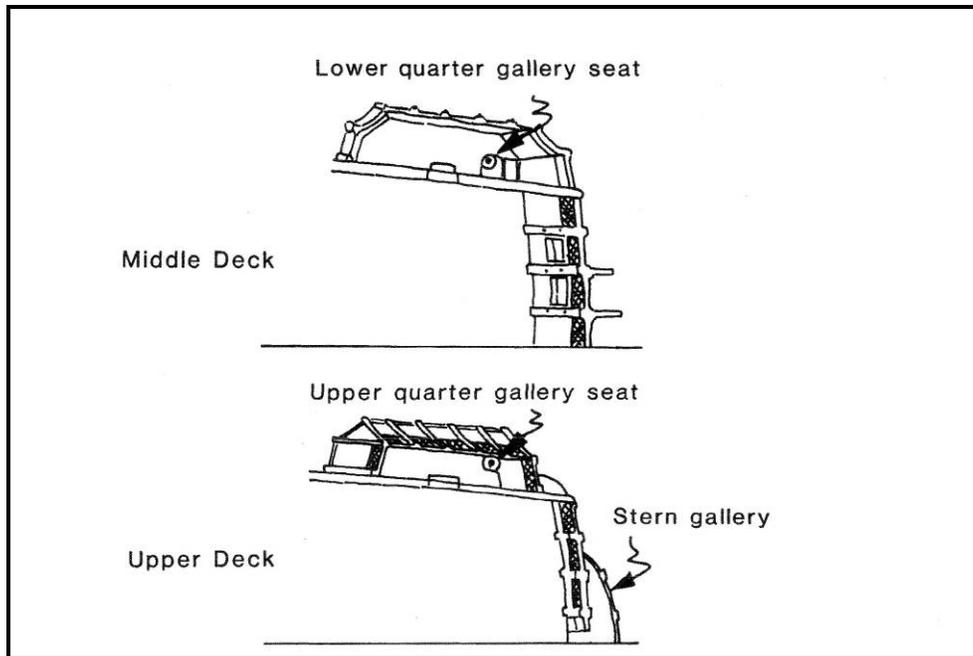


Figure 5: Two-level quarter galleries ca. 1670 (Simmons 1997)

