

THE DEVELOPMENT OF MARITIME EXCHANGE IN THE BRONZE AGE EASTERN MEDITERRANEAN

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ABSTRACT. This contribution examines the extensive international maritime exchange networks that developed in the Eastern Mediterranean during the late Bronze Age (1550–1180 BC). It shows how the details of these networks that are indicated by surviving textual sources, including documents from the archives of Egyptian, Hittite, Ugaritic and Babylonian rulers, can be supplemented by an ever-increasing body of archaeological evidence to reveal a wide range of raw materials, trade goods and luxury items being shipped between the élites of the Eastern Mediterranean in this period.

RÉSUMÉ. Cette contribution étudie les vastes réseaux internationaux d'échange maritime qui se sont développés en Méditerranée orientale vers la fin de l'Âge du bronze (1550–1180 av. J.-C.). En s'appuyant sur des sources textuelles d'origine, et notamment des documents issus des archives des souverains égyptiens, hittites, ougaritiques et babyloniens, et en les comparant à l'ensemble de plus en plus fourni de preuves archéologiques, elle révèle le vaste éventail de matières premières, de marchandises et de produits de luxe qui transitaient par bateau entre les élites de Méditerranée orientale à cette période.



During the Bronze Age (c. 3200–1180 BC) a growth in long-distance exchanges is visible in the Eastern Mediterranean, picking up in the Late Bronze Age (c. 1550–1180 BC), which is generally described as an international period. International networks linking the Levant, the Aegean and Egypt are documented since at least the Middle Bronze Age, by Aegean type paintings in the Levant (at Alalakh, Qatna and Tell Kabri) and in Egypt (at Tell el Daba). Moreover, a text from Mari demonstrates that, in the coastal region of the Levant, the city state of Ugarit was already an active trading hub where tin trade was conducted with Minoans, with the help of a translator.¹ During the Late Bronze Age, the intensification of exchange is documented by archaeological material itself as well as by ancient texts, be they private or official letters, administrative documents or tales and stories. At this

¹ Royal Archives of Mari, no. 556 (29–31), in BARDET G., JOANNÈS F., LAFONT B., SOUBEYRAN D. and VILLARD P., *Archives Royales de Mari XXIII*, 'Archives Administratives de Mari', vol. I, Paris: Éditions Recherches sur les Civilisations (1984), p. 528.

time, the major powers (Egypt, Hatti, Mitanni and Babylon) had close relationships marked by a frequent exchange of official and/or diplomatic letters. These letters, preserved in royal or official archives, the most famous one being located at tell el-Amarna, dealt with gift exchanges, weddings, policy and transactions. Diplomatic letters begin with a salutation, in which the most important objects or persons for the state are enumerated. Typically, the ruler's army, horses, chariots and wives are mentioned, each of them individually attesting to his power and supremacy.² Then, the real subject of the letter is addressed, and it is in this part that exchanges of prestige objects are discussed.



Fig. 1 Mycenaean amphoroid krater with representations of chariots. H. 36.7 cm, diameter 27.2 cm.

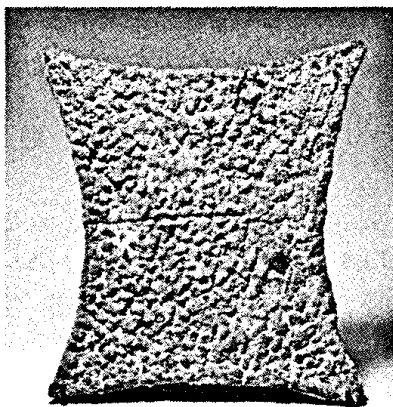


Fig. 2 Copper oxide ingot from Cyprus. L. 44.5 cm; W. 36.5. MMA 11.140.7.

An ever-increasing number of imported goods are archaeologically documented on the coasts of the Eastern Mediterranean, with, for instance,

² Army, horses and chariots were part of the military 'equipment' and denote the intrinsic power and possible supremacy of the state by force. Royal spouses were part of diplomatic negotiation, and the exchange or royal princess was common in the Near East and attested to the power and 'prestige' of the husband.

imports from Egypt, Cyprus and the Aegean in the Levantine regions. Ceramics imported for their shapes (see fig. 1) or their content were, of course, the most significant in numbers. Perishables and food staples such as wine, oil, dry fish and grains were exchanged across the Mediterranean, along with prestigious items. Refined luxury objects of the so-called 'international style', mixing elements of Near Eastern, Egyptian, Levantine and Aegean iconographic traditions were highly sought after by the Late Bronze Age élites. These objects were certainly crafted in diverse regions using luxurious materials such as silver, gold, ivory, ostrich eggs, faience, glass and other precious materials. The most characteristic objects of the international style are finely carved metal bowls, faience drinking cups in the shape of feminine heads or animal heads, and ivory cosmetic boxes. Possessing such objects not only allowed their owners to express their status and superior rank, but also to highlight a link with exotic countries. These products were not the only luxuries to be exchanged, and raw materials allowing their production, such as ingots of copper (see fig. 2), were an essential part of the trade. These goods were mostly transported by ship.

