

Tel Aviv

vol. 34 no. 9 2007

Journal of the Institute of Archaeology of Tel Aviv University



Tel Aviv

Journal of the Institute of Archaeology of Tel Aviv University

volume 34 number 2 2007

CONTENTS

Eric H. Cline and Assaf Yasur-Landau: Musings from a Distant Shore: The Nature and Destination of the Uluburun Ship and Its Cargo.....	125
Israel Finkelstein, Ze'ev Herzog, Lily Singer-Avitz and David Ussishkin: Has King David's Palace in Jerusalem Been Found?.....	142
Nadav Na'aman: Sargon II's Second <i>palû</i> according to the Khorsabad Annals.....	165
Aharon Sasson: Corpus of 694 Astragali from Stratum II at Tel Beersheba...	171
Lily Singer-Avitz: On Pottery in Assyrian Style: A Rejoinder.....	182
Moshe Fischer and Itamar Taxel: Ancient Yavneh—Its History and Archaeology.....	204
<i>List of Abbreviations</i>	285

Published by

THE EMERY AND CLAIRE YASS PUBLICATIONS IN ARCHAEOLOGY

(Bequeathed by the Yass Estate, Sydney, Australia)

THE INSTITUTE OF ARCHAEOLOGY, TEL AVIV UNIVERSITY

Tel Aviv

Journal of the Institute of Archaeology of Tel Aviv University

Editor

Benjamin Sass

Editorial Board

Israel Finkelstein

Nadav Na'aman

Itamar Singer

David Ussishkin

Manuscript and Production Editor

Myrna Pollak

TEL AVIV is published biannually. Contributors are asked to follow the instructions in *Notes for Contributors* published in TEL AVIV Volume 19, 1992, pp. 130–132. Offprints are available on request. The Editors are not responsible for the opinions expressed by the contributors.

Correspondence should be addressed to: The Editor, The Emery and Claire Yass Publications in Archaeology, the Institute of Archaeology, Tel Aviv University, P.O. Box 39040, Tel Aviv 69978, Israel. Website: <http://www.tau.ac.il/humanities/archaeology>, e-mail: archpubs@post.tau.ac.il

Annual subscription rate is U.S. \$50.00 including postage. Cheques should be made payable to: Friends of the Institute of Archaeology. For payment by credit card, fax a signed order along with name, card number and expiration date to 00972-3-6407237.

Cover art: (front) Maqām Abu Hureira (Raban Gamaliel's Tomb), Yavneh (photo courtesy of H. Taragan); (back) marble statue, Roman period, Yavneh.



ISSN 0334-4355
© All rights reserved

MUSINGS FROM A DISTANT SHORE: THE NATURE AND DESTINATION OF THE ULUBURUN SHIP AND ITS CARGO

Eric H. Cline

The George Washington University

Assaf Yasur-Landau

University of California at Santa Cruz

Abstract

In the following article, using both the Amarna letters and the slightly later Egyptian story of Wenamun as comparanda, we suggest that the Uluburun ship's cargo may have been comprised of goods ordered, bought and paid for by an Aegean polity. The Uluburun and its cargo, accompanied by two Aegeans, perhaps Mycenaeans, who may have served as the purchasing agents, were probably en route to their Aegean destination when the ship sank; this destination would most likely have been either Kommos on Crete or Tiryns on the Greek mainland, although Mycenae, Thebes, Pylos or Knossos are also possibilities.

The final reports by the Uluburun excavators are still years—and much labour-intensive research and analysis—away. However, numerous preliminary articles have already been published by the excavators—George Bass and Cemal Pulak—since the conclusion of the excavations in 1994 (Bass 1997; 1998; Pulak 1997; 1998; 1999; 2001; 2005). The excavators have tentatively concluded that the Uluburun ship was of Near Eastern origin; had a crew and passengers of mixed nationality, including at least two Mycenaeans; had probably sailed from a port in North Syria or Cyprus; and was heading west, most likely to the Aegean, at the time of its demise.

In this article we would like to continue the recent thread of suggestions made by Pulak (2005), Bloedow (2005) and Bachhuber (2004; 2006) concerning the nature of the Uluburun ship's cargo, the reason(s) for the presence of the two Aegean individuals on board, the ship's possible origin (see Singer 2006) and the ship's possible destination. In brief, we would like to suggest that it is conceivable the Uluburun ship's cargo was comprised of goods that had been ordered, bought and paid for by an Aegean polity. Accompanied by the two Aegean individuals who may have served as the purchasing agents for the cargo, the ship began its journey from a port in either Egypt or North Syria and was en route to its destination in the Aegean when it sank; this destination may well have been Kommos or Knossos on Crete but could also have been one of several sites on the Greek mainland, including Tiryns, Mycenae, Thebes or Pylos.

AN AEGEAN SHOPPING LIST

In their series of preliminary publications concerning the Uluburun shipwreck, both Bass and Pulak have suggested that the ship's cargo was either a royal gift or royal merchandise sent from the Eastern Mediterranean (Bass 1997: 168 n. 224; Pulak 1997: 251, 256; 1998: 215, 220; 1999: 29, 59; 2001: 13; 2005: 295, 308–309). Alternatively, Kilian (1993) has argued that the cargo was the stockpile of a rich private Near Eastern merchant; a case in point would be Sinaranu, the mid-13th century BCE merchant mentioned in a Ugaritic tablet as being exempt from taxes when his ship returned from Caphtor/Crete (cf. Cline 1994: 120 [Cat. No. B3], with previous references). Similarly, Bachhuber (2006: 354–355, 359) sees the cargo as “a manifestation of elite exchange”, but not necessarily as part of a royal gift since some items “appear to be destined for nonpalatial consumers”.

However, while each of these hypotheses is indeed quite plausible, certain points can be raised in opposition, especially given the enormous quantities of raw materials, such as the ten tons of copper, the ton of tin and the ton of terebinth resin found on board the shipwreck. As Bachhuber (2006: 350, 355, 359) has recently pointed out, it can sometimes be tremendously difficult to determine whether an object was meant as a gift or as a commodity, particularly when it comes to raw materials, for in the absence of accompanying written records, “a gift...cannot be distinguished from a commodity in the archaeological record”.