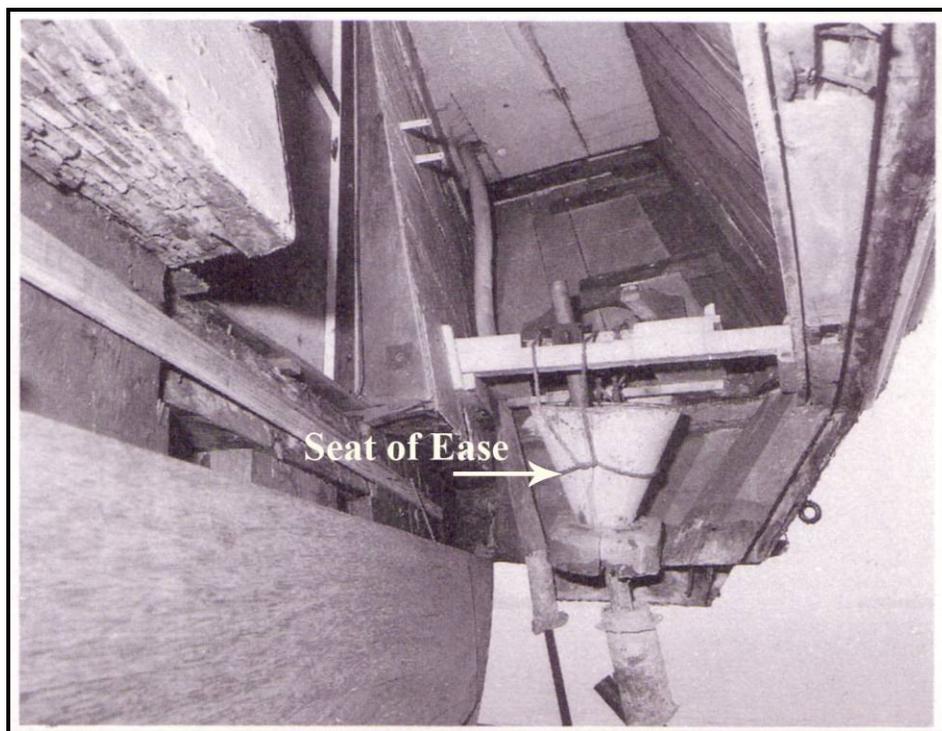


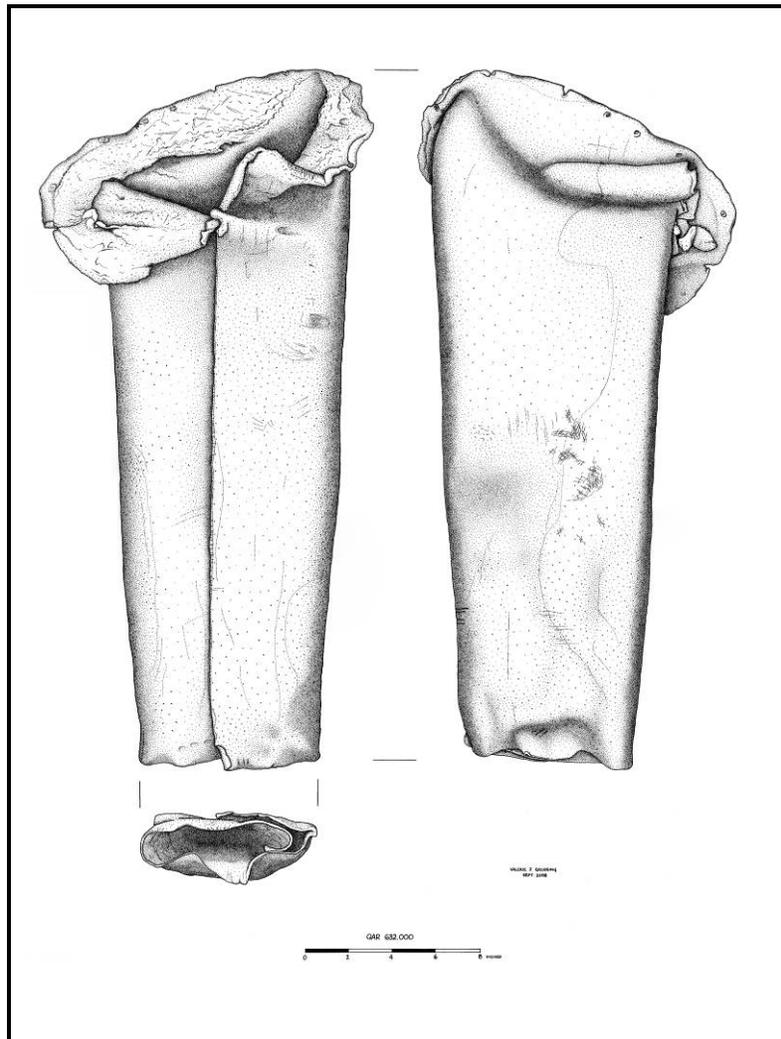
Figure 6: Seat of ease on the *Foudroyant* 1798 (Goodwin 1987)

Other than the *QAR* site, various tapered lead tubing, labeled either as a pissdale or a seat of ease, have been recovered from the shipwrecks of *Whydah* (1717) (Hamilton 1992: 404), *Henrietta Maria* (1700) (David Moore 2007: pers. comm.), and *Dartmouth* (1690) (Martin 1978: 29-58). These

