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PRECIOUS GIFTS AND THE CIRCULATION OF OILS IN THE ANCIENT EASTERN MEDITERRANEAN*

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The purpose of this paper is to overview the general context in which the circulation of oils took place in the ancient Eastern Mediterranean, mainly on the basis of the Near Eastern written evidence on the subject. In addition to the above documents, the wide distribution of Mycenaean, Cypriot, and Canaanite oil vessels witnesses the significance of plain and aromatic oil in contemporary transactions. In this respect, it is attempted to evaluate two separate but possibly not irrelevant developments which took place in Mycenaean Greece: first the thorough organisation and systematic function of the palatial aromatic oil industry and secondly the wide circulation of large transport stirrup jars, mainly transporting olive oil from Crete to mainland palaces.

Inter-state relations in the Ancient Near East

The last centuries of the Bronze Age in the Eastern Mediterranean witnessed the culmination of an old and well-established system of inter-state relations, which existed in the Ancient Near East already in the third millennium BC¹. The existence of strong inter-state relations is well attested in the Amarna archive (discovered in 1887: Moran 1992), the Hittite archives in Boğazköy (discovered in 1906-1907: Laroche 1971; Hagenbuchner 1989) and the archives of the Syrian city-state of Ugarit (excavated in 1951-1957: Bordreuil/Pardee 1989). Following

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¹ Liverani 2000, 15. The period belongs to the so-called 'Amarna Age' that takes its name from the short-lived city of Amarna in Egypt. Amarna was built around the middle of the 14th century BC as the new capital city of the kingdom. Apart from defining its precise chronological limits, the term is also used in a wider sense to refer to the entire Late Bronze Age in the area of the ancient Eastern Mediterranean, especially when dealing with international relations, since it was in the city's state archival office that the famous 380 cuneiform letters of the royal correspondence between the kings of the great powers of the period were found. Earlier networks of inter-state interactions have been recognized for the 'Ebla and Mari Ages', in the 24th and 18th centuries BC respectively. See also Podany 2010, 19-187.

these discoveries, it has been further emphasized by new textual acquisitions from other sites (Singer 2008, 713-714). These documents reveal a network of interactions, which included merchant expeditions and diplomatic missions between the great powers of the period, comprising Egypt, Mitanni, Assyria, Kassite Babylonia, Hatti, Alašia, and Arzawa. Diplomatic marriages and reciprocal exchanges of messages and gifts between the sovereigns of all these power-states constituted a significant part of such intense contacts, and contributed to a great extent to the creation and maintenance of common bonds and peaceful and friendly relations in the area of the Late Bronze Age Eastern Mediterranean².

Together with the textual evidence, archaeological data recovered from various sites³ and the known shipwrecks⁴ of the area reveal an extremely wide circulation of artefacts and raw materials, indicating their movement along the long-distance trade routes of the period. In this respect, the Eastern Mediterranean around the end of the Bronze Age appears as an area of intensive commercial and diplomatic activity, which was conducted not only on an official, palatial, level but also privately⁵. Mycenaean Greece, probably hosting the land of Ahhiyawa referred to in Hittite texts⁶, seems to have also participated in this complex network of interrelationships, as suggested by the quantities of *orientalia* (i.e. the imported items of eastern provenance found on Mycenaean ground: Lambrou-Phillipson 1990; Cline 1994 and 2007); the information obtained from the Linear B tablets featuring foreign linguistic elements⁷ and providing evidence for physical presence in the Mycenaean world of foreign population groups and individuals (Parker 1999; Nikoloudis 2008); the external references to sites of Mainland Greece and the islands (Bartoněk 1983; Cline 1987 and 1998; Cline/Stannish 2011); the Ugaritic textual evidence for the presence of Ahhiyawans on Anatolian ground8; as well as

² For the international relations in the 14th and 13th centuries Eastern Mediterranean, see Cline 1995a; Cohen/Westbrock 2000; Feldman 2006; Liverani 1990, 2000, 2001, and 2008; Podany 2010; Zaccagnini 1973, 1976, 1987, and 2000.

³ A good and representative collection of materials and goods exchanged in the ancient Eastern Mediterranean is presented in Stampolidis 2003, 226-593, *passim*.

⁴ For the Uluburun shipwreck, dated to the end of the 14th century: see Pulak 1997 and 2008; for the Cape Gelidonya and the Point Iria shipwrecks, dated one century later, see Bass 1967 and Phelps *et alii* 1999 respectively.

⁵ Liverani 2008. For recent and comprehensive studies on the subject see Parkinson/Galaty 2009, with all previous bibliographic references on the subject.

⁶ Bryce 2003; Dickinson 2009; Wiener 2009; Beckman et alii 2011.

⁷ Lambrou-Phillipson 1990, 109-116; Cline 1994, 108-131; 2007, 198-199.

⁸ See Singer (2006, 257-258) commenting on the **RS 94.2523/RS 94.2530** tablets from the Urtenu archive in Ugarit, in which Ahhiyawan(s) are mentioned awaiting the ingot-laden Ugaritian ships at some port of Lukka, the classical Lycia, in the southwestern part of Anatolia. Compare also Bryce 2010, 51-52, favouring the presence of Aegean mercenaries rather than merchants in the area.

the quantity of Mycenaean pottery which was exported to sites of the Eastern Mediterranean⁹ together with other perishable goods and materials¹⁰.

As it is clearly witnessed in several Near Eastern cuneiform texts of the period, plain oil, deriving either from olives or sesame¹¹ as well as various kinds of oil-based aromatics, was among the precious goods circulating widely within this international context of the ancient Eastern Mediterranean trade and diplomatic interconnections, either as part of the official *gift exchange* between the sovereigns of the great power-states or as a commodity shipped from place to place in exchange for other goods. This fact stresses even more the significance of the Mycenaean and Near Eastern palatial industries devoted to the manufacture of highly esteemed aromatics¹², as well as the importance and implications of the wide circulation of Mycenaean and Cypriot scented oil containers in the area of the ancient Eastern Mediterranean¹³.

Textual evidence on the prices of oil

Of special importance for understanding the exchanges involving plain and scented oil in the Eastern Mediterranean of the 14th and 13th centuries are some of the cuneiform texts from Ugarit (Ras-Shamra), the capital of the homonymous kingdom on the Mediterranean coast of Syria¹⁴, and Hattuša (Boğazköy), the impressive fort and capital of the Hittites in Anatolia (Güterbock 1997). The relevant texts from these two major centres are especially valuable for illuminating the

⁹ Leonard 1994. See also Cline 2007, 196-197 for an update of the evidence and further detailed bibliography.

¹⁰ Precious textiles, woven in the Mycenaean palatial industries, possibly constituted a large proportion of the Aegean exports to the ancient Near East. See Killen 1964, 14; Tzachili 2001, 169-171. Linear B epigraphic evidence supporting this hypothesis is primarily based on the word *ke-se-nu(ne)-wi-ja*, attested in the Knossos **Ld 573**, **Ld 574**, **Ld 585** and **Ld 649** tablets qualifying chitons (*pa-we-a*) and textiles (TELA).

¹¹ The olive tree was cultivated especially in the areas around the Mediterranean contrary to sesame, which was a product used especially in Mesopotamia. For the cultivation of the olive tree and the use of olives and olive oil in the Ancient Near East according to the cuneiform texts see Güterbock 1968; Singer 1987; Hoffner 1994 and 1995; Heltzer 1996; Malul 1996; Frantz-Szabó 2003; Stol 2003; Jean 2005. For the respective Mycenaean evidence see Melena 1983; Bunimovitz 1996. For the history of cultivation of olives and production, use, and importance of olive oil in ancient Syria, Palestine, Greece, Cyprus, and Egypt see also Boardman 1976; Amouretti 1986; 1992; Meeks 1993; Hadjisavas 1996a; 1996b; 2003; Frankel 1997; 1999; Foxhall 2007. For the evidence about sesame and sesame oil see Schneider-Ludorff 1999, 402-404; Frantz-Szabó 2003; Stol 1985. Compare also Knapp 1991, 37.

¹² Fappas 2008; 2010, *passim*; 2011; in press, where also further detailed bibliography.

¹³ Leonard 1994, 13-22, 33-35, 45-89; Merrillees 1962. A clear indication for the appreciation of Mycenaean and Cypriot aromatic oils in the ancient Eastern Mediterranean are the imitations of small Mycenaean stirrup jars found in Ugarit and of Cypriot aromatic oil containers found in Egypt. On the matter see Mattoïan 2004 and Karageorghis/Merrillees 2007; Höflmayer 2011 respectively.

¹⁴ Yon 1997. The production of olive oil in Ugarit constituted a very important aspect of the state's economy. See especially Callot 1987; Heltzer 1993; 1996, 77, 79-80.

high economic price of these products. An idea about the equivalent of plain oil when exchanged with other goods is at first given by **KTU 4.150 (RS 15.040)**, a commercial text from Ugarit, which records the 'rate' of a relevant transaction, in which, for the acquisition of 5 jars of oil, namely 110 litres of the product (with a capacity of 22 litres per jar), it was required 10 items of an unknown good, represented by the word *štp's*, or alternatively 20 lambs, whereas **KTU 1.22 (RS 2.[024])**, one of the Rapiuma texts from the same city, compares the importance of olive oil with that of silver and gold:

KTU 4.150 (RS 15.040)

- 1. 10 štp's
- 2. for 5 (jars) of oil
- 3. 20 lambs
- 4. for five (jars) of oil
- 5. 5 t°dt (measures) (Heltzer 1996, 88).

KTU 1.22 (RS 2.[024])

... 14-15. Olive oil – like silver to travellers, ... –like gold to travellers. ... (Lewis 1997, 204).

On the other hand, aromatic oils had an 'added' value, because of the specific treatment and labour invested in their manufacture, as well as a special 'symbolic' value, because of the properties with which they were attributed and the occasions and ways in which they were destined to be used¹⁵. As a consequence, they were valued at a high economic price. Thus, according to **KBo 626+**, which records Hittite laws establishing the prices of various commodities and their equivalencies in silver, one *zipattani*¹⁶ of "fine/good oil" (Ì.DÙG.GA), namely a small amount of scented oil contained in a small bottle, costs two *shekels* of silver, while the same amount of lard and butter/ghee (Ì.ŠAH or Ì.NUN) costs one *shekel*. This high economic price is further stressed by the fact that scented oil was more expensive than many other goods: according to the same law and for one *shekel* of silver one could purchase one *zipattani* of honey, or two pieces of cheese, or three rennets, or two sheep, or six goats, or one unweaned calf⁷.

Another important indication of the high economic value of aromatic oils in the area of the ancient Eastern Mediterranean comes from the Ugaritic text **RS** 17.424C+397B, which records a letter sent by the king of Tyre, Addu-dayyanu,

¹⁵ Sherratt/Sherratt 1991, 354, 359. For the ideological connotations accompanying the use of aromatic oils in the Ancient Near East and Mycenaean Greece see Kutsch 1963; Fappas 2010; 2011.

¹⁶ The metrical value of *zipattani* is unknown and may be equivalent to a small amount of the quantity contained in a small bottle. See Van den Hout 1987-1990, 525; Kloekhorst 2008, 1038.

¹⁷ See Hoffner 1995, 110; 1997, 144-145. According to I. Singer, one *zipattani* of fine oil was equivalent in price to eight *minas* (= 320 *shekels*) of copper. See Singer 1987, 185.

to the governor of Ugarit, U-zakaptu¹⁸. With this letter the king of Tyre protests against the exceptionally high tolls that his merchants had to pay to the 'harbour-master' Abdu, son of Ayyahi: 100 *shekels* of silver for only 14 jars of oil (Nougayrol 1956, 219; Arnaud 1996, 63). Unfortunately, there is no further information available on the oil's quality or its provenance; but, according to D. Arnaud, the high taxes that its importers had to pay in the harbours of Syria and Palestine may indicate that the product was actually aromatised and possibly came from Egypt (Arnaud 1996, 63, no. 96).

