

# AMENEMHET II AND THE SEA: MARITIME ASPECTS OF THE MIT RAHINA (MEMPHIS) INSCRIPTION

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## Abstract

The inscribed granite blocks found at Mit Rahina (Memphis) are a unique source of information from the early 12<sup>th</sup> Dynasty of Egypt. This inscription apparently derived from the court records of Amenemhet II and details activities during two years of his reign, including endowments, building activities, and aspects of Egypt's foreign relations. The last involved both military and commercial expeditions to the Levant, by land and by sea, activities that shed new light on this period. This paper considers the inscription from a heretofore unappreciated maritime perspective by analyzing the seaborne expeditions and the detailed descriptions of their cargoes both qualitatively and quantitatively. These descriptions may be characterized as *the* earliest "bill of lading" or "cargo manifest" known from the ancient Mediterranean world. The results are synthesized with the extant textual and archaeological record, in order to elucidate the nature of these expeditions and the ships involved, the significance of maritime transport and the implications of this capability for developments both in Egypt and the Levant.

## INTRODUCTION

Throughout its long history, Egypt's foreign relations were reliant, at least partially, on maritime communication.<sup>1</sup> Despite the existence of a contiguous land route with southwestern Asia,

seaborne transport was necessary in order to satisfy Egypt's need for foreign products, both of great size and quantity, and to augment the terrestrial projection of military power. Beginning in Pre-Dynastic times, the increasing demand, *inter alia*, for large quantities of Mediterranean horticultural (olive oil, wine, etc.) and wood products (timber and resins), of which royalty, the elite, and religious institutions were always the greatest consumers, was a major impetus for the king assuming, or claiming to assume, a central role in their procurement. The means of this procurement became solely maritime probably sometime around the Dynasty I/Early Bronze Age II horizon, ca. 3000 BCE, when the northern Sinai land route, the "Way of Horus," was abandoned (BRANDL 1992; MARCUS 2002a; YEKUTIELI 2002; DE MIROSCHEJJI 2002), but it is only in the 4th Dynasty that the first record exists of a king, Sneferu, dispatching a maritime expedition.<sup>2</sup> Subsequent Old Kingdom (OK) textual references and pictorial depictions attest to a royal hand in such endeavors, which is complemented by the archaeological realia of high-profile imported raw materials and products in Egypt, and the plethora of Egyptian finds at her partner port in the Lebanon: Byblos. When turning to the Middle Kingdom (MK), however, the pattern of evidence for such activity is one-sided. Numerous material finds in Egypt and Byblos attest to such maritime

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<sup>1</sup> The antiquity of maritime contacts between Egypt and the Levant has long been a matter of debate. PRAG (1978; 1986), claims contacts with Byblos already in the Chalcolithic Period. In contrast, BEN-TOR (1991, 3–4) rejects the notion of any regular maritime contact with the Lebanon prior to the Old Kingdom. However, the underwater find from the Carmel Coast of a Naqada IIb-c period Egyptian jar filled with the originally-live mollusca *Aspatharia Rubens* (SHARVIT, GALILI, ROSEN, *et al.* 2002), the deep-water finds of Early Bronze Age I Canaanite and Naqada II Egyptian ceramics off the southern Levantine coast (BARAG 1963, 18, pl. 5a:1;

MARCUS 2002a, 407; GOPHNA 2002), the distribution of foreign coniferous woods (including cedar) along the southern Levantine littoral and Egypt, and other evidence (GOPHNA and LIPSCHITZ 1996; MARCUS 2002a), all appear to demonstrate that the maritime capability implicit in Prag's position were not lacking at least by the Early Bronze Age Ia.

<sup>2</sup> The Palermo Stone and Cairo fragment #4 refer to "the bringing of forty ships filled with ʿš wood" and the building of 100 cubit long vessels and a palace door, variously of ʿš and *mrw* wood, as well as other evidence of foreign expeditions (BREASTED 1906, §146-§148; WILSON 1950, 227; SMITH 1971, 167; MEIGGS 1982, 63; WILKINSON 2000, 141–145, 232–236).

activity, but, until recently, the written record has been largely silent, with only vague allusions to shipping throughout this period and the Second Intermediate Period (MARCUS 1998; 2002b). Given this extraordinary lacuna, the Mit Rahina (Memphis) inscription of Amenemhet II, which contains detailed references to seaborne expeditions and transported goods, is a singular discovery, whose potential for shedding light on Egyptian maritime activity has been largely overlooked since its publication (ALTENMÜLLER and MOUSSA 1991).<sup>3</sup> The goal of this study is to identify those maritime aspects of the text and treat them within their proper historical and archaeological context. Such a treatment will demonstrate that significant developments occurred in Egypt during the reign of Amenemhet II that may have impacted on the Levant as well.

## THE ANNALS OF AMENEMHET II

### Previous research on the text

When initially discovered and its existence reported in the late 1970s – early 1980s (FARAG 1980; POSENER 1982), the Middle Kingdom inscription of Amenemhet II from Mit Rahina (Memphis) elicited, variously, anticipation and doubt among scholars of Egypt and the Levant alike.<sup>4</sup> This reaction was to be expected as after nearly a century of disappointment at the near lack of epigraphic evidence for MK Egyptian military operations in the Levant and the absence of clarity regarding relations between the two regions, here was a text that had the potential to fill both of these lacunae. Thus, relying on photographs and the first impressions of FARAG and POSENER, a number of translations and interpretations appeared (HELCK 1989; GOEDICKE 1991; REDFORD 1992, 78–80; O’CONNOR 1996, 52–54).<sup>5</sup> However, it was not until a detailed transcription and interpretation was published by ALTENMÜLLER and MOUSSA (1991), complemented

by an additional copy by MALEK and QUIRKE (1992; MALEK 1992), that the text could be fully appreciated and evaluated, although further authoritative collations and publications remain forthcoming.<sup>6</sup> Since then, this text has begun to be appreciated as a basis for characterizing the nature of relations between Egypt and the Levant (EDER 1995, 176–195; REDFORD 1992, 80; 1996, 79; DANTONG 1998; MARCUS 1998; 2002b; COHEN 2000, 89–97; 2002a, 41–45). Others have utilized it more specifically for the identification of various ethnonyms (DE FIDANZA 1998), toponyms (QUACK 1996, 79), as background for the study of royal sculpture and building activities during the reign of Amenemhet II (FAY 1996, 40, 61), for the philological data it contains on Egyptian characterization of metals (GIUMLIA-MAIR and QUIRKE 1997), the information it offers on Egyptian mining activities (SHAW 1998, 248–250) and for the light it sheds on MK temple construction (ALTENMÜLLER 1998). Lastly, references to endowments to the Temple of Montu at Tôd have led some to see the text as a background for the famous Tôd Treasure of Amenemhet II (LILYQUIST 1993, 36; PIERRAT 1994, 23–24).

### The inscription

The text in question is inscribed on a single red granite block, termed “M”, which was found in secondary use as a pedestal for a statue of Rameses II in a temple at Memphis; a fragment previously discovered by PETRIE, termed “P”, is part of the same inscription. These blocks were probably part of the walls of an inner chamber of the Temple of Ptah, which is mentioned in the “P” fragment (ALTENMÜLLER and MOUSSA 1991, 1, 40; MALEK and QUIRKE 1992, 13).<sup>7</sup> The text, which represents a small portion of the court records or annals of Amenemhet II, is written in columns and lists events apparently organized in chronological order. ALTENMÜLLER & MOUSSA (1991, 4) divide the 41 columns into 40 subject headings.<sup>8</sup> What follows are selected por-

<sup>3</sup> Surprisingly, the two most recent major works on Bronze Age seafaring in the Mediterranean mention it only briefly and merely as evidence for contacts with Cyprus and the Lebanon (WACHSMANN 1998, 10; FABRE 2005, 30, n. 83).

<sup>4</sup> Note the cautious mention already in 1982 by NA’AMAN (1982, 141). WARD (1987, 528, nn. 90–91) prematurely rejected the 12<sup>th</sup> Dynasty date and attributed it to a 19<sup>th</sup> Dynasty donation to the funerary monuments of Senusret I and Amenemhet II.

<sup>5</sup> O’Connor’s consideration is less an interpretation than a response to BERNAL’s (1991, 230–235) misuse of the text as evidence of wide-ranging Egyptian conquests north of the Levant.

<sup>6</sup> See also OBSOMER (1995, 595–606) for a largely overlooked transliteration and translation of the text.

<sup>7</sup> However, QUIRKE (2003b) notes that several of the blocks might originally have come from Amenemhet II’s pyramid temple at Dahshur.

<sup>8</sup> QUIRKE (2003a) offers a slightly different division.

tions of their first 27 subject headings (underlined) following Altenmüller and Moussa's translation for for columns M1-26 only and, except where noted, those sections relevant to this study.

1.	M1	<u>Donation of a field for offerings to the funerary cult of Senusret I</u>	
2.	M2-3	<u>Establishment of an offering endowment for Senusret I</u>	
4.	M4	<u>Offering endowment for the Sokarfest of days 25-26 Choiak for a cult</u>	
5.	M5	<u>Endowment of a statue to a temple of Senusret I (?)</u>	
6.	M5-6	<u>Endowment of a statue of Amenemhet II and cult equipment for Senusret I in the funerary cult temple of Senusret I</u>	
7.	M6	<u>Further endowments</u>	
8.	M7	<u>Offering endowments</u>	
9.	M7	<u>Dispatching of expedition troops to the Lebanon</u> Sending of a military expedition into Lebanon ( <i>Hnty-š</i> )	
10.	M8	<u>Raising of recruits (?)</u>	
11.	M8	<u>Dispatching of expedition troops to Asia</u> Sending of a military expedition together with the 'head of the fighting troops of the army' ( <i>imy-r mnf3t mš</i> ), to destroy/cut apart Asia ( <i>Štt</i> ) <i>Tw3</i> (a foreign country)	
12-13.	M9-10	<u>Endowment of cult equipment for two recipients</u> [gap of ca 10 + 7 groups erased - double donations - possibly to the gods Montu of Armant and Montu of Tôd]	
12.		(from) Silver (?):	
		...	2
		(from) Asiatic copper:	
		<i>Hst</i> -vase	2
		Hand washing tool	1
		Incense arm	2
		a <i>hn</i> -box for the opening of the mouth with all of its tools from the state administration.	
13.	M9	for Montu in Armant (from) Asiatic copper	1 <i>ds</i> -jug
	M10	for Montu of Tôd (from) Asiatic copper	1 <i>ds</i> -jug
16.	M11-12	<u>Tribute from Nubians</u>	
17.	M12-13	<u>Tribute from Asiatics</u>	
	M12	The children of the princes of Asia coming with bowed heads They bring here: (precious metal:)	
		Silver	220 <i>dbn</i>
	M13	[Gold (?)] (Animals:)	[. . .]
		[(?) Cattle and] small domestic animals	
		Total	56 heads
		(Slaves:)	
		Asiatics	1002
		(Lead and lead minerals:)	
		Lead	6 <i>dbn</i>
		White lead	55 <i>dbn</i>
18.	M13-14	<u>Return of an expedition from the Sinai</u>	
	M13	Arrival of the army (expedition) that was sent to the turquoise terraces. They bring here: (precious stone:)	
		Turquoise	14 <sup>13</sup> / <sub>32</sub> <i>hq3t</i> and the rest
		(Ore minerals:)	
		<i>Ht-w3</i> - mineral	8,700 <i>dbn</i>
		<i>B3-qis</i> - mineral	5,570 <i>dbn</i>
		(Minerals:)	
		The ? - mineral	6 <i>hq3t</i>
	M14	...	
		(Minerals:)	
		Alum of a special kind	26 <sup>13</sup> / <sub>16</sub> <i>hq3t</i>
		Natron	10 <sup>9</sup> / <sub>16</sub> <i>hq3t</i>
		(Organic products:)	
		Sea stars	8
		<i>s3it</i> - aromatics	41 sacks
		(Precious metal:)	
		Silver	9 <sup>3</sup> / <sub>4</sub> <i>dbn</i>
		(Animals:)	

		Cattle	10
		Young Ibex	3
		(Hides:)	
		Cheetah hide	
21.	M15	<u>Tribute from <i>hrw</i> nomads (?) from <i>tmp<sup>3w</sup></i></u>	
		The coming of the <i>hrw</i> nomads (?) from <i>tmp<sup>3w</sup></i> , with heads bowed down; with their arms they bring here:	
		Lead	238 $\frac{1}{4}$ <i>dbn</i>
22.	M16–18	<u>Return of the army from <i>Iw<sup>3i</sup></i> and <i>I<sup>3</sup>sii</i> and a list of tribute</u>	
	M16	[The coming of the <i>m<sup>s</sup>c</i> -army and] the fighting army ( <i>m<sup>n</sup>f<sup>3t</sup></i> ), which have been sent to cut up the fortifications of <i>Iw<sup>3i</sup></i> and to cut up the fortifications of <i>I<sup>3</sup>sii</i> .	
		Amount of captives who were brought from the foreign lands:	
		Asiatics:	1554
		(Booty containing the following tools:)	
		(from) Bronze and wood:	
		Axes	10
		Sickle	33
		Daggers	12
		Saws	4 $\frac{1}{4}$
		Knives	79
		Chisel	1
		Razor blades	4
	M17	[gaps]	x+330
		(Harpoon or spear with 5 points)	2
		(Weapon, maybe scepter or sword)	45
		<i>m<sup>c</sup>b(3)</i> harpoon	6
		(More tools:)	
		Balance pan?	3
		Six-spoked wheel	60
		(Raw materials:)	
		Copper scrap	646 <i>dbn</i>
		New copper	125 <i>dbn</i>
		(Weapon:)	
		(from) Bronze <and wood>:	
		Spear/arrow with triangular point	30
		Spear/arrow with elliptical point	26
		(from) Copper and wood	
		Lance	1
		(Jewelry:)	
		Armlet	3
		Jewelry for head and ear	38
		(Staffs:)	
		(from) Wood and Silver:	
		Staff with metal decoration	
	M18	...	
		(Minerals:)	
		[Amethyst](?)	58 <i>dbn</i>
		<i>Hswd</i>	1 $\frac{1}{4}$
		Malachite	1734 <i>dbn</i>
		(Organic products:)	
		(from) ivory	
		<i>S<sup>3t</sup></i> (plate for furniture fitting?)	4
		(Wood products:)	
		(from) Wood:	
		Asiatic household goods	54 <i>hnw</i> vessels
		“Travel box”	1
		Comb	13
		Axles	8
		(Metal:)	
		Lead	375 <i>dbn</i>
23.	M18–21	<u>Expedition goods from Lebanon, list of raw materials and goods</u>	
	M18	The coming of the expedition troops that were sent to the Lebanon ( <i>Hnty-š</i> ) in two ships. They bring:	

	(precious metal:)	
	Silver	1676 $\frac{1}{2}$ <i>dbn</i>
M19	[Gold]	...
	(Metal:)	
	Bronze	4882 <i>dbn</i>
	Copper	15,961 <i>dbn</i>
	(Minerals:)	
	White lead	4882 <i>dbn</i>
	Marble	13 stones
	Emery	16,588 <i>dbn</i>
	Grinding stone sand	39,556 <i>dbn</i>
	(Stone and seals:)	
	(from) Dolerite <sup>9</sup>	
	Saddle quern	1 stone
	Hopper (upper)	6 stones
	hard stone of Dolerite	5 stones
	(from) White and black hard stone (pounder?)	4 stones
	(from) Gold and silver	
	Asiatic seal	1
M20	(Minerals (?):)	
	... quartz	
	(Aromatics and salves:)	
	(Aromatics and salve oil of)	
	Cedar (𐤊) of first quality	[. . .] $\frac{5}{8}$ <i>hq3t</i>
	(Aromatics and salve oil of)	
	Olive tree ( <i>b3k</i> ) <sup>10</sup>	5 $\frac{3}{8}$ <i>hq3t</i>
	(Aromatics and salve oil of)	
	Pine ( <i>sft</i> )	66+ $\frac{3}{8}$ <i>hq3t</i> and the rest
	176 <i>hbnt</i> jugs	
	(Aromatics:)	
	(fragrant stuff of)	
	<i>Ti-šps</i> tree (cinnamon or camphor?)	271 sacks
	...rt...-fragrant (?)	7 <i>hnw</i> vessels
	Terebinth resin ( <i>sntr</i> )	92 <i>hnw</i> vessels
	(Medicinal plants:)	
	Fruit of the <i>tnm</i> plant	8 $\frac{1}{2}$ <i>hq3t</i>
	Fruit of coriander	55 $\frac{3}{4}$ <i>hq3t</i>
	Fruit of the <i>kšw</i> plant	4 <i>hq3t</i>
	Herb against (a disease, with the) struggling	$\frac{1}{4}$ <i>hq3t</i>
M 21	(Trees:)	
	...	
	[. . .]	3+x
	Fig trees	73
	Sycamore	1
	(People:)	
	Asiatics (determinative with men & women)	65
	(hand worked products:)	
	(from) Bronze and gold and ivory	
	Mirror	2
	(from) Bronze, Gold and silver:	
	Daggers	16
	(from) Bronze and ivory:	
	Daggers	21

<sup>9</sup> Another figurative reading for this phrase is green jasper (ALTENMÜLLER 1990; EDER 1995, 180).

<sup>10</sup> ALTENMÜLLER and MOUSSA translate 𐤊 as fir (1991, 16), although the argument for Lebanese cedar is much more convincing (DAVIES 1995; EDER 1995, 183; WARD 2000, 20–22). In any event, it is clearly a coniferous

long wood, even if the correspondence between the ancient wood terminology and textual references to their oils and resins is still unclear (MEIGGS 1982, 63; WARD 1991, 13–14). Similarly, *b3k* is more likely olive than moringa (STAGER 1985; LEV-YADUN & WARD 1992).

	(Plants:)	
	<i>S3bt</i> - plants	4 sacks
	<i>Bh3w</i> - plants	197 sacks
	<i>ššft</i> - plants	. . . sacks
	(Timber:)	
	Cedar (𐎏𐎍)	231 (trunks)
24.	M21–23 <u>Redistribution by the state administration of delivered goods</u>	
	M 21 (Tribute from a foreign country?)	
	A tribute was given	
	M 22 [by a foreign country to the state administration], that was brought to the palace	
	(1. Group consisting of:)	
	Raw silver	32 <i>dbn</i>
	(in the form of)	
	<i>Hnw</i> vessels	20
	Copper	
	(in the form of) sickle blades	920 <i>dbn</i>
	(in the form of) lumps	25 <i>dbn</i>
	(Minerals:)	
	Emery	83 stones
	(Materials and textiles:)	
	<i>Šh3t</i> -dress (?) and <i>int</i> -textile	2
	<i>Ism3t</i> -dress	2
	Red <i>init</i> -dress	3
	(Desert animals:)	
	Ibex	1
	(Orchard fruits:)	
	Figs	100 <i>hn</i>
	Raisins	2 large <i>hnw</i> vessels
	(Wine:)	
	Wine	5 <i>hbnt</i> jugs
	(2. Group, consisting of:)	
	(Minerals:)	
	Polishing sand	6 <i>m3m3</i> vessels
	(Aromatics:)	
	<i>Sfrt</i> (?) oil	[. . . ]
	Incense ( <i>sntr</i> )	8 <i>hnw</i> vessels
	M 23 [gap of 3 groups]	
	(3. Group, consisting of:)	
	(Minerals:)	
	Quartz	2 <i>m3m3</i> vessels
	(Aromatics:)	
	<i>Tšps</i> -wood	no figure
	2. (Tribute from Syria (< <i>r</i> > <i>tnw</i> ) (?):)	
	1 <i>g3wt</i> -tribute from < <i>R</i> > <i>tnw</i> (?):	
	[copper]	1 <i>m3m3</i> vessel
	3. (Tribute from Lebanon <i>Hnty-š</i> ):	
	1 <i>g3wt</i> -tribute from Lebanon:	
	Cedar (𐎏𐎍)	73 trunks
27.	M25–26 <u>Rewarding of the soldiers and officials for their services</u>	
	M 25 (contains) slaves, fields, gold (of honor), dresses and other beautiful things	
	1) head of fighting troops	
	2) recruitment officer	
	3) recruits who have returned from the hacking up of the fortifications of <i>iw3i</i> and <i>i3si</i> and who were looking for a supply of workers for the pyramid city “powerful is Amenemhet II” with captives	
	M 26 [booty was brought] from the cities of these two foreign places and the foods of the Asiatic captives was eaten	
	4) for the king’s children	
	5) for the king’s nobles	
	6) for the king’s bird catcher	

### Chronology of the text

Owing to the fragmentary nature of the text, any regnal years that might have appeared along the upper margin have long been lost. Nevertheless, Altenmüller and Moussa have offered some ingenious interpretations for the absolute date of the text and its internal chronology. These provide important chronological datums that can aid in interpreting the broader context to be considered below.

