

## The Ships from Herodium

*Yaacov Kahanov, Deborah Cvikel, Silvia Rozenberg,  
Yakov Kalman, Rachel Chachy and Roi Porat*

Ships are depicted in two nautical scenes in the unique wall paintings discovered in the Royal Room next to the private small theatre of Herod the Great at Herodium near Jerusalem. The walls of the Royal Room were finely adorned with wall paintings and stucco decorations, dated to about 20–15 BC. The first scene, on a large fragment, is of sailing warships, with lively depictions of sails, wind, running rigging and a view of square sails from the front. The second painting, restored from hundreds of fragments, depicts a Nilotic scene in which a boat with mast and furled sail is shown making way under oars. An Egyptian context for the paintings is suggested, which may support a historical link to the battle of Actium, possibly commemorating it on the occasion of the visit of Marcus Vipsanius Agrippa to Jerusalem in 15 BC.

**Key words:** Herodium, Roman ships, wall painting, ship graffiti, battle of Actium, Nile

Mount Herodium is located 12 kilometres south of Jerusalem. At 758 metres above sea level it is the highest peak in the Judean desert. Between 25 and 15 BC Herod the Great (74/73–4 BC) built a circular royal palace fortress on the top of the hill and a large palace with several wings for guests and the local staff at the foot of the mountain.<sup>1</sup> A small theatre was built on the slopes of the hill. At the back of the theatre, behind the seating area, a group of rooms was constructed, most of them service rooms around a central chamber, the Royal Room, which served as the king's reception room. The late Professor Ehud Netzer of the Hebrew University of Jerusalem conducted excavations at Herodium from 1972 until his death in 2010. In addition to the excavation of the Lower Palace and its surrounding complex, Netzer located the tomb of Herod and excavated the theatre and rooms above it.<sup>2</sup>

The walls of the Royal Room were finely adorned with wall paintings and stucco decorations, many of them preserved *in situ*. On the lower part of the room's walls are two layers of wall painting: the earlier lower layer, painted in the fresco technique, and the later upper layer, in *secco*. The upper part of the walls was left in white, but its top register featured a series of 'hanging' pictures (*pinakes*), imitating three-dimensional wooden panels with folded shutters at the side. Some of the pictures were preserved intact on the walls, while others were reconstructed from plaster fragments found near the walls. Technique and motifs suggest that their source was actually Alexandria, and that the artists who worked at Herodium were from there. The closest parallels to the Herodium paintings post-date the year 20 BC, dating the paintings in Herodium stylistically to 20–15 BC.<sup>3</sup>

The landscapes in the hanging pictures include country scenes and two nautical

1 Josephus, *Jewish Wars* I, 21.10.

2 Netzer et al., 'Preliminary Report on Herod's mausoleum and theatre with a royal box at Herodium', 84–109; Porat et al., *Herod's Tomb Precinct*.

3 Rozenberg, 'Interior Decoration in Herod's Palaces', 167–223.



Figure 1 Scene 1 (photograph by M. Suchowolski courtesy of the Israel Museum, Jerusalem)

scenes. The first nautical scene (scene 1), on a large fragment which had fallen from one of the walls, is of sailing warships. The uniqueness and importance of the warship scene are mainly in the lively depiction of wind and sail, and the exceptional view of the square sail from the front. The second scene (scene 2) is of a boat in a quiet riverine, perhaps Nilotic, landscape. Analyses of the maritime aspects of the ship depictions follow.

### *Scene 1*

The scene is fragmentary. The size of the surviving image is 51.0 centimetres wide by 41.8 centimetres high. Dozens, perhaps hundreds, of fragments, the majority a few centimetres in size, perhaps related to additional ships, have yet to be restored. Some of these fragments were exhibited separately in the Herod the Great exhibition at the Israel Museum, Jerusalem, in 2014. Thus additions to the frescoes are expected in the future, as well as the possible identification of additional ship(s?). The lower sections of the ships, the hulls, have not yet been restored and are not shown (see figures 1 and 2).