Moreover, it seems that some oils of specific provenance had a special fame, which made them more desirable. Indicative of this fact is a group of texts coming from Ugarit and referring to the big crisis between Ugaritians and Sidonians, as a consequence of the blasphemy committed by the citizens of Ugarit against the Storm-god of Sidon, probably by intruding in the holy of holies of his temple without authorization (Clemens 2001, 82). The group is articulated by the texts **RS 18.054**, **RS 86.2208**, **RS 86.2221+** and **RS 86.2234**, according to which the enraged citizens of Sidon demand that the offenders, who are designated as 'dogs', should be stoned and impaled, while the king of Sidon would only be satisfied with expiatory offerings, including aromatic oil brought from Egypt, to all the gods of the kingdom, as well as with a considerable monetary compensation¹⁹.

Textual evidence on the circulation of oil

Apart from providing the information concerning the high estimation and value of plain and scented oil in the ancient Eastern Mediterranean, texts from Ugarit and Hattuša, together with those from the Egyptian city of Akhetaten (Amarna)²⁰, also offer the epigraphic testimonies for the circulation of these products in the area at around the end of the Bronze Age. Contrary to the texts coming from these major Near Eastern centres, Mycenaean written evidence, in accordance to the general absence of direct references to trade, remains silent on the subject, allowing only for some minor and indirect information on the shipment of oil within the Aegean and to neighbouring countries to be revealed (Palaima 1991).

Regarding the Near Eastern textual evidence on the presence of oil in seafaring trading expeditions, valuable information is gained by the Ugaritic cuneiform tablets. Thus, according to the interpretation proposed by M. Heltzer, the Ugaritic inventory list **KTU 4.352 (RS 18.042)** records the allotment of 660 jars of oil (14520 litres) possibly given in exchange for Cypriot ingots of lead (*abrm . altyy*),

¹⁸ Singer (1999, 672) reads as ^dIM.DI.KUD and ^dU.ZA.DUGUD respectively.

¹⁹ Arnaud 1992, 189-191, Singer 1999, 670. According to D. Arnaud (1992, 189, no. 48), in this dossier should also be included **RS 20.182A+B**, a letter to Ramesses II dealing with a dispute between 'the sons of the Land of Canaan' and the 'sons of the Land of Ugarit'. See Singer 1999, 674.

²⁰ Akhetaten was built as the new capital of Egypt under the kingship of the 'heretic' Pharaoh Amenhotep IV (Akhenaten), and remained as such for a short period during the middle of the 14th century, until Tutankhamun returned to Thebes (Bryan 1997). For the period of El-Amarna see Kuhrt 1995, 194-204.

and another 130 jars of oil (2860 litres) for ingots of lead from Egypt (*abrm* . *msrm*). Moreover, lines 7-11 of the same text seem to refer to certain individuals, possibly royal traders, who received large quantities of oil for foreign trade.

KTU 4.352 (RS 18.042)

- 1. 660 (jars) of oil at all
- 2. for the Alašiote abrm
- 3. 130 (jars) of oil
- 4. to the *abrm* of Egypt

. . .

- 7. 100 jars of oil for bn czmt of the village Riš
- 8. 100 (jars of oil) for Tlmyn, son of ^cdy
- 9. x jars of oil (?) to the Ashdodite (or Ashdodites)
- 10. (x jars of oil) for Khln

... 21

The exceptionally large quantity of oil which is given, according to the above interpretation, in exchange of Cypriot ingots of lead was most probably destined to Cyprus. Some other considerable quantities of oil shipped from Ugarit and recorded in **RS 20.168**, a very fragmentary letter found in the Rap'anou archive of the city, were also destined for Cyprus²². The letter was sent by the king of Ugarit, Niqmaddu III (about the end of the 13th century BC) to his counterpart of Alašia, whom he addresses as 'his father' – a customary way of addressing one another used by the sovereigns of the great states of the ancient Eastern Mediterranean, which, together with 'my brother' and 'my son', is very often encountered in the letters they exchanged, thus revealing a commonly acknowledged and accepted hierarchy among the royal courts²³.

Apart from the official palace trade concerning oil, Ancient Near Eastern texts also provide evidence for freelance commercial trade conducted by private merchants. Thus, the Ugaritic text **RS 34.167** presents a letter of Ur-Tešub, head of a large Ugaritian firm trading especially in the export of oil to Hatti and Egypt²⁴, to 'his brother', Ahi-Milku/Malki. The latter is asked to send 50 jars (DUG^{MES} GAL) of [oil?], 30 *shekels* of silver and one *talent* (= *ca.* 30 kg) of copper in exchange

²¹ Heltzer 1996, 84, 89. The editor of the text, C. Virolleaud (1965, 117), refers to two persons, the "Abrm the Alašiote" and the "Abrm of Egypt" as recipients of the oil quantities. For the same reading see also McGeough 2007, 166.

²² Nougayrol 1968, 80-83; Singer 1999, 677, 692. For an overview of the trade and diplomatic relationships between Ugarit and Cyprus (Alašia) see Buchholz 1999; Singer 1999, 676-678, 720-721.

²³ Singer 1999, 720; For the ways of addressing each other used by the sovereigns of the ancient Near Eastern states, encountered in the letters they exchanged, see Liverani 1990, 197-202.

²⁴ Much of the trade in the ancient Eastern Mediterranean was carried out by individuals acting on their own interest and often organized into business firms. See Foster 1987, 14, with additional references.

of several items, including purple-dyed wool and a *talent* of (dried) fish, both typical products of Tyre (Singer 1999, 671). A similar transaction between private citizens is recorded in **KTU 5.10 (RS 17.063)**, where a brother sends an unknown commodity and a piece of linen to his sister and requests from her 10 lg of olive oil (\check{smn}) and 3 lg of scented oil (rqh)²⁵ in return. The case is quite problematic since it is not clear if the transaction happened between siblings or partners, who describe their parity using this terminology. In any case it could be a simple reciprocal exchange, in which the goods are being transferred without any economic obligations, but the text should rather be ascribed to the documents dealing with international trade, in which case the oils are requested in exchange for other goods (McGeough 2007, 321).

The Amarna-tablets on the exchange of (scented) oil

As it is evident from the texts examined so far, apart from plain oil, a large proportion of oil circulation in the ancient Eastern Mediterranean was devoted to aromatic oils, and various texts of the period reveal that this also happened on the highest level of Near Eastern societies. Thus, the *Annals* of Tuthmosis III (1490-1436 [1479-1425] BC) record the goods brought as booty by the Pharaoh to Egypt following his military victories in Syria, among which one finds 'sweet' and 'green' oils. The Papyrus Anastasi IV.15:1-5 also lists various aromatic oils from Alašia, Hatti, Syria-Palestine, and Babylonia brought to Egypt to be used in order to anoint the army and chariotry of Seti II (1200-1194 BC)²⁶.

Of exceptional importance for understanding the circulation of aromatic oils in the Ancient Near East are the Amarna cuneiform tablets. The Amarna tablets record the letters exchanged as diplomatic correspondence between the Egyptian Pharaohs and the sovereigns of the foreign power-states trading with Egypt more or less on a basis of equality (Babylonia, Assyria, Mitanni, Arzawa, Alašia, and Hatti); and between the Pharaohs and the local rulers of Syria-Palestine which were at the time under Egyptian control (Moran 1992, xvi; Izre'el 1997). The letters actually accompanied the missions of ambassadors sent from one royal court to the other, transferring messages between the sovereigns and carrying wealthy gifts. The texts, which with a few exceptions are written in Akkadian²⁷, cover a time span of about 30 years – from around the thirteenth year of Amenophis III (1373 [1360] BC) to no later than the first year of Tutankhamun (1345 [1336] BC), in the later part of the eighteenth dynasty (Moran 1992, xxxiv). Their importance lies in the fact that they provide considerable information regarding the

²⁵ The word denotes precisely 'perfumer's oil'. See Del Olmo Lete/Sanmartín 2003, 828.

²⁶ Knapp 1991, 31. For the *Annals* of Tuthmosis III see also Liverani 1990, 255-266, esp. 258; Kuhrt 1995, 321-323. The rite of anointing weapons, chariots, and horses with plain and aromatic oil or unguent, is also known from Hattuša, Nuzi, and Nippur. See Fappas 2010, 137, 204, 223, where detailed bibliography.

²⁷ Akkadian was the language of the Assyrians and Babylonians and the international diplomatic language of the period.

international diplomatic relations between the great powers of the ancient Eastern Mediterranean in an advanced stage of the 2nd Millennium BC. At the same time. they reveal various customs and practices followed in the royal courts of the Ancient Near East.

The exchange of aromatic oils together with other precious goods is at first described in EA 14, which is addressed by Amenophis IV (1364-1347 [1352-1336] BC) to the king of Babylon, Burna-Buriyaš II (1359-1333 BC):

EA 14

I

[These things Naphuru]rea, Great King, [king of Egypt, s]ent [to his brother, Burna]-Buriyaš, [Great King, king of Karaduniyaš.]

.... 32. [x kukkubu-containers, of gold], filled with '[sw]eet-[oil],' (called) namša. ... 56-57. 15 containers of oil, [of gold], inlaid. 1 'cucumber' [that is] an oil-container, of gold, inlaid. ... 61. 1 small cont[ain]er (of aromatics), of gold, ...

... 8. 1 small container (of aromatics), of gold ... 50; 23 kukkubu-containers, of silver, full of 'sweet-oil'; namša is its name. ... 53. 1 ladle, of silver, for an oil container; wadha is its name. ... 69. 1 small con[tainer (of aromatics), of silver],

... Ш

... 34-45. 1 stone huttu-jar, full of 'sweet oil', (called) azida. 19 stone jars, full of 'sweet oil': kubu is its name. 20 stone jars, (called) akunu, which are full of 'sweet oil'. 9 kukkubu-containers, of stone, full of 'sweet oil'; namša is its name. 1 'cucumber,' of stone, full of 'sweet oil'. 6 large stone vessels, full of 'sweet oil'. [x] kukkubu-containers, of stone, full of 'sweet oil'; maziqta is its name. [x] jugs, of stone, full of 'sweet oil'; kuba is its name. [x] kukkubu-containers, of stone, full of 'sweet oil'; kuba-pawanah is its name. [x] kukkubu-containers, of stone, full of 'sweet oil'; kuihku is its name. [x j]ars, full of 'sweet oil'; ašša is its name. [The t]otal of the stone vessels full of 'sweet oil': [x]000 and 7 vessels. IV

5-8. 29 "cucumbers," containers of oil, of stained ivory. 44 containers of oil, decorated with apples, pomegranates, dates, (and) kurumãnu, of stained ivory, [...] called $[z]\hat{a}$... 14-16. 3 oxen, containers of oil, of stained ivory, 3 ibexes, containers of oil, of stained ivory. 1 small container (of aromatics), of stained ivory, ... (Moran 1992, 28-34, 35, no. 9).

Another interesting case is recorded in **EA 34**, where the king of Alašia asks the Pharaoh to excuse him for the fact that he omitted to send him a messenger to be present in the sacrifices performed by the latter. Thus the king of Alašia finds the opportunity to ask the Egyptian sovereign to send him some presents, including aromatic oils. Moreover, he complains that the Pharaoh had omitted to send him oil in the past. Diplomatic correspondence between the two kingdoms continued in the following years, and, in a second letter to the Pharaoh (EA 35), the king of Alašia sent him 500 *talents* of copper and asked for aromatic oils and other gifts in return.