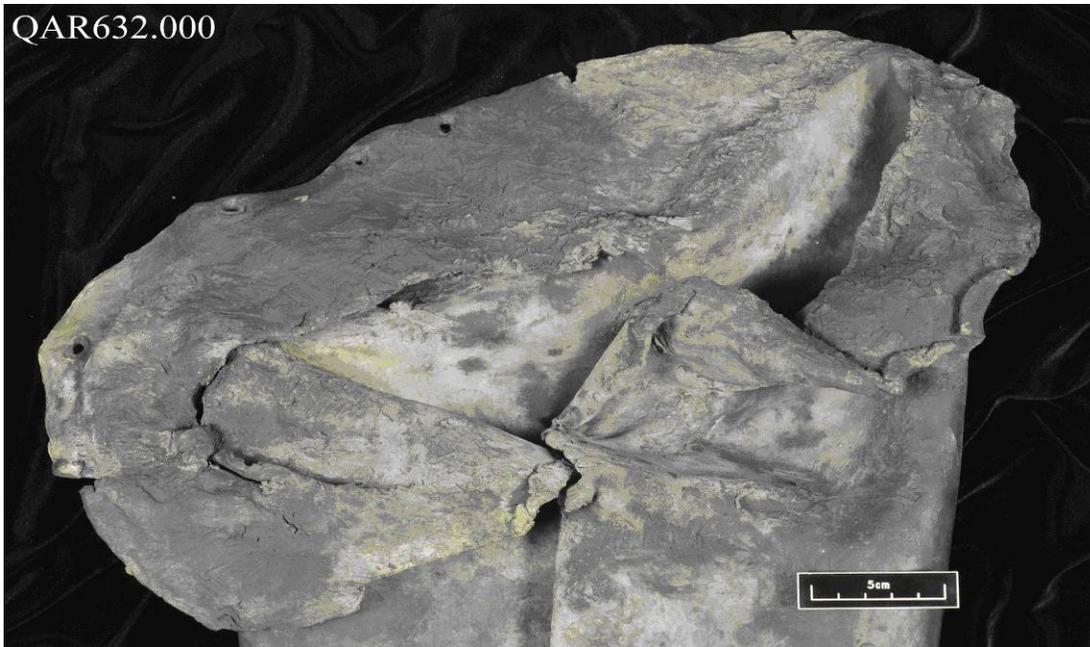
examples provide evidence that similar shapes and material to manufacture seats of ease were being produced during the seventeenth and eighteenth century.

### Description

The seat of ease recovered from *QAR* is composed of one thick semi-pliable piece of folded lead [Figure 7]. For detailed measurements and weight, see Tables 1, 2, and 3. The flanged top section contains multiple fastener holes along the top's rim for attachment to the wooden portion of the seat [Figure 8]. Only four complete fastener holes remain due to damage and corrosion. Also, the top has sustained deep gouges, which are likely post depositional damage. The top's opening and body would have been round or oval, but is now flattened due to damage occurring during or after the wreck event.



