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EGYPT IN THE EASTERN MEDITERRANEAN DURING THE OLD KINGDOM: A RE-APPRAISAL OF THE ARCHAEOLOGICAL EVIDENCE

Karin N. Sowada

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ABSTRACT

For many years, the question of Egyptian interaction in the Eastern Mediterranean during the Old Kingdom has been a neglected area of study. While the inscriptions are well known and have been much debated, the archaeological record is more ambiguous, particularly in relation to Egypt’s role in Canaan. This dissertation examines the archaeological evidence for Egyptian interrelations in the Eastern Mediterranean during the Old Kingdom, by re-assessing material from older excavations and introducing new evidence from recent archaeological work.

The dissertation begins with an historical survey of the debate over Egypt’s role in the Levant during the 3rd to 6th Dynasties. To date, Egyptian inscriptions have largely shaped the debate, with scholars in basic agreement over the primacy of Byblos. However, division has emerged over the role of Egypt in Canaan with the ambiguous textual and archaeological evidence pointing to a series of possible conclusions ranging from overt Egyptian administrative control to no contact at all with the region.

Chapter 2 examines the role of Egypt in the Levant during the 4th and early 3rd millennium BC, to set the Old Kingdom/EB III in archaeological, historical and political context. This study shows that the pattern and networks underpinning Old Kingdom interrelations were established during the EB II. Recent archaeological and scientific data from the period helps illuminate the precise nature of the EB commodities trade and Egypt’s demand for products from Canaan and the coastal Levant. In Canaan, the Egyptian presence evident in the EB I b strata of southern Canaan disappears during the reign of Aha. However, the sea-borne ‘Byblos run’, shipping coniferous timbers in large quantities for elite consumption begins at this time, commencing a tradition that continued for much of the 3rd millennium. The geographical focus of commodity acquisition also shifts north, to the Galilee and northern Canaan/Mount Hermon, a change linked to the development of the coastal trade route. The appearance of fortified centres and elites in Canaan presents a different political and economic climate for Egyptian rulers, illustrated by the
appearance of stone vessels at a number of sites. These vessels begin a tradition of elite gift exchange in prestige items evident elsewhere in the Levant.

Archaeological evidence for Old Kingdom/EB III interconnections is then presented in three separate chapters. Chapter 3 presents imported material found in Egypt. The largest class of object is imported ceramics, primarily Combed Ware jars, used as containers for various liquid products. Cedar imports are also attested in significant quantities, particularly in the Early Old Kingdom. Chapters 4 and 5 cover Canaan and the northern Levant respectively, presenting Egyptian material found at various sites. It will be seen that while the quantity of material is greater in Syria/Lebanon, reflecting the importance of relationships with Egypt, a significant amount previously undocumented *aegyptiaca* is present in Canaan. These objects are durable manufactured goods. Moreover, at Byblos, many of the objects traditionally used to underpin Egypt’s relationship to the city, and the local Baalat Gebel cult in particular, are out-of-context, thus reducing the value of this material as evidence for Egyptian foreign relations in the Old Kingdom.

In Chapters 6-8, specific Egyptian imports and exports are examined in more detail. Chapter 6 looks critically at the imported pottery in Egypt. The chronological and geographical distribution of these jars is re-examined, showing that only after the 4th Dynasty did imported ceramics filter beyond the royal cemeteries in the north. Moreover, as a ware, it will be seen the imports are not homogenous. This is also reflected in NAA data, which shows that some vessels come from southern Canaan in addition to Byblos. New PIXE-PIGME data is also presented, showing that products were also sought from northern Israel. This data reflects the continuation of EB II exchange networks and helps support other archaeological and textual evidence in Canaan pointing to a continued Egyptian relationship with the region during the Old Kingdom.

Chapter 7 explores the debate concerning the nature of individual commodities underpinning Old Kingdom/EB III trading networks, using both archaeological and textual/artistic material. The key import was coniferous timbers and their by-products, but many other commodities were also obtained, such as lapis lazuli, copper, exotic animals, raw stones and human resources. However, despite the
assumptions made in the literature about the products traded, wide gaps exist in the archaeological and literary record, which could be filled by more detailed scientific analysis of raw materials and residues. Egypt’s exports were probably of a perishable nature, thus leaving no real trace.

Chapter 8 examines Egyptian and Egyptianising manufactured goods found in the Levant, focusing on stone vessels, palettes, maceheads, beads and ceramics. Stone vessels found outside Egypt in EB contexts, including those from Ebla and Byblos, should be regarded as elite gift exchange or trade items. The same explanation can be given for other Egyptian goods. It is also possible that some of these items represent a down-the-line exchange in Egyptian exotica. The archaeological context of Egyptian and Egyptianising objects in the Levant is canvassed, showing that such objects and their association with the Egyptian state imbued them with importance in the eyes of those elites who received them. The adoption of certain Egyptian architectural features shows that some Egyptian concepts and ideas were adopted for local use.

The dissertation concludes with a revised view of Egyptian interrelations in the Old Kingdom. The archaeological evidence, supplemented by textual material, demonstrates that while Egypt’s most important relationship was with Byblos, it was an active participant in the geo-political and economic affairs of Canaan throughout much of the 3rd millennium BC. Moreover it shows that Egyptian interaction in the Eastern Mediterranean fits the pattern of state-to-state contact between ruling elites which was underpinned by gift exchange, diplomatic ties and isolated military incursions.
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Karin Sowada
University of Sydney
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ABBREVIATIONS

Journal abbreviations are in accordance with the W. Helck, E. Otto and W. Westendorf, *Lexicon der Ägyptologie* (Wiesbaden, 1972-87)

BMFA = Boston Museum of Fine Arts
Br. = Breadth
Ch. = Chapter
cm = centimetre
D. = Diameter
EBA = Early Bronze Age
EM = Early Minoan
fig. = figure
Ht. = Height
IAA = Israel Antiquities Authority
L. = Length
LM = Late Minoan
MBA = Middle Bronze Age
MM = Middle Minoan
pl. = plate


Prov. = Provenance

Reg. No. = Registration Number

Th. = Thickness

Urk. = K. Sethe, Urkunden des Alten Reiche, Vol. 1, 2nd ed. (Leipzig, 1933)

W. = Width
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Prepared by Dr. P. Grave (University of New England) and Karin Sowada

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CHAPTER 1

STUDIES IN OLD KINGDOM FOREIGN RELATIONS:
A SURVEY

1.1 Introduction

Over the last twenty years, an increasing level of scholarly attention has focused on the question of Egypt's foreign relations in the Early Bronze Age. Much new evidence has been uncovered, radically altering our understanding of this period. New sites have provided a wealth of well-stratified material, helping place chronologies on a sounder footing. New archaeological data has also resulted in the re-assessment of discoveries made many years ago.

Most of this research has concentrated on Egyptian interconnections during the mid-late Early Bronze Age Ib (Naqada IIIa-c1) and to a lesser extent, the Early Bronze Age II (Early Dynastic Period). Little attention has focused on the archaeological evidence for foreign contacts during the Old Kingdom, equated with the Early Bronze Age III. The effect of this has been twofold. Firstly, our picture of Egypt's foreign relations still relies heavily on the textual record. Secondly, it has resulted in a failure to regard this period in the wider framework of the social, political and environmental changes that shaped relations between the two regions during the 4th and 3rd millennia (Gophna 1995b:277).

The lack of any new (published) discoveries in Egypt means that from the Egyptological side, the issue has simply fallen out of fashion. As a result, little new debate has occurred for the last 10 years. Relevant Egyptian inscriptions and archaeological data, discovered a century ago, have been thoroughly discussed, with Egyptologists on the one hand adopting a text-based approach, and Levantine
archaeologists trawling over the well-known material evidence. All agree that Egypt’s relationship with Byblos was pivotal, whereas wide disagreement exists over Egypt’s role in Canaan. Moreover, an apparent lack of Egyptian archaeological material in Canaan and corresponding material in Egypt has perpetuated the view that Egypt had little or no contact with Canaan throughout much of the Old Kingdom, apart from a handful of military skirmishes in the 6th Dynasty.

The purpose of this dissertation is to undertake a fresh analysis of Egyptian/Levantine interconnections from the perspective of archaeological data. Recent work on big EB III sites such as Tel Yarmouth, Bab edh-Dhra, Tel Halif and Ebla in Syria has unearthed a wealth of new material, adding significantly to the corpus of information. The application of new analytical techniques is squeezing revised conclusions from old objects. A small amount of new data has also been discovered in Egypt. When viewed alongside the fragmentary literary record and other well-known objects, it will be argued that throughout the Old Kingdom, Egypt continued to actively engage both Canaan and Syria/Lebanon in state-to-state trade and diplomatic activities. Indeed, Egypt’s connection with Canaan essentially continued the relationship established during the Early Dynastic Period/EB II, but with several fluctuations in emphasis and policy on the part of the Old Kingdom state.

1.2 Defining the parameters of this study
The issue of Egypt’s interrelations in the Old Kingdom could fill many more pages than those of this dissertation. Hence, several parameters must be established to more narrowly confine the present discussion.

Firstly, the term ‘Old Kingdom’ is used in its widest chronological sense, embracing the 3rd-6th Dynasties. Although little is known about the 3rd Dynasty (Gardiner 1961:72-6), historically and archaeologically, the period marks the advent of the developed Old Kingdom state (Kemp 1983:71-85; Grimal 1992:62-70). As Gardiner observed
[Djoser's] importance as founder of the new epoch is marked in the Turin Canon by the exceptional use of red ink (1961:72).

The 3rd Dynasty step pyramid, forerunner of the true pyramid of the 4th Dynasty, closely associates the artistic, architectural and political achievements of these two eras (Lehner 1997:13-4). Links between the 3rd and 4th Dynasties are further strengthened by the probable dynastic connection between Hetepheres, daughter of Huny (last king of the 3rd Dynasty), who became wife of Sneferu and mother of Cheops (Gardiner 1961:77-8). The reign of Pepy II marks the end of Manetho’s 6th Dynasty and is thus a convenient point at which to end our consideration of the evidence.

Secondly, for reasons of space our attention will focus on the Eastern Mediterranean. While recognising the importance of Egypt’s relationship with Nubia (Zibelius-Chen 1988; Eichler 1993; Gratien 1995 and references), Libya (Hölscher 1937; Spalinger 1979) and the Oases (Giddy 1987), these areas will not be discussed. However, certain textual sources pertaining to these regions are significant and will be added to the discussion.

Thirdly, although this dissertation deals with archaeological evidence, the material cannot be considered in complete isolation from the inscriptions (Adams 1964:102; Smith and Giddy 1985). Hence, evidence from other relevant texts and reliefs will be inserted into the discussion at various points, but it must be stressed that these will not, on the whole, be discussed in detail.

Fourthly, the term ‘Canaan’ has been used to describe the region occupied by modern Israel and Jordan (Gophna 1995b:272). In this context, use of the word ‘Canaanite’ does not imply any ethnic relationship to later Canaanite communities (but on this, see de Vaux 1971:234). Rather, the term is a convenient expression to separate the southern (Israel and Jordan) and northern Levant (Syria and Lebanon), thus avoiding use of clumsy expressions such as ‘southern southern Levant’ to describe the region of southern Israel and Jordan.
Fifthly, a detailed discussion of chronological synchronisms between Egypt and the Levant during the 3rd millennium could absorb much more space than can possibly be available and has therefore not been attempted (but see Kantor 1992; Stager 1992:40-1). Moreover, while the primary focus of this dissertation is the EB III, the term EB II-III will occasionally be used, owing to the difficulty of archaeologically separating these two phases (Stager 1992:35; Mazar 1992:109-110). The question of absolute dates is not an issue here, with dates following the sequence published by Shaw and Nicholson for the Old Kingdom (1995:310-12), and Adams (1995) for the earlier periods in Egypt.

Sixthly, this dissertation is not a detailed theoretical analysis of trade and its impact on the process of urbanisation in the Early Bronze Age (rather, see Renfrew and Cherry 1986; Esse 1989; Joffe 1993). However, Egyptian evidence in the EB III Levant suggests that state-to-state contact did have a particular impact on the communities with whom Egypt dealt, particularly in Canaan. These issues will be canvassed briefly in Chapter 8, but the wider topic of Egypt’s role in the process of secondary state formation requires a separate, more detailed study that is beyond the scope of the present work.

And finally, this dissertation will make repeated distinctions between archaeological material that is Egyptian, Egyptianising and local in origin. Understanding this question is critical to a correct identification and assessment of both the Egyptian archaeological evidence in the Levant, and local attempts to imitate Egyptian craftsmanship and appropriate the symbols of Egyptian culture. This issue is discussed in section 1.5.1 below.

1.3 The scope of this dissertation

Within the parameters established above, the research goals of this dissertation are to:
- define Egypt’s relationship with the Levant during the EB II, thus establishing the nature of Egypt’s role in the region at the beginning of the EB III;
- identify and present imported archaeological material in Old Kingdom Egypt;
• identify and present Egyptian archaeological material in EB III Canaan and the northern Levant;
• using this information, develop a picture of the geographical and chronological scope of Egypt’s foreign relations during the Old Kingdom, particularly with Canaan;
• focusing on materials analysis, establish the precise nature of the Egyptian/Levantine commodities trade, both in terms of commodities traded and the geographical origins of these products, with special reference to the large corpus of imported ceramics in Old Kingdom Egypt;
• establish the nature and extent of the trade in manufactured goods, such as stone vessels, the extent of any local Egyptianising tendencies and any implications for the character of Egypt’s relationship with foreign elites.

The dissertation begins with a general survey of the debate over Egypt’s role in the Eastern Mediterranean. A number of other key methodological issues are also canvassed.

Chapter 2 examines the role of Egypt in the Levant during the 4th and early 3rd millennium, to set the EB III in archaeological, historical and political context. It will be seen that the Early Dynastic Period/EB II is particularly important, with the pattern of Old Kingdom interconnections established during this time.

Archaeological evidence for Old Kingdom/EB III interconnections is then presented in three separate chapters. Chapter 3 catalogues imported objects, ceramics and raw materials found in Egypt. Items are grouped by site and presented in a catalogue format, with contexts, parallels and other observations discussed in detail. Chapters 4 and 5 cover Canaan and the northern Levant respectively, presenting Egyptian material found at each site in a similar fashion. Appropriate literary evidence is introduced at relevant points in the discussion to supplement the picture provided by the archaeological data. The evidence is summarised at the end of each chapter.
In Chapters 6-8, specific Egyptian imports and exports are examined in more detail. Chapter 6 looks critically at the imported Combed Ware jars in Egypt. The chronological and geographical distribution of these jars is re-examined. In addition to assessing previous scientific work on the jars, new PIXE-PIGME data on the origin of some vessels is presented. Chapter 7 explores the debate concerning the nature of individual commodities underpinning Old Kingdom/EB III trading networks, using both archaeological and textual/artistic material. Chapter 8 examines Egyptian and Egyptianising manufactured goods found in the Levant (as outlined in Chapters 4 and 5), focusing on stone vessels, palettes, maceheads and ceramics.

The dissertation concludes with a revised view of Egyptian interconnections in the Old Kingdom. The archaeological evidence, supplemented by textual material, will demonstrate that while Egypt's most important state-to-state relationship was with Byblos, it was an active player in the geo-political and economic affairs of Canaan, and other parts of the Levant, throughout much of the 3rd millennium BC.

1.4 Studies in Old Kingdom Foreign Relations

1.4.1 The problematic textual record

Studies on Old Kingdom Egypt's foreign relations over the last century have been characterised by a lack of securely stratified archaeological evidence on one hand, and a fragmentary textual record on the other. The Palermo Stone, a handful of denuded royal monuments, assorted 6th Dynasty biographical texts and illustrations from private tombs, rock inscriptions at the Wadi Maghara and other fragmentary texts comprise the relevant corpus of Old Kingdom royal inscriptions (Goedicke 1963a; Stevenson Smith 1971:201; for a summary of texts, see Redford 1986a). For the 3rd and 4th Dynasty, sources are particularly sparse (Stevenson Smith 1971:149).

One must assume that such inscriptions and narrative reliefs did exist, but have since been destroyed or re-used in later monuments (Gaballa 1976:21). This has been comprehensively demonstrated at the pyramid of Amenemhat I at Lisht, where blocks from a 4th Dynasty royal monument were found re-used as fill (Goedicke 1971:74-148;
Hawass 1995:231). The fragments reveal a range of scenes including archers drawing bows, an Asiatic woman carrying a child in a backpack and the upraised hand of a captive (Hölscher 1912; Goedicke 1971: no. 23, 47-49, no. 90, 46-7). These scenes are too out-of-context to be of real value, but they do indicate an extensive corpus of 4th Dynasty illustrations, now lost.

Despite these problems, the texts have dominated discussions of Egyptian foreign relations for the last 100 years (e.g. Erman 1882; Sethe 1933; Newberry 1938; Gardiner 1961:88-102; Stevenson Smith 1965a; Helck 1971:12-24; Edel 1981; Zibelius 1978; Schulman 1979; Roccati 1982; Redford 1986a and references; Wright 1988; Valbelle 1990; Piacentini 1987, 1990; Eichler 1993). However, the documentary record, by its patchy nature, poses a range of problems thus hampering attempts to more fully understand the historical events of the era (Gardiner 1964:55). Moreover, owing to problems of preservation, few documents on papyrus have survived (Gardiner 1961:60; Stevenson Smith 1971:148-9). The lack of royal documents and the inherent bias of those that do exist has led to many questions and debates about the historicity of certain events, the identification of toponyms and the recognition of specific words for individual commodities.¹

In addition to fulfilling a decorative role, royal inscriptions and accompanying images served to promote state mythology, royal legitimacy and politico-religious propaganda (Adams 1964:102; Hoffmeier 1992; Baines 1995a:9-19; Silverman 1995). From the Early Dynastic Period onward, representations of foreigners and the king’s victory over them helped demonstrate the divine nature of kingship and later became part of the standard iconography of royal power (Petrie 1900:pl. 17.30; Petrie 1901:pl. 3A,B9; pl. 4.B14; Stevenson Smith 1971:185; Hawass 1995:249). These images demonstrated the king’s eternal being, his transcendence over time and space, and the everlasting ritual triumph over the forces of chaos (Gaballa 1976:21; Baines 1995a:13-4). The king’s symbolic victory over Egypt’s enemies is further illustrated by the trend of Old Kingdom rulers to include statues of bound foreign captives in their burial complexes (Borchardt 1907:42, fig. 24; Quibell 1909:113, pl. 56; Firth and Quibell 1936:pl. 57;
Given the highly symbolic nature of all these representations, it is questionable whether many can be regarded as evidence for actual military campaigns or other foreign expeditions (Roccati 1982:56-7; Wright 1988:156). For example, Pepy II directly copied reliefs from Sahure's funerary installations, depicting himself as the victorious king trampling his enemies, even copying the names of the Libyan chief's family (Gardiner 1961:57; Gaballa 1976:23-4; Hawass 1995:231, 250-1).² As Schulman observed

the reiteration of the same event by a series of kings removed in time and space from one another...is a clear illustration of [the]...royal myth, one major aspect of which was that any particularly noteworthy act of one king automatically became part of the royal persona, and every succeeding king felt constrained to repeat it...[Hence] as the record of a specific historical event it is of dubious, if any value, and because of its very dubiousness, we are virtually compelled to question the historical reliability of all the other scenes of the same king, at least in the same context and the same temple (1979:88).

Hence, Old Kingdom royal funerary reliefs, rather than necessarily depicting historical events, served the purpose of legitimating and supporting the ideology of kingship (Wright 1988:156; Baines 1995a:9-19). Standard genres were established during the reign of Cheops, which always included a segment involving foreigners, thus reiterating the king's supremacy and victory over the forces of chaos (Vachala 1991:96-7; Hawass 1995:230-1).

Biographies from private tombs are generally regarded as more reliable sources of historical information, although these are also prone to exaggeration, with tomb owners accentuating important aspects of their careers and character (Redford 1992:55; Baines
1995b:130-1). In the Old Kingdom, such texts relating to foreign activity are largely clustered in the 6th Dynasty (*Urk.* 1:98-141), with a frustrating lack of material from earlier periods. The titles of officials also contain information about administrative arrangements for dealing with foreign affairs (Helck 1954; Fischer 1959; Baer 1960; Kanawati 1977; Kanawati 1980; Redford 1986a:133, n. 85 and references; Eichler 1993). However, while the study of titles is useful, in the end they can only provide a partial story of economic and administrative arrangements relating to the regulation of Egyptian interregional and international activity (Stevenson Smith 1971:170). Archaeological evidence, especially that which can be scientifically analysed, offers a more secure basis on which to establish trade patterns, the products involved and the scope of exchange mechanisms.

1.4.2 The primacy of the northern Levant

The pre-eminence of Byblos in Old Kingdom foreign activity is beyond dispute. From early last century the word *kbn*, translated as Byblos, was known from a handful of Old Kingdom inscriptions (Sethe 1906, 1908-9; Fischer 1959:255; Horn 1963:52; Helck 1971:36; Wright 1988:146-148). Foremost among these is the 6th Dynasty Aswan text of Khnumhotep, who speaks of officials making trips to Byblos, in all likelihood at the behest of the state (*Urk.* 1:140-1; Montet 1928:270-1; Newberry 1938; Ward 1963:27).

A term to describe the region, *Ng3w*, also appears in the Pyramid Texts, along with a local god called Khai-tau who was linked with Re and Osiris (Montet 1923; Chéhab 1968:1; Helck 1971:22; Helck 1994). This deity is also named on the well-known Egyptianising cylinder seal from Byblos, where the word *kbn* 'Byblos' also appears, identifying the Egyptian name of that city (Goedicke 1963a:3-4, 1966, 1978). In this respect, Egypt's relations with Byblos, in addition to having a commercial and diplomatic purpose, enjoyed a particular theological rationale (Chéhab 1968:1; Redford 1992:43-8).

The discovery at Byblos many years ago of significant quantities of Egyptian stone vessels inscribed with the names of almost every Old Kingdom ruler supported the primacy of the city, as suggested by the inscriptions (Montet 1928, Dunand 1939;
Nelson 1934; Ward 1963, 1964b; Chéhab 1969; Helck 1994; Scandone Matthiae 1994). Egyptian kings could have sent stone vessels as trade items, payments for other goods, diplomatic gifts or as offerings to the temple of Ba‘alat/Hathor, also known as ‘the Lady of Byblos’ (Dunand 1939:296-8; Montet 1962:83; Fischer 1968:39-40; Jidejian 1968:16-9; Chéhab 1969:1; Saghieh 1983:36-7; Redford 1986a:140-1; Andrassy 1991:135; Scandone Matthiae 1994). 6th Dynasty kings appear to have been particularly active in maintaining Egypt’s relationship with Byblos and the Ba‘alat/Hathor cult centre, which was important during the reigns of Pepy I and Pepy II, with the greatest number of stone vessels from this era found there (Urk. 1:140-1; Fischer 1968:38-40; Ward 1963:23-4; Chéhab 1969:9; Andrassy 1991:134; Scandone Matthiae 1994:39).

Egyptian influence at Byblos also resulted in the adoption of elite forms of display with an Egyptian flavour (Albright 1964; Goedicke 1963c, 1966, 1978; Marfoe 1987:32-3). This influence is widely recognised in various architectural elements, suggesting that Egypt’s effect on Byblos was more profound than a state-to-state commercial relationship (Frankfort 1926:83-4; Montet 1928:272-4; Ward 1963:24; Saghieh 1983:121; Redford 1992:37-43), encompassing religious practice, the adoption of some Egyptian motifs and beliefs, (Montet 1928:269-70; Helck 1994), and more controversially, the possible existence of an Egyptian temple and a colony (Frankfort 1926:83; Ward 1963:24; Scandone Matthiae 1994:38).

During the Old Kingdom, this sea route was well-travelled, so much so that the seagoing ships plying the coast were generically known as kbn.t-ships, or Byblos ships, in the late Old Kingdom and later (Sethe 1908-9:7-8, 10; Montet 1928:272; Faulkner 1940:1; Montet 1962:86-7; Redford 1992:38-40). Moreover, this connection was not one-way, with the arrival of Asiatics in Egypt indicated by reliefs on funerary monuments of Sahure and Unas at Abusir and Saqqara respectively, although Byblos is not actually mentioned (Borchardt 1910-3:pl.12-3; Hassan 1955:138, fig. 2). The events depicted on these reliefs are a source of considerable debate (Bietak 1988), with the arrival of slaves (Borchardt 1913:26; Helck 1971:16, 35-6), or the product of other
hostile activity (Gundlach 1994:98), a foreign princess (Montet 1939), Asiatic sailors (Bietak 1988; Schneider 1998:19), settler families (Andrassy 1991:134), and trading missions or emissaries variously suggested (Stevenson Smith 1965a:150; Gaballa 1976:24; Ben-Tor 1982:12; Smith and Giddy 1985:322-3). Indeed, *Khn Wn*’s name at Giza pointed to the possibility of a foreigner (Byblite?) in the Egyptian court who had achieved a certain level of respectability and status (Helck 1971:36; Andrassy 1991:134; Schneider 1998:21).  

Cedar imports, attested in the archaeological and (more controversially) textual record, provided the prime reason for the connection, with Byblos enjoying an important position as the gateway to Lebanon’s rich cedar forests (Montet 1928:266-9; Helck 1971:26-8; Miegs 1984:49-87; Andrassy 1991:133). Evidence of this connection in Egypt includes cedar and its by-products, and other luxury goods (Reisner and Smith 1955:73-6; Hennessy 1967:84; Chehab 1968:2; Stager 1992:39, 41). Neutron Activation Analysis (NAA) revealed that a number of imported Combed Ware jars from Giza also came from Byblos, indicating trade in the commodity they contained (Hennessy 1967:84; Esse and Hopke 1986:333-4). Residue analysis identified ‘true resin from the coniferous tree’ in one of these jars (Lucas and Harris 1989: 320).

This foreign pottery from Giza and elsewhere in Egypt provided conclusive evidence that Egyptian activity in the northern Levant was active and pervasive, potentially spreading north to Cilicia in southern Anatolia (Reisner and Smith 1955:73-6; Kantor 1992:20-1; Stager 1992:41). The discovery of Egyptian stone vessels in the Palace complex at Ebla opened the possibility of Egyptian relations with the Syrian hinterland (Scandone Matthiae 1979/80, 1981, 1988; Andrassy 1991).

The purpose of these royal expeditions appears to have been the same: the acquisition of luxury products (Frankfort 1926:83; Reisner 1931a:251; Jidejian 1968:17; Wright 1988:147), the exchange of royal gifts to secure influence and respect with foreign elites, and in respect of Byblos, endowment of the Ba’alat/Hathor cult centre (Redford 1986a:140-1). The acquisition of manpower may have been another reason for
Egyptian missions in the north (Redford 1992:51-2), but this remains an open question. Royal mercantile parties were organised at the behest of the king as a centrally organised activity, operating at a state-to-state level, led by Egyptian officials acting in the king’s name (Reisner 1931a:251-2; Newberry 1938; Wright 1988:147; Esse 1989:88). These officials potentially held a wide geographical brief in the later Old Kingdom at least (Urk. I:140-1; Newberry 1938).

Moreover, the Old Kingdom network appeared to extend into the Aegean, based on the discovery of stone vessels at Knossos, although in much disturbed contexts (Frankfort 1927:121; Reisner 1931b; Evans 1935:984-6). The Aegean evidence is hotly disputed, with Warren regarding a small number of Old Kingdom imports as ‘in context’ and therefore evidence of Egyptian goods reaching Crete during the EB III period (albeit indirectly) (Warren 1969; 1991, 1995). Others view the material with more scepticism, preferring to regard most vessels as later out-of-context tomb robnings, and only one or two pieces as genuinely ‘in context’ Egyptian imports (Pomerance 1971; Schulman 1979:84-6; Phillips 1992:179-81; Lilyquist 1996). Any ‘in context’ aegyptiacaca was probably the result of down-the-line or relay trade with the Syrian coast via Cyprus (Vercouterr 1954:46; Ward 1963:54-5). Egyptian objects said to be from Dorak in Anatolia (Mellart 1959), are viewed with considerable skepticism and not regarded as genuine evidence of Egyptian contact with Anatolia (Schulman 1979:86-7; Kantor 1992:21).

Precisely when Egypt’s ‘official’ relationship with Byblos and other northern ports began has been a source of dispute. Some scholars believe this contact had a long history, stretching into the 4th millennium BC (Montet 1928:271; Prag 1986). Others regard this contact as having started at the end of the 2nd Dynasty, based on an out-of-context stone vessel bearing the name of Khasekhemwy (Callaway 1978:54; Saghieh 1983:130-1; Marfoe 1987:27; de Miroshedji 1998:29). In fact, the earliest attested stone vessel in a secure context with a royal name dates to the reign of Sneferu or Cheops (Dunand 1958:929 and 931, no. 17538). Combined with Sneferu’s Palermo Stone entry describing 40 ships laden with ‘s-wood (Urk. IV:236.12) and the sudden
appearance of 'Byblite' pottery in early 4th Dynasty tombs, the early 4th Dynasty has
gained currency as the period which witnessed the emergence of relations with Egypt at
As this dissertation will demonstrate, archaeological evidence shows that contact with
Byblos or environs, based on the timber trade, began in the early 1st Dynasty (Ward
1991:13; Redford 1992:38; Stager 1992:40; Ch. 2).

1.4.3 The position of Canaan
(a) The documentary evidence
The position of Canaan in Egypt's international relations, except as an object of 6th
Dynasty military activity (Brugsch-Bey 1881:118; de Vaux 1971:235), has been
ambiguous. When compared to Byblos, early views of Canaan's place were doubtless
influenced by European perceptions of the region after World War I:

_Egypt did not come into contact with any Asiatic power of political or
cultural influence_’ and further that _‘Palestine could, in fact, offer
nothing to induce the Egyptians to include it in their sphere of interest:
we find remains of a poor population of plodding fellahin, probably
bullied and periodically robbed by their roaming bedawn countrymen._
_Palestine was a desolate promontory...’_ (Frankfort 1926:82).⁴

Since that statement, there has been little consensus over the relationship of Canaan
and Egypt during the EB III. The oft-repeated view is that Egyptian contact with
Canaan peaked during the EB Ib and went into slow decline thereafter, replaced by
closer links with Syria and Mesopotamia (e.g. de Vaux 1971:232; Rast 1980; Porat

Critical in this debate are several pieces of documentary evidence. However, this
evidence exists only on the Egyptian side, with no texts known from Canaan during
this period (Ben-Tor 1986:1). The Egyptian evidence includes the siege scenes
featuring walled Asiatic towns from the tombs of Inti at Deshasheh (Petrie 1898:pl. 4;
Kanawati and McFarlane 1996:pl. 27) and Ka-em-hesit at Saqqara (Quibell and Hayter 1927:25 and frontispiece). Both illustrations are commonly dated to the 6th Dynasty, but a late 5th Dynasty date is also plausible.\(^5\) The biographical inscription of Weni from Abydos also furnishes important details about military campaigns against foreigners called the '3mw during the reign of Pepy I (de Morgan 1898/9 republished by Sethe in *Urk. I*:120-141), as does the biographical inscription of Pepynakht from the reign of Pepy II (*Urk. I*:134.13-17).\(^6\)

Some Egyptologists dispute the tomb scenes as illustrations of campaigns in the Levant, preferring to regard them as Egyptian border skirmishes in the northeast (e.g. Frankfort 1926:81-2, n. 3; Goedicke 1963b; Helck 1971:19; Lorton 1987). Indeed, it is thought by some that Inti, Ka-em-hesit and Weni all describe the same campaigns under Pepy I (Goedicke 1963b:73; Piacentini 1987:14). However, the consensus of opinion, particularly among Levantine specialists, now favors Canaan as the likely location (de Vaux 1971:235-6; Callaway 1972:306; Schulman 1979:101-2; Ben-Tor 1981:450; Andrassy 1991:130-2; Mazar 1992:141-2; de Miroschedji 1998:30). In the first instance, the iconography of the besieged, their costume and headdress, suggests that Asiatics are depicted (de Vaux 1971:226; Ben-Tor 1982:13). The battlements also strongly recall semi-circular projecting towers from the fortifications of EB II-III Arad (Amiran 1978:pl. 173-4; Schulman 1979:101-2; Piacentini 1987:10-11), Jericho (Kenyon 1981:97, pl. 229b) and Ai (Callaway 1980:fig. 6).\(^7\) Indeed, during the EB III, fortifications at many sites were enhanced, with the most impressive still extent at Tel Yarmouth (de Miroschedji 1990; Mazar 1992:118-22; de Miroschedji 1999:7). Moreover, the accompanying inscription, while fragmentary, mentions *Ndj3or n Di*’ (Nedia, Nata’el or *Di*) and ‘nm (Ain) part of a list of towns or regions likewise attacked (Piacentini 1987:12-3; Kanawati and McFarlane 1996:25; Schneider 1998:20). The identity of Nedia is not known (Wright 1988:155), but the other certainly belongs to the common prefix Ain/Ein (place of the spring?), known from place names in Canaan (Albright 1934; de Vaux 1971:235-6).
A battle scene from the Unas causeway may also depict the siege scene of an Asiatic town (Hassan 1938:pl. 95; Hassan 1955:139, fig. 2). The extremely fragmentary inscription has been tentatively translated as ‘[smiting the Sha]sw’, generally regarded as designating people living in a desert region northeast of Egypt (Helck 1971:17; Redford 1986a:138; Wright 1988:155). However, owing to the fragmentary nature of the block and its place in a royal tableau, any conclusions about possible military action in Palestine must be approached with caution (Piacentini 1987:11-2; Wright 1988:155-6).

Most scholars also now accept that the description of Weni’s campaign against the Sand Dwellers (‘3mw) represents a major campaign in Syria/Canaan, probably the latter (Breasted 1926:144d; de Vaux 1971:236; Callaway 1972:306; Rast 1980:15; Ben-Tor 1981:450; Ben-Tor 1982:13; Roccati 1982:189; Mazar 1992:141-2; Redford 1992:54-5). Again Asiatic activity on Egypt’s northeastern border or the Sinai has also been suggested (Goedicke 1963b:187-97; Helck 1971:19; Gundlach 1994:119). However, Redford regards the very word ‘3mw as descriptive of EB III people of Canaan (1992:32). Other aspects of the text also point to Canaan, including a reference to the army travelling by land and boat to a landmark called ‘Gazelle’s head’ to deal with the enemy (Urk. I:104.12; Edel 1981:10-11), which is plausibly believed to represent the Carmel Range headland near modern Haifa (Stevenson Smith 1971:192; Schulman 1979:101; Edel 1981:11; Piacentini 1990:30-1 and references; Vachala 1991:90). Moreover, the destruction of figs and vines, mentioned in the text, may point to horticultural activities of the region (de Vaux 1971:226; Ben-Tor 1982:13; Roccati 1982:189).

Weni also speaks of sacking the ‘3mw Wnt fortresses or strongholds (Urk I:103.12). The term Wnt occurs infrequently during the Early Dynastic Period and the Old Kingdom, and its location is not known with certainty (Fischer 1959:261-4; Redford 1986a:135, n.v; Wright 1988:154; Godron 1990a:167-70). Indeed, the location may have changed over time, from a specific place in the 1st to 5th Dynasties to a regional designation in the 6th Dynasty (Fischer 1959:264; Zibelius 1978:69). The term in
Weni’s biography is, however, widely regarded as a probable reference to the walled towns of EB III Canaan, particularly when associated with the other evidence noted above (Fischer 1959:261-4; Helek 1971:18; Zebelius 1978:69; Ben-Tor 1982:13; Redford 1986a:126-32; Wright 1988:158; Piacentini 1990; Redford 1992:11-2). Weni also speaks of having slain thousands and taking many prisoners (Urk. I:104.1-3). Canaan, with its large fortified towns, seems to be the only nearby neighbour capable of having sufficiently numerous soldiers to mount serious opposition (Urk. I:104.1-3), even if the numbers are an exaggeration.

The reasons for this overt military activity in Canaan strike at the heart of the debate over Egypt’s relationship with the region. Why was it necessary? Possibly the Egyptians exercised a degree of authority that was under threat (Stevenson Smith 1971:167; de Vaux 1971:236; Callaway 1978:55). This apparent control may have been expressed in titles like ‘Overseer of the Wenets’, attested in the 6th Dynasty tomb of Mereri (Drioton 1943:487-514; Fischer 1959:264; Wright 1988:153). An alternative explanation, that raids were designed to secure material goods (Stevenson Smith 1971:167; Ben-Tor 1982:14; Marfoe 1987:267), is difficult to sustain as the sole reason, because none of the evidence mentions the seizure of property per se (Wright 1988:159, n.21). The capture of prisoners – male, female and children – does, however, suggest the forcible acquisition of manpower; in Redford’s view, the raids were occasioned by local belligerence or a failure to supply enforced gifts or benevolences (1986a:140-1; 1992:53-5). On the other hand, and more likely, raids and revolts against Egyptian interests and/or against territory along its borders required more drastic military action to suppress or punish (de Vaux 1971:236; Rast 1980:15; Mazar 1992:142).

The scale of the threat to Egyptian interests posed by the ‘3mwt is illustrated by the fact that Weni was compelled to undertake no less than five expeditions with a large military force to their territory (Redford 1992:55). Such was the impact of this campaigning that Egyptian military activity in the later Old Kingdom is still widely regarded as a whole or partial explanation for the collapse of EB III urban society (de

A range of titles certainly indicates that Egypt had a developed administrative structure to deal its interests in Wnt, h3st, Stt, the Way of Horus and other localities (Fischer 1959:262-66). These officials included caravan leaders, desert guides, administrators, those responsible for patrolling frontiers and overseers (Fischer 1959:262-66; Helck 1971:17; Giveon 1983; Andrassy 1991:130-1; Fischer 1991). That even peaceful expeditions were accompanied by a military detachment is illustrated by Ka'per's title 'scribe of the king's army in the Turquoise Terraces (Wadi Maghara)' and also by the soldiers who accompanied Harkhuf (Urk. I:128; Fischer 1959:264-5). The term h3st 'mountain country' evidently also referred to the region of Canaan and the Sinai, as it had done in Early Dynastic times (see Godron 1990a:155-66; Andrassy 1991:135). The term appears in Sinai inscriptions of the Old Kingdom (Giveon 1983) and in the well-known Byblos cylinder seal (Goedicke 1963a:3). Pepynakht's activities also occur against the '3mw in h3st (Urk. I:134), the location of which has been variously described as bordering on the Gulf of Suez or the Red Sea (for a summary of this debate, see Redford 1986a:127-32). Likewise, the term Stt may have embraced both the Sinai and Canaan (Helck 1971:14-6; Giveon 1977).

The one aspect of Egypt's activities to its northeast that is not disputed is the effective Egyptian control of the mineral resources of the southern Sinai. This area around Wadi Maghara, known as htw mfk3t or the 'the turquoise terraces', was the destination of royal mining activities for turquoise and possibly also copper throughout much of the Old Kingdom (Gardiner, Peet and Cerný 1952-5; Wilkinson 1999:166). Royal rock inscriptions and scattered archaeological remains attest to the Egyptian presence in this region from the 3rd Dynasty onwards.
(b) The archaeological debate

Aside from the extremely fragmentary nature of the documents, a large part of the problem in clarifying the nature of Egyptian connections with Canaan has been the lack of archaeological evidence relative to Byblos. However, discovery of Egyptian stone vessels in the EB III B Ai temple by Marquet-Krause appeared to provide the evidence scholars needed to fill the archaeological gap (Marquet-Krause 1949:19, pl. 75; Hennessy 1967:69-84).

This, combined with Egyptianising features at other sites, pointed to the possibility of cultural and political relations with Canaan beginning in the 3rd Dynasty (Albright 1949:74-5; Callaway 1972:306-7). Foremost with this view was Callaway who, based on the evidence at Ai, proposed a significant degree of Egyptian control at the site and elsewhere during the EB III A, particularly under Djoser (1972:306). Others disagreed with this interpretation (Lapp 1970:121; Rast 1980:11). On the other hand, Hennessy believed that Egyptian activity in Canaan tapered off towards the end of the 5th Dynasty, but continued to be strong with Byblos until the end of the Old Kingdom (Hennessy 1967:88).

The primacy of the Ai material for Old Kingdom interconnections with Canaan was assumed until it was comprehensively re-dated to the 1st Dynasty by Amiran (1970a). Rather, she regarded it as old equipment from the EB II acropolis temple, thus undermining arguments for Old Kingdom connections based upon it (1970a:179).

Almost as a direct result of Amiran’s work, debate has since divided sharply over the position of Canaan and the precise nature of its relationship with Egypt. One school of thought, while acknowledging the lack of archaeological evidence, contends that Egyptian contact with EB III Canaan was low-level but did not cease completely as the Egyptian texts illustrate. Initially regarded as purely commercial contact (de Miroshedjii 1976:223; Rast 1980:12; Andrassy 1991; Stager 1992:41), some scholars now prefer viewing Egypt’s relationship as more multi-faceted, involving diplomatic, commercial and military expeditions (Redford 1992:41-2; de Miroshedjii 1998:20, 28-
9). Others see the textual evidence as pointing to nothing more than 'expeditionary activities' in Syria-Palestine and intensive relations with Byblos (Kemp 1983:137-9; Redford 1986a:133). These expeditionary activities may have had a military flavour, involving the extraction of 'enforced benevolences' or gifts, or been purely commercial ventures, but their purpose was the same: the acquisition of valuable products or manpower (Redford 1986a:140-1; Wright 1988:141-61). NAA sampling of combed ware in Egypt indicated that some jars came from southern Canaan, thus attesting to commodities traded between the regions (Esse and Hopke 1986:337).

The second school of thought focuses on archaeological evidence, contending that Egypt had no contact with Canaan during the EB III. Levantine specialists point to the complete absence of Egyptian artefacts in Canaan as showing that Egypt's interests were completely focused on Byblos (Ben-Tor 1981, 1982, 1986, 1991, 1992:120; Wright 1988:157; Ward 1991:18-9; Ahlstrom 1993:131). NAA results cited above were dismissed as unsupported by other evidence (Ben-Tor 1991:5). This view has found increasing support (de Cree 1991; Mazar 1992:136; Smyth 1998:8; Wilkinson 1999:160). Sporadic military campaigns in southern Canaan, attested by 6th Dynasty inscriptions, was the sum of Egyptian interest in the region during the Old Kingdom (Anati 1963:356; Ward 1963:25-6; 1991:5; Schulman 1979:101).

Plainly, the frustrating lack of archaeological evidence has stymied any attempt to characterise the nature of Egypt's relationship with Canaan, leading to suggestions that Egypt ignored her closest neighbour altogether for nearly 300 years in favour of relations with Byblos. The present work thus seeks to fill some long-standing gaps.

1.5 Problems and Priorities

Three issues related to the nature of the evidence, its acquisition and further study emerged during research for this dissertation.
1.5.1 Egyptian, Egyptianising or local?

For some years, scholars have grappled with what is meant by 'Egyptian' and 'Egyptianising' in the Bronze Age (Kantor 1956; Ben-Tor 1994; Warren 1991; Phillips 1991b; Bryan 1996; Lilyquist 1996; Lilyquist 1998). Research has focused mainly on the 2nd and 1st millennia BC, eras that witnessed the wide diffusion of Egyptian artefacts, iconography and technologies around the Eastern Mediterranean (and vice versa), the consequence of intensive trading networks and Egyptian domination of Canaan in the Late Bronze Age (Redford 1992:125-237).

In this context the question of what constitutes an 'Egyptian' or 'Egyptianising' object is a complex matter. All too often the identification of Egyptian objects found outside Egypt has relied on judgements by scholars who are not wholly familiar with Egyptian material, or on assessments of what constitutes an 'Egyptian style' (see, for example, Lilyquist 1996:134-5). While this issue has been discussed in relation to Early Minoan Crete (Warren 1969; Pomerance 1971; Schulman 1979:84-6; Warren 1991; Phillips 1991; Ch. 5) and certain objects and motifs from Byblos (Goedicke 1966, 1978; Helck 1994; Scandone Matthiae 1994:41), little work has occurred on material from the rest of the Eastern Mediterranean in the 3rd millennium BC.

The identity of aegyptiaca is important owing to the implications for any debate about trade connections, chronological synchronisms, cultural interaction and even political influence (Bryan 1996; Lilyquist 1996:135-6; Lilyquist 1998). Furthermore, whether the presence of these objects indicates a direct link with Egypt is matter of considerable debate for some regions of the Eastern Mediterranean (Ben-Tor 1986:2). Moreover, such objects may not have arrived necessarily as a result of trade (Ben-Tor 1986:3). Hence, where independent textual or artistic material exists to support the awareness of one region with another, this provides a firmer basis for suggesting direct links on the basis of archaeological evidence (Ben-Tor 1982:14). However, the absence of texts should not be taken to imply ignorance; 3rd millennium seafarers and caravaneers were evidently capable of far-reaching journeys for which no trace may now exist (Prag 1986).
Recognising the potential for erroneous conclusions arising from the inaccurate identification of *aegyptiaca*, Reisner identified two important doctrines. These were

*Principle no. 1:* In using Egyptian objects to date deposits in foreign lands, it is necessary to know the whole range of time during which the object occurs in Egypt, and the variations in form (sub-types) which the type assumes in the course of its range in time...

*Principle no. 2:* An Egyptian object found abroad must be identical in form, material and technique, with a type (or sub-type) of known range in Egypt. ... The size may vary, but in general, as the identity arises out of manufacture by the same shops of craftsmen, the size of the foreign-found object will be within the range of sizes known in Egypt (1931b:200-1).

These criteria were revised by Lilyquist, who added 'quality', inscriptions and context (1996:136; 1998:26).\(^1\)

While this may seem like a comprehensive checklist, from the perspective of the archaeologist, each poses its own set of problems. Firstly, the question of form is critical, but characterising the Old Kingdom in this fashion is fraught with difficulties for certain object classes. Many typologies, such as stone vessels, beads and amulets, are based on only one or two sites and are now relatively old and in urgent need of revision (e.g. Reisner 1931a:130-229; Reisner and Smith 1955:60-89; Brunton 1928). In particular, published material from stratified town sites excavated many years ago is usually wanting in detail (Kemp 1977:186).

