

HESPERIA

THE JOURNAL OF THE AMERICAN SCHOOL
OF CLASSICAL STUDIES AT ATHENS

VOLUME 81
2012



Copyright © The American School of Classical Studies at Athens, originally published in *Hesperia* 81 (2012), pp. 237–266. This offprint is supplied for personal, non-commercial use only. The definitive electronic version of the article can be found at <<http://www.jstor.org/stable/10.2972/hesperia.81.2.0237>>.

HESPERIA

Tracey Cullen, EDITOR

EDITORIAL ADVISORY BOARD

Carla M. Antonaccio, *Duke University*
Angelos Chaniotis, *Institute for Advanced Study, Princeton*
Jack L. Davis, *American School of Classical Studies at Athens*
A. A. Donohue, *Bryn Mawr College*
Jan Driessen, *Université Catholique de Louvain*
Marian H. Feldman, *University of California, Berkeley*
Gloria Ferrari Pinney, *Harvard University*
Sherry C. Fox, *American School of Classical Studies at Athens*
Thomas W. Gallant, *University of California, San Diego*
Sharon E. J. Gerstel, *University of California, Los Angeles*
Guy M. Hedreen, *Williams College*
Carol C. Mattusch, *George Mason University*
Alexander Mazarakis Ainian, *University of Thessaly at Volos*
Lisa C. Nevett, *University of Michigan*
Josiah Ober, *Stanford University*
John K. Papadopoulos, *University of California, Los Angeles*
Jeremy B. Rutter, *Dartmouth College*
A. J. S. Spawforth, *Newcastle University*
Monika Trümper, *University of North Carolina at Chapel Hill*

Hesperia is published quarterly by the American School of Classical Studies at Athens. Founded in 1932 to publish the work of the American School, the journal now welcomes submissions from all scholars working in the fields of Greek archaeology, art, epigraphy, history, materials science, ethnography, and literature, from earliest prehistoric times onward. *Hesperia* is a refereed journal, indexed in *Abstracts in Anthropology*, *L'Année philologique*, *Art Index*, *Arts and Humanities Citation Index*, *Avery Index to Architectural Periodicals*, *Current Contents*, *IBZ: Internationale Bibliographie der geistes- und sozialwissenschaftlichen Zeitschriftenliteratur*, *Numismatic Literature*, *Periodicals Contents Index*, *Russian Academy of Sciences Bibliographies*, and *TOCS-IN*. The journal is also a member of CrossRef.

The American School of Classical Studies at Athens is a research and teaching institution dedicated to the advanced study of the archaeology, art, history, philosophy, language, and literature of Greece and the Greek world. Established in 1881 by a consortium of nine American universities, the School now serves graduate students and scholars from more than 180 affiliated colleges and universities, acting as a base for research and study in Greece. As part of its mission, the School directs ongoing excavations in the Athenian Agora and at Corinth and sponsors all other American-led excavations and surveys on Greek soil. It is the official link between American archaeologists and classicists and the Archaeological Service of the Greek Ministry of Culture and, as such, is dedicated to the wise management of cultural resources and to the dissemination of knowledge of the classical world. Inquiries about programs or membership in the School should be sent to the American School of Classical Studies at Athens, 6–8 Charlton Street, Princeton, New Jersey 08540-5232.

PANATHENAIC SHIPS

THE ICONOGRAPHIC EVIDENCE

ABSTRACT

The author examines the limited surviving iconographic evidence for the physical appearance of the Panathenaic ship. The Calendar Frieze on the Church of Ayios Eleutherios (Little Metropolis) in Athens presumably depicts the 12 Athenian months, with the Panathenaic ship representing the month of Hekatombaion. Although badly damaged, the frieze preserves details of the vessel, its rig, and land transport system. This representation demonstrates clearly that the Panathenaic ship is patterned after an Archaic galley. A ship model/lamp from the Erechtheion may represent the Panathenaic ship. Finally, the author evaluates two additional ship representations—one from the Kerameikos and one from the City Eleusinion—identified previously as representations of the Panathenaic ship.

INTRODUCTION

In this article I collect and evaluate the iconographic evidence that survives for the Panathenaic ship.¹ The Panathenaia was the most important festival in the Athenian religious calendar and celebrated the traditional birthday of Athens' patron goddess, Athena; ancient sources also associate the festival with the victory of the Olympian gods over the Giants.² This celebration, perhaps the best known of all the Athenian festivals, took place toward

1. My orientation to this topic is that of a nautical archaeologist rather than an art historian. A brief appendix of nautical terminology used can be found at the end of the article.

I have received much welcome assistance in this study. I am particularly grateful to Harry Tzalas and Harry Kritzas for their valuable comments and help. I thank the former for introducing me to the Calendar Frieze and for bringing the Eleusinion relief

discussed here to my attention. Special thanks are due to John Hale for his encouragement to publish this research. I have profited greatly from discussions with Bridget Buxton, Dan Davis, Kevin Glowacki, Jeffrey Hurwit, John Lenz, William Murray, and Hector Williams. I also thank the *Hesperia* reviewers, David Blackman (who also steered me toward the Eleusinion relief) and Naomi Norman, both of whom waived anonymity. This work has benefited

significantly from their comments. Finally, graduate assistants are the lifeblood of research: I thank Heather Hatch, Meko Kofahl, and Veronica Morriss for their help.

2. Deubner 1956, pp. 22–35; Parke 1977, pp. 33–40; Burkert 1983, pp. 154–158; Simon 1983, pp. 55, 58–72; Pinney 1988; Neils 1992b, p. 13; Robertson 1996, pp. 56–65; Hurwit 1999, pp. 30–31; Shear 2001, pp. 29–38, 42; Hale 2009, pp. 136–137.

the end of the month of Hekatombaion, the first month of the Athenian calendar, which fell during the summer.³ On the final day of the festival (28 Hekatombaion), the goddess received a garment—a peplos—brought to her in a suitably impressive procession, parts of which may appear on the Parthenon frieze.⁴ For much of antiquity, a ship-on-wheels brought a peplos to the Acropolis once every four years.⁵ Unfortunately, although the Parthenon frieze may show the peplos itself already on the Acropolis, the Panathenaic ship is missing from the Parthenon frieze, perhaps because the ship did not participate in the part of the procession that took place on the Acropolis itself, or because the ship was so large in relation to the human figures in the frieze that it would have caused problems of proportionality.⁶

Although according to legend Erichthonios/Erechtheus or Theseus founded the Panathenaia, it is thought to have been established in Athens no later than the 7th century B.C.⁷ Under the Peisistratids in the mid-6th century B.C., athletic games, possibly including ship races, were held every four years.⁸ This special celebration became known as the “Great Panathenaia” to differentiate it from the “Lesser Panathenaia,” which took place during the three off-years.⁹

The preparation of Athena’s peplos was an intensive group effort carried out by young women who came from Athens’ aristocratic families.¹⁰ Up to a hundred women toiled on the peplos, which some scholars interpret as indicative of it reaching an enormous size; alternately, the peplos may have been of normal—or nearly normal—size, but the honor of weaving the garment resulted in many aristocratic women sharing in the work.¹¹

Noel Robertson proposes that the preparation of the peplos for the goddess was introduced into Athens in the 6th century B.C., together with the Panathenaic ship, as part of an adoption of the customary New Year celebration of Lemnos and that the garment would have been consigned to Athena’s treasury.¹² Jeffrey Hurwit suggests that after the celebration

3. Mikalson 1975, p. 34; Norman 1983, p. 41; Simon 1983, p. 55; Neils 1992b; Hurwit 1999, pp. 44–47; Shear 2001.

4. Davison 1958, pp. 24–26, 31; Brommer 1979, p. 33; Simon 1983, pp. 58–72; Robertson 1996, p. 58; Neils 1996b; 2001, pp. 21–24, 49–71, 125–201; 2005, pp. 201–223; Neils and Tracy 2003, pp. 16–17, 27–29. For the peplos, see Mansfield 1985, pp. 51–68, 77–78; Barber 1992.

5. Göttlicher 1992, pp. 108–110. The use of the ship continued until the last celebration of the Panathenaia in A.D. 410, while the weaving of the peplos presumably ceased earlier, perhaps during the time of Constantine or Constans (Mansfield 1985, pp. 51, 58, 69; Hurwit 1999, pp. 45, 286).

6. Deubner 1956, p. 33; Parke 1977, p. 40; Norman 1983, p. 43; Mansfield

1985, p. 18; Hurwit 1999, p. 226. On the problems of lacunae in the iconographic record of the Panathenaia, see Pinney 1988, p. 465; Hurwit 2004, pp. 232–234.

7. The Panathenaia probably had its origins in the Bronze Age (Robertson 1996, pp. 57–58; Simon 1996, p. 23). On the mythical origins of the Panathenaia, see Parke 1977, p. 33; Robertson 1985; 1996, pp. 61–65; Neils 1992b, p. 21; Boegehold 1996, pp. 95–96; Hurwit 1999, p. 44, n. 53.

8. Davies 1967, pp. 36–37; Jordan 1972, p. 154; Parke 1977, p. 37; Simon 1983, p. 55; Neils 1992b, pp. 13, 15, 16, fig. 1: lines 78–81, 97; Robertson 1992, pp. 91–93; Boegehold 1996, pp. 96–97; Kyle 1996; Parker 1996, pp. 75–76, 89–92; 2005, p. 262; Shapiro 1996, pp. 216–217; Hurwit 1999, pp. 44–46; Palagia and Spetsieri-Choremi 2007;

Hale 2009, p. 136. The earliest evidence for Panathenaic ship races is late, however; see Kyle 1992, p. 97. On evidence for ship races primarily, but not exclusively, dedicated to Dionysos, see Gardner 1881a, 1881b; Harrison 1885; Davies 1967, pp. 36–37, 39; Davies 1978.

9. Parke 1977, p. 33; Norman 1983, p. 41; Neils 2007.

10. Parke 1977, p. 38; Norman 1983, pp. 41–43. According to Mansfield (1985, pp. 2–18, 54–58), two peploi were woven, one by aristocratic women and one by professional male weavers. See also Barber 1992, pp. 112–117; Hurwit 1999, p. 45.

11. Norman 1983, p. 42, n. 13, with further bibliography.

12. Robertson 1985, pp. 276, 279–280, 289–291.

the new peplos may have been hung as a tapestry on a wall, perhaps the otherwise bare southern wall of the Erechtheion.¹³

The ship was towed along a route from the Dipylon Gate to the foot of the Acropolis.¹⁴ Philostratus describes the route of the remarkable mechanical ship that Herodes Atticus built for the Panathenaia of 138/9 A.D.¹⁵ This vessel may have been unique in being moved by an underground transport system.¹⁶ Jennifer Tobin proposes that Herodes Atticus constructed a special structure to house his Panathenaic ship.¹⁷ She identifies this as the long and narrow (42 × 9.5 m) monument commonly known as the “Tomb of Herodes Atticus,” which is situated east and above the Panathenaic stadium. Compelling arguments have been presented against this interpretation, however.¹⁸

Scholars debate the date of the introduction of a ship-on-wheels into the Panathenaia.¹⁹ Some consider the Panathenaic ship-on-wheels to have existed from the inception of the festival.²⁰ J. M. Mansfield believes that the Panathenaic ship memorialized the Athenian contribution to the Battle of Salamis in 480 B.C. and that one of the Greek or enemy triremes that fought there had been absorbed into the festival.²¹

Naomi Norman prefers to link the introduction of the Panathenaic ship to the procession with the phenomenon of rulers dedicating ships during the Hellenistic period.²² She emphasizes that literary references and iconographic representations of the vessel are few in number and late in date.²³ Norman suggests that Demetrios Poliorketes presented the first Panathenaic ship to the people of Athens and their patron goddess for the Great Panathenaia of 302 B.C.²⁴

ON THE INTERPRETATION OF ANCIENT SHIP ICONOGRAPHY

Before we turn to the iconographic evidence for the Panathenaic ship, it is important to be cognizant of some basic considerations regarding the interpretation of ancient ship imagery. René Magritte, the Belgian Surrealist painter, in a famous series of paintings entitled *La trahison des images*, *Les deux mystères*, *L'air et le chanson*, and so on, painted a smoker's pipe beneath which he wrote, “Ceci n'est pas une pipe.”²⁵ In doing so, Magritte points out the obvious: we are not seeing a smoker's pipe, but rather a representation of one, and a representation is not the object itself. Similarly, when

13. Hurwit 1999, p. 45.

14. Gardner 1914; Mansfield 1985, pp. 76–77; Robertson 1992, pp. 93–119; Martin 1999, pp. 143–145, figs. 11, 12; Neils 2001, pp. 49, 51, fig. 38.

15. Philostr. *VS* 2.550. According to Tobin (1993, p. 81), this Panathenaia is the one dating to A.D. 143/4.

16. Philostr. *VS* 2.550: “The ship, as it took its course, was not hauled by animals, but slid forward by means of underground machinery” (trans.