SHIPS AND TYPES OF SHIPS

A wealth of archaeological research throughout the eastern Mediterranean region has provided examples of ship representations, modelled, painted, incised or engraved on various media (ceramic, stone, ivory, clay, metal, wood). Representations of ships appear on a limited number of items, such as cylinder and stamp seals, seal impressions, vessels and ceramics, and they also appear as graffiti on building walls, cave walls, stone objects and small personal objects such as ceramics. Objects in the shape of ships are typically terracotta models and vessels. For instance, in Crete, ship representations are well attested until the 16th century BC on amygdaloid seals (ships or part of ships), and on paintings found on the island of Santorini.³ However, Late Bronze Age representations in Crete and elsewhere in the Mediterranean tend to be less common. Different types of ships are known from textual sources as well as from iconography, but it is often impossible to attribute a ship type, known by textual sources, to a specific ship representation. As Bronze Age seafaring is treated in a different chapter, I will not discuss the representations, but I will, however, highlight the most important features of Mediterranean Bronze Age ships, allowing us to understand better the types of navigation. For instance, the presence of crows' nests on the top of the Syrian ships, represented in the late-15th-century BC Egyptian tomb of Kenamun at Thebes, indicates that their crews used them to detect landmarks on the horizon and to spot the shore after crossing the open sea (see fig. 3). The seafaring

³ See for instance BASCH L., *Le Musée imaginaire de la marine antique*, Athens: Institut Hellénique pour la Préservation de la Tradition Nautique (1987), pp. 93-132; WACHSMANN S., *Seagoing Ships & SeamanSHIP in the Bronze Age Levant*, College Station, TX: A & M University Press (1998), pp. 83-122.

ships from the Tomb of Kenamun were rigged with an almost central mast and square sails. Such sails were common to many Mediterranean civilizations with little change until the Roman period, and were used mostly when sailing with the wind astern or $\frac{3}{4}$ astern, but it might also have been possible to sail 90° from the wind.⁴ It was almost impossible to sail against the wind, even when rowing. Those sailing trims probably caused the boats to drift from their main course, even if they had a proto-keel, or an anti-drift fin.

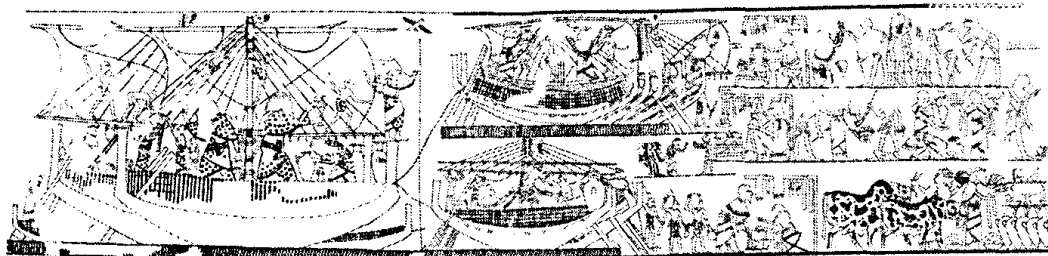


Fig. 3 Representation of Syrian ships moored in an Egyptian harbour, while their crew is unloading the cargo later weighted by Egyptians, Tomb of Kenamun (TT162), Dra Abu el-Naga, Thebes, Egypt, 18th Dynasty, after Davies and Faulkner 1947, 'A Syrian trading venture to Egypt', *Journal of Egyptian Archaeology* 33, pl. 8.

Ships were essential for the maintenance of international trade, allowing participating states to maintain their socio-economic status while acquiring long-distance prestige imports. Exchanges of precious or highly technical objects were part of the international protocol, demonstrating the participation of élites to an international *koiné*. Although there is no clear mention of sale or exchange of ships at an international level, mentions of parts of ships in official or diplomatic contexts attest to the importance of this form of transportation for the Late Bronze Age states.

Texts document the exchange of specific parts, technical parts, or long pieces of wood meant either to be reworked or used as is. This is probably due to the relative complexity of the technical aspects of ship-building and to the difficulty in acquiring long pieces of wood, necessary for masts and keels. Therefore, these particular pieces were of special interest to the states. In one of the Amarna letters, the governor of Alashyia (Cyprus) writes to the Egyptians and reminds the administration of a cargo he has already shipped with a 'beam for a ship'.⁵ In all these letters the ship's part are not described in detail and it is difficult to propose an interpretation. Should we understand from the phrase 'beam for a ship' a 'beam' that will be cut and used for shipbuilding, or a 'beam' that will be used as a single piece on the ship, i.e. as a keel or a mast? Masts are of prime importance for

⁴ ARNAUD P., 'Sailing 90° from the wind: norm or exception?', in *Maritime Technology in the Ancient Economy: Ship-design and Navigation*, ed. W.V. HARRIS, and K. IARA, *Journal of Roman Archaeology*, Supplementary series no 84 (2011), 147-160.