The historical date of columns M1–27 is probably the last year of the coregency of Senusret I and Amenemhet II, Year 45 and Year 3, respectively, with the remainder belonging to the latter's 4<sup>th</sup> year and first as sole regent (ALTENMÜLLER and MOUSSA 1991, 38). These dates are based on a number of the text's internal features and historical grounds. The unusual width of column M28, 9.0 cm versus 5.8 cm for the remainder, and the fact that it contains the name and titles of Amenemhet II suggests that it marks an important division within the text.<sup>11</sup> Prior to that columnar marker, Senusret I is mentioned frequently; afterwards his name is absent. The references to his funerary endowments in columns M1–7 suggest his death some time during the first third of the year (see below). The events that follow, the dispatching abroad of expeditions of military conquest and commerce, the arrival of obeisant foreign dignitaries, the rewarding of soldiers, all suggest that Amenemhet II was seeking, through the projection of power, to legitimize himself after the death of his father. That Year 3 of his reign was of political significance can be seen in the many stelae in which it is mentioned (ALTENMÜLLER and MOUSSA 1991, 39; OBSOMER 1995, 143).

ALTENMÜLLER and MOUSSA (1991, 26–27) suggest a further division of Year 45/Year 3 into three separate sections reflecting the seasons of the Egyptian year. Columns M1–10 are placed in the autumn *ḥt* season largely based on the mention in column M4 of the Sokar festival, which falls in the fourth month. Columns M11–15 are assigned

to the winter *pṛt* season based on the assumption that the bringing of tribute by foreigners coincided with the Nehebkaḥ festival, which marks the beginning of the civil year (I *pṛt* 1). The remaining section of Year 3, M16–27, is attributed to the summer season *šmw* with offerings to the *msiit* festival possibly mentioned.

### Terminology, toponymics and Egyptian-Levantine relations

The relevance of this text for assessing Egyptian-Levantine relations is largely dependent on the understanding of the terminology employed in describing the interactions between these regions as well as the identification and, therefore, geographical location of the toponyms. Unfortunately, there is little consensus among scholars on both issues, largely owing to the equivocal nature of the language and the rarity of similar place names elsewhere in the Egyptian toponymic record.

The terminology for the dispatching of the expeditions to *Hnty-š* (Section 9; M 7) and *Štt* (Section 11; M 8) is fairly similar. Both use the same language for the actual departure (*mšꜥ mšꜥ*) except that the latter expedition is accompanied by the overseer(s?) of infantry and troops and with the express intent of hacking up *Tḥw* of *Štt*. Depending on whether *mšꜥ* is interpreted as “army” or just generic “group” (SCHULMAN 1964, 10–13), “expedition” (DANTONG 1998, n. 23), or “gang” (FAULKNER 1953, 38), opinions differ as to whether these were, respectively, commercial and military expeditions (GOEDICKE 1991; EDER 1995, 178; O'CONNOR 1996, 53; DANTONG 1998) or both punitive actions that elicited tribute or booty (ALTENMÜLLER and MOUSSA 1991, 23, 33–35; REDFORD 1992, 79; 1996, 79; OBSOMER 1995, 597).<sup>12</sup> In addition to the difference noted above, GOEDICKE (1991, 93) further distinguishes the three unarmed men signs that follow the term *mšꜥ* as some sort of non-military escort on the *Hnty-š* mission.<sup>13</sup> Finally, only the report of the expedition to *Štt* (Section 22; M

<sup>11</sup> See, also, QUIRKE's explanation (2003a) for the thicker vertical between lines 27 and 28.

<sup>12</sup> Military escorts on what are seemingly commercial ventures are not unknown from other periods. For example, note the exchange of goods between the representatives of Hatshepsut and the king of Punt, which was carried out in the presence of a military escort (WACHSMANN 1998, fig. 212).

<sup>13</sup> OBSOMER (1995, 597) associates the recruitment of manpower by Amenemhet II, which is recorded in the intervening entry between the two expeditions, as a mustering of soldiers to be associated with the preceding dispatch to *Hnty-š*. GOEDICKE (1991, 93) sees no direct supervision of the king in the leading of any forces while QUIRKE (2003a) is unsure to which entry the recruitment is to be associated, if at all. It seems

16–18) has a specifically military description, wherein *mnf3t* fighting forces (SCHULMAN 1964, 13–14) are described as having devastated the fortified cities of *T3wi* and *T3sii*, the latter perhaps an opportunistic target that was attacked in addition to the primary mission.<sup>14</sup>

Regarding the means by which these expeditions were conveyed, each departure entry includes a boat determinative although only the expedition sent to *Hnty-š* has a boat with a raised sail, which JONES (1988, 214) would translate as to “sail or travel”. Moreover, whereas the expedition to *Hnty-š* returns in two *dpt* ships,<sup>15</sup> literally “transport ships” (JONES 1988, 150), a gap in the beginning of the preceding entry obscures whether the expedition to *Stt* returned to Egypt by land or sea.<sup>16</sup>

Depending on whether *T3w* and *T3wi* are the same location, between five and six toponyms are mentioned in association with expeditions and tribute. The first recorded is *Hnty-š*, which literally means “the place by the lake” (DANTONG 1998, n. 24; QUIRKE 2003a) or woodland (GREEN 1983, 43–44; EDER 1995, 178; WIMMER 2005, 130), although GOEDICKE (1991, 90, n. 10) would prefer reading the latter morpheme as “*yam*” and the phrase as meaning “in front, namely, beyond the sea”. In New Kingdom times, this toponym is synonymous with the Lebanon or the Lebanese coast and most scholars have considered it as such for the Middle Kingdom as well (FAULKNER 1986, 194; ALTENMÜLLER and MOUSSA 1991; GOEDICKE 1991; REDFORD 1992, 78–80; QUIRKE 2003a). *Stt* of the second expedition is a general term for “Asia”

(FAULKNER 1986, 255), but a more precise localization is unclear. GOEDICKE (1991, 93, n. 31) associates it with the arid zones, specifically Sinai and the adjoining Negev, yet he then compares *T3w* of *Stt* with a toponym of the Execration Texts thought to denote “old Tyre” (GOEDICKE 1991, 93, n. 32). Opinions are divided as to whether *T3w* and *T3wi* are the same or two different cities and therefore two separate campaigns (EDER 1995, 185–186). However, the latter city is more easily read as Ura (HELCK 1989; EDER 1995, 191), which is known from the New Kingdom for its role as the Cilician port of the Hittites (BEAL 1992).<sup>17</sup> Although similar in spelling, *T3wi* does not appear with the epithet *Stt* “of Asia”, nor does the other city *T3sii*, which is identified by most as Alashiya, i.e., Cyprus (HELCK 1989; REDFORD 1992, n. 47; EDER 1995, 191; QUACK 1996). The identification of the latter toponym and its significance will be considered in detail below. Finally, GOEDICKE (1991, 90–93) suggests that the toponym *Tmp3w* should be equated with Tunip, an identification that is followed by EDER (1995, 188–189).<sup>18</sup> However, another interpretation considers this term to be an ethnonym for a nearby eastern Egyptian desert people (DE FIDANZA 1998).

Thus, given the variations outlined above it should not be surprising that interpretations based on this text regarding Egypt’s relations with hither Asia during the 12<sup>th</sup> Dynasty are varied. Among the broader generalizations, the main variations include some sort of commercial coercion or political domination propped up by military

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likely given the rewarding of recruits in Section 27 (M25) who had returned from the conquest of *T3wi* and *T3sii* that the recruitment should be associated with the latter entry.

<sup>14</sup> If, despite the slightly different spelling, *T3wi* is identical to *T3w* of the departure entry, as most scholars seem to agree, the absence of any reference to the second city in the description of the army’s destination and its recording only after the event underscores the reliability and historicity of the recording process of these court annals. This observation together with the specifications of exact material and quantity and the general use of infinitive constructions in the text’s language supports the assumption that an actual administrative record of the royal palace was the basis for this inscription (EDER 1995, 177).

<sup>15</sup> Several scholars have erroneously stated that as few as one (STAGER 2002, 360) and as many as ten ships were

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involved (POSENER 1982, 8; GOEDICKE 1991, 90; REDFORD 1992, 79), although at the time GOEDICKE (1991, n. 11) noted the difficulty in reading the numeral.

<sup>16</sup> ALTENMÜLLER & MOUSSA (1991, 35, n. 24) are of the opinion that the expedition to *Stt* returned on foot. If the dispatch and return entries are connected, QUACK (1996, 79) and EDER (1995, 191) argue that the expedition returned by ship, based on the ship determinative (in the dispatch). GOEDICKE (1991, 93) states that as “the latter [the dispatch to *Hnty-š*] moved by boat ... the same is to be envisaged for the military action [to *Stt*].” Perhaps he is of the opinion that the dispatch of forces was by ship and the return on foot.

<sup>17</sup> REDFORD (1992, 79, n. 47) associates it with Alse.

<sup>18</sup> This site has recently been identified with Tell <sup>c</sup>Asharneh in Syria (GOREN, FINKELSTEIN and NA’AMAN 2004, 116–121).



expeditions (POSENER 1982, 8), a mixture of commercial and military activity (GOEDICKE 1991, 97; EDER 1995, 176–195; COHEN 2000; 2002a, 45), or a general policy of exploitation backed by punitive expeditions (REDFORD 1992, 79–80).<sup>19</sup> Other than ALTENMÜLLER and MOUSSA (1991, 33–39), who constructed a political history in which this text reflects the last year of coregency between Senusret I and Amenemhet II and, following his father's death, the latter's efforts to legitimize his power both within Egypt and without, many, but not all of these assessments were made based on Farag's preliminary and incomplete copy. The text alone may be equivocal with regards to intention and, indeed, projecting these events on the entire Middle Kingdom may be unfounded. However, the text can and must be considered within a larger contemporary context, as in describing these events and acts, the Egyptian scribe, and his memorializer in stone, used very specific language. Through what POSENER (1982, 8) called "the characteristic Egyptian mania for precision" this text expresses a degree of detail and, perhaps, historical veracity that offer avenues of inquiry yet to be explored, such as the heretofore overlooked maritime aspects.

#### MARITIME ASPECTS OF THE TEXT

In approaching this text from a maritime perspective a number of salient issues warrant consideration: the voyages themselves, their destination and scheduling; the cargo conveyed, its character and size, and what that may mean regarding the capabilities of the ships of this period.

#### The voyages

As few as two or as many as six voyages may be inferred from the text under discussion. These include the voyages to and from *Hnty-š* (the Lebanese coast), the existence of which are specifically indicated in the text. The fact that two vessels (out of an unknown number) are mentioned returning to Egypt accords well with the practice of ships sailing in flotillas or convoys.

This practice may be inferred from the expedition dispatched in the 4<sup>th</sup> Dynasty by Sneferu (see above, n. 2) and is depicted pictorially in both the Old and New Kingdoms, e.g., in the Sahure reliefs and the Tomb of Kenamun, respectively (WACHSMANN 1998, 12–15, 42, 314, figs. 2.3, 3.2).<sup>20</sup> The maritime component of the military expedition to *Štt*, in which *Iwii* and *Bsiti* are destroyed, however, is still questionable, but any seafaring would have, at the very least, included voyages to the region and back. Moreover, if these cities are identified, respectively, as Ura or some other site on the continent, and Cyprus, then one or two additional short crossings may have also occurred. In each and all of these instances, the maritime acumen and nautical technology necessary to carry out such voyages existed certainly by the third millennium, BCE, and should not have been beyond the capabilities of the Egyptians early in the subsequent millennium.<sup>21</sup> STAGER (2002, 360) sees this text as marking the resumption of the Old Kingdom "Byblos run", although Egypt's perennial partner harbor is nowhere mentioned in this text nor in ALTENMÜLLER and MOUSSA's (or anyone's) analysis (*contra* COHEN 2000, 95; 2002a, 44).<sup>22</sup>

#### *Length and schedule of the voyages*

According to the chronology suggested by ALTENMÜLLER and MOUSSA, the departure of both expeditions took place at the end of the *3ht* or the beginning of the *prt* seasons, approximately the very end of October or beginning of December and the return in the season of *šmw*, probably by the month of March (ALTENMÜLLER and MOUSSA 1991, 26–28). If so, the ships would have set sail from Egypt in the winter and returned sometime in spring, placing these voyages outside the normal rhythm of the Mediterranean sailing season (CASSON 1971, 270–272; WACHSMANN 1998, 300–301). Similarly, this period falls outside the typical military campaign season, which avoids the rainy winter season in favor of the spring and summer (GNIRS 2001, 402). However, as these dates follow

<sup>19</sup> See, also, SCANDONE-MATTHIAE (1984, 188).

<sup>20</sup> The two identical Iron Age wrecks explored in the deep waters off the coast of Sinai were probably part of a convoy (BALLARD, STAGER, MASTER, *et al.* 2002).

<sup>21</sup> For a review of seafaring in the Levant during the preceding millennium, see MARCUS (2002a). Regarding contacts between Egypt, or her Levantine intermedi-

aries, with Cyprus and the Aegean, see PELTENBURG (1995) and WARREN (1995, 1–2), respectively. Note the impact such contacts probably had on the development of sailing technology in the latter region (BROODBANK 2000, 342–346).

<sup>22</sup> See, also, the discussion below.

the Egyptian civil calendar, which wandered through the actual seasons in what is known as the Sothic cycle, these events should be shifted approximately five months forward in time, placing them precisely in the expected sailing schedule, i.e., departure in spring and return in the autumn.<sup>23</sup>

The length of the actual voyages is a matter of speculation, but some of the distances and rates of speed can be suggested from later sources (cf. CASSON 1971, 281–296.). A direct sail from the shores of the eastern Delta to the modern border of Lebanon and Syria covers a distance of approximately 270 nautical miles. A vessel sailing at 3 to 6 knots (nautical miles per hour) would make that voyage in 45 to 90 hours, i.e., 2–4 days. In contrast, a ship's course that brought the vessels as close to the shore as possible would cover approximately 377 nautical miles in 63 to 126 hours, or 2.5–5 days. Naturally, ships would not have traveled in such straight lines, and if they called at ports along the way or were waylaid by inclement weather, the distance covered and the time would have increased commensurately. Even if the speed is cut to 1 knot, the maximum actual time at sea (12–15 days) is fairly negligible compared to the entire length of the expedition.

#### *The identification of *Ibsii* with Cyprus*

The possible mention of Alashiya (Cyprus) is one of the more provocative and problematic issues of the Annals of Amenemhet II. Inherent in this identification is a reassessment of relations between Egypt and Cyprus at this time and the level of social complexity on the largest of the Levantine islands.<sup>24</sup> ALTENMÜLLER and MOUSSA (1991, 35, n. 24) reject the identification of Alashiya with *Ibsii* based on the following argument: 1) the high number of 'Amw captives; 2) the expedition came on foot, which precludes the toponym being on an island; 3) the two cities are close to each other and, if one is identified as Ura

on the coast of Asia Minor, they would be too far apart; 4) the fortifications seem more likely to reflect a site in the Syrian region; 5) the *mnf3t* troops are described as returning on foot, eating Asiatic food on the march (M26); and 6) if the chronological reconstruction is to be accepted they argue that the entire campaign lasts no more than four months, which is too short to include an expedition to Cyprus. QUACK (1996, 79–80) refutes several of the main points of their argument by noting the boat determinative in association with the dispatch of this expedition, the fact that the eating of Asiatic food (M 26) was done after the army returned (M 16), and that the four month period is certainly not too short for an expedition to that region. Other aspects of Altenmüller and Moussa's arguments may also be questioned. First, the booty brought back from these two cities is listed collectively; the 'Amw and, in fact, all of the items could have come from *Iwii*. Second, there are no comparanda for the ethnonym used by the Egyptians to designate the inhabitants of Cyprus during the Middle Kingdom. Third, if the expedition returned on foot, a point which is obscured in the gap at the beginning of the entry, that might have only referred to the final stage of the return. Fourth, by ship, the coasts of Syria and Asia Minor are quite close to Cyprus, between 70 and 120 km, 38 and 65 nautical miles, respectively, depending on where the crossing is made. This distance may be covered by a ship traveling in a straight sail of 3 knots in only 12–21 hours! This leg would be a negligible addition to the estimated sea time for a voyage to the northern Levant. Fifth, following their chronological reconstruction, the army's departure for *Stt* (M8) took place in the season of *3ht* after the Sokar festival of the fourth month and its return (M16) occurred sometime in the season of *šmw*, although it is not clear precisely when within that season. Thus, the time frame may range from four

<sup>23</sup> The Sothic cycle, in which the lunar civil year wanders backwards within the sidereal year at a rate of 1 day every four years, is approximately 1456 years long and the two would have coincided in 139, 1317 and 2773 BCE (ROSE 1994; DEPUYDT 1995). If the events in this text occurred in the last year of the coregency of Senusret I and Amenemhet II, i.e., 1908 BCE, following the high chronology, then the civil dates must be shifted approximately five months forward to reflect their actual season, as follows: 1908–1317=591 years;

591/4=147.75 days to shift forward. If the low chronology is followed the difference is only about 8 days: 1872–1317=555; 555/4=138.75 days forward.

<sup>24</sup> The identification of Alashiya with Cyprus in the Late Bronze Age (LBA) has been established with a strong degree of confidence as a result of petrographic analyses of Amarna tablets from Alashiya (GOREN, BUNIMOVITZ, FINKELSTEIN, *et al.* 2003; GOREN, FINKELSTEIN, *et al.* 2004).

to seven months. Even using the minimum time frame, and a rate of movement of between 25 and 30 km per day (DORSEY 1988, 895; MURNANE 1990, 95), a continuous march of between 3000 and 3600 kilometers could have been achieved, which is more than enough to reach Cilicia, carry out a military campaign and return.<sup>25</sup> Thus, even a completely land-based expedition could very well have taken place, let alone a return on foot.

GOEDICKE (1991, 94) notes that military operations against two walled cities would be difficult and that the number of prisoners of war suggests fair-sized settlements. If the text is taken literally, the first point is indeed well taken given the short time involved and might suggest either relatively soft targets or some degree of exaggeration. However, if the expedition traveled by sea, the army would have had more time to accomplish what was reported. The second point is difficult to assess as there are no details regarding what percentage of the population was taken prisoner and whether they derived from one or both of the two cities.<sup>26</sup> However, the figure does provide a minimum estimate for the size of these settlements. Using a population density range of 100–250 individuals per hectare (ha) (BROSHI and GOPHNA 1986; GOPHNA and PORTUGALI 1988; FALCONER 1994, 312; GREENBERG 2002), it may be suggested

that, if the 1554 prisoners transported all derive from the population of the “devastated” cities, they reflect a total settled area of between 6.2 and 15.5 ha. While site sizes of 3–8 ha are not unknown in the northern Levant during this period, the upper limit is quite rare.<sup>27</sup>

However, the most problematic issues that ensue from the identification of *Bsiti* with Cyprus are the very existence on that island of settlements, let alone fortified, that were worthy of conquest, and the limited evidence for its external contacts during this period. At such an early stage of the Middle Cypriot (MC) Period, settlements of significant size remain rare and for the most part lack the type of wealth that would have attracted Egyptian attention.<sup>28</sup> At present, the only exceptions are the wealthy cemeteries on the northern side of the island, at Lapithos-*Vrysi tou Barba* and Bellpais-*Vounous*, although their settlements have eluded detection (SWINY 1989, 26–28). Those sites that have been investigated seem to suggest relatively modest degrees of foreign contacts, if at all, with the world off-island.<sup>29</sup> In particular, no Middle Kingdom Egyptian finds have yet to be discovered on Cyprus (KNAPP 1994, fig. 9.4). The earliest fortifications on Cyprus date to the very end of the Middle, if not the Late, Cypriot Period (SWINY 1989, 17; HUNT 1992).

<sup>25</sup> The length of the coastline from the Egyptian Delta to the modern border of Syria and Turkey is approximately 891 km. The modern road from there to Tarsus is another 300 km.

<sup>26</sup> It is interesting to note that the total amount of prisoners divided by two cities equals the same number, 777 (an equivalent human tribute?), who ALTENMÜLLER and MOUSSA (1991, 36) suggest were destined for the building activities of Amenemhet II.

<sup>27</sup> Data for site size and chronology are limited by the degree of excavation. Thus, the following figures should be considered estimates. In Lebanon, for example, some of the possible contemporary sites have the following sizes: Byblos, Tel Arqa and Kamid el-Loz - 5 ha; and Beirut - 2 ha (THALMANN 1998, 54; BADRE 1997, 90). Despite modern excavations and geomorphological research on its ancient shoreline (MARINER, MORHANGE and DOUMET-SERHAL 2006), the limits of Middle Bronze Age Sidon are still unknown. Further north, in Syria, Tell Sukas is also approximately 3.5 ha (calculated based on the topographical map), while Ugarit is 20 ha (THRANE 1978, fig. 1; YON 1997, 255).

<sup>28</sup> The absolute chronology of the Middle Cypriot Period, particularly the MC I and II phases, when presumably

these events should have taken place, lacks a firm foundation, owing to the paucity of stratified sites, largely one-sided synchronisms with the mainland and insufficient radiocarbon determinations. Typically, the MC I and part of the MC II is synchronized with the Levantine Middle Bronze Age IIa and the Egyptian 12<sup>th</sup> and 13<sup>th</sup> dynasties (SALTZ 1977; MERRILLEES 1977; 1992; COLEMAN 1992, I:287, II: 225, table 1; MANNING 1995, 110–115). In her review of scarab-bearing contexts at Megiddo, TUFNELL (1984, 4) takes the available cross-synchronisms a step further and, based on a scarab style associated with Senusret II, argues that MC pottery was not introduced (to Megiddo, at least) earlier than his reign. Radiocarbon assays would place the transition from Early to Middle Cypriot sometime after 2000 BCE (MANNING and SWINY 1994, 162–165, fig. 11). Regarding the nature of the settlements – of which only one, *Alambra-Mouttes*, might have reached 35 ha – the lack of social complexity and paucity of foreign contacts, see KNAPP (1990; 1994) and SWINY (1989).