W. C. Wright, Cambridge, Mass., 1921, p. 147). On Herodes Atticus's propulsion system, see Mansfield 1985, p. 75, n. 90.

17. Tobin 1991; 1993.

18. Welch 1998, pp. 136–145; Rife 2008, pp. 109–111.

19. Mansfield 1985, pp. 46–50, with additional bibliography.

20. Deubner 1956, pp. 33–34; Parke 1977, p. 39.

21. Mansfield 1985, pp. 52–53, 68,

n. 62; see also Barber 1992, p. 114; Shapiro 1996, p. 217; Hurwit 1999, p. 45.

22. Norman 1983.

23. On the late date for the appearance of the Panathenaic ship, see also Mansfield 1985, p. 69; Parker 2005, p. 262, nn. 38, 39.

24. Norman 1983, p. 45.

25. Hammacher and Brockway 1985, pp. 25, 27–30, figs. 33, 34; Sylvester 1992, pp. 168–170.

studying ship depictions, we must keep in mind that we are not dealing with actual ships, but rather with representations.

Thus, in iconography we see ancient ships as images refracted through the eyes, minds, and hands of their creators, as well as through their culture, schooling, mental attitudes, and skill sets. Other major influences are the various types of medium and art styles employed (stone, metal, paint, graffiti, etc.). Constraints placed on the artist of horizontal and vertical space can also lead to dramatic differences between the prototype and its reproduction.

SHIP REPRESENTATIONS

SHIP ON THE CALENDAR FRIEZE

In contrast to the textual evidence for the Panathenaic ship and its integral role in the Great Panathenaia, depictions of the vessel are limited.²⁶ The Calendar Frieze, which contains the best-known representation of the Panathenaic ship, now graces the Small Metropolitan Church of Ayios Eleutherios, also known as the Little Metropolis, in central Athens (Fig. 1).²⁷ The frieze has been variously dated by scholars from the Late Hellenistic period to the 2nd century A.D.²⁸

The frieze originally displayed the 12 Athenian months, with representative symbols of the main festivals that took place during each month.²⁹ The relief is composed of two long and narrow blocks that had been removed from an older building. Unfortunately, their total combined length proved to be greater than the church's facade, so to fit the available space, each block had a section removed.³⁰ The left block lost the month of Anthesteria, which may have contained a representation of the Dionysian ship cart. The right block had its right extremity removed, with the loss of the month of Gamelion. This is all the more lamentable, as the persons who removed these decorations could have instead shortened the inner sides of the two blocks, which had been left undecorated.³¹

The image of the Panathenaic ship, located on the block representing the month of Hekatombaion, has suffered severe degradation. Over the left side of the frieze, Byzantine artisans carved three crosses inside roundels, one of them directly over the vessel (Fig. 2). The encircled cross very nearly obliterated the ship. The spaces inside the roundel between the cross's arms, as well as along the outer edge of the roundel (A), were chiseled out, and here all detail is lost. The cross and most of the roundel (B) appear to have been smoothed, destroying any plastic relief, but leaving visible some deeply carved details of the vessel and its conveyance. On the lower left side of the raised part of the roundel—from 5 to 9 o'clock—plastic relief survives. A horizontal crack (C) begins to the right of the cross above the

26. On textual references to the Panathenaic ship, see Mansfield 1985, pp. 70–78; Göttlicher 1992, pp. 108–110; Martin 1999, p. 142.

27. Svoronos 1899; Basch 1987, pp. 346, 347, fig. 732.

28. Deubner 1956, p. 248; Norman

1983, pp. 43, n. 19, 44; Simon 1983, p. 6; Basch 1987, pp. 346, 347, fig. 732; Palagia 2008, pp. 233–234, 237.

29. Deubner 1956, pp. 248–254, pls. 34–40; Pickard-Cambridge 1968, p. 51; Norman 1983, pp. 43–44; Simon 1983, pp. 6–8, 16, 18, 21, 25, 54, 59,

76–77, 81, 83, 90, 100–102, pls. 1–3; Palagia 2008, pp. 233–234.

30. Deubner 1956, p. 248; Simon 1983, p. 6; Palagia 2008, pp. 217, 224.

31. Deubner 1956, pls. 34, 35, 40; Simon 1983, p. 6, pls. 1, 2.

Figure 1. (a) The Church of Ayios Eleutherios, or Little Metropolis, in central Athens. The depiction of the Panathenaic ship is located to the left of the entrance (arrow). (b) Detail of part of the block depicting the month of Hekatombaion. Photos S. Wachsmann



32. On depictions of Archaic ships in general, see Morrison and Williams 1968, pp. 81–117, pls. 8–21; Basch 1987, pp. 202–264; Spathari 1995, pp. 74, 78–102, figs. 79, 86–88, 91, 92, 94–100, 104, 106, 107, 109, 113, 114, 119.

ship's bow, and continues across the entire area that would have contained the ship. This damage resulted in the loss of part of the cross's right arm, further degrading the original surface and destroying part of the upper superstructure of the ship's forecastle screen. A stempost is probably also lost in this break. Finally, a white material, which may be lichen or remains of plaster, covers parts of the cross and the ship (Fig. 1:b).

Although little of the ship on the frieze survives, enough remains of the vessel to identify it as Archaic in style and form.³² The vessel faces right with the bow visible to the right outside the roundel (Fig. 3). The ship has a chisel-shaped ram (A), but there is no evidence of the boar-head

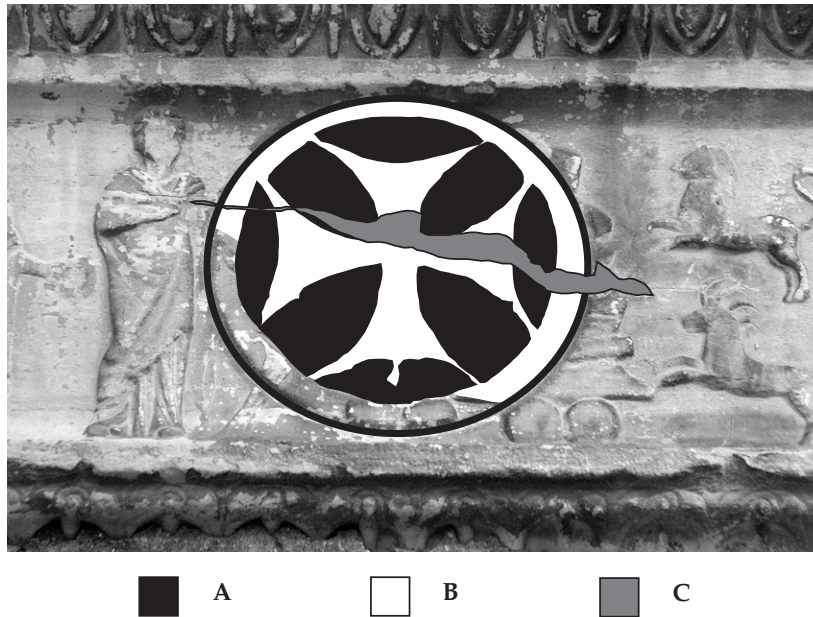


Figure 2. Calendar Frieze, the month of Hekatombaion, highlighting later additions and damage: (A) chiseled ring around the roundel and spaces between the arms of the cross and the inner edge of the roundel; (B) smoothed area of the cross and part of the roundel; (C) deep horizontal crack across the upper parts of the vessel and its rig. Photo and drawing S. Wachsmann



Figure 3. Detail of ship's bow: (A) chisel-shaped ram; (B) starboard wale; (C) *proembolion*, or "fore ram"; (D) horizontal line bisecting the forecastle screen; (E) upper rail of the forecastle screen. Photo S. Wachsmann

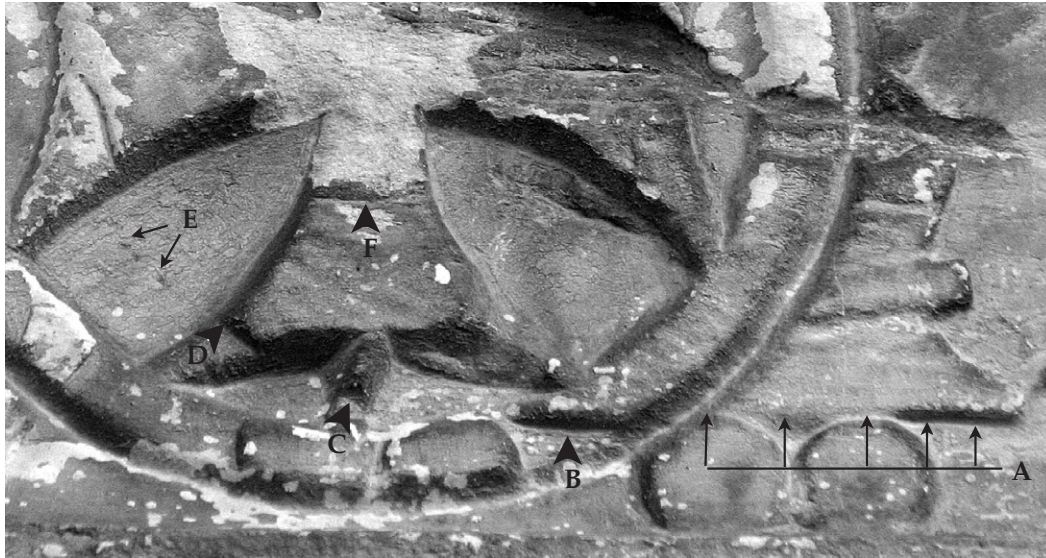


Figure 4. Detail of ship's hull:
(A–D) line of the keel; (E) possible
continuation of the line of the keel;
(F) caprail or foot of peplos/sail.
Photo S. Wachsmann

design that commonly appears on Archaic galleys.³³ A barely discernible downward-curving line ends at the tip of the ram (B): this probably represents a massive starboard wale, which in an actual war galley strengthened the ram to prevent the hull from buckling when impacting an enemy ship.³⁴ Above the ram is a thick line that rises at a slight angle (C). This line represents the *proembolion*, or “fore ram,” a subsidiary projection, which capped another pair (port and starboard) of smaller wales that met here.³⁵ Above the *proembolion* sits the forecastle surrounded by a screen, the upper rail of which is high at the stem, but arcs downward and then rises slightly as it approaches the roundel (E). A line bisects the forecastle horizontally (D): this is a common feature in Archaic galley depictions.³⁶ It is important to remember that the Calendar Frieze would originally have been painted and that these details may have been more strongly emphasized in color.³⁷ There is no evidence for an *ophthalmos* (“ship’s eye”), although this too may have been painted on and subsequently lost.

The keel line continues across the bottom of the roundel to the left of the ship’s bow (Fig. 4:A, B). Several additional marks allow us to reconstruct the line of the keel in broad terms. These include a line cut into a raised element (C) extending below the bottom of the lower arm of the cross³⁸ and another slanting line (D) that passes over the lower left corner

33. For images of Archaic ships with boar-head rams, see Morrison and Williams 1968, pls. 9:a, c, 10:a, c, 11:b, d, 12:b, d, f, 13, 14:a–g, 15:a, b, 16:a–d, 17:a–e, 18:a, b, 19, 20:a–d; Basch 1987, pp. 206–215, 217–222, 224–227, 233–235, 238, 242, 243, figs. 427, 428, 430–432, 434:A–E, 435, 436:A, C, 438, 440:A–C, 441–445, 447, 448, 452:A, B, 453, 454, 456, 457, 459:A, B, 460, 460bis, 462, 463, 468, 469, 470:B, 471–473, 482, 485, 486:2, 3, 497–499, 510:A,

511; Spathari 1995, pp. 74, 82, 84, 85, 87–91, 93, 95, 97, 99, figs. 79, 91, 94, 95, 97–102, 104, 106, 107, 109, 113, 114.

34. Steffy 1994, pp. 17–25; Casson 1995, p. 85.

35. Casson 1995, p. 85, fig. 107; Basch 1987, pp. 241, 274, 275, 299–301, figs. 506, 507, 582–585, 632–634, 636, 640; Spathari 1995, pp. 113, 115, 118, 125, 127–129, figs. 131, 134, 135, 137, 142, 147, 148, 152–155.

36. Basch 1987, pp. 208, 210, 215,

217, 219, 224, figs. 430, 435, 436, 450, 453, 456, 468; Spathari 1995, pp. 88–89, 93, figs. 98, 100, 107.

37. Neils 2001, pp. 88–93; Brinkmann et al. 2007; Brinkmann 2008; Østergaard 2008.

38. This raised element extends below the other crosses also, indicating that it is not an element related to the ship’s architecture or its conveyance. For images of the other crosses, see Simon 1983, pls. 1.1, 2.1.



Figure 5. Detail of stern at lower left quadrant of roundel: (A) sinuous, roughly vertical line above quarter rudder; (B1–B2) quarter rudder blade; (C) hand of a figure (Pompe?) visible on the roundel. Photo S. Wachsmann

of the cross's lower arm. This line appears to continue in a series of pockmarks (E) in the space to the left of the cross's lower arm, although this may be fortuitous. A horizontal line on the upper part of the lower arm of the cross (F) may represent either the caprail or perhaps the foot of the peplos/sail.