The second important criterion is raw material and its origins (Ben-Tor 1986:2). Whereas petrography on ceramic sherds can settle these questions with some precision (see Porat 1989), analysis is more complex with stones, metals, timber and faience. In particular, intact objects pose problems for scientific techniques that rely on thin-
sectioning and other destructive forms of research (eg. Aston 1994:2-3). Furthermore, the rather loose descriptions of raw materials in numerous publications and the lack of technical knowledge of many archaeologists mean that often materials are incorrectly identified in the literature. For instance, the erroneous labelling of calcite (or travertine) as 'alabaster' suggests an Egyptian origin for objects more likely made out of local gypsum (Harrell 1990; Aston 1994:42-51; Lilyquist 1996:137-8; Sparks 1996:51-3). Likewise, timbers cannot be identified in every case purely on the basis of simple visual inspection (Western and McLeod 1995:77-8). Identifying the source of raw materials, such as the location of ancient quarries, forests or mines, is a question which specialists have only recently begun to investigate from a more scientific perspective (Warren 1969:124-41; Lilyquist 1996:136-43; Meiggs 1984:11-73; Aston 1994:11-73; Grosser et al. 1992; Western and McLeod 1995; Ogden 2000; Aston et al. 2000). Provenance studies and the services of relevant specialists, when available, offer a comprehensive basis against which to test the possible Egyptian origins of raw materials of which objects are made and vice versa.

The third issue is the use of Egyptian technology, which cannot be considered in isolation from any of the other criteria stated above (Lilyquist 1996:136).\textsuperscript{12} For example, when comparing Egyptian stone vessel production to other parts of the Levant, Canaan appears to have had no high quality, hard stone local industry in the 3rd millennium BC (Sparks 1996:56). Hence Egyptian imports are easily identified on the basis of shape, material and method of manufacture. However, for regions with local hard stone working industries, such as Crete and Mesopotamia, separating the Egyptian import from local products is more difficult (Reisner 1931b; Warren 1969; Lilyquist 1996; Phillips 1991). As the detailed study of Cretan stone vessels has shown, even experts can disagree on what does or does not constitute an Egyptian import (compare Warren 1969, 1991 with Lilyquist 1996:146-8, 159-61). The same problem exists with faience, as several production centres are thought to have existed in Egypt and the ancient Near East (Foster 1979:56-9).
Like technology, other categories of quality, inscription and context are also problematic when used in isolation. ‘Quality’, defined for stone vessels as

*proportion, surface treatment, integrity of form, crispness of detail and stone selection* (Lilyquist 1996:136)

is a value judgment with no scientific basis other than the personal opinion of individual scholars. Inscriptions can be of value in conjunction with other criteria, but again caution must be exercised: for example,

*it is not inconceivable that one [stone cylinder jar] inscribed Nfr-k3-r*

*from Mirgissa names a Dynasty 17 rather than a Dynasty 6 Egyptian king* (Lilyquist 1996:143).

Context likewise is a principle that must be examined on a case-by-case basis, as objects may come from deposits significantly later than their date of manufacture, and hence may or may not be evidence of Egyptian contact at that time (see Ch. 8).

By extension, the question of what then constitutes a specifically ‘Egyptianising’ form becomes even more challenging. Similar objects from separate geographical regions need not be the result of cultural contact or influence (although that is certainly possible) (Reisner 1931b). Again, this question must be considered on a case-by-case basis, taking into account the distance and route over which transmission could have occurred, the availability of raw materials, any relevant textual data and the local presence of relevant technologies.

The foremost EBA research on Egyptianising material are the ceramic studies from late 4th-early 3rd millennium sites in Canaan (Porat 1989; Brandl 1989:376-9), stone vessel studies from EM Crete, noted above (Phillips 1991), and work conducted on some objects from Byblos (Goedicke 1966, 1978; Helck 1994). On the ceramics from Canaan, petrography identified vessels made from imported Egyptian Nile silts and
marrls. A class of locally made vessels of local clays in Egyptian shapes was also identified, found alongside imported wares, using Egyptian production and clay preparation techniques, which were thus classified as ‘Egyptianising’ (Porat 1989:61-3; Porat 1992:345; Brandl 1992:441-2). This method has been used to suggest the presence of Egyptians living in EB Ib southern Canaan, having pottery made in local clays to suit Egyptian tastes and uses (Porat 1992; see also Chapter 2.3.3).

For other finds, the issue is more complex. Identifying an object as having been inspired by Egypt or an imitation of an Egyptian object is often sufficient for it to be deemed Egyptianising by many scholars (eg de Vaux 1971:232; Dever 1973:50; Ben-Tor 1975:28; Jacobs 1996). However, it is always possible that a specific shape or object type, thought to have an Egyptian source, actually had a wider geographical range and origin (Woolley 1955:272; Hennessy 1967:33). As Reisner noted

*Primitive peoples in the same state of culture having similar needs and similar materials are apt to produce objects and decorations of a similar appearance (1931b:206).*

In any case, the notion of ‘Egyptianising’ suggests a never-ending core-periphery relationship which always saw ‘quality’ artefacts produced by the culture who had achieved high levels of craft sophistication, vis. Egypt, which others sought to acquire or imitate (Lilyquist 1996:136). Such definitions call for caution.

Although for the 3rd millennium such concepts are relatively undeveloped, for 2nd millennium ivories Bryan attempted to further purify distinctions of Egyptian influence by suggesting that local copies should be defined as ‘Egyptian style’, whereas ‘Egyptianising’ is the

*combination of Egyptian motifs and techniques with local or other foreign influences...[to use] Egyptian symbolism for the local elites* (1996:60).
As to whether these fine parameters can be applied to the EB III is doubtful, since Egypt's artistic, cultural and political influence was less pervasive than the Late Bronze Age. A simpler definition is therefore more appropriate on the current state of research. In this dissertation, an Egyptianising object or motif is defined as a local copy in local or imported material combining any one (or all) of Egyptian shape, function, technology or inscription (Reisner 1931b:206-8). As with the Ai vessels, context may also be significant (Amiran 1970a).

1.5.2 The Egyptian archaeological repertoire is poorly understood

When research for this dissertation commenced, it was my expectation that, like the EB Ib (Brandl 1989:368-76), scores of Egyptian ceramic sherds languished unidentified in the collections of major excavations. Over several years, after working systematically through the old and new sherd collections from most EB III sites in Canaan, especially from tells in the south, I became convinced that this was not necessarily the case. Rather, unidentified *aegyptiaca* is of a more specific nature: stone vessels and fragments of the same, and items of a more exotic character. Doubtless in the future more previously unseen *aegyptiaca* will be identified as archaeologists become more aware of its possible presence. The multi-disciplinary nature of field expeditions means that Egyptian specialists are increasingly included in research teams.¹⁴

On the Egyptian side, the problem of inadequate and potentially outdated Old Kingdom typologies was also encountered. For example, the last major study on Old Kingdom stone vessels was Reisner's (1931a), supplemented by a little recent work conducted by Barbara Aston (1994). Brunton's bead corpus (1928) is still the only major study on Old Kingdom beads and amulets. The definitive publication on Old Kingdom ceramic typology and fabrics remains to be written (but see Brunton et al. 1927; Reisner 1931a, Bourriau 1981; Ballet 1987; Seidlmayer 1990; Ginter et al. 1998).¹⁵ This is partially due to the concentration of research on tombs and temples, a focus that has dominated Egyptology over the last century, and the relative lack of attention paid to stratified settlements and more mundane archaeological remains (Kemp 1977; Bietak 1979).
Even so, significant quantities of recently excavated Old Kingdom settlement material remain to be published in detail (Giddy 1987:204). This includes work from the Dakhleh Oasis, Buhen, Kom el Hisn, Mendes, Elephantine, Abydos and Tell Ibrahim Awad in the Delta. Hopefully, publication of this data will help reduce the reliance on cemetery material excavated many years ago, placing ceramic and object sequences on a sounder stratigraphic footing.

1.5.3 The need for more scientific analyses

Aldred stated that

no accurate analyses of many ancient materials...have been recorded. Without fuller and more accurate data, it is idle to speculate on the nature of ancient technical processes, the trade routes by which they were disseminated and the cultural contacts that they show (1978:45).

While this statement does not account for the work of A. Lucas, there is no question that more scientific data is required to place the textual data on a sounder footing (Ward 1991:18; Knapp 1991; Lilyquist 1998:29). Various forms of scientific analysis on archaeological materials can identify issues of provenance, technology and residues more precisely than lengthy and circular philological debates (Knapp 1991; Gale and Stos-Gale 1981:104). New technologies, combined with older methods of scientific analysis, offer many new fields of research. NAA and petrography have been used to great effect as a means of identifying clay and stone sources (Kaplan and Harbottle 1982; Esse and Hopke 1986; Porat 1989; Greenberg and Porat 1996; Aston 1994). Other forms of elemental research, such as x-ray diffraction and lead isotope analysis on stones, beads and metals offer a tighter degree of identification than simple visual examination, which has characterised the study of many objects thus far (Broeder and Skinner 1992:135; Hauptmann et al. 1999). Residue and archaeobotanical analyses mean that minute traces of substances or plant remains can be detected in burials, soils and containers (Serpico and White 1996; Murray et al. 2000:579-80). Work of this type is already providing much needed new data on the Late Predynastic and Early Dynastic
commodities trade (Hartung in press; Serpico and White 1996). Archaeological material from the Old Kingdom offers further opportunities to extend this work into the EB III.

Clearly, to examine the inscriptions alone is inadequate (Adams 1964:102), given the 'superior usefulness of archaeological evidence for characterising societies' (Smith and Giddy 1985:330). Even so, archaeological evidence poses its own set of difficulties, such as poor documentation and the 'uneven transmission of remains' (Gates 1988:63-4). The importance of dealing with all forms of evidence, recognising the strengths and limitations of each to construct a more complete picture, must be emphasised (Adams 1964:102; Smith and Giddy 1985:330; Gates 1988:64; see also Helck 1971:12-37).

Within the scope of this dissertation, it has not been possible to undertake fresh analytical work on every possible commodity traded during the Old Kingdom. Investigations of this nature are more properly the subject of separate, specialist studies. However, recent work of this kind has begun to generate a fuller picture of Egypt's commodity trade during the EB III (Chapter 7). PIXE-PIGME research into the origin of clays from Giza Combed Ware jars also allows new insights into the origin of this important class of object, and hence the products they contained (Chapter 6).

1.6 Conclusion
While considerable discussion over the last few years has focused on Egypt’s relations with the EB Ib Levant, debate has stalled over the EB III, and to a lesser extent the EB II. The lack of any new documentary discoveries in recent years means that the well-known textual and artistic evidence has been thoroughly studied over the last century. The conventional dominance of inscriptions over material remains means that the archaeological evidence has been neglected in many studies of the period. Even so, the textual record is fragmentary and, in relation to royal inscriptions, can be an unreliable historical source.
Despite these drawbacks, the position of Byblos as the focus of Old Kingdom trade and diplomatic efforts is beyond dispute on archaeological and textual grounds. However, debate surrounds the precise characterisation of this relationship. The extent of contact with the Syrian hinterland and the Aegean is also under scrutiny. For Canaan, the situation is also unclear, with the lack of any new published discoveries largely causing the debate to stall over the last decade. Well-known late 5th and 6th Dynasty texts and illustrations point to a growing level of military interest in the region but the apparent lack of any corresponding archaeological evidence in either Egypt or Canaan means that the inscriptions provide only part of the picture. As a result, the notion that Egyptian contact with Canaan went into slow decline during the EB II-III is a view that has gained increasing currency. Indeed, in some quarters, Egyptian contact with Canaan during the EB III is viewed as non-existent.

Recent archaeological discoveries and the application of scientific techniques of elemental and microscopic analysis means that both new and old datasets can add significant information to our understanding of trade routes, the products obtained and the nature of exchange mechanisms. This more comprehensive archaeological picture, when set beside the known documentary evidence, will place the texts on a sounder footing and help expose the inadequacy of relying on texts alone. Moreover, examining the Old Kingdom/EB III in context with the preceding periods ensures that the continuity of regional interrelations is recognised. It will be seen that while Byblos was the primary focus of Egyptian activity, her direct and indirect relationships with foreign elites covered a wider geographical area, embracing a variety of political and economic foci.

Endnotes

1 See, for example, the debate over the meaning of ṯewood, traditionally translated as cedars (Erman 1900; Sethe 1908-9:11-12; Loret 1916:33-51; Helck 1971:25-8; Ward 1991:13-4; Nibbi 1994:47; Helck 1994).
2 Schulman even doubted the Sahure reliefs as evidence of an actual expedition (1979:88; Grimm 1985:40; Schneider 1998:18-9). A similar observation has been made in respect of reliefs and inscriptions from the monuments of Djedkare-Isesi (Grimm 1985:40).

3 Other foreign names are known in Egypt during the Old Kingdom. For a summary, see Schneider 1998:15-7, 25-6.

4 In Frankfort’s defence, it must be said that by 1926, many discoveries highlighting the developed nature of EB III cities and society were yet to be made (Redford 1992:65).

5 Kanawati and McFarlane propose a date in the late 5th Dynasty date for Inti’s tomb, possibly in the reign of Djedkare-Isesi (1996:17-9, esp. no. 58), rather than the 6th Dynasty date supported by most scholars (see especially Stevenson Smith 1965:148). A date in the reign of Isesi would support the historicity of an inscription from his mortuary temple, describing the king as ‘prostrating all the multitudes, overthrowing the foreign land [crenellated oval used here, but no name]’ (Grimm 1985:pl. 1; Redford 1986a:137). This redating would mean that the military action of Wené was a separate historical event (Kanawati and McFarlane 1996:24; contra Goedicke 1963b:193).

6 The location of the latter’s activities is uncertain, with many scholars preferring the Red Sea coast (Redford 1992:57).

7 The settlement, shown with bastions in Inti’s tomb, echoes the graphic symbol for a walled/fortified town or protected enclosure known from the Early Dynastic Period and later (Redford 1992:pl. 3, fig. 2; Fischer 1959:261, fig. 23).

8 Previous translations of this phrase have described it as the ‘Gazelle’s nose’ or variations thereof, but Edel convincingly demonstrates that earlier versions have ignored the word tp (see Edel 1981:10).

9 A number of other toponyms occur in Old Kingdom inscriptions but their locations have not been identified (Fischer 1959:264-5; Grimm 1985; Wright 1988:152-3).

10 Ahlström, while accepting the absence of archaeological evidence, does agree that the Egyptian literary record supports the notion of Egyptian incursions into southern Canaan during the 6th Dynasty.
Lilyquist's categories were developed for carved ivories of the 2nd millennium BC, and are not totally applicable to a discussion of the Early Bronze Age. However, they represent a constructive starting point in any consideration of Egyptianising material and questions of Egyptian cultural influence (Lilyquist 1996 and 1998).

The nature of Old Kingdom technologies, such as metal working, still require further detailed research (Weinstein 1974).

The technique combining petrography with an examination of shape and technology, is only now being applied systematically to EB III ceramics, such as the Egyptianising pottery cache from Stratum J at Megiddo (Joffe in Finkelstein et al. 2000).

For example, see the contribution of Egyptologist Edwin van den Brink to the work at Nahal Tillah (Levy et al. 1997).

Presumably such a study will be included in The Introduction to Ancient Egyptian Pottery fascicule 2, forthcoming.
CHAPTER 2

PATTERNS OF EGYPTIAN-CANAANITE
RELATIONS IN THE EARLY BRONZE AGE I AND II

2.1 Introduction
Since Flinders Petrie discovered in Predynastic tombs pottery which was obviously not local (Petrie and Quibell 1896:pl.311, 2a-b), scholars have known that from the 4th millennium BC Egypt was part of a network of regional trading relationships. These contacts brought foreign goods into the country and presumably saw Egyptian goods exported in exchange. This pattern of contact increased over the course of the Early Bronze Age, apparently peaking during the late EB Ib or Protodynastic Period (Naqada IIc1 or Dynasty 0), before undergoing a further transformation during the EB II and III.

This chapter will draw together the results of new excavations and re-analyses long-published objects in order to give an overview of the changing relations between Egypt and Canaan in the EB I and EB II. A brief overview of the EB I will be followed by a detailed examination of the EB II.\(^1\) This general description will furnish the critical background for understanding the origins and development of Egyptian-Canaanite relations in EB III, and will allow it to be viewed as an integrated part of the ebb and flow of foreign relations in the eastern Mediterranean across the Early Bronze Age. It will be argued later that Egyptian-Canaanite interactions of the EB III are essentially a continuation of relations established in the EB II, but with several changes in emphasis and policy.

2.2 The Early Bronze Age I – Naqada IIb/IIIc1
2.2.1 EB Ia – Naqada IIb (pl. 1)
Stager categorises Chalcolithic/Naqada I-IIa relations between Egypt and Palestine as ‘small-scale, sporadic trade…along the overland trail’ of the Sinai (Stager
1992:40). However, the collapse of the Chalcolithic culture in Canaan does not indicate a break in relations with Egypt (Gophna 1995b:278)².

During the EB Ia, evidence for Egyptian-Canaanite interconnections is still strongest in northern Egypt at sites with Maadi-Buto cultural horizons (Rizkana and Seeher 1987:78-80; Amiran and Gophna 1992:357-8; de Miroshedjli 1998:23). At the beginning of the EB Ia (around 3600 BC) Maadi emerges as a major trading destination, acting as a ‘gateway’ for imported products from Canaan until its abandonment in the Naqada IIc (Rizkana and Seeher 1985; Porat and Seeher 1988; Rizkana and Seeher 1989:78; Rizkana 1992:238-9; Pernicka and Hauptmann 1989; Ward 1991:17).

In Canaan, imported Egyptian ceramics appear at southern sites like Taur Ikhbeineh and Site II, attesting to a two-way exchange of goods (Gophna 1995b:277-8; Oren and Yekulteli 1992). Evidence of Egyptian imports is strongest at sites in the Gaza region and northern Negev (de Miroshedjli 1998:22-3, fig. 6). Trade was conducted over the north Sinai land bridge using donkeys and involved the exchange of commodities (Hassan 1988:161; Oren and Gilead 1981; Stager 1985; Rizkana and Seeher 1989:78; Wenke 1991:300; Stager 1992:27). The identification of cedar pieces at EB Ia sites in the Ashkelon region, used in the manufacture of precious objects, points to a coastal way-station on the north-south maritime route from Lebanon to Egypt (Gophna and Liphschitz 1996). The appearance of Egyptian objects at Byblos provides further evidence of this maritime link (Prag 1986). Obsidian from Ethiopia or Arabia was also arriving from the south via Red Sea networks (Zarins 1989:366).

2.2.2 EB Iib (early) – Naqada IIc/d2 (pl. 2)

The Naqada IIc/d2 era witnesses the collapse of the Buto/Maadi culture and the gradual extension of the Upper Egyptian Naqada culture into the Delta (Kaiser 1985, 1990; Köhler 1992).

The Naqada Iib/c in Upper Egypt witnesses the development of improved ceramic technologies, craft specialisation, more complex economic activity, and the
emergence of local elites, signifying an increased degree of social stratification (Hassan 1988:159-60). The presence of a temple complex at Hierakonpolis at this time attests to the emergence of a major cult requiring the service of religious officials (Friedman 1996). Moreover, the rise of larger urban centres ruled by local chiefs was accompanied by a growing need for the symbolic and luxury trappings of power (Hassan 1988:160-1).

From Naqada IIc onwards, foreign ceramics appear both in the Delta and Upper Egypt (Kroeper 1986/7:78-9; Kantor 1992:fig.6.26-30, 47). The primary source of this imported pottery on typological and petrographic grounds appears to have been Canaan (Amiran and Glass 1979). In addition, Egyptian craftsmen adopt the Canaanite practice of adding wavy-ledge handles (Petrie 1896:38-40; Kantor 1942:181; Amiran and Glass 1979:54).

Some ceramics and a number of objects with Mesopotamian influences are also known from Upper Egypt. These attest to a continuing contact between the regions dating back to Buto Stratum I (Brunton and Caton-Thompson 1928:51, pl. 40.59w; Kantor 1992:fig. 6; von der Way 1992:217-20). This contact helps to furnish an explanatory framework for the appearance of Mesopotamian (Susian) motifs on objects like the Gebel el-Arak knife, the Pitt Rivers knife handle and in other glyptic art (Kantor 1952; Wenke 1991:304; Smith 1992:235-46). Some scholars believed this connection came through the Wadi Hammamat or some other southern route (Frankfort 1941:358; Baumgartel 1960:44-50; Wenke 1991:304; Smith 1992:245; Adamson 1992).

In addition to ceramics, other luxury raw materials appear in elite Egyptian graves during the latter half of Naqada II. This includes a range of semi-precious stones like lapis lazuli, for which the closest known source is Badakhshan in modern Afghanistan (Herrmann 1968:21-9, Crowfoot Payne 1968:58-61), copper objects (Ward 1991:16-7) and gold, probably mined locally in the Eastern Desert (Ogden 2000:161). Turquoise, obtained from the Sinai, also appears (Lucas and Harris 1989:404-5). A trade in asphalt, known from earlier strata at Maadi, probably also continued (Serpico 2000:456). A cedar box from the Naqada IIc/d Abydos tomb of
U-127 is ‘the earliest larger (sic) object made of cedar wood so far known in Egypt’ (Hartung, pers. comm. 11/7/00), pointing to an early date for the commencement of the coniferous timber trade by land or sea.

In southern Canaan, Naqada IIc Egyptian pottery is found in EB strata at Taur Ikhbeineh and at least twelve other settlement sites in the region (Oren and Yekuteili 1992:368-71, 380; Amiran and Gophna 1992 with references). The ceramics include Petrie’s P, R and D wares with black-topped ware also potentially among the assemblage at Taur Ikhbeineh and the Y-2 site near Deir el-Balah (Oren and Yekuteili 1992:379, 380). Evidence at Taur Ikhbeineh suggests that local potters assimilated aspects of Egyptian ceramic production like the use of chopped straw as temper (Oren and Yekutieli 1992:367-8).

Egypt’s relationship with the Levant was based on a series of trading networks, sustained by Canaanite ‘caravaneers’, supplying the country’s elites with exotic products not available locally (Stager 1992:40; de Miroshedjji 1998:23-4). In return Egypt may have traded grain, Nile and Red Sea shells, gold and semi-precious stones (Ben-Tor 1982:14; Trigger 1987:59-60).

2.2.3 The EB IIB (late) - Naqada IIIa to IIIcI (pl. 2)

This period sees an increase in pottery imports in both regions as well as evidence of a more established Egyptian presence in southern Canaan. A marked degree of social stratification and differentiation also emerges in burial practices from Egyptian cemeteries, which points to greater social complexity and the increasing separation of elites (Trigger 1987:60). Luxuries such as gold, semi-precious stones and ivory continue to be put in high status Egyptian tombs as symbols and affirmations of wealth and power (Hassan 1988:169).

The growing power of elites was also expressed in their control of trade routes (Trigger 1987:61). Indicative of this are the over 375 foreign pottery storage jars from the Naqada IIIa2 tomb of U-j at Abydos which bears witness to an unexpectedly early and large-scale trade of imported commodities (Dreyer et al. 1993:pl. 9; Dreyer 1993; Dreyer et al. 1998:93-6). Some of these vessels have few
parallels in Canaan and would appear to have been made especially for Egyptian consumption (Dreyer et. al 1993:55; Dreyer 1993:12). Made in various shapes and wares, the jars originated in the hill country of Israel, Jordan and the Jordan Valley, based on petrographic analysis (Dreyer et al. 1998:95-6). Botanical evidence indicates that wine was the primary commodity they contained (Dreyer et al. 1998:92; Hartung in press). The quantity of vessels and overall volume ‘point[s] to well-established trade relations on a high level’ (Dreyer 1992:297). The scale of commodity production to fuel this demand indicates the presence of organised, specialised horticultural activities in Canaan at this time (Stager 1985:180).

In Canaan, in Naqada IIId-IIIA1/2 imported Egyptian ceramics continue appearing in the northern Negev area at sites like Taur Ikhbeineh, Tel Erani, Azor and Lachish, but in quantities smaller than proceeding periods (Amiran and Gophna 1992; Hartung 1994:109). At Tel Erani, seal impressions with Naqada IIIa2 affinities further indicates that Egyptian elites had already begun in sourcing products from the region (van den Brink 1995:203).

This trade probably used donkeys along the northern Sinai land route (Oren 1989; Ben-Tor 1992:fig.4.6; Dreyer 1998:96). A wooden box made of cedar, also from U-j’s tomb, indicates that coniferous timbers were also imported in small quantities (Dreyer et al. 1998:165, Cat. No. 237, 189-90, fig. 99 and pl. 45a-d). An obsidian carved stone vessel from the same tomb shows that long-range trade links were not confined to exotic timbers (Dreyer et al. 1998:170, pl. 41).

By the Naqada IIIB-c1(EB Ib) Dynasty 0 kings had pushed the boundaries of their influence beyond the borders of Egypt itself into southern Canaan. The nature and character of this intervention remains hotly debated with scholars variously associating it with trade, colonisation, immigration or military activity followed by occupation (see for example Yadin 1955; Finkelstein and Gophna 1993:11-5; Gophna 1987; Brandl 1989; Kempinski 1992; Porat 1992; Gophna 1995b:275; Levy et. al 1997; Braun in press). This extension of Egypt’s influence appears to have been sudden and significant at sites like Tell Halif (Levy et al. 1997:46) and Tell Erani (Weinstein 1984; Brandl 1989). At Tell Halif, Levy suggests that ‘this reflects a case
for migration or colonisation from one homeland to another’ (1997:46). The Egyptian presence in southern Canaan was accompanied by more far-reaching exchange with other parts of the Levant, such as Byblos, in order to access timber, lapis lazuli and other exotic products (Gale et al. 2000:349).

Pottery imported from Canaan continues appearing in Egypt during the late Predynastic Period. Petrographic analysis reveals an origin in central and southern Canaan for these imports, probably Judea and the Hebron Mountains (Porat 1989:86). This would support the notion that wine and olive oil from the horticultural heartland of Canaan was sent back to Egypt during the EB Ib (Finklestein and Gophna 1993:13-14). Other imported luxury raw materials include coniferous timbers, including *Pinus sp.*, used for an arrow fragment found in Abydos Cemetery B (Western and McLeod 1995:80; de Vartavan and Aseni-Amorós 1997:205).  

However, Egyptian activity was the most intense in southern Canaan (de Miroshchedji 1998:figs 7 and 14). Imported Egyptian and locally made Egyptianising pottery is known from just about every site in the region with EB Ib strata, and Egyptian stone tools and other objects have also come to light (Rosen 1988; Porat 1989; Brandl 1992, 1989; Kempinski and Gilead 1991; Braun 1995). Egyptian finds include marl clay vessels formed into large storage jars (‘wine jars’), used for the transportation of commodities such as oil or grain (Gophna 1987:17; Brandl 1989:figs 9-11; Gophna 1992; Levy et al. 1995; Amiran and van den Brink in press; Braun et al. in press).

Petrographic analysis of southern Canaanite pottery shows that while some shapes and even the manufacturing techniques are Egyptian, the clay is a local loess (Porat 1989; Porat 1992; Brandl 1989:376-8). This suggests either the presence of Egyptians working alongside local craftsmen, or at least a direct Egyptian influence on the products of local workshops (Porat 1989; Brandl 1989:378-9; Oren and Yekutieli 1992:373-82). Several scholars suggest that this ceramic production developed to meet the requirements of a local population of Egyptians who were facilitating the movement of products between Canaan and Egypt (e.g. Porat 1989:86).
Obviously, the extent to which ‘Egyptianising’ features of pottery alone can be used to suggest the actual presence of Egyptians needs to be treated with caution. After all, such Egyptian influences like the use of chopped straw as temper had already ‘infiltrated’ local production techniques in the EB Ia period (Oren and Yekutieli 1992:367-8, 381). Nevertheless, there is strong evidence for official administrative activity on the part of Egyptians in southern Canaan that is consistent with Egyptian migration or colonisation of this particular area. The evidence for this seemingly peaceful and officially sanctioned Egyptian presence falls into the following categories (for summaries of this material, Gophna 1987; Brandl 1992).

(a) **The appearance of Egyptian royal names**

Pots bearing incised serekhs of Dynasty 0 kings have been found at Arad (Amiran 1974c and 1976), Nahal Tillah (Levy et. al 1995:26-35), Tel Malhata (Amiran 1983), Tel Ma’ahaz (Amiran and van den Brink in press), Palmahim Quarry, Harvat ‘Illin Tahtit (Braun et al. in press) and Tel Erani (Gophna 1987:14-6). Seven serekhs were recently unearthed at Lod (E. Braun, pers. comm.). The serekhs from all of these sites are primarily those of Narmer, although sherds with the serekh of Aha have been found at ‘En Besor (Gophna 1987:14). A serekh originally identified as belonging to Ka was also found at Nahal Tillah, but more recently identified as probably belonging to Narmer (Levy et al. 1997:19-20); a serekh of Ka was possibly found at Lod (S. Bourke, pers. comm. 11/8/00).

Without exception these serekhs are incised onto large Egyptian storage jars (‘wine jars’) before firing (van den Brink 1996:140-158). Such vessels are well known in Egypt and come primarily from Naqada IIIb/c-Early Dynastic contexts where they had been used for the storage of foodstuffs (van den Brink 1992a:269-70; van den Brink 1996). The serekhs imply the movement of goods from Egypt to southern Canaan by the authority of the Egyptian state (Levy et al. 1997:45). At Nahal Tillah a sherd bearing a serekh was found in the remains of a structure that has been interpreted as a public grain silo from an administrative quarter (Levy et al. 1995:29-30), all of which strongly suggests the central management of certain food resources at this site.
(b) Clay bullae and seals

Clay bullae and clay seals bearing inscriptions have been discovered in some quantity at 'En Besor and Nahal Tillah (Schulman 1980, 1983 and 1992; van den Brink 1995; Levy et al. 1997:16-8). Moreover, impressions of fabric on seals from Nahal Tillah indicate that textile sacks, in addition to other containers, were sealed in this fashion (Levy et al. 1997:18). Since they are made from local loessy clay (Schulman 1992:409-10; Levy et al. 1997:16-8), the bags or jars with which they were originally associated were sealed in Canaan. Analysis of the seal impressions reveal the use of Egyptian or Egyptianising symbols and signs (Schulman 1976, 1980, 1983; 1992; van den Brink 1995; Levy et al. 1997:16-7). Schulman believed that names of 1st Dynasty kings up to Anedjib are represented (Schulman 1992:397; Wilkinson 1999:154, 157), but this has been challenged, with many scalings now having been re-dated to Dynasty 0/early 1st Dynasty (van den Brink 1995 and references). A growing body of inscriptive evidence points to the Egyptian term for Canaan at this time as h3s.t meaning ‘the mountains or foreign country’ or h3s.tf which translates as ‘he who belongs to the mountainous or foreign country’ (Levy et al. 1997:45).^7

(c) Architecture with Egyptian elements

An EB Ib building at 'En Besor had distinctive Egyptian construction elements, suggesting at an Egyptian administrative presence at the site (Gophna and Gazit 1985; Schulman 1992:410). At Nahal Tillah, a dromos tomb was discovered, for which the best parallels are Egyptian tombs of the later 1st Dynasty at Helwan (Levy et al. 1997:14-6, fig. 30; Köhler pers. comm. 16/8/00).^8

(d) Religious paraphernalia

At Nahal Tillah two ceramic sherds were found with distinctive plastic decoration. Both sherds were thick; their walls were slightly greater than 2cm without the additional clay modelling. One of the sherds bore a modelled giraffe, while the other featured the lower legs of a striding figure (Levy et al. 1997:21-2, Fig. 17.5-6). While these pieces are fairly small, giraffes appear on a variety of objects from Naqada III Egypt, including stone palettes and a well-known cylinder seal from Helwan (Levy et al. 1997:21 with references; Köhler 1999). However, the clay type of the Nahal
Tillah sherds was not identifiably Egyptian, and the piece depicting the human figure bore traces of white slip, a trait more closely identified with Canaanite ceramic production (Levy et al. 1997:31).

The best parallels for the Nahal Tillah fragments come from a ceramic cult stand of Naqada III/Dynasty 0 date that was found in early levels of the ‘Osiris Temple’ at Abydos. This piece depicts an incised giraffe and modelled ram (Harvey 1996). The cult stand from Abydos secures a direct Egyptian inspiration for this object. The presence of these sherds thus permits the tentative suggestion that the stand was made by or for Egyptians living at Nahal Tillah for the promulgation of an Egyptian cult. Combined with the tomb structure noted above from the same site, a well-established Egyptian presence at Nahal Tillah would seem to be likely.  

(e) Other objects
A large number of other Egyptian or Egyptianising objects have been found all over Canaan but especially in its southern regions (summarised in Brandl 1992). These include amulets (Levy et al. 1997:22, Fig. 17.2), imported siltstone and locally made palettes (Garstang 1936:pl. 36.26; Ben-Tor 1975), statuettes (Gophna 1983: 60), flint tools (Rosen 1988; Braun et al. in press), and possibly also copper implements (Hestrin and Tadmor 1963; Ben-Tor 1982:5). In particular the group of Egyptian flint tools at Tell Erani ‘suggests a significant Egyptian presence at the site in the Early Bronze Age engaged in farming activities’ (Rosen 1988:116).

2.2.4 Summary
Evidence from southern Canaan demonstrates a significant Egyptian presence and involvement in the region during the EB Ib, equated with the Naqada IIIb/c1. This represented an extension of Egyptian administrative and economic activity from the eastern Delta across the Sinai land bridge and into southern Canaan. Egyptians moved peacefully into the region, living alongside Canaanite communities. The most likely purpose of this occupation was to gain improved and direct access to goods and products from Canaan through reciprocal exchange.
The clay bullae bearing administrative seals, serekhs on storage jars, Egyptian architecture and significant quantities of Egyptian ceramic imports and local copies indicate an organised administrative presence at the behest of the Egyptian royal court. Architectural and inscriptional evidence indicates that Nahal Tillah and ‘En Besor were the main Egyptian administrative centres. Other sites, like Tell Erani, may have been what Stager describes as ‘mercantile colonies’ (Stager 1992:40). This activity evidently involved the co-operation of local Canaanites, since no sign of military activity has been observed (Rosen 1988:115-6) and the local Canaanite assemblage occurs along side Egyptian material. Egyptian objects of one sort or another have been found at many other EB Ib sites in the northern Negev, Shephelah and coastal plain, indicating that Egyptian influence, activity and presence were widespread in southern Canaan and even extended north to the Yarqon River (Brandl 1992:444; de Miroshchekji 1998:figs 7-14).

While the archaeological material itself is significant, the precise nature of the traded commodities still requires further research. The Abydos tomb of U-j indicates that wine was imported from Canaan. Secondly, the imports in this tomb point to the fact that this high-level Egyptian trade network was in place as early as Naqada IIIa2.

The establishment of forward trading posts in the late EB Ib/Naqada IIIb allowed better access to wine and olive oil from the hill country of Canaan, which was transported to Egypt in ceramic jars (Finkelstein and Gophna 1993; Gophna 1992:392-3). Copper (Kempinski 1992:419), grain, and possibly asphalt were also traded (Ward 1991). Other products such as imported coniferous timbers may have been brought by sea from the northern Levant, or in small quantities by donkey caravan from the Mount Hermon area, but there is little hard evidence to support this. What Egypt exported in return is not known with certainty, but may have included grain, linen and oil. In southern Canaan this presence seems to have peaked under King Narmer, possibly continuing under Aha of the 1st Dynasty before going into decline.
2.3 The EB II – Early Dynastic Period

The beginning of the EB II (pl. 3) is traditionally synchronised with the Early Dynastic Period (1st-2nd Dynasties), starting with the reign of Aha (Table 1) (Amiran 1969a; Kantor 1992; Stager 1992; Adams 1995; Levy et al. 1995:33).11

As the discussion below illustrates, the Early Dynastic Period witnessed a significant change in the nature of the relationship between Egypt and the Levant. However, like the previous era, the acquisition of prestige goods served to enhance and augment the status and authority of Egyptian elites (Joffe 1993:59).

The following sections will assess these developments by examining key aspects of the archaeological material. This evidence includes the importation of commodities and the debate surrounding Abydos Ware, Egypt’s relationship with the Sinai, Arad and northern Canaan, and the appearance of Egyptian stone vessels in EB II Canaan. Various problems concerning the nature of the evidence for EB II interrelations will also be canvassed.

See Table 1 – page 42
### Table 1: EBI-II Synchronisms with Egypt – A Summary

<table>
<thead>
<tr>
<th>Canaan</th>
<th>Egypt</th>
<th>Absolute dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBIa</strong></td>
<td>Naqada IIb/Buto-Maadi Str. I</td>
<td>3550-3400BC</td>
</tr>
<tr>
<td>Site H, Taur Ikhbeineh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell Halif terrace silo site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>str. III</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EBIb early</strong></td>
<td>Naqada IIc/Buto II</td>
<td>3400-3300BC</td>
</tr>
<tr>
<td>Taur Ikhbeineh, Tel Erani Str. D, Lachish (NW)</td>
<td>Naqada IIId-1-d2/Buto Str. II</td>
<td>3300-3200BC</td>
</tr>
<tr>
<td><strong>EBIb late</strong></td>
<td>Naqada III-a-c1</td>
<td>3200-3050BC</td>
</tr>
<tr>
<td>Tel Erani Str. C</td>
<td>Abydos Cem. U/Buto Str. III</td>
<td></td>
</tr>
<tr>
<td>En Besor Str. III</td>
<td>Buto Str. IV/Hri-Hor (Abydos Tb B1/2)</td>
<td></td>
</tr>
<tr>
<td>Tel Erani Str. V</td>
<td>Ka (Abydos B7/8)</td>
<td></td>
</tr>
<tr>
<td>Arad IV, Tel Halif Terrace</td>
<td>Narmer (Abydos 17/18)</td>
<td></td>
</tr>
<tr>
<td>silo site Str. Iib</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EB II</strong></td>
<td>1st Dynasty</td>
<td>3050-2890BC</td>
</tr>
<tr>
<td>En Besor Str. II, Tel Yarmouth Ph. 0-1,</td>
<td>Buto Str. V/Aha (Abydos B10/15/19)</td>
<td></td>
</tr>
<tr>
<td>El Maghar, Arad III,</td>
<td>Neithotep (Naqada)</td>
<td></td>
</tr>
<tr>
<td>SinaiSheikh Mukhsen Ai Ph. IV-V</td>
<td>Djer (Abydos O)</td>
<td></td>
</tr>
<tr>
<td>Arad II, Dan Str. XV</td>
<td>Djet (Abydos Z)</td>
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<tr>
<td></td>
<td>Den (Abydos Y)</td>
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<td></td>
<td>Merytneith (Abydos T)</td>
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<tr>
<td></td>
<td>Anedjib (Abydos X)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semerkhet (Abydos U)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Qa’a (Abydos Q)</td>
<td></td>
</tr>
<tr>
<td><strong>EB II late</strong></td>
<td>2nd Dynasty</td>
<td>2890-2686BC</td>
</tr>
<tr>
<td>Arad II-I?, Tel Yarmouth Ph. II</td>
<td>Hotepsekhemwy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Raneb</td>
<td></td>
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<td></td>
<td>Nynetjer</td>
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<td>Peribsen (Abydos P)</td>
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<td>Khasekhemwy (Abydos V)</td>
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</tbody>
</table>

2.3.1 Interrelations and the historical setting

The reigns of Ka, Narmer and Aha mark the zenith of Egyptian interest in southern Canaan, but by the time of Djer a significant change in Egyptian-Canaanite relations takes place (Ben-Tor 1982:6; Porat 1992). Most importantly, the Egyptian presence in southern Canaan undergoes a rapid contraction at all sites (Ben-Tor 1991:4). From the reign of Djer onwards, various types of Abydos Ware appear in Egypt, providing critical synchronisms with EB II Canaan (Amiran 1974b).
The reasons for this marked change in regional interaction are not clear and continue to be much debated. One explanation is that Egypt withdrew from Canaan in order to focus on critical nation-building activities like the organization of administrative and political structures, the elaboration of state mythology, and the construction of monumental architecture (Oren 1989:403-4; Weinstein 1991:2). Less plausibly, Kempinski links the change in the relationship to Egypt’s growing command of the Sinai copper resources, and a concomitant deterioration of Arad’s role control of this resource on the peninsula and in the Wadi Arabah (1983:239). A more prosaic and practical reason, and one supported by the archaeological evidence, was that the Egyptian state had developed better mechanisms to acquire Canaanite goods which did not require a physical presence of Egyptian officials in the region (Joffe 1993:57). This was linked to the development of a sea-borne trading network to ship heavy timbers for construction from the Levantine coast (Prag 1986:59-60; Esse 1989:88; Stager 1992:40).

Another possible explanation might be the growing independence of Canaanite cities (Wilkinson 1999:155-57), thus generating an increasing level of hostility to an official Egyptian presence. Indeed, Egyptian military activity in Canaan seems well attested at first sight during the Early Dynastic era (Hennessy 1967:74; Wright 1985:248-51). Evidence includes the Palermo Stone, fragmentary seal impressions and inscriptions, carved labels, and gaming pieces with smiting and bound captive scenes (Petrie 1900:pl.12.12-3; Petrie 1901:pls 3a.1, 4.12; Gunn 1928:153, 160; Wright 1985:248; Godron 1990a, 1990b). Needless to say, the extent to which these images refer to actual historical events or simply belong to standard images of kingly power is debateable (Baines 1995a and 1995b).

Some of these objects bear the word Stt, and the phrases śkr [smiting] st.twy and in(w) Stt, which have been taken as evidence of Early Dynastic military action in Canaan (Anati 1963:356; Lapp 1970:121-2; Drower and Bottero 1971:357; Wilkinson 1999:155-7; Godron 1990b). Some debate has taken place over the location of Stt in the Early Dynastic Period, with Ward proposing that the term referred to a region in or near Egypt (1963:18), and Godron more recently supporting Canaan (1990a:194). However, Ward’s position is supported by a sealing from
Peribsen’s Abydos tomb bearing in(w) Stt written with a town determinative (Petrie 1901: pl. 22.181), leading to the suggestion that this phrase probably refers to the movement of produce from a ‘royal domain’ in the Delta (Kaploný 1963:783-87; Wilkinson 1999:157), rather than military activity in Asia (e.g. Gunn 1928:160; Wright 1985:250; Ward 1991:12). Moreover, an Old Kingdom inscription from Wadi Kharig near Serabit el Khadim mentions the region of Stt in conjunction with the king’s activities there, a reference which can only mean the Sinai (Giveon 1977). Hence, during the Early Dynastic Period, it is not inconceivable that the term referred to the same area.13 Similar expressions, like ‘Smiting of the twntyw’ from Den’s Palermo Stone entry, and breached enclosures on labels likewise may refer to military action in the Delta, an unspecified area northeast of the Delta or the Sinai (Petrie 1900:15.16-7; Kaploný 1963:783-7; Gardiner et al. 1955:2; Gardiner 1961:414-5; Wright 1985:248-51; Ward 1991:12; Stager 1992:35; Godron 1990a:149-50).

Likewise, the phrase in(w), once largely regarded as meaning ‘conqueror of...’, is now viewed in a different light (see Godron 1990a:158). Redford believes the term does not refer to military action per se, but rather to an Egyptian role in Canaan which still embraced an element of coercion, translating it as ‘benevolence’ or a form of enforced gift or tribute (Müller-Wollermann 1983; Boochs 1984; Redford 1986a:135 n.ab, 140). Ogden on the other hand, prefers a more benign activity, translating the term as meaning produce, gift or tribute brought from a location (1982; Godron 1990a:158). In the 3rd millennium, the term apparently had a specific meaning, embracing a form of redistributive gift-giving involving the king as either recipient or donor (Bleiberg 1996:53).

The term wnt, thought to refer to a walled town or settlement in either the Levant or the north eastern Delta (Zibelius 1978:67-9), is also known from a tablet or label from the reign of Den, referring to an expedition by the king (Petrie 1900: pl. 15.18; Redford 1986a:135; Godron 1990a:167-9). In the Old Kingdom, especially in the 6th Dynasty, many scholars place wnt in Canaan (Drioton 1943:487-514; Fischer 1959:260-4; Helck 1971:17, n. 42 and 18, no. 49; Wright 1988:153; Zibelius 1978:69).
As to whether this was the case during the Early Dynastic era remains to be clarified (Godron 1990a:168-9, 191).

This is not to say that no Egyptian military activity occurred in Canaan during the Early Dynastic Period (see Godron 1990b). Canaan’s larger, fortified urban centres ruled by elites or ‘independent administrative authorities’ (Joffè 1993:84) probably presented a more complex political, commercial and defence environment for Egypt than the communities of the EB Ib. Rather, owing to uncertainties surrounding aspects of the documentary evidence, such as the situation of $\text{Sf}$, the meaning of $\text{in(w)}$ and the identity and location of various ethnic groups mentioned in the texts, piecing together the precise historical situation becomes increasingly difficult. Indeed, it is possible that much of this military action documents campaigns against local Sinai tribespeople, fuelled by the Egyptian desire to gain access to its rich resources (Helck 1971:13-6; Stager 1992:35).

Another expression, $\text{h3st}$, is actually attested in EB Ib-II Canaan, and thus probably refers more specifically to the region. Likewise the contexts in which the word occurs do not indicate military activity. The seal mentioning $\text{h3st}$ from EB Ib Nahal Tillah (Levy et al. 1997:18) and the inscribed pot from EB II Beth Yerah (Greenberg and Eisenberg in press; see Ch. 2.3.4 below) were discovered in settlement and ritual contexts respectively. Moreover, a title from an inscription of Djoser from the Wadi Maghara mentions ‘$d-m$ $\text{h3st}$ ‘administrator of the foreign land/hill country’ (Gardiner et al. 1955:53), indicating that $\text{h3st}$ may have referred to both the Sinai, Canaan and other mountainous regions beyond Egypt (Godron 1990a:155-9; Wilkinson 1999:167).

While documentary and archaeological evidence is more fulsome for the 1st Dynasty, the same cannot be said for the succeeding period. Very little is known about the historical events of the 2nd Dynasty, with Egyptian written sources alluding to a period of internal strife (Gardiner 1961:415-25; Emery 1961:91-104; Edwards 1964:24-8; Grimal 1992:54-7; Wilkinson 1999:82-94). Few royal monuments from the period exist, with the location of many royal tombs not even being known (Hennessy 1967:86; Kantor 1992:20).
Traditionally, the 2nd Dynasty has been seen as a period of waning cultural interconnections with Canaan in particular (Marfoe 1987:26; Andrassy 1991:138). However, an increasing number of foreign objects or raw materials from this era are coming to light which is slowly changing perceptions of this shadowy period. These include several imported Abydos Ware jars from Helwan and Saqqara which probably date to the early part of the Dynasty (Saad 1947:pl. 34.3; Emery 1949:fig. 68; Köhler 1998a:70-1). Other items include coniferous timbers imported in significant quantities, discussed in Ch. 2.3.5 below. An inscription on a stone vessel of Peribsen mentions int(w) ḫ3st ‘produce/gift/tribute of the mountainous/foreign country’ (Gunn 1928:160, No. A13; Ogden 1982), suggesting official trade/exchange with Canaan or the Sinai during his reign. Hence, the title imi-r(3) ḫ3st ‘overseer of the foreign land/hill country’ appearing for the first time during the reign of Khasekhemwy (Godron 1990a:158; Redford 1992:37; Wilkinson 1999:157), may have belonged to an official with a wide geographical brief, embracing relations with both Sinai, Canaan and other mountainous regions beyond Egypt proper.