Concerning the suggestion that the Uluburun cargo was a royal gift, it must be noted that both royal gifts which truly were ‘presents’ (i.e., wedding dowries, etc.) and royal gifts which were actually commercial transactions conducted in the guise of ‘gift-giving’ (cf. Cline 1995) usually consisted primarily of large numbers of finished objects and small quantities of raw materials, rather than the reverse. This can be readily seen in the 14th century BCE Amarna Letters (EA 10, 13, 14, 17, 22, 25, 27, 29, 31, 34, 41; cf. Moran 1992). However, the same texts also show a different mode of exchange, that of ‘prepayment’ for goods or of promises for a fair exchange for requested raw materials such as gold, silver and copper. For example, in Amarna Letter EA 37, the king of Alashiya sends five talents of copper and five teams of horses to the king of Egypt, with promises of additional materials if desired, which he calls a “greeting-gift” but which can be construed as a ‘prepayment’. He requests in return a shipment of pure silver:

...[The gree]ting-gift for my brother is 5 talents (of copper), 5 teams of horses. I (herewith) promptly dispatch the messenger of my brother... let me inquire about [m]y bro(the)r's health and whatever [yo]u n[ee]d put down on a tablet so I can send (it) to you. Send me pure silver. May my brother dispatch my messenger without delay. (*translation following Moran 1992: 110*)

A similar example can be seen in Amarna Letter EA 35, again sent by the king of Alashiya to the king of Egypt, in which he mentions copper that he is sending as a “greeting-gift” but which certainly sounds suspiciously like ‘prepayment’ for the requested “silver in very great quantities” and other items. He also mentions payment owed to him for a previous load of timber sent to Egypt, indicating that some goods were supposed to be paid for upon delivery. Note that the tone of the letter is quite conciliatory, despite the fact that this letter is primarily concerned with the shipment of large quantities of raw materials, as opposed to just finished goods:

I herewith send to you 500 (talents) of copper. As my brother’s greeting-gift I send it to you. ... Send your messenger with my messenger immediately, and I will send you whatever copper you, my brother, request. You are my brother. May he send me silver in very great quantities. My brother, give me the very best silver, and then I will send you, my brother, whatever you, my brother, request. (*translation following Moran 1992: 107*)

Another example can be found in the story of Wenamun (ca. 11th century BCE), which provides a good parallel for our ‘prepayment’ suggestion, even though the events took place during a period at least 200 years later than the Uluburun wreck, and during a more troubled time. Wenamun was sent by the Egyptian pharaoh to Syria-Palestine in order to buy lumber (Wente 2003). Recording a conversation he had with the Prince of Byblos during this ‘shopping expedition’, Wenamun noted the ‘prepayment’ expected both in his own situation and during similar circumstances in each of the previous two generations:

...he [the Prince of Byblos] reacted, saying to me, “On what sort of business have you come?” And I answered him, “It is in quest of lumber for the great and noble barge of Amon-Re, King of the Gods, that I have come. What your father did and what your father’s father did, you will also do,” so I said to him. And he said to me, “They did in fact supply it. You have but to pay me for supplying it, and I will supply it. Indeed my (forebears) carried out this commission, but only after Pharaoh, l.p.h., had sent six freighters loaded with Egyptian products, and they were emptied into their warehouses. You, what have you brought me in my turn?” (*translation following Wente 2003: 120*)

Moreover, the only extant recorded examples of either ‘gift-giving’ or blatantly commercial transactions actually conducted between the Aegean and the Eastern Mediterranean during the Bronze Age were also primarily concerned with finished goods rather than raw materials. Examples include: (1) the 18th century BCE Mari Letters, which mention finished objects from Caphtor/Crete (daggers and other weapons, vases and sandals) and which outnumber by ten to one the single Mari tablet recording a Caphtorian/Minoan delegation receiving raw tin (cf. Cline 1994:

126–128, Cat. Nos. D2–12, with previous references); (2) the 15th century BCE Aegean gift bearers depicted in the Egyptian 18th dynasty tombs of Rekhmire, Menkheperesenb, Useramun and Senmut, who also are primarily carrying finished goods. Raw materials are rare in these scenes. Only in the tomb of Rekhmire do Aegean men carry a single ox-hide ingot and a single ivory tusk (Wachsmann 1987: 50–52). Instead, the majority of goods carried by the Aegean peoples in these Egyptian tomb paintings are finished products: metal or ceramic vessels and containers, as well as textiles (*ibid.*: 55–77).

Concerning the suggestion that the Uluburun cargo was either royal or private merchandise, palatially-sponsored goods would seem more logical than private goods, especially since the palace probably could have more readily afforded the commercial risk involved in a venture of this kind (cf. also Pulak 1997: 251; 1998: 215; Bachhuber 2006: 355, 357). However, the 11 tons of metal on board the Uluburun wreck surely represents an enormous investment to entrust on speculation to a single wooden ship, even for a king, let alone a merchant or consortium. It certainly would have been a financial blow of some magnitude if such a ship carrying goods to be sold on speculation were to sink and its unsold cargo lost at sea.

Therefore, we envision that this valuable cargo might have been sent from the Eastern Mediterranean only if it had already been paid for in advance. Less likely possibilities are that the cargo was sent as a result of previously-signed trade agreements or because it was known that there were adequate trading facilities and/or annual ‘trade fairs’ at the Aegean port of destination. Looking at the later story of Wenamun as an example of a similar transaction, we would suggest that the goods found on board the Uluburun ship could have been purchased by one or more Aegean agents ‘shopping’ in the Eastern Mediterranean on behalf of a major Aegean polity which had specific needs for particular raw materials and perhaps finished goods as well.