At the stern a deeply cut slanting sinuous line survives on the lower flank of the cross's left arm (Fig. 5:A). Below it, remnants of the starboard quarter rudder survive outside the roundel and on the surface of the roundel itself (B1, B2). These traces allow for the reconstruction of the angle of the quarter rudder's loom, a detail that will be of significance later in this discussion. The hand of a female figure appears on the left side of the roundel above the quarter rudder (Figs. 1:b, 5:C); some scholars tentatively identify this personage as Pompe, the anthropomorphic incarnation of the Panathenaic procession.³⁹

The peplos served as the vessel's sail.⁴⁰ Only remnants of the mast, rigging, and peplos/sail survive on the Calendar Frieze.⁴¹ These include a short molded protrusion at the top of the roundel, just to the right of center (Figs. 1:b, 6 [circle], 7:A). When the line of this protrusion is extended

39. Simon 1983, p. 6, n. 14; Mansfield 1985, p. 70, n. 70; Parker 1996, p. 91.

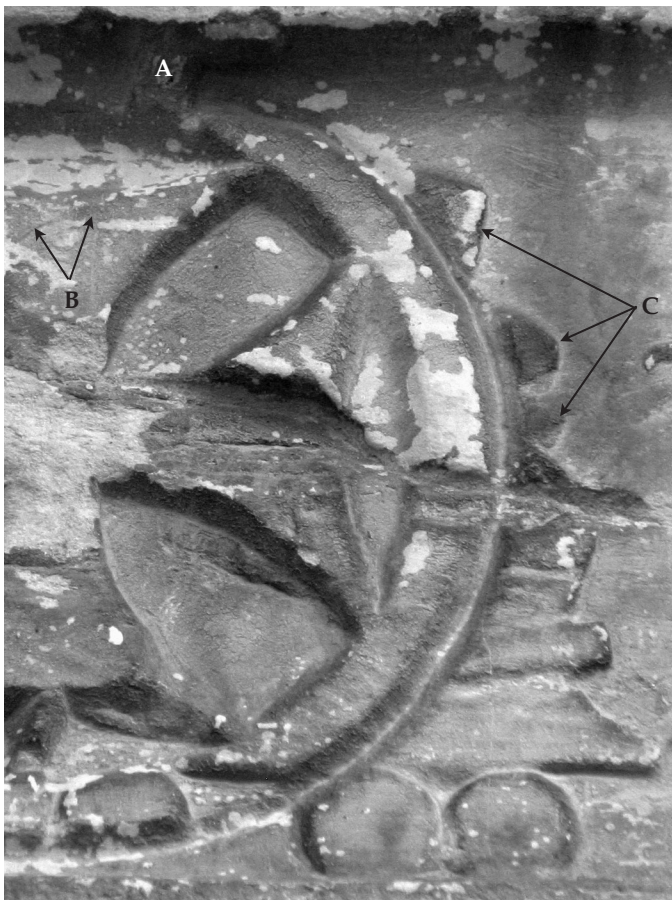
40. Mansfield 1985, pp. 58–59, nn. 26, 30.

41. Mansfield 1985, p. 70; Werner 1997, p. 110, fig. 18.

Figure 6 (*right*). View from lower right indicating the location of the surviving masthead fragment (circled area). Photo S. Wachsmann



Figure 7 (*below*). (a) Detail showing surviving elements of the vessel's mast, rigging, and sail: (A) fragment of molded masthead on and above the roundel; (B) remains of a line, perhaps related to the ship's rig, across the upper arm of the cross; (C) three protuberances presumably representing the billowing lead edge of the sail. (b) Detail of Attic black-figure kylix by Exekias, Munich, Antikensammlung 2044, showing a brailed sail when set. Photo (a) S. Wachsmann; (b) after Spathari 1995, p. 97, fig. 109 (image reversed)



a



b



Figure 8. Detail of four wheels visible on ship's starboard side. Photo S. Wachsmann



Figure 9. Funerary ship of the Apis bull, Ptolemaic period. Paris, Musée du Louvre E3887. Photo S. Wachsmann

downward, it slants toward the bow at right. This is apparently all that remains of the ship's forward-raking mast, which then must have been stepped aft of amidships. Additionally, a slanting line surviving on the upper arm of the cross may also be part of this system (B). Three protuberances appear above the ship's bow along the outer edge of the roundel's upper-right quadrant (C). These are all that remain of the ship's peplos-sail. They presumably represent the lead edge of a billowing brailed sail, a detail commonly appearing in representations of galleys and merchantmen under sail (Fig. 7:b).⁴² Apparently Philostratus (*VS* 2.550) had this phenomenon of a billowing brailed sail in mind when he wrote:

Moreover, I have been told the following facts concerning this Panathenaic festival. The robe of Athene that was hung on the ship was more charming than any painting, *with folds that swelled before the breeze*.⁴³

The ship moves on four pairs of wheels (Fig. 8).⁴⁴ Two wheels appear below the galley's bow to the right of the roundel: remnants of two other wheels survive on the lower edge of the roundel. The tops of the forward two wheels are on line with, or just slightly above, the level of the keel. There is no indication of a wagon or a chassis, so it is not clear what type of system supported the vessel. The four visible wheels lack spokes, suggesting that they are massive and constructed of solid wood. Of course, the

42. Basch 1987, pp. 207–210, 214–215, 217, 219–220, 226–227, figs. 428, 430–432, 434–436, 446, 449, 450, 452, 453, 456–458, 471, 472; Spathari 1995, pp. 88, 90, 92, 94–95, 97, figs. 98, 99, 102, 105, 107, 109. On the brailed sail, see Vinson 1993; Casson 1995, pp. 37, 47–48, 70; Cariolou 1997; Wachsmann 1998, pp. 251–254.

43. Trans. W. C. Wright, Cambridge, Mass., 1921, p. 147 (*italics added*).

44. Mansfield 1985, p. 70, n. 69.

Figure 10. Dionysian ship cart with spoked wheels. Detail of skyphos, Bologna, Museo Civico Archeologico DL 109. After *CVA*, Bologna 2 [Italy 7], pl. 43 [342]:88.4

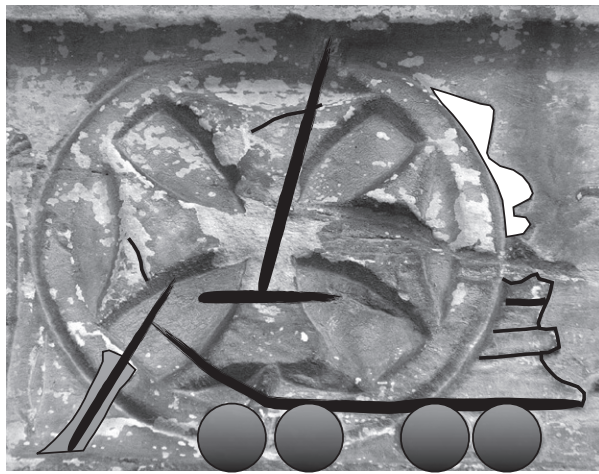
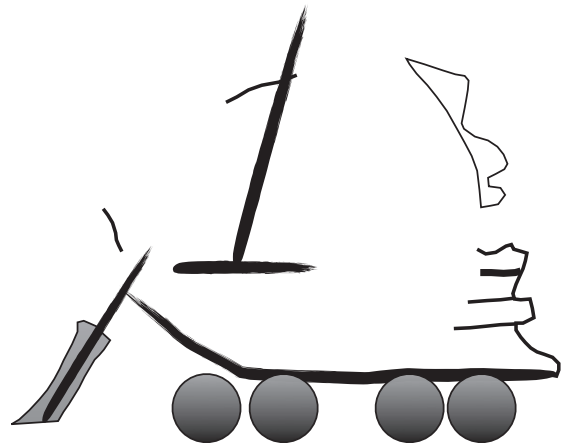


Figure 11. Reconstruction of the Calendar Frieze Panathenaic ship. Photo and reconstruction S. Wachsmann



spokes might have appeared in now-lost paint, but the four sets of wheels negate this possibility.

I am aware of only one other iconographic parallel from Mediterranean antiquity to this four-axle configuration for transporting a ship on wheels: the Ptolemaic-period funerary ship of the Apis bull depicted on several limestone reliefs (Fig. 9).⁴⁵ The Panathenaic vessel's four sets of wheels indicate that the vessel's weight must have been substantial and that it was dramatically larger and more massive than, for example, the Dionysian ship cart, which appears to have been a relatively flimsy affair that rolled on two sets of spoked wheels or could even have been carried by porters (Fig. 10).⁴⁶

Combining the clues discussed above allows us to define—in broad terms—the shape of the hull and rigging (Fig. 11). The galley that appears on the Calendar Frieze clearly is patterned after an Archaic prototype. Until now, it has been the only representation for which no doubt exists regarding its Panathenaic identification. Thus, despite its poor preservation and obviously skewed proportions, this vessel becomes the standard against which all other potential Panathenaic ship representations must be measured. Over the years scholars have tentatively identified other ship images with the Panathenaic ship. How do these compare to the Calendar Frieze ship?

45. See also Vigneau and Drioton 1949, p. 49, no. 192, pl. 192; Göttlicher 1992, pp. 73–74, fig. 41; Hornig 2002, pp. 13–14, nos. 13–19, with additional bibliography. The wheeled ship of the Apis bull is mentioned in Papyrus Vindob. 3873, which dates to the latter half of the 2nd century B.C. (Vos 1993, p. 40).

46. Frickenhaus 1912; Boardman 1958; Kerényi 1976, figs. 56, 57, 59:A, B; Wilson 1987–1988, p. 135, fig. 36; Göttlicher 1992, pp. 103–108, figs. 59–61; Wachsmann, forthcoming. I intend to discuss the Dionysian ship cart in a future monograph.

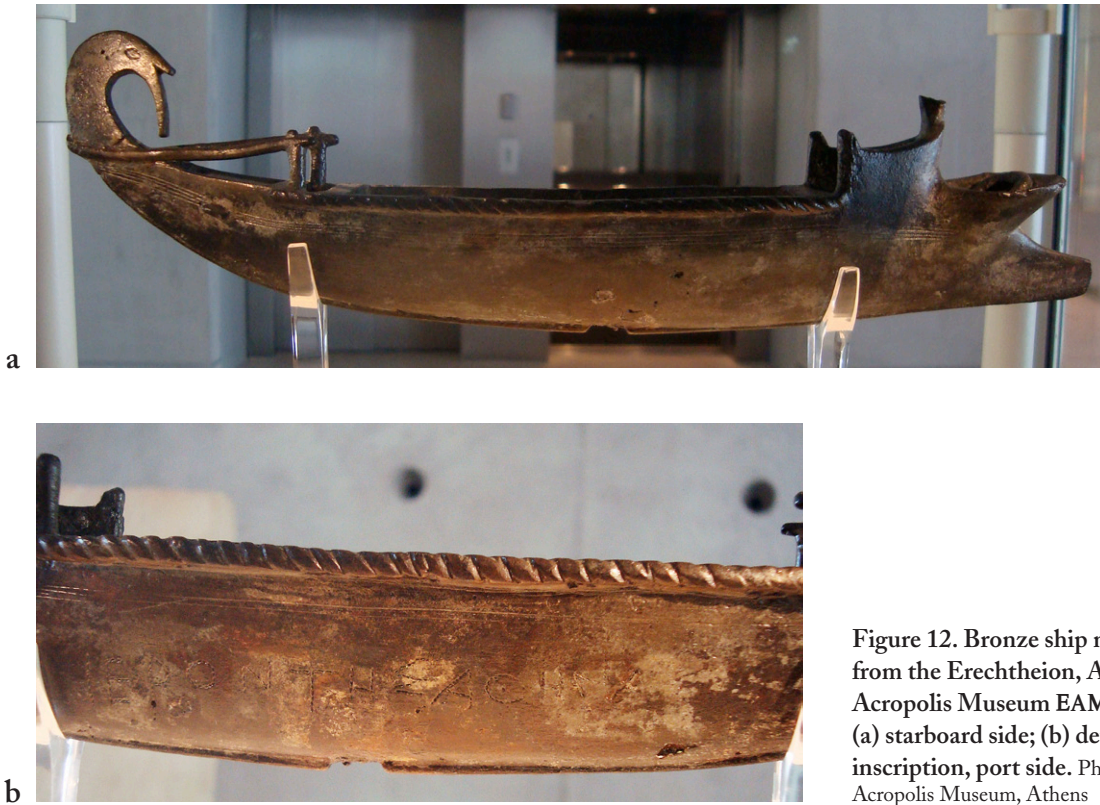


Figure 12. Bronze ship model/lamp from the Erechtheion, Athens, Acropolis Museum EAM X 7038: (a) starboard side; (b) detail showing inscription, port side. Photos courtesy Acropolis Museum, Athens

SHIP MODEL/LAMP FROM THE ERECHTHEION

An actual model of the Panathenaic ship may have been hiding in plain view for a century and a half: the famous bronze ship model/lamp that was discovered during the 19th-century excavation of the Erechtheion (Figs. 12, 13).⁴⁷ This identification, which K. S. Pittakis proposed already in 1862, has more recently been put forward again by H. G. Martin.⁴⁸

Carl Boetticher, the model's excavator, originally determined that the ship-shaped lamp had been an *ex voto* to Poseidon, and concluded from this that the Erechtheion housed a cult for that deity.⁴⁹ Unfortunately for this theory, conservation revealed a dedicatory inscription to Athena in stippling on the hull's port side: IEPON THE AΘHNAΣ ("sacred to Athena"). The

47. Athens, Acropolis Museum EAM X 7038: Pittakis 1862; Saglio, Pottier, and Lafaye 1877, p. 1325, n. 14, fig. 4587; de Ridder 1896, pp. 139–141, fig. 95 (425); Staïs 1910, pp. 276 (with photograph), 277 (no. 7083); Paton et al. 1927, pp. 571–572, fig. 229; Moll 1929, no. B VII:1; Morrison and Williams 1968, p. 179, pl. 27:B (Clas. 20); Basch 1969, pp. 442–444, fig. 5:A; 1987, pp. 228–231, figs. 477, 478; Lloyd 1975, p. 48, n. 25; Göttlicher 1978, p. 68, pl. 27 (no. 362); Johnston 1985, pp. 79–81 (Clas. 2); Spathari

1995, pp. 110–111, fig. 128; Martin 1999, pp. 146–148, fig. 15. For a Roman-period bronze ship model/lamp, found in the sea, see Basch 1987, pp. 449, 452, fig. 996 (Rethymnon Museum 150).