<sup>29</sup> On the issue of foreign influences on the Cypriot ceramic repertoire, see HERSCHER (1975, 53–56; 1979) and MERRILLEES (1979). Levantine ceramics found on Cyprus include a juglet from Larnaca-*Ayios Prodromos*, and a Syro-

On the other hand, outside Cyprus, substantial evidence exists for contacts with Alashiya and Cyprus, although all much later than the period of Amenemhet II. Apart from the toponym under discussion, the name Alashiya appears in at least 13 texts from Mari, Babylonia and Alalakh, particularly in relation to the trade in copper (MILLARD 1973; HELTZER 1989, 8; SASSON 1996; WISEMAN 1996; MICHALOWSKI 1996).<sup>30</sup> In fact, a rare mention of *uru<sup>ki</sup> a-la-ši-ia* “the city of Alašiya” (CHARPIN 1990), suggests that the scribes of Mari may have known of the existence of a city with a name that in other instances was also applied to an entire land, which is a common phenomenon among islands (e.g., Rhodes or Samos).<sup>31</sup> Middle Cypriot pottery is quite common in the Middle Bronze (MB) Age Levant and in the Egyptian Delta, but the earliest well-stratified examples in Egypt were found at Tell el-Dab‘a Stratum G/4, which dates to the early 13th Dynasty or more than a century after the Mit Rahina inscription (BIETAK 2002).<sup>32</sup> Similar well-stratified examples occur in contemporary (late MB IIa) phases in the southern Levant (ARTZY and MARCUS 1992; STAGER 2002). The only possibly earlier occurrence is at Dhaharat el-Humraiya, where two Levantine Painted Ware (LPW) jugs may have been found with an MC jug in Tomb 62, although the excavator notes that the tomb was disturbed (ORY 1948, 88, figs. 36, 37, pl. XXXII:1). However, if the contemporaneity of these two vessels were reliable, and the fact that this cemetery is characterized solely by single interments makes this plausible, it might place this MC import closer to the period in question (see

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Cilician jug from Nicosia-Ayia Paraskevi (MERRILLEES and TUBB 1979; HERSCHER 1988, 153, fig. 3:12). Another Syro-Cilician jug is reported from Lapithos-Vrysi tou Barba (KNAPP 1994, fig. 9.4). Other possible Levantine forms have been illustrated, but they have not been properly examined by specialists during the years since they were published (MARCUS 1998, n. 191). Most of these examples are from periods much later than that under discussion. However, a wheel-made handleless painted jar, with a crude pendant decoration around its neck and two rows of net-pattern-filled triangles (ÅSTRÖM 1972, 129, 232–233, fig. XL:9), shows a strong affinity to early LPW examples from the mainland. Numerous other suspiciously Levantine sherds can be seen on the plates from Kalopsidha and Ayios Iakovos (ÅSTRÖM 1966). Typological and metallurgical analyses of metals (e.g., weapons, tools, and jewelry) show a very selective import and adoption of Levantine and other forms, which may have partially influenced the haphazard implementation of

discussion of Levantine Painted Ware below).

Unfortunately, the booty mentioned in the text (M16–18), whether from *Ibsii* or *Iwii*, or both conquered cities, contributes little to resolving the question. The copper or bronze implements and weapons could have come from Cyprus (cf. BALTHAZAR 1990; PHILIP 1991), although such types are undocumented in Egypt. The quantities of copper and copper scrap certainly are not of levels that would have made *Ibsii* famous for copper, but it must not be forgotten that while evidence exists for smelting, metallurgy and the importation of tin to Cyprus at this time, the beginning of copper exportation from Cyprus to Egypt and the Levant has not been the subject of archaeometallurgical research.<sup>33</sup>

In the final analysis, the identification of Alashiya in this text is as equivocal as are the possible early contacts of Cyprus with Egypt and the Levantine coast. However, if this toponym should be positively identified with Cyprus it would mark an Egyptian knowledge of this island that, while incompatible with current textual and material evidence, both underscores the insular nature of Cypriot society and culture and opens up further research questions regarding how such contacts were affected.

### The cargoes

At first glance, the cargoes might be described as mixed in terms of the materials and quantities transported. Moreover, had this text lacked all royal and military dimensions, it would be tempting to view these vessels as examples of BRAUDEL’s

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imported tin-bronze and its technology (GALE and STOS-GALE 1989; BALTHAZAR 1990; PHILIP 1991).

<sup>30</sup> A recently discovered MBA text from Tell Siyannu is reported to include references to trade with Cyprus and Egypt (BRETSCHNEIDER, AL-MAQDASSI, VANSTEENHUYSE, *et al.* 2004, 219, n. 12).

<sup>31</sup> SASSON (1996, 17) notes the inconsistent use of determinatives among the scribes of Mari.

<sup>32</sup> All other Middle Cypriot pottery in MK Egypt derives from insecure or later Egyptian contexts (MERRILLEES 1968, 42–43, 145–147; 2002).

<sup>33</sup> That local bronze production and the importation of tin had already begun on the island is indicated by artifactual analysis (GALE and STOS-GALE 1989, 252–255; BALTHAZAR 1990; KNAPP 1994, 279–280; WEBB, FRANKEL, STOS, *et al.* 2006, 271, table 5), with Ambelikous-Aletri still the earliest identified metalworking site (MERRILLEES 1984; KNAPP 1990, 159–160).

“floating bazaars” (1972, 107). However, as will be demonstrated below, both the cargo from *Hnty-š* and from *Tsiii* and *Twii*, if indeed the goods from these latter two cities may be described as cargo, are actually dominated, quantitatively, by particular items. Regarding the origin of the cargoes, the toponyms do not allow us to better localize *Tsiii* and *Twii*. However, some of the materials and commodities do relate to particular geographical zones and aid in confirming the localization of *Hnty-š*. In addition, details of the cargo size offer an opportunity to assess both the types and scale of material wealth that Levantine polities could accumulate and the capacities of contemporary ships. Note that following the return of these expeditions, the redistribution of gifts and honors bestowed on temples, nobleman, and soldiers, includes much that is clearly of foreign origin and is largely consistent with the goods detailed in the booty and merchandise brought back from the Levant. Distributed items that do not appear among the transported goods may represent items that were listed in unpreserved parts of the inscription. These distributions, however, will not be included in the following discussion.

#### *Calculating weights and volumes*

The detailed information recorded in the Mit Rahina text affords an extraordinary insight into the quantities of raw materials, finished products and people that could be transported by sea during the Middle Kingdom. During this period the standard weight of copper is expressed in the large or copper-*dbn* of 27.3 gm, and, presumably, everything else in the small gold or standard-*dbn* of 13.6 gm (ALTENMÜLLER and MOUSSA 1991, 46–48).<sup>34</sup> A study of a Marl C jar from MK Dahshur, bearing an inscription describing a quantity of carob measured in *dbn* seems to confirm the use of this value (ALLEN 2006, 33–35). ALTENMÜLLER and MOUSSA (1991, 46) further suggest that bronze and other minerals may have used the copper-*dbn*. This suggestion, which has

the effect of slightly inflating the amounts calculated below, is followed here.

Volume is indicated both in *hqꜣt* units of 4.785 liters and sacks that are equivalent to 10 *hqꜣt* (ALTENMÜLLER and MOUSSA 1991, 46–48). In addition, unit volume was apparently expressed in, presumably ceramic, vessels using the Egyptian terms *hbnt* and *hnw*. The text itself does not provide any clear identification of the type or size of the container intended, although there are various relative sizes involved: 1 *hbnt* equals 10 *ds*-jugs; and two types of *hnw* containers, standard and large, the latter of which is ten times the size of the former (ALTENMÜLLER and MOUSSA 1991, 45–46). BOURRIAU and QUIRKE (1998) attempted to find a correspondence between the textual evidence for Egyptian ceramic nomenclature and its archaeological realia at Lahun. Their analysis has led them to suggest that *hbnt* refers to a storage jar of Marl C type and *hnw*, which is the most numerous vessel produced (1400 in one document), must refer to the most common vessel encountered, i.e., the Nile B1 drinking cup (BOURRIAU and QUIRKE 1998, 69, 74, 80–81). However true that correspondence may be for Lower Egypt in the late Middle Kingdom, and these terms may vary in time and space even within Egypt (BOURRIAU and QUIRKE 1998, 73), they may have a completely different connotation in relation to foreign containers. Moreover, clearly in the case of the organic materials they contained, such as incense, oils, aromatics, figs, and wine, these vessels must have been suitable, i.e., sealable, for maritime transport, a capability already well understood in Old Kingdom Egypt (MARCUS 2002a, 409–411; RABAN 1980, 1–8, 57–62).<sup>35</sup> Assuming that the Egyptians are systematic in their descriptions, it is possible that one or both represent either Levantine jugs or jars, both of which were suitable maritime containers.<sup>36</sup> The fact that *hnw* occurs in this text also made out of wood and silver (ALTENMÜLLER and MOUSSA 1991, 16, 46), is not

<sup>34</sup> For unstated reasons, PIERRAT (1994, 24) incorrectly employs the New Kingdom *dbn* of 91 gm to reach a weight of 150 kg(!) for the silver brought back from *hnty-š*, a quantity she justifiably finds impressive. However, there is no evidence that this value was used during the Middle Kingdom (ALTENMÜLLER and MOUSSA 1991, 47, n. 33).

<sup>35</sup> Plastered wooden boxes found at the port of Wadi Gawasis bearing inscriptions indicating the transport of

materials from Punt (ZAZZARO 2006) demonstrates that other types of maritime containers were utilized for organic commodities.

<sup>36</sup> However, if the text entry is not referring to the transport, but rather to the formal presentation of goods to the royal court, then *hnw* containers could be open offering vessels, following BOURRIAU and QUIRKE’s suggestion. See also the discussion of the Töd Treasure below.

very helpful in determining the precise identification of the vessel types.<sup>37</sup>

For purposes of quantification, the absence of any specified unit size for these vessels requires us to model them based on known Levantine forms.<sup>38</sup> Unfortunately, until recently, volumetric studies of MB ceramic vessels have been a rarity and the weight of empty vessels has been entirely ignored. A pioneering, but largely overlooked study by RABAN (1980, 64, 204–205, table H-4) notes two main groups of southern Levantine MB IIa transport amphorae that held 10 and 20 liters of volume, which he associated with 2 and 4 Egyptian *hq3t*; he also notes that those jugs whose volume he calculated were 4.7 and 5.3 liters, also quite close to the Egyptian unit. For the northern Levant, he only calculated the volume of five jars from the Royal Tombs of Byblos, which range from 11 to 34 liters (RABAN 1980, 205, table H-5). Two recent and more systematic studies of MB IIa vessels in Lebanon show groups with capacities of 15 and 25–30 liters (THALMANN 2003; 2007; DOUMET-SERHAL 2003b), while a range of 14 to 25 liters was found among imported MB IIa jars at Tell el-Dabca (THALMANN 2007, 437, fig. 7). Thus, for the purposes of modeling that portion of the cargo transported in containers, 10 and 30 liters will serve as a lower and upper bound for jars and a mean of 5 liters for jugs will be used. As information on the weight of these vessels is lacking, at this stage of research, no attempt to calculate their contribution to the mass of the cargo will be attempted.

#### *The cargo from Tsii and Twii*

This military expedition returned with a mixture of finished products, raw materials and prisoners, including: over 300 assorted hafted copper and bronze weapons, tools and other objects (e.g., balance pans and wheels); 646 *dbn* of copper, perhaps scrap; 125 *dbn* of new copper; copper and sil-

ver jewelry (possibly inlaid); 58 *dbn* of amethyst, 1,734 *dbn* of malachite, and other semi-precious stones; 4 ivory furniture parts, perhaps inlays; 54 examples of Asiatic household goods (pottery?), a box, 13 combs, and 375 *dbn* of lead; and 1,554 Asiatic prisoners. Clearly, copper, bronze and malachite objects and raw materials could have come from Cyprus, as well as other items, but other materials, such as ivory and lead point to a mainland source. The total weight of material specifically recorded is 2505 copper-*dbn* plus 434.25 standard-*dbn*, which results only in 74.3 kg as a minimum weight plus between 270–1620 liters for this cargo (Table 1).<sup>39</sup> However, this amount pales at the weight of the prisoners brought back. Assuming a conservative average weight of 40 kg per person, a total of 62,160 kg or 62 tons of human cargo would have been transported.

#### *The cargo from Hnty-š*

This cargo, which was borne by two ships, will be categorized by material. The metals include: 1675.5 *dbn* silver; an unknown quantity of gold; 4882 *dbn* of bronze; 15,961 *dbn* of copper; 1410 *dbn* of white lead; 16 bronze, gold, and silver (perhaps inlaid) daggers; and 21 bronze and ivory (perhaps pommel) daggers. Various stones were brought including: 13 pieces of marble; 16,588 *dbn* of emery, and 39,556 *dbn* of so-called grinding stone sand. There were also seals of stone, ivory, gold, and silver. The organic cargo included: aromatics, oils, and resins, such as  $\times 5/8$  *hq3t* of (š) cedar resin;  $66 \frac{3}{8}$  *hq3t* of pine (*sft*) resin;  $5 \frac{3}{8}$  *hq3t* of olive oil; 271 sacks of *ti-šps*, perhaps a type of camphor or cinnamon; 92 *hnnw* vessels of terebinth resin (*sntr*);  $55 \frac{3}{4}$  *hq3t* of coriander; other unidentified plant and fruit products in 7 vessels,  $12 \frac{3}{4}$  *hq3t*, and 201 sacks; and, finally, trees such as fig and sycamore, and 231 trunks of cedar. In addition, 65 Asiatic men and women were also transported.

<sup>37</sup> Vessels of metal, let alone silver, are rare, as are those of wood, although their ceramic skeumorphs are well attested in Levantine material culture. Apart from some silver and bronze examples, including types such as bowls, a teapot, a strainer and a flask, from Byblos (MONTET 1928, pl. LXXI:605; TUFNELL and WARD 1966, fig. 9:207–209; AMIRAN 1969, 90, photo 93; ZIFFER 1990, 84\*–86\*, fig. 139) – among them drinking vessels that would support BOURRIAU and QUIRKE’s identification – no other metal vessels are known. Some small wooden vessels were preserved in MB IIB tombs at Jericho (ZIFFER 1990, 23\*–24\*, 29–30, figs. 26–28).

<sup>38</sup> In fact, the earliest Levantine imports found in MK Egypt are from ‘Ezbet Rushdi, which is roughly contemporary with the text in question, are limited to painted jugs and juglets, and storage jars (CZERNY 1998; 2002; BAGH 1998; 2002b, 93–96). E. Czerny kindly confirmed this point. See also the discussion of these finds below.

<sup>39</sup> The other objects for which no weight is specified, but which may be of significant mass, are not included.

Item		Recorded Quantity	Recorded Weight (dbn)		Calculated weight (kg)	Calculated Volume (liters)
Copper scrap			646		17.64	
New copper			125		3.41	
Amethyst?			58		0.79	
<i>Hswd</i>			1.25		0.02	
Malachite			1734		47.34	
Lead			375		5.10	
Asiatic household goods	5 liter jugs	54 <i>hnw</i> vessels				270
	10 liter jars					540
	30 l jars					1620
Sub-total			Cu <i>dbn</i>	Au <i>dbn</i>	74.3	
			2505	434.25		
Asiatics @ 40 kg/person		1554			62,160	
Total			Cu <i>dbn</i>	Au <i>dbn</i>	62,234.3	270–1620
			2505	434.25		

Table 1 A quantitative analysis of cargo brought back from *Bsii* and *Iwii*

In contrast to the previous assemblage of goods and materials, and considering that significant portions of this entry have been lost, this cargo is extraordinarily rich and varied. Moreover, while some of the raw materials and finished goods might have had their origin elsewhere, in general, the character of the cargo reinforces the location of *Hnty-š* in the northern Levant.<sup>40</sup> The arboreal products, wood, resins and oils, and more specifically the cedar, point to the Lebanon or Syria (LEVYADUN and GOPHNA 1992; see note 10 above). Another significant organic product is *sntr* or terebinth resin (*pistacia atlantica*), which has been the subject of considerable research, primarily as a result of its discovery in large quantities on the 14<sup>th</sup> century BCE Uluburun wreck (PULAK 2005, 73–77). The origin of that particular resin has been localized in the north-central highlands of Israel or northwestern Jordan, based on palynological and malacological study of, respectively, the pollen and land snails that were found in the resin (PULAK 2005, 74). Preliminary petrographic analysis of Canaanite jars from Amarna that contained this resin demonstrate a point of export along the Carmel coast and Akko Plain, either suggesting another production area in the Carmel or Lower Galilee or that these were bottling and transshipment zones (PULAK 2005, 75–76; SERPICO,

BOURRIAU, SMITH, *et al.* 2003; ARTZY 2006).<sup>41</sup> These results do not necessarily mean that these specific regions were the sole source of *sntr*, or exclude the Lebanon or some other area of the northern Levant as a source utilized during the Middle Kingdom. However, other New Kingdom (NK) sources do refer to the generic *Rtnw* as the source of *sntr* (KNAPP 1991, 35; ARTZY 1994, 131–132; WACHSMANN 1998, 308). Thus, it is instructive that at the height of NK Egyptian economic and political power, the source of this prized incense for both the Uluburun wreck and Amarna is in the southern, rather than northern, Levant.

Among the inorganic materials carried by these ships, some of the stone products also may have derived from the northern Levant. Unfortunately, the philological identifications are for the most part lacking sufficient material confirmation. For example, the import and use of true emery in ancient Egypt, whose closest sources are Asia Minor and the island of Naxos in the Aegean, remains unsubstantiated (LUCAS and HARRIS 1989, 42–43, 260–261; ARNOLD, D. 1991, 265, n. 60). However, MOOREY (1994, 82) notes possible textual references from Mari for its use and for its derivation in the Syrian Steppe. In fact, the Egyptian designation appears to be a Sumerian loan word (EDER 1995, 180). Another

<sup>40</sup> See also the analysis by EDER (1995, 176–195).

<sup>41</sup> A detailed petrographic study of the ceramics from the Uluburun wreck is currently being carried out Prof. Y.

Goren of Tel Aviv University (as reported in a lecture given at the University of Haifa, 28 November 2006).

Item		Recorded Quantity	Recorded Weight (dbn)	Recorded Volume	Calculated weight (kg)	Calculated Volume (liters)											
Silver			1675.5		22.79												
Bronze			4882		133.28												
Copper			15,961		435.73												
White lead			1410		19.18												
Emery			16,588		225.60												
Grinding stone sand			39,556		537.96												
Pine resin		176 hbnt containers		66 $\frac{3}{8}$ hq3t		317.6											
	hbnt as 5 l jugs					880											
	hbnt as 10 l jars					1760											
	hbnt as 30 l jars					5280											
Moringa oil				5 $\frac{3}{8}$ hq3t		25.72											
Camphor or Cinnamon				271 sacks		12,967.35											
Coriander				55 $\frac{3}{4}$ hq3t		266.76											
Terebinth resin	5 liter jugs	92 hnw containers				460											
	10 liter jars					920											
	30 l jars					2760											
Other plant and fruit products				201 sacks		9617.85											
				12 $\frac{3}{4}$ hq3t		61.01											
	5 liter jugs	7 hnw containers				35											
	10 liter jars					70											
	30 liter jars					210											
Asiatics @40 kg/person		65			2600												
Sub-total		275 containers	80,072.5	4860 $\frac{1}{4}$ hq3t	3974.54	24313-31188											
Cedar Trunks	L	D	Recorded Quantity	Unit weight (kg)	Unit volume (m <sup>3</sup> )	Total weight (kg)	Total volume (m <sup>3</sup> )										
								23	1.5	22,749	40.62	5,255,088	9471				
		2.4						58,240	104	13,453,026	24,023						
	10	1.5						9891	17.66	2,284,821	4080						
		2.4						25,320	45.22	5,849,142	10,445						
	5	1.5						4946	8.83	1,142,411	2040						
		2.4						12,660	22.61	2,924,571	5222						
	2	1.5						1978	3.53	456,904	816						
		2.4						5064	9.04	1,169,828	2089						
	Cedar Planks	L						W	Th	231							
														23	0.10	0.08	103
									0.15					193	0.35	44,629	80
23		0.30	0.08	309	0.55	71,407	128										
			0.15	580	1.04	133,888	239										
10		0.10	0.08	45	0.08	10,349	18.5										
			0.15	84	0.15	19,404	35										
10		0.30	0.08	134.4	0.24	31,046	55										
			0.15	252	0.45	58,212	104										
5		0.55	0.08	89.6	0.16	20,697	37										
2		0.55	0.08	36	0.064	8279	15										
				Weight (kg)		Volume (m <sup>3</sup> )											
Total Cargo with cargo of cedar trunks			460,879 – 13,457,001		45 – 24,054												
Average Cargo per ship			230,440 – 6,728,500		22.5 – 12,027												
Total Cargo with cargo of cedar planks			12,253 – 137,863		39 – 270												
Average Cargo per ship			6127 – 68,931		19.5 – 135												

Table 2 Quantitative analysis of the cargo from *Hnty-8*



abrasive material is the “polishing” or “grinding” stone sand, which, following copper, has the largest weight recorded in the text.<sup>42</sup> While there is no elaboration on the precise use or nature of this material, it presumably refers to a material of significant hardness. It is therefore tempting to identify its source either with the black basaltic gravels and sand found on the beaches north of Tripoli (BEYDOUN 1976, 321) or the Neogene basaltic outcrops that are much closer to the shore in the northern Levant (BEYDOUN 1977, 334, fig. 2) and more easily accessible for maritime transport. Lastly, if indeed the identification of *n-mh=f* is green jasper rather than dolerite (see above, note 9), then its origin might also be sought in the Levant or beyond.<sup>43</sup>

However, by far, potentially, the most impressive cargo in terms of size and weight is the consignment of 231 trunks of cedar, although, as OBSOMER (1995, n. ae) noted, these could be trunks, beams or boards. While imported planks seem to be more commonly depicted and described in ancient Egypt (WACHSMANN 1998, 310–313),<sup>44</sup> the transport of complete trunks should still be considered. Moreover, despite the absence of any details of their dimensions it is nonetheless instructive to model what this timber cargo might have represented to the Egyptian court and to the ships that

carried it.<sup>45</sup> The basic assumption must be that the Egyptians would have sought to maximize the amount of timber transported, i.e., entire trunks, although *The Report of Wenamun* speaks of cut boat parts being sent from Byblos to Egypt (WENTE 2003, 121). Thus, both trunks and cut wood are simulated here (Table 2). For length, the maximum upper bound is based on the longest imported timber known from ancient Egypt, which is a 23 m long, 15 cm thick plank of cedar from the Cheops boat (LIPKE 1984, 30; STEFFY 1994, 25).<sup>46</sup> The width of this particular timber and other parts of the ship are unknown as no dimensions are published; those quoted are generally derived from drawings (WARD 2000, 54). The unexcavated sister ship has only been explored through fiber optic photography and the dimension of its parts identified and estimated (WARD 2000, 61–68). The widest and narrowest dimensions noted by WARD (2000, 54) are 30 × 10 and 10 × 10 cm, respectively. Thus, for the simulation in Table 2, a minimum length of 2 m is used, based on the notion that a plank 2 × 0.55 × 0.08 m would be sufficient for many ship’s parts as well as material for Egyptian coffin construction (DAVIES 1995, 146–148; WILLEMS 1996, 28–33, table 1; WARD 2000, Tables 5, 11–13, 15). To complete the simulation, lengths of 5 and 10 m are also calculated, as these could have

<sup>42</sup> In contrast, EDER (1995, 180) suggests that this material should be identified with a kind of frit, acting as a coarse calcareous quartz sand that was used in the production of glass or faience. He further notes that this material is used for the making of seals, has medicinal properties and is also known to come from the Aegean and Mesopotamia. ALTENMÜLLER and MOUSSA’s identification is followed here as the materials for glass and faience are available in Egypt (NICHOLSON and PELTENBURG 2000, 186–187; NICHOLSON and HENDERSON 2000, 197–198), the seals could have made of a more durable stone like hematite, which might have been mistaken for a black igneous rock and it is not clear what medical purposes this material would have.