EA 34

... 16-25 ... Moreover, may your messengers now bring some goods: ... 17 *habannatu*-jars of 'sweet oil' ... 42-49. ... Moreover, why have you not sent me oil and linen? ... 50-53 I herewith send a *habannatu*-jar [that] is full of 'sweet oil' to be poured on your head, seeing that you have sat down on your royal throne (Moran 1992, 106).

EA 35

... 23-26 ... Moreover, my brother, give me the ox that my messenger requests, my brother, and send me, my brother, 2 *kukkubu*-containers of 'sweet oil', my brother, and send me one of the experts in vulture augury... (Moran 1992, 107, 109, no. 6).

An important contribution of the Amarna texts to our understanding of the period's international diplomatic relations is the revelation that a significant part of them entailed diplomatic marriages between members of the royal families of the great kingdoms. Marriages offered the opportunity for extensive exchange of wedding gifts between the contributing parties. An interesting case concerns Kelu-Heba, daughter of the king of Mitanni, Šuttarna II, who was sent to Egypt to become wife of Amenophis III (1403-1364 [1390-1352] BC). At a later time, the son and successor of Šuttarna, Tušratta, with a letter to Amenophis III (EA 17), sent to his Egyptian counterpart a great range of gifts with the aim to keep friendly relations with him, while not forgetting his sister and Pharaoh's wife, to whom, together with all other gifts, he sent a container full of aromatic oil.

EA 17

... 41-45. And as the greeting-gift of Kelu-Heba, my sister, I send her 1 set of gold toggle-pins, 1 set of gold (earrings), 1 gold *mašhu*-ring, and a scent container that is full of 'sweet oil' ... (Moiran 1992, 42).

Because of this first intermarriage, special relations between Egypt and Mitanni later developed, which were further confirmed by a second marriage; this time between the daughter of Tušratta, Tadu-Heba, and Amenophis III. In this occasion the two sovereigns exchanged various precious gifts, and, as **EA 22**, sent by Tušratta to Amenophis III, witnesses, various kinds of scented oils were among the gifts accompanying Tadu-Heba to Egypt.

EA 22

Ш

... 29-36. 1 scent container, with myrrh-scented oil; 1 scent container with *sikil*-oil. 1 scent container with *iaruttu*-oil. 1 scent container with myrtle oil. 1 scent

container with *kanatku*-oil. 1 scent container with *elder*-oil. 1 scent container with *styrax*-oil. 1 scent container with *peršanti*-oil. 1 scent container ... 1 scent container with a mixture (of various) oils. 10 *kirru*-pots, full of 'sweet oil'. IV

... 43-49. It is all of these wedding-gifts, of every sort, that Tušratta, the king of Mitanni, gave to Nimmureya, the king of Egypt, his brother and his son-in-law. He gave them at the same time that he gave Tadu-Heba, his daughter, to Egypt and to Nimmureya to be his wife (Moran 1992, 55, 57).

The exchange of gifts between Tušratta and the Egyptian Pharaoh did not end with this shipment, as revealed by ten more letters sent by the king of Mitanni to his Egyptian counterpart. In three of these letters (**EA 25, 26, 27**) it is said that among the gifts exchanged between the two parties aromatic oils were also included. First, the long letter **EA 25** comprises a catalogue of precious gifts that Tušratta probably sent to Amenophis III. Amongst them one finds various aromatic oils and unguents. Similarly, a considerable amount of aromatic oils accompanied the letter **EA 26** – this time addressed to the wife of Amenophis III, Tiye. There is also another letter by Tušratta (**EA 27**), this time addressed to Amenophis IV personally, with which Tušratta sent to members of the Egyptian royal family various gifts, including aromatic oils.

EA 25

ii

... 43-51. 1 ointment receptacle; its *rettu* of ...-stone; the handle a figure of alabaster. 1 ointment receptacle; its *rettu* of alabaster; its handle a ... [..., overlaid with g]ol[d]; 2 genuine lapis lazuli stones [are set] in the centre. 1 ointment receptacle; its *rettu* of *abašmu*-stone; its handle a s[wal]low overlaid with gold; one genuine lapis lazuli stone [is set] in the centre. 1 ointment receptacle; its *rettu* of *marhallu*-stone; its handle [a pan]ther [overlaid with] gold. It is *set here* [and there] with lapis lazuli and alabaster. 1 ointment receptacle; its *rettu* overlaid with gold; its handle a Delugue-monster overlaid with gold.

iv

... 51-55. 1 scent container, with myrrh-scented oil. 1 scent container, with *kanatku*-oil. 2 scent containers, with *sikil*-oil. 1 scent container, with *elder*-oil. 2 scent containers, with myrtle oil. 1 scent container, with *peršantu*-oil. 1 scent container, with *elder*-oil. 1 (scent container), with myrtle oil. 10 *kirru*-pots that are full of 'sweet oil' ... (Moran 1992, 76, 80).

EA 26

... 64-66. I [her]ewith [send] as your greeting-gift [x] scent containers [filled] with "sweet oil," (and) 1 set of stones [set in gold] (Moran 1992, 85).

EA 27

... 112-113. [1 scent container] fil[led] with "sweet [o]il"; 1 set of stones

mount[ed] on gold – for Teye, your mother. I send [1 scent container] fil]led with 'sweet oil']; 1 s[et] of stones [mounted] on gold – [for] Tadu-Heba, [my daughter, y]our wife (Moran 1992, 89).

Similarly to the information provided by the Amarna letters, Hittite texts document the desire of kings to acquire aromatic oils as well as the subsequent circulation of these products between the royal courts. This desire can at first be deduced by **KBo 18.2** – a letter possibly addressed by the Great King Tudhaliya IV (1239-1209 BC) to his mother. In the letter, he reports that there was no aromatic oil left to anoint himself²⁸. A quite similar situation is described in **KBo 1.14**, a letter sent by Hattušili III (1275-1245 [1264-1239] BC) to an important addressee, most probably to the Assyrian king Shalmaneser I (1274-1245 [1263-1234] BC), as a response to a previous request of the latter for Hittite iron daggers. In this, Hattušili complains to the Assyrian sovereign that he omitted to send him the proper presents on the occasion of his initiation into the throne, among which ceremonial garments and aromatic oil would also be included (Goetze 1940, 31-33. See also Hoffner 1995, 111; Kümmel 1967, 29).

KBo 18.2

Rev.

"... 6-7. See, I have no fine oil to anoint myself. ..."

KBo 1.14

Rev.
[] your []
[the] great king, the king of the country Karduniyaš
[] he sent you.
[] to you. Did not [my father] send the proper presents
to you? (But) when I assumed kingship,
you did not send me an ambassador. Still, it is customary that kings
assume [kingship, and the kings, his peers, send him
the proper [pres]ents (on that occasion, a royal gown,
fine [oil] for anointing.
But you did not do such a thing today (Goetze 1940, 29)

Exchange in the Mycenaean world

While the above international correspondence took place in the Ancient Near East, and oil and aromatic oils were highly desirable goods, being among the precious gifts sent from one royal court to the other and used in various other economic transactions, the Aegean witnessed two separate but possibly intercon-

²⁸ Hagenbuchner 1989, 204ff.; Hoffner 2009, 327-329. For the use of aromatic oils by the kings in the Ancient Near East: see Fappas 2010, 136, 140, 148-149, 152, 213-214, 299, 302-306, 309, where also further and detailed bibliography.

nected developments: 1) the thorough organisation and systematic function of a palatial aromatic oil industry (Shelmerdine 1985; Foster 1974; 1977); and 2) the large-scale circulation of transport stirrup jars, large oil containers transporting olive oil from Crete mainly to Mainland Greece but also to various other destinations in the Central and Eastern Mediterranean²⁹. At the same time, Cyprus had similarly a considerable production and export of olive oil³⁰ as well as a large-scale export of aromatics especially to Egypt³¹, whereas oil from the region of Syria and Palestine was distributed to the Aegean, Egypt, and the rest of the Eastern Mediterranean in the so-called Canaanite jars³².

The focused movement of the large transport stirrup jars from Crete to the mainland palaces, at least as far as the inscribed pieces are concerned (Palaima 1984), and, at a second stage, their circulation between the palatial centres³³, has been interpreted by J. Wright as the most plausible archaeological indication for the supposed establishment and maintenance of reciprocal ties between the heads of palatial centres (Wright 1995, 74). Moreover, it seems that the coincidence of these two developments in Mycenaean Greece may not have been accidental, since the 'exotic' plain oil brought to Mycenae or Thebes from a long distance may have been considered a very appropriate raw material to supply the aromatic oil industries of the mainland palaces³⁴, thus offering an 'added' value to their final scented products³⁵.

However, although Mycenaean Linear B tablets provide ample evidence for the manufacture of a variety of aromatic oils, they do not make any reference to the

²⁹ For the production of olive oil in Late Bronze Age Crete see Riley 2002; Blitzer 1993. For the trade in large transport stirrup jars in Late Bronze Age Aegean and Central and Eastern Mediterranean see especially Haskell 2005; Zurbach 2006; Van Alfen 2008; Fappas (forthcoming), where also further bibliography on the subject. For a useful summary of the evidence see Palmer 2003, 130-132.

³⁰ For the olive oil production in Late Bronze Age Cyprus see Hadjisavas 1996a; 1996b; 2003. Many large *pithoi* from Kalavasos-*Ayios Dimitrios* may indicate its presence and use in Cyprus during those times. See Karageorghis 2002 Large *pithoi* and storage jars, as were those found in the Uluburun and Point Iria shipwrecks, may have served to the export of Cypriot oil. See Lolos 1999, 44; Pulak 2008, 296.

³¹ Merrillees 1962; Knapp 1991, 26; Karageorghis 1996, 62-63. For the Cypriot olive oil based on aromatics see various contributions in Belgiorno 2006.

³² Analysis of the residues in Canaanite jars found in Egypt revealed that these vessels were used to transport oil, wine, and resin (Serpico *et alii* 2003). Important information on the distribution of these vessels in the Aegean is included in Negbi/Negbi 1993; Leonard 1996. For a provenance study of these vessels see Ownby/Smith 2011.

³³ Large transport stirrup jars are generally thought to have been vessels serving the transport and storage of oil. However, they could have been used for the transport and storage of other stuff too, being as diverse as the different types of seeds or the faience and stone beads contained in the KW 1198 vessel from the Uluburun shipwreck. See Bass/Pulak 1989, 11.

³⁴ Haskell 1999, 342. This view may also be in accordance with J.L. Melena's suggestion, based on the figures appearing in the Linear B tablets from Knossos which show an emphasis on the production of oil from wild rather than domesticated olives, that oil produced from wild olives is more suitable for the manufacture of perfumes and unguents. See Melena 1983, 102, 117.

³⁵ See also Renfrew 1993, 9-10; Knapp 1998, 198, 204; Fappas (forthcoming).

circulation of these products in the wider Aegean and Eastern Mediterranean context, in spite of the fact that these palatial products may have been the commodities *par excellence* which Mycenaean palaces are likely to have exported (Killen 1985, 264). Around the same time, small Aegean aromatic oil and unguent storage vessels, especially stirrup jars and *alabastra*³⁶, form the most well attested Mycenaean shapes known from Anatolia³⁷, Cyprus³⁸, Syria-Palestine³⁹, and Egypt⁴⁰. The only possible indication concerning the Mycenaean distribution of oil comes from the palace of Knossos. It shows a probable interest in the Cypriot market – a conclusion based on the interpretation of the term *ku-pi-ri-jo*, which is encountered in the Linear B tablets of the palace of Knossos. This term may denote an official connected to its aromatic oil industry, being possibly responsible in managing oil trade with Cyprus⁴¹.