**Figure 7: Illustration of Seat of Ease (QAR632.000)**



**Figure 8: Top flanged section**

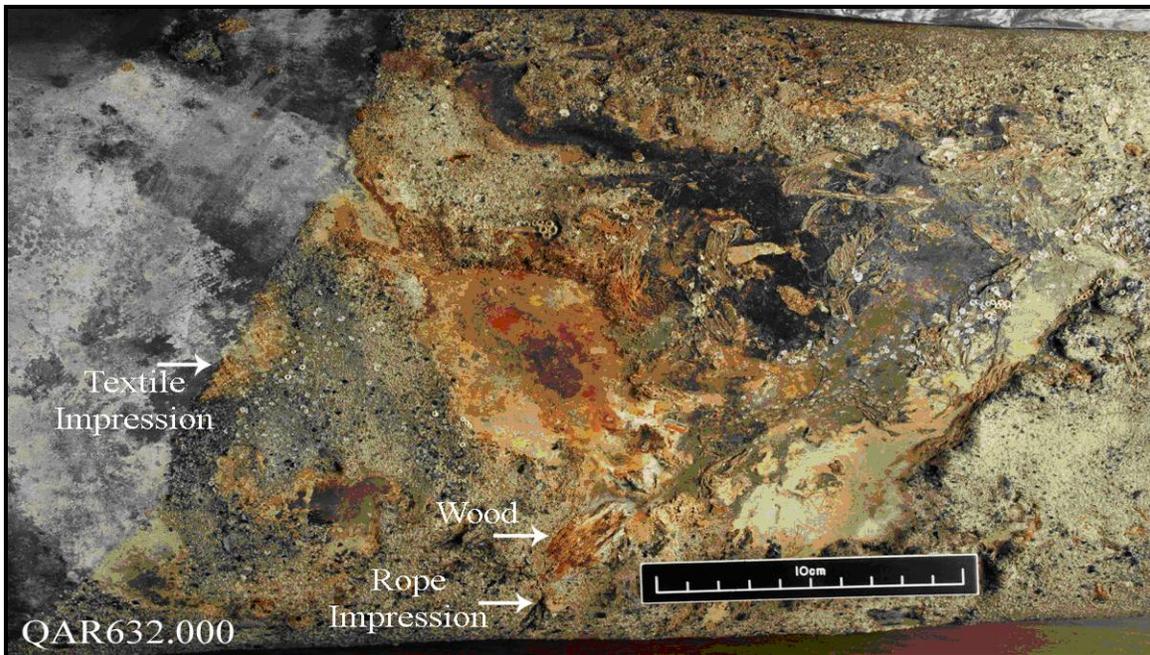
The body of the seat of ease is folded and tapered downward to the end facilitating discharge to the sea [Figure 9 and 10]. In the process of cleaning in the *QAR* conservation laboratory, wood fragments, a rope impression, and a textile impression were uncovered along one side of the body [Figure 11]. Molds were made of the textile and rope impression for further analysis.