⁵ EA (= letter from El-Amarna) 40: (6-11) 'My brother, before the ar[ival of Šu]mitti, I send t[o him] 9 (talents) of copper, 2 pieces of i[vor]y, 1 beam for [a ship], but h[e] gave [no]thing to me, and y[ou se]nt (only some) ivor[y], my brother'; MORAN W.L., *The Amarna Letters*, Baltimore: Johns Hopkins University Press (1992), p. 113.

a ship, and have to be of good quality to avoid breaking during stormy weather. They were, therefore, actively sought after in the Mediterranean, and seemed to have been rare, as in the text from Ugarit (modern Ras Shamra in North West Syria), in which the Cypriot partner answers that there is no tall mast.⁶

An exceptional letter from Ramses II to Hattushili III, preserved in the Hittite archives, attests to maritime technological transfers between the eastern Mediterranean powers. In this diplomatic text, Ramses II says that he is sending a ship to Hatti and that he will send another one the following year. The Pharaoh then recommends that the Hittite's royal carpenters make a drawing of the ships in order to copy them (i.e. build replicas).⁷ This text therefore shows a transfer of technology and proves that by the 13th century BC ship typology within the eastern Mediterranean is a more complex problem than it has been thought before. The copy of an Egyptian boat by the Hittite would probably mean that the general look of the ship would have been that of an Egyptian vessel, thereby making it extremely difficult to differentiate ships and their origin simply based on representations on artefacts or wall carvings. Technological innovation was therefore highly important for the different powers, and one can imagine that by the 13th century BC several ship types were in use across the Eastern Mediterranean, sharing technical elements from diverse origins and frequently built of pieces with diverse geographical provenances.

SHIPWRECKS AND THEIR CARGOES

An increasing number of shipwrecks dating to the Bronze Age are known, documenting the diversity as well as the quantity of trade in the Eastern

⁶ RS (= text from Ras Shamra/Ugarit) 19.115; the fullest publication of texts from Ugarit is MARTINEZ E.R., FISHER L.R., RUMMEL S., WYATT N., CUNCHILLOS J.L., DAHOOD M. and GORDON C.H., *Ugaritic Library*, 12 vols, Pontifical Biblical Institute: Sheffield Academic Press, Faithlife (1967–2007).

⁷ KUB (= Cuneiform documents from Boghazköi/Hattuša) III 82; tablets from the Hittite royal archives are published in EDEL E., *Die ägyptisch-hethitische Korrespondenz aus Boghazköi in Babylonischer und hettitischer Sprache*, Band I und II, Opladen: Westdeutscher Verlag (1994). On the maritime texts see MEEKS D., 'Navigation maritime et navires égyptiens : les éléments d'une controverse', in *Techniques et économie antiques et médiévales : le temps de l'innovation, colloque d'Aix-en-Provence, mai 1996*, ed. D. MEEKS and D. GARCIA, Paris: Errance (1997), pp. 175–194; POMEY P., 'Le rôle du dessin dans la conception des navires antiques. À propos de deux textes akkadiens', in *L'Apport de l'Égypte à l'histoire des techniques, Méthodes, chronologie et comparaisons, Bibliothèque d'Étude 142*, ed. B. MATHIEU, D. MEEKS and M. WISSA, Cairo: Institut français d'archéologie orientale du Caire (2006), pp. 239–252 and POMEY P., 'On the Use of Design in Ancient Mediterranean Ship Construction', in *Creating Shapes in Civil and Naval Architecture, A Cross-Disciplinary Comparison*, ed. H. NOWACKI and W. LEFÈVRE, Leiden: Brill (2009), pp. 49–63. The drawing was probably more a sketch with indications of the dimensions and of the main characteristics of the ship than a real 'architect's' plan. It is plausible that such plans were not sufficient to build the ship, but offer certainly enough information to define the architectural project and/or to capture the essential visual characteristics of the ship, *ibid.* pp. 54–57.

Mediterranean. The earliest Bronze Age wreck was found off the shore of the small island of Pseira in Crete. It dates to the Middle Minoan IIB (1800–1675 BC) and possibly transported a cargo of olive oil and wine.⁸ Although other early wrecks exist, the most interesting ones for our discussion date to the Late Bronze Age and are located on the southern coast of Turkey as well as in Greece.

The Iria Point wreck is located near the Iria promontory on the north coast of the Argolid bay. The site was discovered in the 70s, but was only excavated between 1990 and 1994 by H. Pennas. The preserved cargo, dated to about 1200 BC, is composed of ceramics, the majority of which are of Cypriot origin. This ship is estimated to be about 7 m long,⁹ but it is also possible that only the part of its cargo stored in non-perishable containers was preserved, or that part of the wreck had been salvaged in Antiquity due to its proximity to the shore and relatively shallow depth (20 to 28 metres).

The Cape Gelidonya wreck, dated to the 13th or the 12th century BC, was found by sponge divers on the southern coast of Turkey. Excavations started under Peter Throckmorton and continued under George Bass.¹⁰ The cargo was comprised of about 40 copper oxhide ingots, 18 bronze discoidal ingots and copper bar ingots. Traces of tin were found. The rest of the cargo was made of hundreds of used metallic utensils, likely meant to be recycled.