2.3.2 The development of complex society in Canaan and the role of Egypt

The impetus for the development of complex society is a topic over which scholars are divided. Some believe the stimulus came from Egypt and then moved northward (Kempinski and Gilead 1991:189; Kempinski 1992), and by others to have originated in the north (Syria/Mesopotamia) and slowly moved south (Amiran 1970c). Various models have been developed with which to examine the archaeological material as evidence for the nature of Egyptian contact (Esse 1989; Joffe 1993; Falconer 1994; Levy et al. 1997).

During the EB Ib, the arrival of the administrative apparatus of the Egyptian state at Nahal Tillah, ‘En Besor and Tell Erani may have had a profound impact on the existing elites. This ‘asymmetrical culture contact’ between the core (Egypt) and periphery (Canaan) involved the use of writing, the presence of a structured hierarchy to facilitate economic activity and the organised acquisition of commodities. This greatly influenced subsistence-based agrarian communities (Joffe 1993:54-8). Moreover, an increased level of economic and social organisation was required on the part of local Canaanite communities to supply commodities such as
wine from its vineyards in sufficient quantities to Egyptian elites (Finkelstein and Gophna 1993:13-4).

While Egypt’s position and influence was most evident in the south, this stimulus was felt elsewhere in Canaan. This effect may have lessened with distance: indeed, Amiran notes a southward diffusion of forces from the northern Levant that probably had an equal if not greater impact in northern Canaan (1970b; Joffe 1993:55). However, even here the effect of Egypt’s state apparatus can be observed well into the EB II (Greenberg and Eisenberg in press).

The EB II witnesses a change in settlement patterns and the emergence of large, fortified complexes in Canaan, which were fewer in number (pl. 3) (Schaub 1982; Esse 1989; de Miroshedji 1989:67-8; Gophna 1995b:273-4; Mazar 1992:108-117; Joffe 1993:68-79). The development of these cities followed intense interaction with the developing Egyptian state in the EB I b, which probably helped provide some of the impetus for this growth, particularly in the south (Kempinski 1992; Esse 1991:91; Stager 1992:40; Mazar 1992:140; Joffe 1993:54). The rise of EB II urban complexes may have also been affected by other local factors and stimuli, such as an increasing level of migration and nomadism at the end of the EB I b (Gophna 1995b:274-5), associated with ‘the weakening of connections [with]... Egypt’ (Portugali and Gophna 1993:181).

Further detailed analysis of these important issues is beyond the scope of this dissertation. Needless to say, the nature of Egypt’s role in the process of secondary state formation is contentious (Kempinski and Gilead 1991; Kempinski 1992; Gophna 1995b:275; Levy et al. 1997:2-7). For our purposes, it is sufficient to understand that in the EB II interconnections continued between Egypt and Canaan, but that the character and intensity of these relationships changed. With the emergence of larger population centres in the Levant and the administrative structures necessary to support more complex social organisation (Esse 1989:87-9), a change in attitude to, and regard by, the Egyptian administration for the Canaanite cities is evident. This approach characterised Egypt’s relations with her neighbours for much of the 3rd millennium.
2.3.3 Egyptian material in Canaan and the problem of identification and publication

Scholars have pointed to a disproportionate quantity of Canaanite pottery in Egypt relative to Egyptian material in Canaan during the EB II period (Hennessy 1967:68; Ben Tor 1991:4), with some even suggesting that 'connections between Egypt and southern Canaan were almost severed at the beginning of EB II' (Porat 1989:87). While this pattern is striking, the evidence has been partially distorted by problems and inefficiencies in the identification and publication of Egyptian pottery that has been found in Canaan (Brandl 1989:368-72). For many older excavations inadequate processing and identification of Egyptian ceramics has also been a problem.

In addition, a recent tendency has developed for some scholars to re-date EB II material in Canaan to the EB I, even though the best parallels or context may suggest a later EB date (e.g. Braun in press). The rationale for this has been the preponderance of Egyptian finds in the EB I, making an earlier date 'more appropriate' (Braun et al. in press). Clearly this 'massaging' of the evidence distorts the overall picture of interregional and international relationships during the EB.

In spite of these problems, published reports still give tantalising glimpses of a relationship between Egypt and Canaan during the EB II that is much stronger than usually assumed. While the foreign pottery from Egyptian Early Dynastic tombs is well known and comprehensively studied (see the Ch. 2.3.5 below), the same cannot be said of corresponding sites in the Sinai and Canaan. Indeed, the quantity of Egyptian material in the region during the EB II, when examined as a whole, points to a robust two-way relationship involving both commodities (raw products) and prestige goods. For example, Egyptian pottery is reported from EB II Aphek (Kochavi 1981:76), Tel Ma'ahaz (Cohen et al. 1975:162) and EBA Arabah (Rothenberg and Glass 1992:148) but little studied and published. Egyptianising pottery shapes are reported from sites such as Hartuv (Wolff 1991:502), but are again inadequately published. Greenberg is convinced that further Egyptian imports can be found amidst the material from Beth Yerah (pers. comm. 24/2/99). An Egyptian jar has also been observed at Megiddo (Amiran 1974b:fig. 2.11). An imported Egyptian seal from EB II Bab edh-Dhra (Lapp 1989:9-12; Lapp 1995:50, Reg. No. 2823) was in an ambiguous context, but an EB II date of arrival for the seal is probable.18 Imported
Egyptian siltstone palettes are also known, but a number of possible candidates are too poorly published to allow accurate identification (see Ch. 8.3).

Much of this material remains poorly studied or even unknown for various reasons. Publication of Israeli excavations conducted in the Sinai after the Six Day War has been a politically sensitive issue. Indeed, only recently has archaeological material been formally returned to Egypt. Secondly, for many years few archaeologists working in Israel had sufficient familiarity with Egyptian material to identify, let alone study, Egyptian pottery (Brandl 1989:368-72). Hence, this evidence was noted but generally neglected (Amiran 1974b:9).\textsuperscript{19} In addition, the level of knowledge about Egyptian pottery more generally has increased considerably over the last 25 years and thus helped to redress a serious imbalance in material culture studies (Arnold and Bourriau 1993; French 1998). These promising developments notwithstanding, it is still the case that a great deal of EB II material from older excavations languishes in storerooms awaiting further study.

A complete re-analysis of EB II-Early Dynastic relations is beyond the scope of this dissertation. However, it is now evident that, owing to the identification of more 1st-2nd Dynasty material at Arad, Tel Yarmouth, Beth Yerah and other sites, a more robust two-way trade between Egypt and Canaan existed in the EB II than has hitherto been attested.

\textit{2.3.4 The case of Beth Yerah}

A key site that well illustrates the traditional problems surrounding the study of Egyptian material in EB II-III Canaan, and the tantalising results stemming from reanalysis, is Beth Yerah. Sporadically excavated since the 1930s, large quantities of objects and pottery from this site remain unpublished (Greenberg and Eisenberg in press).\textsuperscript{20}

Nevertheless, important new material was recently noted in the sherd collection now held at the Israel Antiquities Authority storeroom at Romema (Jerusalem). Greenberg identified a red-slipped Egyptian ovoid jar and a one handled jar of local clay bearing Egyptian hieroglyphs from EB II levels at Beth Yerah (Greenberg and Eisenberg in
press). The former is a small container of modest proportions with a wide neck, made of Nile silt, found in a room of unknown function. On typological grounds it dates to the late Predynastic – Early Dynastic Period and as such fits well with evidence of direct Egyptian imports further south.

The one-handled jar was even more intriguing. Greenberg identified the fabric as belonging to Porat and Adam’s Group B, the local Beth Yerah/Kinneret fabric (Porat and Adams 1996:102-4). It was found in a deposit dating to the later part of the EB II, even though Kaplony suggested that the name inscribed on it belonged to the mid 1st Dynasty (Kaplony in press). The hieroglyphs, incised onto the surface post-firing, represent the name of an official named ḫm-h3st(i) ‘Hem-Khasti’, meaning ‘Servant of the God of the Mountain Country’. This name is consistent with a similar phrase identified on a seal from Tell Halif in southern Canaan (Levy et al. 1997:18). Found in a pit along with other vessels, the Beth Yerah jar appears to have been part of a ritual deposit. The name, coupled with the findspot, led Greenberg to suggest that ‘an Egyptian residing at Bet Yerah incised his name on one of a group of local Canaanite objects used in, and perhaps especially prepared for, a ritual’ (Greenberg and Eisenberg in press).

As the stratigraphy remains to be published in detail, the identification of the findspot as a ritual deposit can only be tentative. Nevertheless, the very presence, in a good EB II context, of a local vessel inscribed with an Egyptian hieroglyphic name speaks of Egyptians physically present at Beth Yerah at this time. As Greenberg suggests, perhaps their role was to act as agents, emissaries or diplomats of the Egyptian court, sourcing products and managing the Egyptian side of an interregional relationship based on the exchange of goods (Greenberg and Eisenberg in press). The distribution network may have been partially overland to the coast via the Plain of Esdraelon, thence by sea to Egypt, a faster route than sending goods by overland donkey caravan (Porat 1989:87). This trade may have been reciprocal as the Egyptian ovoid jar at Beth Yerah suggests (Greenberg and Eisenberg in press).
2.3.5 Commodities imported into Egypt

The acquisition of prestige goods by elites continued unabated during the Early Dynastic Period, signalling the on-going use of certain networks established in the Late Predynastic era. Semi-precious stones such as lapis lazuli from Badakhshan in Afghanistan (Crowfoot Payne 1968), turquoise from the Sinai (Petrie 1901:frontispiece), and obsidian from Ethiopia (Zarins 1989) were made into luxury items like beads, amulets and even stone vessels (Aston 1994). Copper also continued appearing but its precise source is not known with certainty (Kaczmarczyk and Hedges 1983:230-3; Ch. 2.3.8).

Petrie noted the use of coniferous timber beams in the Abydos tomb of Djet (Petrie 1900:9), a conclusion later interpreted as cedar (e.g. Emery 1961:204; Hoffman 1984:272). Citing this misquoting of the literature, Ben-Tor asserted that the sea-going cedar trade did not commence until the 4th Dynasty, when Egypt shifted its attention to Byblos (Kempinski 1983:239-40; Ben-Tor 1991:4); others believe this shift occurred at the end of the 2nd Dynasty (Marfoe 1987:27). However, recent timber analysis from the Abydos tomb of Aha shows that cedar beams were in fact used to roof this tomb (Hartung, pers. comm. 11/7/00; Gale et al. 2000:349). Moreover, if the wooden roofing beams from Djet’s tomb are coniferous timbers measuring ‘240 inches in length’ (or over 6m) as Petrie suggests (Petrie 1900:9), such timbers were certainly imported by sea for at least part of the journey from the coniferous forests of the Levant (Gale et al. 2000:349-52). This conclusion may also have some textual support, as a ‘tablet’ of Aha from Abydos depicts in the lower register ships returning with what has been interpreted as cargoes of mrw-wood (Petrie 1901:pl. 11.2; O’Connor 1987:33-4).

A growing body of evidence speaks of this trade continuing in the 2nd Dynasty. Other timber analyses reveals the use of cedar for the manufacture of a 2nd Dynasty coffin from Saqqara (Emery 1962:7-8), in addition to Cedrus libani and Juniperus spec. for unspecified 2nd Dynasty objects from Abydos (Germer 1988:55). Coniferous timbers were probably used to construct a group of wooden boats belonging to Khasekhemwy’s funerary installation found at the ShUNET el-Zebib, Abydos (Agence France-Press Report, 23/10/00; see also Wilkinson 1999:160).
Combined with cedar found in the earlier tombs of U-127 and U-j, this supports Ward’s contention that the coniferous timber trade began in the latter part of the 4th millennium BC (Ward 1963:42, 53; 1991:13). However, contrary to Ward’s view, these timbers were not small pieces of coniferous woods transported from the southernmost tips of these forests in northern Canaan/Lebanon (Ward 1991:14), but a fully-blown sea borne trade in large cedar logs under way by the 1st Dynasty (Stager 1992:40).26

Along with timbers, resins from coniferous trees such as pine were also imported in ‘Abydos Ware’ jugs first seen in the reign of Djer (see 2.3.6 below). Other imports may have included the continuation of the wine and olive oil trade from the hill country of Canaan, so important in the Naqada IIIa2 (Finkelstein and Gophna 1993:11-14). However, Egypt began cultivating grapes in the Early Dynastic Period (Murray et al. 2000:577), so this trade may have weakened (Marfoe 1987:27). Olive oil is another product that was probably imported from the same region (Finkelstein and Gophna 1993:11-14), but it has not been attested in any residues.

The existence of this state-sponsored exchange provides a framework for the appearance of certain other objects at Byblos (Ward 1963:18-9). It is also possible that the maritime network serviced way-stations on the coast of northern Canaan, to which products in Abydos Ware jugs from the region were delivered from the hinterland of northern Canaan.

2.3.6 Abydos Ware and its origins
Under King Djer, a particular product(s) was imported to Egypt in a variety of narrow-necked ceramic jugs. These pots are known as ‘Abydos Ware’ because they were first discovered in great quantity by Amélineau (1899, 1902 and 1904) and Petrie (1901:pl. 54) in royal tombs at Abydos.27 This ware comprises the largest corpus of imported ceramics during the Early Dynastic Period, also synchronising this era with EB II Canaan, and as such is worthy of lengthy discussion. However, while the ceramics are undoubtedly important, it was the contents that fuelled Egypt’s interest in acquiring these jugs (Gates 1988:68-9).
Since the discoveries of Petrie and Amélineau, examples have come to light in private tombs at many other sites, including Saqqara (e.g. Emery 1958:pl. 75, Type G), Abu Roash (Klasens 1958:fig. 13.G15), Abusir (Bonnet 1928), Turah (Junker 1912), Tarkhan (Petrie 1913, 1914), Abusir el Meleq (Scharff 1926), Lahun (Petrie et al. 1923:pl. 53C-E), Minshat Abu Omar (Kroeper 1992:135), Tell Ibrahim Awad (van den Brink 1988:fig. 19; van Haarlem 1996:10, pl. 11, pl. 20.3-4) and Helwan (Köhler 1998a:70). It is generally thought that Abydos Ware imports ceased by the end of the 1st Dynasty (Hennessy 1967:49; Adams and Porat 1996:98), but the presence of imported flasks in late 1st – early 2nd Dynasty Helwan and Saqqara tombs shows that this is not the case (Saad 1947:pl. 34.3; Emery 1949:fig. 68; Köhler 1998a:70-1). Indeed, Kantor suggested that the impression of a termination of Abydos Ware imports is caused by the relative paucity of 2nd and 3rd Dynasty excavated material rather than by any actual change in patterns of exchange (Kantor 1992:20).

Within the rather narrow parameters of this definition there are a surprising number of variations in shape (Helck 1971:28-34; Hennessy 1967:49-52). These range from narrow or more ovoid jars with or without a single handle (Petrie 1902:pl. viii.1-5; Emery 1954:fig. 58, G9-12, Emery 1958:pl. 75, G1-3, 6, 12, 15), through two or multi-handled jars (Petrie 1902:6-8; Emery 1958:pl. 75, G14), to a wide-bodied ledge-handled vessel with a ‘pillar’ handle from rim to shoulder (Emery 1958:pl. 70b and 75, G13). Hennessy notes that this latter type is not found north of Ai, so the origin lies somewhere in southern Canaan; the type was also noted at Arad (1967:51, Amiran 1978:pl. 38). Pottery imports from Buto Stratum V (1st–2nd Dynasties) and Early Dynastic Abydos also reveal a range of imported shapes wider than one-handled jugs, including a small number of sherds belonging to Combed Ware jars similar to Old Kingdom types (Petrie 1900:pl. 38.9; Porat and Adams 1996:100 – UC 17388; Köhler 1998b:144, pl. 68.9-11).

The main type, an ovoid jar with a single strap handle and small flat base, occurs in Canaan during the EB II and, to a lesser extent, during the EB III (Esse 1991: 104-7). On the basis of vessels that are available for study, Abydos Ware can be divided into several distinct types based on ware. They are Red Slipped Metallic Ware and
Standard EB Red Slipped Ware, the latter being a low-fired buff coloured fabric that is similar in composition to the fabric of Light Face Painted Ware (Kantor 1992:19; Esse 1991: 104-7; Porat and Adams 1996). Stager’s Deep Grooved Lattice Burnished Ware (Stager 1992:38) should be regarded as another variant on the basis of the surface finish.

The other type of Abydos Ware is known as ‘Light Faced Painted Ware’ (LFPW) and is found at Saqqara, Abydos and Abusir el-Meleq (Amiran 1974a:65). A decorated ceramic of red and white dots, horizontal lines and pendant triangles around the shoulder, this ware type is found from the reigns of Den to Qa’a with a single example known in the early 2nd Dynasty (Amiran 1974a:65-7). This period is associated with the latter part of the EB II (Porat and Adams 1996:104). LFPW occurs all over EB II Canaan with its northern-most appearance in Phases G-H at Tell ed-Judeideh in north Syria (Hennessy 1967:51; Genz 1993). The largest quantity is known from Arad, which was probably one of its major production centres (Esse 1991:108; Stager 1992:38). A trace element study conducted by Hennessy concluded that the painted wares from Abydos had originated in Canaan (1967:55-60). In an effort to further refine the data Esse alludes to similarities of shape between LFPW vessels from southern Canaan, especially Arad, and those from Egypt, thereby suggesting a southern origin for the jars in Egypt (1991:108-9; see also Stager 1992:38). While the imported vessels in Egypt do bear strong affinities with LFPW of southern Canaan, ultimately only petrographic or elemental analysis can clarify their precise provenance. Improved techniques of analysis, combined with the recent discovery of additional material at sites like as Khirbet Zeraqon (Genz 1993), means that a re-assessment of the Abydos Ware is appropriate.

Over 120 Red Polished Ware vessels are known from Early Dynastic Egypt, but many of these are inadequately published to allow further analysis, even on the basis of shape (Esse 1991:105). Unfortunately, many of these variations were found at Egyptian sites where the pottery is been unavailable for further study. Of the vessels available for study, fabric analysis has concentrated on imports discovered by Petrie at Abydos, now located in various museum collections, and as such may not be a wholly representative sample of 1st Dynasty imports (Hennessy 1967:52-60;

Nevertheless, spectrographic analysis and later petrography of the Abydos material have identified two different fabrics linked to ware type which point to two separate origins. Hennessy’s work isolated two broad fabric groups, one consisting mainly of red burnished (metallic) ware, and the other comprising almost entirely of high calcium LFPW (1967:57-8). Porat and Adams recently characterised the first group as North Canaanite/Lebanon Metallic Ware (Group A) and the second as a local fabric from the Lower Galilee/Lake Kinneret area, in the vicinity of Beth Yerah (Group B) (Hennessy and Millett 1963; Kantor 1992:19; Porat and Adams 1996).36 This recent work suggests that at least some of the LFPW from Abydos comes from Lower Galilee (Porat and Adams 1996:104). Hennessy also stated that on the basis of his chemical analysis ‘there are two and possibly three major groups of the ‘foreign wares’ from Abydos for which no parallels have been found in Palestine’ (1967:58). A further study, conducted by Hopke and Esse, revealed affinities between foreign ‘lattice-burnished’ vessels from Abydos and material from Tell el-Judeidah in the Amuq (1986:337, fig. 31.3). While the sample size was small, as Hopke and Esse admit, this does suggest the possibility of an exchange mechanism involving northern Syria during the 1st Dynasty (1986:337).

Some imported ceramics feature signs incised on to the surface pre- and post-firing, which relate to fabric type. Analysis of the potmarks on these imported vessels by Porat and Adams has yielded six critical findings (1996). Firstly, imported vessels of Group A fabrics (Lebanon/Northern Israel) were incised with geometric shapes, which ‘echo the marks applied at source in northern Israel or the Lebanon’ (Porat and Adams 1996:107). Secondly, imports made from Group B fabrics (Galilee/Kinneret) had a ‘wholly Egyptian repertoire of signs’; indeed, these signs are also known from wet-incised Egyptian vessels (1996:107).37 Thirdly, two Group A imports at other sites in Egypt (and even then the fabric on one, EA BM 33549, was a slight variation) had signs similar to those incised on Group B vessels. A vessel from Tell Ibrahim Awad featured a group of signs also known from Egyptian wine jars (1996:106-7).38 Fourthly, three Group A vessels were found in the Abydos
tomb of Djer, indicating that products were being sourced from Northern Canaan/Lebanon as early as his reign (1996:104; Serpico and White 1996:128). Fifthly, as different potmarks are found on vessels from different Egyptian sites and do not appear to be site-specific, the marks appear to relate more to the contents or source of the vessel (Porat and Adams 1996:107). Sixthly and finally, the two regions represented by the imported ceramics may point to different products sourced from each area (1996:107).

This last result has been the subject of further research by Dr Margaret Serpico who unfortunately was not able to make definitive general conclusions about the origin and contents of such vessels. However, her work did reveal that a Group A vessel from the Abydos tomb of Djer (Ashmolean Museum E.3160) had contained coniferous Pinaceae resin and had been re-used for vegetable oil (Serpico and White 1996:136-8). Other vessels contained residues consistent with animal fats or vegetable oils, but the extent to which this was the result of re-use of the jar was unclear (Serpico and White 1996:132-9). An Abydos Ware jar from Abu Roash also contained a substance that has been identified as ‘resin’ (Klasens 1961:113), but the scientific basis for this conclusion is unknown.

In the past trade in coniferous resins had been assumed, but lacked a secure scientific basis (e.g. Amiran 1969b:66; Hennessy 1967:60). Serpico’s results support the concept that this was one of the products traded during the EB II. An inscription on two calcite jars from the reign of Anejib mentioning ‘ś-oil, translated as ‘cedar oil’ or ‘oil from the coniferous tree’, may support this finding (Kaplony 1963:1.306; Ward 1991: Kantor 1992:19). As some of the earliest attempts at mummification date to this time (Petrie 1901:16-7), coniferous resins may have been imported for the aromatic and preservative qualities required for embalming procedures.39

Re-use may be the reason why some imported pots from Saqqara have jar stoppers bearing the seal of Den (contra Amiran 1974b:11-2). Described by Emery as ‘grey-black clay’ (Emery 1958:61), these would be Nile mud stoppers like that of Boston MFA 13.2932 [53] (see Ch. 3.3.1). This would indicate re-use of the jar in Egypt
after the original contents were emptied. Yet visual inspection of the seal material, now impossible, would be required to clarify the matter.

Enough work has been done recently to suggest some interesting new conclusions about EB II Egyptian-Canaanite relations. Not only were the Egyptians sourcing products from different regions, but they were also actively involved in this activity beyond their borders. Importantly, incised Group B imported jars in Egypt may not have been incised after their arrival in Egypt as previously thought (e.g. Porat and Adams 1996:98). It is possible that this was done in the Galilee area by agents of the Egyptian state, like Hem-Khasti, who were procuring and sending goods back home.

EB II Beth Yerah was obviously a pivotal town for the Egyptian state as an entrepôt for its products and for sourcing the commodities of northern Canaan/Lebanon. Evaluating the extent of direct Egyptian influence at Beth Yerah will require fuller publication of the excavations than has hitherto been the case. However, petrography points to the importance of northern Canaan, from the Lower Galilee to the Lebanese mountains, as a source of products desired by the Egyptians during the Early Dynastic Period. Products also continued flowing from central and southern Canaan, in addition to possible sources in northern Syria.

2.3.7 The role of Arad

Arad, located in the northern Negev, is regarded as a significant site in EB II Egyptian-Canaanite relations. Excavated by Amiran in the 1960s, it furnishes the key to the synchronism of EB II-Early Dynastic chronology (Amiran 1965, 1969a; Amiran 1978a; Ben-Tor 1992:122; Amiran and Ilan 1996), and may have acted as a ‘clearing house’ for Sinai or Feinan copper (Stager 1992:35; Finkelstein 1995:75). For these reasons, it is worth assessing the role of Arad in the context of this survey.

Amiran correctly identified a small quantity of Egyptian pottery in Arad Strata IV-II dated to the EBIIb-EB II and Naqada IIIc/Dynasty 0-Ist Dynasty. Although pointing to a direct relationship with Egypt, these ceramics are scattered stratigraphically and are small in number when compared to the large quantity of imported vessels in Egypt (Amiran 1978a:pl. 55, 113-4). Even so, one vessel as well as the sherd of another
similar jar (Amiran 1978a: 51, pls. 55.5-6, 114), must be regarded as out of context. The large storage jars found in Stratum II are best paralleled at Dynasty 0/EB Ib Minshat Abu Omar (Kroeper 1986/7: 76-7, figs 57-73), equated with Arad Stratum IV (Amiran and Ilan 1996:19). The Stratum II Arad temple findspot, suggests that the utilitarian vessel was retained and may have acquired a secondary significance or usage (on this issue, see Ch. 8). 40 Other Egyptian sherds were found in the EB II silo area (Amiran and Ilan 1996:94).

Egyptian imports at Arad include a fragmentary siltstone palette with possible traces of incised lines around the edge, a type common during Dynasty 0 (Amiran 1978a:55, pl. 68.21; Kroeper 1996:74-9). This piece was found in Stratum II, synchronised with the mid to late 1st Dynasty (Amiran 1978a:115-6). Notably, the date of the context is closer to the time when these palette types were produced in Egypt (Kroeper 1996:74-9), unlike other identical examples in EB III Canaan (see Ch. 8.3). This object may have been brought to Arad via the Early Dynastic exchange network or at an earlier time (Mazar 1992:136). Perhaps an Egyptian located at Arad acting as a forward emissary for regional commodities brought it to the site.

Other possible Egyptian items in EB II levels include beads of carnelian, faience, rock crystal and mother-of-pearl from the Red Sea (Amiran 1978a:55). Of interest are two stone vessel fragments of unusually fine craftsmanship (pl. 5) (Amiran 1978a:57, pl. 77.1-2). Amiran has described the stones as limestone and chalk, both available locally, but the shape and workmanship certainly speaks of technology imported from Egypt. 41 All are from Stratum II and their shapes can be paralleled in Egypt during the 1st–3rd Dynasties in a range of stones from calcite, limestone and basalt (el-Khouli 1978:nos 2511, 3579, 4312-22, 4368-70, 5355; esp. Aston 1994:118, no. 68 – 1st-2nd Dynasty).

The presence at Arad of large quantities of LFPW makes this site important for the synchronism of regional chronologies with those of Egypt. In view of the proximity of Arad to Egypt and of the similarities between the imported LFPW, it has long been assumed that many of the foreign jars in 1st Dynasty Egypt came from Arad (Hennessy 1967:60). Elemental analysis, however, indicates that at least some of the LFPW vessels in Egypt originated in northern Canaan (Porat and Adams 1996:104). Hennessy
also suggested that the relationship between Arad and Egypt was based partly on the trade in Dead Sea bitumen and cited in support of this suggestion ‘thick deposits of black material’ found in foreign jars from Abydos (1967:60). Serpico’s work shows that this conclusion is erroneous; rather the black substance is a vegetal oil or resin (Serpico and White 1996). However, with its proximity to the Dead Sea, Arad was well placed to exploit bitumen, in addition to salt, and both commodities may have been an additional product sought by the Egyptians through the Arad network.

The reasons for Arad’s decline at the end of the EB II are not clearly understood. EB II destructions are attested at the end of Stratum III (ca 2800 BC) and again at the end of Stratum II [ca 2650BC]), after which the city was inhabited again (Stratum I) then abandoned (Amiran and Ilan 1996:147). Kempinski cites the gradual Egyptian control of Sinai copper resources during the latter part of the Early Dynastic Period (Kempinski 1983:239) but this is not attested archaeologically (see below). Alternatively, Egypt’s growing sea-based relationship with Byblos may have severely affected the city’s economy (de Miroschedji 1989:72). A combination of environmental factors and changing economic exchange patterns with Egypt (Mazar 1992:141; Amiran and Ilan 1996:147) and other centres for Feinan copper may have seen the city decline in importance.

2.3.8 The Sinai, turquoise and copper

Egypt used the so-called ‘Way of Horus’, the coastal Sinai land route from the Eastern Delta to southern Canaan, for many centuries. Oren has highlighted the high degree of Egyptian control exercised over the Sinai during the Naqada III/Early Dynastic Period. Remains along the north Sinai land route speak of an organised, state-sponsored network of settlements and way-stations to service burgeoning Egyptian trade activity (Oren 1989). Canaanite settlements appear to have been dependent on the Egyptian presence (Oren 1989:401). Ceramic evidence includes not only vessels of a domestic character, but also large jars for the storage and transportation of goods (Oren 1989:fig.7). Oren has also noted that the ceramic assemblage does not seem to include any 2nd Dynasty pottery, but he was unable to ‘determine how late within Dynasty 1 ... the settlements in northern Sinai survive[d]...’ (Oren 1989:400). Coniferous timber beams in Abydos tombs (see
Ch. 2.3.5) show that trade by the sea route had begun by the early 1st Dynasty, so this route was not used as frequently as it had been in the past (Stager 1992:40).

Further south it was a different story. The region's resources, notably copper and turquoise, were exploited from earliest times (Ch. 7.2.2). Archaeological evidence here is characterised by a predominant Canaanite material culture enjoying some contact with Egypt. Ceramics from many settlements are largely correlated to southern Canaan, with good parallels to Arad I-III (Beit-Arieh 1978:10-11, 1986; Finkelstein 1995:71). Parallels with southern Canaan and especially the Arad horizons have encouraged a number of scholars to believe that Arad had a major interest in these settlements (Ben-Tor 1982:8; Beit Arieh 1986:52; for a summary see Stager 1992:34-5). The location and the evidence of copper working activity found near some of these settlements points to the active exploitation of nearby copper resources by their inhabitants who have been more recently described as 'local nomads' (Beit-Arieh 1978:11; Finkelstein 1995:75). Imported Egyptian ceramics are attested suggesting a degree of communication between the two regions, but once again they are inadequately published (Amiran et al. 1973:197; Beit-Arieh 1978:10).43 Some of these are sherds from 1st Dynasty storage jars (Beit Arieh 1986:38, fig.:20-22).

However, whether Egypt obtained also copper from this region is unknown (Hauptmann et al. 1999:4), as the precise origin of Early Dynastic copper is still far from settled (Ogden 2000:150-2). Eastern Desert mines, rather than imported ores, may have supplied local demand (Kaczmarczyk and Hedges 1983:230-3; Odgen 2000:150). Indeed, the region of Gebel Zeit has produced evidence of Early Dynastic habitation sites, installations and detritus associated with copper working and mining (Tawab et al. 1990:361-2). Perhaps local resources were supplemented by copper and turquoise obtained via Arad (Stager 1992:35) or through direct trade with Sinai communities. It is also possible that itinerant royal mining expeditions to the Sinai were conducted. Certain Early Dynastic inscriptions and scenes suggest that these expeditions sometimes resulted in military encounters between Egypt and Sinai tribes people (Wright 1985:248; Godron 1990:155-63, 195). Evidence from the south Sinai surveys indicates that a number of these sites were abandoned at the end of the
2nd Dynasty/EBII, perhaps the result of a more active Egyptian presence in the region (Mazar 1992:117).

The Feinan, continuing a tradition dating back to the settlement of Maadi (Hauptmann and Weisgerber 1987:434), was another potential source of Early Dynastic copper. Upwards of

\'150,000-200,000 tons of slag from the early smelting activities around Feinan\' were reported, indicating that \'presumably the largest volume of copper produced in the entire southeastern Mediterranean was produced in this area... from the Chalcolithic Period through nearly all of the succeeding ages up to the Roman Period\' (Hauptmann and Weisgerber 1987:419, 434).

EBA sites in the area of the Wadi Khalid in the Feinan were found to have nearly 5,000 tons of slag, a copper output representing several hundred tons (Hauptmann et al. 1999:5). Recent excavations at Khirbet Hamra Idfan in the Feinan unearthed \'the largest Early Bronze Age metal manufactory in the ancient Near East\' (Levy et al. 2000). This represents a significant resource, even more so than Timna at this time, where the extent of EBA copper mining and processing is still unclear and therefore hotly disputed (e.g. Rothenberg and Glass 1992; Hauptmann et al. 1999:14).

Lead isotope analysis of copper objects from Arad point to the Feinan as the source of at least some Arad copper (Hauptmann et al. 1999:13). Arad probably held a pivotal position in the east-west copper trade from the Feinan, and hence on to Egypt. Like Arad, the towns of Bab edh-Dhra and Numeira were well placed to benefit from a proximity to these resources.

By the early 3rd Dynasty, Egypt had established its own royal mining operations at Wadi Maghara (Gardiner et al. 1952:pl.1.1-2). However, evidence for early Old Kingdom Sinai copper mining is ambiguous, with inscriptions pointing to turquoise as the main reason for Egypt’s presence there. Indeed, the term mfk3t or ‘turquoise’ appears on the Sinai rock inscription of Sanakte (Spencer 1993:101, fig. 77), and the
term *htyw mfk3t* 'the turquoise terraces' to describe Wadi Maghara also appears during the 3rd Dynasty (Gardiner et al. 1955:1; Wilkinson 1999:166-7).

Feinan copper, rather than the Sinai, may have continued to draw Egyptian trade into southern Canaan. Further analysis is required on copper samples to determine the origin of Early Dynastic and Old Kingdom copper to help settle questions of where Egypt sourced the metal and hence the likely importance of regional copper trade systems (Ward 1991:18).

2.3.9 *Egyptian stone vessel imports in the EB II Levant*

A notable feature of the EB II archaeological repertoire is a marked increase in the number of imported Egyptian fine stone vessels. Egyptian stone vessels do not appear with anything like this frequency in Canaan during the EB Ib. While the accident of discovery must always be considered, it is very significant that the large quantity of Egyptian/Egyptianising material from EB Ib southern Canaan does not include these high quality objects. 44

The range of sites at which stone vessels have been found stretch over most of EB II Canaan. 45 At Tel Erani an Egyptian calcite jar fragment (IAA 1996-1808) from an open vessel was found in Stratum II which dates to the EB II (for dating of stratum see Brandl 1989). 46 At EB II Tel Far'ah North, two Egyptian stone vessel fragments were found. A finely polished calcite bowl fragment (pl. 4) (Reg. No. F.3935) from Locus 605 has a smoothly polished interior and exterior, and according to the field notes, it was found on a floor. 47 The best parallels for this bowl type date primarily to the 1st Dynasty (Aston 1994:110, no. 47). The other piece is a small body sherd of a thick-walled black and white porphyry jar which was probably spheroidal and dates somewhere between the late 1st and 3rd Dynasties (pl. 4) (Aston 1994:131, no. 108). This piece, which lacks a registration number, was found in Locus 747 west and dates to the EB II. 48

Six Early Dynastic stone vessel fragments, have been found at Tel Yarmouth in association with the EB II 'White Building' cult structure (pl. 4-5) (Sowada in press). 49 These pieces are all from bowls rather than jars, made from calcite and slate.
At Jericho, two quality limestone bowl fragments of likely Egyptian origin were identified in EB II levels (pl. 5) (Kenyon and Holland 1983:554, nos 1619 and 1507). Two stone bowl fragments from EB II Arad have been noted already (pl. 5) (Ch. 2.3.7). Megiddo Str. XVIII produced a fancy ‘alabaster’ rim or pedestal that may be Egyptian (pl. 5) (Loud 1948:pl. 258.1; Hennessy 1967:60-1). At Ai Egyptian stone vessels (mostly bowls) dating to the Early Dynastic Period and early Old Kingdom were found in the EB III B levels of the temple. Some would appear to have been part of the preserved EB II temple equipment (Amiran 1970a). These very interesting pieces are discussed in detail in Chapter 4 below.

The sudden appearance of quality Egyptian stone vessels in the EB II is notable when compared the apparent lack of Early Dynastic ceramic imports and the absence of stone vessels generally in the EB Ib. Moreover, the shapes found are almost all bowls rather than jars that may have functioned as containers for luxury commodities. The appearance at Tel Yarmouth of stone vessels associated with an EB II cult structure (de Miroschedji 1988:88, pl.48:9-12; Sowada in press), suggests that these vessels were special diplomatic or trade gifts from Egypt to the local elites, regarded as sufficiently important to receive such presents. Stone bowls fragments found elsewhere in EB II Canaan suggest that they arrived not as containers for some precious commodity, but as an item in their own right. As will be seen in Chapter 8, Egyptian stone vessels in the Levant can be associated with Egyptian endowments to a cult (as at Byblos) or were prestige items of elite gift exchange, or trade items.

Many scholars have proffered the discovery at Byblos of an Egyptian vessel with the name of the 2nd Dynasty king Khasekhemwy as evidence of the recommencement of formal relations between Egypt and this city at this time (e.g. Dunand 1939:26-7, no. 1115; Stevenson Smith 1971:167; Callaway 1978:54; Saghieh 1983:130-1; Marfoe 1987:27). As this piece was found in a rubbish heap, its value is significantly lessened and, like many Egyptian stone vessels found in the Levant, it may be a later arrival, perhaps from a stone vessel repository (Saghieh 1983:130-1; Ward 1991:12-3). In any case, imported cedar and other coniferous timbers used in Abydos royal tombs of the Early Dynastic Period, indicate that this sea borne trade in Levantine
timbers was well under way at the beginning of the Dynastic age, hence this vessel may have originally arrived 'in context'.

As will be seen from the discussion in Ch. 8.2, stone vessels were a luxury, prestige item in Egypt. They appear at a range of sites in the EB II-III Levant, in contexts indicating that they were royal/diplomatic gifts or trade commodities linked to state-sponsored commercial activity (de Miroshchedji 1998:29; Sowada in press). The presence of these objects in EB II Canaan, combined with the withdrawal of its physical presence at the beginning of the Early Dynastic Period, signals a shift in Egyptian attitude to the communities of the region.

2.4 Conclusion: The nature and scope of Egyptian contact with the Eastern Mediterranean during the EB I-II

Egypt's relationship with the Levant during the 4th and early 3rd millennium BC was probably motivated by the increasing need of local elites to acquire and display exotic imports as a way to symbolise and legitimate their political power (Hassan 1988:169). These efforts were governed by a number of factors. They include the increasing level of control exercised by Egyptian elites over economic activity, the production centres of particular products, the physical geography of the regions where these were acquired, and the emergence of urban complexes and concomitant elites in Canaan with whom the Egyptian state had to deal (Ben-Tor 1986:8-9).

As a result, Egypt's contact with its immediate north eastern neighbours in the EB I-II underwent several significant changes (summarised by de Miroshchedji 1998). During the early EB Ib-Naqada IIc/d2, the relationship between Canaan and Egypt is characterised as one of 'increasingly complex exchange and trade relations' (Levy et al. 1997:6; Stager 1992). The relationship was based on a series of land-based trading networks designed to supply elites with exotic products not available in Egypt. Further afield, a Urukian connection may have established a Levantine sea route that continued after the demise of the Urukian trading system. Products from Mesopotamia and beyond, such as lapis lazuli, arrived via this route or the direct sea link to the Wadi Hammamat.
By the Naqada IIIa2, the quest by elites to acquire foreign products saw the importation of cedar from the north and wine from the hill country of central and southern Canaan and the Jordan Valley in significant quantities. Imported pottery in both Canaan and Egypt increases, attesting to a more intense relationship between the regions.

Links reached their peak in the late EB Ib/Naqada IIIb-c1, when the relationship previously based on an exchange of goods underwent another fundamental shift. A more intense core/periphery association develops, with the emerging Egyptian state spreading its control from the eastern Delta to southern Canaan (h3st), where it established a series of outposts to manage the acquisition of goods such as copper, wine, asphalt, olive oil and timber. This shift involved the peaceful movement of Egyptians into southern Canaan at the behest of the nation-building leadership, creating strong administrative centres at Nahal Tillah, Tel Erani, ‘En Besor and possibly also Lod. This presence was at its strongest under Narmer, but continued under the reign of Aha, with his serekh attested at the administrative centre of ‘En Besor. The impact of this activity on the comparatively underdeveloped urban complexes of the Levant was profound, bringing with it political and economic organisation, economic enterprise and religious ideas, accelerating the development of complex society in the EB II.

At the beginning of the EB II, another shift occurs and the Egyptian presence retreats for reasons that are not clearly understood. This shift should be placed at the reign of Djer, which marks the appearance of Abydos Ware in Egypt. A greater focus on domestic affairs, combined with a greater level of confidence on the part of emerging local elites, may have resulted in Egypt withdrawing its presence on the ground in Canaan. This growing assertiveness on the part of elites may have resulted in sporadic military activity with Egypt, as suggested by the fragmentary textual record.

During the Early Dynastic Period, the Egyptian state sourced products from a range of different locations. Byblos emerges as probable entrepôt for the coastal timber trade and other exotic products like lapis lazuli. The importation of cedar, seen in small quantities during Naqada III, begins on a significant scale under Aha, with
large timber beams for construction transported via the coastal maritime route from the forests of the northern Levant. While Early Dynastic timber studies are in their infancy, it is possible that much of the large timber used in construction of royal mastabas is coniferous wood. Moreover, these links to the north may have extended as far as the Amuq, with the importation of commodities in lattice burnished Abydos Ware jugs.

However, despite the growing importance of the coastal sea route, Egypt’s links with Canaan were still significant, with imported commodities in ceramic jars still coming from the region. In particular, Arad emerges as a strong player in the Feinan and probably Sinai copper trade, and in the market for other commodities. However, a growing level of Egyptian interest in northern Canaan is attested from the ceramic evidence. Abydos Ware from Djer’s reign onwards reveals that a systematic trade with northern Canaan existed without the Egyptian presence in the south so evident in the EB Ib. Beth Yerah in the Galilee emerges as an important centre not only for the manufacture of commodities contained in Abydos Ware jugs, but for product procurement further north. A physical Egyptian presence is based there which dates to the middle of the 1st Dynasty, and possibly into the 2nd Dynasty. As a result, the official Egyptian ‘reach’ extends even further north with the import of commodities in Abydos ‘metallic’ Wares jugs from the region of northern Israel/Mount Hermon, where Pinaceae resin was obtained. The Egyptian demand for coniferous resins may have been linked to emerging techniques of mummification, for which the aromatic and preservative qualities of coniferous resins were highly prized. Egyptian officials probably sent these commodities to Egypt using a combination of donkey caravans and sea links.

The wine and olive oil industry of the hill country in Canaan continued supplying the Nile Valley, but in much reduced quantities for wine at least, owing to the commencement of viticulture in Egypt during the Early Dynastic Period.

The need for heavy coniferous timbers like cedar, required for construction of royal monuments, transformed exchange patterns. In all likelihood, the establishment of the sea route at the beginning of the 1st Dynasty along the coast to Syria provided a
more efficient means of transportation that did not require a network of land-based outposts to manage the acquisition and shipment of goods. This same link may have facilitated the commodities trade in Canaan, particularly from the north, by shipping products from coastal anchorages rather than transporting products overland all the way to Egypt by donkey caravan. The relative lack of Egyptian ceramics across the Sinai land bridge during the latter part of the Early Dynastic Period is probably the result of this change in transport mechanisms. Recent analysis on Early Dynastic timbers reveals that this large-scale sea-borne timber trade continued in the 2nd Dynasty.

The acquisition of Sinai turquoise was probably maintained using a combination of the Arad network, Egyptian mining parties and exchange with local tribespeople. Early Dynastic elites may have begun directly sourcing turquoise via itinerant expeditions to Wadi Maghara. Military skirmishes with hostile Sinai inhabitants in the Early Dynastic era helped Egypt establish the confidence to exert direct, on-going royal control over these assets by the early 3rd Dynasty. In addition, the large copper resources of the Feinan, in addition to local mines in the Eastern Desert, probably continued supplying Egyptian needs for the metal.

Little is known about what Egypt sent to the Levant in return. Egyptian objects in EB II Canaan are poorly documented; in all likelihood, more exists in the archaeological record than has been identified thus far. Durable prestige objects such as palettes, stone vessels and ‘trinkets’ like beads appear, and some pottery is mentioned in the literature. As with the EB III (Ch. 7), Egyptian exports may have been of a perishable nature, like linen, oil or grain.

The emergence of complex society in EB II Canaan and the withdrawal of the Egyptian presence placed the region on a more parallel political footing with Egypt. The relationship returned to one based on commodity exchange, acquisition and this time, diplomacy with local elites. This change in the status of each region is visible in the decline of the Egyptian presence in Canaan combined with the appearance of imported fine Egyptian stone vessels. Used on the one hand in the diplomatic act of royal commerce, as royal ‘gifts’, they are also outward symbols of peer parity.
between Egyptian and Canaanite elites. Contact with Egypt also provided local elites with a form of status and display involving Egyptian objects. This more formal relationship is also reflected in the appearance of Egyptian officials with responsibility for administering affairs with her north eastern neighbours.

While most scholarly attention has focused on the 1st Dynasty, a growing body of archaeological evidence points to a continuation of exchange networks with Canaan and the northern Levant during the 2nd Dynasty. Analyses conducted on a small number of 2nd Dynasty wood samples reveals the continuation of coniferous timber imports, particularly on a large scale during the reign of Khasekhemwy. In addition, as will be seen from Ch. 4 and 8, it is possible that a number of stone vessels were sent from Egypt to Canaan as elite gifts during this period. Textual material also points to the arrival of tribute or produce from Canaan. Further 2nd Dynasty evidence is required to illuminate this shadowy period, but the relative absence of historical information does not mean that it was not an active economic player in the region.

During the Early Dynastic Period, the large-scale acquisition of imports, especially heavy timbers by sea, required significant resources and high levels of political organisation and control (Marfoe 1987:28; Wilkinson 1999:157). It will be seen in the next chapters that the pattern of relations established during the EB II continued during the EB III. Indeed, from the perspective of Egyptian contact with the region, the situation in the EB III should be seen as an extension of the EB II.

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**Endnotes**

1 The chronological synchronisms used here between Egypt and Canaan for the EB I-II are those established by Hartung (1994), Levy et. al. (1995:33) and Gophna (1995b).
2 On Chalcolithic ceramics from Southern Canaan in the earliest layers at Buto, see Faltings 1998.

3 Lucas noted the presence of turquoise in 'the neolithic, Badarian and predynastic periods' (Lucas and Harris 1989:404).

4 Serpico reports that an asphalt sample from Maadi had 'some similarities with the Dead Sea floating blocks' (2000:456).

5 *Pinaceae* *L.* pollens were also reported from Predynastic/Early Dynastic contexts in the Eastern Delta (Vartavan and Aseni-Amorós 1997:205).