This obvious imbalance between Mycenaean archaeological and epigraphic evidence concerning trade and, therefore, the circulation of oil is difficult to explain, and various attempts have been made to this direction. The subject has been treated at some length by J.T. Killen, who sets out the possible reasons for this paucity of evidence: trade was a marginal, seasonal activity and was therefore not recorded in the Linear B tablets, or the records are not identifiable in the archives of the palaces, or the tablets recording it have not survived. However, he concludes that none of these explanations seems adequate or reliable (Killen 1985, 262-268). On the other hand, T.G. Palaima adds to the discussion the possibility that international trade was in the hands of private entrepreneurs independent of the palaces⁴², and C.W. Shelmerdine supports the view that Cypriots and Canaanites were the likely conductors of much of this trade, even if they sometimes worked for other powers (Shelmerdine 1998, 293).

This last view seems to be further reinforced by the fact that merchants of Aegean origin are totally absent not only from the Mycenaean Linear B tablets, but also from the archives of Ugarit, which certainly played a central role in the circulation of oils and other goods in the ancient Eastern Mediterranean⁴³ and in their fur-

³⁶ Tournavitou 1992, 190-195; Negbi/Negbi 1993, 324-325; Leonard *et alii* 1994, 105-106; French 2011.

³⁷ Mountjoy 2006, 245.

³⁸ Steel 1998, 294; 2004, 73; Van Wijngaarden 2002, *passim*, esp. 153, 184, 185, 196-197; Graziadio 2011.

³⁹ Hankey 1970-71, 18-19; 1993, 112; Leonard 1981, 91-94; 1987, 264, 266; Yon *et alii* 2000, 90-93, 95-122; Balensi 2004, 146; Steel 2002, 39; Van Wijngaarden 1999, 13; 2002, *passim*, esp. 67-68, 71, 93; 2008, 59, 61, 64; Ben-Shlomo *et alii* 2011.

⁴⁰ Hankey 1995; 1997; Snape 2003; 67, 68-69, figs. 4-6; Kelder 2002-2003; 2009, 340-342; Van Wijngaarden 2011, 237, 239.

⁴¹ Godart 1968, 68; 1969, 46; 1987, 207, 209; Killen 1995, 215-219, 221; Sacconi 2009, 614-617. For the view that *ku-pi-ri-jo* is a term designating oil bound for Cypriot markets see Palaima 1991, 280-281, 291-295. Compare also Palmer 2003, 129-130.

⁴² Palaima 1991a, 288. See also Vianello 2011, 417.

⁴³ Abou Assaf 1995; Caubet/Mattoïan 1995; Yon 2000; 2003.

ther distribution to Anatolia and Syria-Palestine⁴⁴. This central role is highlighted further fby the picture that emerges from Ugarit, where merchants, from Ugarit and other regions (including Hittite Cilicia and Alašia), formed clearly distinguished groups (*tamkārs*) that figure prominently in the city's royal archives. Given this fact, it is curious that all these texts do not include any single reference to an Aegean merchant operating there. In addition, none of the hundreds of names encountered in the texts of Ugarit is of a clear Aegean origin, in contrast to the evidence for the presence of countless other foreigners in the city, as, for example, Egyptians, Canaanites, 'Mesopotamians', Alašiotes, and Hittites⁴⁵.

Thus, even though it is difficult to exclude the people from the Aegean from international seafaring activities in the ancient Eastern Mediterranean⁴⁶ (not least because of the long-standing Aegean maritime tradition)⁴⁷, the available textual records appear to suggest that merchants from Cyprus⁴⁸, Ugarit (Soiles 2005), and the rest of Syria-Palestine were the main distributors of oils in the region during the last centuries of the Bronze Age⁴⁹. These might have also been the people controlling the international trade of the period and conducting the various transactions recorded in the texts. Their operations were either controlled by the palaces (*palace-based trade*) or independently (*freelance trade*), simultaneously being involved in the official *gift exchange* and in private ventures aiming to profit (*commercial trade*)⁵⁰. These people are often referred to in the texts alternatively

⁴⁴ Kuhrt 1995, 303; Singer 1999, 657-658. See also Heltzer 1988, 13-14, 24-25; Karageorghis 1996, 62.

⁴⁵ Kuhrt 1995, 302; Singer 1999, 675. The international relations of Ugarit in this period are testified to the references to the great kingdoms of the area, as for example to Egypt (*Msr*) and Alašia (*alty*), found in the clay tablets of its royal archives, as well as by the references to Ugarit in the cuneiform tablets from Boğazköy and El-Amarna. The intensive contacts with the neighbouring contemporary civilizations and the cosmopolitan character of Ugarit are also attested by the great variety of languages in which its texts are written: Ugaritic, Akkadian, Sumerian, Hurrian, Egyptian, Hittite, hieroglyphic Hittite, Cypro-Minoan, and Phoenician. For the archives of Ugarit see Pardee 1997; Pedersén 1998, 68-80.

⁴⁶ See also Cline 1995b, 273-274; Haskell 2004, 158, 159.

⁴⁷ Papageorgiou 2008; Ward 2010, with additional bibliographic references.

⁴⁸ For the Cypriot mediation in the export of ceramics from the Aegean to the Levantine coast see Hirschfeld 1996; 2004.

⁴⁹ Bass 1967, 163-167; Bryce 2010, 49-50. A possible Hittite-imposed embargo on the Mycenaean commercial activity, as has been proposed by E.H. Cline, could perhaps offer a reasonable, though partial, explanation for the absence of people from the Aegean in the textual records of the period. See Cline 1991 and Bryce 2010, 50 commenting on this issue.

⁵⁰ Foster 1987, 14-15; Peltenburg 1991, 167-170; Knapp 1993, 339; Knapp/Cherry 1994, 142, 144, 147-148, 151; Cline 1994, 85. The complexity of international exchanges in the ancient Eastern Mediterranean is reflected in the three known shipwrecks of the period, each of them representing a different mode in the circulation of goods and materials. The three of them sank while in action, thus offering a live picture of the sea-borne activities conducted under different agents and for different purposes. This is also in relation to the circulation of oils, since all three seagoing ships carried in their cargo from four up to ten large transport stirrup jars, the special Mycenaean vessels for the bulk transport of oil. See Bass 1987, 715; Hennessy/du Plat Taylor 1967, 124 n. 23, 24; Bass 1991, 69-70, 71; Vichos/Lolos 1997, 325-

as 'messengers' or 'tradesmen' – terms that reveal that they were similarly involved in trade and diplomatic activities⁵¹. At least some of them were certainly engaged in trade with Crete and Mainland Greece (Caubet 1982), as, for example, *Sinaranu*, the son of *Siginu*, a royal merchant ("personal *tamkār*" of the king of Ugarit), whom, upon his return from a voyage to *Kapturi* (Crete), the king of Ugarit Ammistamru II (second half of the 13th century) exempted from taxes, as recorded in the legal document **RS 16.238** (Heltzer 1988, 9-13).

Ugaritic texts are certainly valuable in providing information about the complex character of Late Bronze Age trade in the ancient Eastern Mediterranean, the merchants (sum. *DAM-GAR*, akk. *tamkāru*) who were active in the area and the various duties with which they were entrusted. Thus, they reveal that Ugaritic merchants were actually royal servicemen and were divided into two categories: the personal *tamkārs* of the king (LÜMES tamkāre ša šepe-šu = "the tamkars of his feet") and the tamkārs who conducted foreign trade and used to pay to the palace tribute or tax from their trading operations (LÜMES tamkāre ša mandatti ša šar KUR Úgarit = "the mandattu tamkars of the King of Ugarit": Heltzer 1988, 8). To the first group belonged Sinaranu, having himself several privileges and being employed by the king for various confidential purposes (Heltzer 1988, 9-13).

On the other hand, a good representative of the Late Bronze Age independent merchant entrepreneurs who also had diplomatic duties is Yabnīnu, a high-status person in the city of Ugarit, resident of the so-called *Palais sud*, which lies directly to the south of the palace and was constructed in a similar monumental fashion with it (Pedersén 1998, 76-77; Yon 2006, 51-55). The corpus of documents found there, sixty Akkadian, five Ugaritic, and two Cypro-Minoan, reveal without doubt the international character of its resident's activities. Yabnīnu was actually an independent and wealthy commercial agent, deeply engaged in international long-distance trading ventures, and, at the same time, involved in important diplomatic missions as representative of the royalty of Ugarit. Moreover, numerous texts demonstrate that he also had access to significant amounts of resources. which he had probably obtained from his trading activities. For example, KTU **4.91** (**RS 11.795**) records 1400 jars of oil, 600 jars of aromatic oil (*šmn* . *rah*), and numerous other specialised products, given by him as a 'gift' to the palace, whereas in KTU 4.158 (RS 15.062) the palace seems to give him a number of products, including olive oil, probably in order for him to distribute or trade them on its behalf⁵².

The amount of plain and aromatic oil presented by *Yabnīnu* to the palace is really surprising. It was possibly acquired through his trading expeditions and the

^{326;} Lolos 1999, 45 for the transport stirrup jars from the Uluburun, Cape Gelidonya, and Point Iria wrecks respectively.

⁵¹ Holmes 1975; Lipiński 1977, 216; Peltenburg 1991, 167, 170; Cline 1994, 85; Knapp/Cherry 1994, 147-148.

⁵² McGeough 2007, 333-335; Singer 1999, 677. For an important but unsuccessful diplomatic mission of *Yabnīnu* to Amurru, recorded in **RS 34.124** from Ugarit, see Pardee 1977.

transactions in which he was involved. Moreover, a possible source of the oils he had in his possession may have been the gifts he had received in the various royal courts he had already visited. Namely, it seems that 'tradesmen' or 'messengers' of this kind were usually welcomed by kings to their courts and were furnished with various kinds of gifts, among which oil, plain or aromatic. A case like this is recorded in a text from Amarna, sent by Amenophis III to 'his brother', the Babylonian king Kadašman-Enlil ([1374]-1360 BC):

EA 1

"... 62-77: ... Now, we are brothers, you and I, but I have quarrelled because of your messengers, since they report to you saying, "Nothing is given to us who go to Egypt". Those who come to me – has a single one of them ever come [and not] received silver, gold, oil, solemn garb, every sort of finery, [more than i]n any other country? ..." (Moran 1992, 2).

This long-established custom of exchanging precious goods between hosts and guests seems to have been followed also in Mycenaean palaces, and it is interesting that, according to the Linear B tablets, aromatic oils were among the goods used for this purpose. The relative reference qualifies an amount of oil as *ke-se-ni-wi-jo*, /*xenFion*/ (*gift of hospitality*) and it is to be found in **Fr 1231** from the palace of Pylos. This characterisation, denoting oil *destined to* guests, is directly connected with the official exchanges of gifts⁵³, an old remembrance of which is later mirrored in the lively narrations of the Homeric epics (Hooker 1989).