The Uluburun shipwreck, dated to the end of the 14th century BC, contained a variety of raw materials as well as refined goods. It sank near the rocky promontory of Uluburun in southern Turkey, probably due to a strong storm with southern winds. The wreck lies on a steep slope and its cargo scattered on the rocky sea-floor. Excavations, conducted by George Bass and Cemal Pulak between 1984 and 1994, revealed the wealth of the ship. The cargo included raw materials such as ingots of copper, tin, and glass, logs of ebony wood and ivory. Several types of manufactured products, for instance ceramics, faience drinking cups, were found with other exotic goods. The majority of the ship's cargo consisted of 11 tons of metal ingots, copper and tin in a 10 to 1 ratio, ideal for bronze production. When the site was first visited by archaeologists, four rows of so-called oxhide metallic ingots were visible. Their rectangular form, with four handles, was first thought to represent the shape of an oxhide, possibly attributing them a specific trade value. The main cargo of the wreck consists of pure Cypriot copper in the form of 354 oxhide ingots of about 24 kg each (e.g. fig. 2). Among these, 31 had only two handles.¹¹ Six smaller oxhide ingots along with 121 bun-shaped ingots and other

⁸ BONN-MULLER E., 'First Minoan shipwreck', *Archaeology* 63.1 (2010), 44–7.

⁹ VICHOS Y., 'The Iria Point Wreck: The Nautical Dimension', in *The Iria Point Wreck: Interconnections in the Mediterranean ca. 1200 BC, Proceedings of the International Conference, Island of Spetses, 19th September 1998*, ed. W. PHELPS, Y. LOLOS and Y. VICHOS, Athens: Hellenic Institute of Marine Archaeology (1999), p. 83.

¹⁰ BASS G.F., *Cape Gelidonya. A Bronze Age Shipwreck*, Transactions of the American Philosophical Society 57.8, Philadelphia: American Philosophical Society (1967).

¹¹ PULAK C., 'The Uluburun Shipwreck and Late Bronze Age Trad', in *Beyond Babylon, Art, Trade and Diplomacy in the Second Millennium B.C.*, ed. J. ARUZ, K. BENZEL and J.E. EVANS, New Haven: Yale University Press (2008), p. 291.

fragments were also recovered from the sea-floor. In addition to copper, ingots of tin were also transported. Several shapes are attested: oxhide, discoid and slab. Some of these ingots had been cut in halves or quarters before being loaded on the ship, perhaps indicating that these ingots had been stored and partially used before being shipped. Sources of tin in the ancient Near East are subject to discussion, and if it is possible that Anatolian ores were exploited during the Late Bronze Age, it is certain that the tin-producing regions east of Mesopotamia were also shipping their metal during the Bronze Age.

The ship was also loaded with about 150 Canaanite jars. About half of these contained terebinth resin probably originating from the area around the northern Jordan valley, the Sea of Galilee and north-west of the Dead Sea,¹² and certainly destined for the flourishing perfume industry of the Aegean.

Some 350 kilograms of cobalt blue and turquoise glass, in the shape of truncated small ingots, originated from Egypt as well as the Near East. The cobalt blue glass is chemically comparable to vessels found in El-Amarna in Egypt and to Mycenaean relief beads. Eighteen ebony logs of about one metre long were being transported. They were exported from tropical Africa, and a favourite material for furniture such as beds, chairs, footstools, thrones, etc. Raw ivory, also destined to be processed at the place of arrival, was part of the shipment. Sections of a large elephant tusk along with 14 hippopotamus tusks would have enabled any workshop to design furniture inlays, carve figurines, design circular containers, as well as pins, buttons, beads and other small objects. Three ostrich eggshells would have been turned into composite vases with additional handles, spouts and bases, as examples found in Greece suggest.

The Uluburun cargo also included diverse manufactured goods such as Cypriot pottery, metal vessels, gold and silver scrap and jewellery, wooden vessels, glass and faience beads and probably textiles. It had a capacity of at least 20 tons, and was probably between 15 and 18 metres long. It also carried 24 stone anchors, some of which stored within the cargo. Although only partially preserved the hull was made of cedar and assembled with pegs and mortises, as later Greek and Roman ships were. Part of a small keel or proto-keel was also preserved. Remains of wickerwork fencing were observed which may be compared to the representations of Syrian boats from Kenamon's tomb (see fig. 3). The name of this type of ship is known by an inscription from the temple of Ramses III at Medinet Habu, where a ship of the *Menesh* type is written with a determinative closely resembling the Syrian boats from the tomb. It might therefore be the case that the Uluburun ship resembled the ships represented in the Egyptian tomb of Kenamun and could have been identified as a *Menesh* ship. The ship was probably following an east-west route when it sank. The majority of the material on board was of Syro-Canaanite and Cypriot origin, and it is likely that the ship was sailing east towards the Aegean, either heading for the Greek mainland according to the excavator, or maybe to the Dodecanese (see fig. 4).

¹² WELTER-SCHULTES F.W., 'Bronze Age Shipwreck Snails from Turkey: First Direct Evidence for Oversea Carriage of Land Snails in Antiquity', *Journal of Molluscan Studies* 74 (2008), 84–85.