48. Pittakis 1862, col. 94; Martin 1999, pp. 146–147, fig. 15. Basch (1972, p. 44) also came close to his conclusion, noting that the Erechtheion model might represent "some still surviving type of archaic ship," but he did not equate the model with the Panathenaic ship.

49. Boetticher 1863, p. 194; Paton et al. 1927, pp. 571–572, fig. 229. The Archaic wooden galley models found in the German excavations of the Heraion on Samos serve as good parallels to the dedication of *ex-voto* ship models to a temple (Ohly 1953, pp. 111–118, pls. 34, 35; Kopcke 1967, pp. 145–148, pls. 82, 83; Kyrieleis 1980, pp. 89–94, pls. 18–20; Basch 1987, pp. 243–246, figs. 513–518, 518bis; Johnston 1985, pp. 46–47, 50–51, 54–64 [Arch. 3–24]).

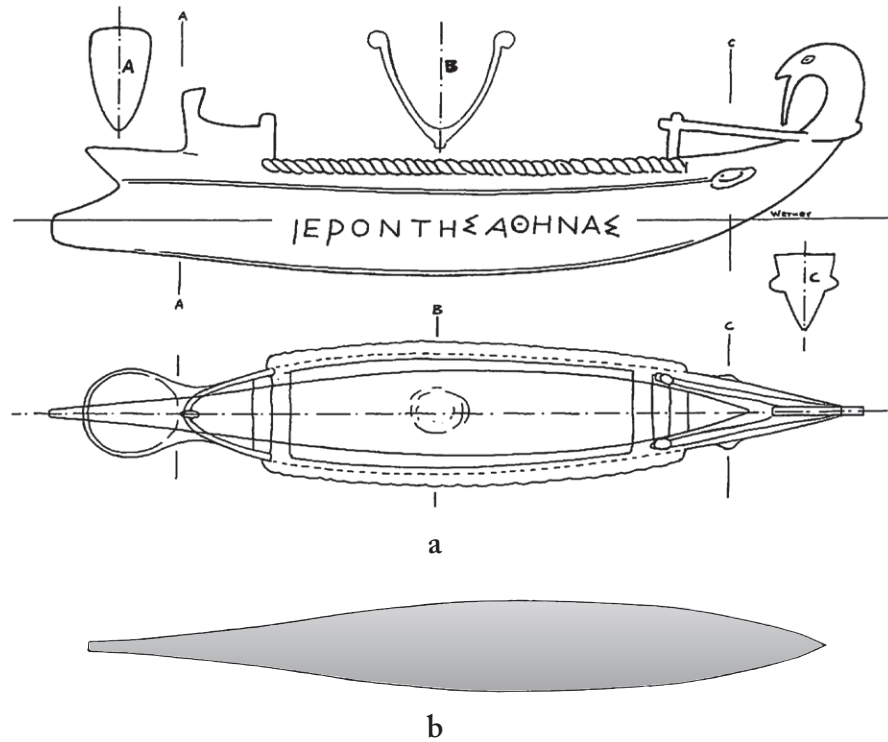


Figure 13. Erechtheion model: (a) port side and top view; (b) water-line section. Note that the model reaches its greatest beam aft of amidships. After Göttlicher 1978, pl. 27:362.

letter forms of the inscription date it to the 4th century B.C. (Figs. 12:b, 13:a).⁵⁰ David Blackman feels that it is not possible to date the inscription so precisely and prefers a date from the late 5th to the early 3rd centuries B.C.⁵¹ J. S. Morrison and R. T. Williams note that the circumstances of the model's discovery inside the Erechtheion in 1862, as described by Paton, suggest that it had been contributed to the Erechtheion and was not an accidental artifact from an earlier era at the site.⁵² If this is true, the model's interment must postdate the completion of the Erechtheion in 406 B.C.

This is curious for, as noted by Basch and discussed above, the Erechtheion model clearly replicates an Archaic-period galley.⁵³ Morrison and Williams note that the model could have existed for an extended period of time and then been inscribed much later, at the time of its dedication.⁵⁴ A simpler explanation of this seeming enigma, however, is that the model represents a 4th-century B.C. votive model of the contemporaneous Panathenaic ship, which had been deliberately patterned after an Archaic galley. In that case, the creation of the model and the inscribing of its dedication could have occurred more or less simultaneously.⁵⁵

Is the Erechtheion ship model a representation of the Panathenaic ship? The answer to this question must be based first and foremost on a comparison between the model and the Calendar Frieze's Panathenaic ship. The Erechtheion model's keel rises in the stern. The bow bears a chisel-shaped waterline ram (Figs. 12:a, 13:a). The lamp nozzle sits above and

50. Morrison and Williams 1968, p. 179 (Clas. 20), citing R. P. Austin. I thank H. Kritzas for this translation and his comments on the inscription.

51. D. Blackman (pers. comm.).

52. Paton et al. 1927, pp. 571–572,

fig. 229; Morrison and Williams 1968, p. 179 (Clas. 20).

53. Basch 1987, p. 228.

54. Morrison and Williams 1968, p. 179 (Clas. 20). Note, however, that they include the model with their

Classical ("Clas.") ship representations, apparently in recognition of the date of the inscription. See also Basch 1972, p. 44.

55. Martin 1999, p. 146.



Figure 14. Horizontal guardrail and bird-head decoration at the stern of an Archaic galley. Detail from inner rim of Attic black-figure dinos, ca. 530–510 B.C., Paris, Musée du Louvre F61. Drawing M. Kofahl, after Spathari 1995, p. 87, fig. 95

behind the ram, while a fenced forecastle, stretching from the stempost to a pair of raised posts astern, nestles behind the lamp nozzle. In an actual ship the forecastle would have been situated forward, directly in the bow, but given the location of the nozzle, the model-maker was forced to move it astern. The shape of the forecastle, however, is similar to forecastles appearing commonly in the bows of representations of Archaic galleys.⁵⁶ There is no evidence of *ophthalmoi*.

Parallel engraved lines run the length of either side of the hull (Figs. 12, 13:a). Morrison and Williams are probably correct in interpreting these as wales. A series of circles positioned between these lines and the caprail indicate oarports. The model's caprails are topped by a rope motif (Figs. 12, 13:a), which Morrison and Williams identify as a *hypozoma*, a type of cable believed to control torsion in the hulls of Classical galleys.⁵⁷ Basch, however, correctly notes that ropes placed in the manner seen here could not have served a functional role and, therefore, he proposes that such ropes played a purely decorative purpose.⁵⁸ Alternately, this motif may represent a wooden caprail decorated in a rope motif. A horizontal guardrail protecting the stern deck is supported forward on two stanchions. It loops *behind* the sternpost. This feature also appears frequently on Archaic galleys (Fig. 14).⁵⁹

The ship has three beams and a single throughbeam at the stern for attaching the quarter rudders (Fig. 13:a).⁶⁰ Only the protruding ends of the throughbeam jutting out from the hull are depicted: the beam is missing inside the hull but must have existed in the prototype vessel. The sternpost

56. Basch 1987, pp. 209, 215, 217, 222, 224, 227, figs. 432, 450, 453, 462, 463, 468, 472 (upper photo, galley at left), but see also pp. 207, 210, 212, 215, 217, figs. 428:C, 435, 436:B, C, 440:A, 449:B, 452:A (galley at right); Spathari 1995, pp. 87, 89, 91, 93, 97, 99, figs. 97 (galley at left), 100, 104, 106, 109, 114.

57. Morrison and Williams 1968, pp. 179, 294–298 (for identification of wales and *hypozoma*); see also Casson 1995, pp. 91–92, 147, 211, n. 45, 265, n. 3; Kennedy 1976.

58. Basch 1987, pp. 228–229, 231, figs. 479–481. Kennedy (1976, p. 162) identifies the rope motif as a fender.

59. Basch 1987, pp. 209, 212, 214,

217, 218, 219, 252, 253, figs. 432, 433, 440, 446, 452–455, 457, 536–539; Spathari 1995, pp. 80, 84, 86–87, 89, 92, 94, figs. 88, 94–97, 100, 105, 107, 114.

60. Spathari 1995, pp. 97, 110, figs. 109, 125; Cariolou 1997, pp. 86, 88, fig. 3.

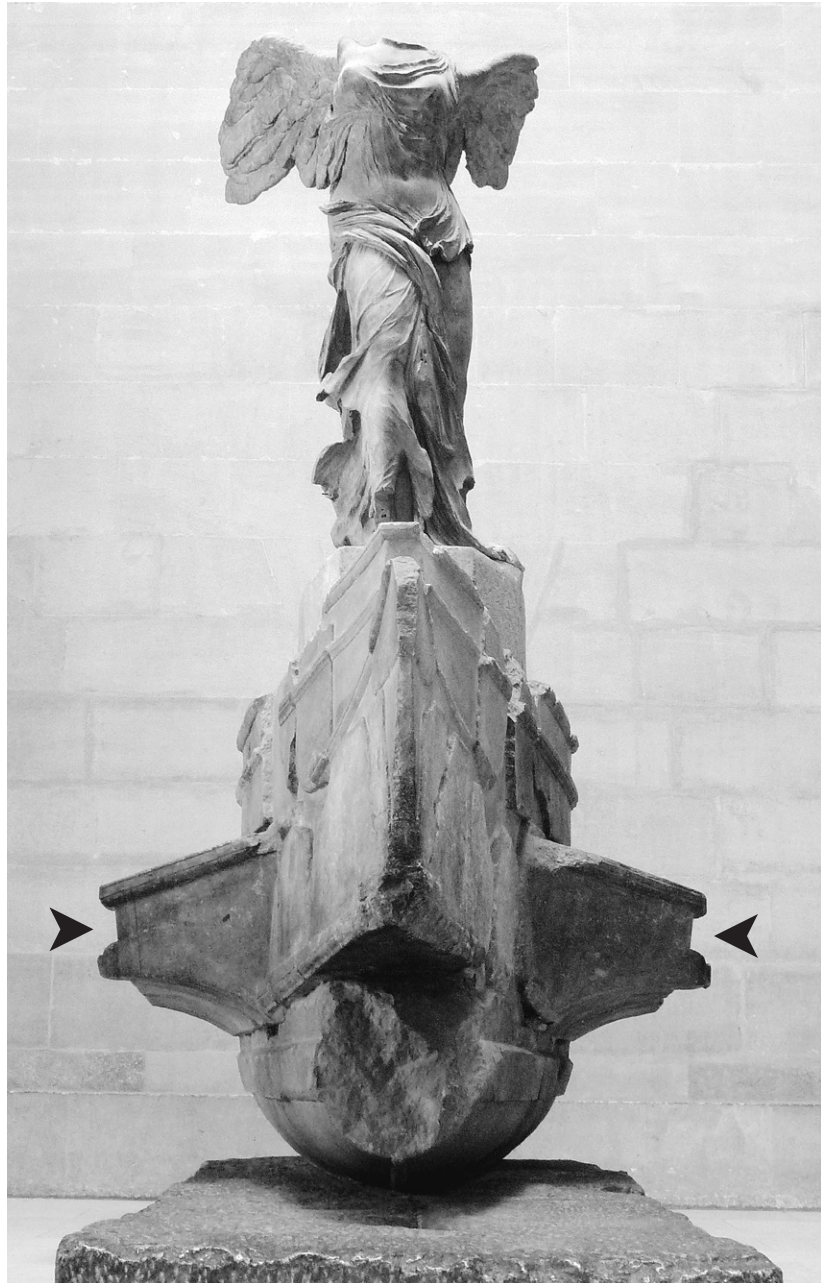


Figure 15. Nike of Samothrace, Paris, Musée du Louvre Ma 2369. The 4th-century B.C. galley on which the Nike stands is equipped with an outrigger (arrows), a detail absent from representations thought to depict the Panathenaic ship. Photo S. Wachsmann

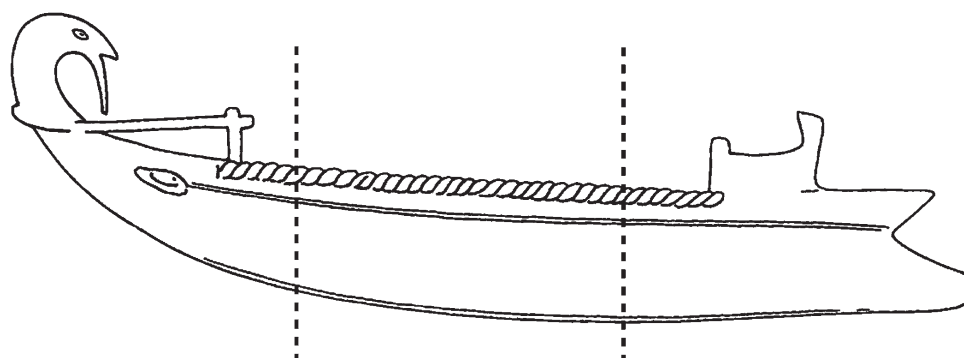
recurves, ending over the stern in a pair of abstract bird heads, one above the other, with a single pair of eyes between them (Figs. 12:a, 13:a). Representations of Archaic galleys contain numerous parallels to similar arrangements of bird heads, in renditions that vary from naturalistic to completely abstract (Fig. 14).⁶¹

Finally, perhaps the most striking element about the Erechtheion model is one that is missing: there is no evidence for an outrigger. First appearing on triremes, an outrigger (*parexeiresia*) allowed for the seating of three banks of rowers in Greek Classical galleys, a structure perhaps best represented by the oarboxes on the contemporaneous galley of the Nike of Samothrace (Fig. 15).