PY Fr 1231

S1202 H2

- .1 po-ti-ni-ja, di-pi[-si-]jo-i, te[
- .2 ke-se-ni-wi-jo[]OLE S 1[

Conclusion

The purpose of this paper was to offer an overview of the general context in which the circulation of oils took place in the ancient Eastern Mediterranean, mainly based on the Near Eastern documentation on the subject. It thus appears that the development of industries exclusively devoted to the manufacture of aromatic oils and unguents by the Mycenaean palaces was probably not irrelevant to the 'current trend' of the period especially with regard to the acquisition and use of these highly esteemed and precious goods, as can be seen from the extant international royal correspondence. It seems that, by investing in the production and export of desirable aromatic oils, Mycenaean elites tried to exploit the markets of

⁵³ Bennett 1958, 59; Gérard-Rousseau 1968, 129-131; Shelmerdine 1985, 79-80. The same word qualifying oil is to be found in quite alternated form (*ke-se Jnu-wi-jo*) also in **Fr 1255** from the same palace, while *ke-se-nu-wi-ja/ke-se-ne-wi-ja* qualify chitons (*pa-we-a*) and textiles (TELA) in **KN Ld 573, Ld 574, Ld 585** and **Ld 649** from Knossos.

the Eastern Mediterranean and, simultaneousšššly, to participate in the network of interactions with other contemporary elites⁵⁴. Their choice does not appear to be arbitrary, since items of this kind were widely used in everyday life and formed an essential part of the ritual performed by priests, kings, or even common people in the Ancient Near East (Kutsch 1963; Fappas 2010). However, after their manufacture in palaces, Mycenaean aromatic oils can only be tracked down, thanks to their alleged containers, at contexts, where they were destined for, while a huge and crucial gap concerning the nature and procedures of the relevant transactions remains in between. It is possible that their dispatch from the palaces was entrusted to high officials, such as *ku-pi-ri-jo*, and that private merchants were involved in their distribution, though this remains purely an *argumentum ex silentio* due to the total absence of the relevant Mycenaean documents. Whether they were of local or foreign origin is still uncertain, but it should be taken into account that Mycenaeans may equally have had a share in these expeditions, even if not always using their own ships⁵⁵.

BIBLIOGRAPHY

Abou Assaf, A. 1995: Ougarit et les relations commerciales, in: Yon, M./M. Sznycer/P. Bordreuil (eds.), *Le Pays d'Ougarit. Autour de 1200 av. J.-C. Histoire et archéologie* (Ras Shamra-Ougarit 11), Paris. 73-76.

Alfen, P.G. van 2008: The Linear B Inscribed Vases, in: Duhoux, Y./A. Morpurgo-Davies (eds.), *A Companion to Linear B. Mycenaean Greek Texts and their World* (Bibliothèque des cahiers de l'institut de linguistique de Louvain 120), Louvain-la-Neuve, 235-242.

Amouretti, M.-C. 1986: Le pain et l'huile en Grèce antique: de l'araire au moulin, Paris.

Amouretti, M.-C. 1992: Oléiculture et viticulture dans la Grèce antique, in: Wells, B. (ed.), Agriculture in Ancient Greece. Proceedings of the Seventh International Symposium at the Swedish Institute of Athens, 16-17 May 1990, Stockholm, 77-86.

Arnaud, D. 1992: Les ports de la "Phénicie" à la fin de l'âge du Bronze récent (XIV-XIII Siècles) d'après les textes cunéiformes de Syrie, *Studi Micenei ed Egeo-Anatolici* 30, 179-194.

Arnaud, D. 1996: Études sur Alalakh et Ugarit à l'âge du Bronze récent, *Studi Micenei ed Egeo-Anatolici* 37, 47-65.

Bachhuber, C. 2006: Aegean Interest on the Uluburun Ship, *American Journal of Archaeology* 110(3), 345-363.

Balensi, J. 2004: Relativité du phénomène mycénien à Tell Abou Hawam: un «proto-market-

⁵⁴ L. Foxhall, in the context of the 8th to 6th centuries BC, explains why foreign oils and perfumes in their locally distinctive containers were consumed by centres in the Levant, Cyprus, and the Aegean, which traditionally produced and exported their own versions of these commodities; these items were desirable to the consumer because they were imported, since connoisseurship of exotic goods was the mark of a true aristocrat. See Foxhall 1998, 303.

⁵⁵ It has been suggested that on board the Uluburun ship there were at least two Mycenaean high-ranking officials, responsible for delivering the cargo to a palatial centre in mainland Greece. See Pulak 1997, 253, 256; 2008, 300; Bachhuber 2006. An interesting case showing the possibility merchants to use foreign ships comes from the Ugaritic text **RS 18.113A+**, which deals with a Cypriot request to Amenophis III asking for permission to buy ships from Egypt. See Lipiński 1977.

- ing» ?, in: Balensi, J./J.-Y. Monchambert/S. Müller Celka (eds.), *La céramique mycénienne de l'Égée au Levant. Hommage à Vronwy Hankey* (Travaux de la maison de l'Orient et de la Méditerranée 41), Lyon, 105-124.
- Bartoněk, A. 1983: Das böotische Theben auf einer ägyptischen Namenliste?, *Studia Minora Facultatis Philosophicae Universitatis Brunensis* 28, 201-203.
- Bass, G.F. (ed.) 1967: Cape Gelidonya: A Bronze Age Shipwreck (Transactions of the American Philosophical Society 57(8)), Philadelphia, PA.
- Bass, G.F. 1987: Oldest Known Shipwreck Reveals Splendors of the Bronze Age, *National Geographic* 172(6), 693-733.
- Bass, G.F. 1991: Evidence of Trade from Bronze Age Shipwrecks, in: Gale, H. (ed.), *Bronze Age Trade in the Mediterranean. Papers Presented at the Conference held at Rewley House, Oxford, in December 1989* (Studies in Mediterranean Archaeology 90), Jonsered, 69-82.
- Bass, G.F./C. Pulak 1989: I. Excavations at Ulu Burun in 1986, in: Bass, G.F./C. Pulak/D. Collon/J. Weinstein 1989, The Bronze Age Shipwreck at Ulu Burun: 1986 Campaign, American Journal of Archaeology 93(1), 1-12.
- Beckman, G.M./T.R. Bryce/E.H. Cline 2011: The Ahhiyawa Texts, Williston, ND.
- Belgiorno, M.R. (ed.) 2006: Aromata Cipria: L'olio d'oliva nei profumi e nei medicinali di Cipro nel 2000 a.C., Perugia.
- Bennett, E.L. Jr. 1958: *The Olive Oil Tablets of Pylos. Texts of Inscriptions Found*, 1955 (Minos, Supplement 2), Salamanca.
- Ben-Shlomo, D./E. Nodarou/J.B. Rutter 2011: Transport Stirrup Jars from the Southern Levant: New Light on Commodity Exchange in the Eastern Mediterranean, *American Journal of Archaeology* 115(3), 329-353.
- Blitzer, H. 1993: Olive Cultivation and Oil Production in Minoan Crete, in: Amouretti, M.-C./J.-P. Brun/D. Eitam (eds.), *Actes du Symposium International organisée par la Centre Camille Jullian et le Centre Archéologique du Var, Aix-en-Provence et Toulon, 20-22 Novembre* 1991 (Bulletin de Correspondance Hellénique, Supplément 26), 163-175.
- Boardman, J. 1976: The Olive in the Mediterranean: Its Culture and Use, *Philosophical Transactions of the Royal Society of London* 275, 187-196.
- Bordreuil, P./D. Pardee 1989: La trouvaille épigraphique de l'Ougarit. 1: Concordance (Ras Shamra-Ougarit 5), Paris.
- Bryan, B. 1997: Amarna, Tell El-, in: Meyers, E.M. (ed.), *The Oxford Encyclopaedia of Archaeology in the Near East*, vol. 1, Oxford, 81-86.
- Bryce, T. 2003: Relations between Hatti and Ahhiyawa in the Last Decades of the Bronze Age, in: Beckman, G./R. Beal/G. McMahon (eds.), *Hittite Studies in Honour of Harry A. Hoffner Jr.*, on the Occasion of His 65th Birthday, Winona Lake, IN, 59-72.
- Bryce, T. 2010: The Hittite Deal with the Hiyawa-Men, in: Cohen, Y./A. Gilan/J. L. Miller (eds.), Pax Hethitica. Studies on the Hittites and their Neighbours in Honour of Itamar Singer (Studien zu den Boğazköy-Texten 51), Wiesbaden, 47-53.
- Buchholz, H. G. 1999: *Ugarit, Zypern und Ägäis* (Alter Orient und Altes Testament 261), Neukirchen-Vluyn.
- Bunimovitz, S. 1996: Minoan-Mycenaean Olive Oil Production and Trade. A Review of Current Research, in: Eitam/Heltzer 1996, 49-53.
- Callot, O. 1987: Les huileries du Bronze Récent à Ougarit, premiers éléments pour une étude, in: Yon, M./O. Callot (eds.), Le centre de la ville: 38ième-44ième campagnes (1978-1984) (Ras Shamra-Ougarit 3), Paris, 197-212.
- Caubet, A. 1982: Ras Shamra et la Crète, in: Yon, M. (ed.), La Syrie au Bronze Récent: Recueil publié à l'occasion du cinquantenaire de la découverte d'Ougarit Ras Shamra. Extraits de la XXVIIe Rencontre Assyriologique Internationale, Paris, juillet 1980 (Recherche sur les civilisations 1), Paris, 17-22.
- Caubet A./V. Mattoïan 1995: Ougarit et l'Égée, in: Yon, M./ M. Sznycer/P. Bordreuil (eds.), Le pays d'Ougarit. Autour de 1200 av. J.-C. Histoire et archéologie (Ras Shamra-Ougarit 11), Paris, 99-112.

- Clemens, D.M. 2001: Sources for Ugaritic Ritual and Sacrifice. Vol. I: Ugaritic and Ugarit Akkadian Texts (Alter Orient und Altes Testament 284.1), Münster.
- Cline, E.H. 1987: Amenhotep III and the Aegean: A Reassessment of Egypto-Aegean Relations in the 14th Century B.C., *Orientalia* 56(1), 1-36.
- Cline, E.H. 1991: A Possible Hittite Embargo Against the Mycenaeans, Historia 40, 1-9.
- Cline, E.H. 1994: Sailing the Wine-Dark Sea. International Trade and the Late Bronze Age Aegean (BAR International Series 591, Oxford.
- Cline, E.H. 1995a: '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. Proceedings of a Panel Discussion presented at the Annual Meeting of the Archaeological Institute of America, New Orleans, Louisiana, 28 December 1992 (Aegaeum 11), Liège/Austin, TX, 143-150.
- Cline, E.H. 1995b: *Tinker, Tailor, Soldier, Sailor: Minoans and Mycenaeans Abroad*, in: Laffineur, R./W.-D. Niemeier (eds.), *Politeia, Society and State in the Aegean Bronze Age. Proceedings of the 5th International Aegean Conference, University of Heidelberg, Archaeologisches Institut, 10-13 April 1994* (Aegaeum 12), LiègeAustin, TX, 265-283.
- Cline, E.H. 1998: Amenhotep III, the Aegean and Anatolia, in: O'Connor, D.B./E.H. Cline (eds.), *Amenhotep III: Perspectives on his Reign*, Ann Arbor, MI, 236-250.
- Cline, E.H. 2007: Rethinking Mycenaean International Trade with Egypt and the Near East, in: Galaty, M.L./W.A. Parkinson (eds.), *Rethinking Mycenaean Palaces* II (The Cotsen Institute of Archaeology, University of California Monograph 60), Los Angeles, CA, 190-200.
- Cline, E.H./S.M. Stannish 2011: Sailing the Great Green Sea? Amenhotep III's 'Aegean List' from Kom el- Hetan, Once More, *Journal of Ancient Egyptian Interconnections* 3(2), 6-16.
- Cohen, R./R. Westbrook 2000: Conclusion: The Beginnings of International Relations, in: Cohen, R./R. Westbrook (eds.), *Amarna Diplomacy. The Beginnings of International Relations*, Baltimore, MD/London, 225-236.
- Danielidou, D. (ed.), Δώρον. Τιμητικός τόμος για τον Καθηγητή Σπύρο Ιακωβίδη [= Gift. Honorary Volume for Prof. Spyro Jakōvdes], Athens.
- Del Olmo Lete G./J. Sanmartín 2003: A Dictionary of the Ugaritic Language in the Alphabetic Tradition, Leiden/Boston, MA.
- Dickinson, O.T.P.K. 2009: Ahhiyawan questions, in: Danielidou 2009, 275-284.
- Duistermaat, K./I. Regulski (eds.) 2011: Intercultural Contacts in the Ancient Mediterranean. Proceedings of the International Conference at the Netherlands-Flemish Institute in Cairo, 25th to 29th October 2008 (Orientalia Lovaniensia Analecta 202), Leuven.
- Eitam, D./M. Heltzer (eds.) 1996: Olive Oil in Antiquity. Israel and Neighbouring Countries from the Neolithic to the Early Arab Period (History of the Ancient Near East/Studies, Vol. 7), Padova.
- Fappas, I. 2008: The Use of Perfumed Oils during Feasting Activities: A Comparison of Mycenaean and Near Eastern Written Sources, in: Laffineur, R./M.-L. Hitchcock/J. Crowley (eds.), DAIS, The Aegean Feast. Proceedings of the 12th International Aegean Conference organised by the University of Melbourne and the University of Liège, hosted by the Centre for Classics and Archaeology, Melbourne, 25-29 March 2008 (Aegaeum 29), Liège/Austin, TX, 367-375.
- Fappas, I. 2010: Έλαιον εὐῶδες, τεθυωμένον: Τα αρωματικά έλαια και οι πρακτικές χρήσης τους στη Μυκηναϊκή Ελλάδα και την αρχαία Εγγύς Ανατολή (14ος-13ος αι. π.Χ.) (Wellscented Perfumed Oil: Aromatised Oils and Practices of Use in Mycenaean Greece and the Ancient Near East (14th-13th cent. BC)), Kretiki Estia 13, 2009-2010.
- Fappas, I. 2011: Exchange of Ideas in the 14th and 13th Centuries BC East Mediterranean: The Case of Perfumed Oil Use and Ideology, in: Duistermaat/Regulski 2011, 483-498.
- Fappas, I. (in press): Oils and Perfumes in the Mycenaean Palatial Economy, in: Carlier, J.-P. /F. Joannès/J. Zurbach (eds.), Palatial Economy in the Ancient Near East and in the Aegean: First Steps Towards a Comprehensive Study and Analysis (1st ESF Exploratory Workshop), Paris, Sèvres, 17-18 September 2010.