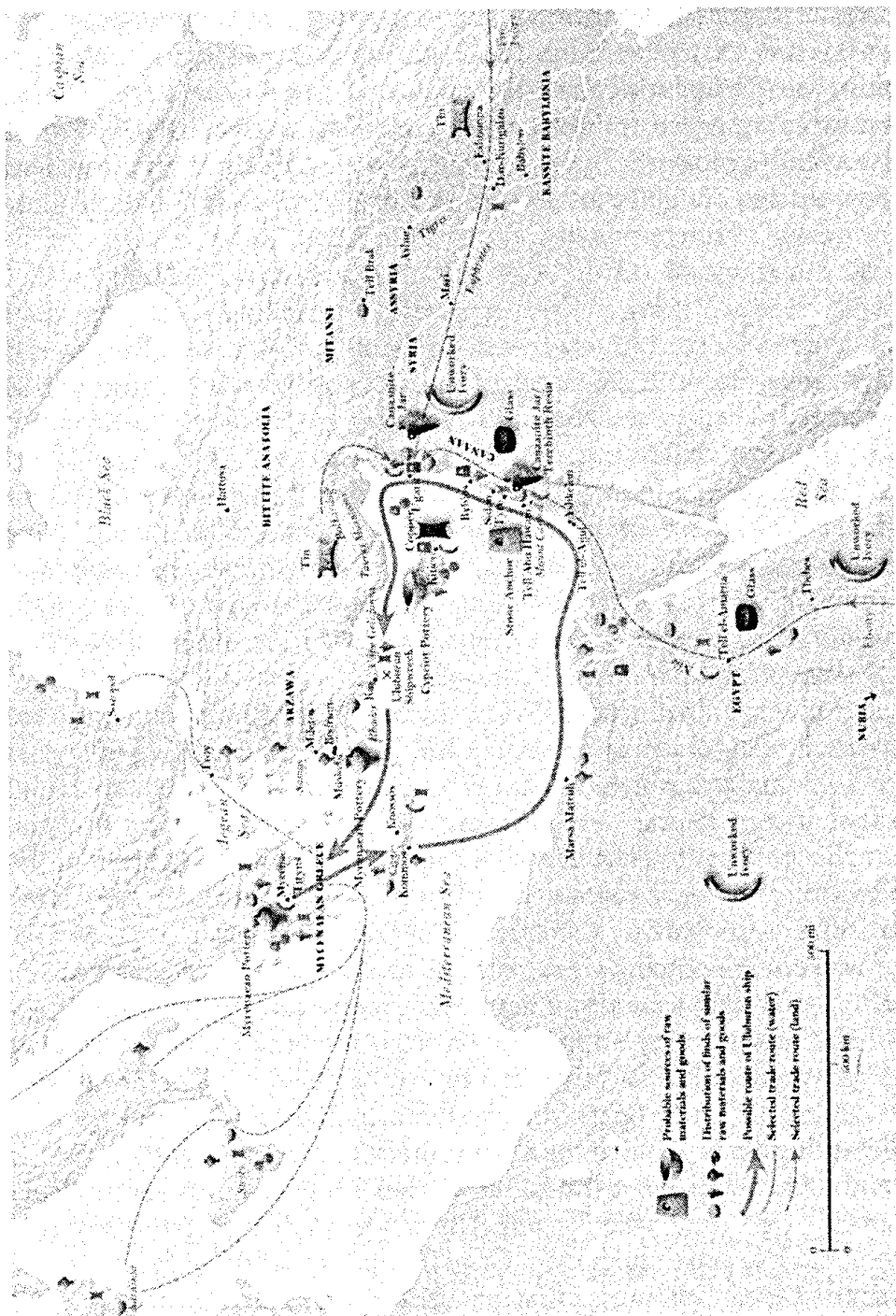


Fig. 4 Map of the Late Bronze Age Eastern Mediterranean showing sources of raw materials and distributions of similar raw materials and goods. Possible trade routes, including that of the Uluburun shipwreck are indicated, after Pulak 2008, in 'Beyond Babylon', Figure 97, Map by Anandaroop Roy.

TRADE INFRASTRUCTURES

Bronze Age sites indicate that commerce seems to have been of prime importance. The Nile Delta was probably a good sheltered harbour zone, and we know for instance that Wenamun boarded a sea-going ship in Tanis, the relatively new capital. But, at a prior date, and before the change of capital, Pi-Ramses/Avaris was the great harbour town of the region. This change of capital city can be related to a change in the Nile Delta hydraulic system,¹³ which clearly demonstrates the importance of economic factors for city settlement: the silting-up of the Nile Pelusiac branch led to the collapse of maritime and fluvial exchanges and communications, and thus to the relocation of the capital. The main harbours of the Late Bronze Age Eastern Mediterranean were all located in or near favourable maritime shelters (bays, islands or capes) while having an accessible hinterland, allowing the redistribution of traded goods. But good natural harbours were uncommon and, in exceptional cases, the natural environment surrounding these harbours was modified to facilitate maritime travel. Being able to determine the position of a ship along a coastline is essential for a mariner and can be achieved through the use of landmarks. These leading marks can be natural, such as cliffs or particular rocky shapes easily recognizable near the shore. For instance, the deep bay of Minet el-Beida, the harbour town of Ugarit, is one of the best shelters of the Levantine coast,¹⁴ and can be easily recognized by the high white rocks enclosing the bay. But with the development of maritime exchange and navigation on the high seas, sailors might also have needed other distinctive markers, located on high points, the first objects visible when land would come into sight. The city of Ugarit, situated on a tell less than one kilometre inland from its harbour, was topped by two tower-like temples, each about 20 metres high. The temples, dedicated to a weather god and to an earth god, crowned the acropolis, and could be used as a double landmark. Indeed, two 20 metre-high towers atop a 20 metre-high tell (a total height of 40 meters), even if located about one kilometre inland, would become visible from out at sea long before anything else on the shore below. As such, these temples were ideal landmarks to lead mariners in to the city's harbour.¹⁵ According to Marguerite Yon, we can also suppose that optical signals may have been used between the top of the towers and the harbour of Minet el-Beida as well as the promontory of Ras Ibn Hani.