<sup>43</sup> MOOREY (1994, 98–99) notes possible sources in the Lebanon and Dead Sea region. Jasper of different colors is known in Egypt, but the green type is reported to be speckled with red (LUCAS and HARRIS 1989, 397–398). Unfortunately, seals from the so-called “Green Jasper Workshop”, which is deemed to have been situated in Byblos, have never been subjected to mineralogical analysis (COLLON 2004).

<sup>44</sup> WACHSMANN (1998, 312) cites GLANVILLE’s notion (1932, 8–10) that *ḥs* connotes generic “cut wood”, although neither of them explain the term’s occurrence

along with wood derivatives, such as oil. In addition, he brings the example of wooden planks “among the ships’ cargoes” captured by Kamose at Avaris (WACHSMANN 1998, 312), but the text seems rather to refer to the planks of the ships’ hulls and not the cargo that filled their hulls (HABACHI 1972, 37; REDFORD 1997, 14).

<sup>45</sup> In addition to being transported as cargo inside the hull of a ship, WACHSMANN states that timber was towed behind ships in makeshift rafts (1998, 310, n. 118). Apart from the Biblical example he cites wherein timber is transported from the Lebanon on or as rafts, using terms that are open to interpretation, the other example from the palace of Sargon at Khorsabad is of Phoenician logging in a Mesopotamian riverine context (LINDER 1986; TRAKADAS 2002). It is highly unlikely that with the shifting winds in the eastern Mediterranean, which require vessels to change direction frequently in order to navigate, and sailing against the predominant current, that such operations were carried out regularly, if at all. Towing, obviously without an engine, would have placed ships in danger of colliding with the very cargo they towed every time they changed course.

<sup>46</sup> Cedars typically grow to a height of 24 m, but examples up to 36 m have been documented (PULAK 2001b, 24).

been used for longer ship parts (WARD 2000, Tables 9–13, 15) or for coffins. For diameter a range of 1.5 to 2.4 meters is used (PULAK 2001b, 24). Thus, volume may be calculated using the equation  $\pi R^2 \times L$ , where “R” is the radius of the trunk, “L” is the length; weight may be calculated by multiplying the result by 560 (kg/m<sup>3</sup>), which is the density of *cedrus libani* (STEFFY 1994, 256; PULAK 2001b, 24).<sup>47</sup> The results (Table 2) are extraordinary, as, clearly, if the text is referring to 231 items of uniform size, which was not necessarily the case, then the importation of 5–23 m long trunks of timber was either an immense undertaking or the capabilities of ships during this period is much greater than perhaps surmised (see below). Even the importation of 2 m sections of trunks would entail the transport of between 456 and 1169 tons of timber.<sup>48</sup> It would seem more conservative to suggest that planks, representing between 8 and 134 tons of weight and between 15 and 239 m<sup>3</sup> (tonnage in nautical terms), were the actual timber cargo. However, note that the 27 planks from the 859 kg Carnegie Dahshur boat were cut from at least 18 different cedar trees (WARD 2000, 84, table 8, 96). In some instances, opposing pairs of planks were cut from the same timber balk after bark was removed (WARD 2000, 21, 96) suggesting that thicker timber or trunks were originally imported.

Thus, even though portions of the text are missing, these timber estimates clearly represents the largest component of the merchandise (and subsequent tribute) recorded in the text, both in calculable weight and volume. In addition, this analysis reveals that timber (𐤊) was the principal cargo and, perhaps, not surprisingly, the very intent of the expedition to *Hnty-š*. Ultimately,

Origin	Weight (kg)	Volume (liters)
Asiatic tribute	3.8 + 1002 𐤊 <i>mw</i>	
Sinai	1050	2238
<i>Impšw</i>	3,240	
<i>Twši &amp; Tšii</i>	50.5 + 1554 𐤊 <i>mw</i>	270–1620
<i>Hnty-š</i> (minimum)	12,253	39,000

Table 3 Quantitative comparison of tribute and cargo

while the varied cargo includes many products that are consistent with the eastern Mediterranean littoral zone and specifically Lebanon and Syria, they cannot be used to pinpoint one particular port or region. Rather, they are a combination that could have derived from several ports of call or an entrepôt where such commodities and large quantities of timber were available. The final assemblage of these two ships’ cargoes, as detailed in this entry, should be considered a “bill of lading” or “cargo manifest”, certainly the oldest known from the Mediterranean world and possibly the most detailed. Even at its minimum, the carrying capacity of these ships overshadow any of the land based expedition and the bringing of tribute (Table 3).

### The ships, their size and significance

Unlike the Old or New Kingdoms, there are no MK depictions of seagoing vessels (WACHSMANN 1998, 18), or of foreigners arriving by boat to Egypt, although there is no lack of riverine boats in the MK Egyptian artistic repertoire.<sup>49</sup> This nearly 1000 year lacuna in the continuum of BA ship depictions has long cast a shadow on studies of

<sup>47</sup> Even if 𐤊 proves to be another species, the density of cedar is a useful intermediate value, as other possibilities have greater and lesser densities, e.g., Silver fir (480 kg/m<sup>3</sup>), European oak (720 kg/m<sup>3</sup>), Turkey oak (870 kg/m<sup>3</sup>), and various Mediterranean pines (510–580 kg/m<sup>3</sup>) (STEFFY 1994, 257–259).

<sup>48</sup> The entire logistical organization of timber procurement, hauling, preparation for export (i.e., pre-cutting), loading, and transport demands a separate study. Suffice it to say that the calculations here refer to fresh cedar. It may be presumed that the hiatus between cutting and hauling mentioned by Wenamun (WENTE 2003, 121) was as much about letting the cedar dry, with a concomitant loss in weight, as it was about waiting for a more amenable season for transport.

<sup>49</sup> Sadly, the only possible exception is the sailing vessel on a locally carved Syrian style cylinder seal from early Dynasty 13 Tell el-Dabca (PORADA 1984), which adorns the cover of this very journal. All that can be said of this ship is that it was powered by both sail and possibly oars (WACHSMANN 1998, 42) and that its iconography reflects the maritime orientation and religious beliefs of its presumably Asiatic user (BRODY 1998, 18, 29; MARCUS 2006, 188). The MK–NK petroglyph boats at Rôd el-Air, Sinai, are nearly all without a mast (i.e., sail) and could very well represent riverine vessels; the only example with a folded sail (no. 13) lacks a secure date (WACHSMANN 1998, 32–38, fig.2.60).

maritime relations between Egypt and the Levant, by hampering many attempts to assess the character, size and capacity of contemporary seagoing craft. Moreover, this lack has precluded comparisons with and contributions to the meager material evidence and the few extant textual references. Thus, analysis of the Mit Rahina inscription has great potential to impart in this regard.

Most of the MK textual references to seagoing ships do not refer to the Mediterranean Sea and generally are from periods other than that of Amenemhet II. One exception to the former is a reference to a *kbnt*, i.e., a “Byblos” boat (JONES 1988, 148–149)<sup>50</sup> in the partially preserved late 12<sup>th</sup> Dynasty text, Papyrus Lythgoe, from El-Lisht, perhaps part of a literary tale of an Egyptian who traveled to the Levant (SIMPSON 1960). More commonly, references are associated with the Red Sea and Punt. These include several inscriptions from the 12<sup>th</sup> Dynasty port of Wadi Gawasis (SAYED 1977, 159–163, 170), including a stela of Khenktetwer from Amenemhet II’s 28<sup>th</sup> regnal year (BREASTED 1906, 275, §604–605). The only other exception is the well known story of *The Shipwrecked Sailor*, in which a ship of one hundred and twenty by forty cubits, with a complement of one hundred and twenty sailors, set sail in the Red Sea (LICHTHEIM 1973, 212–213; SIMPSON 2003a, 48; QUIRKE 2004, 71). Depending on whether the standard (0.45 m) or royal cubit (0.523 m) was implied, this vessel measured 54 m by 18 m, or 63 m by 21 m (WACHSMANN 1998, 10, n. 16).<sup>51</sup>

In terms of direct archaeological evidence, riverine ships are the only source of evidence for ship form and construction. While it is typically thought that the timber remains of Nile boats, such as those MK examples from Lisht and Dahshur, offer only indirect evidence of the potential of their seagoing counterparts (HALDANE 1984; 1992a; 1992b; PATCH and HALDANE 1990; WARD 2000; WACHSMANN 1998, 220–221), WARD

(2006) now argues that there was no such dichotomy and that Egyptian riverine ships were designed to be disassembled and portaged to the Red Sea for seagoing purposes. In support of this thesis, WARD (2006, 126) notes the similarity between the planking of the aforementioned MK riverine boats and those at 1st Dynasty Abydos, and seagoing cedar ship planks from the MK port at Wadi Gawasis on the Red Sea (SAYED 1980, 156, fig. 3, pl. XXII:5; 1983, 36).<sup>52</sup> Another indirect evidence for MK seafaring is the numerous ex-voto and reused anchors, respectively, at Wadi Gawasis (SAYED 1977; 1978; 1980; 1983; WACHSMANN 1998, 259–260) and the Upper Egyptian fort at Mirgissa (NIBBI 1992; BASCH 1994). Lastly, two Egyptian bronze finials in the National Museum in Athens, one of which bears a MK votive inscription, have been interpreted either as tops of mast poles or as supports for a bipodal mast (GOEDICKE 2000). However, given the character of the inscription on the smaller of the two, which is dedicated to “The one whom the land-bringer; the Lord of the Winds and Hathor, Mistress of the North Wind shall love ...” and the functional deficiency of their small diameter (GOEDICKE 2000, 77, 81), they may instead be maritime ex-votos.

In the Levant, only indirect archaeological evidence of ships is available in the form of scattered wreck sites and some expressions of maritime cultic practices. These wrecks are reflected in the numerous stone anchors discovered in underwater surveys along the Israeli coast, at least 26 examples of which are datable to the Middle Kingdom/Middle Bronze Age IIA based on terrestrial parallels from Wadi Gawasis, Mirgissa and Byblos (GALILI, SHARVIT and ARTZY 1994; GALILI, SHARVIT and ARTZY 1996).<sup>53</sup> The distribution of these anchors is largely limited to the Carmel Coast, with some outliers along the coast of the Sharon Plain, all of which attest to this shoreline being plied during this period.<sup>54</sup> The

<sup>50</sup> For more recent discussions of this term, see BRADBURY (1996) and FABRE (2005, 92).

<sup>51</sup> See, however, MONROE’s caveats about utilizing this text for the dimensions of seagoing vessels (2007, 5).

<sup>52</sup> Recent discoveries from Wadi Gawasis include ship planks, ropes and plastered boxes that were used for maritime ventures (FATTOVICH 2005; FATTOVICH and BARD 2006).

<sup>53</sup> Two of these anchors were found in the Atlit Bay in close association with MBA storage jars (GALILI,

SHARVIT, *et al.* 1994, 95), but the latter remain unpublished and their precise date within the Middle Bronze Age is unknown.

<sup>54</sup> That this section of coastline has been subject to the most intensive surveying of any shore in the eastern Mediterranean should not be overlooked. A single example was found near ancient Arsuf/Apollonia and recently (6 October 2006) five stone anchors of purported Middle Bronze Age date were found near modern Netanya (IAA Press Office 2006).

largest cluster of the so-called Byblian type, 15 in total, was found less than two km north of Tel Nami, near Kibbutz Neve Yam (GALILI 1985; 1987). This particular assemblage presumably came from a single ship that was capable of carrying at least 1,320 kg of weight in anchors.<sup>55</sup> Most of that weight is from 13 anchors clustered in an area of 28 m<sup>2</sup>, which suggests that anchors also served as ballast (GALILI 1985; 1987), a theory supported by evidence found subsequently on the Uluburun wreck, where anchors are aligned along the centerline of the hull and in groups (WACHSMANN 1998, figs. 9.1 and 12.48A). The greatest distance between anchors in this cluster is approximately 7.5 m. The two remaining anchors were found 20 meters apart and approximately 7 and 15 meters, respectively, northeast of the main concentration (GALILI 1985, fig. 5). In reconstructing the wreckage event, GALILI (1985, 149–151, fig. 6) suggests that these two outliers were dragged to these spots by floating parts of the hull. However, it is equally if not more likely that these anchors fell rapidly to the sea bottom from the ship's stem and stern posts, as the ship swamped and wrecked in the breakers. The 20 m distance between them should, therefore, represent the maximum possible length of the ship, while the 7.5 m between the two most distant anchors within the main cluster, which presumably lay along the bottom of the hull, is the minimum length.

In the northern Levant, the absence of systematic underwater survey is likely the principal reason that our knowledge of MB ships and seafaring comes largely from terrestrial evidence of specialized maritime religion (BRODY 1998, *passim*).<sup>56</sup> Ex voto anchors dating to the Middle Bronze Age IIA have been found in the Temple of the Obelisks at Byblos and the Temple of Baal at Ugarit (FROST 1969a; 1969b; 1991).<sup>57</sup> These examples, however important for studying and dating the activities of

ancient seafarers, contribute little towards assessing the size and nature of contemporary ships.

Thus, the extant textual and archaeological data provides a general range for ship size. The lone contemporary literary reference speaks for vessels of great size (54 × 18 m or 63 × 21 m), while extant riverine vessels have size ranges that are much smaller, less than 10 m long and no more than 2 m wide (WARD 2000, 84). However, the disassembled boat timbers found in secondary use at Lisht have been reconstructed as a vessel with the *minimum* dimensions of 24 × 8 m (WARD 2000, 126). Moreover, these planks and frames are of a complex and massive construction reflecting a nautical technology for ships capable of carrying extremely heavy loads, such as for the barges that transported Hatshepsut's obelisks a half millennium later (WARD 2000, 121–128). While these may not represent sea-going craft (WARD 2000, 141–142), they complement the timbers from disassembled Red Sea-going and presumably Punt-bound craft that continue to be uncovered at Wadi Gawasis (SAYED 1980, 156, fig. 3, pl. XXII:5; WARD, C. 2006, 126; FATTOVICH and BARD 2006). In the Mediterranean, the Neve Yam anchor site probably represents a ship of between 7.5 and 20 m in length and carried at least 1.3 tons of anchors. By comparison, the better preserved cargo of the LBA Uluburun wreck is estimated to be approximately 15 m long, with a cargo of at least 20 tons, including 24 anchors totaling 4 tons (PULAK 2001a, 13). A recent study by MONROE (2007) concludes that existing textual and archaeological evidence cannot support much more than 20 tons or 15,000 liters as the upper limit for the capacity of (Late) Bronze Age ships.<sup>58</sup> The list of cargo in the Mit Rahina inscription suggests a minimum calculated capacity of approximately 19,500–23,000 liters per ship. Although these figures do not include the volume of those items recorded by weight, nor does it

<sup>55</sup> The total of the published weights is 1187 kg, but for unexplained reasons the two broken anchors were not weighed. Their combined weight is approximated at 140 kg based on comparison with other anchors in this assemblage.

<sup>56</sup> Recently, underwater survey has resumed as a component of archaeological research in Lebanon, e.g., at Tyre (EL-MOURI, EL-HÉLOU, MARQUET, *et al.* 2005; NOUREDDINE and EL-HÉLOU 2005), along the coast near Tell el-Burak (MAINBERGER 2001) and at Byblos

(FROST 2001; 2002; 2004; COLLINA-GIRARD, FROST, HÉLOU, *et al.* 2002).

<sup>57</sup> While the anchors from Ugarit can be dated typologically to the Middle Bronze Age, they apparently belong to a Late Bronze context (BRODY 1998, 46–47).

<sup>58</sup> In his study, volume is calculated based on ship length, using the amphorae carried by the 4<sup>th</sup> Century B.C.E. Kyrenia wreck as a guide and extrapolating for the approximately 15% longer Uluburun ship (MONROE 2007, 3, 10, n. 5).

take into account probable stone anchors or any other non-cargo burden, the volume (tonnage in nautical terms) already exceeds the limits suggested by MONROE. However, if the estimated cut timber component is increased to 5 m planks, this capacity would be increased to approximately 30-34,000 liters per ship. Thus, depending on the nature of the timber consignment, this text may require further re-assessment of the size of Bronze Age ships.<sup>59</sup>

Another consideration in assessing the character and size of the ship is the need to provide room for passengers, whether cargo or crew. While inanimate cargo requires little comfort and extra space, human passengers, even slaves, require a minimum of elbow-room. In both the Old and New Kingdoms, Asiatics are depicted arriving by ship (e.g., the Sahure reliefs and the Tomb of Kenamun), but the number of illustrated individuals is quite small and lacking detail. The MK expedition to Punt led by Antefoker, recorded on a stela from Wadi Gawasis, indicates 3200 soldiers accompanied the expedition (SAYED 1977, 170), but there is no indication of the number or size of the ships involved. The text in question lists two sets of arriving Asiatics, 65 from *Hnty-š* and 1554 from *ʿBsi* and *ʿwii*. The significance of these numbers for ship size may be illustrated by comparison with the Atlantic slave trade. Little standardization existed in the transporting of slaves until 1684 C.E., when the Portuguese Crown decreed that the capacity would be set between 2.5 and 3.5 slaves per ton (KLEIN 1999, 148). This ratio declined over time and during the 18th century, C.E., British slave ships, for example, carried an average of 1.6 slaves per ton (GARLAND and KLEIN 1985, 240). By the last decade of the trade this ratio reached one slave per ton (KLEIN 1999, 149–150). Using the range of these ratios as a guideline, the 65 “passengers” on the two ships that returned from *Hnty-š* should have traveled aboard vessels with a capacity of between 32 and 114 tons each. This “comfort” factor would increase ship size considerably. Moreover, if the 1554 Asiatics returning from *ʿBsi* and *ʿwii* came by sea, then utilizing the least humane figures of the nefarious Atlantic slave trade would require at least 444 tons of capacity. Clearly, in

comparison with the other commodities brought from these two cities, these passengers were the major component of cargo and if, indeed, the Asiatics were transported by ship, multiple craft would have to be inferred. In the absence of any clear reference to shipping and given the otherwise limited size of the remaining goods in the extant portion of this entry, the argument for an overland return is even more compelling.

Lastly, in terms of comparative capacity, the text offers unequivocal evidence for the superiority of seaborne over land-based transport. Even the minimum estimated cargo weight and volume borne by the ships returning from *Hnty-š* are, respectively, 12 and 20 times that of the most abundant calculable goods brought back by land, in this case that of the expedition sent to the “turquoise terraces” in Sinai (Table 3). It is unclear why SHAW (1998, 312) claims that the quantities of copper from mining expeditions exceed those obtained by military expeditions. The largest amount of copper recorded in the text was brought back from *Hnty-š* expedition (M19). The quantities transported from Sinai are consistent with the size and carrying capacity of donkey caravans.