- Fappas, I. (forthcoming): Thèbes, Fouilles de la Cadmée 6. The Trade of the Large Size Stirrup-Jars in the Mycenaean Boeotia (Biblioteca di «Pasiphae» 9), Pisa/Roma.
- Feldman, M.H. 2006: Diplomacy by Design. Luxury Arts and the "International Style" in the Ancient Near East, 1400-1200 BCE, Chicago, IL/London.
- Foster, B.R. 1987: The Late Bronze Age Palace Economy: A View from the East, in: Hägg, R. /N. Marinatos (eds.), The Function of Minoan Palaces. Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June 1984 (Acta Instituti Atheniensis Regni Sueciae 35), Stockholm, 11-16.
- Foster, E. 1974: *The Manufacture and Trade of Mycenaean Perfumed Oil* (Ph.D. dissertation, Duke University), Durham, NC.
- Foster, E. 1977: An Administrative Department at Knossos Concerned with Perfumery and Offerings, *Minos* 16, 19-51.
- Foxhall, L. 1998: Cargoes of the Heart's Desire: The Character of Trade in the Archaic Mediterranean World, in: Fisher, N./H. Van Wees (eds.), Archaic Greece, New Approaches and New Evidence, London, 295-309.
- Foxhall, L. 2007: Olive Cultivation in Ancient Greece, Oxford.
- Frankel, R. 1997: Olives, in: Meyers, E.M. (ed.), *The Oxford Encyclopaedia of Archaeology in the Near East*, vol. 4, Oxford, 179-184.
- Frankel, R. 1999: Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries, Sheffield.
- Frantz-Szabó, G. 2003: Öl, Ölbaum, Olive in Anatolien, *Reallexikon der Assyriologie* 10(1-2), 33-38.
- French, E. 2011: The Stirrup Jar: Does the West House Evidence Help or Complicate the Problems?, in: Gauß *et alii* 2011, 68-75.
- Gauß, W./M. Lindblom/R.A.K. Smith/J.C. Wright (eds.) 2011: Our Cups are Full: Pottery and Society in the Aegean Bronze Age. Papers Presented to Jeremy B. Rutter on the Occasion of his 65th Birthday, Oxford.
- Gérard-Rousseau, M. 1968: Les mentions religieuses dans les tablettes mycéniennes, Roma.
- Godart, L. 1968: Ku-pi-ri-jo dans les textes mycéniens, Studi Micenei ed Egeo-Anatolici 26, 1968, 64-70.
- Godart, L. 1969: La série Fh de Cnossos, Studi Micenei ed Egeo-Anatolici 38, 39-65.
- Godart, L. 1987: La série Fh de Cnossos, vingt ans après, in: Killen, J.T./J.L. Melena/J.-P. Olivier (eds.), Studies in Mycenaean and Classical Greek Presented to John Chadwick, Salamanca (= Minos 20-22), 201-210.
- Goetze, A. 1940: Kizzuwatna and the Problem of Hittite Geography (Yale Oriental Series, Researches 22), New Haven, CT.
- Graziadio, G. 2011: Cretan Perfumed Oils at Enkomi (Cyprus) in the 13th Century B.C.?, in: Gauß et alii 2011, 88-96.
- Güterbock, H.G. 1968: Oil Plants in Hittite Anatolia, *Journal of the American School of Oriental Studies* 88(1), 66-71.
- Güterbock, H.G. 1997: Boğazköy, in: Meyers, E.M. (ed.), *The Oxford Encyclopaedia of Archaeology in the Near East*, vol. 1, Oxford, 333-335.
- Hadjisavas, S. 1996a: An Introduction to Olive Oil Production in Cyprus, in: Eitam/Heltzer 1996, 63-71.
- Hadjisavas, S. 1996b: The Economy of the Olive, in: Karageorghis, V./D. Michaelides (eds.), The Development of the Cypriot Economy. From the Prehistoric Period to the Present Day, Nicosia, 127-137.
- Hadjisavas, S. 2003: The Production and Diffusion of Olive Oil in the Mediterranean, ca. 1500-500 BC, in: Stampolides/Karageorghis 2003, 117-123.
- Hagenbuchner, A. 1989: Die Korrespondenz der Hethiter 1-2, Heidelberg.
- Hankey, V. 1970-71: Mycenaean Trade with the South-eastern Mediterranean, *Mélanges de l'Université Saint-Joseph* 46, 3-29.
- Hankey, V. 1993: Pottery as Evidence for Trade: Egypt, in: Zerner, C./P. Zerner/J. Winder

- (eds.), Wace and Blegen: Pottery as Evidence for Trade in the Aegean Bronze Age. Proceedings of the International Conference held at the American School of Classical Studies at Athens, December 2-3, 1989, Amsterdam, 109-116.
- Hankey, V. 1995: Stirrup Jars at El-Amarna, in: Davies, W.V./L. Schofield (eds.), *Egypt, the Aegean and the Levant*, London, 116-124.
- Hankey, V. 1997: Aegean Pottery at El-Amarna: Shapes and Decorative Motifs, in: Phillips, J./
 L. Bell/B.B. Williams (eds.), Ancient Egypt, the Aegean, and the Near East. Studies in Honour of Martha Rhoads Bell, San Antonio, TX, 193-218.
- Haskell, H.W. 1999: Aspects of the Nature and Control of Mycenaean Foreign Trade, in: Betancourt, P./V. Karageorghis/R. Laffineur/W.-D. Niemeier (eds.), Meletemata. Studies in Aegean Archaeology Presented to Malcolm H. Wiener as he enters his 65th year (Aegaeum 20), Liège/Austin, TX, 339-342.
- Haskell, H.W. 2004: Wanax to Wanax: Regional Trade Patterns in Mycenaean Crete, in: Chapin, A.P. (ed.), Χάρις: Essays in Honour of Sara A. Immerwahr (Hesperia Supplement 33), Princeton, NJ, 151-160.
- Haskell, H.W. 2005: Region to Region Export of Transport Stirrup Jars from LMIIIA2/B Crete, in: D'Agata, A.L./J. Moody (eds.), Ariadne's Threads. Connections between Crete and the Greek Mainland in Late Minoan III (LMIIIA2 to LMIIIC). Proceedings of the International Workshop held at Athens Scuola Archaeologica Italiana, 5-6 April 2003, Athens, 205-221.
- Heltzer, M. 1988: Sinaranu, Son of Siginu, and the Trade Relations between Ugarit and Crete, Minos 28, 7-13.
- Heltzer, M. 1993: Olive Oil and Wine Production in Phoenicia and in the Mediterranean Trade, in: Amouretti, M.-C./J.-P. Brun/D. Eitam (eds.), Actes du symposium international organisé par la Centre Camille Jullian et le Centre Archéologique du Var, Aix-en-Provence et Toulon, 20-22 Novembre 1991 (Bulletin de Correspondance Hellénique, Supplément 26), 49-54.
- Heltzer, M. 1996: Olive Growing and Olive Oil in Ugarit, in: Eitam/Heltzer 1996, 77-89.
- Hennessy, J. B./J. du Plat Taylor 1967: The Pottery, in: Bass 1967, 122-125.
- Hirschfeld, N. 1996: Cypriots in the Mycenaean Aegean, in: de Miro, E./L. Godart/A. Sacconi (eds.), *Atti e memorie del secondo Congresso internazionale di micenologia, Roma-Napoli,* 14-20 ottobre 1991 (Incunabula Graeca 98), Rome, 289-297.
- Hirschfeld, N. 2004, Eastwards via Cyprus? The Marked Mycenaean Pottery of Enkomi, Ugarit and Tell Abu Hawam, in: Balensi, J./J.-Y. Monchambert/S. Müller Celka (eds.), *La céramique mycénienne de l'Égée au Levant. Hommage à Vronwy Hankey* (Travaux de la maison de l'Orient et de la Méditerranée 41), Lyon, 97-103.
- Hoffner, H.A. Jr. 1994: The Hittite Word for 'Oil' and its Derivatives, *Historische Sprachforshungen* 107, 222-230.
- Hoffner, H.A. Jr. 1995: Oil in Hittite Texts, Biblical Archaeologist 58(2), 108-114.
- Hoffner, H.A. Jr. 1997: The Laws of the Hittites, Leiden.
- Hoffner, H.A. 2009: Letters from the Hittite Kingdom, Atlanta, GA.
- Höflmayer, F. 2011: Egyptian Imitations of Cypriote Base Ring Ware in the Eastern Mediterranean, in: Duistermaat/Regulski 20011, 343-357.
- Holmes, Y.L. 1975: The Messengers of the Amarna Letters, *Journal of the American School of Oriental Studies* 95, 376-381.
- Hooker, J.T. 1989: Gifts in Homer, Bulletin of the Institute of Classical Studies 36, 79-90.
- Jean, E. 2005: Archéobotanique et géographie historique: l'olivier en Kizzuwatna, in: Hazirlayan, Y./A. Süel (eds.), Acts of the Vth International Congress of Hittitology, Çorum, September 02-08, 2002, Ankara, 453-470.
- Hout, Th.P.J. van den 1987-1990: Masse und Gewichte bei den Hethitern, *Reallexicon der Assyriologie*, Band 7, 517-527.
- Izre'el, S. 1997: Amarna Tablets, in: Meyers, E.M. (ed.), The Oxford Encyclopedia of Archaeology in the Near East, vol. 1, Oxford, 86-87.
- Karageorghis, V. 1996: Some Aspects of the Maritime Trade of Cyprus during the Late Bronze