6 Six were serkhs of Narmer (S. Bourke, pers. comm. 11/8/00).

7 A similar phrase appears on the incised jar inscription from EB II Beth Yerah (Greenberg and Eisenberg in press; Ch. 2.3.4).

8 It should be noted however that the precise date, function, stratigraphy and historical antecedents of this structure are far from settled (Köhler pers. comm. 16/8/00).

9 The identification of this sherd as belonging to a cult stand was made by the writer and communicated to Prof. Levy and Nahal Tillah's pottery specialist, E. Kanza, in 1999.

10 At Tell Erani 'more than 50% of the wood was from olive, indicating the existence of olive orchards and most probably olive oil production' (Gophna and Liphshitz 1996:151).

11 Some scholars prefer commencing the 1st Dynasty with Narmer (Ben-Tor 1992:122).

12 Siheil Island near the 1st Cataract has also been proposed as the location of *Stt*, but this still remains an open question (Redford 1986a:135, n. *ac*; Godron 1990:158-9). It is likely that the term acquired a broader geographical meaning over time, embracing parts of the Levant. See Posener-Krieger 1969.

13 Possibly the term was applied to both Canaan and the Sinai during the Early Dynastic Period.

14 See for example Godron’s analysis of the reign of Den (1990:195-7).

15 Indeed, the EB II destructions at centres like Ai are attributed by some to the hand of the Egyptian state (Hennessy 1967:88).
As this stone vessel is an Egyptian calcite type, it seems unlikely that this was the actual container in which the product was transported (Godron 1990:158).

Yoffee observes that the Urukian colonies in Syria likewise left a profound cultural legacy after their withdrawal (Yoffee 1995:1392).

Lapp describes the context as ‘EB III pottery; fell out of EB II balk (sic) context’ (Lapp 1995:50). Van den Brink notes that such seals were ‘well known in Egypt from the second half of the First Dynasty onwards, but it is most common during the Second and Third Dynasties’ (1995:204). A date not earlier than the mid-1st Dynasty to 3rd Dynasty is preferred, which, along with the ambiguity of the context, indicate a probable EB II date for the arrival and deposition of the seal. However, the early Old Kingdom cannot be ruled out.

Amiran correctly identified a small number of Egyptian sherds at Arad (Amiran 1978:pl. 55), but they were missed at Tel Erani (Brandl 1989: 368-76). Identification of imported Egyptian pottery in Israel has improved over the last decade, owing to the volume of work on EB1b sites with such imports.

But see Esse 1991 for publication of more recently excavated material from the site.

This vessel was examined by the writer at the IAA Jerusalem storerooms in 1996.

On the basis of published information and stratigraphy, the precise archaeological difference between these distinctions is unclear.

Timbers of similar dimensions were found in the Early Dynastic tombs as Saqqara, but the wood type was not apparently analysed by Emery – these too could be coniferous timbers (see Emery 1949, 1954, 1958; Ward 1991:13-4).

The identification of these specimens was made by A. Lucas (Saqqara coffin) and D. Grosser of the Institut für Holzforschung der Universität München (Abydos wood samples).

Such a finding helps support a reference on the Palermo Stone for Khasekhemwy to ‘ship-building’ (Redford 1992:37).

As to whether cedar was imported during Badarian times, as suggested by Prag (1986), must remain an open question pending further detailed timber analysis.

Petrie believed the ware to be Aegean in origin (Petrie 1901:46-7). The term ‘Abydos Ware’ has often been applied to this shape, but its use in the literature is
imprecise and varies considerably between scholars. For a discussion of this issue, see Amiran 1970:59-66; Kantor 1992:19.

28 Helck identifies a vessel from an Old Kingdom Giza tomb as the same type, but this is not the case. Compare Helck 1971:Type K(2) with Hassan 1936:pl. 47.3.

29 The Combed Ware from Early Dynastic Abydos, Petrie's 'Amorite ware', have not been studied and the contexts are not entirely secure. Significantly, Hennessy noted that in the spectrographic analysis of this material, it 'returned readings indistinguishable from those of the other foreign wares of Abydos' (Hennessy 1967:115, n. 73).

30 Bourriaud and Nicholson define ware as 'the fabric, plus the surface treatment of the vessel, whether it is slipped, burnished, painted or incised, for example, plus the technology of the shaping process' (Bourriaud and Nicholson 1992:30).

31 In 1991 the author examined many of the imported ceramics from 1st Dynasty Abydos Royal Tombs held by the Petrie Museum (University College London). A range of fabrics and surface finishes was observed; some were slipped and burnished, others unburnished, while several were pattern burnished with diagonal lines. The term 'Red Slipped' has been used here as not all the vessels are burnished.

32 Amrian notes that two probable sherds of the ware were found in the Abydos tombs of Djer and Djet, although the provenance of the former is vague (1974a:66).

33 A vessel with punctured decoration (UC 14516) may also owe influences to the decorated style of Arad (Amiran 1974a:67, pl. 28A), although the punctured decoration may have antecedents in Nubia. She also notes echoes of this style in the form of a painted jar from el-Kab that should be dated to the early Old Kingdom (1974a:67, pl. 27B). This vessel was not examined by Amiran or the writer to enable confirmation of the fabric. On the basis of the shape the jar is locally made.

34 Examples from northern Canaanite are smaller and more biconical than their southern cousins (Esse 1991:108-9).

35 Ceramics from Emery's Saqqara excavations are still locked in on-site magazines at Beit Emery, the Egypt Exploration Society expedition house (personal observation of the author and discussions with Professors G.T. Martin and D.G. Jeffreys [University College London] in 1990 and 1992). Doubtless the same can be said for material from the Leiden mission to Abu Roash.
36 Note also that Porat and Adams focused their work on imported vessels with potmarks, so the range of their sample was small (1996).
37 The authors offered no opinion as to the precise translation of the signs.
38 In respect of BM EA 33549, Dr Margaret Serpico suggested the signs may have been incised in Egypt during re-use of the vessel (Porat and Adams 1996:106).
39 Stager suggested that the jars may have contained wine (Marfoe 1987:27; Stager 1992:40), but given the size of other wine containers from the tomb of U-j, this now seems less plausible.
40 Amiran remarks that of the other pieces from Stratum III and II ‘one was found in public building 2159 of area T, and two were from the adjacent temples’ (1978:51).
41 It was not possible to verify the stone type.
42 Oren relied on the published corpora rather than direct knowledge of Egyptian ceramics (1989:400).
43 Stager cites an Egyptian ceramic vessel from Sheikh ‘Awad in the Sinai as a rare import in EB II Sinai (1992:fig. 7.30), but the vessel has closer affinities with the Late Predynastic pottery repertoire.
44 Stone vessels were, however, also found during the north Sinai surveys, dating the Dynasty 0/1st Dynasty (Oren 1989:fig. 8.16, 19, 21, 23, 27).
45 This does not include the group of stone objects from Kabri, dated by Anati to the Protodynastic era (Prauznitz 1969; Anati 1963:352). Not only do the objects have no real parallels in Early Dynastic Egypt, but the unstratified nature of the context, ‘accidentally uprooted by a tractor’, is too insecure to be of real value. Egyptian stone vessel fragments from the 3rd millennium BC from Tel Rumeileh (Beth Shemesh) (Grant 1931: pl. 47.3; Grant and Wright 1938:pl. 54.65) were dated to the EB Ib by Braun (et al. in press), but the context of one vessel is not known, and the other has been variously dated to the Late Bronze Age (Lilyquist 1996:161) and the Middle Bronze Age (Phillips 1992:173).
46 This fragment was examined by the writer in the IAA storerooms in 1996. The date of the context follows the original phasing of the site, but an EB II date for Stratum II is generally accepted by scholars (cf. Brandl 1989:360-5).
47 According to the field notes held in the Ecole Biblique (Jerusalem) and registration card in the Rockefeller Museum, the object was found on 3/10/58 during clearance of a floor in Locus 605: *Tell el-Far’ah. Notes de Chantier 1958*.

48 According to the field notes held in the École Biblique (Jerusalem) and registration card in the Rockefeller Museum, the object was found on 6 September 1960 ‘sous 747 w’. The field notes do not specifically mention the object: *Tell el-Far’ah. Notes de Chantier 1960*.

49 One Early Dynastic ceramic sherd of definite Egyptian origin has been identified at Tel Yarmouth.

50 Both were found on the tell: one from Trench EIII-IV.H (No. 1619) and the other from Trench EIII-IV.Gi (No. 1507).

51 But see stone vessels from 3rd millennium Syria with incised bands (Pinnock 1981).
CHAPTER 3

A CORPUS OF IMPORTED MATERIAL IN EGYPT

3.1 Introduction
Imports in the Old Kingdom fall into two main categories: ceramics and raw materials crafted into objects in Egypt. The quantity and variation is relatively small, with a stock repertoire of artefacts appearing in modest amounts at a handful of key sites.

The following catalogue outlines Levantine imports identified thus far from published reports. Compiled with several parameters in mind, the corpus should not be regarded as exhaustive. For example, objects of turquoise are not included as its origin was close to Egypt and is well known to scholars. Hence, a list of turquoise objects from Old Kingdom Egypt would add little to the debate. Secondly, silver objects are not included on the grounds that these are probably made of locally derived silver, and without analysis, one cannot automatically assume that this metal was imported (see Ch. 7.4). Thirdly, only those pieces positively identified by unambiguous typological parallel or scientific analysis have been included. Many more objects, particularly those of imported timbers, doubtless await proper identification in museum collections and unpublished archaeological notes around the world.

The evidence is set out by site, beginning with the Delta and working south to Elephantine (pl. 6). Material is then divided into ceramics, or raw material of which an object is made. Each item highlighted with a number in brackets. Standard curatorial information and data concerning the provenance is also noted. The material is summarised in the concluding section.

3.2 Kom el-Hisn
Kom el-Hisn is an Old Kingdom town located in the Western Delta located near a branch of the Nile which has since dried up (for a summary, see Kirby et al. 1998). The
remains are mainly 5th-6th Dynasty, with 4th Dynasty occupation also present (Wenke 1988:13). The town was possibly a dedicated cattle raising centre or estate, supplying animals to cult centres elsewhere, particularly Giza/Memphis (Wenke 1991:314). This hypothesis was based largely on the relatively few cattle bones found in the faunal assemblage, along with the prominent occurrence of fodder plants such as clover and its associated weeds (Wenke 1988:19-23).

A Combed Ware fragment may have been found in the ceramic assemblage. Of 10,000 ceramic sherds processed ‘possibly one or two may have been from an import with the typically engraved decoration of the necked jars found also in Giza, by Reisner … [but] since … only a very small fragment was found even this is rather unsure’ (Kroeper, pers. comm. 23/2/94). The only other imported object was a used obsidian core that had evidently been utilised in blade production (Wenke et. al. 1988:27-8), which was not analysed further to determine point origin (Wenke pers. comm.). The date of the contexts from which all these pieces came remains to be published.

3.3 Giza

The tombs of Egypt’s nobility and high officials at Giza represent perhaps the greatest extant ‘time capsule’ of Old Kingdom life and society. However, many tombs were excavated decades ago by Reisner, Junker and Hassan and others (summarised in Reisner 1942:20-6 and Lehner 1997), so the modern scholar is faced with all the problems of archaeological method and publication that these older reports present. ¹

3.3.1 Ceramics

Following Helck (1971) and Reisner and Smith (1955:73-6), the following corpus divides the imported ceramics into two main shapes. Type 1 comprises two handled storage jars of a standard shape (hereafter ‘Combed Ware’), and Type 2 embraces the one-handled jugs. The latter, while small in number, are further divided into six sub types owing to the number of variations in surface finish and shape. Chapter 6 discusses the group in detail.
While many Combed Ware pots are located in the Boston Museum of Fine Arts, others are now lost or unavailable for study.2 Had every jar been accessible, a corpus division by ware would have been preferable, but as less than half were available, the group is sub-divided chronologically, following Reisner and Smith (1955:73-6), and Helck (1971:29-33). Even so, this posed problems because many of Reisner’s tombs are unpublished, preventing any re-assessment of the date.3 Furthermore, the basis on which Helck re-dated the corpus to the reign of specific kings was hard to verify. As far as possible, contexts and dates were re-examined based on a combination of criteria such as associated objects, inscriptions (if any) and tomb architecture, following Reisner (1942:27-383), Reisner and Smith (1955:73-6) and Cherpin (1989). Rather than attempting to attribute every vessel to the reign of a king, dates are stated in broad terms only, unless sound evidence exists to allow a more precise attribution.

Not all pots in the Boston Museum of Fine Arts had MFA inventory numbers, but many had Reisner’s original registration numbers; these have been included to allow comparison with the original publications. Vessels were compared to the illustrations in Reisner’s publications, and re-drawn where necessary if the published drawing lacked accuracy. Several errors were also noted in Reisner and Smith’s list (1955:73-6) when individual pots were compared against the original publications; these have been corrected.

(a) Type 1 (Reisner and Smith’s Group B:LIIV) Reisner and Smith categorised Combed Ware (their Type B-LIIV) as flat-based ovoid jars with two vertical handles in the middle of the body, a narrow concave neck and an everted roll rim (Reisner and Smith 1955:74-6). However, this broad description masks real differences of size, fabric, surface finish and even shape (Ch. 6).

Base fragment of a jar. Whereabouts not known.
D. base said to be 8.6cm

Prov.: Unprovenanced, but apparently from G 4140 A. Reisner reported that it was 'found in the debris of the street on east...certainly thrown out from shaft A' (Reisner 1942:464-5).

Date: Probably early 4th Dynasty; Reisner and Smith dated vessels from G 4140 A from Cheops to mid-Chephren (1955:75); Helck dated them to the reign of Cheops (1971:30, 33).

Published in: Reisner 1942:464; Reisner and Smith 1955:75.

Upper body of a jar. Whereabouts not known.
Ht approx. 31.0cm D. rim 14.6cm D. max. 36.0cm

Prov.: Tomb of Princess Merytuyet, Tomb G 4140. Plundered. At the bottom of shaft G 4140 A and the burial chamber off the shaft, the remains of many ceramic pots were found, which included sherds of three Combed Ware vessels (Reisner 1942:462-3).

Date: Early 4th Dynasty; Reisner and Smith dated the vessels from Cheops to mid-Chephren (1955:75); Helck dated them to the reign of Cheops (1971:30, 33).

Published in: Reisner 1942:463, fig. 279; Reisner and Smith 1955:75.

Fragments of a jar, with a 'ring of incised marks around the base of the neck evidently imitating cord' (Reisner and Smith 1955:75). Whereabouts not known.
Dimensions unknown

Prov.: Tomb G 4140, as per [2].

Date: As per [2].

Published in: Reisner 1942:463; Reisner and Smith 1955:75.

Fragments of a jar. Whereabouts not known.
Dimensions unknown

Prov.: Tomb G 4140, as per [2] above.
Date: As per [2] above.

Published in: Reisner 1942:463; Reisner and Smith 1955:75.

Nearly complete jar, exterior coated with a fine lime wash. Horizontal and vertical combing on the surface. White Slipped Orange Red Ware. Vessel now in fragments - only upper body fragment drawn.
Ht 43.0cm  W. 25.6cm  D. rim 9.5cm  D. base 11.0cm
Prov.: Tomb of Prince Sneferu-seneb, Tomb G 4240. Tomb partially robbed. Precise findspot not stated, but the shaft (G 4240 A) had been partially excavated by Schiaparelli but not exposing the entrance of the burial chamber (Reisner 1942:466). The vessel was found either in the unexcavated debris of the lower reaches of the shaft, or the burial chamber itself, probably the latter. A considerable amount of other pottery was also found in the tomb.
Date: Early 4th Dynasty (Cheops-early Chephren); Reisner and Smith dated the vessels from Cheops to mid-Chephren (1955:75-6). Helck dated it to the reign of Cheops (1971:31-3). Cherpion dated the tomb to the reign of Sneferu (1989:236).
Published in: Reisner 1942:468, fig. 282; Reisner and Smith 1955:75-6.

Base and rim of a jar, fine lime wash on exterior. Horizontal and vertical combing on the surface. White Slipped Orange Red Ware. Rim only drawn.
D. rim 7.2cm
Prov.: Tomb G4240 A, as per [5] above.
Date: As per [5] above.
Published in: Reisner 1942:468; Reisner and Smith 1955:75.

Jar possibly with a fine wash on exterior. Horizontal and diagonal combing on the surface. Ware type close to [8]. Vessel now in fragments. Base only drawn.
Ht 42.6cm  W. 25.2cm  D. base 11.8cm
Prov.: Tomb G 4440. No name of owner preserved, but Reisner was of the view that 'by the portrait head, [the tomb] undoubtedly [belonged to] a brother of Prince Sneferuseneb' (1942:475)! Plundered. The precise findspot of these three pots is not known. Indeed, Reisner lumped all the pottery from three contexts together: the burial chamber, the shaft (G 4440 A) and a dump consisting of 'thieves' debris thrown out from [the] shaft in street east of the shaft' (sic) (1942:477).

Date: Probably early 4th Dynasty; dated by Reisner and Smith from Cheops to mid-Chephren (1955:76). Helck dated it to the reign of Cheops (1971:31-3).

Published in: Reisner 1942:478, fig. 287, pl. 59b; Reisner and Smith 1955:76.

Comment: The uncertainty surrounding the precise findspot of these jars is problematic, as if the vessels came from the street dump, the association of any sherds with the tomb itself is questionable.


Jar said to have a cream slip on the body. No slip was observed on the surface. Fine Orange Red Ware. Vessel now in fragments.

Ht 35.0cm W. 22.0cm D. base 12.0cm

Prov.: Tomb G 4440, as [7] per above.

Date: As per [7] above.

Published in: Reisner 1942:478; Reisner and Smith 1955:76.

Comment: This vessel should be identified with unnumbered fragments of a Combed Ware jar in Boston, numbered KS 1000 for the purposes of this study. These fragments comprise the base and rim with an uncoated combed exterior. It was the only group of sherds that could be associated with this number, which according to the records, should be in Boston.


Fragments of a jar, base fragment the only diagnostic found in Boston. Body coated with a cream lime wash. Pink Buff Ware.

Ht 42.0cm W. with handles 27.0cm D. rim 11.0cm

Prov.: Tomb G 4440, as per [7] above.
Date: As per [7] above.

Published in: Reisner 1942:478; Reisner and Smith 1955:76.

[10] Junker Inv. G4760A/I/1 (pl. 9)
Jar with combing on the surface. Tall narrow body. Mended from fragments. Ware and whereabouts unknown.
Ht 60.0cm

Prov.: Tomb G 4760 (VII n). Plundered. No name of owner found. In summarising finds from the shaft (G 4760 A) and burial chamber, Reisner reported ceramics in the thieves' debris, but further information as to the precise findspot is not noted.


Published in: Junker 1929:234, fig. 13, no. 16; pl. 43b centre; Reisner 1942:485; Reisner and Smith 1955:76.

Comment: According to Reisner and Smith, four pots were found in this tomb (1955:76), but Junker lists only two. Likewise, Reisner in an earlier publication lists only two vessels (1942:485).

Two handled jar. Mended from fragments. Ware and whereabouts unknown.
Ht approx. 38.0cm


Date: As for [10] above.

Published in: Junker 1929:fig. 13, no. 17; pl. 43b right; Reisner 1942:485; Reisner and Smith 1955:76.

Jar mended from fragments. Possible traces of a cream lime wash on exterior, although this may be the product of leeching. Surface lightly combed in horizontal strokes, with
light traces of vertical combing. Pink Buff Ware. Vessel restored, no fresh section visible.

Ht 38.2cm  W. 21.4cm  W. with handles 28.8cm  D. rim 8.4cm  D. base 10.8 cm.

Prov.: Tomb G 5020-annex, pit. No name of owner preserved, however, on the basis of a reserved head, Reisner identified G 5020 A as belonging to the wife of Prince Sneferu-seneb. In the shaft he ‘found a mass of weathered pottery of the same types as those found in row 4, and these certainly were intrusive in G 5020-annex-shaft. They probably come from row 4 and perhaps from G 4240’ (1942:470).

Date: Probably early 4th Dynasty; dated by Reisner and Smith from Cheops to mid-Chephren (1955:76). The dating is likely correct although the relationship to Sneferu-seneb is questionable. Heelk dated it to the reign of Cheops (1971:31-3).

Published in: Reisner 1942:470; Reisner and Smith 1955:76, pl. 51c/2.

Comment: The intrusive and weathered nature of the ceramics, according to Reisner’s description, means that the pottery cannot be directly associated with this tomb. The jars from this context in Boston did not, however, appear particularly weathered. An early 4th Dynasty date for these vessels is probable, given the proximity of other 4th Dynasty mastabas from which these may be throw-outs.


Jar restored from fragments with horizontal rope decoration on top of shoulder. Traces of a light lime slip or wash on exterior, lightly combed in horizontal strokes only. Possibly added plastic decoration above the handles. Pink Buff Ware.

Ht 46.0cm  W. with handles 36.0cm  W. without handles 28.2cm  D. rim 11.4cm  D. base 12.4cm

Prov.: Tomb G 5020 A, annex pit; as for [12] above.

Date: As for [12] above.

Published in: Reisner 1942:470, fig. 283; Reisner and Smith 1955:76, pl. 51c/1.

Comment: Incised marks on the base of the neck may be a debased form of plastic rope decoration known from large EB III Levantine pithoi (e.g. Tufnell 1958:pl. 62.303). The feature also appeared in the EB II (Garstang 1936:pl.6.15).
[14] Boston MFA 37.1319/Reisner Reg. No. 34-6-17j (pls 8 and 9)
Jar with small applied double bow on shoulder. Traces of a lime slip on the surface. Horizontal and diagonal combing over the upper body, with horizontal combing only over the lower body. Mended from fragments. Pink Buff Ware.
Ht 41.5cm  W. 22.8cm  W. incl. handles 30.0cm  D. rim 9.2cm  D. base 10.0cm
Prov.: Tomb G 7330 A. No name of owner preserved. Tomb plundered.
Date: Early 4th Dynasty. Reisner dated the mastaba from the reigns of Cheops to Chephren (1942:115). Helck dated the vessel to the reign of Cheops (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.
Parallels: Potmark: Dunand 1939:389, fig. 297; Marquet-Krause 1949:pl. 70.547 and pl. 83.1195, 1407, 1252, 758; Tufnell 1958:pl. 18.76.
Published in: Reisner and Smith 1955:76, fig. 80, pl. 53d.

[15] Boston MFA no number/Reisner Reg. No. 13-10-29 (pl. 9)
Jar with matt cream slip on exterior. Vertically hand smoothed on interior. Pink Buff Ware.
Ht 37.5cm  W. 18.0cm  W. with handles 24.8cm  D. rim 7.4cm  D. base 8.5cm
Prov.: Tomb G 4340. No name of owner preserved. Plundered. Ceramics were found at the bottom of the shaft (G 4340 A) and in the burial chamber, but the precise findspot of this vessel is not otherwise stated (Reisner 1942:473-4).
Date: Early 4th Dynasty. Reisner and Smith later dated the vessel from Cheops to mid Chephren (1955:76). Helck dated it to the reign of Cheops (1971:31-3). A label with the vessel in the MFA says mid-late 4th Dynasty. A reserved head was also found in this mastaba. On the basis of associated pottery, a 4th Dynasty date is likely.
Published in: Reisner 1942:474, fig. 285; Reisner and Smith 1955:76, fig. 96.
Comment: This jar was found with two one-handled jugs [57-58].

[16] Junker Inv. G4750/II/1 (not illustrated)
Fragments of a jar with horizontal and vertical combing on the surface. Whereabouts uncertain.
Dimensions unknown

Prov.: Tomb of Akhi, Tomb G 4750 (VIIIs). Probably plundered. From Shaft G 4750A or the burial chamber at the base of the shaft, but precise findspot not otherwise stated.

Date: The tomb should be dated to the early 4th Dynasty (see Junker 1929:238-40), or Cheops to Chephren in Reisner and Smith's dating scheme (1955:76).

Published in: Junker 1929:241; Reisner 1942:485.

Comment: This vessel is not on Reisner and Smith's list (1955:76); it was probably erroneously added to the list of vessels from G 4760.

[17] Reisner Reg. No. 13-12-2 (not illustrated)

Fragments of a two handled jar. Whereabouts unknown.

Dimensions unknown

Prov.: Tomb G 4430. No name of owner preserved. Plundered. Pot sherds were found at the bottom of shaft G 4430 A and in the burial chamber, but further detail of precisely where these fragments were found is not noted (Reisner 1942:487).

Date: Early 4th Dynasty. Reisner and Smith dated the pot from Chephren to Ncferirkare (1955:76). Helck dated the vessel to the reign of Chephren (1971:31-3). The mastaba and associated pottery are not sufficiently published to allow an assessment of the date, but a reserved head was found in the tomb which suggests a date in the early to mid-4th Dynasty is more likely.

Published in: Reisner 1942:487; Reisner and Smith 1955:76.

Comment: The shaft also contained a fragmentary seal bearing the name of Chephren (Reisner 1942:487).

[18] Boston MFA 20.1881/Reisner Reg. No. 14-1-82 (pl. 9)


Ht 32.0cm W. 17.8cm W. including handles 24.8cm D. rim 7.8cm D. base 8.6cm
Prov.: Tomb G 4530 A. No name of owner preserved. Plundered. Pottery was found in shaft G 4530 A and in the burial chamber, including this near-complete vessel, but Reisner does not state precisely where it was found (1942:490).

Date: 4th Dynasty – Reisner and Smith dated the tomb from Chephren to Neferirkare (Reisner and Smith 1955:76). Helck dated it to the reign of Chephren (1971:31-3).

Published in: Reisner 1942:488, fig. 297a; Reisner and Smith 1955:76.

Comment: The writer did not see this vessel as it was on long-term loan to the Oriental Institute.

Ht 36.0cm W. 19.4cm W. including handles 26.1cm D. rim 7.6cm D. base 10.8cm
Prov.: From Tomb G 4630 A of Medew-nefer. Plundered. This vessel was found in shaft G 4630 A.

Date: 4th Dynasty. Reisner and Smith dated the tomb from Chephren to Neferirkare (Reisner and Smith 1955:76). Helck dated it to the reign of Chephren (1971:31-3). The ceramics from the tomb, particularly the bowl types, suggest a date in the early part of the 4th Dynasty (compare Reisner 1942:fig. 299, Reg. No. 14-1-17 with Faltings 1989:fig. 6.a.119; Reisner 1942:fig. 299, Reg. 14-1-7 with Stadelman and Alexanian 1998:fig. 3.15, DAS 25-1; Reisner 1942:fig. 299, Reg. 14-1-2 with Ginter el at. 1998:fig. 41.5).

Published in: Reisner 1915:36, fig. 15; Reisner 1942:fig. 299, pl. 63d; Reisner and Smith 1955:76, fig. 97.

Jar with unslipped body, horizontal combing on the surface. Dark brown uncoated surface. Reisner states that a slip is present on the surface (1942:494), but this was not observed by the writer. Close to Fine Orange Red Ware.
Ht 41.0cm W. 23.0cm
Prov.: Tomb G 4630, belonging to Medew-nefer. Plundered. This vessel was found in the burial chamber off shaft G 4630 A.

Date: As for [19] above.

Published in: Reisner 1942:494, pl. 61d; Reisner and Smith 1955:76, fig. 97.

Comment: As the vessel was on display in the Semitic Museum (Harvard University) during the writer’s visit to Boston, it was not possible to examine it further.

Jar with horizontal combing on surface, cream slip. Ware not known. Mended from fragments.
Ht 23.2cm W. 16.0cm W. incl handles 20.0cm D. rim 7.0cm D. base 8.4cm

Prov.: Tomb G 4620, owned by Ka-nofer. Plundered. In G 4620 A, Reisner reported ‘flint flakes and potsherds’ in the burial chamber (1942:508) which must have included this vessel.

Date: 4th Dynasty. Reisner and Smith dated the tomb from Chephren to Neferirkare (Reisner and Smith 1955:76). Helck dated it to the reign of Chephren (1971:31-3).

Published in: Reisner 1942:508, fig. 312, pl. 69h; Reisner and Smith 1955:76.

Comment: As this jar was on display in the Egyptian Gallery of the Boston MFA, it was not possible to examine it in detail.

[22] Giza, Khafre-ankh (pl. 11)
Dimensions unknown

Prov.: Burial chamber (Khl), tomb of Khafre-ankh, Giza (Tomb G7948). According to the excavators, the chamber had been re-used, but not before the New Kingdom. The jar was ‘found over the stones covering the original burial’ (Kormyshova 1999:31, 37) and in all probability belongs to the original burial equipment of the owner.

Date: 4th Dynasty, dated on the basis of the ceramic assemblage. Dr D. Raue (pers. comm. 7/7/99) described the Meydum bowl fragment as a late 4th Dynasty type.
Published in: Kormysheva 1999:37, pl. IIb.

Comment: The preliminary report of this excavation notes a further vessel, described as ‘one jar with handles, fragments of the bottom and neck’ in the burial shaft of Herenka (KhII) (Kormysheva 1999:37) which could also belong to another imported vessel. No further information was available.

[23] Junker Mastaba VIII In (not illustrated)
Fragments of a Combed Ware jar.
Dimensions unknown
Prov.: Shaft of Tomb G 4860 n; name not preserved
Date: 4th Dynasty. Reisner and Smith dated this tomb from Chephren to Neferirkare (Reisner and Smith 1955:76). Helck dated it to the reign of Chephren but the basis of his dating is unclear (1971:31-3).
Published in: Junker 1929:248-9; Reisner 1942:501; Reisner and Smith 1955:76.

[24] Junker Mastaba VIII In (not illustrated)
Fragments of a Combed Ware jar.
Dimensions unknown
Prov.: Tomb G 4860, as for [23] above.
Date: as for [23] above.
Published in: Junker 1929:248-9; Reisner 1942:501; Reisner and Smith 1955:76.

[25] Boston MFA 47.1661 / Reisner Reg. 32-12-18 (pls. 10 and 11)
Jar with lime wash/slip on exterior surface; potmark above one handle and horizontal combing. Some vertical combing on the shoulder only. Pink Buff Ware. Completed except for a chip on the rim.
Ht 38.0cm W. 20.0cm W. with handles 27.6cm D. rim 9.0cm D. base 10.7cm
Prov.: Tomb G 2140, name of owner not preserved. Plundered. The jar was found in the burial chamber at the bottom of shaft G 2140 A.
Date: Reisner and Smith dated the burial to Chephren to Neferirkare (1955:76). No other pottery or objects were found with the vessel. Helck dated it to the reign of Chephren (1971:31-3).

Published in: Reisner 1942:437, fig. 256; Reisner and Smith 1955:76.

Comment: This was the only object found in the burial chamber. Lucas tested the contents of this jar, finding ‘fragrant resin from a coniferous tree’ (Reisner and Smith 1955:75; Lucas and Harris 1989:320).

[26] Giza, Nezlet Batran (pl. 11)
Jar with vertical and horizontal combing on the surface. Traces of a lime wash on exterior. Pot mark on shoulder above one handle resembling an arrow.
Ht 30.0cm

Prov.: Burial of a male, tomb uninscribed. Southern edge of mastaba field at Giza (Nezlet Batran).

Date: mid 4th to 5th Dynasty

Published in: Kromer 1991:67, taf. 23.1, 38.4

Fragments of a jar, possibly as many as three. Whereabouts unknown.
Dimensions unknown

Prov.: Tomb G 4940 A and B, the mastaba of Seshem-nefer I (Cherpion 1989:226)

Date: Probably 4th Dynasty. Reisner and Smith dated the mastaba from Chephren to Neferirkara (1955:76). Helck dated it to the reign of Chephren (1971:31-3). Cherpion dated the mastaba to the reign of Djedefre (1989:226). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76.

Comment: Reisner and Smith regarded fragments from ‘B’ as possibly intrusive (1955:76).
[28] *Reisner Reg. No. 29-3-256* (pl. 11)

Upper part of a jar. Whereabouts not known.

Ht 21.5cm

*Prov.:* Tomb G 7650 C

*Date:* Possibly 4th Dynasty. Reisner and Smith dated the mastaba from Chephren to Neferirkare (1955:76). Helck dated it to the reign of Chephren (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

*Published in:* Reisner and Smith 1955:76, fig. 97.

[29] *Reisner Reg. No. 36-12-15* (pl. 11)

Fragments of a jar with a combed surface. Whereabouts not known.

Ht approx. 44.0cm

*Prov.:* Tomb G 7560 B

*Date:* Reisner and Smith dated the mastaba from Chephren to Neferirkare (1955:76). Helck dated the jar to the reign of Chephren (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

*Published in:* Reisner and Smith 1955:76, fig. 97, pl. 51a.

[30] *Reisner Reg. No. 36-12-16* (pl. 11)

Fragments of a jar with combed surface. Whereabouts not known.

Ht approx. 38.0cm

*Prov.:* as for [29] above.

*Date:* as for [29] above.

*Published in:* Reisner and Smith 1955:76, fig. 97, pl.51a.

[31] *Reisner no number* (not illustrated)

Reisner noted the presence of a third and possibly fourth Combed Ware jar from this tomb.

Dimensions unknown
Prov.: as for [29] above.

Date: as for [29] above.

Published in: Reisner and Smith 1955:76.

[32] Reisner Reg. No. 28-5-190 (not illustrated)

Fragments of a jar. Whereabouts not known.

Dimensions unknown

Prov.: Tomb G 7550 B

Date: Reisner and Smith dated the mastaba from Chephren to Neferirkare (1955:76). Helck dated the jar to the reign of Chephren (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76.

[33] Boston MFA 20.1903 (pls 10 and 12)

Jar with surface combed in horizontal and diagonal strokes, which was then combed horizontally. Pink Buff Ware.

Ht 38.2cm W. 21.4cm W. with handles 29.0cm D. rim 9.3cm D. base 10.6cm

Prov.: Tomb G 1031 A

Date: 4th–early 5th Dynasty(?). Reisner and Smith dated the context from Chephren to Neferirkare (1955:76). Helck dated the jar to the reign of Chephren (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76, fig. 96, pl. 51d.

[34] Junker no number (pl. 12)

Jar. Whereabouts unknown.

Dimensions unknown


Date: Possibly mid-4th-early 5th Dynasty (?). Junker dated the mastaba to the 5th Dynasty (1929:119). Reisner and Smith dated the context from Chephren to
Cherpion dated the mastaba to the reign of Chephren (1989:226).
*Published in:* Junker 1926:75; Junker 1928:192; Junker 1929:fig. 14.11, pl. 43b 1/1;
Junker 1938:166; Reisner and Smith 1955:76.

[35] *Reisner Reg. No. 15-12-67* (not illustrated)
Jar with a combed surface. A plaster stopper was probably found with this vessel
bearing ‘the imprint of a saucer (upside down) on lower surface’. Whereabouts
unknown.
Ht 38.0cm W. 20.0cm W. with handles 24.0cm D. rim 10.0cm D. base 8.5cm
*Prov.:* Tomb G 4410. Plundered. In G 4410 A, the burial chamber had many sherds on
the floor, which included this vessel (Reisner 1942:515). This mastaba also showed
evidence of later reconstruction (Reisner 1942:108, 514).
*Date:* Possibly 5th Dynasty: objects in the shaft and burial chamber included a sealing
with the Horus name of Userkaf, so other finds may be 5th Dynasty (Reisner 1942:514-
6). Helck dated it to the reign of Chephren (1971:31-3) but the deposit’s mixed nature
makes this difficult to sustain.
*Published in:* Reisner 1942:516; Reisner and Smith 1955:76.
*Comment:* Owing to the re-building (and re-use?) of this tomb, a wide date embracing
the mid 4th Dynasty to end of the 5th Dynasty is possible for this vessel.

[36] *Leipzig Inv. 1484* (pl. 12)
Combed ware jar, mended from fragments and missing a handle. Horizontal rilling
visible on surface. Clay described as red with a grey core.
Ht 34.0cm D. 22.0cm
*Prov.:* A Giza mastaba excavated by Steindorff in 1903-6, but no further details are
known.
*Date:* Steinmann dates the vessel to the 6th Dynasty, but the basis of this dating is not
known. The vessel is squatter and wider than other jars known from the late 5th-6th
Dynasty; indeed, the parallel cited by Steinmann (Reisner and Smith 1955:76, Giza
1031 A, fig. 96) is dated to Chephren-Neferirkare by Reisner and Smith. No further
information is provided about the context or ware, hence the date of this example is largely speculative. However, on the basis of the parallel noted above, a late 4th or 5th Dynasty date is possible.

Published in: Steinmann 1998:162, Cat. No. 553, pl. 123.1.

Comment: The writer did not examine this vessel.

[37] Hassan no number (pl. 12)
Jar with surface combed horizontally. Two "X" marks incised on shoulder. The jar contained a substance of 'calcium carbonate and ... nitrogenous organic matter, but in slightly larger proportion to [61] below. There was not any evidence of fatty matter, but there was a small proportion of resins-like material' (Lucas in Hassan 1936:145-7). Whereabouts unknown.
Ht approx. 37.0cm


Date: Mid 5th Dynasty. Helck dated it from the mid-late 5th Dynasty (1971:31-3). The tomb contains no inscriptions, but was constructed after the tomb of Re-wer, and probably after that of Mersu-ankh, located next to Re-wer's (see the plan in Hassan 1941). Re-wer was an official of Neferirkare and possibly also Sahure (Allen 1992:14), placing his tomb in the early part of the 5th Dynasty. The tomb of Mersu-ankh was built after that of Re-wer's, with inscriptions from the former indicating that he knew Re'wer, but certainly outlived him (Hassan 1932:104-17). This could place Mersu-ankh's tomb as late as the reign of Niuserre, if one accepts two short reigns for Ini and Raneferef. A mid-5th Dynasty date for the Mastaba of Shaft 294 is therefore possible, a date supported by pottery from the burial chamber.⁴

Published in: Hassan 1936:145-7, fig. 173.4, pl. xlvi, 1 and 3.

Comment: This vessel was found with [61].
Narrow jar with horizontal combing on uncoated surface, high narrow neck. Pot mark of an arrow incised on exterior, made by using a 3 or 4 pronged comb before firing. Dark Brown Ware. Vessel now in fragments. Ht approx. 33.0cm, D. rim 6.7cm, D. base 8.5cm

Prov.: Tomb G 2175 B, belonging to Khnum-nefer.

Date: Reisner and Smith date the vessel from the end of Neferirkare to the end of the 5th Dynasty (1955:76). Likewise Helck dated the jar to the mid-late 5th Dynasty (1971:31-3). On the other hand, Cherpion dated the mastaba to the reign of Mycerinus (1989:226). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76, fig. 96, pl. 511.

Comment: The pot mark was similar to MFA 19.1456 [19].

Jar with a pot mark on shoulder, in the form or an arm flexed at the elbow or a branch bent at right angles in the middle, incised pre-firing. Horizontal combing over the upper body; vertical combing added over the lower body. No slip or wash on the surface. Vessel now missing a handle. Coarse Orange Red Ware.

Ht 31.0cm, W. 18.8cm, D. rim 8.2cm, D. base 9.9cm

Prov.: Tomb G 2350 L.

Date: Reisner and Smith dated the vessel from the end of Neferirkare to the end of the 5th Dynasty (1955:76). Likewise Helck dated the jar to the mid-late 5th Dynasty (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76, fig. 97, pl. 52f.

Comment: Reisner and Smith reported that this vessel still contained evidence of its original contents but it was not tested (1955:75). The fabric and ware is similar to the jar from Matmar [81], as is the date.
[40] Reisner no number (pl. 13)
Jar with combed decoration on exterior. Whereabouts not known
Ht approx. 45.0cm
Prov.: Tomb G 1224 A
Date: Reisner and Smith dated the vessel from Neferirkare to the end of the 5th Dynasty (1955:76). Likewise Helek dated the jar to the mid-late 5th Dynasty (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.
Published in: Reisner and Smith 1955:76 fig. 97, pl. 51b.

[41] Reisner Reg. No. 39-5-47 (not illustrated)
Lower part of a jar with combed surface. Whereabouts not known.
Dimensions unknown
Prov.: Tomb G 2430, belonging to Nihotep-ptah.
Date: Mid-late 5th Dynasty. Reisner and Smith dated the vessel from Neferirkare to the end of the 5th Dynasty (1955:76). Likewise Helek dated the jar to the mid-late 5th Dynasty (1971:31-3). Cherpion dates it more specifically to the reign of Iesi (1989:229). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.
Published in: Reisner and Smith 1955:76, pl. 51f.

[42] Boston MFA 37.2724/ Reisner Reg. No. 35-7-41 (pls 13 and 14)
Jar with a vertical seal impression on the shoulder. Possible traces of a lime wash. Diagonal and horizontal combing on the surface. The seal impression consists of four quadrupeds, probably lions, walking tête-beche, two complete and two partially visible. The animal’s head faces to the front, the mouth is open and all four short legs are visible; the tail curves over its back. At the top are two complete and two partial horizontal lines; below, the animal stands on a row of dots. Pink Buff Ware. Vessel restored with no clean section visible.
Ht 49.5cm W. 32.7cm W. across handles 40.5cm D. rim 13.0cm D. base 15.3cm
Prov.: Tomb G 2370 B, belonging to Senedjem-ib Inty, vizier of Iesi.
Date: Reisner and Smith note that the tomb owner probably died in the reign of Unas (1955:75-6; Stevenson Smith 1971:186). Likewise Helck dated the jar to the mid-late 5th Dynasty (1971:31-3).

Parallels: Parallels for the seal impression are known from EB Jericho (Sellin and Watzinger 1913:97, fig. 66), EB III Numeria (Lapp 1989:7-9) and Byblos (Dunand 1958:pls cxcv:18016; pl. cxcvii.11572 (Byblos Phase K III), 11298 (Phase KIV) and 12613 (Phase KIV); Lapp 1989:7-9; Lapp 1995:47). See also parallels cited in Reisner and Smith 1955:75.

Published in: Reisner and Smith 1955:76, fig. 98, pl. 53a, b; Smith 1965: Lapp 1989:7-9, fig. 7.

[43] Leipzig Inv. 3153 (not illustrated)
Jar with horizontal rilling on the surface, white slip on the exterior. Mended from fragments.
Ht 52.0cm D. 28.0cm

Prov.: Mastaba of Kedfi, excavated by Junker 1926 (Junker 1943).

Date: Late 5th Dynasty or later (Steinmann 1998:163).

Published in: Steinmann 1998:162-3, Cat No. 554.

Comment: Steinman notes that this vessel was found in the tomb of Kedfi, but Junker makes no mention of the vessel in the publication.

[44] Reisner no number (not illustrated)
Fragments of a jar. Whereabouts unknown.

Dimensions unknown

Prov.: Tomb G 2450

Date: Dated by Reisner and Smith to the 6th Dynasty (1955:76). Helck also dated the jar to the 6th Dynasty (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:76, pl. 51h.
[45] *Reisner no number* (not illustrated)

Fragments of a two handled jar. Whereabouts unknown.

Dimensions unknown

*Prov.*: Tomb G2450

*Date*: as for [44] above.

*Published in*: Reisner and Smith 1955:76, pl. 51h.

[46] *Reisner no number* (not illustrated)

Fragmentary jar with combed decoration on exterior.

Ht approx. 55.0cm

*Prov.*: Tomb G 2379 A

*Date*: Dated by Reisner to the 6th Dynasty (1955:76). Helck also dated the jar to the 6th Dynasty (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

*Published in*: Reisner and Smith 1955:76, Fig. 97, pl.53e.

[47] *Boston MFA 37.2723/Reisner Reg. No. 35-7-7 (pls 13 and 14)*

Ovoid-shaped jar with horizontal combing over the surface, with sporadic vertical combing marks. Hard domed plaster stopper in situ, which has been mended from fragments; possible pot mark on shoulder incised before firing consisting of a vertical line with a slight hook at the top end. Encrustations on the surface. Fine Orange Red Ware (?), but pot completely mended from a number of fragments, so no fresh section visible.

Ht 42.0cm Ht with stopper 47.1cm W. 30.4cm D. base 13.5cm

*Prov.*: Tomb G 2387 A

*Date*: Reisner and Smith dated this jar to the 6th Dynasty (1955:76). Helck also dated the jar to the 6th Dynasty (1971:31-3). This tomb was not sufficiently published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

*Published in*: Reisner and Smith 1955:76, fig. 98; pl. 51e.
Combed Ware jar with a tall, narrow profile similar to those from Matmar [81] and Edfu [86].
Ht 37 cm

Prov.: Mastaba of Itjef. Found in the bottom of Shaft 9

Date: Junker dated the mastaba to the 6th Dynasty (1928:192), as did Reisner and Smith (1955:76). Helck dated it to the reign of Chephren (1971:31-3).

Published in: Junker 1928:192; Junker 1929:fig. 14, no. 12; Junker 1951:102-3, No. 1, fig. 39; Reisner and Smith 1955:76.

Comment: In their list of Combed Ware vessels, Reisner and Smith describe this example as coming from Junker G I-S (1955:76), but according to Junker’s publication, no such vessel was found in this tomb (Junker 1929:181). Rather, the vessel should be identified as coming from the tomb of Itjef in which such a vessel was found.

Jar with a plaster stopper in situ that extends over the top of the shoulder, with presumably traces of the original contents still inside. Complete. Horizontal combing on the surface, in addition to encrustations. Red Ware, but no clear section visible.
Ht with stopper 48.8 cm W. of body 30.8 cm W. with handles 36.0 cm D. base 14.1 cm

Prov.: Tomb G 2381 A, tomb of Impy, also known as Mer-Ptah-ankh-mer-y-ra’, a senior official who held the title ‘Overseer of all the Works of the King’ under Pepy II (Stevenson Smith 1971:186-7).

Date: Late 6th Dynasty, reign of Pepy II, on the basis of the seal impression on the stopper belonging to [53] found in the same tomb (Reisner and Smith 1955:76). Helck also dated it to the 6th Dynasty (1971:31-3). This tomb was not otherwise published to assess the date of the vessel in relation to the tomb architecture or other burial equipment.

Published in: Reisner and Smith 1955:54, 76, pl. 52e, d.
[50] Boston MFA 13.2929/Reisner Reg. No. 12-12-569 (pl. 15)
Tall jar with a roll rim, very light horizontal combing on the surface and incised marks around the base of the neck imitating rope. Red brown exterior surface colour with some leeching. Complete. Red Ware, but no clear section visible. Weight 5.188kg (11 lbs 7 oz).
Ht 48.3cm W. 28.0cm W. with handles 36.0cm D. rim 13.2cm D. base 12.5cm
Prov.: Tomb G 2381, as for [49] above.
Date: As for [49] above.
Published in: Reisner and Smith 1955:54, 76, fig. 96, pl. 52a right.