¹³ SCHEEPERS A., 'Anthroponymes et toponymes du récit d'Ounamon', in *Phoenicia and the Bible, Proceedings of the Conference held at the University of Leuven on the 15th and 16th of March 1990*, *Studia Phoenicia XI*, ed. E. LIPINSKI, Leuven: Orientalia Lovaniensia Analecta 44 (1991), p. 64.

¹⁴ It was the only safe shelter along the Levantine coast during the exceptionally strong storm of 1968. SAADÉ G., 'Le port d'Ougarit', in *Le Pays d'Ougarit autour de 1200 av. J.-C., Actes du colloque International, Paris, 28 juin-1er juillet 1993*, *Rivista degli studi orientali XI*, ed. M. YON, M. SZNYCER and P. BORDREUIL, ERC (1995), p. 211.

¹⁵ YON M., 'The end of the Kingdom of Ugarit', in *The crisis Years: The 12th century B.C. From Beyond the Danube to the Tigris*, ed. W.W. WARD and M. SHARP JOUKOWSKY, Kendall: Hunt Publishing Company (1989), p. 116; SAUVAGE C., *Routes maritimes et systèmes d'échange internationaux au Bronze Récent en Méditerranée Orientale, Travaux de la Maison de l'Orient 62*, Lyons: Maison de l'Orient et de la Méditerranée (2012), pp. 72-73.

Man-made docks are attested on the Nile banks in Egypt as seen, in figure 3, where the Syrian merchants are using footbridges to unload their cargo onto the city dock at which their ships are moored. Similar installations are also attested along the Levantine coasts, at Tell Habu Hawam and Early Iron Age Dor, while texts from Ugarit mention the docks of the harbour.¹⁶ Possible ship-sheds were also identified at the harbour site of Kommos in Crete.¹⁷

TRADE, MOTIVATIONS AND POWER

The official character of Late Bronze Age International exchanges is attested by iconography as well as by texts. The most famous representations are those of tribute-bearers painted on the walls of the tombs of ancient Egyptian state officials. For instance, in the Theban tomb of Reckmiré, vizier of Thutmose III and Amenhotep II, five registers depict foreign envoys bringing tribute (see fig. 5). Each register represents a different region, characterized by specific costumes and physical details. Goods presented to the large vizier and officials on the right are of course characteristic of their countries of origin, but could also have been previously acquired through trade. For instance, on the second register from the top the Keftiu envoys, from Crete or the Aegean, are dressed in colourful skirts reaching their knees. They are carrying precious vases made of silver, gold and maybe electrum, which are characteristic of the Aegean. An elephant tusk from Africa or the Near East (on the far left) and oxhide ingots (middle of the register) are also brought to the Egyptians. Below the Keftiu, Nubians dressed in short kilts are bringing gold, elephant tusks and animal skins as well as live animals (leopards, baboons, monkeys and giraffes). They are also bringing ostrich eggs and logs of ebony wood (in the middle), which would have been used to manufacture furniture (boxes, beds, chairs) or finely carved utensils. The Syrians, immediately below, are wearing long white dresses with colourful borders and are bringing precious vases, Canaanite jars filled with oil or wine, bows and their quivers, a chariot and its two horses, a small bear, an elephant and ingots, maybe of Cypriot copper. Such diversity of goods is of course reminiscent of the Uluburun cargo, but also attests that countries could re-exchange goods, and that international trade was multidirectional.

¹⁶ STERN E., *Excavations at Dor, Final Report, Vol IA. Areas A and C: Introduction and Stratigraphy*, Qedem Reports 1 (1995), 339; J. Balensi's communication, see SAUVAGE, *Routes maritimes et systèmes d'échange internationaux au Bronze Récent en Méditerranée Orientale*, op. cit. fig. 13; RS 17.133 and RS 20.008.

¹⁷ SHAW M.C., 'Late Minoan I Building J/T, and Late Minoan III Buildings N and P at Kommos: Their Nature and Possible Uses as Residences, Palaces, and/or Emporia', in *A Great Minoan Triangle in South-Central Crete: Kommos, Hagia Triadha Phaistos, Proceedings of the Kommos Symposium held at the Royal Hotel, Toronto, Canada on December 29, 1984, Scripta Mediterranea VI*, ed. J.W. SHAW and M.C. SHAW (1985), pp. 19–25. For a recent appraisal of the evidence see BLACKMAN D., 'Minoan shipsheds', *Skyllis, Zeitschrift für Unterwasserarchäologie*, 11.2 (2011), p. 4–11.