- Age, in: Karageorghis, V./D. Michaelides (eds.), The Development of the Cypriot Economy. From the Prehistoric Period to the Present Day, Nicosia, 61-70.
- Karageorghis, V. 2002: Κύπρος. Το Στανροδρόμι της Ανατολικής Μεσογείου 1600-500 π.Χ. (= Cyprus. The Crossroads of the Eastern Mediterranean 1600-500 BC, Athens.
- Karagoorghis, V./R.S. Merrillees 2007: Imitations of Late Cypriote pottery found in Egypt, Report of the Department of Antiquities Cyprus 2007, 145-155.
- Kelder, J.M. 2002-2003: The Use and Appreciation of Mycenaean Pottery in New Kingdom Egypt, Talanta, Proceedings of the Dutch Archaeological and Historical Society 34-35, 9-18.
- Kelder, J.M. 2009: Royal Gift Exchange between Mycenae and Egypt: Olives as "Greeting Gifts" in the Late Bronze Age Eastern Mediterranean, American Journal of Archaeology 113(3), 339-352.
- Killen, J.T. 1964: The Wool Industry of Crete in the Late Bronze Age, *Annual of the British School at Athens* 59, 1-15.
- Killen, J.T. 1985: The Linear B Tablets and the Mycenaean Economy, in: Morpurgo-Davies, A./Y. Duhoux (eds.), Linear B: A 1984 Survey. Proceedings of the Mycenaean Colloquium of the VIIIth Congress of the International Federation of the Societies of Classical Studies, Dublin, 27 August-1st September 1984 (Bibliothèque des cahiers de l'institut de linguistique de Louvain 26), Louvain-la-Neuve, 241-305.
- Killen, J.T. 1995: Some Further Thoughts on "Collectors", in: Laffineur, R./W.-D. Niemeier (eds.), Politeia, Society and State in the Aegean Bronze Age. Proceedings of the 5th International Aegean Conference, University of Heidelberg, Archaeologisches Institut, 10-13 April 1994 (Aegaeum 12), Liège/Austin, TX, 213-221.
- Kloekhorst, A. 2008: Etymological Dictionary of the Hittite Inhered Lexicon, Leiden/Boston, MA. Knapp, A.B. 1991: Spice, Drugs, Grain and Grog: Organic Goods in Bronze Age East Mediterranean Trade, in: Gale, H. (ed.), Bronze Age Trade in the Mediterranean. Papers Presented at the conference held at Rewley House, Oxford, in December 1989 (Studies in Mediterranean Archaeology 90), Jonsered, 21-68.
- Knapp, A.B. 1993: Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth, *World Archaeology* 24(3), 332-347.
- Knapp, A.B. 1998: Mediterranean Bronze Age Trade: Distance, Power and Place, in: Cline, E.H./D. Harris-Cline (eds.), The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium, Cincinnati, 18-20 April 1997 (Aegaeum 18), Liège/Austin, TX, 193-205.
- Knapp, A.B./Cherry J.F. 1994: Provenience Studies and Bronze Age Cyprus, Production, Exchange and Politico-Economic Change (Monographs in World Archaeology 21), Madison, WI.
- Kümmel, H.M. 1967: Erzatzrituale für den hethitischen König (Studien zu den Boğazköy-Texten, Heft 5), Wiesbaden.
- Kuhrt, A. 1995: The Ancient Near East c. 3000-330 B.C., London/New York.
- Kutsch, E. 1963: Salbung als Rechtsakt im alten Testament und im alten Orient (Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 87). Berlin.
- Lambrou-Phillipson, C. 1990: Hellenorientalia. The Near Eastern Presence in the Bronze Age Aegean, ca. 3000-1100 B.C. Interconnections Based on the Material Record and the Written Evidence plus Orientalia: A Catalogue of Egyptian, Mesopotamian, Mitannian, Syro-Palestinian, Cypriot and Asia Minor objects from the Bronze Age Aegean (Studies in Mediterranean Archaeology, Series SPB, no. 95), Göteborg.
- Laroche, E. 1971: Catalogue des textes hittites, Paris.
- Lewis, Th.J. 1997: The Rapiuma, in: Parker, S.B. (ed.), Ugaritic Narrative Poetry, Atlanta, GA, 196-214.
- Leonard, A. Jr. 1981: Considerations of Morphological Variation in the Mycenaean Pottery from the South-eastern Mediterranean, *Bulletin of the American Schools of Oriental Research* 241, 87-101.
- Leonard, A. Jr. 1987: The Significance of the Mycenaean Pottery found East of the Jordan River, in: Hadidi, A. (ed.), Studies in the History and Archaeology of Jordan III, Amman, 261-266.

- Leonard, A. Jr. 1994: An Index to the Late Bronze Age Aegean Pottery from Syria-Palestine (Studies in Mediterranean Archaeology 114), Jonsered.
- Leonard, A. Jr. 1996: 'Canaanite Jars' and the Late Bronze Age Aegeo-Levantine Wine Trade, in: McGovern, P.E./S.J. Fleming/S.H. Katz (eds.), *The Origins and Ancient History of Wine*, Philadelphia, PA, 233-254.
- Leonard A. Jr./M. Hughes/A. Middleton/L. Schofield 1994: The Making of Aegean Stirrup Jars: Technique, Tradition, and Trade, *Annual of the British School at Athens* 88, 105-123.
- Lipiński, E. 1977: An Ugaritic Letter to Amenophis III Concerning Trade with Alašiya, in: Hawkins, D.J. (ed.), Trade in the Ancient Near East. Papers Presented to the XXIIIrd Recontre assyriologique internationale, University of Birmingham, 5-9 July 1976, London, 213-217.
- Liverani, M. 1990: Prestige and Interest. International Relations in the Near East ca. 1600-1100 B.C., Padova.
- Liverani, M., 2000: The Great Power's Club, in: Cohen, R./R. Westbrook (eds.), *Amarna Diplomacy. The Beginnings of International Relations*, Baltimore, MD, 15-27.
- Liverani, M. 2001: International Relations in the Ancient Near East, 1600-1100 BC, New York.
 Liverani, M. 2008: The Late Bronze Age: Materials and Mechanisms of Trade and Cultural Exchange, in: Aruz, J./K. Benzel/J.M. Evans (eds.), Beyond Babylon. Art, Trade and Diplomacy in the Second Millennium B.C., New York, 161-168.
- Lolos, Y. 1999: The Cargo of Pottery from the Point Iria Wreck: Character and Implications, in: Phelps/Lolos/Vichos 1999, 43-58.
- Malul, M. 1996: ze/irtu (se/irdu): The Olive Tree and its Products in Ancient Mesopotamia, in: Eitam/Heltzer 1996. 91-100.
- Mattoïan, V. 2004: Influence des productions mycéniennes à Ougarit (Syrie): l'exemple des vases à étrier "en faïence", in: Balensi, J./J.-Y. Monchambert/S. Müller Celka (eds.), *La céramique mycénienne de l'Égée au Levant. Hommage à Vronwy Hankey* (Travaux de la maison de l'Orient et de la Méditerranée 41), Lyon, 105-124.
- McGeough, K.M. 2007: Exchange Relationships at Ugarit (Ancient Near Eastern Studies Supplement 26), Leuven.
- Meeks, D. 1993: Oléiculture et viticulture dans l'Égypte pharaonique, in: Amouretti, M.-C./J.-P. Brun/D. Eitam (eds.), La production du vin et de l'huile en Méditerranée. Actes du symposium international organisé par la Centre Camille Jullian et le Centre Archéologique du Var, Aix-en-Provence et Toulon, 20-22 Novembre 1991 (Bulletin de Correspondance Hellénique, Supplément 26), Athens, 3-38.
- Melena, J.-L. 1983: Olive Oil and Other Sorts of Oil in the Mycenaean Tablets, *Minos* 18, 89-123. Merrillees, R.S. 1962: Opium Trade in the Bronze Age Levant, *Antiquity* 36, 287-292. Moran, W.L. 1992: *The Amarna Letters*, Baltimore, MD/London.
- Mountjoy, P.A. 2006: Mykenische Keramik in Troia Ein Überblick, in: Korfmann, M.O. (ed.), Troia Archäologie eines Siedlungshügels und seiner Landschaft, Mainz am Rhein, 241-252, 399-417.
- Negbi, O./M. Negbi 1993: Stirrup Jars versus Canaanite Jars: Their Contents and Reciprocal Trade, in: Zerner, C./P. Zerner/J. Winder (eds.), Wace and Blegen: Pottery as Evidence for Trade in the Aegean Bronze Age. Proceedings of the International Conference held at the American School of Classical Studies at Athens, December 2-3, 1989, Amsterdam, 319-329.
- Nikoloudis, S. 2008: Multiculturalism in the Mycenaean World, in: Collins, J.B./M.R. Bachvarova/I.C. Rutherford (eds.), Anatolian Interfaces. Hittites, Greeks and their Neighbours. Proceedings of an International Conference on Cross-Cultural Interaction, September 17-19, 2004, Emory University, Atlanta, Oxford, 45-56.
- Nougayrol, J. 1956: Le palais royal d'Ugarit IV: textes accadiens des archives sud (Mission de Ras Shamra, vol. 9), Paris.
- Nougayrol, J. 1968: Textes suméro-accadiens des archives et bibliothèques privées d' Ugarit, Paris (Nougayrol, J./E. Laroche/Ch. Virolleaud/Cl.F.A. Schaeffer (eds.), Ugaritica V. Nouveaux textes accadiens, hourrites et ugaritiques des archives et bibliothèques privées d' Ugarit, commentaires des textes historiques (première partie) (Mission de Ras Shamra 16)).