[51] Boston MFA 13.2930/Reisner Reg. No. 12-12-570 (pl. 15)
Jar with a roll rim, very faint horizontal combing on the surface and incised marks around the base of the neck imitating rope. Uncoated red brown exterior surface colour, with some black patches. Complete. Red Ware, but no clear section visible.
Ht 49.3cm D. rim 12.0cm D. base 15.0cm
Prov.: Tomb G 2381, as for [49] above.
Date: As for [49] above.
Published in: Reisner and Smith 1955:54, 76, fig. 96, pl. 52a left.
Comment: This jar was very similar in shape and ware to [50].

[52] Boston MFA 13.2931/Reisner Reg. No. 12-12-573 (pls 13 and 15)
Jar with a plaster stopper in situ. Combed decoration on the surface, in addition to encrustations. Hard Red Ware, but no clear section visible. Complete. Weight 7.27kg (16 lbs).
Ht with stopper approx. 43.5cm W. of body approx. 30.5cm W. with handles approx. 38.0cm D. base approx. 13.0cm
Prov.: Tomb G 2381, as for [49] above.
Date: As for [49] above.
Published in: Reisner and Smith 1955:54, 76, pl. 52c right.
Jar with a stopper of dark grey Nile mud in situ, now cracked. No signs of combing or slip on the surface. The stopper bears a seal impression of Pepi II, read by Reisner and Smith as ‘King of Upper and Lower Egypt, Pepi [II] Horus name Neter-khaw’, rest of text too fragmentary to read. Hard Red Ware, but no visible section. Vessel complete, but the inscription on the mud stopper is now too faint to read. Complete, with white encrustations on the surface and signs of leeching.

Ht with stopper 49.0cm W. of body 29.3cm W. with handles 36.5cm D. base 13.5cm

Prov.: Tomb G 2381, as for [49] above.

Date: As for [49] above.

Published in: Reisner and Smith 1955:54, 76, pl. 52g, d.

Comment: The stopper bearing the seal of Pepi II is made of Nile mud, indicating that the vessel was sealed in Egypt. This suggests that the jar was re-used or at least resealed after its arrival, so the jar’s current contents may not be the same as when the jar was exported.

(b) Other vessels

Fragments of another jar without a number were identified in Boston but could not be matched with any vessels from Reisner and Smith’s list (see 1955:75-6). The vessel was made of hard Coarse Brown Ware, and the accompanying label said ‘out of BG 437’ The provenance was assumed to be Giza but this could not be confirmed, nor could its number within Reisner’s catalogue.

(c) Type 2 (Reisner’s Group B:IIIa and b): The less common form is a one-handled jug or jar with a tall neck, flaring rim and body tapering to a narrow flat base. A single flattened strap handle is present from the top of the shoulder to upper part of the neck or rim. Reisner divided the group into two types: Group B:IIIa, ‘a one-handled pitcher with an open spout’ of which only two examples are known, and Group B:IIIb, long-necked jugs with a single handle ‘joining either at the rim or some distance below the rim’ (Reisner and Smith 1955:72). In reality, the group can be divided into at least six types on the basis of shape, and further subdivided on the basis of ware. Types 2a-e are
noted here; Type 2f was found at Meydum (see Ch. 3.11). A greater range of surface treatments, decorative elements and shapes are present in this group than with Type 1.

The jars belong to the long tradition of Abydos Ware jars dating back to the 1st Dynasty (Porat and Adams 1996; see Ch. 2.4.6). However, these jugs for the most part are very different to Abydos Ware, particularly in relation to the surface finish and aspects of the shape, notably the neck and rim. Most of the examples noted below date to the 4th Dynasty, with the small jugs disappearing by the early 5th. A large one-handed jar comes from the mid-5th Dynasty [61].

Type 2a.i: Narrow necked jars with a trefoil mouth and a flat base (with two probable sub-types (i) and (ii) on the basis of ware). Handle from rim to shoulder.

[54] Giza no number (pl. 16)
Squat globular jar with a flat strap handle from shoulder to rim, trefoil mouth and a small flat base. In two large pieces. Ware and fabric not known. Whereabouts not known.
Ht approx. 16.0cm
Prov.: Burial chamber, Tomb G 1412 A
Date: Probably 4th Dynasty. Dated by Reisner and Smith from Chephren to Neferirkara (1955:74) but this could not be verified owing to the lack of published data about the context. Helck dated the jar to the reign of Chephren (1971:30, 33).
Parallels: Kenyon 1960:65, fig. 60.33; Marquet-Krause 1949:28 pl. 67, 42.776.
Published in: Reisner and Smith 1955:fig 95, pl. 51g.
Comment: This jar could not be located by Reisner. The best parallels for the shape come from Canaan, making this a probable import from the region. Unfortunately the ware is not known and Reisner's published photo is wanting in quality.

Type 2a.ii: As for Type 2a.i, but ‘Reserve Slip Ware’ (See Ch. 6.9.2).

[55] Boston MFA 20.1904 (pl. 16 and 17)
Jar with trefoil mouth, squat body with wide flattened shoulders, strap handle from top of shoulder to rim. Wide, shallow horizontal rilling marks on upper body, described as
marks produced by ‘a cream coloured slip which was wiped off in horizontal lines around the shoulder...producing striations in the soft clay’ (Reisner and Smith 1955:73). Very fine buff coloured clay, with few large inclusions. Some calcareous inclusions visible. Cream-coloured slip on the surface. Fine Yellow Buff Ware. Minor chipping on the rim, but otherwise complete.

Ht 30.0cm W. 23.5cm D. rim 6.0cm, with spout 7.2cm D. base 10.0cm

Prov: The jars were found in an undisturbed burial chamber on the eastern side of a coffin containing the body of a woman, Tomb G 1233, Annex A. Name of owner not preserved.

Date: Early 4th Dynasty. Reisner and Smith dated it from Cheops to Chephren (1955:74). Helck dated the jar to the reign of Cheops (1971:30, 33).


Published in: This vessel is widely published, including - Reisner 1942:fig. 95, pl. 53f; Reisner and Smith 1955:fig. 234c; Goldman 1954:73; Kantor 1992:fig. 6.7; Amiran 1983:fig.1c.

Comment: This vessel was found with Boston MFA 20.1905 [59], the only other object in the burial chamber. In terms of shape, fabric and surface finish, it is a unique import, arriving in the early 4th Dynasty, possibly during the reign of Cheops (Reisner and Smith 1955:74). Identified as an example of Reserved Slip Ware, the best parallels come from Cilicia (Tarsus) and northern Syria (Reisner and Smith 1955:73).

Type 2b: Necked jars, with an ovoid body. Red Polished Ware. Handle from rim or just below the rim to shoulder. The type is similar to Early Dynastic Abydos Ware (Ch. 2.3.6) and as such belong to the end of the sequence in Egypt.

[56] Reisner Reg. No. 1711/4 and 1711/12(pl. 16)

Jar with a red burnished surface. Handle positioned from neck to shoulder. Reisner noted the redder colour of the fabric compared to other vessels, described as ‘special ware with white specks in the fracture’. Whereabouts not known.

Ht 32.8cm W. 20.4cm

Prov.: Giza Tomb G7000 X (Hetepheres). Found in the burial chamber, but precise location not stated.
Date: 4th Dynasty, reign of Cheops.

Published in: Reisner and Smith 1955:64, fig. 61, pl. 46d.

Comment: Reisner's description of the fabric suggests that this is an example of metallic ware.

Type 2c: Cream Burnished Ware necked jugs, with an ovoid body; plastic rope decoration around the base of the neck. Handle from rim or just below to the shoulder. The vessels are all coated with a creamy white slip, and some examples are burnished. Placement of the handle from neck to shoulder also occurs in the EB I (Ben-Tor 1992:fig. 4.4, A27, B17) and EB II (such as at Beth Yerah in Mazar et al. 1973:pl.5.15-9). Plastic rope decoration - an applied horizontal strip of clay with diagonal incisions at the base of the neck - appears on a range of forms in the EB III, including pithoi from Tel Yarmouth (Ben-Tor 1975:pl. 31.3; de Miroshedji 1988:pl. 36), Tell Beit Mirsim (Albright 1932:pl. 1.5) and Lachish (Tufnell 1958:pl. 62.291-5). Its origins are found in EB II Canaan, where a ridge or collar appears around the base of the neck (Maisler 1942:fig. 1.39; Amiran 1978a:pl. 100.3; Esse 1991:106-7; Greenberg and Eisenberg in press:fig. 8.5). The most graphic attempt by the potter at plastic realism, a pithos from Arad Stratum II features a knotted rope, doubtless imitating the cords used to tie on a lid (Amiran 1978:pl. 106.4). The rope decoration on examples below is probably a simpler version of the same effect.

Type 2c.1

[57] Boston MFA 20.1899/Reisner Reg. No. 13-10-25 (pls 16 and 17)

Jar with applied rope decoration around base of the neck. Narrow flat base. Cream coloured slip on exterior, burnished with a pebble. Fabric brown-red with grey core. Sub-angular calcareous inclusions <1mm, sporadic rounded sand and grog. Mended from fragments and missing the rim and upper handle portion. Slip worn off over parts of the surface.

Ht 27.5cm W. 17.5cm D. base 3.5cm
Prov.: Tomb G 4340. Ceramics were found at the bottom of the shaft (G 4340 A) and in the burial chamber, but the precise findspot of this vessel is not otherwise stated (Reisner 1942:473-4).

Date: Label with the vessel says mid-late 4th Dynasty. On the basis of associated objects, an early 4th Dynasty date is likely. Reisner and Smith dated the tomb to the first half of the 4th Dynasty, Cheops to mid Chephren (1955:74). Helck dated the jar to the reign of Cheops (1971:29, 33).

Published in: Reisner 1942:474, fig. 285; Reisner and Smith 1955:64, fig. 95, pl. 53f.

Comment: Found with a Combed Ware jar [15], and [58] below.

[58] Reisner Reg. No. 13-10-68 (pl. 16)
Jar with raised ridge at base of neck, burnished cream slip on exterior surface. Fabric a porous orange yellow with sporadic calcareous inclusions <1mm-2mm, with some fine dark angular stone and very fine rounded quartz sand. Sandy/ gritty texture to touch. Missing the rim.
Ht approx. 34.0cm W. approx. 22.4cm D. base 7.0cm

Prov.: Giza Tomb G4340, as for [57] above.

Date: as for [57] above.

Published in: Reisner 1942:474, fig. 285; Reisner and Smith 1955:74, fig. 95, pl. 53c.

[59] Boston MFA 20.1905 (pls 16 and 17)
Jar with applied rope decoration around the base of the neck. Handle joined from below rim to shoulder. Cream coloured slip on exterior surface. Fabric is red-brown with white calcareous inclusions <1mm, grog, some rounded quartz sand and angular black stone temper <1mm. Rim chipped and some flaking of the surface, but otherwise complete.
Ht 32.8cm W. 21.5cm D. rim 6.2cm D. base 6.5cm

Prov.: Undisturbed burial chamber, Giza Tomb 1233/2, Annex A ‘found west of coffin upset by collapse’. Name of owner not preserved.

Date: Probably early 4th Dynasty. Reisner and Smith date the vessel from Cheops to mid-Chephren (1955:74). Helck dated the jar to the reign of Cheops (1971:29, 33).
Published in: Reisner 1942:410, fig. 234c; Reisner and Smith 1955:74, fig 95, pl. 53f 1/2.

Comment: The published drawings of this jar are incorrect. This jar was found with [55].

Type 2c.ii: As above but with a burnished red wash on the exterior.

[60] Reisner Reg. No. 32-12-13 (pl. 16)
Jar with applied rope decoration on shoulder, with burnished red wash on exterior surface. Handle probably joined below rim. Fabric reddish with white calcareous inclusions. Mended from fragments. Whereabouts not known.
Ht approx. 23.6cm W. approx. 14.0cm

Prov.: In debris of burial chamber, Giza Tomb G2170 A. Name of owner not preserved. Plundered.

Date: 4th Dynasty. Reisner and Smith dated the vessel from Chephren to Neferirkara (1955:74). Helck dated the jar to the reign of Chephren (1971:29, 33). The remaining pottery was insufficiently published to verify the date.

Published in: Reisner 1942:449, fig. 274; Reisner and Smith 1955:fig. 96, pl. 53f 1/4.

Type 2d: Large ovoid jars with incised lines around the neck, and a wide flat base. Short handle from rim the base of the neck.

[61] Hassan no number (pl. 16)
Large jar with a narrow concave neck, flaring rim, round body tapering to a broad flat base. Small loop handle from shoulder to rim. Four horizontal lines incised across neck. Ware described as ‘red –brown ware; smooth surface with white wash’ (Hassan 1936:145). A copper lid was in situ. ‘Calcium carbonate, nitrogenous organic matter and fatty matter’ were noted inside the vessel (Hassan 1936:145). Not seen by the writer; current whereabouts not known.
Ht approx. 40.0cm W. 30.0cm D. rim 12.5cm (to edge of handle) D. base 15.5cm

Prov.: Burial chamber, Mastaba of Shaft 294, Giza.

Date: Mid 5th Dynasty. See discussion of the date of [37] above.
Parallels: Ben-Tor 1975:66, pl. 31:4, fig. 8:4; Stewart 1939:162-8 (so-called "Vounos jar" – a narrower example); Tufnell 1958:pl. 62.285-6 (possibly an example with ledge handles); Holland 1977:51, fig. 4.9 dated to the Third Dynasty of Ur (ca 2113-2015 BC).
Published in: Hassan 1936:145-6, fig. 173.3, pl. xlvi.3; Amiran 1983:fig. 3c.
Comment: The jar was found with [37] above. The ovoid shape and incised lines around the neck are difficult to parallel precisely. This decorative element is rarely seen in the south, but is found to the north at Ras Shamra on large jars dating to Ras Shamra III A2 (de Contenson 1969:70, fig. 14.10). The feature also appears on the neck of large vessels at Korucutepe in the EB IIA Phase E (2,300-2,150 BC) (van Loon 1978:72, pl. 122A). Amiran noted broad parallels with the Vounos jar and another vessel from Tell es-Sweyat, suggesting the Giza vessel came from northern Syria (Amiran 1983). She dates the vessel to the late 4th Dynasty (1983:94), but this cannot be supported on the basis of the context and other grave goods found with it.
On the other hand, Dr Tony Sagona from the University of Melbourne was of the view that the jar was neither from Anatolia or north Syria (pers. comm. 1995). The fabric description of ‘red-brown ware’ is too vague to be of value, although Tufnell does note ‘red [ware], grey core, traces of lime wash and combing’ on no. 286 cited above. Ultimately only examination of the fabric would settle the question of provenance, but typological parallels do suggest a north Syrian origin for the vessel.

Type_2a: Tall, one handled jar with horizontal lines on exterior surface, possibly a variation of the ‘reserved slip’ technique visible on [55]. Of the surface finish, it is stated that “… although the horizontal lines sink into the clay in wide stripes, there is a closer resemblance to reserved-slip than there is to the combed surface decoration [known from combed ware jars]” (Reisner and Smith 1955:74). Strap handle from top of shoulder to rim. Wide base.

[62] Giza no number (pl. 17)
Jar with plaster stopper on rim and neck. Whereabouts not known.
Ht approx. 27.0cm
Prov.: Burial chamber, Giza Tomb G1220 A.
3.3.2 Raw materials

[63] (pl. 19) Twenty silver anklets or bracelets, bearing an inlaid design of butterflies of carnelian, turquoise and lapis lazuli. Imitation pieces of lapis were made of plaster and painted dark blue.
Dimensions unknown
Prov.: Found in a gold covered bracelet box, burial chamber, tomb of Queen Hetepheres, Giza.
Date: Reign of Cheops, 4th Dynasty.
Published in: Reisner and Smith 1955:64, pl. 52 b & c.

[64] (pl. 19) Approximately four barrel and one tubular bead of lapis lazuli.
L. approx 0.7cm  D. approx. 0.3cm
Prov.: From the south shaft, mastaba of Kai-es-wedja (Lepsius 37, G5340).
Date: 4th Dynasty-early 5th Dynasty.
Published in: Junker 1944:179, fig. 74.

[65] Royal boat of Cheops (not illustrated)
The boat, measuring 43.3m (142ft) was made largely of cedar but the following other timbers were noted in samples analysed:
- blade of an oar (no. 22), found to be Ostrya carpinifolia from SE Europe and Anatolia. Meiggs identifies this as a piece of hop-hornbeam (1984:408).
- sample from board (no. 47) – Juniperus sp.
- sample from a shaft of an oar (no. 40) – cedar
Prov.: Boat found to the south of Cheops pyramid, in a boat pit
Date: 4th Dynasty, reign of Cheops or successor Chephren.
[66] (not illustrated) Cedar wood used for the rectangular coffin of a woman. Coffin undecorated on the interior and exterior. Base made of a single piece of wood, and the lid of two pieces joined together. Sides made of three planks fitted together with round wooden pegs, knotholes patched. Recessed lid, with two knobs along the east side acting as handles.

L. 2.4m  W. 98.0cm  D. 83.5cm

Prov.: Tomb G2220 B, burial intact, possibly the wife of the anonymous tomb owner (D'Auria et al. 1988:76). Burial chamber otherwise empty. No names and titles preserved in the mastaba.

Date: 4th Dynasty

Published in: coffin - D'Auria et al. 1988:76-7; tomb – Reisner 1942:451-3

Comment: Although no name was preserved, the large size of the tomb combined with its location in the Western Cemetery marked it as belonging to a high-status individual (D'Auria et al. 1988:77). Junker also notes the use of cedar for the construction of a coffin from the tomb of Seshat-hotep, dating to the late 4th–5th Dynasty (Junker 1926:75; Junker 1934:178), but the basis of the timber identification is unknown. He also suggested that the coffin of Meri-ib and Idu II may also be made of cedar (1934:178).

[67] Pelizaeus Museum, Hildesheim Inv. 2511 (not illustrated)

Rectangular wooden coffin with lid, made of long planks dowelled together. Name and titles of owner cut into the surface. The name of the owner was Idu, one of whose titles was imi-r' pr 's ‘Overseer of the House of ‘s-wood’. The wood was analysed by Dr Grosser (Institute für Holzforschung der Universität München) and found to be Cedrus libani A. Rich., Pinaceae (Schmitz 1996:25).

L. 2.245m  Br. 66.7cm  Ht 70.2cm

Prov.: Western Cemetery.

Date: Late 6th Dynasty.

[68] Pelizaeus Museum, Hildesheim Inv. 3199 (not illustrated)
Wooden headrest made in three pieces, with a curved cushion and fluted stem sitting on a rectangular base. Timber badly damaged, but identified by Grosser (Institute für Holzforschung der Universität München) as box (buxus spec.).
Ht 13.6cm
Prov.: Mastaba S370, South mastaba field, excavated by Junker in 1928 or 1928/9.
Date: Old Kingdom
Published in: Martin-Pardley 1991:3199.

3.4 Abusir

Prov.: Not known
Date: 5th Dynasty

[70] Berlin Schweinfurth Collection No. 144 (not illustrated)
A wood sample from Abusir was identified by Grosser (Institute für Holzforschung der Universität München) as Cypress (Cupressus spec.).
Prov.: From the pyramid complex of Niuserre, excavated by Borchardt in 1903.
Date: 5th Dynasty
Published in: Germer 1988:55.

3.5 Saqqara

3.5.1 Ceramics

[71] Egyptian Museum, Cairo, number not known (pl. 18)
Combed Ware jar with an incised decoration at the widest part, consisting of a vertical panel of cross hatching framed by a border of two vertical lines. Fine horizontal rilling
marks on exterior, possibly coated with a fine lime wash. Possibly fine Dark Brown Ware. Complete.

Vessel approx. 45.0cm high, precise dimensions not known

*Prov.:* Tomb of Washi-Ptah, Pepi II necropolis, South Saqqara.

*Date:* 6th Dynasty, probably reign of Pepy II.

*Published in:* Jéquier 1929:26, fig. 25.

*Comment:* This vessel was seen in a case in the Cairo Museum in December 2000, but it could not be examined.

[72] *South Saqqara, number not known* (pl. 18)

Combed Ware jar, with an impressed rope decoration at the base of the neck.

Dimensions unknown

*Prov.:* From the fill of the shaft, mastaba of Idi, Pepy II necropolis, South Saqqara.

*Date:* 6th Dynasty, probably reign of Pepy II.

*Published in:* Jéquier 1929:13-4, fig. 10.

3.5.2 Raw materials

[73] *Cairo CG 47840 and 47843* (pl. 19)

A small quantity of tubular lapis lazuli beads and two gold pendant beads in the shape of beetles, inlaid with pieces of lapis lazuli.

Dimensions unknown

*Prov.:* Tomb of Queen Iput, found on the body of the queen still inside the sarcophagus in the burial chamber. According to the excavators, the bracelet was ‘still on the bones of the right arm’ (Firth and Gunn 1926:12).

*Date:* 6th Dynasty

*Published in:* Firth and Gunn 1926:12, x, pl. 15B; Junker 1944:179.

[74] Lucas published the results of timber analysis on a 3rd Dynasty coffin from a secure context in the Step Pyramid, which confirmed the use of cypress, pine, juniper and probably cedar in addition to local timbers (Lucas 1936). All these woods are from the Levant, except for *Juniper phoenicia* which is also known from the Sinai (Serpico
Lucas considered that this type of coffin, made from different wood species, ‘may have evolved as a method of using up small pieces of good timber’ (1936:2).

[75] Juniper wood was reportedly used to make ‘a small lid of a box from the 3rd Dynasty’.

_Date_: 3rd Dynasty

_Published in_: Ribstein 1925:204; Täckholm 1941:78; Vartavan and Aseni-Amorós 1997:145.

_Comment_: Firth also reported the discovery of juniper berries (Juniperus oxycedrus and Juniperus oxycedrus ssp. macrocarpa) from one of the subterranean chambers on the north side of Djoser’s pyramid (Täckholm 1941:75; Vartavan and Aseni-Amorós 1997:143).

_3.5.3 Other_

Queen Iput was reported to have an inner coffin of cedar (Firth and Gunn 1926:12), but the basis of the identification is unknown.

_3.6 Dashur_

[76] _Inv. S 45_ (pl. 17)

One handled jug of Type 2c.i, in two halves but mended from fragments. Exterior coated with a slip (Munsell 7.5YR 7/6 reddish yellow) bearing a dull sheen.

_Ht ca 29.0cm D. max. 17.0cm_

_Prov.:_ Mastaba of Prince Netjeraperef, a son of Sneferu. The sherds were found scattered throughout the mastaba: some were found in the fill of the shaft, others close to the burial chamber, and another in the surface deposits of the mastaba (Alexanian 1999:108).

_Date_: Early 4th Dynasty, reign of Sneferu.

_Parallels_: See [57].

_Published in_: Alexanian 1999:108-10, fig. 46, pl. 20.
Imported timbers (not illustrated)
Cedar scaffolding (Stadelman 1982:1223) and possibly also cypress wood (Sloley 1953).

Prov.: Used to support the internal construction of the Upper Burial Chamber, Bent Pyramid.

Comment: Cypress wood was noted from the ‘Tomb of Sneferu’ from which a sample for carbon dating was taken, however the provenance and nature of the object was not stated, nor the basis of the timber identification (Sloley 1953).

3.7 Meydum
Petrie conducted excavations at Meydum in 1890-1 and again in 1909-10 (Petrie 1892 & Petrie 1910). During the latter season, he excavated several Old Kingdom mastabas west of the pyramid and found the following vessel.

Type 2f: Small jar with a wide funnel mouth; a single strap handle applied from rim to shoulder.

[78] NY Carlsberg Glyptotek AEIN 1241 (pl. 17)
Jar, ovoid body tapering towards the base, now missing (base shape not known). Probably made on a turning device. Described as being of a "very thin burnished drab ware" (Petrie 1910:27), exterior surface coated with a light brown slip. Lightly burnished over the exterior in short strokes; horizontally around the rim and on the interior of the neck. Half way down the interior of the neck, the slipped and burnished surface stops abruptly as if broken (perhaps a form of sealing?). Below this, vertical marks have been incised onto the clay before firing. Fabric not known, but calcareous inclusions visible in the matrix.
Ht 16.0cm W. 10.0cm D. rim 8.0cm

Prov.: Tomb 55; entrance apparently intact, but no trace of body or bones.
Date: Early 4th Dynasty, not later than reign of Sneferu or Cheops.
Parallels: EB II Jug with a strainer of ‘light red ware with pink slip’ from Tomb A at Jericho in Garstang 1932:pl. 8.15; red polished ware jug from Byblos, Period KIII
(Hennessy 1967:pl. 59.12; Saghieh 1983:pl. 36.4106, 5390, pl. 50 top row right and pl. 51, top row right; Stager 1992:38, fig. 7.12).
Published in: Petrie1910:27, pl. xix.5 and xxiv.4.
Comment: The shape and description of the ware marks this as a unique foreign type in Egypt. The context dates to the late 3rd Dynasty or more likely, the early 4th Dynasty. The latter date is preferred on the basis of parallels for a calcite concave-sided cylinder jar with lug handles under the rim, also found in the tomb, which are known from the early 4th Dynasty (Reisner 1931a:fig. 43.2; Reisner 1942:fig. 245; Reisner and Smith 1955:96, pl. 45e). Stager also prefers an early 4th Dynasty date for the jar, proposing a Byblite origin based on parallels from that site (Stager 1992:38, fig. 6.4 compare 7.12). However, a similar type is known from Jericho (see above). The writer did not examine this vessel, nor was it possible to obtain clay samples for analysis.

3.8 Sedment
[79] NY Carlsberg Glyptotek AEIN 1560 (not illustrated)
Cedar wood statue of Meryre-hakhetef as an older man, shown naked with the left leg striding forward, wearing a short cropped wig, with right hand by the side and a staff in the other. Carved in one piece, with feet fitted into a rectangular base. Eyes painted in white and black pigment; hair painted black. Surface smoothly polished.
Ht 65.5cm
Prov.: Tomb of Meryre-hakhetef
Date: 6th Dynasty, possibly reign of Pepy I or later.
Published in: Petrie and Brunton 1924:pl 7; Ziegler 1999:no.191.

3.9 Deshasheh
[80] (pl. 19) Carved lapis lazuli amulets or pendants, one in the shape of a leopard’s head, another in the shape of a jackal’s head and an unspecified number of barrel beads.
Prov.: Grave 117, from the wrists of a body in a coffin, found with other beads and amulets of agate, carnelian, limestone, and possibly faience.
Date: Dated by Petrie to the 5th Dynasty
Parallels: Brunton 1948:pl. 31.33 (5th Dynasty).
3.10 Matmar

At Matmar, a cemetery containing a considerable number of provincial 4th-6th Dynasty burials was excavated by the British Museum Expedition to Middle Egypt from 1929-1931, under the direction by Brunton (1948).

3.10.1 Ceramics

[81] *British Museum EA 63698* (pl. 18)

Combed Ware jar with a clay sherd lid, held in place with leather and mud sealing. Handmade; tall and narrow in shape. Horizontal and vertical combing over the exterior, with horizontal combing only toward the base. Traces of a lime wash visible. Fabric is red with a lighter reddish brown core streak; overall, a very ‘dirty’ clay with many inclusions, including calcareous material <2mm, small quantities of quartz sand and dark minerals ranging in size fine to <1mm in size. Missing the rim and most of one handle. Fabric close to Coarse Orange Red Ware.

Ht 41.7cm  W. body only 21.6cm  D. neck 8.6cm  D. base 11.5cm  

*Prov.*: Tomb 3209, burial undisturbed.

*Date*: late 5th – early 6th Dynasty (Seidlmayer 1990:fig. 81). Helck erroneously dated the jar to the reign of Cheops (1971:30-3).

*Published in*: Brunton 1948: 29, 45, pl. 37.

*Comment*: Although Brunton dated this grave to the 4th Dynasty, the ceramics suggest a date in the 5th Dynasty or even the early 6th Dynasty, which is preferred by Seidlmayer (1990:fig.81). In particular, the Meydum bowl fits the type dated from the beginning of the 5th Dynasty to the beginning of the 6th, as outlined by Ballet (1987:14, fig. 11, type xiv).

3.10.2 Raw materials

[82] (pl. 19) Lapis lazuli amulets and beads

- carved amulet from Grave 3280
- bead type 78P20 from Grave 3314
• bead type 78M9 from Grave 3315

*Date:* Dated by Brunton to the 5th and 6th Dynasty.

*Published in:* Brunton 1948:pls 31, Type 38.22c, 71, Type 78.

### 3.11 Mostagedda

[83] (not illustrated) Lapis lazuli bead

*Prov.:* Grave 5102

*Date:* Late Old Kingdom

*Published in:* Brunton 1937:pl. 49.

### 3.12 Qau

[84] (pl. 19) Lapis lazuli biconical bead, pierced for suspension by drilling from both ends. Brunton bead Type 78H18.

*Prov.:* Grave 969

*Date:* Dated by Brunton to the 4th Dynasty (1928:pl. 50).

*Published in:* Brunton 1928:pl. 70, Type 78H18.

### 3.13 Ballas

[85] *Ballas number not known* (pl. 18)

Two-handled jar. No other details known.

Ht approx. 33.6cm

*Prov.:* ‘...found in a chamber opening from a shaft-tomb otherwise empty’ (Petrie and Quibell 1896:27).

*Date:* Probably Old Kingdom but owing to the squat shape, a date in the Early Dynastic Period is possible.

*Published in:* Quibell 1896:27, pl. 45.7.

*Comment:* Quibell believed this vessel to be 12th Dynasty in date, but this is not the case on the basis of shape.
3.14 Edfu

The whereabouts of only one foreign imported vessel from Edfu is known with certainty. However, publication of the Franco-Polish expedition records two Combed Ware jars from the tomb of Isi, and other one-handled jar which may be imported. It was not possible to examine or sample these vessels.

3.14.1 Ceramics

[86] Louvre E 16577 (pl. 15)

Large jar, tall narrow shape, with an everted roll rim. Horizontal and diagonal combing over the light red surface, with traces of white slip/wash. Potmark incised pre-firing above one handle, consisting of co-joined diagonal lines. According to the excavators, the vessel contained traces of resin. Broken at the rim but otherwise complete.

Ht 46.5cm  D. base 12.0cm

Prov.: Tomb of Isi, burial chamber, beside the sarcophagus (north side).

Date: Late 5th to early 6th Dynasty (Isewi to Teti), Edfu Stufe I (Seidlmayer 1990:378). Cherpion dated the mastaba to the reign of Pepy I (1989:230).

Published in: Michalowski et al. 1950:48, 251, no. 687, fig. 114, pl. 34, bottom row second from left; Seidlmayer 1990:50, fig. 15, TE220.

Comment: Isi was a minor Edfu official who held the title “Sole Companion”. His career spanned the reigns of Isewi, Unas and Teti (Seidlmayer 1990:63).

[87] Edfu No. 687a (not illustrated)

A two handeled Combed Ware jar, similar to [86] above. Condition not known.

Dimensions not known

Prov: South-west room, Tomb of Isi

Date: as per [86] above.

Published in: Michalowski et al. 1950: 43, 251, no. 687a.

3.14.2 Other objects

One very interesting squat one-handled jar was found in a tomb dating to the late 5th-6th Dynasty (Bruyère et al. 1937:113, no. 89, fig. 64, pls 20-1, bottom; Seidlmayer
The vessel featured a wide flat base, short flaring rim and a single loop handle from rim to upper shoulder. The surface is very light-coloured compared to the other ceramics in the tomb. This, along with the shape which is not generally known in the Old Kingdom ceramic repertoire, points to a possible EB IV import from Canaan (see broad parallels in Helms 1989:fig. 3.11, 13-5; fig. 6.4). Two other similar vessels from the same tomb were identical in shape but had a dark surface like the rest of the pottery assemblage, suggesting local copies.

3.15 Elephantine

[88] Reg. No. Z3319 (pl. 18)
Combed Ware body sherd from a wheelmade (?) vessel, and mid-brown in section and on the surface with <1-1.5mm white inorganic inclusions distributed evenly throughout the matrix. The exterior surface bears horizontal, vertical and diagonal combing.

4.1x6.2x0.9cm

Prov.: Found during the Satet temple excavations in 1977, discovered in the matrix of a mudbrick, along with sherds of 2nd to 4th Dynasty date (Raue pers. com. 7/799).
Date: The wall from which the brick came (context no. 7904dd) dates ‘earlier than the beginning of the 6th Dynasty’, although ‘the Egyptian diagnostic sherds point to a latest possible date in the fourth dynasty (sic)’ (Raue pers. com. 7/7/99) or early 5th Dynasty. However, owing to the fact that no levels relating to this wall remained, and the tendency of brick-makers at the site to use soil from earlier levels, the later date for the brick and therefore the sherd is possible (Raue pers. com. 7/7/99).
Comment: Despite the nature of the context, this is an important find, as it is the first Combed Ware fragment found in a settlement context. However, its presence as a lone find is highlighted by the fact that after 28 years of excavations at Elephantine, it is the only imported sherd discovered, and even then from a secondary context.

3.16 Unprovenanced

[89] British Museum EA 29594 (not illustrated)
Carved wooden statue of a naked man called Tjeti. Feet fitted onto a rectangular plinth, left foot striding forward, holding a staff in one hand. Arms added. Wig painted black, eyes inlaid with calcite and obsidian. Surface polished; complete. Carved from *Cedrus spec.*

Ht 75.5cm

*Prov.*: Unknown. Possibly from Sedment.

*Date*: 6th Dynasty

*Parallels*: The statue is very similar to [79].


*Comment*: The timber was identified as cedar by the British Museum Conservation Department.

[90] *Reg. No. unknown* (not illustrated)

Wooden coffin pieces identified as yew.

*Prov.*: Unknown

*Date*: 6th Dynasty


### 3.17 Conclusion

Ceramics (and their contents) comprise the largest class of imported goods, with at least 71 individual vessels known. Other goods include lapis lazuli (7 entries), coniferous wood (11 entries) and small quantities of other timbers (1 entry). Although few wooden objects have been tested, cedar (*cedrus libani*) is the most prominent imported timber (6 entries). All these foreign goods are discussed in Chapters 6 and 7.

Four conclusions can be drawn from the corpus. Firstly and not surprisingly, most material clusters tightly at Giza, with 68 out of 90 corpus entries recorded. This pattern may reflect an excavation bias, given the large-scale clearance of Giza tombs over the past 100 years relative to elsewhere in Egypt. Nevertheless, the proximity of Memphite officials to the royal epicentre, and hence access by elites to imported luxury items, is likely. Other objects occur less frequently at Saqqara, Dashur and Meydum, in tombs
dated to the era of 4th and 6th Dynasty kings with monuments at those sites. Doubtless the royal burials themselves, now largely robbed out, were well endowed with imported luxury goods.

Little material is known from the 3rd Dynasty, with only a couple of imported timbers known from the period [74-5]. This may reflect the fact that the 3rd Dynasty is poorly understood archaeologically, rather than any cessation of imports. In addition, despite the presence of royal monuments, surprisingly little evidence has come to light from Saqqara and Abusir. Imported goods are attested from the 5th Dynasty [35-43, 69-70, 80-2], but not in large quantities from those two areas. In the case of Abusir, this may be due to the fact that such finds remain to be published.

Secondly, 38 entries, or nearly half the whole corpus, date to the 4th Dynasty. A number of others entries date more broadly to the 4th–early 5th Dynasty and so further precision is more difficult. It is tempting to ascribe the preponderance of 4th Dynasty imports to the relative economic strength of the highly organised Egyptian state, but the extent to which the results are skewed by the large amount of excavation work on 4th Dynasty Giza tombs is uncertain.

Thirdly, only after the 4th Dynasty is material found at regional centres south of Meydum. Only one object [84] is known from a non-royal cemetery of the 4th Dynasty. Again, this result may also represent an excavation bias. Moreover, after the 4th Dynasty, various objects, like lapis lazuli beads [80, 82-4] and Combed Ware jars [81, 85] are found in extremely modest burials in Middle and Upper Egypt. Such contexts suggest that after the 4th Dynasty, small amounts of exotica were filtering further south and coming into the hands of minor officials (Kantor 1992:20). It may also represent a secondary market in luxury goods. Another possible interpretation is that this phenomenon reflects declining levels of central control over the fruits of foreign expeditions beyond the narrow confines of Giza/Memphis (Marfoe 1987:27).
Finally, hardly any material comes from towns, with the sherd from Elephantine representing the only firmly identified find. As noted in Chapter 1.6.1, many Old Kingdom settlements have been inadequately recorded and published, hence more material may eventually come to light from publication of recent work at Mendes, Buhen, Kom el-Hisn, Elephantine and Tell Ibrahim Awad (Kemp 1977:186; Giddy 1987:204). However, this phenomenon may also point to the inherent preciosity of imported pottery or objects made from exotic raw materials: acquisition of these goods was linked to the status of the owner and as such were regarded as important items to include in one’s burial equipment.

Endnotes

1 Many tombs excavated by Reisner have not been published. His field notes and photographs are lodged at the Boston Museum of Fine Arts and are slowly coming to light by way of systematic publication. Details of the Reisner Archive can be found at http://www.mfa.org

2 Reisner (1942.ix) noted that Junker’s objects were divided between Leipzig, Hildesheim, Vienna and Tübingen, but enquiries to these museums yielded only one vessel. Perhaps the ceramics were kept in Egypt, being too fragmentary to warrant sending to European museums. A number of other vessels published by Reisner and Smith (1955:73-6) could likewise not be located despite global enquiries.

3 Reisner’s dating of the Giza tombs was established using the date of the tomb’s architecture and its position in the cemetery, combined with any inscriptions (Reisner 1942:27-36). This method is not without its critics, and since then a number of alternative dating schemes have been proposed. For one of the most recent attempts, including summaries of previous work, see Cherpion 1989.

4 Compare Hassan 1936:fig. 173.1-2 with Reisner and Smith 1955:fig. 82, no. 14-2-120; the flat based bowl in Hassan 1936:fig. 174.5 1955 is an earlier version of 6th Dynasty flaring bowls: Reisner and Smith 1955:figs 105, no. 12-12-555 and 114, no. 36-4-13. The Meydum bowls date to the 5th Dynasty: see the discussion of Meydum
bowl types in Ballet 1987:1-16, and types illustrated in Reisner and Smith 1955:81, fig. 110.

5 Ward (1991:13) stated that the timbers were ‘cypress, pine and cedar or juniper’ but Lucas’ results say otherwise (Lucas 1936:4).

6 The whereabouts of these jars is unknown. Two similarly dated metal ovoid jars with handles occur at the same site (Seidlmayer 1990: 50).
CHAPTER 4

A CORPUS OF EGYPTIAN IMPORTS IN CANAAN

4.1 Introduction
This Chapter identifies and examines the Egyptian objects and inscriptions found in Canaan during the EB III (pl. 20). The corpus is arranged by site, beginning with the Sinai and working northward. Only those sites with Egyptian material are included; each is assessed with a brief introduction, followed by a list or discussion of *aegyptiaca* in catalogue form. Stratified items of definite Egyptian origin are given separate catalogue numbers, with the excavation registration number noted, followed by standard curatorial details. Beads and small objects of carnelian and faience appear at just about every EB III site in Canaan and are not assumed to be Egyptian, unless chemical or typological evidence exists to the contrary. Hence, carnelian and faience beads are noted in the corpus only where other *aegyptiaca* from the same site is recorded. Possible Egyptianising architectural features are also noted.

4.2 The Sinai

4.2.1 Inscriptions
[91] Many rock graffito featuring standard scenes of kings smiting foreigners, accompanied by a short inscription, are carved onto the rock at or near Wadi Maghara (Redford 1986a:136-9). Not every king appears to have left an inscription, and the reasons for this are not known (Andrassy 1991:129). The earliest date to the 3rd Dynasty with Sanakhte, Djoser and Sekhemkhet all represented. (Gardiner et al. 1952:pl. 1; Zakaria Goneim 1957:pl. 78; Giveon and Goren 1974:98-101). 4th Dynasty kings with inscriptions include Sneferu (*Urk.* I:8; Gardiner et al. 1952:pls 2.5 and 4.6), Cheops (*Urk.* I:8; Gardiner et al. 1952:pls 2.7 and pl. 3) and Mycerinus (Gardiner et al. 1952:pl. 7.12). Of the 5th Dynasty, Sahure (*Urk.* I:32; Gardiner et al. 1952:pls 5.8 and 7.9), Niuserre (*Urk.* I:53; Gardiner et al. 1952:pls 4.11 and 6.10), and Djedkare-Isesi (*Urk.* I:56; Gardiner et al. 1952:pls 4.15, 7.13 and 8.14) are present. For the 6th Dynasty, Pepy I (*Urk.* I:91-2; Gardiner et al. 1952:pl. 8.16) and Pepy II are represented
(Gardiner et al. 1952:pl. 9.17). The Montiu or Montiu bowmen are described as the foes of Egypt in a number of these inscriptions (Urk. I:8). The fact that such expeditions enjoyed the protection of the army also indicates that mining activities may have encountered local hostilities (Fischer 1959:265; Andrassy 1991:128).

Rock graffiti of Old Kingdom officials also exists around Wadi Maghara (Gardiner et al. 1952). Of interest are two inscriptions belonging to officials called $\text{stk}(3)$ Setka and $\text{3bdw}$ Abdu (Giveon 1983). Both men held the title ‘$\text{3-}mr \ h\text{3st}$ ‘administrator of a foreign country’ (Helck 1954:79-83, 90-1), a title also known from 3rd Dynasty Sinai graffiti (Chevereau 1987:16, no. 20). The name $\text{3bdw}$ is attested elsewhere in the 5th-6th Dynasty, including another Sinai inscription dating to the reign of Pepy I (Gardiner et al. 1952:pl. 1, no. 2; Giveon 1983:49-50; Chevereau 1987:15, no. 1).

[92] (pl. 21) A rock graffiti of Sahure was noted at Wadi Kharig near Serabit el-Khadim (Giveon 1977). This inscription mentions the king who $\text{d3 S} t\text{t}$ ‘subdues Asia’.

4.2.2 Ceramics and other archaeological material

[93] The discovery of Old Kingdom mining settlements at Wadi Maghara with evidence of copper smelting and refining shows that some copper ingot production took place, but the scope of any mining activity is not known (Petrie 1906:39, 51-2). Petrie cites Old Kingdom sherds as evidence for dating these sites, but this cannot be verified.

[94] (pl. 21) Along the north Sinai ‘Way of Horus’, surveys conducted by Oren identified Old Kingdom Meydum bowls sherds (Oren and Yekutieli 1990:14). They were found at T-47, BEA-26, C-10, C-65 and A-249, sites along the western and central end of the route (pl. 21) (Oren and Yekutieli 1990:6-7). The bowls are late in the sequence, dated by Oren to the late 6th Dynasty-1st Intermediate Period, which he synchronised with MB I pottery also found there (1990:pl. 4.14-6, pl. 51-5). However, the relatively high rim and rounded profile of the bowl means that this material dates rather more closely to the beginning of the 6th Dynasty (compare Reisner and Smith 1955:fig. 110, Reg. No. 15-12-17, 25-12-55 in addition to 33-2-117-9; Ballet 1987:14, fig. 10A.1, fig. 11.xiii, xiv).
The presence of these sherds is supported by the titles of Egyptian officials, such as that of Hekni-khunmu from Giza who was ‘Overseer of the Road of Horus’ during the mid- late 5th Dynasty or later (Hassan 1953:40, 49; PMIIIf:238; Fischer 1991:63). This suggests that the route continued its role as a land bridge during the Old Kingdom, despite the importance of the sea-going Byblos run.

4.3 Numeira

Numeira is located to the south of Bab edh-Dhra in the southern Ghors, close to the Wadi Feinan copper resources. Archaeological work has been conducted in conjunction with Bab edh-Dhra. As with other sites in the region, C-14 dates are problematic for both towns. However, on the basis of the ceramics, the excavators believed that ‘the EB III occupation at Bab edh-Dhra and Numeira came to an end probably within the same century’ (Rast and Schaub 1980:46-7)

[95] Reg. No. 2844 (pl. 22)

Corner fragment of a rectangular fine-grained palette of grey siltstone (Munsell 5Y 6/1). Single line incised parallel to the edge on one side; this face is also polished. Broken hole on the short edge. The surface on the other side is broken and split.

L. 4.4cm W. 2.9cm Th. approx. 0.5cm

Prov.: NE 4/1 Locus 72, Basket 107: from a street in the walled town area. The excavators noted that in this street area, ‘cultural debris was heaviest opposite doorways Loci 51 and 53, particularly around Locus 72’ (Rast and Schaub 1980:43). A destruction level sealed the settlement.

Date of deposit: EB III


Published in: Sowada 2000:1528-9, Fig.3b

Comment: On the basis of shape, material and technology, this palette is Egyptian, belonging to a well-known class common in Egypt during the Naqada IIIb/c-early 1st Dynasty (see parallels).
A second palette fragment, made of sandstone, was found from the town at EB III Numeira (Reg. No. 3110: Sowada 2000). The object had no incised lines around the edge and may be manufactured from locally obtained stone.

4.4 Bab edh-Dhra

Bab edh-Dhra is located in the south eastern Dead Sea area in modern Jordan, close to the Wadi Kerak. The site has been the subject of systematic excavations by American teams from the University of Pittsburgh since the 1960’s (Schaub and Rast 1989 and references).

4.4.1 Carnelian Beads

Carnelian beads are found in both settlement and cemetery contexts, with simple disk beads known from the EB Ia onwards (e.g. Schaub and Rast 1989:302-10; Reg. No. 3330, Charnel House 22; Reg. 1885, Field X.1.4 Locus 4). Disk and cylindrical shapes, combined with short and long barrel beads were found in Charnel Houses A21, A51 and other contexts (Schaub and Rast 1989:463-70). Broeder remarks that ‘out of 822 beads from the EB III urban period cemetery, only 23 beads (or 3 per cent) are carnelian or carnelian agate’ (Broeder and Skinner 1992:145). Contrasting this with other periods, she notes a smaller number of beads in the total corpus in comparable strata at both Jericho and Bab edh-Dhra, suggesting either a change in preference for other stones or more likely, a break in the supply (Broeder and Skinner 1992:145).

In addition, the question of where carnelian was obtained remains an open question without detailed scientific analysis (see Ch. 8.6). Carnelian pebbles noted in the wadis of Jordan may have provided the raw material for a local bead-making industry (Broeder, pers. comm. 28/9/99). One broken cylindrical bead, from an EB IV tomb at Bab edh-Dhra is certainly Egyptian in origin (Broeder and Skinner 1992:144) so imports may have mixed with local bead production.