If this were the case, the shipping of the merchandise on board the Uluburun would not then have represented a financial risk to the seller but instead would have been a risk for the purchaser, in that the Aegean agents might have had to be entrusted with a great sum of money or goods for exchange, and there was always the possibility that either the cargo or the money would be lost or stolen (again, as happened in the case of Wenamun). In this particular instance, since the Uluburun cargo was indeed lost (at sea), the principal victim/casualty of the maritime fiasco caused by the sinking of the ship may not have been an Eastern Mediterranean polity or person after all, but rather the Aegean polity which had prepaid for this specific cargo.

AEGEANS ON THE ULUBURUN SHIP

Pulak has suggested that at least two high-ranking Mycenaean individuals were on board the Uluburun ship during its final voyage, in part because although Mycenaean sealstones have rarely been found outside the Aegean world, two such seals were found on board the wreck, along with other Aegean items of a personal nature, including pottery, beads, weapons and tools (Pulak 1988: 37; 1993: 12; 1997: 253, 256; 1998: 210, 218–219; 1999: 29; 2001: 14, 49; 2005: 296 and *passim*; also Bass 1998: 188; Bachhuber 2004; 2006: 347, 352–355). Recently, Pulak accorded the Aegean individuals on board the Uluburun ship a greater role in the acquisition and/or transportation of the cargo than he had before (cf. previously Pulak 1997: 253), stating: “It is...unlikely that the Uluburun Mycenaean individuals were itinerant merchants returning home on a foreign ship and had little to do with the procurement of the cargo. Rather, the Mycenaean individuals probably acted as emissaries or envoys, accompanying a cargo of reciprocated ‘gift exchange’ to the Aegean” (Pulak 2005: 308; cf. also 2001: 49).

While we certainly agree with most of Pulak’s revised suggestion and statement, we also agree with Bachhuber (2006: 353–354) that it may be premature to identify these two Aegean individuals on board the Uluburun ship as specifically Mycenaean (as opposed to Minoans or others from elsewhere in the Aegean world), especially since most of the Aegean coarse-ware transport stirrup jars on board the Uluburun ship were apparently produced on Crete (Pulak 2005: 296–297).

With this in mind, we would also note that while Aegean sealstones may be good indicators of nationality, the several sets of Eastern Mediterranean weights found on board the ship (Pulak 1998: 209–210; 2005: 296) are not—and cannot be seen as—“near-conclusive evidence that Semitic merchants were on the ship” (Pulak 1998: 210). Such Eastern Mediterranean weight sets may have been used by the Aegean agents to purchase the goods in various Near Eastern markets. Alternatively, they could simply have been part of the cargo.

The absence of Aegean weight sets on the Uluburun ship would not, in fact, seem nearly so “puzzling” (Pulak 1998: 210) if the two Aegean individuals on board had indeed been sent to purchase goods in the Eastern Mediterranean, as we suggest might have been the case. Such Aegean purchasing agents ‘shopping’ in the Near East would have needed Eastern Mediterranean weight sets, rather than Aegean weight sets, if they had purchased the goods which were on board the Uluburun ship. Thus, Pulak’s earlier suggestion that these two Aegean individuals may have been merchants should perhaps be resurrected, despite the fact that only one weight on board the Uluburun ship was of probable Aegean origin (cf. most recently Pulak 2005: 308, with earlier references).

ORIGINS AND DESTINATIONS

As mentioned above, the excavators have suggested that the Uluburun ship probably sailed from a port in Cyprus or northern Syria. We would argue that while a Cypriot origin is possible, it seems more likely that the ship sailed from either a port such as Ugarit/Minet el-Beida in North Syria or an Egyptian port.

The wealthy storerooms of Egypt of the late 18th or early 19th dynasty undoubtedly could have furnished all the goods found on the ship. A striking illustration of the wealth and variety of goods available in Egypt at this time can be seen in the depiction of the storerooms of the Temple of Amun, painted within the tomb of Rekhmire (Fig. 1). It shows, among other items, baskets of blue and red glass (or possibly turquoise, carnelian and lapis lazuli); large concentrations of Canaanite jars, some possibly even containing resin (Bloedow 2005: 337); ebony and ivory; numerous rings of gold and silver and a stack of copper oxide ingots (Davies 1943: 46–47, Pl. XLVIII; Wreszinski 1923: Taf. 328). As Norman de Garis Davies pointed out long ago, “this is all produce from outside Egypt proper” (Davies 1943: 47).

If this had been the case, there would have been no real need for the ship to make frequent stops along the way to pick up each product in its place of production—e.g., to stop for copper in Cyprus, Canaanite jars in Syria, glass in Egypt. Instead, the risks in such a maritime venture could have been minimized by collecting and loading all of the goods in one place, such as in Egypt. An alternative point of origin could have been Ugarit, for the storerooms at Minet el-Beida, such as the one found still filled with Canaanite jars (Schaeffer 1932: Pl. III: 3), could have also been a place in which the stockpile of goods was gathered in preparation for the huge Aegean order.

Moreover, Singer (2006, esp. 256–258) presents an intriguing discussion of new philological evidence, in the form of two letters found at Ugarit, for Ugaritian ships sailing to Lukka (Lycia, in southwestern Anatolia) and perhaps beyond, with a cargo of PAD.MES (probably metal ingots) during these centuries of the Late Bronze Age. Singer tentatively suggests that this new evidence might be seen in connection with the ships that sank off the Lycian coast with their rich metal cargoes, in particular the Cape Gelidonya and Uluburun ships—the latter is approximately contemporary with the two letters in question from Ugarit. These letters apparently contain the first-ever occurrence in Akkadian of a reference to the Mycenaeans: a version of the Hittite word *Ahhiyawa*, used in these letters to refer to the “Hiyawa-men” and rendered into Akkadian as the gentilicon *Hiyau(wi)* (RS 94.2523 = LÚ *hi-ia-ú-wi-i* and RS 94.2530 = both LÚ *hi-ia-a-ú* and LÚ.MEŠ *hi-ia-ú-wi-i*; cf. Singer 2006: 250–252 and previously Lackenbacher and Malbran-Labat 2005: 237–238 and nn. 69, 76).