Scene 1 depicts two warships in which several warriors are discernible. The first ship, closer to the viewer, partially hides the second ship. The ships are shown in a three-quarter view from their starboard bow, which is to the viewer's right. The largest and best image is of the first ship, nearest to the viewer. The second is partially hidden by the first, and its sail is darker and shorter than the sail of the first one, as it is reefed. The two ships are beautifully shown, with square sails catching a good wind, the stem with a small figurehead and ribbon, the masts shown up to the



The top section of the mast, up to the masthead (MH1), is long and thin, and ends with an indistinct feature. This could be a decoration, similar to the pinecone-shaped masthead of the right-hand ship represented in the Torlonia relief,<sup>6</sup> or a votive figure used as a wind-vane.<sup>7</sup>

Four lines (9, 10, 11 and 12) extend from below, diagonally upward and to the right, towards the foot of the sail, in front of the mast, in front of the figurehead of the second ship (F2) and aft of the figurehead of the first ship (F1), but do not continue as far as the sail itself. These lines are interpreted as the spears of the warriors on board the first ship (and see below).

A curved line (13 and 13a) connects the port end of the yard (to the right as seen by the viewer) in front of the sail, to the deck. This is the port back brace (preventer brace, *opisthypera*).<sup>8</sup> Two lines (14 and 15) are shown diagonally below the sail, aft of the mast. They could have been spears, perhaps belonging to the second ship (see below). However, if they represent ropes connecting the foot of the sail and the hull, for controlling and adjusting the foot of the sail, it is the first representation of such ropes in the Mediterranean. The *Kyrenia Liberty*, the second replica of the *Kyrenia* shipwreck,<sup>9</sup> uses similar ropes for practical reasons.

The sheet which holds the port side clew of the sail (left side of the sail, lower corner, lower right-hand side of the viewer) is well expressed by a line (16), thicker than the other lines.<sup>10</sup> Apparently a similar idea is the thick dark line which runs along the foot of the sail and the starboard clew at an angle towards the hull (17).

Two relatively thick lines are connected to the starboard side of the yard (23a, 23b and 24). The short line 23a extending downwards from the yard may be connected to 23b. Thus, 23 could have been a starboard brace. Apparently 24 was the starboard back brace (preventer brace, *opisthypera*); alternatively, see brails of the second ship below.

No reefing fittings are visible on the forward side of the sail, which would have chequered it with sail-strips and brails, with lead rings or similar fittings made of wood. Reefing fittings may perhaps be indicated by the short wavy horizontal lines on the sail. This is also found in some other images of sails.<sup>11</sup> Several diagonal lines (33, 34, 35, 36[?]) are visible between the starboard leech of the sail (the vertical left side of the sail as seen by the viewer), crossing the mast of the second ship, and converging towards the hull. These are the reefing brails of the sail.<sup>12</sup>

Standing rigging is not shown, and was probably ignored by the artist. Shrouds were rarely represented, although they had a major function, and their non-appearance

6 Basch, *Le musée imaginaire*, 466.

7 Basch, *Le musée imaginaire*, 466; Kemp, *Oxford Companion*, 906; Landström, *Histoire du voilier*, 30 fig. 63, 34 fig. 77.

8 Basch, *Le musée imaginaire*, 458 fig. 1015; Casson, *Illustrated History*, 26 fig. 50; Casson, *Ships and Seamanship*, 260 and note 6, fig. 154.

9 Steffy, 'The *Kyrenia* Ship: An interim report on its hull construction', 71–101.

10 Casson, *Ships and Seamanship*, fig. 171.

11 Basch, *Le musée imaginaire*, 458 fig. 1015, 462 fig. 1030, 466 fig. 1041, 479 fig. 1082, 486 fig. 1105; Casson, *Ships and Seamanship*, figs 138, 144, 145, 149; Katzev, 'An analysis of the experimental voyages of *Kyrenia II*', 253; Steffy, *Wooden Ship Building*, 231 fig. 8–20; Walker, 'The Palestrina Mosaic', 334 fig. 353 upper left sailing ship.

12 Basch, *Le musée imaginaire*, 460 fig. 1027, 469 fig. 1051; Casson, *Ships and Seamanship*, fig. 188; Pomey, *La navigation dans l'antiquité*, 80; Walker, 'The Palestrina Mosaic', 334 fig. 353 upper left sailing ship.

**Table 1 Merchant ship dimensions in arbitrary relative units**

<i>Name</i>	<i>Date</i>	<i>Length of mast (to estimated mast step)</i>	<i>Length of yard</i>	<i>Ship overall length</i>
Torlonia relief*	200 AD	9	6.5	10
Relief on a sarcophagus from Sidon†	first century AD	8	7.5	12
Relief from Portus‡	third century AD	11.5	9.5	12.5
Graffito from the Palatine**	mid-first to mid- third century AD	6.5	5.5	7
Naevoleia Tyche, Pompeii‡	50 AD	5.5	7	8.5

\* Casson, *Ships and Seamanship*, fig. 144.