4.4.2 Shell and other beads

Many beads have been found in the tombs and settlement, but since the 1989 report of Lapp’s excavations, many remain unpublished, with even the excavation records giving little information. Shell, calcite, copper, quartz and other stones, including possibly
lapis lazuli, are noted in preliminary studies (Schaub and Rast 1989:461-470; Broeder and Skinner 1992). Green, black and red faience beads also appear in some quantity, mostly in simple disk shapes (Schaub and Rast 1989:461-70). Ostrich shell beads may be locally made (Broeder and Skinner 1992:144), with Reese suggesting that ‘live ostriches were still found in Jordan into the 1950’s’ (1985:155). At least 15 squat cylinder gold beads were found in Charnel House 22, E5 (Reg. No. 2049), along with two pieces of decorated gold foil belonging to a bracelet (Reg. No. 2806 – Rast and Schaub 1980:39). Another piece of gold was identified in Field XVI.2, Locus 31 (Reg. No. 2855). These may be Egyptian, or made from raw material originally from Egypt (Ch. 7.3.3).

[96] Dentalium shell beads from either the Red Sea or Mediterranean were observed in an EB II/III Charnel House (Broeder and Skinner 1992:141). Other beads from the EB II/III walled town area include those made from mollusc shell, possibly Red Sea Spider Conch or Scorpion shell (Broeder and Skinner 1992:142-3). A mother-of-pearl shell pendant from the Red Sea was identified in Charnel House 8, a tomb with an EB II-III date range based on available carbon dates (Schaub and Rast 1989:443, 456, fig. 262).

4.4.3 Maceheads
Most stone maceheads from Bab edh-Dhra are unpublished. However, the few published examples and the excavations records shows that pear-shaped maceheads dominate, in materials identified as calcite (calcium carbonate – Reg. Nos 752, 766, 1340) and ‘marble’ (Reg No. 1602). A granite macehead was also noted in Charnel House A51 (Schaub and Rast 1989:459, fig. 263), a stone that is not found in Canaan. An unpolished pear-shaped macehead of pale grey-white marble or indurated limestone from the EB III town (Schaub and Rast 1984:57) was thought to be Egyptian on the basis of stone type (Braun 1993:124), but this was not tested further. An unfinished macehead from probable EB IV site nearby (Rast and Schaub 1984:13, pl. 11.2) indicates local macehead production.
4.4.4 Palettes

Egyptian palettes and local copies form the largest group of *aegyptiaca*. They are mostly simple rectangular palettes with incised lines around the edge.

[97] Reg. No. 1262 (pl. 22)
Trapezoidal palette of green siltstone, with a drilled hole at the tope centre. Pair of well-cut incised lines parallel to the edge. Depression on one side, indicating use. Mended from several large but thin fragments, with sections of the surface missing.
(a) L. 7.2cm W. 4.5cm
(b) L. 6.0cm W. 4.9cm
Prov.: Town site near fortifications, Field XVI.1, Locus 7 Basket 52: from a deposit consisting of thick mud brick debris below the surface debris north of wall 4.
Date of deposit: EB III-IV
Parallels: as for [95].
Published in: Rast and Schaub 1981:22; Sowada 2000:1529, Fig. 3c
Comment: The excavator noted that the pottery was a mixture of EB III and EB IV; metal objects from the same context, probably from weapons, were given an EB III date by the excavators (Rast and Schaub 1981:22).

[98] Reg. No. 2924 (pls 22-3)
One quarter of a siltstone or slate palette of uniform dark grey colour with a greenish tint (5Y 4/1). Two roughly incised lines parallel to the edges on one side; this same side is also rough, missing chips from the surface and also pock-marked in places. Corners rounded and edges curved. Slight crack visible on both faces. The other side is smooth with some pock marking.
L. 10.4cm W. 3.3cm Th. 0.5-0.8cm
Prov.: Town site near fortifications, Field XVI.4, Locus 26, Basket 89.
Date of deposit: EB III-IV
Parallels: as for [95].
Published in: Sowada 2000:1529, Figs 1d, 3d

[99] Reg. No. 3364 (pls 22-3)
Complete rectangular fine-grained siltstone (or sandstone) palette, the stone coloured very dark greyish brown (2.5Y 3/2) with a pierced hole in the top centre, drilled from the back. Edges slightly rounded with some indications of an incised line parallel to the worn edges. The main surface has traces of incised lines around the edge and a 5.5cm circular darkened area covers most of the flat area, where there are shiny patches, suggesting a cosmetic residue. The other surface is worn with some pock marking and indications of incised lines around the edge.

L. 7.4cm W. 5.9-6.5cm Th. 0.5-0.6cm

Prov.: Charnel House A22, B6 on grid, Locus 24, Basket 125.

Date of deposit: Burial with mixed EB II and EB III materials, but predominantly EB III.

Parallels: as for [95].

Published in: Sowada 2000:1529-30, Figs 1e, 3e

Comment: A geologist tentatively identified the stone as either a fine siltstone or sandstone. Although further analysis is required on the stone, the type is typical of Dynasty 0 palettes. The mixed nature of this context poses a problem for dating the palette. In the opinion of the excavators, all the palettes found in Charnel House contexts should be associated with the EB III material. This would fit the date of other similar palettes at Numeira and Bab edh-Dhra found in more clearly stratified deposits.

[100] Reg. No. 1900 (pl. 23)

Near complete but crudely made long rectangular siltstone (or sandstone) palette with a single roughly incised line parallel to the edges. Drilled hole at the top, slightly off centre. One third of the lower part of the palette was burned in the burning that look place in the Charnel House. Mended from fragments.

L. 16.3cm W. 8.5cm

Prov.: Charnel House A22

Date of deposit: Burial with mixed EB II and EB III materials, but predominantly EB III.

Parallels: Petrie 1914:pl. 24.98r (dated to the Naqada IIIb-c1).

Published in: Sowada 2000:1529, Fig. 1c
Comment: The stone requires further analysis as preliminary observation by the excavator suggests it may be sandstone. As the author did not examine this object, its identification as Egyptian must remain tentative. It is included here on the basis of shape and technique.

[101] Charnel House A51 (pl. 23)
Rectangular siltstone palette, with a single incised line parallel to the edges. Hole in the top centre drilled from both sides. This surface also has some pock marks; the other side is flaking but there are no other signs of wear. Complete.
L. 7.4cm W. 5.4-5.0cm Th. 0.9cm
Prov.: Charnel House A51
Date of deposit: Burial with a mixture of EB II and EB III material, but predominantly EB III
Parallels: as for [95].
Published in: Schaub and Rast 1989:454, Fig. 261:3; Jacobs 1996:127, Fig. 6.1; Sowada 2000:1530, Fig.1f
Comment: Four palettes came from Charnel House A51, but only this one is positively indentified as Egyptian.

[102] Charnel House A21 (pls 22-3)
Near complete square siltstone palette, dark grey in colour with a tinge of green. Pair of incised lines parallel to the edge on one side; hole at the top centre drilled from both sides. The palette is smooth on both surfaces but with some surface damage on the front.
L. 8.0cm W. 7.7cm Th. 1.0cm
Prov.: Charnel House A21 Sz, found in 1965. The label says “surface to 8.663”.
Date of deposit: Burial with a mixture of EB II and EB III material, but predominantly EB III.
Parallels: as for [95].
Published in: Schaub and Rast 1989:455-6, Fig. 261:7; Jacobs 1996:127, Fig. 6.2; Sowada 2000:1530, Figs 1g, 3f
4.4.5 Cylinder seals

A cylinder seal (Reg. No. 2860) from a secure EB III deposit is described as 'alabaster' (Lapp 1989:5; Lapp 1995:50), suggesting an Egyptian origin for the stone (Lapp 1995:44; Braun 1993:124). The carved figure also recalls glyptic art of Egypt and southern Canaan (Amiran 1972:fig. 1; Brandl 1989:371, fig. 11). Indeed Braun described the seal as an Egyptian import, albeit from the EB I (Braun 1993). Recent analysis suggests, however, that the stone is local gypsum (calcium sulphate) instead (Schaub pers. comm. 21/3/00; contra Lapp 1995:44). Dr Gary Cooke, a geologist from Pittsburgh University, reported that the seal 'consisted of the minerals gypsum (CaSO\(_4\)2H\(_2\)O) and talc (Mg\(_3\)Si\(_4\)O\(_{10\)}[OH\(_2\)]\(_2\))'. There is more gypsum than talc, although it was not possible to distinguish how much more' (Cook pers. comm. 9/97). He contends that 'alabaster is described as a 'firm, very fine grained and massive of compact variety of gypsum, usually snow-white or translucent'. By this definition, cylinder seal #2860 is classified as alabaster' (Cooke pers. comm. 9/97). Egyptian gypsum quarries produced the stone for vessel production from the Predynastic to 3rd Dynasty (Aston 1994:47-51), and surpluses may have been exported as well. However, gypsum also occurs in southern Canaan (Sparks 1996:51-3). Rather than an Egyptian import, the seal may be of local or regional origin. However, another cylinder seal is definitely from Egypt.

[103] Reg. No. 2823 (pl. 24)

Carved chlorite-steatite or fine-grained chlorite cylinder seal. The carved design features a seated figure with long hair seated before a table; behind the figure are two quadrupeds and a space-filling ornament, which may be interpreted as a bird, a gazelle and a dog. The design is flanked on either side by an incised horizontal border. Complete

L. 1.6cm D. 1.6cm

Prov.: Town site, Field XVII.1, Locus 88: slightly ambiguous deposit was ambiguous: Lapp described it as 'EB III pottery; fell out of EB II balk (sic) context' (Lapp 1995:50).
Date of object: Early Dynastic Period, although many published by Spencer are unprovenanced (Spencer 1980:59-62); second half of the 1st to 3rd Dynasty (van den Brink 1995:204).


Published in: Lapp 1989:9-11; Lapp 1995:45, pl. 2.2.

Comment: The object is identical to Early Dynastic and early Old Kingdom cylinder seals. According to Spencer, the type was made for funerary purposes and usually bears a personal name, often compounded with that of a god (1980:59). However, the name on [103] can not be read and has no direct parallel. The date of this seal type along with the ambiguity of the context suggests that an EB II or EB III date is possible. An identical seal was said to come from the Sharon Plain, but not in a stratified context (Amiran 1970b:pl. 5).

4.4.6 Pottery

[104] Reg. No. 2209 (pl. 24)
Globular jar, with a narrow neck and everted flanged rim. Ware unknown.
Ht 13.5cm W. max. 13.5cm D. rim 4.5cm

Prov.: Charnel House A22

Date of deposit: From section of the tomb comprising predominantly EB III material.

Date of object: Not later than the end of the 5th Dynasty.

Parallels: Reisner and Smith 1955:71, fig. 86, Reg. 13-10-52 (early 4th Dynasty); Reg. 38-6-42 (mid-late 5th Dynasty); Kelley 1976:pl. 8.4 (14, 20), 11.2 (75), 17.7 (61, Q), 17.14 (3rd-6th Dynasty).

Published in: Rast and Schaub 1980:39, fig. 11.3.

Comment: The retention of the jar as burial equipment suggests an element of preciosity. Stager regards this as the only known Egyptian ceramic import in Canaan during the EB III (1992:41, fig. 7.13). It was not examined by the writer.

4.4.7 Stone vessels and other stone objects

A triangular “handle” of unknown stone type (Reg. No. 2894), presumably from a stone vessel, was found in Field IV.5 Locus 7, an area near the west fortification wall. The
nature of the object is not otherwise known. Schaub and Rast also reported a bowl rim fragment in 'soft calcite' (gypsum?) from Charnel House A21, Locus 4 (1989:459, fig. 263.1). Plain rimmed bowls occur from the 1st Dynasty onwards, but are more common in the Old Kingdom (Spencer 1980:18). In this case the stone type and workmanship could not be verified. Another curious object was a squared stone with a smooth, stepped face (Reg. No. 3101), measuring 32.0x27.0cm, from the town site in Field XVI.4, Locus 49 (Rast and Schaub 1984:46). The purpose of this object is a mystery. Similar to a piece from Ai that Callaway believed to be Egyptian or at least Egyptian inspired, it may be the base for a wooden column (1972:247). Any specific links to Egypt are unsustainable.

[105] Reg. No. 1888 (pl. 24)
Rim and part of the body of a fine-walled calcite jar. External flat ledge rim, sides tapering towards the base. Surface polished and smooth.
Ht 6.0cm
Prov.: Town site, Field XIV.3, Locus 32 Basket 69.
Date of deposit: EB III
Date of vessel: Old Kingdom, probably not later than the end of the 5th Dynasty.
Parallels: Reisner 1931a:fig. 37.9-10; fig. 43.1; fig. 45.19; Aston 1994:104; see also [143] from Byblos.
Published in: Unpublished
Comment: This piece belongs to a tapering cylindrical jar. Such vessels were common from the Early Dynastic Period to the late Old Kingdom (Reisner 1931a:164; Aston 1994:99-100), with the rim becoming longer and more square-edged in the 6th Dynasty (Lacovara 1991:fig. 3A-C, fig. 4G; Aston 1994:100). The short rim profile suggests an example earlier in the sequence, not later than the end of the 5th Dynasty. Egyptian wall paintings show that various forms of cylindrical jar were often used as containers (Kanawati and McFarlane 1996:pl. 55); such vessels are often associated with the seven sacred oils and other contents (Balcz 1934:79-83).

4.5 Tel Halif (Lahav)
Tel Halif (Lahav) has been the subject of excavations by the Lahav Research Project since 1976 (Seger et al. 1990 and references). Aegyptiaca from Tel Halif follows the
same pattern as that established by Numeira, Bab edh-Dhra and Tel Yarmouth. Like these other sites, much material awaits detailed publication and analysis.

4.5.1 Carnelian beads
Carnelian beads occur in small quantities in the EB III levels. Most are unpublished so the shape is unknown, but are noted as follows:

- Bead from Locus B9023, from EB III fill in preparation for Stratum 10
- Bead from Locus A9100.1, EB III pre Str. 12C, debris make up of surface A9100
- Bead from Locus B9100, from pre Str. 12 fill below street/debris make up of B9097.1
- Bead from Locus A8070.1 pre Str. 15B debris make up of surface A8070

4.5.2 Faience Beads
A considerable quantity of faience beads are known from EB III levels. The shapes remain to be published, but the EB III contexts are secure. These beads include:

- IDAM 83.930 (Locus A8047.1, Str. 14 house detritus)
- IDAM 83.933 (Locus A8019, debris from Str. 13 abandonment)
- IDAM 83.940 (Locus 10098, mixed deposit)
- IDAM 86.753 (mudbrick collapse in Locus A40554)
- IDAM 83.929 (Locus A8057.1, Str. 14 debris of surface)
- Bead from Locus A9110 from level pre Str. 13A, a drainage channel or passageway
- Bead from Locus A10110, from post Str. 12 fill debris
- Bead from Locus B9081.1, pre Str. 13A, debris make-up of surface B9081 (possibly contaminated)
- Bead from Locus A10153-1, pre Str. 13B, fill of surface
- Bead from Locus B9074.1, pre Str. 13A fill of surface
- Bead from Locus A9127.1, pre Str. 13B, debris make up of drainage channel A9127
- Beads from Locus B9101.P, Str. 13B on surface B9083
- Bead from Locus 9099, post Str. 15 ash deposit inside Str. 15 fortification walls
- Bead from Locus A9139, from pre Str. 13A fill debris
- Bead from Locus B9070, Str. 11, 12, 13 wall of fieldstones

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• Bead from Locus B10130, mixed EB III/LB strata

Nearly 40 faience beads, found on a surface in a large room dated to the EB IIIB, were still articulated as part of a necklace and may be Egyptian in origin (Seger 1990:15-6). The extent of faience working technology during the 3rd millennium is a source of considerable debate (Peltenberg 1995) and it is possible that by the EB III faience objects were produced locally.

4.5.3 Beads - other materials
A pendant crystal bead of possible Egyptian origin from EB III Locus A10154-1, from debris make up of a surface was also found but not seen by the writer.

[106] IDAM 1595 (pl. 24)
Polished green feldspar or amazonite bead amulet in the shape of a heart (?), pierced for suspension. Complete.
L. 2.3cm W. 1.4cm
Prov.: Area 9, Field 1 Locus 236, Str. 13. Found underneath rock fall in drainage trench.
Date of deposit: EB III
Published in: Seger 1990:15.
Comment: Amazonite is a semi-precious stone of volcanic origin found in the Egyptian Eastern Desert and possibly the Libyan massif (Lucas and Harris 1989:394; Aston at al. 2000:45-6). It was used for bead-making throughout much of Egyptian history. This finished bead amulet has the hallmarks of Egyptian production and should be regarded as an import.

4.5.4 Palettes
A serpentine palette was identified in EB III deposit (1975-502), which may be an import or made of a non-local stone (Aston 1994:56-9).

[107] IDAM 83.844 (pls 22-3)
Rectangular siltstone palette with two incised lines parallel to the edges on one side, and a hole at the top centre drilled from both sides. Minor surface abrasion. Chips missing from one corner and around the edges but otherwise complete.

L. 11.0-11.5cm  W. 8.0-8.9cm  Th. 0.7cm

Prov.: Field I, Area A8, Locus A8055, Stratum 14. Found within the debris and midden material of a stone-lined bin in the corner of walls A8025-A8023.

Date of deposit: EB IIIA-B

Parallels: as for [95] see also palettes from Bab edh-Dhra, Numeira and Beth Yerah in the present work.

Published in: Jacobs 1996:123-34; Sowada 2000:1528, Figs1a, 3a

[108] Number not known (not illustrated)

Siltstone palette fragments of similar type to [107].

Prov.: Stratum 13

Date: EB III

Published: Jacobs 1996: 131, n. 8.

4.5.5 Stone Vessels

A rim of a limestone bowl was discovered in Str. 15 (Locus B8036). The stone was described in the excavation records as ‘very soft and powdery’ which did not immediately suggest an Egyptian stone vessel type. A stone vessel handle was also discovered in Locus 8071.1, Str. 15 (IDAM 83.895), but this was not examined by the writer and no image of it could be located to further identify the object.
4.6 Lachish

4.6.1 Beads

A considerable quantity of carnelian and faience beads come from EB Lachish, particularly from the tombs in Area 1500 and 6000. The shapes span the most typical types of biconial, barrel through tubular and disk, with biconical carnelian beads in particular abundance (Tufnell 1958:pl. 29.21). Graves with beads included the mixed EB III-IV/MB Tomb 1513 and EB I-III Tomb 1535; both had a quantity of simple carnelian disk and barrel beads (Tufnell 1958:pl. 29.6 and 21). The mixed nature of these tomb deposits means that identifying when the beads arrived, if they are to be regarded as Egyptian, remains problematic. The carnelian barrel beads from EB Tomb 1535 (pl. 29.21) find good parallels in Old Kingdom Egypt and may be imports. As with bead types from Bab edh-Dhra, the extent of local beadmaking and the possibility of imported raw materials for this purpose require further investigation.

Shell beads were also identified in EB I-III contexts, with several Red Sea species known among the corpus. A gold bead was also identified in Locus 1535 (Tufnell 1958:pl. 29.17).

4.6.2 Stone vessels

A fragment of Chephren diorite with possible traces of a cartouche was found in an unstratified context (Tufnell 1958:75). The description fits that of a bowl incised with the name of an Old Kingdom Egyptian king, well-known from Egypt, Pb1a and Byblos (Ch. 5.3 and 5.5). Although the stone is sporadically known from the Early Dynastic period, the main *floruit* of use was the Old Kingdom, particularly the 3rd and 4th Dynasties (Aston 1994:62-4; Aston et al. 2000:33-4; contra Ward 1963:17). A second stone vessel fragment of Early Dynastic-early Old Kingdom date was found on the surface in Area 1500 (Tufnell 1958:253, pl. 26.10; compare Aston 1994:131). The context of both fragments is meaningless and hence the pieces cannot be used as evidence of contact with Egypt in the Early Bronze Age (see Phillips 1992:177).
4.7 Tel Erani
The EB II-III material from Tel Erani still awaits thorough publication. The EB Ia is better-known, thanks to the work of Yeivin, Kempinski and Brandl (summarised in Brandl 1989). No Egyptian pottery was observed in any EB III loci examined by the writer.

4.7.1 Palettes
Two palettes are published in Yeivin 1961:pl. 5 lower right (see also Jacobs 1996:n. 4) but they do not fit precisely into the repertoire of Egyptian palettes on the basis of shape and technology. One was made of mica schist, a stone known in Egypt and not in Canaan (Aston et al. 2000:45), but the palette is not obviously Egyptian. This may represent a locally manufactured variety from an imported stone, or perhaps an import from Egypt.

4.7.2 Stone vessels
[109] IAA 96-1810 (pl. 24)
Sherd from the shoulder of a stone jar, carved from a black and white hornblende diorite or andesite porphyry. Smoothed and lightly buffed exterior, but not polished. Interior surface uneven with faint traces of horizontal drill marks.
Ht 4.0cm  W. 5.1cm  Th. 1.3cm
Prov.: Area D, Locus Square 8C10i, Basket 43/23.
Date of deposit: EB III (?) (Brandl pers. comm. 8/7/00).
Date of object: Early Dynastic to 5th Dynasty.
Parallels: Possibly Reisner 1931a:fig. 39.3.
Comment: The sherd is evidently from the shoulder of a jar, but the shape cannot be reconstructed with any confidence. If the stone is andesite porphyry, this would suggest a vessel dating to the 1st-3rd Dynasties; various forms of hornblende diorite were in use throughout the Old Kingdom (Aston 1994:170).

4.8 Tel Yarmouth
Tel Yarmouth is located 25 km south west of Jerusalem in the Shephelah. The tell covers 16 hectares, with Early Bronze Age I-III remains, along with Byzantine levels.
Initially investigated in 1970 by Professor Ben-Tor of Hebrew University, Jerusalem (Ben-Tor 1975), over the last 18 years the site has been systematically excavated by Dr Pierre de Miroshchedji (CNRS) (de Miroshchedji 1988, 1993 and 1999 and references). The importance of this site stems from its almost continuous occupation from the EB I to III. The EB III deposits are particularly extensive, spanning early the EB IIIA to EB IIC (de Miroshchedji 1999). A significant quantity of Egyptian and Egyptianising material comes from EB II and EB III deposits. EB II material, consisting mostly of stone vessel fragments, is discussed in Chapter 2.3.9.

4.8.1 Beads
A long biconical carnelian bead (CNRS Cat. No. H.134001) was found in Palace B, Locus 1636, on a floor (Stratum B-1). Dated to the EB IIC, the bead is well made and carefully finished, and may be an Egyptian import (Sowada in press).

4.8.2 Palettes

[110] CNRS Cat. No. C.14062-1 (pls 22-3)
Rectangular greeny-grey slate palette, slightly chipped along one edge but otherwise complete. Vertical sides with gently bevelled edges all around, and slightly concave surfaces. Some surface wear in the centre of one side. Smoothed but not polished surface. Complete.
L. 9.8cm W. 6.3cm Th. 1.5cm
Prov.: Chantier Bd (Palace B area), Locus 1805 floor a. Absolute height 54.43 m, Stratum B-2.
Date of deposit: EB III B.
Date of object: 1st Dynasty, up to the reign of Den (Spencer 1980:79).
Parallels: Petrie 1914:pl.24.90r (Naqada IIIb); Kroeper 1996:79-81, fig. 8, nos 322-1430 (Early Dynastic Period) and nos 220 and 758 (Dynasty 0); Emery 1958:83, pl. 101.b; a palette from the tomb of Hor-Aha has curved sides and surfaces, and is made of "greenish schist": Emery 1939: 65-6, fig. 49.4 (Aha); Klasens 1958:54, fig. 21.5, with squared-off edges, similar to the Yarmouth example. For a 1st Dynasty palette with sharply bevelled edges, see Klasens 1960:93-4, fig. 22.1.
Published in: Sowada 2000:1531, Figs 2b, 3g; Sowada in press.
Comment: The palette shows some signs of wear but is otherwise very well preserved. The best parallels come from Early Dynasty graves at Minshat Abu Omar, where plain rectangular palettes were found in 1st-mid 2nd Dynasty burials. Examples are also known from similarly dated tombs at Saqqara and Abu Roash (see above). The palette was found on a floor in a deposit dated to the EB IIIB. This date is considerably later than available parallels.

[111] CNRS Cat. No. C.9597-1 (pl. 23)
Thick, roughly rectangular fragment of an olive-green schist or siltstone palette.
Broken all around the edges.
L. 9.3cm W. 7.8cm Th. 2.2cm
Prov.: Acropolis Sondage 1, Locus 1112 and 1129, Stratum 6 or 7.
Date of deposit: EB III
Date of object: Early Dynastic Period, probably 1st Dynasty.
Published in: Sowada in press.
Comment: The type is related to [110]. Although the edges are broken preventing examination of the finish around the perimeter, the thickness of the fragment places it with later types. The context from which this piece was obtained was an erosion fill outside the city wall. This is not a reliable context and the date cannot be ascribed absolutely to the EBA. However, the deposit contained mostly EB III sherds (de Miroshedji pers. comm).

4.8.3 Stone vessels

[112] Hebrew University Excavations Reg. No. 191 (not illustrated)
Body sherd of vessel of indurated limestone.
Dimensions unknown
Prov.: Area B-north, Locus 784 (stratum II).
Date of deposit: EB III, although two Byzantine sherds were found in the vicinity of wall W501 in this strata.
Date of object: Old Kingdom (?)
Published in: Ben-Tor 1975:72, n. 26.
Comment: Petrographic analysis confirmed the identification of this stone and [112-4]. Ben-Tor describes them all as imported from Egypt (Ben-Tor 1975:n. 26). Aston describes the use of indurated limestone as lasting from the Early Dynastic Period to the 4th Dynasty (Aston 1994:40).

This and other stone vessel pieces from Ben-Tor’s excavations were all found in within the walls of de Miroschedji’s Palace B structure (see Ben-Tor 1975:fig. 2-4, compare de Miroschedji 1993:fig. 5).

[113] Hebrew University Excavations Reg. No. 38 (not illustrated)

Body sherd of a vessel of porphyry.

Dimensions unknown

Prov.: Area B, Locus 768, in the fill between walls W501 – W506.

Date of deposit: EB III on the basis of pottery from this locus (see Ben-Tor 1975:69-70).

Date of object: Early Dynastic Period to Old Kingdom.

Published in: Ben-Tor 1975:72, n. 26.

Comment: The precise kind of porphyry was not stated in the excavation report. Varieties of porphyry were used for stone vessel production from Naqada III to the Old Kingdom (Aston 1994:22).

[114] Hebrew University Excavations Reg. No. 300 (not illustrated)

A single crystal of quartz, said to come from a stone vessel.

Dimensions unknown

Prov.: Area B, Locus 813, east of locus 798.

Date of deposit: Probably EB III

Date of object: Early Dynastic Period or Old Kingdom (?)

Published in: Ben-Tor 1975:72, n. 26.

Comment: Although Ben-Tor notes the probable Egyptian origin of this stone, the fragment is too small to be of real value. Quartz was used for stone vessels during the Early Dynastic Period, then in the later Old Kingdom for model vessels belonging to ‘Opening of the Mouth’ sets (Aston 1994:64-5).
[115] CNRS Cat. No. C.5518-1 (pl. 25)

Fragment of a green lapily tuff or micro breccia bowl, flat internal ledge rim with a concave underside, convex walls. Hard stone, with large elasts clearly visible to the naked eye. Smoothed and delicately polished on the interior and exterior.

D. approx. 31.0cm Ht of sherd 1.6cm L. (across rim) 1.7cm

Prov.: Chantier C, Locus 203A: The 'location of the find precludes any contamination by Pit 221... it was found close to the floor, but not necessarily on it (de Miroshedji, pers. comm. 31/1/96). Absolute height 53.17/52.77 m, Stratum C-3B.

Date of deposit: EB IIIA

Date of object: 2nd Dynasty to early 4th Dynasty

Parallels: [116, 130], Amiran 1970:175-7, fig. 6.3; Garstang 1904:pl. viii.4. Note the variety of stone types used: pl. vii. Mace draws a ledge rim type but the parallel cited does not support his typology: Mace 1909:43, fig. 99.2.

Published in: de Miroshedji 1988:88, pl. 48:11, pl. xxvi.1; Sowada in press.

Comment: The walls are thin relative to the large diameter of at least 31cm, indicating a large, finely made bowl. The surfaces are smoothed to a dull sheen, but not highly polished like the calcite fragments. The vessel has few parallels in the Egyptian stone vessel and pottery repertoire.

Firstly, the stone type is unusual. Identified as a lapily tuff or volcanic micro-breccia by geologist Dr A. Shimron of the Geological Survey of Israel (Report 14/7/97; de Miroshedji in press), it is a coarser version of the fine green-blue volcanic tuff of vessel [117]. Meta-pyroclastic rocks of this type are 'typically found in the Neoproterozoic Arabian Shield, in particular in the Central Eastern Desert of Egypt (south of latitude 26°). That is roughly south of Quseir and extending south into Sudan. Similar rocks also occur in southeast Sinai and many portions of Arabia' (A. Shimron, Report 14/1/97).

Wide stone bowls with flat-topped rims are known in Egypt, but internal ledge rims are rarer. Bowls with flat external ledge rims come from 1st Dynasty royal tombs at Abydos; the type is also known from the Step Pyramid at Saqqara (el-Khouli 1978:346, pl. 87, Nos 2393-2396; 347, pl. 87, No. 2401[schist]). A wide-mouthed convex-sided calcite bowl with a flat-topped rim dates to the reign of Djoser, and a further flat-
rimmed bowl with a slight internal ledge is known from a 3rd Dynasty tomb at Giza (el-Khouli 1978:429, pl. 97, No. 3123 [calcite]; 463, pl. 99, No. 3446 [calcite]). From Reqaqnah, a bowl with a truncated internal ledge rim comes very close to the Tel Yarmouth example (see parallels above). Another parallel comes from a 3rd-4th Dynasty tomb at Naga ed-Deir: a limestone bowl bears a sharply inverted rim oblique to the wall, but not flattened as with the Yarmouth example. Reisner dates this form to the 3rd Dynasty (Reisner 1932:209, fig. 114, N547/7). A taller diorite of possible 3rd Dynasty date example was found in the Mycerinus Valley Temple (Reisner 1931a:186, fig. 56.13).

Von Bissing notes several vessels made of red breccia and 'alabaster' with very similar rim shapes, but the nature of his drawings are such that the accuracy of the profiles are questionable (von Bissing 1904:30-1, 103-4, Taf. VII, Nos 18183, 18206-10, 18511). These pieces apparently date from the Old Kingdom through to the Late Period and are largely without provenance. The only precise, reliable stone parallel known to the writer is the limestone bowl from Ai [130]. The rim shape is also identical to a bowl shape common in the EB II and EB IIIA pottery repertoire of Tel Yarmouth and stratum IV-I at Arad (de Miroshedji: 1988:pl. 23.20 [jatte, EB II], pl. 25.6 [ecuelle, EB II], pl. 27.1 [ecuelle, EB IIIA] and pl. 37.3 [ecuelle, EB IIIA]; Amiran 1978:pl. 8.2 [Stratum IV], pl. 13.41 [Stratum III], pl. 23.20 [Stratum II] and pl. 52.18 [Stratum I]).

This vessel should be regarded as an Egyptian copy of a Canaanite vessel type (Amiran 1970a: 172). C.5518-1 was found in close proximity to the EB IIIA 'White Building', on Floor 203A at the southern end of Area C, dating to the EB IIIA. An EB IIIA date for the context fits Egyptian 3rd Dynasty parallels, when more exotic stones were used for stone vessels.

[116] CNRS Cat. No. C.6625-1 (pl. 24)

Fragment of a green lapilly tuff or micro breccia vessel, body or base sherd only; slightly concave shape. Delicately polished interior and exterior surface.

Ht of sherd 2.9cm Th. 1.1 cm
Prov.: Chantier C, Locus 265-1. Absolute height 52.62/52.50 m, Stratum C-4.

Date of deposit: EB IIIA

Date of object: 2nd to early 4th Dynasty.

Published in: de Mioschedji 1988:88, pl. 48:12; Sowada in press.

Comment: Made of the same material as [115] and found nearby, the fragment undoubtedly a body sherd of the same bowl, possibly from the base. It was found in a deposit dated to the EB IIIA (Stratum C-4), close to a floor if not on it, in close proximity to the ‘White Building’.

[117] Cat. No. C.5971-1 (not illustrated)

Body sherd of a vessel, probably a bowl, of green to pale blue-green fine volcanic tuff. Concave shape, smooth but not polished on the exterior surface, very smooth on the interior surface.

Ht of sherd 4.2 cm  W. 3.1 cm  Th. 0.6 cm

Prov.: Area D, Locus 343, layer 1 floor a, absolute height 51.30/51.03 m, Stratum 5-7.

Date of deposit: EB IIIA

Date of object: 1st-3rd Dynasty

Parallels: Aston 1994:25-7, pl. 5c.

Published in: Sowada in press.

Comment: This sherd comes from an Egyptian volcanic tuff vessel (stone identified by A. Shimron pers. comm. 14/1/97) of the Early Dynastic period. It belongs to a wide stone bowl with a countersunk base, common during the 1st-2nd Dynasties, and possibly into the 3rd (Aston 1994:26-7; Aston et al. 2000:60-2). The fragment was found in an EB IIIA context on a floor in Area D, a region to the north of the ‘White Building’.

[118] CNRS Cat. No. C.9516-1 (pl. 25)

Fragment of a circular offering table or platter in fine, densely crystalline green-black gabbro. The upper side is flat and highly polished, and the underside less well-finished.

Ht 3.3cm  L. 6.4cm  W. max. 4.2cm

Prov.: Chantier Acropolis 1, Loc 1109, Absolute height 93.20 m, Acropolis Phase 5
Date of deposit: EB IIIA

Date of object: 3rd or 4th Dynasty

Parallels: [145] from Byblos.

Published in: Sowada in press.

Comment: The fragment bears a slightly serrated edge that is so sharp that re-use of the fragment as a tool is possible. The outer edge has a slight curve, but it is so shallow that the complete object, almost certainly an offering table, was very large. In Egypt, offering tables range from rectangular slabs bearing relief decoration for tomb chapels (Kuentz 1981:244), to stemmed, flat-topped circular tables. A related type are large, flat unstemmed 'table tops' and platters (el-Khouli 1978:for stemmed tables pl. 123-6, for table-tops pl. 127, Nos 5470-5491 and 5508; for 4th Dynasty stemmed tables, see Reisner 1931a:178, fig. 43.14; Reisner 1942:498-9, fig. 304c, Tomb G4631, Reg. No. 14-1-44).

Inscribed calcite examples with profiles similar to C.9516-1 dated to the Old Kingdom were found at Byblos [145]. From the 1st to 3rd Dynasties and into the Old Kingdom, such objects are almost always made of calcite or less often, limestone. Only a very few examples in schist, gneiss and porphyry occur (el-Khouli 1978:stemmed tables - 699, pl. 125, No. 5436, 5438, 5440 [schist- 1st Dynasty]; 702, pl. 125, No. 5441 [porphyry - 3rd Dynasty]; 708, pl. 127, No. 5482). C.9516-1 was found associated with EB IIIA pottery in a secure deposit that sealed a plaster floor (Locus 1110). Locus 1109 is regarded as "floor material", dated to Phase 5 of the Acropolis.

[119] CNRS Cat. No. C.10073-1 (pl. 25)

Fragment of a calcite bowl; incurving rim, with an internal sloping edge. Highly polished on interior and exterior surfaces.

D. approx. 24.0cm Ht of sherd 3.6cm Th. 0.8cm

Prov.: Chantier G, Locus 1216-2, under a floor, Absolute height 51.54/51.37m, Stratum G-2B.

Date of deposit: EB IIIC

Date of object: Early Dynastic Period or early Old Kingdom
Parallels: [150f] from Byblos; [126-7] from Ai; el-Khouli 1978:406-8, pl. 95, Nos 2864-2898 (1st-3rd Dynasty); Reisner 1931a:171, Type 3-Xd, fig. 41.18 (3rd Dynasty). Reisner believed the earlier types to have ‘a greater width in proportion to the height and a smaller base in proportion to the width of the mouth’: Reisner 1931a:160; Amiran 1970a:177-9, fig. 6.5-6.

Published in: Sowada in press.

Comment: The rim diameter and straight wall points to a large, finely made bowl with a tall, deep profile. The combination of stone type, shape and relative proportions of form points to an earlier rather than very late date for the fragment. Plain rather than sloping recurved rims become more common on bowls during the Old Kingdom (Spencer 1980:18). However, the sloping recurved rim in calcite occurs in the 3rd and 4th Dynasty at Giza, el Kab, Abusir, Saqqara (Step Pyramid Gallery B) and Naga ed-Deir (Aston 1994:112-4; Reisner 1942:472, fig. 285, Tomb G4340, Reg. 13-10-10; 476, fig. 287, Tomb 4440, Reg. 13-11-97; 483, fig. 291, Tomb G4640, Reg. 13-12-6). The forms are deep, with an incised circle on the base, and a narrower rim diameter relative to the height. Taller examples made of Chephren diorite are frequent in later contexts at Giza, such as Tomb G 2001B, D and G 2347 aB, dated to the 6th Dynasty (Reisner and Smith 1955:101, fig. 147, Reg. Nos 36-3-21, 36-3-23 and 35-11-37, Type OK Xc).5

This sherd was found in Chantier G, some distance from the ‘White Building’ area and outside the walls of Palace B. The deposit was a fill layer ascribed to Stratum G-2B, dated to the EB IIIC, equated with the mid to late Old Kingdom.

[120] Cat. No. C.13182-1 (pl. 25)
Thick-walled body sherd with a convex profile, belonging to a basalt vessel, probably a jar, The stone is dense and coarsely crystalline.
Ht of sherd 6.8cm W. 5.3cm Th. 1.8-2.1cm

Prov.: Area Ba, Locus 93-2, Stratum B-1.

Date of deposit: EB IIIC

Date of object: possibly 3rd or 4th Dynasty.
Comment: The thickness of the sherd suggests that it came from a thick-set squat shouldered jar with a wide rim. This type is known from the Early Dynastic Period, especially around the northern Nile Valley and Giza - Saqqara (Aston 1994:131, no. 108). Basalt is also used in the 3rd-4th Dynasty for full-size stone vessels; in the later Old Kingdom it was also used for model vessels belonging to ‘Opening of the Mouth’ sets (Aston 1994:21). This fragment was found slightly above the floor level in a stratum that corresponds to the main courtyard of Palace B. The context was sealed by topsoil.

4.8.4 Ceramics
A locally-made bowl or ‘ecuelle’ (Reg. C.6521-1) with a plain exterior and red-slipped interior was incised post-firing with what is probably the remains of a serekh (de Miroshchedji 1988:86, 236-7, pl. 47.8, pl. xxiii.4; Braun et al. in press). The orientation of the pot-mark is such that if it is a serekh the mark was placed sideways. The sherd was found on a floor in Area C, Level IV(V) dated to the EB IIIA (de Miroshchedji 1988:236-7). If truly a serekh, its presence at Tel Yarmouth has similar implications to the EB II inscribed jug from Beth Yerah (Greenberg and Eisenberg in press; Ch. 2.5.4).

4.8.5 Raw materials
A small rough fragment of pale blue turquoise (CNRS Cat. No. C.9205b-1) was located in Chantier Cne, Locus 1044-1, on or close to a floor surface in an area close to the White Building (Sowada in press). The deposit dated to the EB IIIA. Whether the piece is simply a portion of raw material, or a broken part of a larger undefined object cannot be determined.

As the nearest turquoise source was the Sinai (Ch. 7.2.2), this piece was evidently imported from the region. Sinai inscriptions show that 3rd and 4th Dynasty kings were actively exploiting mines in the region, so possibly this piece came from one such source, or passed through the hands of local Sinai inhabitants on its way to Canaan.
4.8.6 Architectural features
De Miroshedji identified the use of the Egyptian cubit (52.2-52.5cm) as a unit of measurement in the EB IIIC Palace B administrative complex (ca 25th century BC = 5th Dynasty). The use of this measure is hitherto unattested in Canaan, but was used in Egypt from the 3rd Dynasty (Helck 1980; de Miroshedji 1993:836). Alongside this occurs internal square buttresses of the palace wall, best paralleled in monumental architecture at EB I-III Byblos (Dunand 1939:pl. xix.2; de Miroshedji 1993:836-7, de Miroshedji 1999:10).

4.8.7 Discussion
Stone vessel fragments dominate the Tel Yarmouth corpus, but unlike the vessels from Ai, they are scattered over different areas of the site. Moreover, they are small pieces only, as opposed to more complete vessels. A palette [110] and several stone vessel fragments [112-4, 120] were found in the vicinity of Palace B, signifying their possible importance as a luxury import or an elite gift. Like Ai, the vessels are almost all bowls, which would preclude their use as containers for trade commodities. The gabbro offering table fragment from the Acropolis [118] strongly recalls similar pieces from Byblos [145]. The material largely clusters in the EB IIIA, with only one fragment, a 3rd Dynasty green lapilly tuff bowl [115] offering any possible chronological synchronisms with Egypt. At least one vessel fragment, [117], is probably from an Early Dynastic stone vessel.

4.9 Jericho
There appears to be no material at EB III Jericho that can be positively identified as Egyptian in origin (Rast 1980:10). The following two classes of evidence are worth noting briefly:

Many beads in a range of materials, including shell, carnelian, ostrich shell, calcite, frit or faience, bone, crystal and other stones, were identified from the tell and EB II-III tombs. The shapes include disk and barrel shaped carnelian and frit/faience types from Tombs F2 and F3 (Kenyon 1980:155-6, fig. 55 and 172-3, fig. 65). A number of the
stone types are not identified (e.g. Kenyon 1960:125-6; Kenyon and Holland 1983:796-8).

A rectangular palette with a hole pierced at the top is known from Tomb D12, but it is described only as ‘stone’ (Kenyon 1960:124-5, fig. 40.3). In any case, the tomb’s mixed deposits and disturbed nature means that a more specific date in the EB cannot be determined.

4.10 Ai (et-Tell)
The Egyptian objects at Ai (et-Tell) represent probably the best known corpus of EB III *aegyptiaca* from Canaan. Found by Marquet-Krause in the sanctuary on the western edge of the site, this material is the temple’s cultic equipment, and includes Egyptian stone vessels, Egyptianising cups and other objects of certain Egyptian origin. Following Marquet-Krause, Amiran suggested the stone vessels were old temple equipment or heirlooms dating to the EB II, probably from the Acropolis temple (Amiran 1970a; 1972). Callaway disputed this, preferring an EB IIIA (Stratum VI) date for the material, in accordance with the date of the contexts (1972:300). Owing to their importance, the vessels are worth re-examining from a typological and stratigraphic perspective. The Israel Department of Antiquities (IAA) or Hebrew University (HU) number is noted first, followed by Marquet-Krause’s (MK) original excavation number. The Egyptianising cups are discussed in Chapter 8.8.

4.10.1 Beads
Beads of different materials such as carnelian and faience occur in very small quantities at various levels at the site, but none are illustrated by Marquet-Krause.

4.10.2 Palettes
A trapezoidal ‘diorite’ palette with possible traces of an incised line around the edge was found on a ‘pile of stones north of the palace’ in Area G (Marquet-Krause 1949:60, pl. 38.482). Further identification of the object was not possible.
4.10.3 Stone Vessels

[121] *IAA* 36.583 and 36.586 (*MK* 1484 & 1485) (pl. 26)

Upper and lower body of a calcite ovoid segmented jar, separated horizontally through the centre. Flat, horizontal edges at the top and bottom indicate that the base and rim pieces are missing (but not broken). Vestigal vertical handle on upper body. Polished surface sustaining severe smoke damage on both sections.

Ht ca. 21.6cm

*Prov.*: Sanctuary A, Room 116 (Area H)

*Date of deposit*: Phase VIII, EB IIIB

*Date of object*: Probably 1st Dynasty ‘from Djer on’ (Amiran 1970a:173).

*Parallels*: See segmented ovoid jars from Egypt, some with sections in basalt and calcite:⁶ Emery 1954:165, fig. 224 (1st Dynasty); el-Khouli 1978:239-40, pl. 67, No. 1629, 1631 (1st Dynasty); 298, pl.79, No. 2024 (2nd Dynasty); vessels with a separate rim section – Reisner 1931a:fig. 40.4-5, 7.

*Published in*: Marquet-Krause 1949:pl. lxvi; Hennessy 1967:pl. 56.12-3; Callaway 1972:310, fig. 70.1, 71.3; Amiran 1970a:fig. 1.

*Comment*: This is a 3 or 4-segmented vessel, for which no comparable parallels are known, although a segment of such a vessel might be identified from the Mycerinus temple (Hennessy 1967:70; Reisner 1931a:fig.50:20). Closest examples are Early Dynastic ovoid jars made in two sections. Amiran also notes convincing ceramic parallels from EB II Arad for the degenerate vertical handle (Amiran 1970a:171), but the feature also appears on EB III ceramics (Tuffnell 1958:pl. 14.21). Segmented squat spheroidal jars were also produced during the 3rd Dynasty, with only the rim added as a separate piece fitting into a shape-edged shoulder, but the 4th Dynasty this practice appears to have died out (Reisner 1931a:168, fig. 40.4-5).

[122] *HU* 5340 (*MK* 2366) (pl. 26)

Thick walled calcite cylinder jar, flat external ledge rim, concave sides flaring toward the flat base. Edges of the base rounded; possibly the edges were originally slightly more flaring, but now broken away. Smoke damaged on exterior surface.

Ht 8.4cm.
Prov.: Sanctuary A, Room 116 (Area H), 'in the niche of the south wall found with the neck of the zoomorphic vessel Reg. 1498. The cup was found in situ on Altar J, surrounded by the five flat stones decorated with red paint, indicates that at least some of the vessels were votive cups' (Callaway 1972:304).

Date of deposit: Phase VIII, EB IIIB

Date of object: 1st Dynasty-early Old Kingdom (?)


Published in: Marquet-Krause 1949:pl. lxvi; Hennessy 1967:70, pl. 56.10; Callaway 1972:310, fig. 71.1; Amiran 1970a:fig. 4.

Comment: The rounded rim suggests a 1st-3rd Dynasty date (Aston 1994:100) but this type of cylinder jar with concave sides and a flaring base has an extremely wide date range (Amiran 1970a:174).

[123] IAA 36.581 (MK 1498) (pl. 26)

Rim and neck of a carved calcite vessel, everted rounded rim, raised plastic decoration on neck resembling binding. Surface severely smoke damaged.

Ht approx. 6.0cm  D. rim approx. 9.6cm

Prov.: Sanctuary A, Room 116 (Area H)

Date of deposit: Phase VIII, EB IIIIB

Date of object: Probably Early Dynastic Period – late 1st Dynasty/2nd Dynasty (?).  