Thus, we would suggest that the most likely point of departure/origin for the ship was either Egypt or North Syria. Although the ship may have had to make stops for food and water along the way in both directions and could have both loaded and

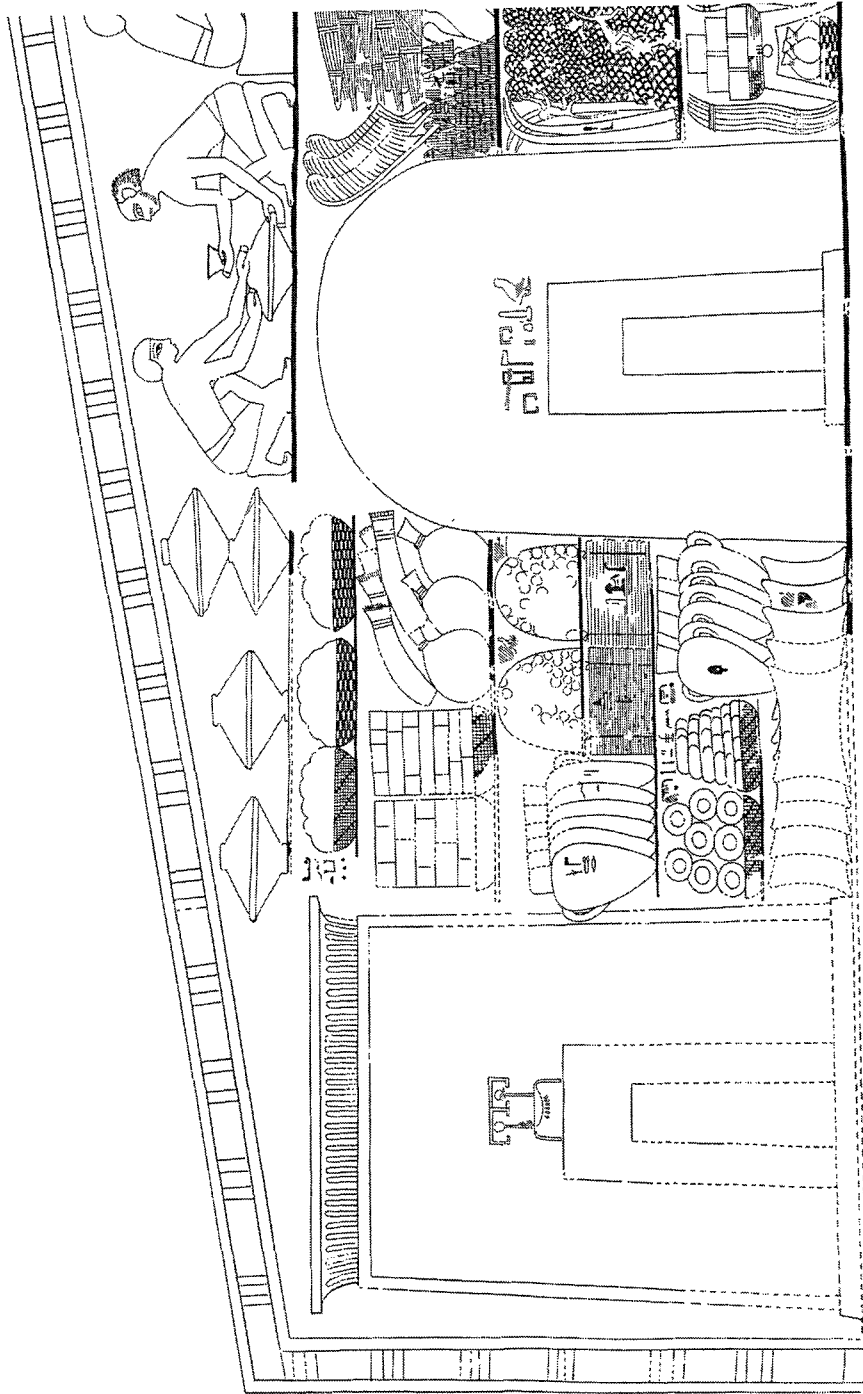


Fig. 1. The storerooms of the Temple of Amun, as depicted in the tomb of Rekhmire (after Davies 1943: Pl. XLVIII).

offloaded portions of its cargo at such intermediate stops, it does seem to us that the ship was probably sailing for a particular Aegean site, rather than cruising from port to port around the Aegean and Eastern Mediterranean. We therefore agree with Bass (1997: 159), Pulak (1997: 251; 1998: 215–216, 218–219; 1999: 29, 59; 2001: 47) and Bachhuber (2006: 355, 357–359) that the ship was headed for a specific destination in the Aegean, most likely on Crete or mainland Greece, and disagree with Bloedow (2005) who has recently suggested that the Uluburun ship was heading for Egypt (cf. Bachhuber 2006: 359 n. 176, who also disagrees with Bloedow's suggestion).

Pulak has briefly discussed the following as possible destinations for the Uluburun ship: Kommos and Knossos on Crete, Ialysos on Rhodes and both the Peloponnese in general and Tiryns in particular on the Greek mainland (Pulak 1997: 251; 1998: 215–216; 1999: 59). Bachhuber discusses a similar list but ultimately favours Knossos as the final destination (2006: 355, 357–359). If, as we suggest, the ship and its cargo were headed for the major Aegean polity which had ordered, bought and paid for the goods on board, then the nature of the cargo might help in identifying the intended destination. Since the goods were mainly raw materials, the ship is likely to have been en route to a major polity which possessed workshops for handling these materials (cf. Bachhuber 2006: 351) or to a port site which could have served as a 'gateway' (cf. Cline 1994: 87–88, with references) into a larger hinterland where the goods could have been distributed or resold at a profit. The specific destination therefore might be sought using the following criteria:

- (1) There should be evidence for the presence of workshops for the working of metal, ivory, gold, glass and perfume at the site, which would utilize the specific raw materials found on the Uluburun ship (perfume production would use at least a portion of the terebinth resin and coriander found on board).
- (2) There should be Egyptian and Near Eastern worked objects (*Orientalia*) or imported raw materials present at the site, indicating previous familiarity with Eastern Mediterranean products.
- (3) There should be Linear B textual references to Egyptian and Near Eastern worked objects, imported raw materials or foreign people at the site, whose presence indicates previous contact with the Eastern Mediterranean.
- (4) The site should be large enough and wealthy enough to allow the undertaking of such a 'shopping' expedition and should be connected to a large hinterland for which it served as a 'gateway community'.