61. Basch 1987, pp. 205, 210, 226–227, 237, 243, figs. 425, 435, 471, 472, 493, 494, 511, 512; Spathari 1995, pp. 82–83, 94, 97, figs. 92, 107, 109; Wachsmann 1996; 1998, p. 191, figs. 8.56:A, C, D; 8.57:B–D.



a



b

Figure 16. Profiles of the stem and stern of the Erechtheion model overlaid on the Calendar Frieze Panathenaic ship. Photo and drawing S. Wachsmann. After Göttlicher 1978, pl. 27:362

In comparing the Erechtheion model to the Calendar Frieze ship, we should remember that the artisans who created the Calendar Frieze had limited space in which to portray each Athenian month. As a result, the Panathenaic ship is “horizontally challenged.”⁶² The ship’s length has been curtailed disproportionately and the depiction is far more squat than the original vessel it represents. It is as if the vessel’s midsection has been removed and the stem and stern attached to each other (see Fig. 11). This becomes immediately clear when the Panathenaic ship on the Calendar Frieze is compared to the majority of other known representations of Archaic galleys.⁶³

Thus, to correctly overlay the profile of the Erechtheion model on the Calendar Frieze vessel, the former must be similarly shortened longitudinally amidships (Fig. 16). Also, license must be given for the displacement of the forecastle screen (Fig. 16:3a, 3b) due to the addition of the lamp nozzle (2) over the model’s bow. When these two considerations are taken into account and the profile outline of the model’s bow is overlaid on the Calendar Frieze Panathenaic ship, we see an almost perfect fit. At the stern the results are even more dramatic. We can size the stern section and position it over the frieze by aligning the line of the keel with a surviving indicator of it at the bottom left of the cross’s lower arm (4) and by

62. Martin 1999, p. 145.

63. Basch (1987, pp. 202–227) includes numerous illustrations in which the artists are at pains to indicate the long and narrow lines of Archaic galleys.

placing the quarter rudder's reconstructed loom against the model's through-beam (5). When this is done, the two bird beaks at the sternpost align with the sinuous line on the lower left extremity of the cross's left arm on the Calendar Frieze (Figs. 5:A, 16:6). This bird-head form of an Archaic ship sternpost finial often ended in a sinuous curve that represented, if only in the abstract, a waterbird's head and beak (Fig. 14).⁶⁴ This is perhaps the most notable of the correspondences between the two representations. While the comparison between the two images is not exact, it is truly remarkable given the divergent mediums of the two representations and the time period separating them. As noted, both vessels have a chisel-shaped ram (Fig. 16:1), but on neither of these do we see the typical boar-head-shaped ram so typical of Archaic galleys, nor the quintessential three-level ram of war galleys of the 5th century B.C. and later.⁶⁵

There are, however, two important differences between the representations that require clarification. The first is that the Calendar Frieze galley has a prominent *proembolion*, which is lacking on the Erechtheion model. There are two possible explanations for this seeming disparity. Perhaps the model's lamp nozzle was meant to do double duty, also standing in for the *proembolion* for, when seen in profile, they have a somewhat similar shape (Fig. 16:2). A second, more likely, possibility is that the Panathenaic ship would have been repaired or replaced repeatedly during the centuries in which it was in use, as for example under Herodes Atticus and in the refurbishing of the timbers of the sacred ship of Theseus (Plut. *Thes.* 23.1):

The ship on which Theseus sailed with the youths and returned in safety, the thirty-oared galley, was preserved by the Athenians down to the time of Demetrius Phalereus. They took away the old timbers from time to time, and put new and sound ones in their places, so that the vessel became a standing illustration for the philosophers in the mooted question of growth, some declaring that it remained the same, others that it was not the same vessel.⁶⁶

Egypt supplies an interesting documented ancient parallel to the repeated replacement of a cult ship over time. The vessel of Amun, the *Amunuserhet*, which transported the Egyptian deity's cult statue on the Nile, was built anew at great expense whenever it was deemed necessary.⁶⁷ The best known of these iterations is one for which Wenamun journeyed to Byblos under the commission of Herihor, High Priest of Amun, to acquire Lebanese cedar for its construction.⁶⁸ Thus, the Erechtheion model and the

64. See n. 61, above.

65. The chisel-shaped ram is not unique to these representations; see Basch 1987, pp. 234, 270, 428, 432–433, figs. 484, 574, 936–939, 943.

66. Trans. B. Perrin, London 1914, p. 49. I thank W. M. Murray for bringing to my attention this reference and for the examples cited in the previous note. Mansfield (1985, pp. 68, 74–75) enumerates a total of four documented iterations of the Panathenaic ship, but we should keep in mind that not all reconstructions and repairs may have

reached us, or even have been originally documented. On Athens' sacred ships, see Jordan 1972, pp. 153–184.

67. On the different versions of the *Amunuserhet*, see Foucart 1921–1922.

68. Pritchard 1969, pp. 25–29. Herihor had a representation, apparently of this new *Amunuserhet*, carved in the Temple of Khonsu at Karnak, but the chronology suggests that the depiction was prepared before Wenamun could have returned with the timber for the new vessel's construction

(Kitchen 1973, p. 252, n. 45; Epigraphic Survey 1979, p. xiv, pls. 19, 21; Egberts 1991). A more recent analogy is HMS *Victory*, Nelson's flagship at the Battle of Trafalgar. Although the ship still exists in all its glory, very few of its timbers are original. The modern Greek trireme replica, the *Olympias*, provides another excellent example: launched in 1987, the vessel underwent major repairs for the 2004 Olympics so that it could deliver the Olympic flame to Piraeus.

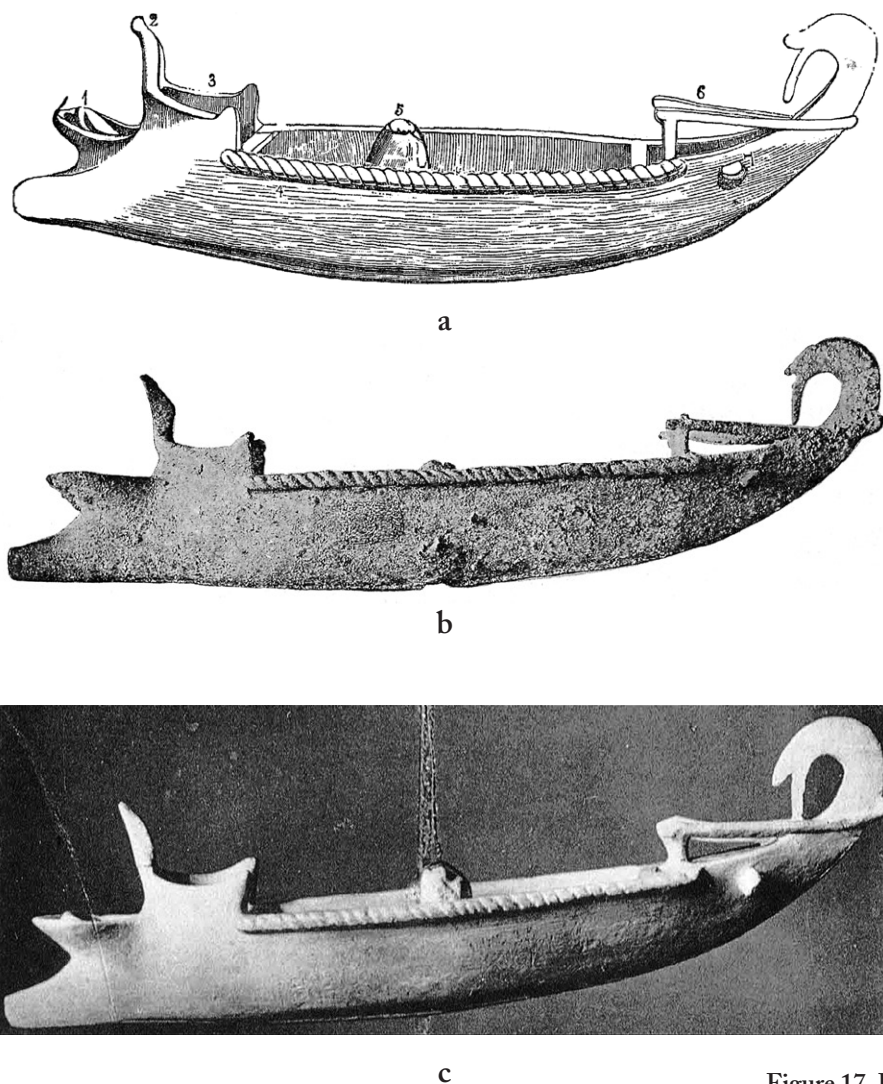


Figure 17. Early depictions of the Erechtheion model, port side view.
(a) Pittakis 1862, cols. 91–92; (b) de Ridder 1896, p. 140, fig. 95 (425); (c) Moll 1929, no. B VII:1

Calendar Frieze ship may—and probably do—represent different iterations of the Panathenaic ship, separated by centuries, with the Erechtheion model representing the older of the two. The *proembolion* was not a common element on Archaic ships, but appears to have been introduced in the 5th century B.C. as a strengthening measure on galleys when ramming warfare became the norm, and it may conceivably have been incorporated into a later iteration of the Panathenaic ship.

The second apparent difference between the two representations is that, unlike the Calendar Frieze image, early depictions of the model indicate that when first discovered, it had a stump amidships, which survived to about the height of the caprail (Fig. 17).⁶⁹ Subsequently, this element has been lost, with only a slight indication of it remaining (Fig. 13:a). Morrison and Williams identify this feature as a tabernacle (*histopede*) for a mast.⁷⁰

69. See Pittakis 1862, cols. 91–92; de Ridder 1896, p. 140, fig. 95 (425); Moll 1929, no. B VII:1 (cited in Johnston 1985, p. 81; Martin 1999, p. 146).

70. Morrison and Williams 1968, p. 179 (Clas. 20). On the *histopede*, see Casson 1995, p. 47, nn. 32–33.

I suspect that this does not represent a mast system but rather served as a stalk from which to suspend the ship model/lamp at its center of gravity.⁷¹

Thus, the evidence in favor of the Erechtheion model representing a contemporaneous Panathenaic ship may be summarized as follows. First, the model comes from the Erechtheion and is dedicated to Athena. What vessel could be more appropriate to dedicate to Athena than the Panathenaic ship? Second, while the model clearly replicates an Archaic galley, the dedicatory inscription dates to the 4th century B.C. The simplest explanation of this paradox is that the donor commissioned a lamp in the form of the existing Panathenaic ship, had the model engraved with an appropriate dedicatory inscription, and then gave it to the Erechtheion, all during the 4th century B.C. Finally, the Erechtheion model agrees remarkably well in shape with the Panathenaic ship portrayed on the Calendar Frieze.

THE KERAMEIKOS SHIP MODEL

Scholars have proposed that two other ship representations depict the Panathenaic ship. The first, suggested by Martin, is a stray find in the Kerameikos of a ship model made primarily of Pentelic marble.⁷² The find location is of interest for, as noted above, the Panathenaic procession began at the Dipylon Gate, located in the Kerameikos. Unfortunately, the two most diagnostic parts of any ship model—the bow and the stern—have been lost. For convenience, then, in the following discussion, I term the model's two ends "extremity X" and "extremity Y" (Fig. 18).