Parallels: The banded calcite food case in the form of a trussed fowl, 25.5 cm long, dated to the 3rd Dynasty, Sotheby's Catalogue of Antiquities and Islamic Art, 29 May, 1987 (New York).

Published in: Marquet-Krause 1949:pl. clxxxvi.1458; Hennessy 1967:pl. 56.14; Amiran 1970a:pl. 41B; Callaway 1972:310, fig. 69; Amiran 1972:9-13; Amiran 1989:54-5, fig. 3.

Comment: Amiran reconstructs the sherd with fragments of a zoomorphic vessel noted below [124], citing as a parallel the 'marble' model waterskin from Abydos dating to the reign of Semerkhet (late 1st Dynasty) (Amiran 1970a:174-5; Petrie 1900:28, pl. 38.3). The body and rim sherds have been mended together to form one vessel, a probable reconstruction, given the carved ties binding both the neck and legs, but it is a
reconstruction that poses problems. For example, the rim sherd is very badly smoked damaged but the body sherds are not. Secondly, the rim and body pieces were found in different contexts: 1498 from Room 116, and the body sherds in Room 120. This suggests the pieces were involved in separate archaeological episodes that affected the surface in differing ways. If the fragments do belong to the same vessel, then by the time the rim was damaged by fire, the vessel was already broken.

[124] IAA 36.592 (MK 1459) (pl. 26)
Fragments of a calcite zoomorphic vessel representing a trussed animal, polished exterior surface. Two back legs, tail, body fragments and one foreleg with bindings extant. Probably belongs to a stone waterskin, joining with [123]. No smoke staining on surface.

Measurements not available

Prov.: Sanctuary A, Room 120 (Area H)

Date of deposit: Phase VIII, EB IIIB

Date of object: Probably Early Dynastic Period – late 1st Dynasty/2nd Dynasty (?).

Parallels: Petrie 1900:28, pl. 38.3, cited as ‘a marble waterskin’ but probably made of indurated limestone. Petrie states that the vessel was ‘found in many pieces about the tomb of Mersekha’ [Semerkhet] (Petrie 1900:28).

Published in: as per [123] above, but also Callaway 1972:300-1, 325, fig. 78.1.

Comment: Stone zoomorphic vessels have a long history in 3rd millennium Egypt, but their typological development is not clearly understood. They are well-known from the Predynastic period onward, when they appear in hard stones in the form of frogs, fish, ducks and other animals (e.g. Manniche 1999:42, 50; Hendrickx 1994:38-9). In the later Old Kingdom, lidded zoomorphic stone vessels in the form of various foods, including trussed ducks, probably contained the mummified or dessicated remains of those animals (D'Auria et al. 1988:93-4).

Dating the Ai vessel is difficult. Callaway believed it belonged to the late 2nd-3rd Dynasty (1972:301), but his basis for this assertion is weak. The parallel from Abydos for [123-4], smaller in size, dates to the late 1st Dynasty, although the context could
hardly be described as secure. This may help place the Ai vessel in the Early Dynastic Period, but it must be said that little is known about the dating of these types generally.

[125] IAA 36.588 (MK 1491) (pl. 27)
Wide shallow bowl, fragmentary, convex sides, plain rounded rim and flat base. Hard pink limestone.
D. 30.0cm
Prov.: Sanctuary A, Room 116 (Area H)
Date of deposit: Phase VIII, EB IIIB
Date of object: 1st Dynasty to early Old Kingdom (?)
Published in: Marquet-Krause 1949:pl. liii, lxvi; Hennessy 1967:pl.56.5; Amiran 1970a:fig. 6.4; Callaway 1972:310, fig. 70.4.
Comment: The dish does not have the countersunk base as suggested in the drawing of Marquet-Krause (Callaway 1972:302). Reisner notes that ‘round-bottomed platters and bowls have almost disappeared in Dynasty III (Reisner 1931a:168; Hennessy 1967:69); Spencer on the other hand noted that round bases are found to the end of the 6th Dynasty (1980:18). Dating such types is difficult (Spencer 1980:18), although the fancier pink stone suggests an earlier rather than later date. Callaway’s suggestion that the incense stands from the Sanctuary belonged to the platter (1972:302) is not plausible.

[126] MK 514 & 692 (pl. 27)
Fragments of a tall calcite bowl, recurved rim flattened on the inside edge, convex walls, flat base with incised circle on the interior.
Ht approx. 15.2cm D. rim approx. 34.0cm D. base 11.2cm
Prov.: Temple A, Locus 42, Acropolis Area (Area G).
Date of deposit: Phase VI, early EB IIIA (Callaway 1972:248-9).
Date of object: Bowls with an incised circle on the base are generally regarded as belonging to the late 1st Dynasty – 2nd Dynasty, but it must be said that the type occurs both earlier and later but in reduced numbers (Spencer 1980:18). Hence the floruit of
this type should be placed in the late 1st-2nd Dynasty, but dates either side of this are also possible.

Parallels: [119] from Tel Yarmouth; Reisner 1931a:figs 30.17, 35,10, 41.6; el-Khouli 1978:453, pl. 98, no. 3351 (3rd Dynasty); Berman 1999:90, No. 19.

Published in: Amiran 1970a:pl. 43A, fig. 6.5.

Comment: This vessel was not found during a recent search of the holdings of the Israel and Rockefeller Museums, Jerusalem.

[127] MK 344 & 399 (pl. 27)

Fragments of a calcite bowl, high walls, slightly convex but straighter than [126] above, recurved rim with a sloping edge, flat base, with on the interior a lightly incised line encircling the rounded base.

Ht approx. 10.0cm  D. rim approx. 20.0cm  D. base approx. 10.0cm

Prov.: Temple A, Locus 22, Acropolis Area (Area G).

Date of deposit: Phase VI, early EB IIIA (Callaway 1972:248-9).

Date of object: This bowl differs from the one above in that the circle is only lightly traced on the rounded base inside the bowl. This may suggest a 2nd-3rd Dynasty date (Spencer 1980:18).

Parallels: [119] from Tel Yarmouth; Reisner 1931a:fig.41.7; el Khouli 1978:454, pl. 98, no. 3360 (1st-2nd Dynasty); close to Berman 1999:90, No. 19.

Published in: Amiran 1970a:fig. 6.6

Comment: Like [126], it was not found in the Sanctuary, but in the Acropolis Area. According to Callaway, both [126-7] ‘were found in rooms filled with rubble in the EB IIIB phase of the temple, at the time Sanctuary A was established at the Citadel, confirming stratigraphically that they were used in the EB IIIA temple when the Sanctuary A vessels were also used there if our reconstruction is correct’ (Callaway 1978:51). This vessel was not found during a recent search of the holdings of the Israel and Rockefeller Museums, Jerusalem.
[128] HU 5424 (MK 1520) (pl. 27)
Wide shallow calcite bowl, recurved rim with a sloping edge, convex walls and a flat base, with an incised circle around the flat base on the interior. Traces of smoke damage on the exterior. Mended from fragments.
Prov.: Sanctuary A, Room 116 (Area H), behind the south-west door (Callaway 1972:313).
Date of deposit: Phase VIII, EB IIIB
Date of object: The combination of sloping recurved rim and incised circle on the interior suggest a late 1st to 3rd Dynasty date (Spencer 1980:18).
Parallels: Reisner 1931a:fig. 35.6; el-Khouli 1978:591-2, pl. 110, nos 4591-4600 (1st-3rd Dynasty).
Published in: Marquet-Krause 1949:pl. xxiii; Amiran 1970a:fig. 6.2, pl. 43B; Callaway 1972:310, fig. 70.2.

[129] IAA 36.587 (MK 1489) (pl. 27)
Wide shallow calcite bowl, recurved rim with a sloping edge, straight walls and a flat base. The interior of the bowl is also flat on the base, encircled with a lightly incised circle.
D. rim 31.0cm
Prov.: Sanctuary A, Room 116 (Area H)
Date of deposit: Phase VIII, EB IIIB
Date of object: The combination of sloping recurved rim and a lightly incised circle on the interior suggest a late 1st-3rd Dynasty date (Spencer 1980:18).
Parallels: Possibly [150c] from Byblos; Reisner 1931a:fig. 35.7; el-Khouli 1978:590-1, pl. 110, nos 4579-90 (1st-3rd Dynasty).
Published in: Marquet-Krause 1949:pl. lxvi.1489; Amiran 1970a:fig. 6.1; Callaway 1972:310, fig. 70.3.

[130] HU 5275 (MK 1475) (pl. 27)
White-grey limestone bowl with a flat ledge rim, undercut on the interior, flat base.
Prov.: Sanctuary A, Room 116 (Area H).
Date of deposit: Phase VIII, EB IIIB
Date of object: 3rd Dynasty (if made in Egypt)

Parallels: [115], Garstang 1904:pl. viii.4; de Miroshchedji 1988:pl. 48:11, pl. xxvi.1.

Published in: Amiran 1970a:177, fig. 6.3.

Comment: Amiran identified the bowl as a Egyptian copy of a Canaanite type (Amiran 1970a:177). Although Garstang found a 3rd Dynasty stone bowl with a very similar rim type at Rqaqnah (see above), the closest parallel is [115] from EB IIIA Tel Yarmouth. The Yarmouth fragment is Egyptian, but the same cannot be said with certainty of [130]. Firstly, limestone was locally available and it is possible the vessel was made at Ai. Secondly, there is a close resemblance between the rim shape and the Canaanite ceramic repertoire, while a precise parallel for the rim is unknown in Egypt in either stone or ceramic. Vessel [115] suggests that Egyptian craftsmen made a small number of vessels for 'consumers' outside Egypt, to which this vessel may belong if it is Egyptian (Amiran 1970a:172).

This vessel was found in the cultic area. The Tel Yarmouth sherd was likewise associated with the EB IIIA cult structure. Ceramic parallels in Canaan date to the EB II-EB IIIA, however, the closest Egyptian stone parallels date to the 3rd Dynasty, suggesting the latter date for [130].

4.10.4 Other objects

‘Alabaster’ fragments of an animal figurine were found in the Sanctuary, suggested as that of a hippopotamus (Marquet-Krause 1949:186, no. 1459; Hennessy 1967:70). These fragments could not be re-examined. In addition, a ‘vase’ without a base could not be re-examined (Callaway 1972:313, fig. 72.4).

[131] IAA 36,600 (MK 1533) (pl. 27)

Handle of a knife in ivory, with a curved pommel and decorated surface on either side consisting of incised matting pattern, within a plain border.

L. approx. 9.4cm W. 6.0cm Th. 1.5cm

Prov.: Sanctuary A, Room 116 (Area H), ‘at the side of the niche of the south angle (of wall)’ (Callaway 1972:313).

Date of deposit: Phase VIII, EB IIIB

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Date: 1st-3rd Dynasties. A date analogous to the rest of the material is probable.

Parallels: Hennessy 1967:pl. 57.1-3. These parallels, in addition to its association with other Egyptian objects in the Sanctuary, help secure an Egyptian origin for the object.


Comment: Kantor believed that the surface design of the handle appeared in the 1st Dynasty and was no longer found after the 3rd, thus helping secure a similar date for the object (1956:157, and n. 14; Hennessy 1967:71; Callaway 1972:302). However it must be said that comparative material is rare for both the Early Dynastic era and the Old Kingdom.

[132] HU 5541 (MK 1505) (pl. 27)

Two bone or ivory comb fragments, with a wide back and short teeth, now broken. Both pieces are pierced towards the top edge.

L. 6.0 cm and 7.0 cm

Prov.: Sanctuary A, Room 116 (Area H)

Date of deposit: Phase VIII, EB IIIB

Date of object: 1st-5th Dynasty

Parallels: From Tarkhan and Abydos cited in Hennessy 1967:pl. 57.5-6; Adovasio and Andrews 1982:68-9, fig.4-5 (Bab edh-Dhra).

Published in: Marquet-Krause 1949:pl. liv.1533; Kantor 1956:157; Hennessy 1967:71, pl. 57.4; Callaway 1972:fig. 77.3.

Comment: These comb fragments have good Egyptian parallels. This, along with the association with other aegyptiaca, they are generally thought to be Egyptian in origin (Hennessy 1967:71).

[133] MK 1497a-b (pl. 28)

Two small bone cones from a bead net dress, with convex sides, bearing incised decoration at the top and holes for piercing around the base.

(a) Ht approx. 1.6 cm  D. approx. 4.8 cm

(b) Ht 2.0 cm  D. approx. 4.8 cm

154
Prov.: Sanctuary A, Room 116 (Area II).

Date of deposit: Phase VIII, EB IIIIB.
Date of object: 5th Dynasty (?)

Published in: Marquet-Krause 1949:lxvi; Hennessy 1967:71, pl. 57.11-2; Callaway 1972:fig. 72.6-7.

Comment: Callaway described the objects as bowls or cups (1972:303, 313). On the other hand, Hennessy rightly believed that Egyptian breast cones from a bead net dress offered the most plausible parallels in terms of size and function (1967:71; see also Hall 1981:39). However, as Callaway pointed out, this ‘is not enough to support a theory of a dancing lady in the sanctuary’ (1972:303).

4.10.5 Architectural features

Callaway pointed to the influence of Egyptian building techniques at Ai, in conjunction with the stone vessels, as indicating that ‘Egypt control[led] Ai in some kind of political or economic relationship, or both’ (1972:247; 1978:47). Callaway also claimed that the EB IIIA city was profoundly influenced in the reign of Djoser (1980:306).

His argument hinges on the construction technique of the EB IIIA temple. Callaway pointed to the presence of ‘a coursed masonry wall...laid in mud mortar like bricks...faced with plaster’, bearing similarities with 3rd Dynasty funerary installations at Saqqara citing the written description of Firth and Quibell (1978:52-3, n. 53). While this style of construction seems unusual when compared to the dry stone rubble filled walls of EB Canaan, relatively few cultic/administrative building from EB III Canaan have been excavated and published (Stager 1992:36). Callaway also points inconclusively to possible Egyptian influence in the water storage system and the saw grooves (1972:247-8; 1978:52-3). Other water storage systems have been discovered at Arad and Tel Yarmouth (Amiran and Ilan 1996:106, 127-31). Mazar correctly describes these allusions to Egypt as ‘vague and unconvincing’ (1992:149, no. 56).
4.10.6 Discussion

Amiran dated all the Ai stone vessels to the second half of the 1st Dynasty. However, parallels reveal that the assemblage has a wide date range, spanning the 1st-3rd Dynasty and possibly a little later. At least one vessel belongs to the 3rd Dynasty [130], others belong to the late 1st-2nd Dynasty [123, 124, 126] and still another to the 2nd-3rd Dynasty [127]. For other vessels, the dates are broad [124-5, 128-9], but none of the vessels seem to go beyond the 3rd or 4th Dynasty at the latest.

Several explanations can be offered for the fact that these dates are still earlier than the EB IIIB date of the Sanctuary A destruction context. Firstly, the material may have been removed following the destruction of an earlier temple at Ai (Marquet-Krause 1949:19, n.1; Amiran 1970a; Amiran 1972:11), potentially the Acropolis temple (Area G) where two stone vessels were found in an EB IIIA deposit (Amiran 1971:11; Callaway 1978:50). Indeed, some of the objects from Sanctuary A are severely smoke damaged [121-3, 128], which might support this argument. However, not all the objects are thus affected [124-7, 129-30]; perhaps the undamaged items arrived at Ai after this destruction, or were located elsewhere at the site, away from the conflagration. Alternatively, the vessels may have arrived during the EB IIIB, drawn from an Egyptian stone vessel repository containing a mixture of older and newer vessels. If this were the case, one might expect more unambiguously 5th-6th Dynasty types among the assemblage, but parallels point to the Early Dynastic Period and early Old Kingdom for all the stone vessels, with no obviously later shapes present. Other objects, like the comb, dagger and cones, cannot be definitively dated to the Early Dynastic Period, owing to the lack of Egyptian parallels or the wide date range of the type. Some of these may be Old Kingdom.

4.11 Gezer

A small amount of interesting material has been found at Gezer, unfortunately none in reliable context. Rowe reported a ‘funerary statue of king Pepy I, of VIth Dynasty, said to have been found at Gezer’, but this was unverifiable (Rowe 1936:d).
4.12 Tel Ta'anach

Albright first noted Egyptian architectural features from an EB IIIA tomb at Ta'anach, suggesting that the best parallels for the construction of the roof came from subterranean chambers Djoser’s pyramid complex (Albright 1944:15; Albright 1949:76; Hennessy 1967:73). Roofing of the tomb consisted of horizontal limestone slabs, a feature otherwise unknown in EB III Palestine, but roofing with rough stone slabs does appear from the 1st Dynasty and becomes more common in the 3rd Dynasty onwards (Sellin 1904:figs 35-6; Ward 1963:20, n. 6).

Although Hennessy was more prepared to accept this parallel with Egypt (1967:73-4), Ward found the analogies unsustainable (1963:20-1). A larger corpus of EB II-III tombs from Canaan would be required before any direct architectural parallels between Tell Ta’anach and 3rd Dynasty Egypt could be seriously considered.

Several early Old Kingdom stone vessel fragments were noted by the writer in the collection of material from Tel Ta’anach held in Ramallah (Palestine), but nothing further is known of their contexts at this stage.

4.13 Megiddo

4.13.1 Beads and amulets

During recent excavations, a group of beads and amulets were found in an unstratified EB context in the same Area J as the Egyptianising pottery cache (Ch. 8.7.2). The beads included carnelian biconical beads, faience disk and flattened circular types, and possibly a jasper short cylinder bead (Finkelstein 2000:388, fig.12.27). The bead collection recalls a similar pendant from Deshasheh dating to the 5th Dynasty (Petrie 1898:pl. 26.3).

Other objects are known from prior excavations, with carnelian barrel beads and a faience amulet noted from Str. XVII and Str. XV respectively (Loud 1948:pl. 207.5 and 207.8).
[134] (pl. 28) Two pendant beads of amulets (a) carved from ‘alabaster’ in the shape of a bull or jackal’s head, (b) carved from malachite(?) in the shape of a frog, both pierced through the width for suspension.
(a-b) L. 1.1cm
Prov.: Area J, unstratified
Date of deposit: EBA
Date of objects: Probably Old Kingdom.
Parallels: Petrie 1898:pl. 26.14, 22 (5th Dynasty); Brunton 1928:pl.95.16, esp. B12 (lion in pink limestone – 6th Dynasty) and K3 (dog – 5th/6th Dynasty); pl. 96.34 stone frogs (5th-6th Dynasty); Reisner 1932:292, Grave N752 , pl. 416 row 8, right; for the more schematic type of carved stone animal amulet in the Old Kingdom, see Junker 1944:181, fig. 75a. For other carved stone amulets dating to the Old Kingdom, see Reisner 1932:pl. 42-3.
Published in: Finkelstein et al. 2000:388, fig. 12.27, no. 20 and 21.

4.13.2 Stone vessels
[135] Chicago Field No. d 845 (pl. 28)
Base of a concave sided cup or jar (a hes jar?), stone described as diorite. Loud also noted that ‘the inside bore [was] considerably off-centre’ (1948:pl. 262).
Ht approx. 5.0cm D. base approx. 4.0cm
Prov.: Square M 12, SE corner, Str. XVI
Date of deposit: EB III
Date of object: Probably Old Kingdom
Parallels: A similar base was found in Phase KIV at Byblos [153].
Published in: Loud 1948:pl.262.7.

4.14 Beth Shan
J.P. Dessel, quoting Esse, cites the presence of an Old Kingdom ceramic jar in an EB III context at Beth Shan, but no further details are known (Dessel 1991:322).
4.15 Tel Yoqneam
A diorite ovoid collared jar (pl. 28) (IAA Reg. No. 19738) was ‘found by workmen on
the north-eastern slope of Tel Yoqneam in 1931’ (Ben Tor 1970:78). Ben-Tor dated it
to the 2nd Dynasty on the basis of material and form, a date agreeing with Reisner’s
assessment of the 2nd-3rd Dynasty (Reisner 1931a: 180, 186, fig. 49 [calcite] fig. 56.15
[diorite]). As an unstratified vessel, the context is meaningless.

4.16 Yavne-Yam
Large flint knife, bifacially pressure flaked was discovered on a beach at Yavne-Yam
(pl. 28) (Minet Rubin) south of Jaffa (Gophna 1969:80; Braun et al. in press). It may
have been washed up from the sea onto the beach after a storm, as it showed signs of
weathering. The knife probably dates to the Old Kingdom, although an Early Dynastic
date is also possible (Petrie 1903:28, pl. xl.1 and 8; Petrie and Brunton 1924: pl. 22.4,
dated to the 6th Dynasty, but the pottery suggests a 1st Intermediate Period-11th
Dynasty date; Caton-Thompson and Gardner 1934:125, pl. lxxix, nos 5-9; Macramallah
1935:5, fig. 54 (early 6th Dynasty); Verner 1988:80-1, fig. 4).

Braun prefers an EB Ib date for the knife on the basis that ‘it seems more appropriate’
(Braun et al. in press). Parallels are cited to secure an EB Ib date, but the relatively
straight back and square-shaped handle speak more convincingly of the Old Kingdom
(compare Fairservis 1971-2:fig. 28:j.k.l and Schmidt 1992:figs 1, 3.1, pl. 4 with the
parallels above). As a single, unstratified find, the object should be regarded in the
same light as the axe head found near the mouth of the Adonis River (Ch. 5.2). No
EBA remains exist at Yavne-Yam (Gophna 1969:80), however the object may point to
hitherto unsuspected Egyptian coastal activity in the EB III, possibly as a stop on the
Byblos run, either as an ‘overnight’ port or way-station servicing inland towns.

4.17 Beth Yerah (Khirbet Kerak)
This site, located south west of the Sea of Galilee, has been the subject of investigations
since assessment of Beth Yerah and its role in the EB remains to be done,
notwithstanding the important work of Esse (1991). A substantial amount of material
from the site is held at the IAA storerooms in Jerusalem and was examined by the
author who observed Egyptian vessels from the earlier EB phases (Ch. 2.5.4; Greenberg and Eisenberg in press). Egyptian imports that have been identified, and for which permission has been received to include in this study, are two siltstone palettes.

4.17.1 Palettes

[136] Beth Yerah IAA 51-3048 (pl. 23)
Siltstone palette with two incised lines parallel to the edges on one side, and a hole at the top centre drilled from both sides. Nearly complete, with minor chipping around the edges and some damage on the shiny upper surface.
L. 12.0cm  W. 10.8cm  Th. 0.6cm
Prov.: Found near a stone table (?) in a partly excavated chamber from a domestic structure in local stratum IXb (Greenberg pers. comm. 6/1/99).
Date of deposit: Late EB III
Date of object: Dynasty 0
Parallels: see [95]
Published in: Bar-Adon 1957:30-1, pl. iva; Sowada 2000:1528, Fig. 1b; Greenberg and Eisenberg, in press.

[137] Beth Yerah IAA 51-3348 (not illustrated)
Half a siltstone palette with two incised lines parallel to the edges on one side. Slightly scratched surface.
L. 6.3cm  W. 8.5cm  Th. 0.75cm
Prov.: Basket 167/2, apparently found not far from [136] above.
Date of deposit: Late EB III
Date of object: Dynasty 0
Parallels: see [95]
Published in: Bar-Adon 1957:30 (note only); Sowada 2000:1528
Comment: The two palettes belong to the type well known in Dynasty 0 (EB Ib) (Kroeper 1996:4-9, fig. 8). They were both found in good EB III deposits, in strata considerably later than their apparent date of production. Dr Rafi Greenberg, who examined the original Hebrew excavation records, was utterly convinced of the EB III date of the strata, saying there was 'little room for error in the chronological attribution
of its context (pers. comm. 6/1/99; Greenberg and Eisenberg, in press). The inadequate publication of excavations from Beth Yerah over the years means that other aegyptiaca may yet be identified.7

4.17.2 Architectural features

The EB III granary at Beth Yerah has been identified as an Egyptian inspiration (Maisler 1952:227-8, Currid 1986:23-4) (pl.29). A broadly similar structure is known from Arad (Currid 1986:20-1, Amiran and Ilan 1996:146-7). The model granary from 4th Dynasty El-Kab, showing a group of circular ‘beehive’ silos, provides a plausible parallel for the use of the Beth Yerah structure (pl.29)(Quibell 1898:pl. 6.2; Esse 1991:39), as does a steatite model granary from Melos (Marinatos 1946:342, fig. 4). A scene from the 6th Dynasty tomb of Ptah-hotep (Junker 1941:49, fig. 10), also depicts similar buildings.

No major granaries are known elsewhere in EB III Canaan against which to compare the Beth Yerah building. The possibility that the building may represent a relatively common method of 3rd millennium grain storage, rather than an Egyptian inspiration, must remain an open question. However, the known presence of an Egyptian official at the site in the EB II (Greenberg and Eisenberg, in press), and glimpses of contact in the EB III, means that a direct Egyptian inspiration for this structure is possible.

4.18 Conclusion

The Sinai

Inscriptions and archaeological evidence at Wadi Maghara and near Serabit el-Khadim (the ‘turquoise terrace’) confirm the presence of state-sponsored mining from the beginning of the 3rd Dynasty that continued until the end of the 6th Dynasty. Indeed, a piece of raw turquoise from an EB IIIB context at Tel Yarmouth (Ch.4.8.5), while only a single piece, provides a tantalising hint of a possible raw materials trade between southern Canaan and the Sinai mines, which by this time were firmly under Egyptian control.
The inscriptions indicate these areas in the Sinai were known as both Stt and bjt in the Old Kingdom. Although the Old Kingdom settlements noted by Petrie are not sufficiently published, evidence of copper smelting and refining at these sites indicates the treatment of local copper resources by Egyptian mining units.

The discovery of late 5th-6th Dynasty Meydum bowl fragments along the western and central regions of the Way of Horus in north Sinai attests to the use of this route during the latter part of the Old Kingdom. The title ‘Overseer of the Way of Horus’ indicates that an administrative apparatus existed to manage the Sinai land bridge at this time. Wenig also speaks of landing half his army by road and the other by sea to fight the ‘3mw (Urk. 1:104.14-7 to 105.1); if these campaigns occurred in Canaan or north-eastern Sinai, the army would have passed along the north Sinai road. All this thus suggests that the route continued in use as a land bridge between during the Old Kingdom, particularly the latter part of this era, despite the importance of the sea-going Byblos run. The apparent absence of evidence for the early Old Kingdom in northern Sinai, as identified by Oren, is an issue requiring further archaeological excavations to clarify, given the limited nature of the initial surveys.

Canaan

Aegyptiaca falls into the category of durable manufactured goods: stone vessels, palettes and small items like seals, beads and amulets. A trade in raw stones and shells also seems likely; the question of imported faience, however, remains uncertain.

The largest assemblages come from central and southern Canaan: Ai (13 entries), Tel Yarmouth (11 entries) and Bab edh-Dhra/Numeira (11 entries). At Ai, stone vessels were found alongside other Egyptian luxury items like bone cones from a bead dress, a dagger handle and a comb. Nearly all the objects were found on the floor of the terminal EB IIIB phase of Sanctuary A, and evidently belonged to the temple’s cult equipment. Two other vessels were found in the EB IIIA Acropolis area [126-7], thus pointing to the possibility that the other vessels were originally located there. Of a total of nine vessels, six were bowls. The shapes do not seem to extend beyond the 4th Dynasty, although some types have a very wide date range. Identifying precisely
when they arrived at Ai is even more difficult, given the heirloom factor of such pieces, even in Egypt. Either way, when assessed on typological grounds, the group can not be regarded as having been manufactured at the same time as Amiran suggests, which might point to different arrival dates.

Apart from a fragment of a gabbro offering table or platter [118], bowls also dominated the stone vessels from Tel Yarmouth. As bowls and offering tables are not containers for products, they evidently represent prestige items almost certainly sent as royal gifts or trade items in their own right in the EB II or EB IIIA, and retained as precious goods by the recipients. At Bab edh-Dhra, a fragment of a cylindrical jar [106] could be considered a container for an Egyptian commodity. It was not from a context pointing directly to elite gift exchange and hence may have arrived through other means. However, the quantity of other Egyptian items from Bab edh-Dhra indicates that it probably arrived via a direct link with Egypt.

Remaining aegyptiaca comprises largely siltstone palettes and small items such as beads, seals and amulets. Palettes were found at Tel Yarmouth [110-1], Tel Halif [107-8], Numeira [95], Bab edh-Dhra [98-103] and Beth Yerah [136-7]. As many as six Egyptian palettes were found in a variety of contexts at Bab edh-Dhra. Four were found in Charnel House EB II-III burials [100-3], in sections of the tomb with predominantly EB III materials. Three others were discovered in the town area. This spread of palettes in tombs suggests an element of retention for elite purposes. However, the palettes are all found in contexts dated long after the floruit of the palettes themselves. This raises the question of whether they are heirlooms, or should be regarded as contemporary imports. This issue is canvassed further in Chapter 8.3.3.

The quantity of aegyptiaca tapers off in the north. The importance of Beth Yerah as production and distribution centre for the trade in oils and resins during the Early Dynastic Period/EB II has been demonstrated by Abydos Ware imports in Egypt and the Beth Yerah jar inscribed with Egyptian hieroglyphs (Ch. 2.5.4-5). In particular, the importance of EB III Beth Yerah as a production and distribution centre for olive oil has also been canvassed (Esse 1991:123-4). Elemental analysis of Old Kingdom
imported ceramics shows that Beth Yerah’s position as the gateway to products of northern Canaan continued in the EB III (see Ch. 6.12). Hence, although the Beth Yerah palettes [136-7] were manufactured much earlier than their contexts, the appearance of these objects fits the pattern established by southern sites. They may be luxury items exchanged by Egyptian agents or emissaries; more prosaically, the objects could represent another destination for a local trade in Egyptian exotica.

As with the Chalcolithic Period, a low-level trade in Red Sea shells for bead making evidently continued throughout the 3rd millennium. The proximity of these resources to Egypt means that the Egyptians may have had a role in obtaining and distributing this commodity either directly or down-the-line. Alternatively, Red Sea shells may have been exchanged across the Sinai via local tribespeople, travelling up the Wadi Arabah (Schaub and Rast 1989:311-2). The question of whether hard stone maceheads or raw materials for their manufacture were imported from Egypt must remain an open question pending further research. The ambiguity of maceheads in any discussion of Egyptian interconnections and a possible trade in raw materials for such objects is discussed further in Chapters 7.3.1 and 8.4. Likewise, the origin of carnelian for bead-making must remain open for the time being.

Little in the way of fresh chronological synchronisms can be gleaned from the corpus. A 2nd-3rd Dynasty bowl from Ai [127] came from an early EB IIIA context, thus providing a possible link. Likewise, a vessel of probable 3rd Dynasty date [115] was found in EB IIIA Tel Yarmouth. Little is known of 3rd Dynasty activity in Canaan from the Egyptian side but this can not be ruled out. However, the heirloom factor of most other Ai stone vessels, the Naqada IIIc date of the palettes and the wide Old Kingdom date for many other objects, means that sound chronological data to more precisely synchronise Egypt with Canaan is still lacking.

Support for the exchange by Egypt of small items occurs in an inscription from the tomb of Sabni, who took a range of goods as diplomatic gifts to Nubia rulers, such as faience, honey, mḥrt oil (Urk. I:136.5). Egyptian objects in Canaan echo this description; indeed, the ceramic jar from Bab edh-Dhra [104] may have been a
container for such products. It is also possible that a down-the-line trade existed in Egyptian *exotica*, which saw small items exchanged locally without the involvement of Egypt. However, other evidence speaks of this material arriving within the framework of a more formal relationship. The importation of stone vessels begins in the Early Dynastic Period in the context of a changing pattern of relations between the two regions (Ch. 2.3.9). Moreover, contact with Egyptian officials evidently resulted in the adoption of some Egyptian ideas and concepts, including the cubit as a unit of measurement for construction of the EB III palace walls at Tel Yarmouth, and Egyptianising pottery at Ai and Megiddo for use as cultic equipment (see Ch. 8.6-7). A possible serekh incised onto a local EB IIIA bowl at Tel Yarmouth may even point to the presence of Egyptian officials akin to the jar from Beth Yerah. Along with the Egyptian stone vessels, these elements speak of direct contact with the Egyptian state.

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**Endnotes**

1 Note the variety of stone types used (Garstang 1904: pl. vii).

2 Mace draws a ledge rim type but the parallel cited does not support his typology (Mace 1909:43, fig. 99.2).

3 For Reisner’s dating of this and related graves, see 1932:182.

4 Several Old Kingdom limestone and calcite circular platters, said to be from Byblos, were examined by the writer in the American University in Beirut Museum in 1996. Only the inscriptions were published by Nelson (1934), but they are relevant parallels for the fragment from Tel Yarmouth: see AUB 5031, AUB5037; AUB 5023. The writer will publish these vessels more completely at a later date.

5 The drawing of 35-11-37 does not suggest a precise parallel despite Reisner’s attribution.

6 The use of two colours in this way had a particular symbolic meaning, possibly contrasting the stark colours of Egyptian desert with the lush earth of cultivation, thus symbolising the land of Egypt (Sowada 1999).
As per the remarks of Amiran (1974b:11).
CHAPTER 5

A CORPUS OF EGYPTIAN IMPORTS IN THE NORTHERN LEVANT AND THE AEGEAN

5.1 Introduction
This section presents Egyptian objects from sites in Lebanon, Syria and beyond (pl. 29). The corpus begins in Byblos before moving north and then west into the Aegean. Only ‘in-context’ material is included on the grounds that out-of-context material need not have arrived contemporaneously with the date of manufacture. This issue is discussed more fully in Chapter 8.

5.2 Adonis River
An inscribed copper axe-head of possible 4th-5th Dynasty date was found in 1911 near the mouth of the Adonis River between Byblos and Beirut (pl. 30) (Rowe 1936:pl. xxxvi.1). The inscription probably names a royal lumberjack crew of the 4th Dynasty (Wright 1988:147; Helck 1994:106). Although this object is without a viable context, much has been made of its discovery. A number of scholars believe that it belonged to a royal boat or lumberjack crew on a timber-getting expedition (Ward 1963:25; Wright 1988:147).

5.3 Byblos
A significant quantity of Old Kingdom aegyptiaca comes from Byblos. The material consists largely of stone vessels (Montet 1928:68-80; Dunand 1939:pls xxxvi-ix; Dunand 1958:929-36), but cylinder seals (Montet 1928:pl. xxxix.42; Dunand 1939:272; pl. cxxv.3074; Chéhab 1969:6-7) and other objects, including possible pieces of statuary and a palette, were also found (Dunand 1927:98; Dunand 1939:pl. exii.6066; Bongrani 1963; von Bothmer 1971; Scandone Matthiae 1994:39). Much of this is well-known and has been repeatedly discussed (Montet 1928, 1962; Ward 1963; Jidejian 1968; Helck 1971; Helck 1994; Scandone Matthiae 1994), particularly from the

Despite the fact that this material is so familiar, its documentation is patchy, particularly for Montet’s excavations (1928; Saghieh 1983:40). He found many Egyptian stone vessels in the Baalat Gebel temple area, but in levels later than the EBA (Montet 1928:68-80; Jidejian 1968:19); even so, this aegyptiaca is essentially unstratified, owing to the poor recording method (Saghieh 1983:x, 40).¹ Saghieh plausibly suggested that the burnt surfaces of many pieces indicated that the stone vessels were originally engulfed in the earlier Phase KIV temple destruction, and are thus probable heirlooms (1983:45). Saghieh noted vessels bearing the names of Mycerinus, Unas, Pepy I and Pepy II belonged to this group (1983:45; Montet Nos 45-6, 47-61). Shapes included plates or disks, baggy jars, and zoomorphic vessels in the shape of a monkey clutching its young. Likewise, Dunand’s work has many problems (1939, 1958), with the site recorded in a highly inconsistent fashion (Saghieh 1983:x-xi).

Notwithstanding these remarks, Saghieh’s synthesis of prior archaeological activity (1983) has helped develop a more coherent stratigraphic framework for Byblos. As a result, it is evident that most of Old Kingdom finds are out-of-context, that is, found in deposits much later than the levels synchronised with their date of production (Saghieh 1983:37). This is particularly true of the many Egyptian stone vessels from the Baalat Gebal temple complex (Saghieh 1983:41-2), with fragments bearing the name of Pepy I or II found in almost all levels from the surface to Level XXXIII (Saghieh 1983:99; Scandone Matthiae 1994:40).² This fact profoundly affects the viability of the stone vessels as evidence for Old Kingdom foreign relations with Byblos, and for any direct relationship between Egypt and the Baalat Gebel temple cult.

Moreover, for both Montet’s and Dunand’s work, most of the objects are published in a very cursory fashion. Particularly in Montet’s publication, the precise nature of many pieces can not be identified, while others are not labelled in the plates (Montet 1928:pl. 45).³ In both cases, less consideration was given to uninscribed objects; indeed, on the basis of these publications, it is often difficult to precisely define the shape of stone vessels (e.g. Dunand 1939:pl. xxxvii). Other vessels or fragments are described in the
text, but there is insufficient of the inscription remaining, or nothing known of the shape
to even date it typologically (eg Dunand 1939:106, no. 1567, 108, no. 1640 and 117, no.
1743).  

No out-of-context aegyptiaca is included in the following corpus on the grounds that
the precise time of arrival can not be established with certainty. The list was established
after examination of Saghaieh’s re-examination of the Byblos stratigraphy (1983), and a
comparison of the published work of Montet and Dunand.

5.3.1 Stone Vessels

[138] Dunand 4028 (pl. 31)
Fragment of a calcite lid, bearing the edge of a cartouche and the phrase ḫt ‘for
eternity’.
0.48x0.2cm
Prov.: Baalat Gebel temple, demolition of walls from Dunand’s Court 1 of bâtiment
XVIII, south-west corner, under Saghaieh’s wall xx, bâtiment II, Phase 5.
Date of deposit: Byblos Phase KIV
Date of object: Old Kingdom.
Parallels: see [173]; Firth and Gunn 1926:pl. 12; Jéquier 1933:30, fig. 12.
Published in: Dunand 1939:280, no. 4028.

[139] Dunand 4029 (pl. 31)
Two joining calcite body sherds of what is probably a shouldered jar, featuring the
outstretched wing of a deity, with feathers carefully incised, surmounting a title and
cartouche bearing the name of Unas.
Dimensions unknown
Prov.: as for [138].
Date of deposit: Phase KIV
Date of object: 5th Dynasty, reign of Unas.
Parallels: see [158].
Published in: Dunand 1939:280, no. 4029, pl. xxxvi; Chéhab 1969:8-9.
Comment: Incised decorative elements on the surface of Old Kingdom stone vessels are
not common, but are known. A fragment of a shouldered jar from the AUB collection
(ADB 5029) with the name of Pepy I or II, featured a beautifully carved lotus flower on the surface below the inscription.\(^5\) The incised winged deity in this instance almost certainly indicates an association with a royal name, as is the case with [147].

[140] *Dunand 4030* (pl. 31)
Fragment of a calcite cylindrical jar, with a horizontal ridge (?) below the rim, bearing an incised panel with three vertical lines of hieroglyphs, including part of the cartouche of Niuserre.
Dimensions unknown
*Prov.*: as for [138].
*Date of deposit*: Phase KIV
*Date of object*: 5th Dynasty, reign of Niuserre.
*Parallels*: see [146-7, 149]; panel inscription, see Jéquier 1936:fig. 6 lower left; Wright 1988:149.
*Published in*: Dunand 1939:280, no. 4030, pl. xxxvii; Chéhab 1969:7.

[141] *Dunand 4031* (not illustrated)
The body of a small calcite jar with a pointed base. Possibly the body of an egg-shaped jar.
Ht 2.9cm  D. 2.1cm
*Prov.*: as for [138].
*Date of deposit*: Phase KIV
*Date of object*: Late Old Kingdom, late 5th-6th Dynasty (?).
*Parallels*: Jéquier 1929:fig. 95, bottom row, second from left; Brunton 1948:pl. xxxiv.9.
*Published in*: Dunand 1939:280, no. 4031, pl. cli.

[142] *Dunand 15866* (pl. 31)
Uninscribed carved calcite model shouldered jar with a flat base and wide roll rim.
Ht 8.7cm  D. max. 3.4cm
*Prov.*: Dunand’s Levée XIX, Square 12/14, Saghieh’s Area III, Unit B, Building XXII, Phases 3 and 3a. Found on the floor, charred and covered with a layer of ash (Dunand 1958:936; Saghieh 1983:36).
*Date of deposit*: Phase KIV
Date of object: 4th-5th Dynasty (?)

Parallels: This type of vessel is very similar to ceramic model ḫes jars of the early 3rd millennium noted in Sowada 1999:94, pl. xvi.2. See also Reisner and Smith 1955:95, fig. 140, Reg. No. 30-1-43; fig. 143, Reg. No. 29-10-9 (4th Dynasty); Warren 1969:pl. 28, P355 (5th Dynasty)

Published in: Dunand 1958:806, fig. 917; Saghieh 1983:33, fig. 10.

[143] Dunand 17536 (pl. 31)
Upper body of a calcite cylindrical jar, with sides narrowing towards the base. Rim shape a rounded obtuse angle.
Ht 8.4cm

Prov.: ‘Palace’ or residence in the region of Dunand’s Enciente Sacrée, Levée XXII, Square 3/7; Saghieh’s Area III, Unit D, Building XXV. Found on the floor, charred and covered with a layer of ash (Dunand 1958:936; Saghieh 1983:36).

Date of deposit: Phase KIV

Date of object: Early Dynastic to 5th Dynasty (?)


Published in: Dunand 1958:929, fig. 1047; Saghieh 1983:36-7, fig. 12.

Comment: The fragment belongs to a jar with straight sides that taper towards the base known from the 1st-6th Dynasty (Aston 1994:99). However, the rim would suggest an earlier rather than later jar according to Aston’s typology, perhaps belonging to the Early Dynastic era or 3rd-5th Dynasty (Aston 1994:100, 104).

[144] Dunand 17538 (pl. 31)
Fragment of a diorite vessel, shape uncertain, possibly a bowl (?) or platter. On the exterior is an inscription bearing part of the name of Hetepheres.
Ht 9.2cm W. 8.7cm Th. max. 1.3cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Early 4th Dynasty, reign of Sneferu or Cheops.

Published in: Dunand 1958:929, fig. 1045; Montet 1962:87-8; Saghieh 1983:36-7, fig. 12.
[145] Dunand 17539 (a), 17540 (b) and 17542 (c) (pl. 32)

Two fragments of a calcite platter or offering table, both with incised hieroglyphs parallel to the edge. Fragment (a) bears the sign $Hr \ nbw$ 'Golden Horuses'; another (b) features the cartouche of Pepy I or II, with traces of a $bity$ sign on one side and $Hr \ Nb$ on the, and the third (c) bears the phrase ... $m \ mniw.f \ n$ ...

(a) L. 0.92cm
(b) L. 11.4cm
(c) L. 13.3cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: 6th Dynasty, reign of Pepy I or Pepy II.

Parallels: Dunand 1939: No. 4129, pl. xxxvi, No. 6496, pl. xxxviii.

Published in: Dunand 1958:929, fig. 1044; Chehab 1969:13; Saghieh 1983:36-7, fig. 12.

Comment: Dunand believed that these pieces belonged to the same vessel, owing to the placement of the inscription, similarity of the stone and thickness of the pieces. He was also inclined to believe that (c) also belonged to the same platter (1958:929).

The corpus published by Nelson (1934) included a considerable number of inscribed platters or tables with inscriptions parallel to the edge similar to this. Only the inscriptions were published, but the kings represented by these objects were Teti, Pepy I and Pepy II. Most were made of calcite. Although this material is fragmentary, $Hr \ nbw$ comes from the titulary of both Pepy I and II (Nelson 1934:20, AUB 5019 and 5023, pl. iii; 21, AUB 4041-2, pl. iv). The fragments belong to one of those kings.

[146] Dunand 17541 (pl. 32)

Fragments of a calcite cylindrical jar, with an incised hieroglyphic inscription featuring a panel with $w3s$ scepters on either side surmounted by a $pt$. Traces of signs inside this panel, including a $nsw$ sign and possibly the edge of a bird with outstretching wings.

Dimensions unknown

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Old Kingdom, probably 5th or 6th Dynasty.
Parallels: [140]; for panel inscription see Jéquier 1936:fig. 6; for a vessel from Byblos with similar incised panel inscription, see Nelson 1934:21, pl. iv and vi dating to the reign of Pepy I; for a similar incised border on a stone vessel, see Dunand 1939: No. 4029, pl. xxxvi (Unas).

Published in: Dunand 1958:929, fig. 1044; Saghieh 1983:36-7, fig. 12.

Comment: As similar designs commonly frame the name and titles of kings, it seems likely that this vessel was once also inscribed with a royal name.

[147] Dunand 17543 (pl. 32-3)
Fifteen fragments of a calcite cylinder jar, all possibly belonging to the same vessel. Surface inscribed with fragmentary signs, but insufficient of vessel preserved to read a coherent inscription. Incised falcon (?) with outstretched wings visible on exterior.
Largest fragment 11.0cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Old Kingdom, probably 5th or 6th Dynasty.

Parallels: [139] (decoration).

Published in: Dunand 1958:929, fig. 1044 and 1045; Saghieh 1983:36-7, fig. 12.

[148] Dunand 17548 (a) and 17548bis (b) (pl. 33)
Two large uninscribed fragments of a calcite shouldered jars tapering toward the flat base, (a) with a flattened square rim and (b) with a flattened bevelled edge rim
(a) Ht 28.0cm
(b) Ht 15.6cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Old Kingdom, 5th or 6th Dynasty.

Parallels: Jéquier 1936:fig. 6, top row, centre.

Published in: Dunand 1958:934, fig. 1047; Saghieh 1983:36-7, fig. 12.

[149] Dunand 17549 (pl. 33)
Fragment of a calcite cylindrical jar (?) with an incised falcon (?) on the surface.
Ht 8.0cm
Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Old Kingdom, 5th or 6th Dynasty.

Parallels: as for [139, 146-7].

Published in: Dunand 1958:934, fig. 1047; Saghieh 1983:36-7, fig. 12.

Comment: The incised falcon in this instance almost certainly indicates an association with a royal name, as is the case with [139].

[150] Dunand 17550a-e (pl. 34)

Fragments of at least six uninscribed calcite bowls of varying heights with recurved rims. All the bowls have plain interiors, except (c), which has an incised circle or a countersunk base.

Ht 6.6-3.4cm D. rims 12.7-10.8cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: (a)-(b) and (d)-(e) 3th/4th Dynasty; (c) probably Early Dynastic to 3rd Dynasty.