Here considering the date of the shipwreck becomes important. The Uluburun ship sank ca. 1300 BCE (Bass 1998: 188, 190), during what was essentially a period of transition from LH/LM IIIA2 to LH/LM IIIB1 ceramics (Warren and Hankey 1989: 169; Dickinson 1994: 20–21; Pulak 1997: 250; 1998: 214; Wiener 1998). The major Aegean centres active at that time include Mycenae, Tiryns, Thebes, Pylos,

Gla, Orchomenos, Sparta (Menelaion) and Athens on the Greek mainland, Ialysos on Rhodes, and Knossos, Kommos, Khania, Ayia Triadha and Phaistos on Crete. Although it is possible that two or more of these sites could have joined together to place a combined order, this seems unlikely. Of these sites, Athens, Orchomenos, Gla, the Menelaion and Ialysos do not meet all or even most of the criteria mentioned above and can be eliminated immediately.

On Crete, Knossos at first glance seems to be a good candidate. It possessed a variety of workshops, was apparently the most powerful and wealthiest of the palatial centres on Crete, and has yielded a reasonably large quantity of imports from the Eastern Mediterranean. In addition, its Linear B tablets contain a number of possible references to Egyptian and Near Eastern goods (Evely *et al.* 1994; Cline 1994). Of particular interest are the references to copper ingots and to the importation of 18,400 litres of terebinth resin, as recorded on the Linear B tablets at Knossos (Bass 1997: 155, 164; Pulak 1997: 241; 1998: 202). However, Knossos seems to have already reached its zenith and been at least partially destroyed, by either invaders or internal warfare, before or perhaps at approximately the same time as the sinking of the Uluburun ship in the late 14th century BCE (Popham 1970; 1997; Hallager 1978; 1988; Niemeier 1982; Rehak and Younger 1998; Manning and Bronk Ramsey 2003; see now Bachhuber 2006: 347 n. 15 for a recent discussion of the date for the sinking of the Uluburun ship; see also Wiener 2003). Even though Knossos was then occupied by squatters for another century or more, it is unlikely that it was still a site which would or could order and prepay for such a shipload of raw materials during that later period.

On the other hand, the port city of Khania in northwestern Crete is a possibility, with its finds of Orientalia and growing numbers of Linear B tablets. So are the sites of Ayia Triadha and Phaistos in the Mesara on Crete, which have yielded a number of Orientalia (Cline 1994). However, an even better prospect is the harbour site of Kommos in southern Crete, particularly since the Uluburun ship must have been headed for a port city. Evidence for the working of metal, ivory and both precious metals and imported stones for jewelry has been found at Kommos in Late Minoan contexts, including LM IIIA (Shaw and Shaw 1996). Moreover, Kommos has plenty of imported Orientalia. In fact, it has more Egyptian and Near Eastern imports than any other site in the Aegean, with the majority of these arriving during the LM IIIA period (Cline 1994: Table 58).

Kommos, which was still a wealthy city when the Uluburun ship sank (Watrous 1992), is usually thought to have been simply a port serving sites such as Phaistos, Ayia Triadha and Knossos (Shaw and Shaw 1996: 397; Rutter 1999; Bachhuber 2006: 357–359). While Kommos likely did serve as a harbour town during the LM IIIA period, the town may also have gradually become more important in its own

right and may have even evolved into a truly international entrepôt like Ugarit/Ras Shamra in North Syria (Knapp and Cherry 1994: 138–141; Cline 1999a), as well as continuing to function as a ‘gateway community’ serving the hinterland of Crete during the LM IIIB and IIIC periods. Unfortunately, Kommos has not yet produced any Linear B tablets documenting its international trade and connections, but this may well change with additional excavation.

Of the potential destinations for the Uluburun ship on the Greek mainland, the palace of Pylos seems at first glance to be a good candidate, since it was a major bronze-working and perfume centre (Shelmerdine 1984; 1985; Davis 1998: 93–96, 101–109). The Uluburun ship had the raw materials to manufacture 11 tons of bronze (Pulak 1997: 235, 239; 1998: 199) and also carried one ton of terebinth resin, which, as mentioned above, can be used in making perfume (Bass 1997: 163–164; Pulak 1997: 240–241; 1998: 201). Coriander, which is also used in making perfume and which is listed in the Linear B tablets at Pylos (Shelmerdine 1985: 22–23; Davis 1998: 103–104), was also carried on board the ship (Bass 1997: 163).

Moreover, most of the other raw materials carried on the Uluburun ship are also listed in the Linear B tablets at Pylos (Shelmerdine 1985: 22; 1998: 291; Bass 1997: 163). These include: African blackwood = ebony (*ku-te-so*), blue glass paste (*ku-wa-no*), boxwood (*pu-ko-so*), copper/bronze (*ka-ko*), gold (*ka-ru-so*) and ivory (*e-re-pa*), in addition to coriander (*ko-ri-ja-da-na*). Finally, Pylos was a large site, with enough wealth to prepay for such a cargo of raw materials. However, Pylos lacks Orientalia. Fewer Egyptian and Near Eastern finished goods have been found at this site than at virtually any other major site on the Greek mainland (Cline 1994). This remains both a puzzle and a problem, although such imports may yet come to light in the Lower Town and in the cemeteries during future excavations. Until such time, Pylos should probably be removed from serious consideration as a possible destination for the Uluburun ship.