† Casson, *Illustrated History of Ships & Boats*, 52 fig. 65.

‡ Casson, *Ships and Seamanship*, fig. 149.

\*\* Basch, *Le musée imaginaire*, 460 fig. 1025; Castrén and Lilius, *Graffiti del Palatino, II: Domus Tiberiana*, 77–8, 80, 109 fig. 1.

‡ Basch, *Le musée imaginaire*, 459 fig. 1018, 460 fig. 1027.

is a significant omission. Apparently this was done to simplify the representation of the rigging.<sup>13</sup>

Four heads of warriors (W<sub>1</sub>–W<sub>4</sub>), three equipped with shields and spears (four spears are shown: 9–12), appear at the bottom of the scene. W<sub>4</sub> is shown down to about the knees, including a shield.

The dimensions of the warrior figures in ship 1 in scene 1 are exaggerated, but not as disproportionately as in other similar representations of the period.<sup>14</sup> A rough estimation of the ship's length is about 20 metres. If calculated based on warrior figures compared with available representations, it is significantly shorter. Due to the lack of measurable illustrations of warships equipped with sails, merchant ships were chosen for the comparison. The data collected, in arbitrary relative units (for normalization), are shown in table 1.

Normalizing and averaging the dimensions results in a ratio of mast length to overall ship length of 0.8. Considering the dimensions of warrior W<sub>4</sub>, the overall length of ship 1 is about 14 metres.

Three lines curving upward are shown at the left-hand side end of the painting (41). They probably represent the stern ornament (*aplaston*) of the first ship. Similar representations are known from the Roman world.<sup>15</sup> Slightly forward of the sternpost, there is a bicoloured object (40). It could represent a warrior, but it seems to be elongated and rectangular. A more likely interpretation would be the top section of the loom of the starboard quarter rudder.

The stems of the ships (F<sub>1</sub> of the first ship and F<sub>2</sub> of the second ship) with the figureheads are similar. They are adorned with a ribbon, apparently a commissioning pennant (*vexillum*). This is well known from other representations of Roman ships.<sup>16</sup>

13 Basch, *Le musée imaginaire*, 476.

14 For example Casson, *Ships and Seamanship*, figs 127, 128, 130 and 132.

15 Basch, *Le musée imaginaire*, 422 figs 906, 910, 426 fig. 919, 427 figs 923–4, 429 fig. 926 (d) and 430 fig. 928; Casson, *Ships and Seamanship*, figs 129 and 131.

16 Basch, *Le musée imaginaire*, 419 figs 899–901, 429 fig. 926 (A, C); Casson, *Ships and*



### The second ship

The second ship is only partially shown, as it is behind the first ship, while the hull is in the unrestored lower section of the depiction. It is also equipped with a square sail. The sail is furled; and more of the lower part of the mast is exposed than that of the first ship. Although the second ship is very near to the first ship, her (furled) sail does not mask the sail of the first ship. Mast, yard, running rigging, and stem with figurehead are well portrayed. Warriors, apparently belonging to the second ship, as well as their spears, are also shown.

The halyard and lifts (26, 27, 28, 29, 30 and 31) are visible. Two diagonal lines (14 and 15), mentioned above, appear below the sail of the first ship, aft of her mast. They are apparently spears or running rigging belonging to the second ship. The top of the mast, up to the masthead (MH2) is long and thin, but its end is unclear. It was probably similar to that of the first ship.

The diagonal lines (37, 38, and perhaps also 36 and 24), which are discernible between the sails of the second ship above and the hull below, grouped towards the hull, are the brails of the furled sail of the second ship.<sup>17</sup> The starboard sheet of the sail of the second ship (39) is clearly visible, similar to the sheets of the sail of the first ship. It is thicker than other lines, and darker than the sail.

At least one warrior (W5) belonging to the second ship is visible aft of her mast. Four vertical lines (18, 19, 20 and 21) are visible between the hull below, and the mast and sail of the second ship. These lines are interpreted as the spears of the warriors on board the second ship.

As mentioned above, item 40 could represent a second warrior of the second ship, but it is more likely to be the end of the loom of the starboard rudder of the first ship. The figurehead of the second ship (F2) is aft of the figurehead of the first ship (F1), and is similar to it.