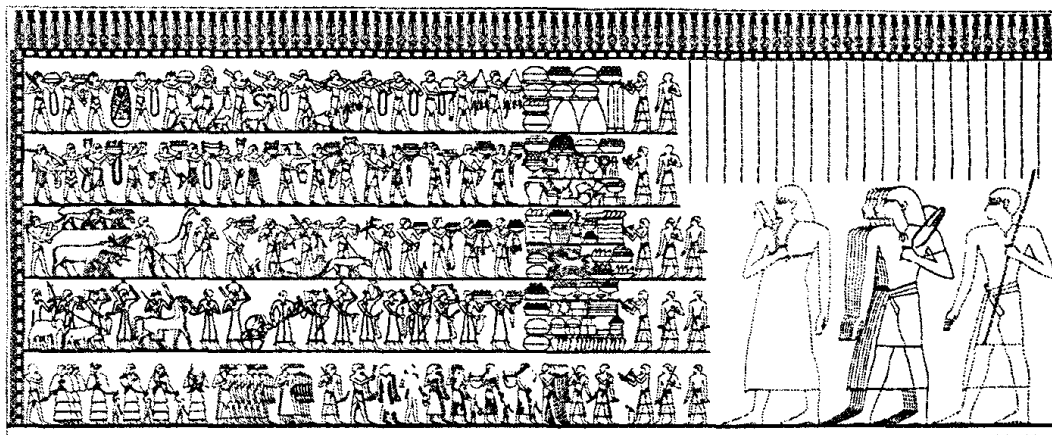


Fig. 5 Reckmire and other high officials receiving tributes and prisoners represented on 5 registers. The tribute bearers from Punt, Keftiu, Nubia, and Syria are piling up their goods in front of Egyptian scribes, tomb of Reckmire (TT 100), Thebes, Egypt, 18th Dynasty, after Davies 1935, *Paintings from the tomb of Reckmire at Thebes*, pl. XXII

Although it is certain that some Levantine states paid an annual tribute to the Egyptian court, it is, however, unlikely that the peoples of the Aegean paid such vassalage fee. Aegean diplomatic 'gifts' were certainly sent to Egypt, but such 'gifts' often seem to be part of official trade because, to avoid losing his status, the recipient of the gift needed to send a counter-gift of an equal or better value. The Amarna letters, along with other textual sources from the period, further attest the movement of goods and the exchange of gifts in the Eastern Mediterranean and Near East. These letters are the correspondence between the pharaoh of Egypt and other royal courts that were kept in Amenhotep IV-Akhenaten's newly founded capital Akhet-aten, modern tell el-Amarna. Within the Amarna corpus, contestation letters show that these gifts were not gratuitous and that in return goods of specific values, or the granting of requests, were expected. Therefore the counter-gift was thought of as a payment that could be negotiated and the value of which could be contested. For instance, in EA 7, the Babylonian king contests the quality of gold that was previously received:¹⁸

EA 7: I send to my brother 4 minas of beautiful lapis lazuli as a routine greeting-gift. In addition, I send my brother 5 teams of horses. As soon as the weather improves, my next messenger to come I will have bring many beautiful greeting-gifts to my brother. Furthermore, whatever my brother wants, let my brother just write to me so it can be taken from the house. (63-72) Being engaged on a work, I write to my brother. May my brother send me much fine gold so I can use it on my work. But the gold that my brother sends me, my brother should not turn over to the charge of any deputy. My brother should make a [personal] check, then my brother should seal and send it to me. Certainly my brother did not check the earlier (shipment of) gold that my brother sent to me. It was only a deputy of my brother who sealed and sent it

¹⁸ Translation from MORAN, *The Amarna Letters*, *op. cit.* pp. 13-14.

to me. When I pu[t] the 40 minas of gold that were brought to me into a kiln, not (even) [10, I sw]ear, appear[ed].

Of course, other types of texts in Egyptian, Ugaritic, Akkadian and Hittite also provide a wealth of information regarding exchange. For instance, the tale of Wenamun, a literary Egyptian text, relates the journey of a priest of Amun in Thebes, whose mission is to acquire cedar wood for the construction of the God's sacred barque. This text presents a picture of transactions and trading difficulties between Egypt and the Levant at the beginning of the 21st Dynasty, in the 11th century BC. The long journey of Wenamun lasted for about two years, and originated in Thebes. From there, Wenamun sailed north to Tanis, the new capital in the Nile Delta, where he embarked for the Levantine coast. During his travels, part of his belongings were stolen in Dor, before his arrival in Byblos. It is there that he negotiated with the prince of the town to obtain cedar wood. While trying to sail back to Egypt, the hero was wrecked on Cyprus by a strong storm. The text, incomplete, stops when Wenamun negotiates shipwreck rights with the queen of the island. This text, which is not a historical document, nevertheless provides a vivid picture of trade customs and attests, for example, to the time-consuming aspect of ancient trade: Wenamun has to wait for an audience with the prince of Byblos, he then has to negotiate for the wood, allow some time to have the wood cut, let it dry, then have it transported to the sea shore before finally being able to load it on his ship.

The acquisition of foreign goods was, therefore, time consuming for the state and its agents. These international 'traders' were high officials who either had ties with the royal power or with state institutions, as in the case of Wenamun. Although part of the agents' motivation might have derived from possible profit while conducting trade on the side of their official mission and while getting 'gifts' from the host country, it seems that their main ambition was to gain prestige and status.

This situation is best exemplified by the Ugaritic text RS 16.236, which describes the tax exemption of Sinaranu, when returning from Crete:¹⁹

(l. 1-6) Starting from today, Ammistamru, son of Niqmepa, king of Ugarit, declared Sinaranu, son of Siginu 'pure': as [the sun] is 'pure', he is pure. (l. 7-9) His [grain], his wine, his oil should not enter into the Palace. His ship is 'pure'; (l. 10-13) (it is only if) his ship arrive from Crete (that) he will offer his gift to the King, but (l. 14-17) the herald would not call his house for anything. Sinaranu will devote himself to the King [his Lord, him?] and his sons (are destined) to the *sha r[eshi]*. Shall Baal, Lord of the Mount Hazi, destroy [any] one who will contest those words! [...], for the sons of his sons, for ever!