Mycenae, Tiryns and Thebes all remain good possibilities. Criteria in favour of these sites are their wealth and the presence of relatively large quantities of imported Orientalia at each (Cline 1994), as well as the fact that Mycenae and possibly Thebes, as well as Nauplion (which may have functioned as a port for Mycenae), are listed on Amenhotep III’s ‘Aegean List’ at Kom el-Hetan in Egypt (Cline 1987; 1998). There are also facilities for working with raw materials such as copper and tin at Mycenae, Tiryns and Thebes, while Mycenae and Thebes had facilities for working with glass, ivory and precious stones as well (Tournavitou 1988). Furthermore, the Linear B tablets at Mycenae contain references to Eastern Mediterranean goods (Cline 1994), including sesame (*sa-sa-ma*), cumin (*ku-mi-no*), blue glass paste (*ku-wa-no*), to workers (and therefore workshops) in this same blue glass paste (*ku-wa-no-wo-ko-i*), and to someone or something probably from Cyprus (*a-ra-si-jo*). Although the lack

of Linear B tablets at Tiryns and Thebes with references to raw materials coming from the Eastern Mediterranean is troublesome, it is also true that within the entire corpus of Linear B tablets, even those found at Pylos and Knossos, there are no references to international trade whatsoever. Moreover, the relevant Linear B tablets at Tiryns and Thebes may not have been found yet by the excavators or may not have survived the rigours of 3,000 years of burial. On the other hand, neither Mycenae nor Thebes are port cities, leaving the harbour site of Tiryns as the most likely of the destinations for the Uluburun ship on mainland Greece.

One should perhaps also take into account the finished objects among the Egyptian and Near Eastern goods on board the Uluburun ship, rather than simply the raw materials which made up the bulk of its cargo. These finished goods may give an additional clue as to the ship's ultimate destination, particularly since the ship went down just when trade between the Mycenaean Greek mainland and the Eastern Mediterranean began to eclipse the Minoan contacts with this region (Cline 1994: 10). The cargo of the Uluburun ship included many Cypriot and Syro-Palestinian ceramics, as well as Cypriot wall brackets, but fewer worked Egyptian objects. This is exactly the situation found at Tiryns in the LH IIIB period, where there are many Cypriot and Syro-Palestinian imports, and more Cypriot wall brackets than at any other site in the Aegean, but relatively few Egyptian objects (note that Maran 2004 has recently suggested that the wall brackets at Tiryns with deep finger impressions on the vertical back portion may be local imitations rather than actual imports, but until these objects have been subjected to NAA or petrographic analysis, we will continue to consider them as Cypriot imports, following Cline 1994; 1999b). This is a situation quite different from anywhere else on the Greek mainland, including both Mycenae, which has numerous Egyptian and Syro-Palestinian imports but almost no Cypriot worked objects, and Thebes, which has primarily Mesopotamian cylinder seals among its *Orientalia* (Cline 1994: Tables 55–56).

However, the situation seen in LH IIIB Tiryns also resembles that of LM IIIA Kommos. Not only does Kommos have a number of Egyptian imports but, more importantly in this instance, it accounts for virtually all of the Syro-Palestinian and Cypriot objects found in LM IIIA (and LM IIIA–B) contexts on Crete. These consist almost entirely of ceramic vessels, primarily Canaanite jars and Cypriot milk bowls, nicely reflecting two of the three most numerous types of ceramics found on the Uluburun shipwreck (Cline 1994; 1999a; Pulak 1997: 240–243; 1998: 201, 204; Rutter 1999). Of course, such observations only imply that vessels with cargoes similar to that carried by the Uluburun ship did reach the Aegean—perhaps docking at Kommos or Tiryns in particular during the LM IIIA and LH IIIB periods respectively—but even so, the similarities between the *Orientalia* found at Tiryns and Kommos and the cargo found on the Uluburun ship are intriguing.

In sum, considering the existing evidence and the generally-perceived dominance of the Argolid in Mycenaean affairs during the LH III period, the sites of Kommos on Crete and Tiryns on the Greek mainland best fit the above criteria. Mycenae, Pylos, Thebes and Knossos remain possibilities as well, but these all seem less likely destinations.

SUGGESTIONS FOR FUTURE RESEARCH

If one follows Bass and Pulak in arguing that the ship and its cargo were sent as a gift or as commercial speculation by an Eastern Mediterranean king, or even follows Bachhuber's suggestion that the cargo was a combination of elite exchange goods and more commercial commodities, a potentially fruitful line of future research would be to investigate which Near Eastern, Egyptian or Cypriot entities ca. 1300 BCE would have had the wealth, means and motivation to do so in the first place, and what repercussions, if any, would have been suffered following the loss of the ship and its cargo. One would want to investigate, at the very least, the economic, political, military and social situation in Egypt at the time of Horemheb, in Ugarit at the time of Niqmepa, in Anatolia at the time of Mursilis II, in Mitanni at the time of Shattuara I, in Kassite Babylonia at the time of Nazimaruttash and Kadashman-Turgu, in Assyria at the time of Adad-Nirari I and, of course, in Cyprus with its unknown late 14th century BCE ruler(s).

If, on the other hand, one considers it possible that the ship and its cargo were headed for an Aegean polity which had ordered and prepaid for the goods, it might be worthwhile to investigate the economic situations at Tiryns, Mycenae, Pylos, Kommos, Knossos, Ayia Triadha, Phaistos, Khandia and other Aegean sites to see whether the catastrophic sinking of the ship and the loss of this valuable cargo could have affected the economic well-being of a major Aegean site. If a prominent polity had ordered and already paid for these items, could it have weathered such a calamity or would an economic decline and even a collapse have occurred as a result of the loss of this single ship? In this regard, it is of interest to note that Shelmerdine has suggested that Pylos may have suffered an economic decline during the 13th century BCE, before the final destruction of the site ca. 1200 BCE (Shelmerdine 1987). If the Uluburun ship and its cargo were en route to Pylos, but sank before reaching that polity, it is possible that this might have been a fairly major financial setback for the city-state and a subsequent economic decline might not be unexpected. Such a scenario might also help to explain the relative lack of Orientalia at the site, although this might be considered circuitous reasoning.