Three warriors (W1, W4 and W5), equipped with spears and shields, seem to be standing. This is not realistic, as in the sailing conditions exemplified by the sail, it would have been impossible to stand with this equipment for more than a few minutes. Although warriors are seen standing on board Roman oared warships when not in combat,<sup>18</sup> these seem to be ceremonial occasions, but cannot be a real sailing situation. This seems to indicate that the purpose of the depiction was to make an impression, rather than to show realistic details.

The closest similar depiction to the ship representation known today is from a villa near Sirmione, Lake Garda, Italy, dated to the late first century BC. It is that of a merchant galley approaching a coast under sail and oars. A square sail is shown from ahead.<sup>19</sup> A later parallel is the fresco in the temple of Isis in Pompeii, also dated to the first century AD. A warship, probably a Liburnian, with an unfurled square sail near the bow is shown. Shields and spears are visible. Three indistinct marks may perhaps represent warriors, but this is uncertain.<sup>20</sup>

---

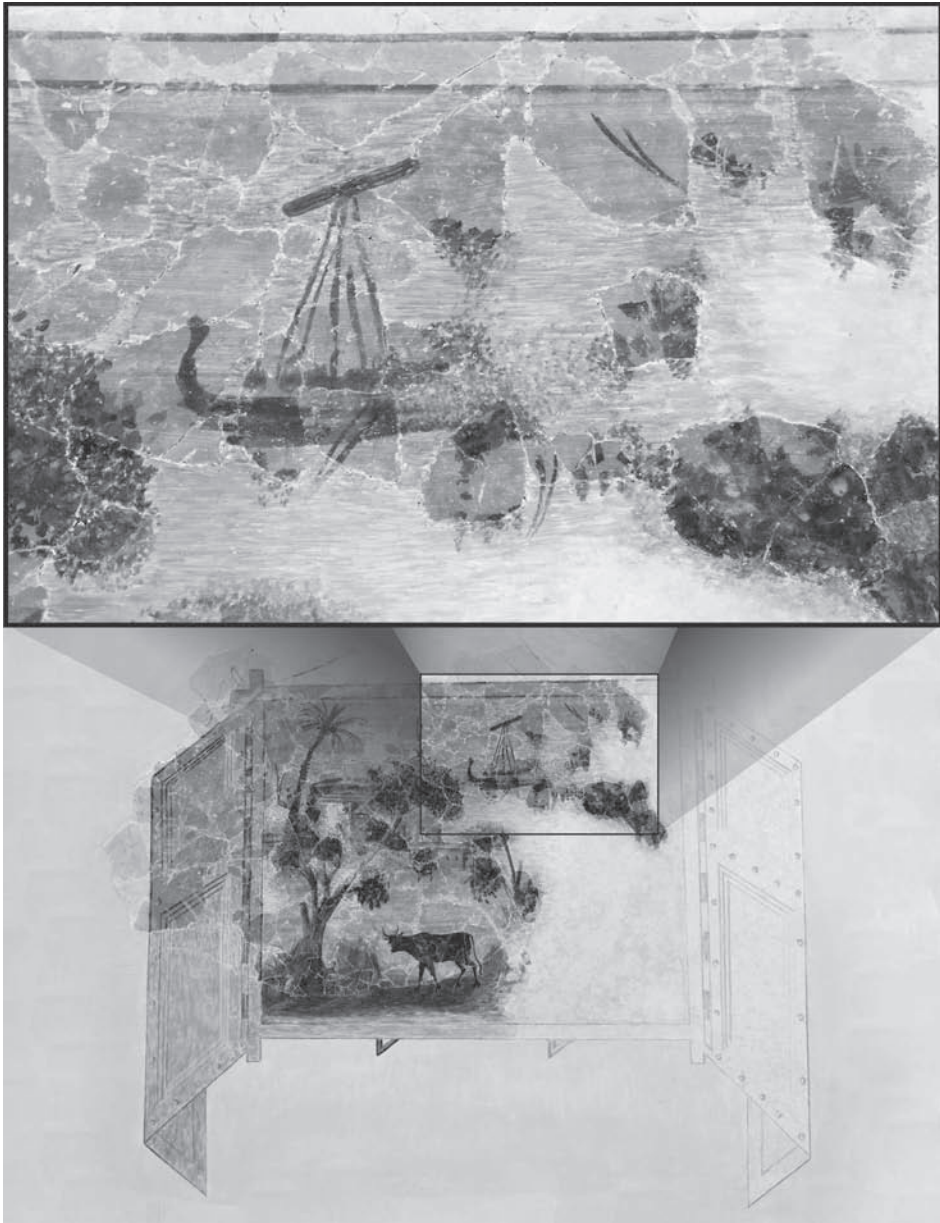
*Seamanship*, figs 124, 125 and 129–33.