#### EVIDENCE FOR MARITIME TRADE DURING THE REIGN OF AMENEMHET II

Amenemhet II’s reign is among the least documented of any 12<sup>th</sup> Dynasty king (FAY 1996, 7; SIMPSON 2001, 455), a evidentiary reality that begs the fundamental question as to whether the maritime aspects of the Mit Rahina inscription are a one-off instance of seaborne trade and beligerency or reflective of the tip of a larger iceberg. In the absence of any textual comparanda, contextualization of these events must rely on a consideration of contemporary archaeological evidence in Egypt and the Levant. Fortunately, the extant data, including the Tôd Treasure, imported finds from the excavations at ʿEzbet Rushdi, and the development of ports and coastal settlement along the Levantine seaboard, all seem to reflect a wider pattern of interaction that suggests the Mit Rahina inscription is not the sole expression of the increasing importance of the sea in Egyptian foreign relations.

<sup>59</sup> A detailed analysis of the volume, i.e., tonnage, to determine the possible dimensions of these ships will be included in a separate study.

### The Tôd Treasure

A number of scholars have already considered the historical context that the Mit Rahina text offers the famous Tôd Treasure (LILYQUIST 1993, 35–36; PIERRAT 1994, 23–24). While the correspondence between the contents of the treasure and the text is not one-to-one, the similarity in the types of materials, the reference to endowments to Montu at Tôd (M9–10) and the fact that both are associated with Amenemhet II is certainly a strong circumstantial argument. In addition, consideration of some additional aspects may also serve to shed further light on the possible relationship between the treasure and text.

The four copper chests containing an assemblage of imported raw materials and finished goods, which has come to be known as the Tôd Treasure, were found under the floor of a Twelfth Dynasty temple that was originally dedicated to Montu by Senusret I (BISSON DE LA ROQUE 1937; 1950; BISSON DE LA ROQUE, CONTENAU and CHAPOUTHIER 1953). Already during this king's reign endowments of foreign products were brought, including silver, bronze and lapis lazuli, alongside potentially local copper and gold (REDFORD 1987, 42; BARBOTIN and CLÈRE 1991, 9), which POSENER (1971, 543–544) saw as the background of the Tôd Treasure. However, despite many claims to the contrary, the appearance of Amenemhet II's names on two of these chests, reanalysis of the stratigraphic context, the character of the silver vessel assemblage, and a review of the foreign comparanda, all support a date contemporary with the royal nomens and are consistent with the textual parallel from Mit Rahina (LILYQUIST 1993, 35–36; PIERRAT 1994; WARREN and HANKEY 1989, 131–134; MACGILLIVRAY 1998, 103–104).<sup>60</sup>

The treasure comprises finished, partially finished, and fragmentary objects including: four copper boxes and nails, and two shafts of copper; ten ingots, a cup, and two fleurettes of gold; numerous rings (an ingot form?), bracelets, a mirror, zoomorphic figures, pendants (one stamp

seal), an electrum-fastened holster, and over 150 shallow bowls or cups, some crushed, all of silver; cylinder and stamp seals, a scarab, pendants, figurines, plaques, beads, chunks and part of bowl of lapis lazuli; carnelian beads, and fragments of quartz, amethyst, and obsidian. In terms of quantity, the treasure includes nearly 7 kg of gold, at least 9 kg of silver, and the copper boxes, which total 128 kg. These estimates are based on the formal publication of the treasure (BISSON DE LA ROQUE 1950; BISSON DE LA ROQUE, CONTENAU, *et al.* 1953) without any consideration for the state of preservation and the possible loss of mass over time. Note that the weights of only ninety-six cups are provided, and thus the silver total may be at least 13 kg to double the amount tallied here.<sup>61</sup>

A comparison between the goods brought back from *Hnty-š* and the artifacts found in the treasure reveal some interesting correlations. Although two of the chests were inscribed by an Egyptian hand, their weight is well within the quantity of copper brought back to Egypt and could have derived from the *Hnty-š* expedition. PIERRAT (1994, 23) is correct in wondering what is meant by the two *hst*-vases of Asiatic copper mentioned in the endowment to Montu (M12), which she presumes to have been divided between the temples at Armant and Tôd. The same might be said of the copper *m3m3* vessel (M24) offered as tribute from *Rnw*. Both could represent part of the raw material used in the fashioning of the chests. Similarly, nearly 23 kg of silver are recorded in the text as compared to between 13–18 kg as extrapolated for the treasure, which is a close correlation, particularly if the unweighed silver beads are added and some degree of material loss is assumed. In addition, some of the silver redistributed by the state administration is in the form of 20 *hnw* vessels (ALTENMÜLLER and MOUSSA 1991, 16, 46, M22), a vessel type that BOURRIAU and QUIRKE (1998, 69, 74, 80–81) suggest was used at Lahun by the Egyptians to refer to a drinking bowl. The numerous shallow silver bowls in the Tôd Treasure certainly fit this description. The text also refers to an Asiatic seal (M19),

<sup>60</sup> Previously, an extensive debate regarding its date had permeated the literature, with some placing the final deposition as late as Tuthmosis III (KEMP and MERRILLEES 1980, 290–296).

<sup>61</sup> This calculation assumes that the relative mass of the remaining silver vessels is nearly the same as those that

were weighed. Reference is made in the catalogue to “meters” of beads of all different types (BISSON DE LA ROQUE 1950, No. 70706–70708, 70710, 70712–70713), which do not appear to have been weighed, or discussed in any detail. No details of the quantity of lapis lazuli are provided.

which might have been one of the stamp or cylinder seals found in the treasure (PORADA 1982). A silver mirror was found (BISSON DE LA ROQUE 1950, No. 70576; BISSON DE LA ROQUE, CONTENAU, *et al.* 1953) although the mirror listed in the text is described as being made of bronze, gold and ivory (M21). REDFORD (1992, 79) identifies lapis lazuli among the minerals brought from *Hnty-š*, but this term, *hsbd* (FAULKNER 1986, 197), does not seem to appear in the text. Perhaps he is referring to one of the unidentified minerals, such as *hswd* (ALTENMÜLLER and MOUSSA 1991, 13, M18). Finally, concerning the sea stars (starfish?) among the natural products brought back from Sinai (M14), the starfish form appears a number of times in the Middle Kingdom, including on a bead from the Tôd treasure and as a pendant in a gold necklace from the tomb of Khnumet, the daughter of Amenemhet II (ALTENMÜLLER and MOUSSA 1991, 11, n. 6; LILYQUIST 1993, 36–37, fig. 8b). Beyond these examples, the lacunae in the text preclude any other possible correlations.

The sources of the materials and objects in the Tôd treasure reflect a number of regions in the eastern Mediterranean and Near East and, as such, reveal as complex a picture of exchange as does, perhaps, the Mit Rahina inscription itself. Silver is the most prominent imported component of the treasure and is recorded as being brought from *Hnty-š*, but does not occur in the Lebanon or the Syrian coast (MOOREY 1994, 234–235). However, both material and stylistic analyses of the Tôd treasure's silver suggest that the raw material and bowls may have been derived from both the Aegean and Anatolia (MAXWELL-HYSLOP 1995; PIERRAT 1994, 24–25; WALBERG 1984; WARREN and HANKEY 1989, 131–134; MENU 1994; ARUZ 1995, 33–35; MACGILLIVRAY 1998, 103–104). The granulation used in the treasure's silver bands also points to a northern, probably, Anatolian origin (LILYQUIST 1993, 35–37). In addition, LAFFINEUR's (1988, 23–24) metrological analysis demonstrated that the silver ingot and chain weights were relatively consistent with, but not exclusively, a Syro-Mesopotamian system.<sup>62</sup> All of this evidence

correlates well with the abundance of silver recorded in Syro-Mesopotamian texts from 24<sup>th</sup> century Ebla through 18<sup>th</sup> century Mari (ARCHI 1993; GUICHARD 1993, 198; PIERRAT 1994, 25; MAXWELL-HYSLOP 1995, 248–249). Texts from the latter city, in particular, reveal the custom of giving lavish metal vessels as gifts, and the practice of royalty traveling with enormous drinking(?) sets of vessels. Other components of the Tôd Treasure include material artifacts with an even more distant source, such as the lapis lazuli from Afghanistan that probably traversed Iran, Mesopotamia and Syria, all three of which were the origins for the treasure's various cylinder and stamp seals (PORADA 1982). Unless Redford's aforementioned identification is correct, the absence of lapis lazuli in the text might derive from one of the lacunae or possibly its presence in the treasure derives from the earlier endowment by Senuret I. The quartz and amethyst could have derived from local sources and the obsidian from Ethiopia or Eritrea (ASTON, HARRELL and SHAW 2000, 46–47, 50–53), although the latter could have derived from the goods/booty brought back from the attacks against *Bsii* and *Twii* (M18). Thus, quantitatively and, presumably, in terms of value, most, but not all, of the foreign component of the Tôd Treasure could have derived from the expedition dispatched by Amenemhet II to *Hnty-š*.<sup>63</sup> Naturally, as has been surmised by many others before, the imported components of the treasure would have been transshipped to one or more Lebanese or Syrian ports before they were shipped to Egypt.

If the purported connection between the Mit Rahina inscription and the Tôd treasure is valid, two final issues must be considered: the purpose of the treasure and the date of its internment. Nearly all variety of possible theories have been posited in the past, describing this deposit in terms of booty or tribute (CHAPOUTHIER 1953, 32), a commercial consignment from a North Syrian port (HELCK 1962, 73), trade/booty that was intended for an endowment, but became an emer-

<sup>62</sup> LAFFINEUR (1988, 23–24) eschewed the high (i.e., correct) date for the treasure and therefore found this system too ancient to be accepted. A detailed metrological comparison of the Tôd treasure and the Mit Rahina text will be the subject of a separate study.

<sup>63</sup> Note, that if, indeed, the devastated city *Twii* is correct-

ly identified with Ura in Cilicia, silver might have been expected to have been brought back in that expedition. However, other than an incorrect identification, the lack of any reference to silver could be a result of the text's lacunae or the complex nature of trade during this period.

gency cache never to be recovered (PORADA 1982, 292), a “motley stock of jeweler’s materials” (KANTOR 1965, 20) and a cache of an aborted endowment ritual that was serendipitously forgotten (PIERRAT 1994, 22–23). However, the evidence from the Mit Rahina inscription underscores the need to distinguish between the origin of the objects, their acquisition and transport and their final interment at the Temple of Montu, as PIERRAT (1994, 22–26) has done to a large extent. If the relationship between the text and the treasure is valid, the text offers contemporary insight into the mechanism of such endowments. The king, following the success of various foreign endeavors (M16–M18), would distribute a portion of the products to the palace (M21–M23), to his commanders, soldiers and officials (M25–M26) and to the gods, as might be inferred from the fragmentary entries that follow (ALTENMÜLLER and MOUSSA 1991, 20–25, M27–M41; OBSOMER 1995, 601–604; QUIRKE 2003a). Following Altenmüller and Mousa’s political reconstruction of a series of power legitimating acts, it is quite possible that the nature of the deposit was designed to both enhance and legitimize Amenemhet II in one of the temples dedicated by his father. Thus, the gold and silver serve to demonstrate wealth and the eclectic character of the assemblage is meant to show the king’s prowess or control over distant regions, much as was claimed of his father: “The foreign countries are tributary, the mountains become accessible, any place delivered its mystery. His numerous emissaries are in every land, the couriers do what he has willed” (ROWE 1939, 189–190; POSENER 1971, 540).<sup>64</sup> Lastly, following the internal chronology of the Mit Rahina text, donations to the warrior god Montu’s temples are made immediately after the expedition sets off (M9–M10) and are perhaps meant to seek that god’s blessing for its success. The deposit of the Tôd Treasure, which could have been recorded in some subsequent unpreserved column of text, was intended to express royal gratitude (VANDIER 1937, 182). If so, as no such specific

entry records a donation to Montu at least prior to the new year (M28), perhaps the *terminus post quem* claimed by PIERRAT (1994, 23) for this deposit should be refined to Year 4 of Amenemhet II’s reign.

### Tell el-Dab<sup>c</sup>a (‘Ezbet Rushdi)

Throughout much of the second millennium BCE, the region of Tell el-Dab<sup>c</sup>a served as *the* interface between Egypt and the eastern Mediterranean worlds (BIETAK 1996). Indeed, already the founder of the 12<sup>th</sup> Dynasty, Amenemhet I, inaugurated or enhanced the settlement in this region, which appears to have been named “Door (or Mouth) of the two ways” (BIETAK 1991, 28; 1996, 5; SZAFRAŃSKI 1998; CZERNY 1999). This toponym probably derived from the split in the Nile near the site, but as this region is the meeting point of the principal land and sea routes (BIETAK 1996, 3), it might reflect, in a figurative sense, its role as a maritime and terrestrial gateway (MARCUS 2006). Therefore, it should not be surprising that the early 12<sup>th</sup> Dynasty site of ‘Ezbet Rushdi in the Dab<sup>c</sup>a region has produced the earliest MBA Levantine and Middle Minoan (MM) pottery in Egypt.

Excavations at ‘Ezbet Rushdi revealed three settlement strata relevant to the present discussion: a local stratum of unclear domestic character (Substrata e/4–e/1 = general Stratum L), followed by an ephemeral Stratum d, upon which a temple (Substrata c/2–c/1 = general Stratum K) was established by Senusret III in Year 5 of his reign, according to a stela previously found in the area (BIETAK and DORNER 1998, 12–22).<sup>65</sup> In the absence of any earlier stratified inscriptional evidence, Stratum c provides a general *terminus ante quem* for Substrata e/4–e/1, which are certainly dated by local Egyptian ceramics to the first half of the 12<sup>th</sup> Dynasty; this date may possibly be restricted to the very last years of Senusret I, but more probably covers the reign of Amenemhet II (CZERNY 1998; 2002; BAGH 2000, 142–143; BIETAK 2002, 39).<sup>66</sup> The activities of the latter ruler in this

<sup>64</sup> The assemblage, which includes material from Afghanistan to the Aegean, literally covers the known world.

<sup>65</sup> The subsequent local strata, which continue into the Hyksos period, and the preceding Stratum f, which is described as a settlement enclosure wall that precedes Stratum e (BIETAK and DORNER 1998, 12–15), are not considered here.

<sup>66</sup> My appreciation to E. Czerny, for discussing with me the difficulty in further refining this dating, and the limitations that result from our current understanding of the MK pottery sequence. Hopefully, further study of the ‘Ezbet Rushdi pottery and MK ceramic research will resolve this issue.



region are underscored by a block with his name found at Tell el-Dab<sup>c</sup>a (SZAFRANŃSKI 2006, 379–380). Levantine imports were found alongside local ceramics in all of the substrata associated with Amenemhet II's reign, i.e., e/4–e/1, while Middle Minoan imports are reported, thus far, from Substratum e/3 (CZERNY 1998, 46, fig. 21; 2002, 133; BAGH 1998; 2000, 142–143, fig. 87:e–g; 2002b, 93–96, n. 13).

The Levantine imports, while not as abundant in comparison to the later phases at <sup>c</sup>Ezbet Rushdi and the sequence that resumes at Tell el-Dab<sup>c</sup>a Area F/1 (BIETAK 2002, fig. 2), are apparently the earliest well-stratified examples known from Egypt.<sup>67</sup> However, in contrast to the later assemblages of Tell el-Dab<sup>c</sup>a, they are comprised solely of storage jars and jugs/juglets, including quite a few (N=14) of the MB IIa Levantine Painted Ware (CZERNY 1998; 2002, 133; BAGH 1998, 47; 2000, 144–146, appendix, fig. 2; 2002b, 96).<sup>68</sup> The limited corpus and the fragmentary nature of the sherds published thus far precludes any really definitive typological analysis, but BAGH's (2002b, 96–101) preliminary comparative analysis offers a number of important observations. Thus far, the <sup>c</sup>Ezbet Rushdi/Tell el-Dab<sup>c</sup>a sequence of Levantine Painted Ware suggests a dichotomy between the early red monochrome bands, band zones and wavy lines, typically with a burnished surface, and the later complex bichrome decorations. Whether this distinction will hold upon further analysis of the <sup>c</sup>Ezbet Rushdi material (and, hopefully, further excavation) and whether it will be independently confirmed in the Levantine sequence will be one of the challenges for further

research.<sup>69</sup> Two, she finds the closest parallels to the LPW vessels and decorations from <sup>c</sup>Ezbet Rushdi at Byblos, the Beirut Kharji tombs, and from Ory's excavation at Aphek-Antipatris, as well as with other slightly later imports to Egypt found at Lisht and Kôm el-Hisn (BAGH 2002b, 96–100).<sup>70</sup> BAGH (2000, 29–41; 2002b, 89–93) argues convincingly that there are demonstrably consistent associations of decoration and form and some distinct combinations of particular decorative motifs. However, it is quite possible that the fragmentary decorated sherds from <sup>c</sup>Ezbet Rushdi belie their true decorative and typological range and, therefore, the geographical scope of the parallels to these finds. Comparison should also be drawn with other monochrome painted examples that possess line or band components, many of which she herself has methodically documented (BAGH 2000). Quite a few sites have produced vessels with comparable decorations including some with the same surface treatment documented at <sup>c</sup>Ezbet Rushdi, e.g., a band-painted and burnished juglet from Barqai (GOPHNA and SUSSMAN 1969, 1, 3, 9, fig. 4:1, pl. 11:5); various vessels from Megiddo (e.g., LOUD 1948, pls. 7:19, 8:8, 11:20, 22, 17:13, 20:6; BAGH 2000, figs. 23–28), including two monochrome painted jugs with burnishing (GUY and ENGBERG 1938, 29:2, 3); a jug from Tel Megadim (WOLFF 1998; BAGH 2000, 38, fig. 114:a; 2003, fig. 5:e); Tel Ifshar (PALEY and PORATH 1997, fig. 13:5), Kabri (KEMPINSKI, GERSHUNY and SCHEFTELOWITZ 2002, figs. 5.22:4–7, 12–14, 5.58:4), one of which has a cream slip (KEMPINSKI, GERSHUNY, *et al.* 2002, 114, fig. 5.22:6); the al-Hourriyé cave in the mountains of northern

<sup>67</sup> Possible earlier or contemporary examples include a single MB Canaanite sherd of a bowl, which was found in a chronologically problematic context in the pyramid of Amenemhet I at Lisht, and the two Levantine Painted juglets from Lisht North Tomb 756, which accompanied Egyptian pottery from the time spanning the reigns of Amenemhet II to Senusret III (ARNOLD, ARNOLD and ALLEN 1995, 16–18).

<sup>68</sup> The precise synchronization between the sequence of Levantine imports from <sup>c</sup>Ezbet Rushdi with that of the Levant has not been presented. For a preliminary spatial and quantitative analysis, see BAGH (2000, 143–147, appendix 2). Note the appearance of a well-burnished red-slipped juglet and carinated bowl from substrata e/d and e/3 (BAGH 2000, pl. VI: top and middle). This type of surface treatment is usually associated with somewhat later phases of the MB IIa.

<sup>69</sup> Levantine Painted Ware appears to have quite a long lifespan at Tell el-Dab<sup>c</sup>a (Stratum L–H) and in fact may continue to exist a half century later than Egyptian synchronized examples at Tel Ifshar (MARCUS 2003, 98). The latter site is currently under study for publication by the author and the excavators. There may be regional variations as well as chronological distinctions to be accounted for in the 100 year sequence of development that is implicit in the finds from <sup>c</sup>Ezbet Rushdi (ca. Amenemhet II) and Tell el-Dab<sup>c</sup>a Stratum H (ca. Amenemhet III).

<sup>70</sup> Two monochrome band and wavy line jugs/juglets from Kahun should also be added (PETRIE 1974, 9–10, pl. I:16, 19; BAGH 2000, 160, fig. 117:KA001–002), as well as perhaps a dipper juglet from el-Haraga T.297 (KEMP and MERRILLEES 1980, 34, fig. 16).

Lebanon (BEAYNO, MATTAR and ABDUL-NOUR 2002, pls. 4:7, 6:7; BEAYNO and MATTAR 2004, 440–441, pl. 3:17–26, fig. 23);<sup>71</sup> and Ugarit (BAGH 2000, figs. 65:e–h, 67:14, 71:passim).<sup>72</sup> Even if, at present, the precise chronological horizon of these parallels is unclear, they offer some indication of potential regions in the northern (or southern) Levant in which the <sup>c</sup>Ezbet Rushdi ceramics may have originated. Further elucidation of the nature of these parallels/contacts and the origin of these wares will have to await systematic provenience analysis.