**Figure 9: Front section**



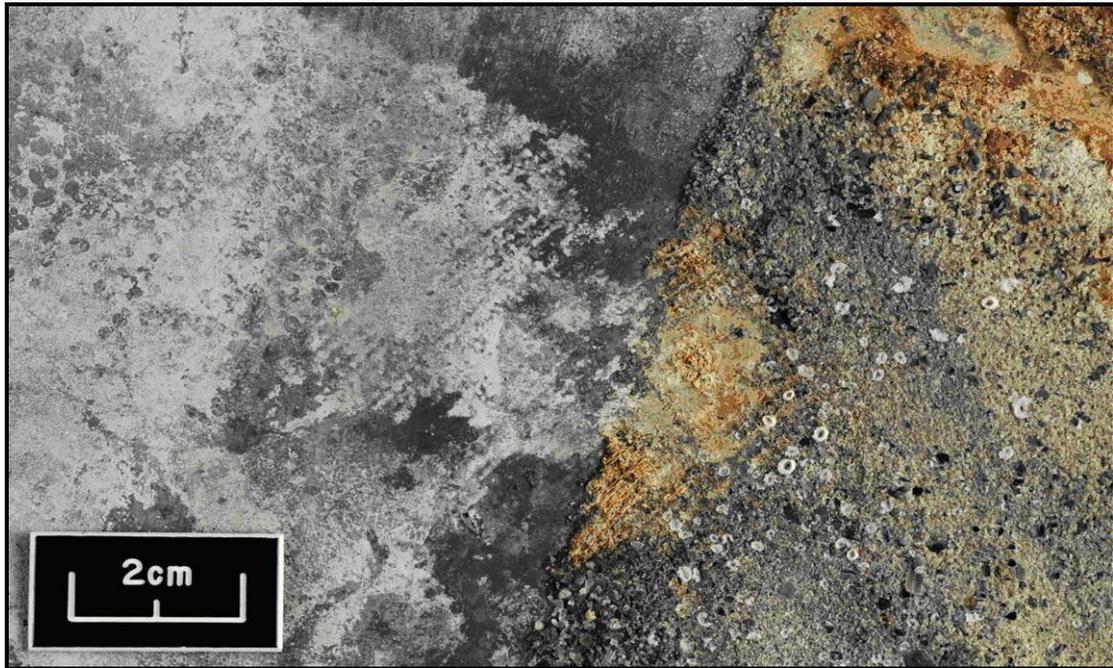
**Figure 10: Back section**



**Figure 11: Wood fragments, rope impression, and a textile impression on the seat of ease.**

Adria Focht, an East Carolina University Anthropology graduate student, analyzed many of the textiles from the shipwreck as a directed study project, including the textile impression from the seat of ease [Figure 12]. With a thread count averaging 40 warps by 38 wefts per inch, Focht concluded that the textile impression was “a plain weave (one warp to one weft).” (Foch 2007: 27).

This particular textile was not sailcloth but another, less common type of textile associated with the shipwreck.



**Figure 12: Textile impression on seat of ease**

	Kilograms	Pounds
<b>Wet</b>	35.1	77.3
<b>Dry</b>	22.4	49.3

**Table 1: Weights before and after conservation**

	Inches	Centimeters
<b>Length</b>	31.8	80.8
<b>Width</b>	15.4	39.1
<b>Thickness</b>	3.2	21.3

**Table 2: Overall dimensions after conservation**

	Inches	Centimeters
<b>1</b>	0.24	0.60
<b>2</b>	0.27	0.68
<b>3</b>	0.17	0.43
<b>4</b>	0.18	0.46

**Table 3: Diameters of fastener holes after conservation**

## Archaeological Context

The seat of ease was recovered in the stern area of the shipwreck (Unit #07 E70 N20). Within this unit were located one lead strip, two concretions, and the seat of ease. [Figure 13]