The model is now broken into three parts and, although the bow and stern are missing, the model clearly represents a galley on the basis of both the oarports along the sides of the hull and its long and narrow proportions. The vessel has two rows of oarports in which every third hole is larger than its neighbor and has bronze fragments still embedded in it, presumably all that remains of the original metal oars. The lower row of oarports exists only on extremity X, while the upper row appears at both extremities, but not amidships (Fig. 18:a, b).⁷³ Martin concludes that this area of the hull

71. The closest parallel to the Erechtheion model appears to be a smaller bronze ship model/lamp now in the Cincinnati Art Museum, which also contains a central stalk (*Cincinnati Sculpture*, p. 34, no. 1962.392; Johnston 1985, pp. 81–82 [Clas. 3: Cincinnati Art Museum 1962.392]). For lamps with central stalks, see Walters 1914, p. 18, nos. 105 (pl. VIII), 106, fig. 11; p. 110, no. 734, fig. 129. For a lamp in the shape of a ship hung from a central element, in this case a female figure, see Basch 1987, pp. 449, 452, fig. 997. One is reminded also of bronze Sardinian ship models (ca. 11th/10th to 6th centuries B.C.), which have various con-

structions to allow them to be hung from amidships; see Lilliu 1966, pp. 389–394, 396–412, 422–427, 429–441, nos. 271, 273, 275–278, 281, 282, 284–295, 297–299, 314–316, 318–321, 323–331, figs. 533, 534bis, 537, 541–548, 552, 553, 555–560, 562–569, 571–575, 593–595, 597–603, 605, 606, 608–612, 612bis, 613–617.

72. Athens, Kerameikos P 950: Martin 1999.

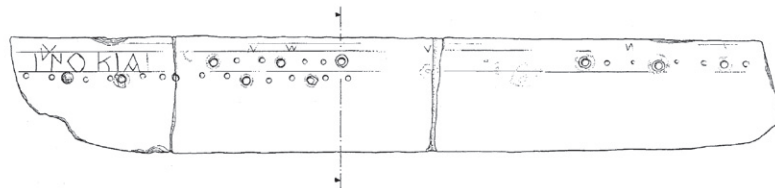
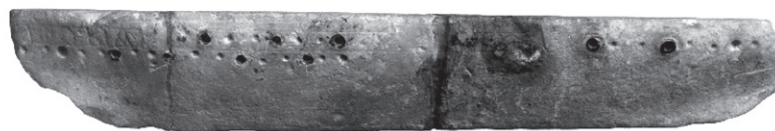
73. The one-and-a-half rows of oarports raise the question as to whether the Kerameikos model might represent a type of galley known as a *hemiolia*. Casson (1958; 1995, p. 62, n. 95, pp. 128–132, fig. 117) demonstrates,

however, that the name, which implies a "one-and-a-half" arrangement in its oar system, derives from the practice of pirate ships. As the *hemiolia* approached a victim, half the oarsmen on one of the levels would ship their oars so that they could lower the vessel's sail and rigging, a practice represented on the black-figure cup discussed by Casson. Although this vessel type started out as one used by pirates, eventually war fleets adopted it (Casson 1995, p. 129, n. 115). In general, given its piratical heritage, the *hemiolia* would seem an odd prototype for a Panathenaic ship.

a. Side view

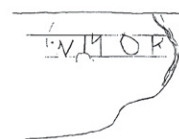
X

Y

*b. Side view*

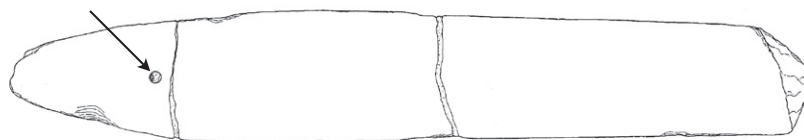
Y

X

*c. Top view*

X

Y

*d. Bottom view*

X

Y

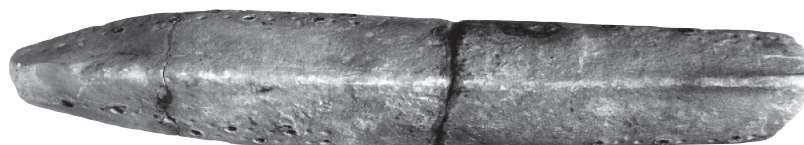


Figure 18 (*opposite*). Four views of a 4th-century B.C. (or later) marble ship model from the Kerameikos. Athens, Kerameikos P 950. After Martin 1999, pp. 138–139, 141, figs. 1–8

originally had been covered by part of a now-lost chassis support system that extended up the sides of the model.⁷⁴

Martin identifies extremity X as the ship's bow based on the one-word inscription—MINOKIA—that appears on either side of it (Fig. 18:a, b).⁷⁵ He reasonably suggests that this was the name of the prototype ship. The inscription's paleography dates to the 4th century B.C. or later.⁷⁶ The name MINOKIA seems a strange one for a Panathenaic ship, but Martin notes that none of the names for this series of vessels have come down to us and he speculates that each Panathenaic ship may have received an individual name to differentiate one from the other.⁷⁷ Jeffrey Hurwit and Hector Williams suggested independently to me that the vessel's name may hint that the Kerameikos ship model replicates the sacred ship of Theseus.⁷⁸

While admitting that the Kerameikos model might have been a grave gift or a dedication, Martin concludes that it probably represents a Panathenaic ship, primarily due to two considerations: the evidence for it having been mounted on a carriage; and a hole in the center of the upper surface of extremity X (Fig. 18:c, see arrows). Martin argues that this hole served to step the model's mast.⁷⁹ But the direction of the hole's bore would cause any mast placed in it to slant toward extremity Y.⁸⁰ In other words, according to Martin's reconstruction, the mast was stepped in the bow and raked toward the stern—the exact opposite of the manner in which it appears to be depicted in the Calendar Frieze (Fig. 11).⁸¹ There are at least four possible explanations for this seeming discrepancy:

1. My proposed reconstruction of the mast on the Calendar Frieze Panathenaic ship is incorrect.
2. The Kerameikos model does not represent a Panathenaic ship.
3. The various iterations of the Panathenaic ship handled the mast in divergent fashions and the Calendar Frieze and the Kerameikos models represent two different Panathenaic ships.
4. Martin has reversed the bow and stern, and extremity Y is actually the bow, not the stern. If the bow and stern were reversed in this manner, then the Kerameikos model would parallel the depiction in the Calendar Frieze and the broadest part of the model (Fig. 18:c, d) would be near the stern, as is the case with the Erechtheion model (Fig. 13:b).⁸² The appearance of the inscriptions on extremity X might seem at first to support the interpretation that this extremity is the model's bow, but in antiquity, as today, naming devices could be placed at the bow or the stern, and the latter was the location of the *stylis*, a ship identification device that appears in the Classical period.⁸³

For the reasons just stated, I prefer the final explanation. While the Kerameikos ship model may represent the Panathenaic ship, the evidence is somewhat more equivocal than in the case of the Erechtheion ship model/lamp.⁸⁴

74. Martin 1999, pp. 148–149, fig. 17.

75. Martin 1999, pp. 138–141, figs. 1, 2, 4, 5, 10.

76. Martin 1999, p. 140.

77. Martin 1999, p. 148.

78. Pers. comm. On the ship of Theseus, see p. 253, above.

79. Martin 1999, p. 138.

80. Martin 1999, p. 141, fig. 9.

81. Martin 1999, p. 148, fig. 17.

82. Basch 1972, pp. 44–45, fig. 30.

83. Casson 1995, pp. 86, 344–345.

84. See pp. 255, 261.



Figure 19. Fragment of a relief portraying a ship's stern from the City Eleusinion (ΠΛ 863). Spetsieri-Choremi 2000, p. 2, fig. 1

SHIP ON A MARBLE RELIEF FRAGMENT FROM THE CITY ELEUSINION

Alkestis Spetsieri-Choremi has identified part of a ship's stern appearing on a Pentelic marble relief fragment from the area of the City Eleusinion as a representation of a Panathenaic ship, and proposed a reconstruction (Figs. 19, 20).⁸⁵ Two registers are visible on the fragment. The upper register depicts part of the midsection and stern of a galley. The lower register contains the effaced heads of several figures carrying objects in a procession.

The whole scene is badly abraded, making any interpretation difficult. The most prominent detail on the ship is a broad horizontal band running its surviving length, which I take to be a wale. As on the other representations proposed for the Panathenaic ship, no outrigger is visible. The upper-right portion of the hull has been chipped off. Beneath the ship is a narrow rectangular carved depression, which presumably represents the space beneath the hull between two badly worn features that Spetsieri-Choremi interprets conditionally as wheels (Fig. 19, see arrows).⁸⁶ However, these objects are too small—especially when compared to the wheels on the Calendar Frieze ship—to represent wheels. I take them for chocks or, more probably, the ends of logs on which the hull rests.⁸⁷ To the left of these are two long and narrow objects, which slant upward from the register's baseline at a 60° angle from the horizontal and terminate at the vessel's keel line. These probably represent struts supporting the ship.

Thus, the limited evidence available suggests that if this vessel represents the Panathenaic ship, then it appears here in storage, dismantled from its wheeled transport system. As the City Eleusinion seems to have been

85. Athens, City Eleusinion ΠΛ 863; see Spetsieri-Choremi 2000. On the City Eleusinion, see *Agora* XIV, pp. 150–155, pls. 77, 78; *Agora* XXXI.

86. Spetsieri-Choremi 2000, p. 14.

87. Baika 2002.

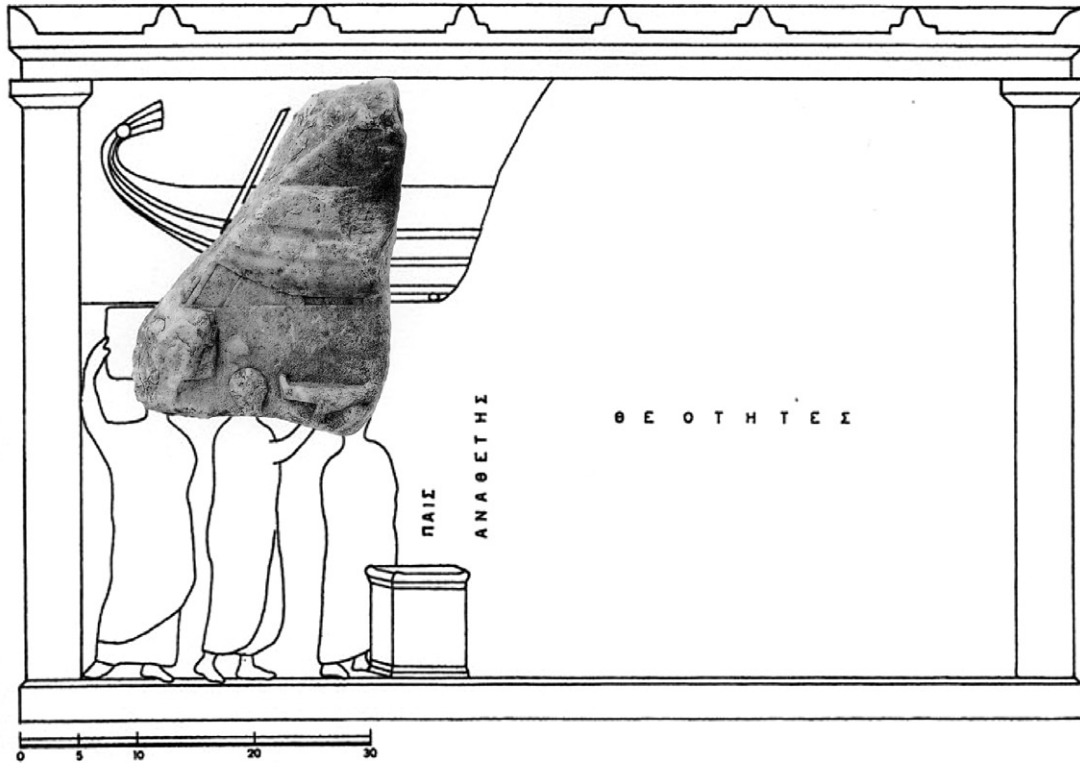


Figure 20. Reconstruction by Spetsieri-Choremi of the Athenian Eleusinion scene. Spetsieri-Choremi 2000, p. 17, fig. 5



Figure 21. Detail of a celebrant holding an object in the Athenian Eleusinion relief fragment. After Spetsieri-Choremi 2000, p. 2, fig. 1

88. Mansfield 1985, p. 76, n. 98; *Agora* XXXI, p. 2. Pausanias (1.29.1), however, notes that in his day (2nd century A.D.) the Panathenaic ship was stored near the Areopagus, where it could be viewed. This is apparently not the same ship as the one built by Herodes Atticus (Gardner 1914; Tobin 1993, p. 89; Hurwit 1999, p. 277, n. 85).