In the interim, some light may be shed on this last issue by the preliminary petrographic analysis of finds from <sup>c</sup>Ezbet Rushdi and Kabri. COHEN-WEINBERGER and GOREN's analysis (2004, 80–81, 92, table 1) of seven jars (six body sherds and possibly one rim of a handleless jar)<sup>73</sup> and three LPW jugs/juglets have confirmed the foreign origin of the sherds from <sup>c</sup>Ezbet Rushdi and localized their production zones as follows: two jars from Substrata e/2-e/1 and Stratum e were produced in the Northwestern Negev or southern Shephelah (Petrographic Group K), one jar from Substratum e/3 originated in the Mt. Carmel region (Petrographic Group F), one jar (Substrata e-d) came from the Akkar Plain (Petrographic Group E), and two jars from Substrata e/2 and c are either from northwestern Syria in the Ugarit or Amuq zone, or Cyprus (Petrographic Group A2).<sup>74</sup> One jar attributed to Stratum e and all three LPW jug/juglets, from Substrata e/3–e/2, e/1-d and c are from an indeterminate northern Levantine coastal region somewhere between Akko and the Akkar Plain (Petrographic Group B3). However, three of the monochrome band painted LPW juglets from Kabri (KEMPINSKI, GERSHUNY, *et al.* 2002, fig. 5.22:5–7), which is situated

in the southernmost part of that region, were found to derive from the very northern coast of Lebanon, based on the appearance of basaltic minerals among the inclusions (GOREN and COHEN-WEINBERGER 2002, 440–441). Thus, although the sample set is quite limited in size (N=6), petrography offers some support for the typological argument that the LPW jugs/juglets at <sup>c</sup>Ezbet Rushdi derive from the northern Levant. The imported storage jars, however, derive from a greater variety of regions.

While minimalists might offer a facile and passé argument that the Levantine storage jars were transported overland, the Middle Minoan imports to <sup>c</sup>Ezbet Rushdi offer unequivocal evidence for maritime contact. However, in complete contrast to the previously documented pattern of imports to Egypt and the Levant during the Middle Bronze Age, when Minoan pottery was prized for its aesthetic value (KEMP and MERRILLEES 1980; CADOGAN 1983; WARREN and HANKEY 1989; WARREN 1995; 2000, 25; MACGILLIVRAY 1995; FITTON, HUGHES and QUIRKE 1998, 131–133; MERRILLEES 2003), the imports from <sup>c</sup>Ezbet Rushdi are comprised solely of fragments of Minoan oval mouthed amphorae (BIETAK and MARINATOS 2000, 40). This transport container, whose adaptation for foreign trade was anticipated by FITTON *et al.* (1998, 131), is unknown in the subsequent Egyptian and Levantine archaeological record, perhaps because the fabric of body sherds has long gone unnoticed and unidentified.<sup>75</sup> Ten fragments were found including three handles (one attached to a rim), a rim and five body sherds, the earliest examples of which appear in Substratum e/3 (CZERNY 1998, 46, fig. 21; BAGH 2000, fig. 87:e-g, pl. VI:bottom).<sup>76</sup> The oval mouthed amphora is well known from MM I to MM III contexts in

<sup>71</sup> This cave has also produced a monochrome painted cup (BEAYNO, MATTAR, *et al.* 2002, 150, fig. 15, pl. 4:11; BEAYNO and MATTAR 2004, 442, fig. 24, pl. 4:32) similar to examples from Byblos that BAGH associates with the decorations from the early Levantine Painted Ware (2000, 103–106, fig. 54: a-h; 2002b, 97).

<sup>72</sup> Unfortunately, many of these examples are lacking detailed description of color and surface treatment.

<sup>73</sup> This sample is from the only jar not listed as a body sherd by COHEN-WEINBERGER and GOREN (2004, table 1) and its basket number 7948/2, without the “/2”, is identical to that of a rim published by BAGH (2002b, fig. 3:1).

<sup>74</sup> In light of the discussion above, COHEN-WEINBERGER

and GOREN (2004, 71–73, 80) are probably correct to exclude Cyprus as the source of these vessels, but according to them this petrographic group also occurs in Cilicia. In this instance, where body sherds have been analyzed and typological indicators absent, perhaps no region should be excluded *a priori*.

<sup>75</sup> In fact, it was Peter Warren's visit to the Tell el-Dabca excavations that led to the identification of these examples and their relative dating (E. Czerny, personal communication).

<sup>76</sup> The current count, photographs, and illustrations of the Middle Minoan sherds from <sup>c</sup>Ezbet Rushdi were kindly supplied by E. Czerny.

Crete (BETANCOURT 1985, 76, 100, 105, figs. 65, 77, pls. 12B–C, 13F; WALBERG 1983, 6, 27).<sup>77</sup> Two of the published handles are characterized by dark paint on a light background (CZERNY 1998, 46, fig. 21; BAGH 2000, fig. 87 f–g) and one body sherd has the remains of a dark background (BAGH 2000, fig. 87 e). The first two might belong to the “dark-on-light” style most common in Middle Minoan I, but persisting throughout the Middle Bronze Age (BETANCOURT 1985, 85–87, 95).<sup>78</sup> The contents of these imported amphorae was presumably organic and, based on general Bronze Age parallels, might have been some sort of liquid, such as wine or oil, an ointment or resin, dry goods such as an exotic food or spices, or a large quantity of inorganic loose items (MERRILLEES and WINTER 1972, 106–107, 112–115; KNAPP 1991, 41–44; FITTON, HUGHES, *et al.* 1998, 133–134).<sup>79</sup> Specifically regarding the Middle Kingdom, WARREN (1995, 7) argues that lichens for funerary purposes may have been an import from Crete. Later MBA textual evidence, variously, from Egypt and Mari, refer to Minoan textiles, footwear, and medicinals (MERRILLEES and WINTER 1972, 112–113; STRANGE 1980, 93; MALAMAT 1998, 38), all of which would have fared much better in a sealed dry container safe from sea spray and bilge water.<sup>80</sup> To date, the earliest and still sole material evidence for an Aegean organic import to the East is the largely overlooked *lathyrus clymenum* or “Spanish vetchling” from somewhat later MB IIa Tel Nami (KISLEV, ARTZY and MARCUS 1993), which could be the long sought after *Keftiw* bean (MERRILLEES and WINTER 1972, 112–115; WARREN 1995, 7).

In addition to their being an extraordinary ceramic type, the MM ceramics found at <sup>c</sup>Ezbet Rushdi are by far the earliest well-stratified MM imports in Egypt. Stylistically, the small MM Ib floral vase from early 12<sup>th</sup> Dynasty Qubbet el-

Hawa (KEMP and MERRILLEES 1980, 215–219, 255; WARREN 1995, 3; MACGILLIVRAY 1998, 103), has been touted as the earliest MM import to Egypt (MACGILLIVRAY 1998, 106), but beyond placing its context in the “first part” of the 12<sup>th</sup> Dynasty, KEMP and MERRILLEES warn that “one cannot put too fine a limit” on its time range (1980, 255; WALBERG 1983, 143; FITTON, HUGHES, *et al.* 1998, 132). Similarly, the two apparently locally-produced imitations of MM Ib crinkle rim bowls/cups from T.326 at el-Haraga, which while placed more towards the beginning of this cemetery’s sequence, still has a chronological range from Senusret II to the onset of the Hyksos Period (KEMP and MERRILLEES 1980, 36–39, 56–57, fig. 17; WARREN 1995, 134; MACGILLIVRAY 1998, 103, 106). The MM Ib–MM IIa examples from Lisht also have a broad date from the early 12<sup>th</sup> to late 13<sup>th</sup> Dynasties (KEMP and MERRILLEES 1980, 1–6, fig. 1; WALBERG 1983, 141; MACGILLIVRAY 1998, 104). Finally, the parallels drawn between MM Ib–MM IIa ceramics and the silverware from the T<sup>o</sup>d Treasure are all relatively coeval with the <sup>c</sup>Ezbet Rushdi material; other MM imports belong to the remainder of the Middle Kingdom (KEMP and MERRILLEES 1980, *passim*; WALBERG 1983, 141–143; MACGILLIVRAY 1998, 103–105). Given the equivocal nature of much of the other evidence, the MM finds from <sup>c</sup>Ezbet Rushdi, when they are properly studied, should lend further credence to the early date of much of these other imports.

Thus, the extraordinary Minoan imports, which mark the renewal of Egyptian contact with the Aegean, and the typological and petrographical evidence from <sup>c</sup>Ezbet Rushdi both demonstrate that imports were arriving from the eastern Mediterranean already in Substratum e/3 and continued throughout Stratum e (those from the Levant increased following the period under dis-

<sup>77</sup> Parallels: MM IIA Knossos (MACGILLIVRAY 1998, 28, 37, 46, 48, 130, 157, pls. 48:166, 116:740–741, 145:A-C, 150:1010); MM IIA-MM III Kommos (BETANCOURT 1990, 75–76, 79–80, 98, 119, fig. 16:178, 24:474, 36:756). WALBERG (1987, 16, 134–135, tables I–II), who notes that this vessel type has no Early Minoan predecessors, catalogues numerous examples (Form 16, types 69–73) from Phaistos and Knossos, occurring from Early to Post-Kamare, i.e., MM Ib–MM III I). However, her discussion is largely based on complete examples and there is no specific discussion of this rim type.

<sup>78</sup> These sherds have yet to be examined systematically by specialists in Minoan pottery. In photographs, the fabrics seem to include both examples with grey buff and pink buff, suggesting that Knossos and the north coast, as well as Phaistos and the Mesara may be represented (MACGILLIVRAY 1995, 82).

<sup>79</sup> Note that WARREN (2000, 25) suggests that the Minoan bridge-spouted jars, which are well represented in Egypt (and the Levant), could have held a solid ointment.

<sup>80</sup> See above p. 149, for references to the transport of organics in suitable containers.

cussion). The contacts reflected in these finds can be associated with the end of Senusret I's coregency with Amenemhet II, if not solely in the junior monarch's reign. In other words, during the time represented by the Mit Rahina inscription and the Tôd Treasure, ʿEzbet Rushdi was apparently functioning as a Deltaic port for the transshipment of goods from the Aegean and the Levant. It is not beyond reason that the ships returning from *Hnty-š* and the bearer of the Tôd Treasure's contents made use of this port. Moreover, the typological and petrographic results may contribute towards narrowing down some of the possible ports-of-call and coastal cities that may have been in existence at that time.

### Ports-of-call along the Levantine seaboard

Although the precise identification of the cities that are subsumed under the regional term *Hnty-š* or referred to as *Bsii* and *Iwii* are unknown, the presumed route taken by the ships sailing to and from somewhere in the northeastern Mediterranean would have brought them in proximity to a number of potential MB IIa ports-of-call and settlements in the coastal plain. The former were established *inter alia*, owing to amenable geographical conditions that may have enabled them to act as havens for ships, but may have merely been fair weather points of transshipment between land and sea, and which could have interfaced with more inland entities. During the Bronze Age, harbors were based on numerous types of marine-landforms, such as offshore islands, promontories, lagoons, bays, and navigable rivers (RABAN 1985; 1995b; BLUE 1995). Unfortunately, due to geomorphological changes since antiquity, Bronze Age anchorages are not easily discerned in the land and seascape (MARRINER and MORHANGE 2007, fig. 8), even at such celebrated port cities such as Byblos (FROST 2004). While, for the purposes of this discussion, the complexities

of coastal palaeogeography will not be considered (MARRINER and MORHANGE 2007), the maritime relations or orientation of a particular site should not be precluded simply because it is currently located on a haven-less open shore, e.g., Ashkelon, or some distance from the shore up a now less-than-navigable river, e.g., Ugarit or Tel Kabri.

Given that ʿEzbet Rushdi Stratum e is broadly contemporary with the period of the Mit Rahina inscription, comparison between its ceramic finds and those from the results of excavations and surveys along the Levantine littoral zone may aid in determining which ports and coastal plain settlements may have been in existence when these voyages took place. In the absence of more detailed typological data from ʿEzbet Rushdi, the synchronization of these results with Egyptian chronology must rely solely on the Levantine Painted Ware and the petrographic analysis of these and other pottery. However, while the finds from ʿEzbet Rushdi suggest that the earliest Levantine Painted Ware is limited to certain monochrome motifs, in considering the antiquity of various MB IIa sites, reference will also be made to the bichrome Levantine Painted Ware, even though its synchronization with Egypt may post-date ʿEzbet Rushdi Stratum e (and c) and find its best parallels, thus far, in Tell el-Dabʿa Stratum H (BAGH 2000; 2002b). This consideration is justified and imperative as the suggested LPW developmental sequence is still unsubstantiated outside of Egypt, and since first being discerned in the basal MB IIa levels at Tel Aphek (BECK 1985; KOCHAVI and YADIN 2002), this bichrome pottery has remained an essential *fossile directeur* for the beginning of much of the MB IIa littoral culture (PALEY and PORATH 1997; BAGH 2000; 2002b; 2004; KEMPINSKI, GERSHUNY, *et al.* 2002).<sup>81</sup> Those sites where the incipient MB IIa phase is characterized by the bichrome Levantine Painted Ware may date to a period slightly later than that under dis-

<sup>81</sup> The correlation between the coastal southern Levant and part of the northern Levant with inland Syria is a much more complex question (NIGRO 2000; 2002, 299) and, as it is not relevant to the issues at hand, will not be discussed here. NIGRO's criticism (2000, n. 1) of the use of painted and specialized wares for chronological synchronization is well taken. Ideally more robust synchronization would result from the comparison of complete ceramic repertoires. However, such synchronizations do have their validity particularly with widely

distributed types and their inspirations, which offer potential comparison over much greater distances. Nowhere is this utility underscored than with the incipient MB IIa stratum (14=Phase N) at Tell Arqa, a coastal plain site whose ceramic assemblage shows very striking differences with neighboring, especially coastal, regions, but which includes at least one example of Levantine Painted Ware (THALMANN 2002, 366, 377; 2006, 141, pl. 85:20).

cussion. Unfortunately, the synchronization of this incipient phase with Egypt has been largely precluded by the relative paucity of Egyptian exports in the MB IIa Levant, particular in the southern half of this region. However, numerous radiocarbon determinations from Tel Ifshar seem to place this phase no earlier, but probably slightly later, than 1930 BCE (MARCUS 2003). This date range certainly coincides with the period under discussion and is consistent with other synchronisms from Egypt (BIETAK 2002, 38–42), but cannot offer any greater refinement at present.<sup>82</sup>

Therefore, in order to identify the possible ports and settlements with which Egypt may have had contact, the petrographic analysis of the Levantine ceramics of <sup>c</sup>Ezbet Rushdi Stratum e will be used as a guide for narrowing down possible regions and sites involved. In this discussion, it is assumed that transport was by sea and that the variety of disparate regions represented by the imported ceramics to <sup>c</sup>Ezbet Rushdi did not derive from a single entrepôt, although this latter assumption may require modification when the remainder of these imports and comparanda from the Levant has been studied and analyzed by petrography. In the meantime, the northern Levant, i.e., *Hnty-š*, is represented, petrographically, by Group B3, a general indeterminate region, ranging from the port of Akko to the Akkar plain (3 LPW jugs/juglets and 1 jar); Group E, the Akkar plain (1 jar); and Group A2 the Syrian-Cilician coast/Amuq region (1 jar). The southern Levant is represented by Group F, the Carmel coast (1 jar) and Group K, the northern Negev/southern Shephelah (1 jar). Potentially, these zones of production may be further narrowed down to specific sites based on current available archaeological data from MB IIa sites in these regions.

#### *Southern Coastal Plain*

This region, which is represented by petrographic Group K (COHEN-WEINBERGER and GOREN

2004, 79–80, fig. 1), is characterized both by the lack of solid geomorphological evidence for anchorages and the limited exposure and evidence for early MB IIa remains. The two potential MB IIa ports along this coastline are Tell el-Ajjul, with a theoretical anchorage at the mouth of Nahal Besor/Wadi Gaza (TUFNELL 1962, 1; OREN 1997, 255) and Ashkelon, which has defied considerable attempts to identify the physical geographical conditions that might have offered a haven for seafarers (STAGER 1993, 103). The extant MB IIa remains of the former site are from tombs of the later phases of the period, but a few LPW vessels were found.<sup>83</sup> Although COHEN (2000, 189; 2002a, 107; 2002b, 124) claims otherwise, the excavator notes that earliest MB IIa phase is not yet attested at Ashkelon (STAGER 2002, 357). However, even in such a long term excavation, it is possible that these early levels have still not been located.

Finally, rather than, or in addition to, the modern fisherman's port, the BA anchorage of Jaffa may have been based on the wetlands that existed east of the tell prior to modern times (RABAN 1985, 27). In the early 20<sup>th</sup> century, the remains of large walls and stone anchors are reported to have been found in these swamps (HANAUER 1903a; 1903b; BARTON 1903; SHEPSTONE 1937, 265). Unfortunately, MB IIa Jaffa is known only from some tombs (KAPLAN and RITTER-KAPLAN 1993, 659).

Further inland, a few sites with possible early MB IIa remains have been found. East of the largely MB IIb anchorage of Yavne Yam, a jug with an LPW pendant motif was found in a surface survey (GOPHNA and BECK 1981, fig. 10:25, pl. 14:8, 35). At the cemetery of Dhaharat el-Humraiya two painted jugs were found in an MB IIa tomb (T.62). They are decorated in red slip, and painted with diagonally-crossed black lines and red paint on their necks and handles (ORY 1948, 88, fig. 36, 37, pl. XXXII:1). As mentioned above, this tomb may contain an example of Middle Cypriot

<sup>82</sup> A much more limited suite of radiocarbon determinations from Tel Kabri and Tel Aphek are consistent with the results from Tel Ifshar, but due to the small number of samples, not nearly as conclusive. These will be published in a more detailed manner elsewhere.

<sup>83</sup> These include a handleless jar with horizontal lines (PETRIE 1933, pl. XXXIII:32A11); a dipper juglet with

strokes on its rim, a pendant motif around its neck, and triangles framed with horizontal lines on its body (PETRIE 1931, pl. XLVII:AY; TUBB 1983, 53, n. 9, fig. 1:); and a globular juglet, with strokes on its rim and handle, a pendant motif, and a spiral framed with horizontal lines on its body (PETRIE 1934, pl. LIV:J60N7).

pottery, although it remains unclear as to what stage of the early MB IIa period these LPW vessels belong.

#### *Sharon Coastal Plain*

Although no petrographically demonstrable exports from the Sharon Coastal Plain were identified at <sup>6</sup>Ezbet Rushdi, the two main river systems, the Yarkon and Alexander rivers have two archaeologically important MB IIa sites: Tel Aphek and Tel Ifshar. As previously noted, the key published site of Tel Aphek has provided some of the best parallels for the <sup>6</sup>Ezbet Rushdi Levantine Painted Ware. Unfortunately, while the Yarkon river was still navigable in early modern times up to the later MB IIa site of Tel Jerishe (GEVA 1982; HERZOG 1993), apart from an encampment site at Sde Dov (KAPLAN and RITTER-KAPLAN 1993, 1454, photo), north of the modern river mouth, there does not appear to be any early MB IIa site that might have served as a port.

Among the extensive repertoire of Levantine Painted Ware in settlement phases B-C at Tel Ifshar are monochrome painted motifs that are paralleled at <sup>6</sup>Ezbet Rushdi (see above). This ceramic class is found in association with MK Egyptian pottery, which continues into Phase C and possibly Phase E. Contacts with Lebanon are attested by the presence of cedar (PORATH and PALEY 1993, 34) and onion-shaped jugs (PALEY and PORATH 1997, fig. 13.6:6) that are paralleled at Byblos (SAGHIEH 1983, 95, pl. XLI:3639; DUNAND 1937, pl. CLX:3639a-b) and the Kharji tombs (SAIDAH 1993–1994). The fragmentary Egyptian pottery from Phase B and C has yet to be studied typologically, but a complete Marl A vessel is dated no earlier than the reign of Senusret II. As noted above, radiocarbon determinations from Phase B suggest that the MB IIa settlement at this site began no earlier than 1930 BCE, although a slightly later date is more probable, statistically. No MB IIa levels were found at Tel Michmoret at the mouth of the Alexander river, which was probably navigable in antiquity.

Similarly, no evidence for any anchorage was found at the mouth of the Hadera river. However, more than 10 km up this river is the MB IIa site of

Tel Zeror, which produced some remains that are reported to be coeval with the earliest phase at Tel Aphek (KOCHAVI, BECK and GOPHNA 1979, 155–160). One LPW vessel is represented by a body sherd of a jar decorated with concentric circles (KOCHAVI, BECK, *et al.* 1979, 160, fig. 18:22).<sup>84</sup>

#### *Carmel Coast*

In contrast to the Sharon Coastal Plain, there are three MB IIa sites on or close to the modern shoreline of the Carmel Coast that could have been the point of export for the single jar of petrographic Group F: Tel Dor, Tel Nami, and Tel Megadim. Although Tel Dor has been the subject of excavation since 1980 during which, other than stray sherds, no MBA strata were found even in areas where bedrock was reached (STERN 1995, 271); Middle Bronze Age remains were detected on exposed scarp of the so-called “Love Bay” on the northern side of the tell. There, RABAN (1995a, 287, 302–303, 306, 309, n. 38) found MB IIa remains, but none that appear so far to represent the earliest phases of the period. Given these very preliminary findings, and the site’s many coves and protected bodies of water, the underwater surveys of which have produced MB IIa ceramics, anchors and a MC import (WACHSMANN and RAVEH 1984, 239; WACHSMANN 1995, 5; SIBELLA 1995, 13, fig. 1), it seems likely that the remains of a MBA port city may still be discovered at this site.

Tel Nami, which is located approximately 5 km north of Tel Dor is one of a cluster of sites that are arrayed around what were probably coastal wetlands with access to the sea (ARTZY 1993; MARCUS 1991). The earliest phase of habitation includes bichrome LPW jugs, jars and juglets (ARTZY 1995, 20, fig. 2.4). In addition, a fragment of cedar was found in an early MB IIa well (LEV-YADUN, ARTZY, MARCUS, *et al.* 1996). Radiocarbon determinations both from settlement and tombs show results similar to that of Tel Ifshar, i.e., the beginning of settlement not much earlier than the last quarter of the 20th century BCE (BRONK RAMSEY, HIGHAM, OWEN, *et al.* 2002, 80–81).