Finally, if the Uluburun cargo were merchandise/commodities rather than a gift, regardless of whether it had been sent on speculation by an Eastern Mediterranean king/private businessman/consortium or had been ordered and prepaid for by an

Aegean polity, investigation and application of modern business methods might shed light on the processes and risks, financial and otherwise, involved in such a major mercantile endeavour. Although most modern business methods are undoubtedly quite different from those used in the Bronze Age Aegean and Eastern Mediterranean, the basic risks involved in the maritime shipping industry within the Mediterranean area may well have remained fairly similar and constant over the course of the past three millennia. Furthermore, comparison with maritime ventures sent from Italy, Portugal and elsewhere in Europe to the Near and Far East in search of spices and other exotica during the Middle Ages (ca. 1200–1500 CE) might yield new and profitable insights.

Acknowledgments

We would like to thank M. Artzy, I. Finkelstein, J.D. Muhly, C. Pulak, P. Rehak, J.B. Rutter, E.S. Sherratt, M.H. Wiener, J.G. Younger and several anonymous readers for reading and commenting upon various drafts of this article. Certainly none should be held to blame for the suggestions presented herein. The maritime workshop in Haifa organized by Artzy and attended by Yasur-Landau in 1998 provided the original impetus for a number of the ideas articulated in this article, which first began life following the 1998 excavation season at Megiddo in Israel, in which both of us participated. We then put aside the paper for a number of years, in order to allow us to meditate further on our speculations from time to time, until recent publications (i.e., by Bachhuber, Bloedow and Pulak) and the week-long symposium, ‘Putting Aegean States in Context: Interaction in the Eastern Mediterranean and Southeastern Europe during the Bronze Age’, held at the School for Advanced Research in Santa Fe, NM, in which Cline participated during March 2007, prompted us to finally submit our private musings for publication.

REFERENCES

- Bachhuber, C.S. 2004. Seaborne Mycenaeans on Board the Uluburun Ship. Abstract of paper presented at the 105th Annual Meeting of the Archaeological Institute of America in San Francisco, Jan. 2–5, 2004.
- Bachhuber, C.S. 2006. Aegean Interest on the Uluburun ship. *AJA* 110: 345–363.
- Bass, G.F. 1997. Prolegomena to a Study of Maritime Traffic in Raw Materials to the Aegean during the Fourteenth and Thirteenth Centuries B.C. In: Laffineur, R. and Betancourt, P.P., eds. *Technē: Craftsmen, Craftswomen and Craftsmanship in the Aegean Bronze Age. Proceedings of the 6th International Aegean Conference, Philadelphia, Temple University, 18–21 April 1996* (Aegaeum 16). Liège and Austin: 153–170.
- Bass, G.F. 1998. Sailing between the Aegean and the Orient in the Second Millennium BC. In: Cline, E.H. and Harris-Cline, D., eds. *The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium, Cincinnati, 18–20 April 1997* (Aegaeum 18). Liège and Austin: 183–191.
- Bloedow, E.F. 2005. Aspects of Trade in the Late Bronze Age Mediterranean: What Was the Ultimate Destination of the Uluburun Ship? In: Laffineur, R. and Greco, E., eds. *Emporia: Mycenaeans and Minoans in the Central and Eastern Mediterranean* (Aegaeum 25). Liège and Austin: 335–341.
- Cline, E.H. 1987. Amenhotep III and the Aegean: A Reassessment of Egypto-Aegean Relations in the 14th Century BC. *Orientalia* 56: 1–36.
- Cline, E.H. 1994. *Sailing the Wine-Dark Sea: International Trade and the Late Bronze Age Aegean*. Oxford.
- Cline, E.H. 1995. ‘My Brother, My Son:’ Rulership and Trade between the LBA Aegean, Egypt and the Near East. In: Rehak, P., ed. *The Role of the Ruler in the Prehistoric Aegean* (Aegaeum 11). Liège and Austin: 143–150.
- Cline, E.H. 1998. Amenhotep III, the Aegean and Anatolia. In: O’Connor, D. and Cline, E.H., eds. *Amenhotep III: Perspectives on His Reign*. Ann Arbor: 236–250.
- Cline, E.H. 1999a. The Nature of the Economic Relations of Crete with Egypt and the Near East during the Bronze Age. In: Chaniotis, A., ed. *From Minoan Farmers to Roman Traders: Sidelights on the Economy of Ancient Crete*. Munich: 115–143.
- Cline, E.H. 1999b. Coals to Newcastle, Wallbrackets to Tiryns: Irrationality, Gift Exchange, and Distance Value. In: Betancourt, P.P., Karageorghis, V., Laffineur, R. and Niemeier, W.D., eds. *Meletemata: Studies in Aegean Archaeology Presented to Malcolm H. Wiener as He Enters His 65th Year* (Aegaeum 20). Liège and Austin: 119–123.