89. See n. 66, above.

the customary way station during the Panathenaia for the ship while the pageant continued up to the Acropolis, the City Eleusinion ship relief, if it indeed represents a Panathenaic ship, may suggest that the actual ship was quartered there on occasion.⁸⁸ Against this view, one notes the extremely fragmentary nature of this relief and the consideration that Athens had many sacred ships and that at least some of these may have had Archaic attributes.⁸⁹

The figure on the right of the lower register holds a narrow object, the left end of which rises at a slight angle (Fig. 21). Spetsieri-Choremi interprets this as a basket held in a procession, but Harry Tzalas has suggested



that the object may instead represent a model ship.⁹⁰ If the latter interpretation is correct, Egypt supplies us with examples of ship models playing a role in the cultic use of ships. For example, an Aegean-style ship graffito, ca. 13th–12th centuries B.C., from Dakhla Oasis depicts figures holding up ship models in a cult scene that is taking place on board the vessel (Fig. 22, arrows).⁹¹ At the other end of the chronological spectrum, I witnessed a similar occurrence in 1998 in Luxor while recording the *moulid* (birthday

90. Tzalas 2008 and pers. comm. See also Blackman 2008; Trakadas 2008. For the ritual offering basket (*kanoun*), see Roccas 1995, pp. 642,

647, 650–654, 656, 658–659, 661, figs. 1, 2, 5–12, 14, 15:49, 16, 17, 20; Neils 2001, pp. 93, 149, fig. 111, 157, foldout: East Frieze: E49.

91. Basch 1994, 1997; Wachsmann 1998, pp. 203–204, figs. 8A:3, 8A:4; forthcoming.

Figure 22 (*opposite, top*). The Dakhla Oasis ship graffito (arrows point to ship models). Photo H. A. Winkler, courtesy the Egypt Exploration Society

Figure 23 (*opposite, bottom*). Scene during the *moulid* of Abu Haggag in Luxor, 1998: celebrants pull boats in procession as part of the festivities. Several men in one of the processional boats hold up models of feluccas (arrows). Photo S. Wachsmann

Figure 24 (*right*). *Moulid* of Abu Haggag: man holding up a boat model. Photo S. Wachsmann



festival) of the Islamic saint Sheikh (Sidi) Yusuf Abu Haggag el Uqsuri, in which boats mounted on wagons are annually drawn in a procession (Fig. 23).⁹² Egyptologists generally agree that the modern *moulid* of this saint represents a memory, albeit a faint one, of the ancient Opet festival. During the *moulid*, celebrants draw boats mounted on wagons around a processional route (*dura*). During the 1998 celebrations, several men in a processional boat belonging to the felucca-men held up models of their namesake vessels (Figs. 23 [see arrows], 24).

FINAL THOUGHTS

I leave it to scholars of Greek religion to determine whether the clues to the appearance of the Panathenaic ship presented here contribute to a better understanding of the cultic aspects of the ship used in this important Athenian festival. I offer here only a few thoughts regarding pertinent nautical considerations.

Beyond reasonable doubt the Erechtheion ship model/lamp joins the Calendar Frieze ship relief as a bona fide representation of a Panathenaic ship. The attributes of the Kerameikos ship model are also consistent with information available on the Panathenaic ship from the Calendar Frieze. Given the name MINOKIA engraved on the Kerameikos model, however, one cannot rule out the suggestion by Hurwit and Williams that the name could indicate that the model instead represents the sacred ship of Theseus.

The ship shown on a marble relief fragment from the City Eleusinion may be interpreted as representing a Panathenaic ship on stocks, but again, one should keep in mind the incomplete nature of this image and the consideration that it may represent another of Athens' many sacred ships.

92. Wachsmann 2002a; 2002b, with additional bibliography. See, most recently, Wickett 2009.

The fact that the Panathenaic ship appears as a clearly Archaic galley would seem to lend support to a 6th-century B.C. date for the introduction of the ship into the Panathenaic festival. As opposed, however, to the ship cart of Dionysos, which appears in artwork from that century, we have no specific references that early for the Panathenaic ship in art or in text. In theory, the ship could have been introduced later, but was deliberately built to represent an older form of the ship to add gravitas at its introduction. Consider, for example, the ship sent to Delos by Athens each year, said to be the original one used by Theseus.⁹³ Note, however, that this ship remained a *triakonter*, a 30-oared ship, which was apparently the nearest that the Athenians of the Classical period could come to an “ancient” ship from the time of Theseus.

Deborah Carlson, in her recent detailed study of marble *ophthalmoi*, has proposed alternative explanations as to why three fragmentary ships’ eyes were found at the Athenian Agora.⁹⁴ One possibility, which Carlson considers remote, is that these objects may have been attached to Panathenaic ships. As discussed above, *ophthalmoi* do not appear on the Calendar Frieze ship or on the Erechtheion model.⁹⁵ While it is possible that an *ophthalmos* was painted on the former, the absence of the feature on the model argues against this conclusion, suggesting that the Panathenaic ship did not bear *ophthalmoi*. It is thus decidedly unlikely that the original purpose of any of the Agora *ophthalmos* fragments was to decorate these ships. Another possible explanation for their find location is that they derive from Dionysian ship carts, as an *ophthalmos* appears on one black-figure Attic representation of this type of cult vessel.⁹⁶ This is also unlikely, however, due to the flimsiness of these vessels-on-wheels.⁹⁷ I suspect that such *ophthalmoi* would have been applied in paint only.

In truth, we who study the past can identify with the plight of the proverbial blind men ordered to describe an elephant: like them we can touch the past, but we cannot see it. Still, despite this severe limitation, ancient iconography can open for us an invaluable window into a better understanding of earlier times, on the condition that we are cognizant of the inherent limitations of the evidence.⁹⁸

93. See p. 253, above, for the quotation from Plutarch (*Thes.* 23.1); see also Dyer 1891, p. 377; Jordan 1972, pp. 158, 160–161; Casson 1975, p. 7, n. 11; Simon 1996, p. 12; Hale 2009, pp. 86, 88.

94. Carlson 2009, pp. 347–349, 359–363.

95. The bows of the Kerameikos model and the Eleusinion relief are missing and therefore cannot be of help in this regard.

96. Kerényi 1976, fig. 57.

97. See n. 46, above.

98. See comments by Davies (1930, pp. 29, 31).

APPENDIX

CONCISE GLOSSARY OF NAUTICAL TERMINOLOGY

I have tried to limit the nautical terminology used in this article. Some terms cannot be avoided, however, in describing ship iconography, and I list those here, along with their meaning. A few terms may have more than one definition.⁹⁹ I include here those relevant to the present discussion.

Brailed sail	A loose-bottomed square sail controlled by lines called brails, which are attached to the foot of the sail and run vertically up it through (brailing) rings sewn to the sail. Tending the brails controls the size and shape of this sail.
Caprail	Timber attached to the tops of a vessel's frames, normally representing the uppermost edge of a vessel along its sides.
Chock	Support for a vessel when ashore.
Forecastle	Raised deck located at a ship's bow. On ancient ships, often depicted enclosed by fencing.
Loom	The stock of a quarter rudder or an oar.
<i>Ophthalmos</i>	A ship's "eye." Commonly appearing as an apotropaic and decorative device on the bows of vessels.
Outrigger	A frame projecting laterally from either side of a galley to support oar attachment.
<i>Proembolion</i>	Subsidiary ram above the waterline ram.
Quarter rudder	Rudder in the shape of an oar affixed to the side of a vessel at the stern.
Stem or stempost	A vertical or upward sweeping timber, or group of timbers, at the bow joined to the keel at its lower end and into which the incurving sides of the ship attach.
Sternpost	A vertical or upward sweeping timber, or group of timbers, at the stern joined to the keel at its lower end and into which the incurving sides of the ship attach.
Throughbeam	A beam that extends through the planking so that it protrudes outside the hull on either side.
<i>Triakonter</i>	Thirty-oared galley.
Trireme	Galley with three banks of superimposed rowers. The quintessential ship of the line of the Classical period.
Wale	A particularly thick strake, which contributes to the longitudinal stiffening of a hull.

99. Terms are derived from Steffy 1994, pp. 266–298 (with an illustrated glossary); Casson 1995, pp. 389–402 (Greek and Latin nautical terms); Hocker 1998.

REFERENCES

- Agora* = *The Athenian Agora: Results of Excavations Conducted by the American School of Classical Studies at Athens*, Princeton
- XIV = H. A. Thompson and R. E. Wycherley, *The Agora of Athens: The History, Shape, and Uses of an Ancient City Center*, 1972.
- XXXI = M. M. Miles, *The City Eleusinion*, 1998.
- Baika, K. 2002. "Dispositif du halage des hangars navals antiques: Études ethno-archéologiques," in *Tropis VII. Proceedings of the 7th International Symposium on Ship Construction in Antiquity, Lamia, 28–30 August 1996*, vol. 1, ed. H. E. Tzalas, Athens, pp. 43–83.
- Barber, E. J. W. 1992. "The Peplos of Athena," in Neils 1992a, pp. 103–117.
- Basch, L. 1969. "Trois modèles de navires en marbre au Musée de Sparte," *AntCl* 38, pp. 430–445.
- . 1972. "Ancient Wrecks and the Archaeology of Ships," *IJNA* 1, pp. 1–58.
- . 1987. *Le musée imaginaire de la marine antique*, Athens.
- . 1994. "Un navire grec en Égypte à l'époque de Ulysse," *Neptunia* 195, pp. 19–26.
- . 1997. "Une représentation de navire de type égéen dans l'oasis de Dakhleh (Égypte) vers 1200 av. J.-C.," in *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity. Proceedings of the Second International Symposium "Cities on the Sea," Nicosia, Cyprus, October 18–22, 1994*, ed. S. Swiny, R. L. Hohlfelder, and H. W. Swiny, Atlanta, pp. 17–29.
- Blackman, D. J. 2008. "Reflections on the Importance of Shipsheds," in *Tropis X, Program and Abstracts*.
- Boardman, J. 1958. "A Greek Vase from Egypt," *JHS* 78, pp. 4–12.
- Boegehold, A. L. 1996. "Group and Single Competitions at the Panathenaia," in Neils 1996a, pp. 95–105.
- Boetticher, C. 1863. *Bericht über die Untersuchungen auf der Akropolis von Athen im Frühjahr 1862*, Berlin.
- Brinkmann, V. 2008. "The Polychromy of Ancient Greek Sculpture," in *The Color of Life: Polychromy in Sculpture from Antiquity to the Present*, ed. R. Panzanelli, E. D. Schmidt, and K. D. S. Lapatin, Los Angeles, pp. 18–39.
- Brinkmann, V., R. Wünsche, U. Koch-Brinkmann, S. Kellner, J. Köttl, O. Herzog, R. Batstone, S. Ebbinghaus, and A. Brauer. 2007. *Gods in Color: Painted Sculpture of Classical Antiquity*, Munich.
- Brommer, F. 1979. *The Sculptures of the Parthenon: Metopes, Frieze, Pediments, Cult-Statue*, trans. M. Whittall, London.
- Burkert, W. 1983. *Homo Necans: The Anthropology of Ancient Greek Sacrificial Ritual and Myth*, trans. P. Bing, Berkeley.
- Caroliou, G. A. 1997. "Kyrenia II: The Return from Cyprus to Greece of the Replica of a Hellenic Merchant Ship," in *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity. Proceedings of the Second International Symposium "Cities on the Sea," Nicosia, Cyprus, October 18–22, 1994*, ed. S. Swiny, R. L. Hohlfelder, and H. W. Swiny, Atlanta, pp. 83–97.
- Carlson, D. N. 2009. "Seeing the Sea: Ships' Eyes in Classical Greece," *Hesperia* 78, pp. 347–365.
- Casson, L. 1958. "Hemiolia and Triemolia," *JHS* 78, pp. 14–18.
- . 1975. "Bronze Age Ships: The Evidence of the Thera Wall Paintings," *IJNA* 4, pp. 3–10.
- . 1995. *Ships and Seamanship in the Ancient World*, rev. ed., Baltimore.
- Cincinnati Sculpture = *Sculpture Collection of the Cincinnati Art Museum*, Cincinnati 1970.
- Davies, J. K. 1967. "Demosthenes on Liturgies: A Note," *JHS* 87, pp. 33–40.
- Davies, M. I. 1978. "Sailing, Rowing, and Sporting in One's Cups on the Wine-Dark Sea," in *Athens Comes of Age: From Solon to Salamis. Papers of a Symposium Sponsored by the Archaeological Institute of America, Princeton Society, and the Department of Art and Archaeology, Princeton University*, Princeton, pp. 72–95.
- Davies, N. d. G. 1930. "The Egyptian Expedition, 1929–1930: The Work of the Graphic Branch of the Expedition," *BMAA* 25:12, Pt. 2, pp. 29–42.
- Davison, J. A. 1958. "Notes on the Panathenaea," *JHS* 78, pp. 23–42.
- de Ridder, A. 1896. *Catalogue des bronzes trouvés sur l'acropole d'Athènes* (BÉFAR 74), Paris.
- Deubner, L. 1956. *Attische Feste*, Berlin.
- Dyer, L., 1891. *Studies of the Gods in Greece at Certain Sanctuaries Recently Excavated*, London.
- Egberts, A. 1991. "The Chronology of The Report of Wenamun," *JEA* 77, pp. 57–67.
- Epigraphic Survey 1979 = Epigraphic Survey, *Scenes of King Heribor in the Court, with Translations of Texts* (The Temple of Khonsu 1), Chicago 1979.
- Foucart, G. 1921–1922. "Un temple flottant: Le vaisseau d'or d'Amon-Râ," *MonPiot* 25, pp. 143–169.
- Frickenhaus, A. 1912. "Der Schiffskarren des Dionysos in Athen," *JdI* 27, pp. 61–79.
- Gardner, E. A. 1914. "The Panathenaic Ship of Herodes Atticus: Philostratus, *Vitae Sophistarum* II. v.," *CR* 28, pp. 225–226.
- Gardner, P. 1881a. "Boat-Races among the Greeks," *JHS* 2, pp. 90–97.
- . 1881b. "Boat-Races at Athens," *JHS* 2, pp. 315–317.
- Göttlicher, A. 1978. *Materialien für ein Corpus der Schiffmodelle im Altertum*, Mainz.
- . 1992. *Kultschiffe und Schiffskulte im Altertum*, Berlin.
- Hale, J. R. 2009. *Lords of the Sea: The Epic Story of the Athenian Navy and the Birth of Democracy*, New York.
- Hammacher, A. M., and J. Brockway. 1985. *René Magritte*, New York.
- Harrison, J. E. 1885. "Odysseus and the Sirens—Dionysiac Boat-Races—A Cylix by Nikosthenes," *JHS* 6, pp. 19–29.
- Hocker, F. 1998. "Glossary of Nautical Terms," in Wachsmann 1998, pp. 377–381.