17 Basch, *Le musée imaginaire*, 460 fig. 1027, 469 fig. 1051; Casson, *Ships and Seamanship*, fig. 188; Pomey, *La navigation dans l'antiquité*, 80.

18 Casson, *Ships and Seamanship*, figs 119, 130.

19 *Ibid.*, fig. 138.

20 Casson, *Illustrated History*, 26 fig. 50; Ucelli, *Le Navi di Nemi*, 256 fig. 287 top left.



*Figure 3* Scene 2, showing the detail of the boat above with the entire three-dimensional painting imitating a window with a riverine scene below (photograph by M. Suchowolski courtesy of the Israel Museum, Jerusalem)

The warships scene at Herodium can be interpreted as representing the battle of Actium, which was fought on 2 September 31 BC, when Marcus Vipsanius Agrippa (64/63–12 BC), Octavian's general who commanded the left (north) wing of Octavian's fleet, defeated the fleet of Mark Anthony and Cleopatra.

Caligula later advised Agrippa to travel to Palestine by one of the Puteoli to Alexandria freighters, rather than by land, as the skippers 'drive them like racehorses'.<sup>21</sup> Although this sentence refers to grain ships, and not to warships, from the seamanship point of view, it is a good literary description of the Herodium painting.

### *Scene 2*

The second nautical depiction shows a riverine scene (see figure 3). A boat is shown making way under two oars on the port side. The boat is equipped with a mast and sail. Standing rigging is well shown, in contrast to scene 1. A pair of shrouds is visible on each side of the ship. The sail is furled on the yard. A row of warriors equipped with shields appears above the gunwale. The hull has a figurehead. Two dark brown lines running along the hull seem to represent strakes, ending near the stem with two protrusions; the lower perhaps being a ram. This could have been a warship patrolling the Nile, similar to the rowing galley in the Palestrina mosaic.<sup>22</sup>

An Alexandrian connection is also possible in this scene. Supporting an Egyptian link are the fauna and flora, which are typical of the Nile. Nilotic landscapes and Egyptian themes were widespread, particularly in the last years of the first century BC, when the cultural ties between Rome and Egypt were tightened in the wake of the conquest of Egypt. After the battle of Actium, Egyptian motifs were invested with new meaning as symbols of victory, and became common in wall paintings.<sup>23</sup>

### *Conclusions*

Two paintings depicting ships were part of the decoration of the Royal Room in the upper part of the theatre at Herodium. In one of the paintings two warships with square sails run in a favourable moderate to fresh breeze. Presenting warships from this viewpoint, from ahead, is unique. In the second painting, a boat with a furled sail is making its way under oars in a Nilotic landscape. In both cases the depictions were made by a professional artist who knew and understood maritime matters, and had experience in drawing ships. He could well have been a 'ship lover'.<sup>24</sup>

The closest parallels to the Herodium paintings, postdating the year 20 BC, indicate Alexandria as a source of their artistic inspiration. The maritime scene and the Nilotic landscape at Herodium can be interpreted as representing Augustus's victory at Actium and the conquest of Egypt. Perhaps the artists who worked at Herodium were Alexandrians who joined Herod's court after the fall of Antony and Cleopatra. The paintings could have been part of the preparations for the visit of Marcus Vipsanius Agrippa to Judea in 15 BC, in honour of the leading individual responsible for the victory at Actium.

21 Philo, *In Flaccum* 26; Casson, *Ships and Seamanship*, 297, note 1.

22 Basch, *Le musée imaginaire*, 441–2 figs 969 A and B; Walker, 'The Palestrina Mosaic', 334 fig. 353.

23 De Vos, *L'Egittomania in pittura*, 77; Versluys, *Aegyptiaca Romana*, 26–7; McKenzie, *The Architecture of Alexandria and Egypt*, 112.

24 Basch, *Le musée imaginaire*, 230.



### *Aknowledgements*

The authors are grateful to A. Hillman for drawing our attention to the paintings; to J. B. Tresman for the English editing; and to the anonymous reviewers.