¹⁹ Translation from LACKENBACHER S., *Textes Akkadiens d'Ugarit : Textes provenant des vingt-cinq premières campagnes, Littératures anciennes du Proche-Orient 20*, Paris: Éditions du CERF (2002), pp. 310-311.

Sinaranu is well known from other sources. He was a high official, and a trader with direct ties to royalty.²⁰ The study of other texts shows that international traders in Ugarit were dependant upon the palace.²¹ So, this text describes an international trader on his return from a commercial trip to Crete at a time when very little archaeological evidence for direct contacts between Ugarit and Crete exists. Indeed, 13th-century BC artefacts tend to show that long-distance relationships in the Eastern Mediterranean were indirect, and that Cyprus was the main intermediary link between different areas, as Cretan ceramics sometimes bear Cyprio-Minoan marks, the Cypriot writing system, showing evidence of Cypriot transit. The unusual character of Sinaranu's trip, as demonstrated by the archaeological evidence, is further emphasized by the tax exemption. To please the king, Sinaranu (or someone belonging to his firm) made an exceptionally long trip and skipped the normal Cypriot intermediary. The result was a singular trading trip, likely considered prestigious by the King. This allowed Sinaranu to gain not only the King's consideration, and a probable status increase, but also a substantial profit on the untaxed goods.

Although Sinaranu's text refers to the ship as 'his ship', we cannot consider this statement as a proof of private ship ownership in the Late Bronze Age Levant. I already mentioned how vital ships were to the States, and the royal concern associated with their building and the trading of specific parts. I suggested elsewhere that traders and mariners had to lease or borrow ships through the state.²² Captains and traders did not own their ships. In Egypt, such ships were probably built in royal shipyards, and were constructed of imported wood such as cedar. Ship-building technology and restrictions gave the boats a special character, because they were difficult to produce, costly to maintain, and highly restricted. Long distance sea-trading ships belonged to the state and were a royal privilege. This proposal also tends to be confirmed by the status of Ugarit's harbour, Minet el-Beida. The gate of the royal area on the tell of Ugarit was directly overlooking the harbour and it is likely that this was meant to reinforce royal supervision over the harbour, which might have been a royal property, as proposed by D. Pardee.

This royal international trade was also well regulated by international laws and customs, glimpses of which can be gleaned from Ugaritic, Egyptian and Hittite texts.²³ For instance, some of the Amarna letters address trade problems,

²⁰ See for instance RS 16.206.

²¹ SAUVAGE C., 'Quelques figures de commerçants d'après les textes égyptiens et ougaritiques, au Bronze Récent', in *Autour de Polanyi: vocabulaires, théories et modalités des échanges*, ed. P. CLANCIER, F. JOANNÈS, P. ROUILLARD and A. TENU, Paris: De Boccard (2005), pp. 155-170; SAUVAGE C., 'Les navigateurs et commerçants maritimes du Bronze Récent dans le bassin oriental de la Méditerranée', in LE BOHEC Y., *Voyageurs dans l'Antiquité*, <http://cths.fr/ed/edition.php?id=4268> (2008).

²² SAUVAGE, *Routes maritimes et systèmes d'échanges internationaux*, *op. cit.*, pp. 152-167.

²³ SAUVAGE C., 'Evidence from old texts: Aspects of the Late Bronze Age international maritime travels and trade regulations in the Eastern Mediterranean', in *Intercultural contacts in the Ancient Mediterranean, Orientalia Lovaniensia Analecta 202*, ed. K. DUISTERMAAT and I. REGULSKI, Leuven: Peeters, (2011), pp. 433-443; SAUVAGE, *Routes maritimes et systèmes d'échange internationaux*, *op. cit.*, p. 167-176.

such as caravan looting, the death or murder of traders, and make allusions to rules or legislation to solve these problems. Entry into a territory was controlled by forts and border patrols, and one needed a pass to enter, probably provided by the state administration, while also paying taxes on transported good.

CONCLUSION

Bronze Age international trade was motivated by the exchange of luxury objects, made of precious materials, which allowed their owners to increase their status and prestige. Along with these prestigious materials, other commodities such as wine, grain and oil circulated in the eastern as attested by the cargoes found at Pseira (Middle Bronze Age) and Iria Point (end of the Late Bronze Age).

Although the exact nature of Late Bronze Age international trade is still debated, textual and archaeological evidence suggest that much, if not all, of the international long-distance trade originated at palace level, with agents working for the king to increase their personal status, while obtaining tax-cuts based on the perceived prestige of their transactions. These transactions were either purely commercial, or could take the shape of an exchange of gifts, based on the obligation of reciprocity. Cargoes were diverse, and goods from different origins could have been shipped at the same time by one country. The intensification of exchanges certainly allowed for the parallel development of rules governing transactions and of measures to prevent and punish the looting of caravans and ships or the murder of traders. Bronze Age trade was well organized, regulated, and certainly followed a strict protocol, meant to facilitate exchanges across a wide maritime territory and between different cultures.