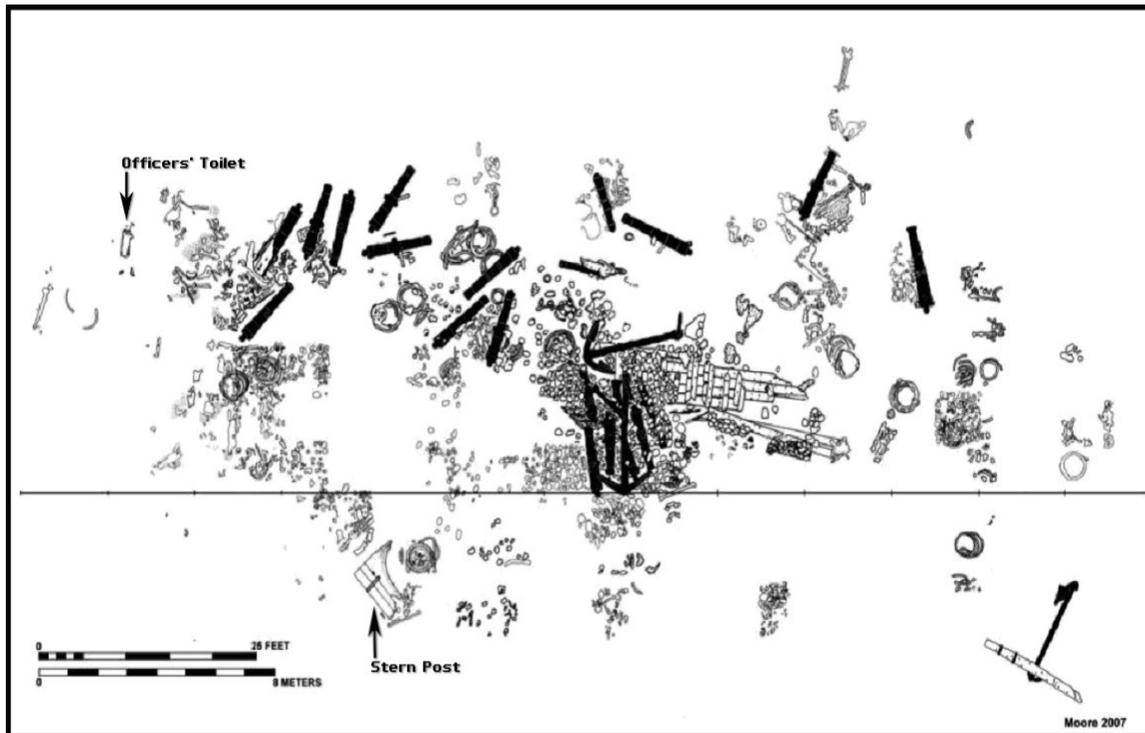


Figure 13: Distribution of material on the *Queen Anne's Revenge* site (Wilde-Ramsing 2009: 182 Figure VI-17)

### Discussion of the Seat of Ease

The seat of ease was discovered at the very extreme edge of the wreckage suggesting that the QAR had quarter galleries along its stern, providing separate sanitary facilities for its officers. Quarter galleries were arranged either with one or two levels with sanitary accommodations on either level [see Figure 4]. The QAR seat of ease has a short length suggesting its location was on the lower level. These amenities were very basic in design with only a wooden seat with a round or oval opening and lead soil pipes carrying waste downward. Evidence of only one seat of ease has been revealed after full excavation of the stern area suggesting that a single sanitary facility was available for use at that location. Given the energetic inlet environment, however, it cannot be ruled out that lead lining from other extant seats of ease were naturally removed from the site during or after the wreck event. An outside chance is that the one found was located in the ship's bow for crew use and

at some point during the post deposition process migrated to its known location at the extreme edge of the wreckage.

### **Summary**

This report concludes that the flat tapered lead tube recovered from shipwreck 31CR314 represents a device known as a seat of ease, providing sanitary accommodation for many aboard. Furthermore, it provides evidence that the seat of ease was likely a part of the quarter galleries in the ship's stern area.

## References

- Fox, F.  
1980 *Great Ships. The Battlefleet of King Charles II.* Conway Maritime Press, Greenwich.
- Focht, Adria  
2008 Blackbeard Sails Again? Conservation of Textiles from the *Queen Anne's Revenge* Shipwreck (31CR314). Department of Anthropology, East Carolina University Manuscript on file, NC *QAR* Conservation Laboratory, Greenville, North Carolina.
- Goodwin, Peter  
1987 *The Construction and Fitting of the English Man of War 1650-1850.* Naval Institute Press, Annapolis, Maryland.
- Hamilton, Christopher E  
1992 Final Report of Archaeological Data Recovery Text: The *Whydah* Shipwreck Site, WLF-HA-1, 1982-1992. Unpublished report submitted to US Army Corps of Engineers and the Massachusetts Historical Commission for the *Whydah* Joint Venture project.
- Hocker, Frederick, PhD.  
2009 Personal Communication. *Vasa* Museum's Director of Research. April 30.
- King, Dean, John Hattendorf, and J. Worth Estes  
2000 *A Sea of Words: A Lexicon and Companion to the Complete Seafaring Tales of Patrick O'Brian.* Henry Holt and Company, New York.
- Lavery, Brain  
1985 *The 74-gun ship Bellona.* Naval Institute Press, Annapolis, Maryland.
- Martin, C.J.M  
1978 The *Dartmouth*, a British frigate wrecked off Mull, 1690. *International Journal of Nautical Archaeology and Underwater Exploration*, 7: 29-58.
- Moore, David, M.A.  
2007 Personal Communication. Marine Archaeologist at the North Carolina Maritime Museum., July 30.
- Simmons, Joe J., II  
1997 *Those Vulgar Tubes: External Sanitary Accommodations aboard European Ships of the Fifteenth Through Seventeenth Centuries.* College Station, Texas: Texas A&M University Press.
- Wilde-Ramsing, Mark U., PhD.  
2009 Steady as She Goes...A Test of the Gibbs' Model using the *Queen Anne's Revenge* Shipwreck Site. PhD dissertation, East Carolina University, Greenville, NC.