Unpublished salvage excavations at Tel Megadim (WOLFF 1998) have produced examples

<sup>84</sup> LPW vessels are reported at a cemetery excavated at the southern margin of Mt. Carmel, overlooking the Nahal Tananim basin that forms the border between the

Sharon and Carmel Coastal Plains (PEILSTÖCKER and SKLAR-PARNES 2005).

of Levantine Painted Ware in tombs (BAGH 2000, fig. 1.IIIa). Although the site does not have an obvious anchorage, perhaps the bay at nearby Atlit was already in use in the Middle Bronze Age, as has been suggested for the Early Bronze Age (SHARVIT, GALILL, *et al.* 2002, 164). Finally, despite its relative distance from the sea, it would be remiss to ignore the important hinterland center of Megiddo, where early MB IIa remains found both on the tell and in the adjoining cemetery (DUNAYEVSKY and KEMPINSKI 1973; KEMPINSKI 1989). As mentioned briefly above, these remains include both monochrome and bichrome Levantine Painted Ware (BAGH 2000, 71–78).

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The finds from the excavations of Tel Akko (DOTHAN 1993), the southernmost port in this region, are currently under study by research teams at the University of Haifa.<sup>85</sup> In excavation areas where significant MB IIa remains were uncovered, no ceramics typical of the earliest phase of this period, including the Levantine Painted Ware, have been found so far in situ (Area AB: Ron BEERI, personal communication,<sup>86</sup> Area F: this author). The only exceptions are some fragmentary sherds of possible bichrome Levantine Painted Ware from later fills and the complete profile of a bichrome jug that was exposed during modern construction west of the MB IIa gate in Area F (DOTHAN and RABAN 1980). However, the possibility that excavations did not reach and sufficiently expose the early MB IIa levels should not be precluded.

A recent study of the Akko Plain (PEILSTÖCKER 2005) identified no additional examples of Levantine Painted Ware or other early MB IIa remains between Tel Akko and the modern Israeli-Lebanese border. Thus, the aforementioned examples from Tel Kabri remain the only known examples from this region of early Levantine Painted Ware with monochrome motifs similar to that of <sup>c</sup>Ezbet Rushdi. However, a monochrome juglet was found at the Nahariya temple,

albeit with concentric circles and necklace decoration, but was reported to be from a later MB IIa phase (DOTHAN 1981, 76, fig. 2). Bichrome Levantine Painted Ware is known from both Tel Kabri (KEMPINSKI, GERSHUNY, *et al.* 2002, 114–116, figs. 5.14, 5.58:3) and the Nahariya temple (DOTHAN 1956, 19, fig. 8; 1981, fig. 1; BEN-DOR 1950, 235, fig. 16:325, 47, pl. VIII).<sup>87</sup> Regarding possible anchorages, the largely unknown river mouth port of Tel Nahariya on the southern bank of the Ga<sup>c</sup>aton river, which derives its source at Tel Kabri, has not yet produced early MB IIa remains (PEILSTÖCKER 2005). One explanation is that earlier remains may yet be found there, or that the river mouth functioned as a maritime interface without the existence of a settlement, or that the river may have entered the sea at a location closer to the Nahariya temple complex some 800 m to the north (RABAN 1986, 219; YOGEV 1993).

The next two major ports to the north, Akhziv and the palaeo-island of Tyre, have yet to reveal any early MB IIa remains (OREN 1975; BIKAI 1978, 6, 72–73). The former has only been the object of limited excavation, primarily of the rampart fortifications (PRAUSNITZ 1975), while the latter was probed solely in a 150 m<sup>2</sup> sondage, which represents merely 1% of the ancient island (BIKAI 1978, 1). Either relevant remains may be discovered elsewhere, such as near the reconstructed northern harbor, or MBA Tyre should be sought to the lee of the island, along the prograded ancient shoreline, perhaps at one of the nearby tells (MARRINER and MORHANGE 2005, 184, fig. 2–3; 2007, fig. 17; MARRINER, MORHANGE, BOUDAGHER-FADEL, *et al.* 2005; MARRINER, MORHANGE, DOUMET-SERHAL, *et al.* 2006, 1–2, fig. 1; MARRINER 2007, 330–336, figs. A16, A24, 1.17, 2.1).

To date, the most extensive MB IIa remains discovered in this section of coastline are from the port of Sidon, where five phases of 60 graves, spanning the Middle Bronze Age, have been exposed (DOUMET-SERHAL 2001, 162–171; 2002, 188–189; 2003a, 179–182; 2003c, 9–14;

<sup>85</sup> Relevant excavation areas include: Area AB, which is being studied by R. BEERI as part of his doctoral dissertation, supervised by Professor M. ARTZY; Area H, which is being studied by Dr. A. BRODY in collaboration with Professor M. ARTZY; and Area F, which is being studied by the author and up until 2003 with the late Professor

A. Raban. The latter two studies are funded by the White-Levy program for archaeological publication.

<sup>86</sup> For initial results, see BEERI (2003).

<sup>87</sup> These remains are currently being studied by S. Zuckerman of the Hebrew University.

2004b, 112–118; 2004c, 90–103, 148–149; 2004d, 48, 51–53).<sup>88</sup> So far, only some fragmentary sherds decorated with monochrome black or red horizontal lines or bands have been found among the pottery of a floor underneath the largest substantial MB wall found thus far (DOUMET-SERHAL 2003a, 191, 195). However, significant amounts of bichrome Levantine Painted Ware are present in tombs of Phases 1–2 (BAGH 2004). Synchronizing this sequence with Egypt is currently based on two complete Egyptian vessels: one small Marl C jar in burial 13 of Phase 1, which first appears in the time of Senusret I, but continues throughout the 12<sup>th</sup> Dynasty, and Phase 2, Burial 24 utilizes a Marl C storage jar for an infant burial (BADER 2003). This example, too, has a broad chronological range from the mid-12<sup>th</sup> through 13<sup>th</sup> Dynasties.<sup>89</sup> However, an Upper Egyptian vessel found above a warrior grave and provisionally assigned to Phase 2 can be placed more narrowly within a timeframe covering the reigns of Senusret I and Senusret III, and has good parallels at <sup>C</sup>Ezbet Rushdi during the reign of Amenemhet II (FORSTNER-MÜLLER and KOPETZKY 2006). Phase 1 also produced scarabs typical of the first half of the 12<sup>th</sup> Dynasty (TAYLOR 2004, 157; MLINAR 2004, 63). An additional find of note is an MM IIA-early MM IIB cup found perhaps as a ritual deposit in Phase 2 (MACGILLIVRAY 2003; 2004). A single radiocarbon determination on an animal bone from underneath this deposit (DOUMET-SERHAL 2004a) produced a 2 sigma range of 2030–1770 BCE, although the highest probability (81%) within that range is between 2030 and 1860 BCE, which is consistent with first half of MM IIA beginning around the end of Senusret I's reign (MACGILLIVRAY 1998, fig. 3.3). It also might suggest a provisional terminus ante quem of 1860 for Phase 2. Finally, research on the palaeogeography of Sidon has revealed a number of possible Bronze Age anchorages (MARRINER and MORHANGE 2005, 186–188, figs. 4, 6; MARRINER,

MORHANGE, *et al.* 2006, 1–2, figs. 2, 5; MARRINER, MORHANGE, *et al.* 2006; MARRINER 2007, 337–379).

Another potential port might eventually be revealed at Tell el-Burak, a small coastal site between Tyre and Sidon (FINKBEINER and SADER 2001; KAMLAH and SADER 2003). Recent excavations revealed a massive mudbrick building, possibly a fortress, dating to the Middle Bronze Age II (KAMLAH and SADER 2003, 159–166). While the excavators are understandably hesitant to refine their date at this stage of research, some of the published pottery (KAMLAH and SADER 2003, pl. 3) could possibly date to the early stages of the Middle Bronze Age. Coastal geomorphological studies of the shoreline are planned for the identification of possible harbor installations (KAMLAH and SADER 2003, 166) and an underwater survey of a nearby reef may indicate its use as an offshore anchorage (MAINBERGER 2001).

#### *Northern Lebanon*

The extensive salvage excavations that preceded the reconstruction of Beirut's Central District have revealed significant MBA remains from the ancient tell (BADRE 1997; 1998). The preliminary publication includes the profile of a handleless jar decorated with sets of 4–6 horizontal bands (BADRE 1997, 22, fig. 9.4). This member of the Levantine Painted family, and other examples, suggest the presence of MB IIA levels, but how early in this sub-period is still unclear. At the very least, the locating of the BA tell of Beirut offers a settlement context for the tombs and other relevant finds previously discovered, such as the Kharji and Sin el Fil tombs, both of which contain examples of both monochrome and bichrome Levantine Painted Ware (SAIDAH 1993–1994, pls. 5, 6, 9:2, 10, 11:1–2, 12:1, 16:2–32; CHÉHAB 1939, figs. 7a–b, 8a–c).<sup>90</sup> The reconstruction of Beirut's ancient harbor, suggests a nearby anchorage situated between the Nahr Beirut, two rocky promontories and an island (MARRINER 2007, 380–422).

<sup>88</sup> In addition to the finds from Sidon itself, early MB IIA remains, including Levantine Painted Ware vessels, have been found in various tombs located in its hinterland (GUIGES 1937, figs. 3a, 3c, 6, 7a, 22, 23b, 28f; 1938, figs. 46, 57e, 58e, 59; BAGH 2000, appendix).

<sup>89</sup> Egyptian imports increase significantly (N=51) in Phase 4 (FORSTNER-MÜLLER, KOPETZKY and DOUMET-SERHAL 2006).

<sup>90</sup> The absence of proper documentation and the fact that the finds are missing and cannot be re-examined is a hindrance to a full assessment of what they represent for the MB IIA chronology of Beirut. However, BAGH (2000, 89–93) suggests that there may be reason to separate the two MB IIA assemblages, i.e. chambers, T.1 and T.2, in which case an early monochrome painted phase would be isolated.



Only 20 km north of Beirut is the port of Byblos, which served Egypt during the Old and Middle Kingdom as its principal commercial partner in the Levant. Although stratigraphic ambiguities and discarded material may for ever prevent a full understanding of the nature of that relationship, there are some architectural complexes dated by foundation deposits or caches (TUFNELL and WARD 1966; NEGBI and MOSKOWITZ 1966; PORADA 1966) and tombs (TUFNELL 1969; BARAMKI 1973), all of which provide some chronologically secure contexts for comparing the remaining equivocal data. The beginning of the Middle Bronze Age take its *terminus post quem* from the upper phases of the stratified Early Bronze Age-Intermediate Bronze Age sequence, as reconstructed by SAGHIEH (1983).<sup>91</sup> The Levantine Painted Ware at Byblos has been discussed in detail by BAGH (2000, 94–112; 2002b), where she notes the preference for monochrome red band and wavy line decorations, the latter of which she derives from motifs common in the preceding Early Bronze Age IV. Byblos provides her with the best parallels for the LPW sherds from ‘Ezbet Rushdi, but note the discussion above. Regarding the synchronization with Egypt, the Montet Jar scarabs provide the earliest 12<sup>th</sup> Dynasty imports (BEN-TOR, D. 1998). Although their stratigraphic assignment is equivocal, royal names are attested at Byblos beginning with Senusret I, whose cartouche was found on a limestone fragment (WARD, W. A. 1971, 68, n. 272); Amenemhet II’s name appears on a bone cylinder (JIDEJIAN 1971, 25). Finally, despite its ancient prominence as a port, Byblos appears to have had a number of seemingly poorly protected shoreline and offshore anchorages (FROST 2002; FROST 2004; COLLINA-GIRARD, FROST, *et al.* 2002; STEFANIUK, MORHANGE, SAGHIEH-BEYDOUN, *et al.* 2005).

The Akkar Plain (petrographic Group E), which extends from northern Lebanon into modern Syria, has been the subject of regional surveys and extensive excavations at such key sites as Tell Arqa and Tell Kazel (BARTL 1998–1999; THALMANN 2000; 2002; 2006). Although a number of sites

apparently possess MB ramparts and quite a few rural sites are dated to the Middle Bronze Age (THALMANN 2006, 211–212, fig. 85), only the MB sequence of Tell Arqa has been excavated and studied in detail (THALMANN 2006). Only one imported example of Levantine Painted Ware was found in Stratum 14 (=Phase N) (THALMANN 2002, 373–374, fig. 8; 2006, 141, pl. 85:20). However, more substantial early MB IIA remains, including monochrome and bichrome Levantine Painted Ware are known from the tombs at the coastal site of Amrith (DUNAND, SALIBY and KHIRICHIAN 1954, pls. III:2, 4; TUBB 1983, fig. 1:3–4; BAGH 2000, appendix). In the absence of any coastal geomorphological studies it is impossible to assess the possibility of any anchorages among the MB coastal sites in this region (THALMANN 2006, pl. 2).

#### *Syrian Coast*

In this petrographic group’s (A2) region (COHEN-WEINBERGER and GOREN 2004, 71–73, fig. 1), Ugarit is undoubtedly the principal BA port of the Syrian coast, based on its geographical location, its anchorages, such as Minet el Beida, archaeological finds and textual references. However, much of the MBA city is known only from tombs and various objects found in later contexts (YON 2006, 16–17, fig. 5). Among the latter are a bead with the name of Senusret I, a sphinx in the Temple of Baal and a statue of Khnumet, daughter of Amenemhet II and wife of Senusret II (YON 2006, 16–17). Nevertheless, re-examination of the finds from the Schaeffer excavations stored at the Louvre enabled BAGH (2000, 118–123) to catalogue 39 LPW vessels or fragments thereof, many of which were not always clearly assigned by the excavator. Band line decorations appear in both monochrome and bichrome although sometimes two shades of red can be discerned creating a “bichrome impression” (BAGH 2000, 119).

Although the southern limit of petrographic group A2 is the port of Latakia (COHEN-WEINBERGER and GOREN 2004, 71–73, fig. 1), the Jableh

<sup>91</sup> Among the MB IIA contexts she considers are the Obelisk Temple and its jar deposits (SAGHIEH 1983, 18–20, 24, fig. 7–7b, pl. XLI:15979); the *Champ des Offrandes* temple and Enceinte Sacrée MBA jar deposits (SAGHIEH 1983, 31, 35, 38–9, figs. 9, 11, 12b, pl. XLI:10585); the *Temple Syrien* (or *Batiment II*) and its jar

deposits, including the Montet Jar (SAGHIEH 1983, 50–1, 57–8, fig. 13). These are assigned to her Period H, along with other stray MB IIA finds, such as LPW dipper juglets and an isolated jar deposit (SAGHIEH 1983, 5, figs. 1:12472, 4:10882, pl. XLI:18903).

(Gabra) coastal plain of Syria south of Latakia, which is considered the southern extent of the kingdom of Ugarit in the Late Bronze Age (YON 2006, 9, fig. 6), should also be considered. Excavations at two potential ports, Tall Sukas (THRANE 1978) and Tall Daruk (OLDENBURG and ROHWEDER 1981) both produced early MB remains. Tall Sukas is situated on a promontory between two natural bays (LUND 1986, fig. 2), but no details of their viability as anchorages are available. Although the MB finds have yet to be fully published, the earliest MB IIA stratum (layer 18) is dated by a burial (LUND 1986, 16). This so-called collective grave contained numerous examples of monochrome and bichrome Levantine Painted Ware that were found in Level 3 of the tomb (THRANE 1978, figs. 72:79, 80:80–83, 85:85, 88, 91, 92:92–94).<sup>92</sup> Tall Daruk, which is located at a possible river mouth anchorage of the Nahr Sinn (OLDENBURG and ROHWEDER 1981, 6, fig. 52), produced sherds of monochrome, but, principally, bichrome Levantine Painted Ware in a number of MB levels (OLDENBURG and ROHWEDER 1981, figs. 29:79, 80, 30:84, 86, 87, 89, 91, 38: 79, 80).<sup>93</sup> In addition, recent excavation at Tell Tweini, which is 1.7 km up the once navigable Rumailiah river, has produced possible early MB IIA remains (BRETSCHNEIDER, AL-MAQDASSI, *et al.* 2004, 217–218). However, until this region is defined petrographically (COHEN-WEINBERGER and GOREN 2004, fig. 1), the relationship between these important finds and those imported to Egypt will remain unclear.

### Summary

Thus, despite the lack of any additional contemporary textual evidence for foreign relations with which the Mit Rahina inscription might be compared, the archaeological record provides a suffi-

cient body of material evidence for assessing the maritime “events” described in the text and interpreting them within a broader context. For example, the Tôd Treasure may be seen as a reflection of the types of endowments or tribute that may have derived from royal, or royally sanctioned, commercial expeditions. Conversely, the finds from ‘Ezbet Rushdi provide an insight into the contemporary Deltaic ports or interfaces through which such expeditions may have passed. The material “drop off” found there offers an archaeological and petrographical imprint of other Levantine regions that may have been visited and those that directly or indirectly provided goods. Despite the text’s reference solely to the Lebanon, it may be envisioned that these voyages were a form of cabotage wherein ships leaving the Delta may have made land fall somewhere along the southern coast of Israel (Tell el-Ajjul or Ashkelon?) and the Carmel coast (Tels Dor, Nami or Megadim) before they reached their final destination in Lebanon and Syria. The possibility of relations with all of these regions has implications far beyond the immediate events under discussion.

### THE BROADER IMPLICATIONS OF THE MIT RAHINA INSCRIPTION AND THE ARCHAEOLOGICAL FINDS FROM AMENEMHET II’S REIGN

If the maritime-oriented events detailed in the Mit Rahina text and the archaeological evidence from Egypt and the Levant – at least that which can be synchronized with the finds from ‘Ezbet Rushdi Phase e – had spanned the entire Middle Kingdom, they would naturally have been considered simply individual manifestations of the long term relations between Egypt and the Levant. However, as this evidence may be associated with a fairly distinct period in the 12<sup>th</sup> Dynasty, namely the reign of Amenemhet II, they might better

<sup>92</sup> In her analysis of this assemblage, BAGH (2000, 113–117) correctly assigns it to the MB IIA phase, but her correspondence with Aphek Phase 3 should only be considered with regards to the sealing of this phase. Many of the types that she considers early (BAGH 2000, 116) do not appear in Aphek Phase 3 and would be best placed in Aphek Phase 2, or, better, Phase 1 (BECK 1985; KOCHAVI and YADIN 2002). This assemblage appears much more likely to represent a mixture of five interments (THRANE 1978, 21–29) spanning a number of MB IIA phases.

<sup>93</sup> A single radiocarbon determination of a charcoal sample of wood (*Quercus sp.*) from MB Layer 32 produced a date of 3660±110 (OLDENBURG and ROHWEDER 1981, 67; TAUBER 1973, 109). Recalibrated, this low precision measurement produces a broad range of 2450–1700 BCE (2 sigma) and 2200–1890 (1 sigma), which while consistent cannot be a conclusive arbiter for the calendrical date of these finds.

be considered to be related parts of a political and economic process of broader significance. In particular, they may shed light on the juncture and circumstances at which contacts between Egypt and the Levant were restored in the Middle Kingdom, the character of Egyptian foreign trade during this period, and the possible impact of these developments on the transformation that the Levant was undergoing in the early Middle Bronze Age.

### The resumption of Egyptian relations with the Levant in the Middle Kingdom

The reestablishment of unified rule in Egypt under the Middle Kingdom has long been considered a return to patterns already well-established in the Old Kingdom (HAYES 1971, 468; KEMP 1983, 71). When, precisely, foreign relations with the Levant and the eastern Mediterranean resumed has up until now been somewhat unclear. A review of the currently available evidence will demonstrate that Amenemhet II's reign may very well represent a watershed in this regard.

In the interval between the collapse of the Old Kingdom, when Egypt's relations with Byblos cease and prior to the 12<sup>th</sup> Dynasty, the textual

record is somewhat vague regarding relations with the Levant and the origin of foreign materials.<sup>94</sup> Moreover, since WARD's study (1971), no detailed review of FIP imports to Egypt has been made. Cedar, some imported ceramics, bronze and silver all attest to sporadic contacts with the eastern Mediterranean.<sup>95</sup> In the twenty-fourth year following the founding of the 12<sup>th</sup> Dynasty, Amenemhet I's general, Nesumontu, engaged in attacks against peoples to the north and east (i.e., Asiatics), against their fortresses and against "sand dwellers" (BREASTED 1906, §470-§471; WARD 1961, 38; REDFORD 1992, 77). Beni Hasan tomb No. 14 of Khnumhotep I, who was a contemporary of Amenemhet I, includes a martial scene that depicts different groups of foreigners, among them bearded, weapon-brandishing Asiatics (NEWBERRY 1893a, 84-85, pl. XLVII). An inscription from this tomb also records a naval expedition to Upper Egypt involving twenty ships of cedar and attacks against Asiatic groups (NEWBERRY 1893a, 84, pl. XLIV; BREASTED 1906, §463-§465; WARD 1961, 38; REDFORD 1992, 74). In addition to the aforementioned inscription of Senusret I from the Temple of Montu, he himself is described as "one who severs

<sup>94</sup> During the First Intermediate Period, there is a reference to an offering of *sft* oil and a door of *ʕ* wood (WARD 1971, 49-50). Under Mentuhotep II, texts and pictorial scenes continue the familiar "smiting of the Asiatic" formula, along with a military campaign to the *Qedem* (eastern) lands and a presumably sea-borne expedition to the "cedar slopes" to cut wood (WARD 1971, 58-62, fig. 8; REDFORD 1992, 69-70; HAYES 1949, 46, n. j). The tomb of Antef includes a rare depiction of the siege of a fortified Asiatic stronghold (ARNOLD and SETTGAST 1965, pl. 2), and a riverine engagement (SETTGAST 1969), but the location of this walled settlement and the engagement are unknown and the former could be a continuation of an OK artistic idiom (SCHULMAN 1982, 168-170, 179). REDFORD (1992, 70) notes the Eleventh Dynasty attack on the Asiatics of *Dʒty*, a toponym that he associates with the Jordan Valley despite the reference to "sailing with the south wind". The acquisition of coniferous timber may be reflected in a funerary stela that mentions a coffin made of fresh *ʕ* wood (WARD 1971, 62) and an expedition by Henu, who records the building of a "Byblos-ship" for a voyage to Punt (BREASTED 1906, §432-§433; SÄVE-SÖDERBERGH 1946, 48), although the precise construction material is unspecified.