- Ownby, M./L.M.V. Smith 2011: The Impact of Changing Political Situations on Trade between Egypt and the Near East: A Provenance Study of Canaanite Jars from Memphis, Egypt, in: Duistermaat/Regulski 2011, 267-284.
- Palaima, T.G. 1984: Inscribed Stirrup Jars and Regionalism in Linear B Crete, *Studi Micenei ed Egeo-Anatolici* 25, 189-203.
- Palaima, T.G. 1991: Maritime Matters in the Linear B Tablets, in: Laffineur, R./L. Basch (eds.), Thalassa. L'Egée préhistorique et la mer. Actes de la troisième rencontre égéenne internationale de l' Université de Liège, Station de recherches sous-marines et océanographiques (StaReSo), Calvi, Corse, 23-25 avril 1990 (Aegaeum 7), Liège/Austin, TX, 273-310.
- Palmer, R. 2003: Trade in Wine, Perfumed Oil, and Foodstuffs: The Linear B Evidence and Beyond, in: Stampolidis/Karageorghis 2003, 125-140.
- Papageorgiou, D. 2008: The Marine Environment and its Influence on Seafaring and Maritime Routes in the Prehistoric Aegean, *European Journal of Archaeology* 11(2-3), 199-222.
- Pardee, D. 1977: A New Ugaritic Letter, Bibliotheca Orientalis 34, 3-20.
- Pardee, D. 1997: Ugarit Inscriptions, in: Meyers, E.M. (ed.), *The Oxford Encyclopaedia of Archaeology in the Near East*, vol. 5, Oxford, 264-266.
- Parker, V. 1999: Die Aktivitäten der Mykenäer in der Ostägäis im Lichte der Linear B Tafeln, in: Hiller, S./S. Deger-Jalkotzy/O. Panagl (eds.), Floreant Studia Mycenaea. Akten des X. Internationalen mykenologischen Colloquiums in Salzburg vom 1-5 Mai 1995 (Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Denkschriften 274), Wien, 495-502.
- Parkinson, W.A./M.L. Galaty (eds.) 2009: Archaic State Interaction: The Eastern Mediterranean in the Bronze Age, Santa Fe, NM.
- Pedersén, O. 1998: Archives and Libraries in the Ancient Near East, 1500-300 B.C., Bethesda, MD.
 Peltenburg, E. 1991: Greetings Gifts and Luxury Faience: A Context for Orientalizing Trends in Late Mycenaean Greece, in: Gale, H. (ed.), Bronze Age Trade in the Mediterranean.
 Papers Presented at the conference held at Rewley House, Oxford, in December 1989 (Studies in Mediterranean Archaeology 90), Jonsered, 162-176.
- Phelps, W./Y. Lolos/Y. Vichos (eds.) 1999: The Point Iria Wreck: Interconnections in the Mediterranean ca. 1200 BC. Proceedings of the International Conference, Island of Spetses, 19 September 1998, Athens.
- Podany, A.H. 2010: Brotherhood of Kings, How International Relations Shaped the Ancient Near East, Oxford.
- Pulak, C. 1997: The Uluburun Shipwreck, in: Swiny, St./R.L. Hohlfelder/H. Wylde Swiny (eds.), Res Maritimae, Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity. Proceedings of the Second International Symposium "Cities on the Sea", Nicosia, Cyprus, October 18-22, 1994 (Cyprus American Archaeological Research Institute Monograph Series vol. 1), Atlanta, GA, 233-262.
- Pulak, C. 2008: The Uluburun Shipwreck and Late Bronze Age Trade, in: Aruz, J./K. Benzel/J.M. Evans (eds.), Beyond Babylon, Art, Trade and Diplomacy in the Second Millennium B.C., New York, 289-305.
- Renfrew, C. 1993: Trade Beyond the Material, in: Scarre, Chr./F. Healy (eds.), Trade and Exchange in Prehistoric Europe, Proceedings of a Conference held at the University of Bristol, April 1992, Oxford, 5-16.
- Riley, F. R. 2002: Olive Oil Production on Bronze Age Crete: Nutritional Properties, Processing Methods and Strorage Life of Minoan Olive Oil, *Oxford Journal of Archaeology* 21(1), 63-75.
- Sacconi, A. 2009: Ku-pi-ri-jo and Mycenaean Ttrade, in: Danielidou 2009, 611-617.
- Schneider-Ludorff, H. 1999: Öle und Fette in Nuzi, in: Owen, D.I./G. Wilhelm (eds.), *Nuzi at Seventy-Five*, Bethesda, MD, 401-410.
- Serpico, M./J.D. Bourriau/L. M. V. Smith/Y. Goren/B. Stern/C. Heron 2003: Commodities and Containers: A Project to Study Canaanite Amphorae Imported into Egypt during the New Kingdom, in: Bietak, M. (ed.), The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millenium B.C. II. Proceedings of the SCIEM 2000 – EuroConference,

- Haindorf, 2nd of May 7th of May 2001 (Denkschriften der Gesamtakademie 29/Contributions to the chronology of the Eastern Mediterranean 4), Wien, 365-376.
- Shelmerdine, C.W. 1985: *The Perfume Industry of Mycenaean Pylos* (Studies In Mediterranean Archaeology, Series SPB, 34), Göteborg.
- Shelmerdine, C.W. 1998: Where Do We Go From Here? And how Can the Linear B Tablets Help Us Go There?, in: Cline, E.H./D. Harris-Cline (eds.), *The Aegean and the Orient in the Second Millennium. Proceedings of the 50th Anniversary Symposium. Cincinnati, 18-20 April 1997* (Aegaeum 18), Liège/Austin, TX, 291-299.
- Sherratt, A./S. Sherratt 1991: From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems, in: Gale, H. (ed.), *Bronze Age Trade in the Mediterranean.* Papers Presented at the conference held at Rewley House, Oxford, December 1989 (Studies in Mediterranean Archaeology 90), Jonsered, 351-385.
- Singer, I. 1987: Oil in Anatolia according to Hittite Texts, in: Heltzer, M./D. Etiam (eds.), *Olive Oil in Antiquity, Israel and Neighbouring Countries from Neolith to Early Arab Period*, Haifa. 183-186.
- Singer, I. 1999: A Political History of Ugarit, in: Watson, W.G.E./N. Wyatt (eds.), *Handbook of Ugaritic Studies*, Leiden/Boston, MA, 603-733.
- Singer, I. 2006: Ships Bound for Lukka: A New Interpretation of the Companion Letters RS 94.2530 and RS 94.2523, in: Klinger, J. (ed.), Altorientalische Forschungen 33(2), 242-262.
- Singer, I. 2008: A Hittite-Assyrian Diplomatic Exchange in the Late 13th Century BCE, in: Archi, A./R. Francia (eds.), VI Congresso Internazionale di Ittitologia. Roma, 5-9 settembre 2005 (Studi Micenei ed Egeo-Anatolici 50), Roma, 713-720.
- Snape, S.R. 2003: Zawiyet Umm el-Rakham and Egyptian Foreign Trade in the 13th Century BC, in: Stampolidis/Karageorghis 2003, 63-70.
- Soles, J.S. 2005: From Ugarit to Mochlos Remnants of an Ancient Voyage, in: Laffineur, R./E. Greco (eds.), Emporia, Aegeans in the Central and Eastern Mediterranean. Proceedings of the 10th International Aegean Conference. Athens, Italian School of Archaeology, 14-18 April 2004 (Aegeum 25), Liège/Austin, TX, 429-438.
- Stampolidis, N. (ed.) 2003: Πλόες: από τη Σιδώνα στη Χουέλβα: σχέσεις λαών της Μεσογείου, 16ος -6ος αι. π.Χ [= Sea Routes: From Sidon to Huelva: Interconnections in the Mediterranean, 16th-6th c. BC], Athens.
- Stampolidis, N./V. Karageorghis (eds.), 2003: Sea Routes: Interconnections in the Mediterranean 16th-6th c. BC. Proceedings of the International Symposium held at Rethymnon, Crete in September 29th-October 2nd 2002, Athens.
- Stol, M. 1985: Remarks on the Cultivation of Sesame and the Extraction of its Oil, Bulletin of Sumerian Agriculture 2, 119-126.
- Stol, M. 2003: Öl, Ölbaum, Olive in Mesopotamien, Reallexikon der Assyriologie 10(1-2), 32-33.
 Steel, L. 1998: The Social Impact of Mycenaean Imported Pottery in Cyprus, Annual of the British School at Athens 93, 285-296.
- Steel, L. 2002: Consuming Passions: A Contextual Study of the Local Consumption of Mycenaean Pottery at Tell el-'Ajjul, *Journal of Mediterranean Archaeology* 15(1), 25-51.
- Steel, L. 2004: A Reappraisal of the Distribution, Context and Function of Mycenaean Pottery in Cyprus, in: Balensi, J./J.-Y. Monchambert/S. Müller Celka (eds.), La céramique mycénienne de l'Égée au Levant. Hommage à Vronwy Hankey (Travaux de la maison de l'Orient et de la Méditerranée 41), Lyon, 69-85.
- Tournavitou, I. 1992: Practical Use and Social Function: A Neglected Aspect of Mycenaean Pottery, *Annual of the British School at Athens* 87, 182-210.
- Tzachili, I. 2001: Circulation of Textiles in the Late Bronze Age Aegean, in: Michailidou, A. (ed.), Manufacture and Measurement, Counting, Measuring and Recording Craft Items in Early Aegean Societies, Athens, 167-175.
- Vianello, A. 2011: One Sea for All? Intercultural, Social, and Economic Contacts in the Bronze Age Mediterranean, in: Duistermaat/Regulski 2011, 411-425.
- Vichos, Y./Y. Lolos 1997: The Cypro-Mycenaean Wreck at Point Iria in the Argolic Gulf: First

- Thoughts on the Origin and the Nature of the Vessel, in: Swiny, St./R.L. Hohlfelder/H. Wylde Swiny (eds.), Res Maritimae, Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity. Proceedings of the Second International Symposium "Cities on the Sea", Nicosia, Cyprus, October 18-22, 1994 (Cyprus American Archaeological Research Institute Monograph Series vol. 1), Atlanta, GA, 321-337.
- Virolleaud, Ch. 1965: Le palais royal d'Ugarit V: textes en cunéiformes alphabétiques des archives sud, sud-ouest et du petit palais (Mission de Ras Shamra 11), Paris.
- Ward, C. A. 2010: Seafaring in the Bronze Age Aegean: Evidence and Speculation, in: Pullen, D.J. (ed.), Political Economies of the Aegean Bronze Age: Papers from the Langford Conference, Florida State University, Tallahassee, 22–24 February 2007, Oxford, 149-160.
- Wiener, M.H. 2009: Locating Ahhiyawa, in: Danielidou 2009, 701-715.
- Wijngaarden, G.J. van 1999: An Archaeological Approach to the Concept of Value: Mycenaean Pottery at Ugarit, *Archaeological Dialogues* 6(1), 2-23.
- Wijngaarden, G.J. van 2002: Use and Appreciation of Mycenaean Pottery in the Levant, Cyprus and Italy (ca. 1600-1200 BC): The Significance of Context (Amsterdam Archaeological Studies 8), Amsterdam.
- Wijngaarden, G.J. van 2008: Dots Close Together on a Map: Mycenaean Pottery in the Jordan Valley, in: Steiner, M.L./E. van der Steen (eds.), Sacred and Sweet, Studies on the Material Culture of Tell Deir 'Alla and Tell Abu Sarbut (Ancient Near Eastern Studies Supplement 24). Leuven, 53-67.
- Wijngaarden, G.J. van 2011: Tokens of a Special Relationship? Mycenaeans and Egyptians, in: Duistermaat/Regulski 2011, 225-251.
- Wright, J.C. 1995: From Chief to King in Mycenaean Society, in: Rehak, P. (ed.), The Role of the Ruler in the Prehistoric Aegean. Proceedings of a Panel Discussion presented at the Annual Meeting of the Archaeological Institute of America. New Orleans, Louisiana, 28 December 1992 (Aegaeum 11), Liège/Austin, TX, 63-75.
- Yon, M. 1997: Ugarit, in: Meyers, E.M. (ed.), The Oxford Encyclopaedia of Archaeology in the Near East, vol. 5, Oxford, 255-262.
- Yon, M. 2000: Ougarit et la Méditerranée orientale, in: Yon. M./V. Karageorghis/N. Hirschfeld (eds.), *Céramiques mycéniennes d'Ougarit* (Ras Shamra-Ougarit 13), Paris, ix-xi.
- Yon, M. 2003: The Foreign Relations of Ugarit, in: Stampolidis/Karageorghis 2003.
- Yon, M. 2006: The city of Ugarit at Tell Ras Shamra, Winona Lake, IN.
- Yon, M./V. Karageorghis/N. Hirschfeld (eds.) 2000: Céramiques mycéniennes d'Ougarit (Ras Shamra-Ougarit 13), Paris, 67-73.
- Zaccagnini, C. 1973: Lo scambio dei doni nel Vicino Oriente durante i secoli XV-XIII (Orientis Antiqui Collectio 11), Rome.
- Zaccagnini, C. 1976: La circolazione dei bene, in: Moscati, S. (ed.), L'alba della civiltà, Torino, 423-582.
- Zaccagnini, C. 1987: Aspects of Ceremonial Gift Exchange in the Near East during the Late Second Millennium B.C., in: Rowlands, M./M.T. Larsen/K. Kristiansen (eds.), Centre and Periphery in the Ancient World, Cambridge, 47-56.
- Zaccagnini, C. 2000: The Interdependence of the Great Powers, in: Cohen, R./R. Westbrook (eds.), Amarna Diplomacy, The Beginnings of International Relations, Baltimore, MD, 141-153.
- Zurbach, J. 2006: Les vases inscrits en Linéaire B: tentative d'interprétation globale, Athenische Mitteilungen 121, 13-71.

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