- Hornig, K. 2002. "Relikte altägyptischer Segelfahrzeuge," *Skyllis. Zeitschrift für Unterwasserarchäologie* 5, pp. 4–18.
- Hurwit, J. M. 1999. *The Athenian Acropolis: History, Mythology, and Archaeology from the Neolithic Era to the Present*, Cambridge.
- . 2004. *The Acropolis in the Age of Pericles*, Cambridge.
- Johnston, P. F. 1985. *Ship and Boat Models in Ancient Greece*, Annapolis.
- Jordan, B. 1972. *The Athenian Navy in the Classical Period: A Study of the Athenian Naval Administration and Military Organization in the Fifth and Fourth Centuries B.C.* (University of California Publications, Classical Studies 13), Berkeley.
- Kennedy, D. H. 1976. "Cable Reinforcement of the Athenian Trireme," *Mariner's Mirror* 62, pp. 159–168.
- Kerényi, C. 1976. *Dionysos: Archetypal Image of Indestructible Life* (Bollingen Series 65), trans. R. Manheim, Princeton.
- Kitchen, K. A. 1973. *The Third Intermediate Period in Egypt (1100–650 B.C.)*, Warminster.
- Kopcke, G. 1967. "Neue Holzfunde aus dem Heraion von Samos," *AM* 82, pp. 100–148.
- Kyle, D. G. 1992. "The Panathenaic Games: Sacred and Civic Athletics," in Neils 1992a, pp. 76–101.
- . 1996. "Gifts and Glory: Panathenaic and Other Greek Athletic Prizes," in Neils 1996a, pp. 106–136.
- Kyrieleis, H. 1980. "Archaische Holzfunde aus Samos," *AM* 95, pp. 87–147.
- Lilliu, G. 1966. *Sculture della Sardegna nuragica*, Cagliari.
- Lloyd, A. B. 1975. "Were Necho's Triremes Phoenician?" *JHS* 95, pp. 45–61.
- Mansfield, J. M. 1985. "The Robe of Athena and the Panathenaic Peplos" (diss. Univ. of California, Berkeley).
- Martin, H. G. 1999. "Ein Schiffmodell vom Kerameikos und der Panathenaizug," *Skyllis. Zeitschrift für Unterwasserarchäologie* 2, pp. 138–152.
- Mikalson, J. D. 1975. *The Sacred and Civil Calendar of the Athenian Year*, Princeton.
- Moll, I. F. 1929. *Das Schiff in der bildenden Kunst: Vom Altertum bis zum Ausgang des Mittelalters*, Bonn.
- Morrison, J. S., and R. T. Williams. 1968. *Greek Oared Ships, 900–322 B.C.*, Cambridge.
- Neils, J., ed. 1992a. *Goddess and Polis: The Panathenaic Festival in Ancient Athens*, Princeton.
- . 1992b. "The Panathenaia: An Introduction," in Neils 1992a, pp. 13–27.
- , ed. 1996a. *Worshipping Athena: Panathenaia and Parthenon* (Wisconsin Studies in Classics), Madison.
- . 1996b. "Pride, Pomp, and Circumstance: The Iconography of Procession," in Neils 1996a, pp. 177–197.
- . 2001. *The Parthenon Frieze*, Cambridge.
- . 2005. "'With Noblest Images on All Sides': The Ionic Frieze of the Parthenon," in *The Parthenon: From Antiquity to the Present*, ed. J. Neils, Cambridge, pp. 199–223.
- . 2007. "Replicating Tradition: The First Celebrations of the Greater Panathenaia," in Palagia and Spetsieri-Choremi 2007, pp. 41–51.
- Neils, J., and S. V. Tracy. 2003. *The Games at Athens (AgoraPicBk 25)*, Princeton.
- Norman, N. J. 1983. "The Panathenaic Ship," *ArchNews* 12, pp. 41–46.
- Ohly, D. 1953. "Holz," *AM* 68, pp. 77–126.
- Østergaard, J. S. 2008. "Emerging Colors: Roman Sculpture Polychromy Revived," in *The Color of Life: Polychromy in Sculpture from Antiquity to the Present*, ed. R. Panzanelli, E. D. Schmidt, and K. D. S. Lapatin, Los Angeles, pp. 40–61.
- Palagia, O. 2008. "The Date and Iconography of the Calendar Frieze on the Little Metropolis, Athens," *JdI* 123, pp. 215–237.
- Palagia, O., and A. Spetsieri-Choremi, eds. 2007. *The Panathenaic Games. Proceedings of an International Conference Held at the University of Athens, May 11–12, 2004*, Oxford.
- Parke, H. W. 1977. *Festivals of the Athenians*, London.
- Parker, R. 1996. *Athenian Religion: A History*, Oxford.
- . 2005. *Polytheism and Society at Athens*, Oxford.
- Paton, J. M., G. P. Stevens, L. D. Caskey, H. N. Fowler, and T. W. Heermance. 1927. *The Erechtheum*, Cambridge.
- Pickard-Cambridge, A. W. 1968. *The Dramatic Festivals of Athens*, 2nd ed., rev. J. Gould and D. M. Lewis, Oxford.
- Pinney, G. F. 1988. "Pallas and Panathenaia," in *Proceedings of the 3rd Symposium on Ancient Greek and Related Pottery, Copenhagen, August 31–September 4, 1987*, ed. J. Christiansen and T. Melander, Copenhagen, pp. 465–477.
- Pittakis, K. S. 1862. "Τὸ ἐν τῷ Ἐρεχθεῖῳ εὐρεθὲν πλοῖον," *ArchEph* 1, cols. 91–94.
- Pritchard, J. B., ed. 1969. *Ancient Near Eastern Texts Relating to the Old Testament*, Princeton.
- Rife, J. L. 2008. "The Burial of Herodes Atticus: Elite Identity, Urban Society, and Public Memory in Roman Greece," *JHS* 128, pp. 92–127.
- Robertson, N. 1985. "The Origin of the Panathenaia," *RhM* 128, pp. 231–295.
- . 1992. *Festivals and Legends: The Formation of Greek Cities in the Light of Public Ritual (Phoenix Suppl. 31)*, Toronto.
- . 1996. "Athena's Shrines and Festivals," in Neils 1996a, pp. 27–77.
- Roccos, L. J. 1995. "The Kanephoros and Her Festival Mantle in Greek Art," *AJA* 99, pp. 641–666.
- Saglio, E., E. Pottier, and G. Lafaye. 1877. *Dictionnaire des antiquités grecques et romaines d'après les textes et les monuments* 3, Paris.
- Shapiro, H. A. 1996. "Democracy and Imperialism: The Panathenaia in the Age of Pericles," in Neils 1996a, pp. 215–225.
- Shear, J. L. 2001. "Polis and Panathenaia: The History and Development of Athena's Festival" (diss. Univ. of Pennsylvania).
- Simon, E. 1983. *Festivals of Attica: An Archaeological Commentary* (Wisconsin Studies in Classics), Madison.
- . 1996. "Theseus and Athenian Festivals," in Neils 1996a, pp. 9–26.

- Spathari, E. 1995. *Sailing through Time: The Ship in Greek Art*, trans. D. Hardy, Athens.
- Spetsieri-Choremi, A. 2000. "Θραύσμα αναθηματικού αναγλύφου από την περιοχή του αθηναϊκού Ελευσινίου," *ArchEph* 139, pp. 1–18.
- Staïs, V. 1910. *Marbres et bronzes du Musée National*, Athens.
- Steffy, J. R. 1994. *Wooden Ship Building and the Interpretation of Shipwrecks*, College Station.
- Svoronos, J. N. 1899. "Der athenische Volkskalender," *JLAN* 2, pp. 21–78.
- Sylvester, D. 1992. *Magritte: The Silence of the World*, New York.
- Tobin, J. 1991. "The Panathenaic Ship of Herodes Atticus," *American School of Classical Studies at Athens Newsletter* (Spring 1991), p. 5.
- . 1993. "Some New Thoughts on Herodes Atticus's Tomb, His Stadium of 143/4, and Philostratus *VS* 2.550," *AJA* 97, pp. 81–89.
- Trakadas, A. 2008. "Athenian Nautemachiai: Hellenistic and Imperial Naval Festivals and Their Contexts," in *Tropis X, Program and Abstracts*.
- Tropis X, Program and Abstracts = Tropis X. Tenth International Symposium on Ship Construction in Antiquity (Hydra, 27 August–3 September 2008): Program and Abstracts*, 2008.
- Tzalas, H., 2008. "The Ship Model No. 17420 of the Distomo Archaeological Museum," in *Tropis X, Program and Abstracts*.
- Vigneau, A., and E. Drioton. 1949. *Le Musée du Caire: Encyclopédie photographique de l'art*, Paris.
- Vinson, S. M. 1993. "The Earliest Representations of Brailed Sails," *JARCE* 30, pp. 133–150.
- Vos, R. L. 1993. *The Apis Embalming Ritual: P. Vindob. 3873* (Orientalia Lovaniensia Analecta 50), Leuven.
- Wachsmann, S. 1996. "Bird-Head Devices on Mediterranean Ships," in *Tropis IV. Proceedings of the 4th International Symposium on Ship Construction in Antiquity, Athens, 28–31 August 1991*, ed. H. E. Tzalas, Athens, pp. 539–572.
- . 1998. *Seagoing Ships and Seamanship in the Bronze Age Levant*, College Station.
- . 2002a. "The Mould of Abu el Haggag: A Contemporary Boat Festival in Egypt," in *Tropis VII. Proceedings of the 7th International Symposium on Ship Construction in Antiquity, Lamia, 28–30 August 1996*, vol. 1, ed. H. E. Tzalas, Athens, pp. 821–835.
- . 2002b. "Sailing into Egypt's Past: Does a Celebration of Luxor's Patron Saint Echo Ancient Pharaonic Traditions?" *Archaeology* 55:4, pp. 36–39.
- . Forthcoming. *The Gurob Ship-Cart Model and Its Mediterranean Context* (Ed Rachal Foundation Nautical Archaeology Series), College Station.
- Walters, H. B. 1914. *Catalogue of the Greek and Roman Lamps in the British Museum*, London.
- Welch, K. 1998. "Greek Stadia and Roman Spectacles: Asia, Athens, and the Tomb of Herodos Atticus," *JHS* 11, pp. 117–145.
- Werner, W. 1997. "The Largest Ship Trackway in Ancient Times: The Diolkos of the Isthmus of Corinth, Greece, and Early Attempts to Build a Canal," *IJNA* 26, pp. 98–117.
- Wickett, E. 2009. "Archaeological Memory, the Leitmotifs of Ancient Egyptian Festival Tradition, and Cultural Legacy in the Festival Tradition of Luxor: The *Mulid* of Sidi Abu'l Hajjaj al Uqsori and the Ancient Egyptian 'Feast of Opet,'" *JARCE* 45, pp. 403–426.
- Wilson, R. J. A. 1987–1988. "Archaeology in Sicily, 1982–87," *AR* 34, pp. 105–150.

Shelley Wachsmann

TEXAS A&M UNIVERSITY
NAUTICAL ARCHAEOLOGY PROGRAM
DEPARTMENT OF ANTHROPOLOGY
COLLEGE STATION, TEXAS 77843-4352

INSTITUTE OF NAUTICAL ARCHAEOLOGY
P.O. DRAWER HG
COLLEGE STATION, TEXAS 77841-5137
swachsmann@tamu.edu