<sup>95</sup> Although there is no precluding a re-use of previously imported products at the beginning of the period, the later textual and archaeological evidence suggest that fresh goods were imported, albeit in limited quantities. Cedar was used for the construction of boxes and coffins, and a model was made of an unidentified conifer (LUCAS and HARRIS 1989, 430-432; WARD 1971, 62; DAVIES 1995, 146-147, n. 31, table 1, pl. 10:1). Some ceramic forms of southern Levantine or Syrian origin or inspiration are found in the Delta and Upper Egypt (SHAHEEN 1992; BIETAK 1996, 9). Copper, which was most likely imported via northern Sinai, but could have come from regions further to the north, was used for a range of objects, including a bowl, a statuette, epsilon axes, and plaques (WARD 1971, 51-54, fig. 7; HAYES 1953, fig. 92; 1971, 464; LUCAS and HARRIS 1989, 219; SHAHEEN 1990; GARENNE-MAROT 1984, 116-117). The statuette may be bronze (LUCAS and HARRIS 1989, 210) and, indeed, analyses of FIP tools and weapons indicate sporadic examples of tin-bronzes (GARENNE-MAROT 1984, 117; DAVIES 1987, 24, passim; COWELL 1987, 98-99, table 2b). Some silver finds are also reported (LUCAS and HARRIS 1989, 246). Finally, WARD (1971, 54) reports a lapis lazuli bead, which is one of the materials acquired in a recorded expedition to the Sinai.

the neck of those who are among the Asiatic” (ROWE 1939, 188–191; POSENER 1971, 538, 540). His vizir Mentuhotep was “one who pacifies the sand dwellers,” a written allusion, perhaps, to the vanquished Asiatic depicted on a block from his regent’s funerary temple (POSENER 1971, 538). In the tomb of Amenemhat (No. 2), who was buried in the forty-third year of Senusret I, Asiatic soldiers also appear in a battle scene, which may or may not be part of scene depicting the siege of a fortified city (NEWBERRY 1893b, 24, 32–3, pls. XIV, XVI; SCHULMAN 1982, 176–178). In addition to the Mit Rahina inscription, a brief reference exists of Asiatic cattle brought during the reign of Amenemhet II or III (BLACKMAN 1915).

Finally, regardless of whether the Tale of Sinuhe is a historical autobiography or a dreamlike fantasy-nightmare (PARKINSON 1997, 21–26), a few aspects of this characterization of the early 12<sup>th</sup> Dynasty are relevant to the present discussion. First, the mention of Egyptian emissaries in the Levant and that Egyptian was spoken (PARKINSON 1997, 29, 32; SIMPSON 2003b, 57, 59; QUIRKE 2004, 59–60) reflects the security they enjoyed and the degree of interaction that was maintained. The laconic reference to Byblos (PARKINSON 1997, 29; SIMPSON 2003b, 56; QUIRKE 2004, 60) is perhaps more revealing than it seems. The reasons for the fleeing Sinuhe’s avoidance of Byblos, Egypt’s traditional Levantine commercial counterpart and the most Egyptianized center abroad have ranged from that of a fugitive evading the Egyptian sphere of influence (ALBRIGHT 1928, 225) to a more literary allegory wherein his dearest intention – to find the best substitute Egypt – was denied him in exile, owing to circumstance and his own failings (GOEDICKE 1992, 30–35; PARKINSON 1997, 23). If, indeed, the Tale of Sinuhe was composed shortly after the reign of Senusret I (PARKINSON 1997, 21), the total absence of this toponym in the Mit Rahina inscription is conspicuous, particularly given the detailed description of the expeditions and the arriving tribute. Although Byblos might have been mentioned in a later unpreserved entry, clearly, when the extant portion of the text was recorded, i.e., during Year 3 of Amenemhet II, there were avenues available to the Egyptians for the procurement of Levantine products, including the much coveted cedar, that did not involve Byblos (*contra* WARD 1971, 67–68; BEN-TOR 1998, 14–15). Moreover, even the ships employed are not “Byblos-ships”,

although this type is known already from the third millennium BCE and in the early 12<sup>th</sup> Dynasty.

The archaeological evidence, too, offers little unequivocal evidence for such early contacts. As noted above, the earliest 12<sup>th</sup> Dynasty royal nomen at Byblos, Senusret I, lacks a secure context. That leaves the Montet Jar scarabs as the earliest stratified 12<sup>th</sup> Dynasty finds attested at Byblos, which are paralleled by sealings from the site of Abu Ghâlib (BEN-TOR 1998, 14–15). These sealings are dated by pottery of the so-called “transitional style,” which precedes the classic MK pottery that develops in the middle or later years of the reign of Senusret I or even Amenemhet II, as established by parallels from the foundation deposits of the former’s pyramid at Lisht (BEN-TOR 1998, 14 following ARNOLD 1988, 143–146). In support of this claim, BEN-TOR (1998, 14) notes a comparable date for the Abu Ghâlib pottery based on Tell el-Dab<sup>ca</sup> Area F/I, levels e/1–3 (BIETAK 1991, 31). However, she fails to note Bietak’s caveat regarding the terminus ad quem for Abu Ghâlib in the reign of Senusret II (BIETAK 1991, 31, n. 7). Although some doubt exists regarding the validity of the cylinder seal of Senusret II that provides this lower bracket, some ceramic forms may date as late as the *end* of the 12<sup>th</sup> Dynasty (BAGH 2002a, 39–41, 43–44). Thus, it is unclear how long the pottery and the scarab sealings continued in use. BEN-TOR herself (1998, 12) notes that,

“The exact date of the beginning of mass production of Middle Kingdom scarabs cannot be determined at this point of scarab research ... The Montet Jar scarabs, displaying stylistic features and designs which precede the Middle Kingdom groups, should therefore be placed within the range of the early Middle Kingdom, somewhere during the late 11<sup>th</sup>–mid 12<sup>th</sup> Dynasty.”

As there is no clear delineation of where “early” ends and “middle” begins (BEN-TOR 1998, n. 4), the date of production of the Montet scarabs and their arrival at Byblos cannot be further refined. Regarding the deposition of this assemblage, as with any archaeological context, it is axiomatic that the latest material must be considered the definitive dating criterion. While the jar itself is clearly an example of the early monochrome red Levantine Painted Ware (see BAGH 2000, 95–99 and discussion above), the latest date

comes from the jar's cylinder seals, which are dated by PORADA's (1966) to the 19<sup>th</sup> century BCE (middle Mesopotamian chronology). Few scholars have taken note of this factor in their assessment of this assemblage (BIETAK 1991, 54, n. 34; LILYQUIST 1993, 38–41) and it should be considered valid until otherwise superseded.<sup>96</sup> This archaeological and chronological reality, however, does not detract from the antiquity or the significance of the Montet Jar scarabs as the earliest evidence for contacts between Egypt and Byblos.<sup>97</sup>

The notion that relations with Byblos resumed immediately with the reunification of Egypt does not seem to be supported by the currently available evidence. Other than the Tale of Sinuhe, of which actual copies are known from Amenemhet III's time onwards (PARKINSON 1997, 21), the earliest MK mention of Byblos appears to be in the Mirgissa Execration texts, a fortress which was in use during the reigns of Amenemhet II and Senusret II (KOENIG 1990, 102, 111). In addition, an unpublished text from the mastaba tomb of Khnumhotep III at Dahshur (Senusret III), son of the noted Khnumhotep II of Beni Hasan, which is being studied by J. ALLEN and recounts a conflict involving Byblos and Ullaza (WIMMER 2005, 131; RAINEY 2006, 281–282, 285). Thus, formal contacts between Egypt and Byblos may even post-date the events detailed in the Mit Rahina inscription. Perhaps, at this point in time, Egypt's interests and activities in the Levant may have been geographically broader than previously supposed (EDER 1995, 183–184, 188–189, 194). Beyond the general reference to *Hnty-š*, the localization of the toponyms of *Iwii* and *Ibsii* in the northeastern

Mediterranean and Cilicia gains external support from SCHNEIDER's reanalysis (2002) of the toponyms in Sinuhe B219–222. Among his identifications are a reference to the “king of Qatnah”, which uses a Semitic title; “the rulers of the south of Kauzza land”, which employs a Luwian title and may indicate an early reference to Kizzuwadna (Cilicia); and “the sovereigns of the two lands of the Fenekhu”, which employs a Hurrian term. His new reading of the statement that follows these terms, “Die Gewährsmänner der Titel sind Herrscher, die in Loyalität zu dir existieren”, suggests to him a parallel in, *inter alia*, the arrival of foreign tribute of the Mit Rahina inscription (SCHNEIDER 2002, 268–269, 271–272). These toponymic references in the northern Levant lend credence to Quack's identification of Yamhad in the Mirgissa Execration Texts (QUACK 1992). Thus, Egypt's military expedition to *Iwii* and *Ibsii* and its “involvement” in the later conflict between Byblos and Ullaza may represent a projection of power on a geographical scale heretofore unimagined in the Middle Kingdom.<sup>98</sup> If such is the case, perhaps the superlatives associated with early MK rulers should not be considered exaggerations.

#### Aspects of Egyptian foreign trade

While the projection of power by the Egyptian royal court into the eastern Mediterranean probably served domestic ideological and religious purposes that strengthened the authority and legitimacy of the Egyptian king, the concomitant procurement of foreign goods was an important material reification and reminder of the econom-

<sup>96</sup> Some of the metal vessels in the Montet Jar also suggest later dates, based on parallels with examples in stone at Ebla, but while these could be the latest material in the jar, they also could be earlier metal prototypes (BAGH 2000, 98–99).

<sup>97</sup> At the risk of generating discord in the chronological harmony of the House of Ben-Tor, should the new low Mesopotamian chronology be accepted (BEN-TOR 2004), it would certainly have an effect of lowering the date of the cylinder seals by the very same amount of time (ca. 100 years). Thus, unless MK Egyptian chronology is also shifted downwards, a significant extension of the lifespan of the MONTET Jar scarabs would be required. Moreover, some explanation would be required as to how no mid-MK scarabs appear in the assemblage.

<sup>98</sup> Typically, with the exception of sealed deposits at Byblos, many of the 12th Dynasty Egyptian objects and statues in the Levant found in later contexts are assumed to have arrived after the Middle Kingdom (see discussion in AHRENS 2006, 25–27). However, in light of the increasing evidence for (early) 12<sup>th</sup> Dynasty activities, perhaps it is not unreasonable to assume that some objects, such as the statue of Khnumet, daughter of Amenemhet II, from Ugarit (CAUBET and YON 2006, 88, fig. 2), that of his daughter Ita, at Qatnah (AHRENS 2006, 26–27), or even the examples from Central Anatolia (ALLEN 1929) and Cilicia (AHRENS 2006, n. 66), were originally exported during the 12<sup>th</sup> Dynasty.

	L	D		Total volume (m <sup>3</sup> )	Total weight (kg)	Potential number of coffins	Potential number of Dashur size ships	Potential number of Cheops size ships
Cedar Trunks	23	1.5		9471	5,255,088	43,050	5255	138 (105)
		2.4		24,023	13,453,026	109,195	13,453	354 (269)
	10	1.5		4080	2,284,821	18,545	2284	60 (46)
		2.4		10,445	5,849,142	47,477	5849	154 (117)
	5	1.5		2040	1,142,411	9,273	1142	30 (23)
		2.4		5222	2,924,571	23,736	2924	77 (58)
	2	1.5		816	456,904	3,709	456	12 (9)
		2.4		2089	1,169,828	9,495	1169	31 (23)
Cedar Planks	L	W	Th					
	23	0.40	0.08	170	95,209	773	95	2 (1)
			0.15	318	178,517	1445	178	4 (3)
	10	0.40	0.08	74	41,395	336	41	1
			0.15	139	77,616	632	77	2 (1)
	5	0.55	0.08	37	20,697	168	20	<1
	2	0.55	0.08	15	8279	68	8	<1

Table 4 Building potential of the cedar cargo from *Hnty-š* (estimates for requisite raw material are derived from WILLEMS 1996; WARD 2000; STEFFY 1994). For the Cheops boat, the higher value is based on the net weight of the boat and that in parenthesis is based on Steffy's estimate for gross raw materials

ic capacity of the crown. Given the royal nature of the evidence for Egyptian foreign exchange it is not surprising that, typically, such activity is subsumed within the long tradition of tribute giving (BAGH 2006). Unfortunately, the Middle Kingdom is lacking in the types of pictorial depictions of tribute bearers that are common in other periods, leaving only the textual descriptions of such activities from the Mit Rahina inscription (BAGH 2006, 17). The text further distinguishes between goods procured abroad and those received as tribute at home. Thus, it is feasible that part of Egyptian exploitation of foreign sources was commercial, however coerced that exchange may have been.

It seems likely that the Egyptians had foreknowledge that the materials they coveted were available in the Levant. This knowledge may have been part of long standing traditions and perceptions going back into and before the Third Millennium BCE or the result of previous unrecorded MK expeditions and contacts. The obtaining of some of these items may have been without prior design, but given the logistical complexities of timber procurement (viz. The Tale of Wenamun) assuring availability of the principal cargo

may have required prior negotiation before the expedition to *Hnty-š* set sail. In addition to timber and other more commonly known trade items, EDER (1995, 184) suggests a commercial role for physicians in such expeditions as medical relief for the crew and in the selection and purchase of exotic medicines and remedies. WIENER (1987, 264, n. 30) notes the importance of such trade items in various historical periods. These may very well be the types of contents that originally were held in many of the small Levantine (LPW?) jugs and juglets found at 'Ezbet Rushdi, and elsewhere, and even depicted in MK Egypt (BAGH 2006, 17).<sup>99</sup>

Upon arrival in Egypt, some of imported goods that were presented at court were redistributed as tribute to various state institutions and individuals (M21–M26). Unfortunately, there is no one-to-one correspondence between the imports and the distributions in what SHAW (1998, 250) calls a "detailed balance sheet of economic activity." Some of the foreign goods do not appear in the extant portions of the distributions; the procurement of others is not recorded. Moreover, some of the items are imported by weight and then distributed by number of items, or vice

<sup>99</sup> The same could be said for MC jars and juglets.

versa. It is also not clear, for example, whether the 73 trunks (?) of cedar given as tribute from *Hnty-š* are derived from or in addition to the expedition cargo. Such disbursements of imports to the state administration might have been used for terrestrial construction activities (doors, floors, roofs, etc.) or served to provide ship timber for subsequent Mediterranean maritime expeditions or for Red Sea voyages out of the port of Wadi Gawasis, as is documented in the of Khentketwer stela from Amenemhet II's 28th regnal year (BREASTED 1906, 275, §604–605). The significance of royally imported timber also may have filtered down through gifts and endowments to the nobility, who were commonly buried in cedar coffins during the Middle Kingdom (DAVIES 1995). The potential use of the cedar cargo from *Hnty-š* is simulated in Table 4. Note that even the minimum import scenario, 2 m planks, would have resulted in a significant quantity of coffins. Thus, the capability to plan, finance, and execute such expeditions, whose “fruits” had such a direct impact upon the burial traditions of the nobility must have had an enormous effect on the prestige and power of the king.

#### The potential impact of Egyptian interests on the Levant

While the concomitant social, cultural and economic processes that occurred in the Levant of Amenemhet II's reign are beyond the focus of the present work, it would be remiss not to mention at least some of the ways in which the Mit Rahina inscription, and other evidence discussed above, may shed light on developments along the eastern Mediterranean littoral. First and foremost, that significant amounts of accumulated materials and finished goods were available in certain northern Levantine and, possibly, southern Anatolian coastal cities, is implicit in the finished goods and raw materials imported to Egypt. Archaeological investigations still only provide a limited picture of this early phase of Levantine coastal history, but some serendipitous material evidence does exist for the types of raw materials that are listed in the Mit Rahina inscription and found in the Tòd Treasure. Among the more precious materials listed is silver of which quantities were clearly available in the early MB IIa northern Levant, particularly at Byblos (TUFNELL and WARD 1966), but also at Beirut (SAIDAH 1993–1994, 188, pl. 1:1–2), Sidon (DOUMET-SERHAL 2004b) – an example of which

apparently derives from Anatolia (VÉRON and LE ROUX 2004) – and token amounts at Nahariya (BEN-DOR 1950, 40) and Kabri (SCHEFTELOWITZ 2002, 31, fig. 4.15). In which sites was the requisite level of economic complexity reached to an extent that Egyptian could find a trading partner willing and able to supply this precious metal is unclear and need of research, although there is certainly some evidence to suggest that, in the northern Levant, the process began before the events of the Mit Rahina inscription and seems to have preceded similar developments in the southern Levant (VAN LOON 1992). However, beyond the ceramic evidence suggested above for southern Levantine ports-of-call, the Mit Rahina inscription and finds from Tel Ifshar suggest that maritime developments between Egypt and the northern Levant were already having their impact on the southern Levant at this time. The possible import of terebinth resin (*sntr*) indirectly or directly from the southern Levant, perhaps via the Carmel Coast, could indicate that groups there were exploiting and trading valuable commodities that were entering the nascent eastern Mediterranean maritime network, where they were destined for the Egyptian market. In addition, the appearance of cedar timber already in the earliest substantial MB IIa level (B) of Tel Ifshar, which also contained still unstudied Egyptian ceramic imports together with early Levantine Painted Ware and other ceramics (see above), all demonstrate a connection with both Egypt and the northern Levant at this site's incipient stage of settlement. Thus, if longshore maritime trade had an impact on the development of urban culture, and influenced the trajectory of the predominantly coastal settlement of the MB IIa southern Levant, in ways that STAGER's “Port Power” (2001; 2002) or other models suggest (MARCUS 1998; 2002b), its origin can be traced back, at least, to the reign of Amenemhet II.

#### CONCLUSIONS

In its maritime context, the Mit Rahina inscription containing portions of the Annals of Amenemhet II, together with the contemporary archaeological comparanda from Egypt and the Levant, offer a new perspective on the scope of Egyptian relations with the Levant in the early 12<sup>th</sup> Dynasty and of the means by which these contacts were affected. The evidence suggests that, by the inauguration of Amenemhet II's reign, Egyptian foreign relations were characterized by a combina-

tion of military and commercial activities with the northern Levant (Lebanon, Syria and possibly Cilicia), in general, and only later in the 12<sup>th</sup> Dynasty is the traditional relationship with Byblos renewed. Whether these early contacts included Cyprus remains an open question.

Regardless of the nature of the contacts detailed in the annals under discussion, it is clear that the Egyptians were cognizant of the advantages of maritime transport for commercial and, if the meaning of the boat determinative associated with the expedition to *Bw* of *Stt*, for military purposes, as well. The latter should not be of any surprise, as the projection of military might by sea is documented already by the end of the Old Kingdom. The imported cargo detailed in the “bill of lading” or “cargo manifest” from *Hnty-š* demonstrates Egypt’s capacity to transport large quantities of goods and bulk items. In particular, the shipment of cedar, which may have been the principal incentive for the commercial expedition to the northern Levant, may have been so voluminous as to require some reevaluation of the size of Egyptian and Bronze Age ships.

When synthesized with the archaeological evidence from the Tôd Treasure, the finds from ‘Ezbet Rushdi, and those from the Levantine coast, the Mit Rahina inscription suggests that during the reign of Amenemhet II maritime trade in the eastern Mediterranean experienced a major leap forward in geographical scope and scale. Although there is evidence to suggest that earlier 12<sup>th</sup> Dynasty contacts with the Levant may have existed, and it is feasible that much of what was accomplished by Amenemhet II was predicated on previous efforts of his father, to date, the finds

that may be associated with his reign represent the beginning of demonstrable Egyptian imports from the Levant and the Aegean. While these finds are far from the quantities of ceramic imports evident in the latter part of the 12<sup>th</sup> Dynasty (ARNOLD, ARNOLD and ALLEN 1995; BIETAK 1996), qualitatively, they certainly indicate that a significant material wealth was flowing into Egypt from the North. In Egypt, this wealth may have had a significant social impact on the prestige of the king among the nobility and downwards. Abroad, along the eastern Mediterranean littoral, this trade may have been a catalyst that spurred maritime ventures, coastal settlement and urbanization.

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