- Davies, N. de Garis. 1943. *The Tomb of Rekh-mi-Rē at Thebes*. New York.
- Davis, J.L., ed. 1998. *Sandy Pylos: An Archaeological History from Nestor to Navarino*. Austin.
- Dickinson, O.T.P.K. 1994. *The Aegean Bronze Age*. Cambridge.
- Evely, D., Hughes-Brock, H. and Momigliano, N., eds. 1994. *Knossos: A Labyrinth of History. Papers in Honour of Sinclair Hood*. Athens.
- Hallager, E. 1978. The History of the Palace of Knossos in the Late Minoan Period. *SMEA* 19: 17–33.
- Hallager, E. 1988. Final Palatial Crete: An Essay in Minoan Chronology. In: Christiansen, E., Damsgaard-Madsen, A. and Hallager, E., eds. *Studies in Ancient History and Numismatics Presented to Rudi Thomsen*. Aarhus: 11–21.
- Kilian, I. 1993. Überlegungen zum spätbronzezeitlichen Schiffswrack von Ulu Burun (Kaş). *Jahrbuch des Römisch-Germanischen Zentralmuseums* 40: 333–352.
- Knapp, A.B. and Cherry, J.F. 1994. *Provenience Studies and Bronze Age Cyprus: Production, Exchange and Politico-Economic Change*. Madison, WI.
- Lackenbacher, S. and Malbran-Labat, F. 2005. Ugarit et les Hittites dans les archives de la “Maison d’Urtenu.” *SMEA* 47: 227–240.
- Manning, S.W. and Bronk Ramsey, C. 2003. A Late Minoan I–II Absolute Chronology for the Aegean—Combining Archaeology with Radiocarbon. In: Bietak, M., ed. *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC (II). Proceedings of the SCIEM 2000 EuroConference, Haindorf, May 2001*. Vienna: 111–133.
- Maran, J. 2004. The Spreading of Objects and Ideas in the Late Bronze Age Eastern Mediterranean: Two Case Examples from the Argolid of the 13th and 12th Centuries B.C. *BASOR* 336: 11–30.
- Moran, W. 1992. *The Amarna Letters*. Baltimore.
- Niemeier, W.D. 1982. Mycenaean Knossos and the Age of Linear B. *SMEA* 23: 219–287.
- Popham, M.R. 1970. *The Destruction of the Palace at Knossos. Pottery of the Late Minoan IIIA Period*. Gothenburg.
- Popham, M.R. 1997. The Final Destruction of the Palace at Knossos: Seals, Sealings and Pottery: A Reconsideration. In: Driessen, J. and Farnoux, A., eds. *La Crète mycénienne*. Paris: 375–385.
- Pulak, C. 1988. The Bronze Age Shipwreck at Ulu Burun, Turkey: 1985 Campaign. *AJA* 92: 1–37.
- Pulak, C. 1993. The Shipwreck at Ulu Burun: 1993 Excavation Campaign. *INA Quarterly* 20/4: 4–12.
- Pulak, C. 1997. The Uluburun Shipwreck. In: Swiny, S., Hohlfelder, R.L. and Swiny,

- H.W., eds. *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity*. Atlanta, GA: 233–262.
- Pulak, C. 1998. The Uluburun Shipwreck: An Overview. *International Journal of Nautical Archaeology* 27: 188–224.
- Pulak, C. 1999. Shipwreck! Recovering 3,000-Year-Old Cargo. *Archaeology Odyssey* Sept/Oct: 18–29, 59.
- Pulak, C. 2001. The Cargo of the Uluburun Ship and Evidence for Trade with the Aegean and Beyond. In: Bonfante, L. and Karageorghis, V., eds. *Italy and Cyprus in Antiquity, 1500–450 BC: Proceedings of an International Symposium, Italian Academy for Advanced Studies in America, Columbia University, 16–18 November, 2000*. Nicosia: 13–60.
- Pulak, C. 2005. Who Were the Mycenaeans aboard the Uluburun Ship? In: Laffineur, R. and Greco, E., eds. *Emporia: Mycenaeans and Minoans in the Central and Eastern Mediterranean*. Liège: 295–312.
- Rehak, P. and Younger, J.G. 1998. Review of Aegean Prehistory VII: Neopalatial, Final Palatial, and Postpalatial Crete. *AJA* 102: 91–173.
- Rutter, J.B. 1999. Cretan External Relations during LM IIIA2–B (ca. 1370–1200 B.C.): A View from the Mesara. In: Phelps, W., Lolos, Y. and Vichos, Y., eds. *The Point Iria Wreck: Interconnections in the Mediterranean ca. 1200 B.C.* Athens: 139–186.
- Schaeffer, C.F.A. 1932. Les fouilles de Minet-el-Beida et de Ras Shamra, troisième campagne. *Syria* 13: 1–27.
- Shaw, J.W. and Shaw, M.C. 1996. *Kommos I: The Kommos Region and Houses of the Minoan Town. Part 2: The Minoan Hilltop and Hillside Houses*. Princeton.
- Shelmerdine, C.W. 1984. The Perfumed Oil Industry at Pylos. In: Shelmerdine, C.W. and Palaima, T.G., eds. *Pylos Comes Alive: Industry and Administration in a Mycenaean Palace*. New York: 81–95.
- Shelmerdine, C.W. 1985. *The Perfume Industry in Mycenaean Pylos*. Gothenburg.
- Shelmerdine, C.W. 1987. Architectural Change and Economic Decline at Pylos. *Minos* 20–22: 557–568.
- Shelmerdine, C.W. 1998. Where Do We Go from Here? And How Can the Linear B Tablets Help Us Get There? In: Cline, E.H. and Harris-Cline, D., eds. *The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium, Cincinnati, 18–20 April 1997 (Aegaeum 18)*. Liège and Austin: 291–299.
- Singer, I. 2006. Ships bound for Lukka: A New Interpretation of the Companion Letters RS 94.2530 and RS 94.2523. *Altorientalische Forschungen* 33: 242–262.

- Tournavitou, I. 1988. Towards an Identification of a Workshop Space. In: French, E.B. and Wardle, K.A., eds. *Problems in Greek Prehistory*. Bristol: 447–467.
- Wachsmann, S. 1987. *Aegeans in the Theban Tombs* (Orientalia Lovaniensia Analecta 20). Leuven.
- Warren, P.M. and Hankey, V. 1989. *Aegean Bronze Age Chronology*. Bristol.
- Watrous, L.V. 1992. *Kommos III: The Late Bronze Age Pottery*. Princeton.
- Wente, E.F. 2003. The Report of Wenamun. In: Simpson, W.K., ed. *The Literature of Ancient Egypt: An Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*. New Haven: 116–124.
- Wiener, M.H. 1998. The Absolute Chronology of Late Helladic IIIA2. In: Balmuth, M.S. and Tykot, R.H., eds. *Sardinian and Aegean Chronology: Towards the Resolution of Relative and Absolute Dating in the Mediterranean*. Oxford: 309–319.
- Wiener, M.H. 2003. The Absolute Chronology of Late Helladic III A2 Revisited. *Annual of the British School at Athens* 98: 239–250.
- Wreszinski, W. 1923 (1988). *Atlas zur altägyptischen Kulturgeschichte*. Geneva.