**Yaacov Kahanov** is Professor at the Department of Maritime Civilizations, and Senior Researcher at the Leon Recanati Institute for Maritime Studies, both at the University of Haifa, Israel. He is a specialist in ancient ship construction, analysis of ancient voyages, and an active sailor who has crossed the Atlantic twice in a sailing yacht.

**Dr Deborah Cvikel** is a Researcher at the Leon Recanati Institute for Maritime Studies, and Lecturer at the Department of Maritime Civilizations, University of Haifa, Israel. Her areas of research and teaching are maritime history based on underwater archaeology, seamanship and ship-handling, and ship construction.

**Dr Silvia Rozenberg** is Senior Curator of Classical Archaeology at the Israel Museum, Jerusalem, and a retired lecturer in the Art History Department of the Hebrew University of Jerusalem, specializing in wall paintings and stucco decorations from the Hellenistic-Roman World.

**Yakov Kalman** is an MA student in archaeology at the Hebrew University of Jerusalem. He collaborated with the late Professor Ehud Netzer at the archaeological sites of Masada, Jericho and Herodium. Since 2005 he has been field supervisor on the Herodium's eastern slope, where he helped to expose Herod's tomb and private theatre.

**Rachel Chachy** is an architect and archaeologist. She worked with the late Professor Ehud Netzer at the Herodium and Jericho excavations. She is currently the architect and surveyor of the Herodium Expedition, and the coordinator, editor and co-author of the forthcoming volumes in the *Herodium Final Reports*.

**Roi Porat** is a PhD student in archaeology at the Hebrew University of Jerusalem, a member of the Herodium Expedition led by the late Professor Ehud Netzer. Since 2006 he has worked as a field supervisor and main coordinator of the excavations at Herodium.

### *References*

- Basch, L., *Le musée imaginaire de la marine antique* (Athens, 1987)  
 Casson, L., *Ships and Seamanship in the Ancient World* (rev. edn Baltimore and London, 1995)  
 Casson, L., *Illustrated History of Ships and Boats* (New York, 1964)  
 Castrén, P., and H. Lilius, *Graffiti del Palatino, II: Domus Tiberiana* (Helsinki, 1970)  
 De Vos, M., *L'Egittomania in pitture e mosaici romano-campani della prima età imperial* (Leiden, 1980)  
 Katzev, L. M., 'An analysis of the experimental voyages of Kyrenia II', in H. Tzalas (ed.), *Proceedings of Tropis II, 2nd International Symposium on Ship Construction in Antiquity, Delphi August 1987* (Athens, 1990), 245–55

- Kemp, P. (ed.), *Oxford Companion to Ships and the Sea* (London, New York, Melbourne, 1976)
- Landström, B., *Histoire du voilier* (Paris, 1969)
- McKenzie, J., *The Architecture of Alexandria and Egypt, 300 BC–AD 700* (New Haven/London, 2007)
- Netzer, E., Y. Kalman, R. Porat and R. Chachy-Laureys, ‘Preliminary Report on Herod’s mausoleum and theatre with a Royal Room at Herodium’, *Journal of Roman Archaeology* 23 (2010), 84–109
- Pomey, P. (ed.), *La navigation dans l’antiquité* (Aix-en-Provence, 1997)
- Porat, R., Y. Kalman and R. Chachy, *Herod’s Tomb Precinct, Herodium I, Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer* (Jerusalem, 2015)
- Rozenberg, S., ‘Interior Decoration in Herod’s Palaces’, in S. Rozenberg and D. Mevorah (eds), *Herod the Great, The King’s Final Journey*, Exhibition Catalogue (Jerusalem, 2013), 167–223
- Steffy, J. R., *Wooden Ship Building and the Interpretation of Shipwrecks* (College Station, 1994)
- ‘The Kyrenia Ship: An Interim Report on Its Hull Construction’, *American Journal of Archaeology* 89 (1985), 71–101
- Ucelli, G., *Le Navi di Nemi* (Rome, 1950)
- Versluys, M. J., *Aegyptiaca Romana: Nilotic Scenes and the Roman Views of Egypt* (Leiden, 2002)
- Walker, S., ‘The Palestrina Mosaic: Drawings’, in S. Walker and P. Higgs (eds), *Cleopatra of Egypt, from History to Myth* (New Jersey, 2001), 334–6