Parallels: Aston 1994:122-3; Berman 1999:86-91. Spencer notes that the plain base is usually later than those with incised circles. He also noted that plain rims become more common than sloping re-curved rims during the Old Kingdom, with the latter more common in diorite (1980:18-19). This may suggest an earlier date for the whole group.

Published in: Dunand 1958:934, fig. 1046; Saghieh 1983:36-7, fig. 12.

[151] Dunand 17551(a) and (b) (pl. 33)

Rim fragments of two uninscribed diorite bowls (a) one a flaring bowl with a direct rim and another (b) with a recurved rim with sloping edge.

(a) D. rim approx 17.0

(b) D. rim approx 30.0cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: 4th-6th Dynasty.

Parallels: Reisner 1931a:fig. 43.6, 8; fig. 57; Aston 1994:110; for (b) see [128-9] from Ai.
Published in: Dunand 1958:934, fig. 1047; Saghieh 1983:36-7, fig. 12.

[152] Dunand 17552 (pl. 33)
Fragment of a carinated calcite bowl with an everted rim
Ht 5.6cm  D. rim 21.0cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: 4th-6th Dynasty
Parallels: similar bowls from Ebla [165] and parallels.
Published in: Dunand 1958:934, fig. 1047; Saghieh 1983:36-7, fig. 12.

[153] Dunand 17553 (pl. 33)
Flat base of a calcite jar with flaring edges. Possibly from a cylindrical jar or a ḫes-jar.
D. 9.1cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: Old Kingdom
Published in: Dunand 1958:934, fig. 1046; Saghieh 1983:36-7, fig. 12.
Comment: This piece may belong to a footed hes jar, known in both ceramic, stone and metal from the Early Dynastic Period and Old Kingdom (Aston 1994:119; see Sowada 1999:pl. xv.3). In the Old Kingdom, the base adopts a very flaring profile (Brunton 1927:pl. xlii, lower right; Reisner 1931a:pl. 65d).

[154] Dunand 17554 (pl. 34)
Lower body and base fragment of an ovoid jar, material described by Dunand as ‘une magnifique diorite veinée des lignes concentriques noires d’un fort bel effet’ (1958:934), probably anorthosite gneiss.
Ht 10.0cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: Old Kingdom
Published in: Dunand 1958:934, fig. 1046; Saghieh 1983:36-7, fig. 12.
Comment: This is a very generic shape with a wide date range.

[155] Dunand 17555 (pl. 34)
Elliptical base of a calcite jar of uncertain shape.
L. 13.0cm   W. 6.8cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: Early Dynastic or Old Kingdom
Published in: Dunand 1958:935, fig. 1045; Saghieh 1983:36-7, fig. 12.

[156] Dunand 17557 (pl. 34)
Rim of a narrow necked calcite jar, with a sharp triangular edge, possibly from a ḫes-jar.
Ht 5.0cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: Old Kingdom
Parallels: see [153]; Jéquier 1929:fig. 78; Jéquier 1936:fig. 6 centre.
Published in: Dunand 1958:935, fig. 1047; Saghieh 1983:36-7, fig. 12.

[157] Dunand 17558 (pl. 34)
Body of a model calcite ovoid jar.
Ht 2.7cm   D. 2.8cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: Old Kingdom
Parallels: Jéquier 1929:fig. 94, bottom row, centre.
Published in: Dunand 1958:935, fig. 1047; Saghieh 1983:36-7, fig. 12.

[158] Dunand 17560 (pl. 35)
Body sherd from the shoulder of a calcite jar, with an incised lotus on the exterior.
L. 11.0cm   Th. 1.0cm
Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Old Kingdom, 5th-6th Dynasty?

Parallels: The writer observed an incised lotus on a shouldered jar with the name and titles of Pepy I or II (AUB 5029). The inscription on this vessel is published in Nelson 1934:pl. v.

Published in: Dunand 1958:935, fig. 1046; Saghieh 1983:36-7, fig. 12.

[159] Dunand 17561 (a) and 17561bis (b) (pl. 35)

Two flaring stemmed bases from footed calcite pedestal jars or chalices, with a raised horizontal ridge between stem and body. The underside of (a) is concave.

(a) Ht 4.8cm
(b) Ht 5.8cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: Early Dynastic Period

Parallels: Emery 1949:68, 137, fig. 74.14; Emery 1958:pl. 103a; see also Aston 1994:118.

Published in: Dunand 1958:935, fig. 1047; Saghieh 1983:36-7, fig. 12.

Comment: It is possible, but less likely, that these pieces could be from a rare type of stemmed beaker with a tube spout, known from the 6th Dynasty (Aston 1994:135).

[160] Dunand 17562 (pl. 35)

Fragment of a thick-walled squat spheroidal jar with wide shoulders and a wide, flat rim. Round base.

Ht (restored) 12.0cm D. max. 23.0cm Th. max. 6.0cm

Prov.: as for [143].

Date of deposit: Phase KIV

Date of object: 3rd-4th Dynasty

Published in: Dunand 1958:936, fig. 1049; Saghieh 1983:36-7, fig. 12.
Two fragments of a plate with a concavo-convex surface and raised edge. Surface inscribed with an elaborate decoration consisting of four opening lotus flowers each separated by a group of reeds.
D. 17.7cm Th. max. 1.5cm
Provenance: as for [143].
Date of deposit: Phase KIV
Date of object: 5th Dynasty (?)
Parallels: For a similar rosette pattern, see parallels cited in Stevenson Smith 1965b, fig. 21, dating to the 5th Dynasty
Published in: Dunand 1958:936, fig. 1049; Saghieh 1983:36-7, fig. 12.

5.3.2 Stone vessels of possible Egyptian origin
Dunand notes a feeding bottle (?) ('biberon') of marble from Levee XXII, Square 3/7, Saghieh's Area III, Unit D, Building XXV (1958:935). However, the vessel is not illustrated.

Of interest were a number of 'alabaster' bowls and jar fragments featuring incised diagonal lines and chevrons around the rim, found by in Phase KIV (Dunand 1958:929-34, No. 17544-7), along with Egyptian stone vessels [143-61]. The group consisted of two hole-mouth jars with the design around the lip (No. 17545-6); a bowl and lid (or more likely a bowl) (Nos 17564 and 17544), and a straight-sided cylindrical jar (No. 17547). Although they are often assumed to be Egyptian (see Saghieh 1983:33), this may not be the case. Raised bands and cords below the rim and over the body are known from the 1st-5th Dynasty (Aston 1994:99), but similar incised designs appear at Ebla on a group of cups and bowls from Palace G (Pinnock 1981). Possibly they are Egyptian copies of foreign shapes (on this, see Ch. 8.2.2); indeed, a version of the stone hole-mouth jar existed in Egypt (Reisner 1931a:fig. 50.6-9). Visual examination of the pieces themselves would be required to confirm this. However, from the published information it seems possible that these pieces may be Eblaite, or from elsewhere in Syria or Mesopotamia.
5.3.3 Seals

The well-known ‘Egyptian’ Byblos cylinder seal (pl. 36) has been much published and debated (Montet 1928:62-81; Goedicke 1963c, 1966, 1978). It bears hieroglyphs carved onto the surface, but mentions a local ruler and deity. Goedicke’s view, that this object is a locally manufactured product but with strong Egyptianising tendencies to enhance the prestige of the Byblite ruler, seems well-founded (1963c:5-6; 1966; Scandone Matthiae 1994:41). It may have been carved in Byblos by an Egyptian visiting the city, or produced in Egypt as a gift with its foreign recipient in mind (Goedicke 1963c:7). Conversely, local scribes who had some familiarity with Egyptian may have manufactured it in Byblos.

The date of the seal is a source of considerable debate, owing to its uncertain stratigraphic position. Goedicke assigns it to the 5th Dynasty (1963c; 1966; Scandone Matthiae 1994:42), whereas Helck preferred a later date (1971:22-3). The nature of the findspot means that the seal is of dubious value as evidence of Old Kingdom influence at Byblos (Wright 1988:151-2).

A cylinder seal bearing the name of Chephren does not appear to have been found in Phase K III-IV, contemporary with the Old Kingdom (Dunand 1939:200, no. 3074), although Scandone Matthiae regards it as evidence of Old Kingdom contact (1994:39).

Another object of interest was a limestone tablet with a quasi-hieroglyphic text (Dunand 1958:901, no. 17145). As the object was only published by as a drawing, further assessment of the piece difficult, but like the seal, it may be a local Egyptianising seal rather than a genuine import (Saghieh 1983:67). It was found in Phase KIV, contemporary with the late Old Kingdom.

5.3.4 Other objects

Rowe reported an inscription of Teti, which ‘seems to identify [him] with the local fir – or cedar-god (“Khay-taw”)’ (1936:d). He also reported a stela of Pepy II from Byblos. Both finds were unverifiable. A statue attributed to Niuserre was also discovered in a doubtful context (von Bothmer 1971) and thus cannot be used as evidence of a royal gift, however tantalising this may seem (contra Scandone Matthiae 1994:39).
[162] Dunand 17556 (pl. 36)
Fluted stem of a concave-sided calcite headrest, damaged at both ends.
Ht 13.0cm
Prov.: as for [143].
Date of deposit: Phase KIV
Date of object: 4th-6th Dynasty
Parallels: Firth and Gunn 1926:pl. 14, nos 1, 3-4; Hassan 1953:pls i, xlv (4th Dynasty); D'Auria et al. 1988:78, no. 8; Bermann 1999:145-6.
Published in: Dunand 1958:935, fig. 1047; Saghieh 1983:36-7, fig. 12.

5.3.5 Architectural elements
The re-building of the Baalat-Gebel temple in Phase KIV to include a hypostyle hall in the manner of the mortuary temples at Abusir is held as an example of direct Egyptian influence at Byblos (Saghieh 1983:56-7, 106, 121). Likewise, a fragment of a cornice bearing uraei from the same complex is dated by Saghieh to a period before the 6th Dynasty (Dunand 1939:pl. cliii.7626; Saghieh 1983:121). These architectural features are discussed in more detail in Chapter 8.7.

5.3.6 Discussion
Contrary to impressions given in much of the literature (e.g. Ward 1963, 1964; Chéheb 1969:14; Wright 1988; Redford 1992; Helck 1994; Scandone Matthiae 1994), few Old Kingdom objects can now be identified as having been actually found in-context at Byblos. Much more may have been found in Phases KI-IV, equivalent with the 1st-6th Dynasty, but this cannot be determined from the reports.

As many as thirteen vessels could be described as containers. These are either cylindrical jars, or shouldered jars; a further two are model jars [141, 157] and hence any practical use is out of the question. Three others were lids, platters or plates [138,145, 161]; the ten bowls [144, 150-2] also served no practical purpose as commodity containers.
Table 2: *In-context aegyptiaca at Byblos*

<table>
<thead>
<tr>
<th>Context and description</th>
<th>Corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four stone vessels fragments from Phase KIV of the Baalat Gebel temple, comprising</td>
<td></td>
</tr>
<tr>
<td>• one inscribed lid with no name remaining</td>
<td>[138]</td>
</tr>
<tr>
<td>• a shouldered jar with the name of Unas, late 5th Dynasty</td>
<td>[139]</td>
</tr>
<tr>
<td>• a cylindrical jar with the name of Niuserre, early 5th Dynasty</td>
<td>[140]</td>
</tr>
<tr>
<td>• the body of an uninscribed ovoid model jar, 5th or 6th Dynasty</td>
<td>[141]</td>
</tr>
<tr>
<td>From Level XIX, Phase KIV, a calcite model shouldered jar or miniature hes vase</td>
<td>[142]</td>
</tr>
<tr>
<td>• From the ‘Palace’ or residence in the region of Dunand’s Enciente Sacré, Levée XXII,</td>
<td>[143, 146-</td>
</tr>
<tr>
<td>Square 3/7, at least twenty-eight objects, mostly stone vessels, comprising</td>
<td>9, 153]</td>
</tr>
<tr>
<td>• seven cylindrical jars (three inscribed/decorated, but no name)</td>
<td>[144]</td>
</tr>
<tr>
<td>• possibly a bowl, with the name of Hetepheres, 4th Dynasty</td>
<td>[145]</td>
</tr>
<tr>
<td>• one inscribed offering platter/table, probably belonging to Pepy I or II</td>
<td>[150-2]</td>
</tr>
<tr>
<td>• nine uninscribed bowls, Early Dynastic Period to 6th Dynasty</td>
<td>[154]</td>
</tr>
<tr>
<td>• one flat based ovoid jar, Old Kingdom</td>
<td>[155]</td>
</tr>
<tr>
<td>• one jar of uncertain shape, Early Dynastic Period or Old Kingdom</td>
<td>[156]</td>
</tr>
<tr>
<td>• one hes jar, Old Kingdom</td>
<td>[157]</td>
</tr>
<tr>
<td>• model calcite jar, Old Kingdom</td>
<td></td>
</tr>
<tr>
<td>• one shouldered jar, with incised decoration, 5th-6th Dynasty (?)</td>
<td>[158]</td>
</tr>
<tr>
<td>• two chalices or stemmed jars, Early Dynastic Period</td>
<td>[159]</td>
</tr>
<tr>
<td>• one spheroidal jar, 3rd-4th Dynasty</td>
<td>[160]</td>
</tr>
<tr>
<td>• one plate, decorated, 5th Dynasty (?)</td>
<td>[161]</td>
</tr>
<tr>
<td>• the stem of a calcite headrest, 4th-6th Dynasty</td>
<td>[162]</td>
</tr>
</tbody>
</table>

**Total in-context objects : 33**

As the list indicates, only two vessels [138-9] inscribed with royal names were found in EBA levels of the Baalat Gebel complex, among a total of four vessel fragments over all. These belonged to 5th Dynasty kings; the inscription on another fragment [138]
belonged to the standard form of royal epithet. They came from the latest Phase KIV of the temple. The addition of charred vessels from Montet’s excavations, if Saghieh is correct in ascribing them to Phase K of the Baalat Gebel complex, widens the range of vessels inscribed with royal names to include Mycerinus and Pepy II.

Most of the other Egyptian stone vessels were found in a building described as ‘a big rectangular hall...built adjacent to a vast residence’ (Saghieh 1983:36). Saghieh noted the absence of intrusive material, regarding the context as secure because the building was also relatively isolated from later disturbances affecting other parts of the site (1983:37). The group was described as a ‘collection made over the ages by a family of Byblite merchant princes or by a line of successive Egyptian officials residing at Byblos’ (Saghieh 1983:37). Interestingly, the stone vessel cache included several vessels that were certainly of Eblait or Mesopotamian origin.

As the parallels cited for the objects show, the group appears to be a homogenous collection of 3rd millennium Egyptian stone vessels, with no later intrusive material (Dunand 1958:900; Saghieh 1983:37). However, the vessels have a wide date range, with Early Dynastic pieces [150c, 159] mixed with one definitely from the 4th Dynasty [144], another from the 6th Dynasty [145], and everything in between. Four [146-7, 149, 158,] were evidently inscribed, but the names are now lost; what does remain are traces of finely incised borders or the outstretched wings of deities, elsewhere associated with royal names of the 5th or 6th Dynasty (compare [139]). It also seems difficult to associate the beautifully decorated plate [161] with anything other than a royal source. Likewise, fragments of at least one, possibly two hes vases [153, 156], ritual vessels which are found in Old Kingdom temple or funerary contexts (Sowada 1999), probably have an official origin.

5.4 Ras Shamra (Ugarit)

Excavations at ancient coastal city of Ugarit (Ras Shamra) have yielded a small number of stone vessel fragments dating to the Early Dynastic Period and Old Kingdom (Caubet 1991:207-8). Hard stones such as diorite and porphyry dominate these finds, with the most typical shape being a globular jar with or without horizontal handles, typical in the 1st-3rd Dynasties. A rim fragment belonging to a tapering cylindrical jar
of Chephren diorite also dates to the Old Kingdom, but the context is uncertain (Caubet 1991:240, pl. XIIIb).

As the fragments were found in the Late Bronze Age city, the question of whether or not they arrived in the third millennium must remain open. Caubet suggests that they are ‘antiques’ or rubbish from an earlier age (Caubet 1991:208), but as has been demonstrated elsewhere, 3rd millennium stone vessels (or fragments) often appear in 2nd millennium contexts, probably the result of later tomb robbing (Brandl 1984:62, Lacovara 1991:118; Ch. 8.4).

5.5 Tel Mardikh (Ebla)

Since the 1970s, Tel Mardikh (Ebla) in northern Syria has been the subject of excavations by the Italians, under the leadership of Professor P. Matthiae. *Aegeiptyaca* from Ebla consists only of Old Kingdom stone vessels from terminal contexts of the Palace G complex (Tel Mardikh IIIB1). The material was published in detail by Scandone Matthiae (1979, 1981), so the *minutae* of that work will not be repeated.

5.5.1 Stone vessels

[163] (pl. 36) Fragments of two simple Chephren diorite shallow bowls, with a flattish base.

*Date of object:* A long possible date range is possible for this type, stretching from the 3rd to 6th Dynasty (Scandone Matthiae 1981:123).

*Published in:* Scandone Matthiae 1981:106-7, fig. D.Ac.18.

[164] (pl. 37) Fragments of at least thirteen shallow carinated Chephren diorite bowls, with a sharp carination and everted rims.

*Date of object:* Similar vessels in Egypt date from the early 4th-6th Dynasties (Scandone Matthiae 1981:122).

*Published in:* Scandone Matthiae 1981:100-4, fig. C.Aa.1-10; fig. 21-4.

[165] (pl. 38) Fragments of at least sixteen calcite carinated bowls, with different rim shapes, more rounded than the type above.

*Date of object:* Ranging from 4th-6th Dynasty (Scandone Matthiae 1981:123).
Comment: For a similar type from Byblos, see [152].


[166] (pl. 39) Fragments of four shallow bowls or platters with convex or straight sides.

Date of object: Ranging from 4th-6th Dynasty (Scandone Matthiae 1981:123).


[167] (pl. 36) Fragments belonging to three Chephren diorite quatrefoil bowls or lamps, including one inscribed with ‘Golden Horus: Powerful; Chephren’. Incised onto another lip is the ‘The Two Ladies: Strong in His Quality of the Two Ladies; Chephren’.

Date of object: 4th Dynasty, reign of Chephren.


Comment: Stone bowls or lamps with folded rims forming a series of spouts have their roots in the Early Dynastic Period (Klasens 1958:fig. 13.X1 (ceramic); Emery 1961:pl. 35; Scandone Matthiae 1979:35, n. 4). They are rarer in the Old Kingdom, with most known examples coming from Giza. Reisner described the Giza examples as ‘lipped bowls’, although a better description may be ‘quatrefoil’ or ‘pentafoil’ lamps, depending on the number of folds, where that can be ascertained.

Examples of the type are scattered through the Old Kingdom, with the small number of examples clustered in the early Old Kingdom rather than later, as Reisner had assumed (Reisner and Smith 1955:101; Scandone Matthiae 1981:123). Aston also notes that the stone itself was used from about the 2nd Dynasty, and more commonly in the early part of the Old Kingdom, (Aston 1994:63-4). The best Egyptian parallel is an uninscribed Chephren diorite bowl from Giza Tomb 1024, dated to the 5th-6th Dynasty (Reisner 1955:101, fig. 147, pl. 45 a,b), but recently re-assigned to the 4th Dynasty or earlier (Roehrig 1999:24). A fragmentary example with more concave edges was identified in the tomb of Queen Neit, contemporary with the reign of Pepi II (Jéquier 1933:30, Fig. 11), which may be an earlier vessel or heirloom. Related ceramic types are known throughout the Old Kingdom, but these are generally deeper in profile. A deep flaring bowl with a quatrefoil rim comes from the Hetepheres tomb (Reisner and Smith
1955:66, fig. 61, 675/165), and deep five-sided bowl to the 6th Dynasty (Reisner and Smith 1955:85, fig. 122).

[168] (pl. 36) Fragment of one Chephren diorite lipped bowl.

Date of object: 5th-6th Dynasty.


[169] (pl. 39) Fragment of eleven calcite lipped or spouted bowls. A number of other fragments probably belong to such bowls were also found (Scandone Matthiae 1981:116).

Date of object: late 5th-6th Dynasty

Parallels: Ceramic and stone bowls with the rim folded over in two places forming a shallow spout were common in the late 5th-early 6th Dynasty (Reisner and Smith 1955:80, fig. 109; Seidlmayer 1990:Abb. 81, K-A05.01; contra Hawass 1992:331). Calcite and Chephren diorite examples from the tomb of Neit suggest the shape continued to the end of the 6th Dynasty (Jéquier 1933:figs. 10 bottom second from right, 11, bottom left, fig. 13d, fig. 14b). A quantity of calcite sherds belonging to this type were found at Ebla and on the basis of Egyptian parallels must be dated no earlier than the late 5th Dynasty.

Published in: Scandone Matthiae 1981:113-6, fig. G.Bc21-30, fig. 29-34.

[170] (pl. 40) Fragments belonging to two calcite tall flat-based jars

Date of object: 5th-6th Dynasty (?)

Published in: Scandone Matthiae 1981:116-8, fig. H.Bd.32-3.

Comment: Although Scandone Matthiae cites a parallel for Bd. 32 (1981:124, Fig. H) in reality these pieces are too generic for any definitive conclusions about the overall shape. They probably both come from high shouldered, flat based calcite jars that occur throughout the Old Kingdom. During the 6th Dynasty, large calcite stone jars with narrow bases are known from royal and elite tombs (Jéquier 1929:fig. 95; Jéquier 1936:fig. 6), while related material appears in the corpus from Byblos [154] (shape only).
[171] (pl. 40) Fragments from at least three calcite jars with high rounded shoulders, proportions not known. Fragments probably belonging to other similar jars were also found (Scandone Matthiae 1981:119).

*Date of object:* 4th-6th Dynasty

*Parallels:* AUB 5025, AUB 5032, von Bissing 1904:taf. 11, no. 18146-41.

*Published in:* Scandone Matthiae 1981:116-9, fig. H.Bf.36.

[172] (pl. 40) Fragment from one calcite hole-mouth jar

*Date of object:* 4th-6th Dynasty

*Parallels:* Bruyère 1937:pl. 17, 22 – from early 6th Dynasty tomb calcite ‘holemouth’ jar inscribed with cartouche of Teti. This example squatter and flatter.

*Published in:* Scandone Matthiae 1981:118, fig. G.Be.34, fig. 26.

*Comment:* Rims of this type are normally associated with hole-mouth jars from EB III Levant.

[173] (pl. 40) Part of a flat calcite lid with a round knob on the top manufactured during the reign of Pepy I. Mended from fragments with smoke staining on the surface. Across the interior is inscribed a single line of hieroglyphs within a long cartouche, reading from right to left ‘...beloved of the Two Lands, King of Upper and Lower Egypt, son of Hathor, Lady of Denderah, Pepy [I]...’

*Date of object:* 6th Dynasty, reign of Pepy I.

*Published in:* Scandone Matthiae 1979:37, fig. 13a-b, 14; Scandone Matthiae 1981:119; Weiss 1985:170, no. 79; Scandone Matthiae 1997:416.

*Comment:* Possible other fragments of a similar object were also found (Scandone Matthiae 1981:119). The presence of this vessel provides an important terminus date for the destruction of the Palace G complex (Scandone Matthiae 1979:42-3).

[174] Fifty fragments from vessels of Chephren diorite, shape unable to be determined.

5.5.2 *Discussion*

The corpus one of the largest found outside Egypt during the EB III, second only to Byblos. At least 57 individual vessels were identified but many other pieces were unidentifiable [174] (Scandone Matthiae 1981:120). The pieces came from several
contexts within Palace G, in deposits dated to the Syrian EB IVA (Mardikh IIB1, ca 2400-2250 BC). However, despite the dispersed nature of the findspots, they were regarded as belonging to the same group (Scandone Matthiae 1981:120).

The origin of the corpus is Egypt on the basis of shape, material, inscriptions and technology. The shapes represent a fairly limited range of Egyptian types, mostly open shapes, comprising simple bowls, carinated bowls, quatrefoil cups, lipped bowls and a small number of jar fragments. Two were inscribed: a quatrefoil cup with the titulary of Chephren [167] and a calcite lid with the titulary of Pepy I [173]. The dominant stone type was calcite, but a small number of vessels were made of Chephren diorite (Scandone Matthiae 1981:120). Both stones were in use throughout the Old Kingdom, with calcite utilised from late Predynastic times, and Chephren diorite appearing from the 2nd Dynasty (Aston 1994:63-4). The importance of the material is discussed in more detail in Chapter 8.2.5.

5.6 Hama

Inadequate publication of much early material from Hama renders assessment of its significance difficult. However, several interesting objects point to a connection with Egypt. For example, a faience cylinder seal bearing diagonal incision marks in Level K (EB III) (Ingholt 1940:23, pl. 6.6) has good parallels with a seal from late 5th–6th Dynasty Edfu, and late 6th Dynasty Qau/Matmar Dynasty (Seidlmayer 1990:abb. 81, SF-A; abb. 82, SF-A). However, whether this represents a local product or import must remain an open question, given the likely presence of a north Syrian faience working industry (Foster 1979:28-9; Ch. 8.6.1). Little more can be said of this material without further examination or scientific analysis.

Several Early Dynastic Egyptian stone vessel fragments from the same jar were also reported (Ingholt 1934:12). The stone was described as black with white grains, suggesting an andesite porphyry or hornblende diorite (see Aston 1994:pl. 1, 3-4). Unfortunately no picture was published, but Ingholt described it as similar to a squat spheroidal jar with horizontal dummy tubular handles found at Byblos (1934:12, see Montet 1929:pl. 42.78). These vessels have a broad date range from the 1st-5th
Dynasty (Aston 1994:131, no. 108). The context of the fragments was described as Trenches H10 and G10 (1934:12), contexts not synchronised with the Old Kingdom.

5.7 Tell Atchana (Alalakh)
Excavations by Woolley at Alalakh unearthed a large number of Egyptian or Egyptianising stone vessels, but most of these were in Middle and Late Bronze Age levels (Woolley 1955: 292-6, pls 80-2). One calcite bowl with an everted rim certainly belongs to the 6th Dynasty, but was found in MBA Level VII (Woolley 1955:295, no. 8, AT/39/124, pl. 81.8; compare to Jéquier 1933:fig. 9, top). Little significance can be attached to this and such vessels should be regarded in the same light as early vessels found in later contexts elsewhere in the Levant (Ch. 8.4).

5.8 Anatolia
It is questionable whether Old Kingdom Egyptian objects in Anatolia arrived during that time. A 5th Dynasty gold cylinder seal inscribed with the names of Menkauhor and Djedkare-Isesi, said to be found in a tomb in western Anatolia near the Pactolus Valley (Young 1972:11, fig. 8), is without a verifiable provenance (Schulman 1979:86). Likewise, the Dorak treasure is said to have contained the name of Sahure inscribed on gold foil used on a chair (Leclant 1961:397; Mellaart 1966:152, Tomb I). The arrival of furniture from Ebla is recorded in a text from the Third Dynasty of Ur (ca 2120-2000 BC) so evidently such precious items were used as an elite traded item or gift (Pinnock 1984:23). Other finds from Dorak included stone vessels, silver objects and semi-precious stones (Leclant 1961) some of which may have been Egyptian. Again the veracity of these finds is so hotly debated that they cannot be seriously considered as evidence for direct or even indirect Egyptian contact with the region. Indeed, the objects cannot even be located for further study (Schulman 1979:86-7).

5.9 Cyprus
Little reliable aegyptiaca is attested from Cyprus in the 3rd millennium BC. Peltenberg reported faience disc beads from Kissonerga, in contexts dated to ca 2700-2400 BC (Late Chalcolithic 4 Period), equivalent to the 3rd–5th Dynasties and EB III in Canaan (1995:32-34). He also noted that some beads had been glazed using
efflorescence, a technique well-known in Egypt (1994:34). Importantly, ‘these faience [s beads] antedate the hitherto earliest known examples in Cyprus by as much as 500 years’ (Peltenberg 1994:34). Other faience disk and spheroidal beads come from Lapithos, and Vounos, with a possible range of 2300-2000 BC, but the date of this material is by no means settled (Peltenberg 1994:35). Given the presence of a faience working industry in north Syria, it is probable that this material originates there (Foster 1979:56-9).

From Vasilia Tomb 103, Stewart noted two stone vessels of possible foreign origin. The first was a one-handled jar with a wide flat base, made of what sounds like gypsum to judge from Stewarts’ description (Stewart 1962:274, fig. 104.9). Well-made stone one-handled jugs are found in the Early Dynastic Period and Old Kingdom (e.g. Firth and Quibell 1936:pl. 103.3), but these are quite different to the rather rude construction of the Vasilia example. Roughly similar types are known from the Middle Kingdom and 2nd Intermediate Period (Aston 1994:144, no. 152-3). The other vessel from the same context is a wide bowl with straight sides possibly made from banded calcite (Stewart 1962:274, fig. 104.8). Parallels with straight or concavo-convex sides come from the 1st-5th Dynasties (Goneim 1957:pl. xlvii bottom row; Aston 1994:128, no. 103), with rounded interior bases more common after the 2nd Dynasty (Spencer 1980:18). From the 4th-5th Dynasty, models begin to appear (Reisner 1931a:176:24-29); by the 6th Dynasty these are the only conical bowls produced (Spencer 1980:18). Given the flat interior base, this type would date to the Early Dynastic Period if Egyptian.

5.10 The Cyclades
The only object in the Cyclades suggestive of Old Kingdom links with Egypt is the well-known stone bowl inscribed with the name of Userkaf’s Sun Temple (Evans 1897:349; Sethe 1917:55-8; Stevenson Smith 1965a:9, fig. 10). As the vessel was not found in a stratified context, it has no value as evidence for Old Kingdom contact with the region (Vercoutter 1954:47-52; contra Stevenson Smith 1971:181). Ward suggested that perhaps it arrived on the island during the 5th Dynasty as an offering to well-known temple located there, but this view is highly speculative (1963:33, 35). More likely, the vessel arrived during the Late Minoan era, equivalent with the latter part of the 2nd

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Intermediate Period or later, possibly the result of tomb robbing or trade (Phillips 1992:180-1)

5.11 Crete
Suspected Egyptian material in Prepalatial Early Bronze Age Crete attracts considerable debate. The objects are well-known and widely published (Evans 1935; Ward 1963; Warren 1969, contra Schulman 1979; Warren 1981, 1991, 1995; Phillips 1990, 1996). The finds which are unlikely to be Egyptian, consists of:

- Faience disk beads from Tomb VI, a rich Early Minoan (EM) II burial at Molchos on eastern Crete (Seager 1912:55, pl. 6.35). Other faience beads from Crete are known but may be of later date (Peltenberg 1994:39, fig. 1; Warren 1995:2). Like the Cypriot faïences they probably originate from north Syrian workshops rather than Egypt (Foster 1979:56-9), part of a ‘relay’ or down-the-line trading system initiated in Northern Syria or Cilicia (Peltenberg 1994:40; Phillips 1990:325-6).
- Seals in apparently Egyptian shapes such as the fly, pyramid and squatting ape (Warren 1995:1-2);
- Gold for jewellery, citing the absence of the metal in the Cyclades as proof that it did not come from Anatolia (Warren 1995:1). This weak argument would require scientific testing to settle.
- Carnelian and amethyst, not available locally (Warren 1995:1).

Of likely Egyptian origin are:
[175] (not illustrated) Fragment of an obsidian bowl, beaker or chalice fragment found in an EM II domestic context at Knossos (Warren 1995:1; Phillips 1991: no. 120; Phillips 1996:459). In identifying the piece as Egyptian, Warren notes that hard stone vessels of this quality were not produced in Crete during the EM II (Warren 1981:633-35). Phillips notes that the colour of the fragment ‘accords well’ with Lucas’ description of obsidian in Egypt, being ‘black, grey green or brown in colour (Phillips 1991:no. 120). This seems to be the only stone vessel from a secure EM II provenance about which scholars agree is probably Egyptian. However, the stone has
not been subjected any fingerprinting which would clarify its origin (Phillips 1996:459-60); if from Egypt one would expect the obsidian to originate in the region of Yemen or Ethiopia (Zarins 1989).

Other early stone vessels of possible Egyptian origin were found at Knossos, including a fragment of a cylinder jar (Warren 1969:112, G6; Phillips 1991:no. 113), and two fragments of diorite(?) bowls (Warren 1969:109-10, A5 and 10; Phillips 1991:nos 114-5), all in EM I contexts. These, and several other vessels of possible EM date are problematic several of the stones are unusual from an Egyptian perspective, the pieces themselves cannot be found for further examination and at least one is probably intrusive from Late Minoan levels (Phillips 1991:nos 113-5, 116-7). A number of other Old Kingdom stone vessels are known in Crete, but these are either unstratified or found in later contexts, so cannot be used as evidence of a direct or indirect connection with Egypt (Warren 1969:105-112; Schulman 1979:85; Pomerance 1971:21-4; Lilyquist 1996; Phillips 1991:nos 116-7, 183, 258).


[177] (not illustrated) A worked piece of hippopotamus ivory from a domestic context at EM II A Knossos, dating to ca 2600 BC (Krzyszowska 1984:1988; Warren 1995:1; Phillips 1996:459-60). Hippopotamus ivory is known from Egypt (Krzyszowska 1990:38) and it is also thought the animal was found in Syria/Palestine until the mid-1st millennium BC (Perrot 1955; Cauvet and Poplin 1987). On the basis that hippopotamus ivory was not widely distributed in the ancient Near East until the 2nd millennium BC, the raw material was probably originally from Egypt, where it was worked as early as Predynastic times (Krzyszowska 1988:229; Hughes-Brock 1992:25).

5.12 Conclusion

*Aegyptiaca* in the northern Levant largely consists of stone vessels from Byblos and Ebla. A small amount of material is noted from Crete, and earlier still from Hama.
Contrary to impressions given in much of the literature, in-context Egyptian stone vessels in the region, and especially at Byblos, are relatively few in number. Importantly, at the Baalat Gebel temple, only four fragments were found in-context. Possibly this number was once higher, and may have included Montet’s burnt vessels and other fragments found in later levels, but this can not be established. Rather, the largest quantity of Egyptian stone vessels (28) at Byblos was discovered in the terminal Phase KIV of a palace or elite residence, and even here vessels dating from the Early Dynastic Period through to the 6th Dynasty were from a single context. Either this represents an heirloom factor, with vessels arriving over a long period of time and kept as precious objects, or old and new vessels arriving at roughly the same era through down-the-line mechanisms or from a stone vessel repository in Egypt. Apparently non-Egyptian stone vessels from Syria or Mesopotamia were also found in this group, lending support to the theory of Saghieh that this deposit represented a collection of vessels acquired through wide-ranging elite mercantile activity.

At Byblos, shapes span both open and closed forms. Bowls, platters, jars and ornamental vessels were found, in addition to the stem of a headrest. Some of these could have been containers for products, but others served no such function, such as the headrest stem. The same can be said for the seals, but again considerable doubt surrounds both the contexts and, in respect of the well-known ‘Byblos’ seal, even the production date.

The stone vessels from Ebla form an interesting comparative group. They were found clustered within several contexts in Palace G, a building associated with the city’s rulers. Like the Byblos stone vessels, they featured royal inscriptions from the 4th (Chephren) [167] and 6th Dynasties (Pepy I) [173], along with a wide range of other Old Kingdom types. Open shapes of calcite or Chephren diorite were the most common, comprising nearly 88 per cent of shapes that could be reconstructed. No other Egyptian objects were found at Ebla. The stone vessel imports from Byblos and Ebla are discussed in more detail in Chapter 8.

Other Old Kingdom aegyptiaca is known from Alalakh, Ras Shamra and the Cyclades but none were found in secure 3rd millennium contexts. As a result, they cannot be
considered as evidence for Egyptian contact. A bowl from Cyprus may be Egyptian, but without personally examining the object, this cannot be confirmed. *Aegyptiaca* from Anatolia is also of questionable provenance and thus has no bearing on the question of Old Kingdom contacts in the Eastern Mediterranean.

Many other Old Kingdom stone vessels have been found in Crete but again these are from Middle Minoan-Late Minoan deposits, or unstratified. The only reasonably secure evidence from Crete consists of several stone vessel fragments and a piece of worked hippopotamus ivory. In the absence of any corroborating textual evidence, it is hard to ascribe these to direct contact with Egypt during the 3rd millennium. They may have originated in Egypt before travelling over the anti-clockwise Mediterranean sea-route via Byblos and Ras Shamra. Such objects cannot be offered as proof of direct contact but rather a far-flung down-the-line trade in Egyptian exotica (Ward 1963:42, 55; Phillips 1996:Ch. 4).

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**Endnotes**

1 A number of stone vessels were examined by the writer in the Museum of the American University in Beirut in 1996. Although they were purchased, there seems little doubt that their provenance was Byblos (Nelson 1934:19; Jidejian 1968:20; Scandone Matthiae 1994:40, n. 19). Indeed, the writer identified several of these vessels in Montet’s excavation reports. A small number of other finds, from as early as the 2nd Dynasty (e.g. Rowe 1936:d), are attested in the literature but were impossible to verify.

2 The total number of inscribed Old Kingdom stone vessels found in later contexts is great, but see for example all those published by Montet, along with Dunand 1939:117 no. 1939, 120 no. 1794, 93 no. 1359, 132 nos 1927-8 and 1940, 136 no. 1981; Dunand 1958:534, fig. 611, no. 13491.

3 For example, on pl. 45, a large fragment of an andesite porphyry vessel can be seen under No. 49, but this is not described in the text.

4 Unfortunately owing to the political situation in Lebanon during the 1980’s, it was not possible to re-examine most of these objects as the National Museum was not fully
functional. Indeed, many of these objects are probably lost to scholarship. Hence, in all likelihood the only surviving records are the excavation reports, which are not always fulsome in detail.

5 This vessel was almost certainly came from Montet's excavations. The writer examined it in Beirut in 1996.

6 The term 'Chephren diorite' is used here in preference to hornblende diorite.

7 I am doubtful about the authenticity of this object.
CHAPTER 6

IMPORTED CERAMICS IN EGYPT AND THEIR ORIGINS

6.1 Introduction
For many years it has been assumed that most of the foreign jars in Old Kingdom tombs came from Byblos (Reisner and Smith 1955:73-6; Hennessy 1967:84; Stager 1992:39, 41). This assumption was made largely on the basis of apparent close links between Byblos and Egypt attested in literary sources, along with several physical properties of the imported ceramics, notably the presence of a white slip (Prausnitz 1954:92). Parallels could also be drawn between Egyptian and Byblite material (Hennessy 1967:83-4; Reisner and Smith 1955:75; Stager 1992:38, fig. 7.12). The first detailed scientific analysis of the jars also confirmed that some came from Byblos (Esse and Hopke 1986:333-8).

This chapter examines all known imported vessels on the basis of shape, fabric, distribution and chronology. Central to this study is an analysis of selected vessels by Neutron Activation Analysis (NAA) and PIXE-PIGME. Particular attention will be paid to the sample used for these studies. It will be seen that the group is far from homogenous, representing a variety of production centres and chronological variations.

6.2 Previous research on imported ceramics
Using a form of fabric analysis, Reisner was the first to identify a group of Giza ceramics as imports (Junker 1929:124). Reisner and Smith's major study on the pottery divided the Giza corpus by shape, designating two-handled Combed Ware jars Group B-LIV, and one-handed jugs as Group B-LIIIa and b (Reisner and Smith 1955:73-6, Ch. 3.3). These broad groupings, while convenient, mask significant differences in size, fabric and surface treatment, variations that were not recorded at the time.

Helck refined the Reisner/Smith classification, further dividing both Early Dynastic and Old Kingdom foreign wares on more detailed typological criteria such as height:width
ratio and handle placement (Helck 1971:28-34). Using Reisner and Smith's dating of the corpus combined with his own observations, Helck's tabulated results showed that the largest number Combed Ware imports arrived in the 4th Dynasty, tapering off towards the end of the Old Kingdom (Helck 1971:33). More recently, Esse examined Combed Ware in the Levant (and Egypt to a lesser extent) from the perspective of technology, ware and elemental composition (Esse and Hopke 1986; Esse 1991:110-124).

Other scholars have attempted to identify an origin on the basis of seal impressions, potter's marks and applied decoration (Mazzoni 1985), all of which appear in various forms in the Giza corpus. Once again, the wide geographical distribution of many elements means that only the most general conclusions can be drawn when using these criteria alone (Esse 1991:112).

The problem with all these approaches is that unless one can examine sherds from every relevant site personally, conclusions are very dependent on the quality of, and detail included, in the excavator's publication. As Combed Ware was widely distributed throughout the Levant, observations based on potmarks or surface finish alone cannot be used to identify provenance.

Chemical and petrographic analysis allows the question of provenance to be placed on a less subjective footing. Various forms of elemental analysis, such as NAA, have been use to identify patterns of Levantine trade and exchange networks (Hennessy 1967:115, n. 73; Kaplan 1980; Kaplan and Harbottle 1982; Esse and Hopke 1986). While such studies are frequently conducted in other parts of the Levant, the same cannot be said for Egypt, owing to the difficulty of accessing samples from secure contexts, particularly from recent excavations. Material from older excavations is often scattered around the globe, and sometimes suffers from the absence of good contextual information, thereby diminishing value for scientific study.

For Old Kingdom Egypt, such studies are rare. However, in 1986, Esse and Hopke published NAA results on imported Combed Wares from Giza located in the Boston Museum of Fine Arts (Esse and Hopke 1986). Until now, it is the only such study of this material (see 6.11 below).
6.3 Typological categories

6.3.1 Combed Ware (Type I)

As illustrated in Chapter 3.3, the largest quantity of Old Kingdom imported ceramics is so-called two-handled Combed Ware jars. Several terms appear in the literature to describe them, but here the phrase ‘Combed Ware’ is used for ease of reference (following Esse 1991:109-16). The expression ‘metallic ware’ is not endorsed as it implies a particular type of fabric that is not consistently present in the corpus of imported jars (see 6.10 below).

Combed Ware sherds are known from almost every EB III site in the southern and littoral northern Levant, including Byblos (Dunand 1958:724-5, pl. lxxiii.14750, pl. cxii.15835), Ras Shamra Phase III A1 (de Contensen 1989:320-1, fig. 4), and elsewhere in coastal Syria/Lebanon (Esse 1991:112-4). At Byblos, the type is first seen in Phase K I and continues until the early 2nd millennium (Sagheieh 1983:108). The ware is also known from many EB III sites in northern and southern Canaan (Prausnitz 1954; Esse 1991:110-1; Greenberg and Porat 1996:figs 5-6). Complete vessels in the Levant are relatively rare (Hennessy 1967:72). While it also occurs to a lesser extent in the EB II, appearance of the ware, in association with Khirbet Kerak Ware, is a classic marker for the EB III.

A number of two handled jars with and without combing occur in 1st Dynasty contexts at Abydos and Saqqara (Petrie 1900:pl. 38.9; Petrie 1902:pl. 8.6-8; Petrie 1925:5, pl. 4.9-10; Emery 1958: 54, Type 14). Petrie described them as ‘Amorite’ (Petrie 1900:pl. 38.9; Petrie 1925:5; Prausnitz 1954:91; Porat and Adams 1996:100 - UC 17388).1 One complete vessel was possibly metallic ware: Petrie describes the fabric as ‘remarkably hard, tinkling when struck, unlike any Egyptian pottery’ (Petrie 1925:5). A base of a similar jar is also known from Early Dynastic Buto (Köhler 1998b:144, pl. 68.9), but the fabric is not metallic ware, suggesting an origin in southern Canaan (Köhler pers. comm. 23/10/00) or possibly Beth Yerah (Porat and Adams’ fabric Group B). These Early Dynastic examples are ‘squat and globular’ compared to those from the Old Kingdom (Stager 1992:29). The shape also occurs in the EB II Levant, where the surface was often slipped and roughly burnished (Mazar et al. 1973: pl. 6.34). Incised or impressed collars at the base of the neck imitating a rope tie also appear at this time (Garstang 1936:pl.6.15).
Hennessy included the Early Dynastic Combed Ware sherds from Abydos in his spectrographic study of foreign pottery, noting that the chemical signatures could not be separated from the other Abydos Wares (1967:115, n. 73). This might suggest that during the EB II, small quantities of Combed Wares were also coming from the Galilee and/or the region of northern Israel/Mount Hermon.

Not until the EB III are two-handled jars of metallic ware produced on a large scale in Levantine workshops (Prausnitz 1954). At this time, importation of Abydos Ware declined, replaced by these larger containers (Prausnitz 1954:94-6; Stager 1985:179). The jars were hand-built using coils from the bottom up, and the rim was often finished on a turning device (Greenberg and Porat 1996:10). The functionality of the shape, lightweight metallic ware fabric and relative simplicity to seal made the vessels ideal for transport (Greenberg and Porat 1996:11). The commodity contained within was probably a liquid, judging by the narrow shape of the neck (Hennessy 1967:72). The hard plaster sealing visible on some vessels [47, 49, 52] and narrow mouth of all known examples indicate a vessel designed to secure liquids (Esse 1991:124).²

The exterior surface features a ‘combed’ decoration, executed by the potter before firing, when the vessel was leather hard. The patterns consist of horizontal, vertical or diagonal lines or combinations of these, made with a comb-like tool. Prausnitz suggests that combing was a ‘decoration...derived from basketry [which] gained inspiration from the strings wound around the vessel for the purposes of transport’ (1954:91). However, apart from its decorative effect, the purpose of the combing is not clear (Esse 1991:114). Stager suggests combing may have been linked to the porosity of the fabric produced in various workshops (Stager 1992:37); the combing could thus have helped ensure the preservation of the surface coating (Artzy 1987:3). More prosaically, combing may have served to simply ‘mask the joins between the coil’ of the handmade vessels (Greenberg and Porat 1996:10). Specific workshops or regional craftsmen may have favoured different combing styles (pattern v. simple horizontal lines) at various times during the EB III, although this has not been tested.³
Another point of difference between various jars is the presence or not of a cream lime wash or slip on the exterior, which helped reduce the porosity of the vessel. Different surface treatments led some scholars to ascribe them to geographical regions (e.g. presence or not of a slip, nature of the combing) (Prausnitz 1954:91-2; Hennessy 1967:84; Stager 1992:39). Hennessy believed that Combed Ware sherds from southern Canaan were never coated with a lime slip, whereas jars from Byblos and coastal Syria were treated in such a fashion, thus proving a Byblite origin for the Giza vessels (Hennessy 1967:84). Others noted that slip was more common on vessels from southern Canaan, especially Tel el-Hesi (Fargo cited in Esse 1991:113; Stager 1992:39). Slipped surfaces are also known from Beth Yerah (Esse 1991:111). Esse agreed that white slip on the surface appeared to be a more common feature from the south, but that in general ‘the appearance of white slip on combed ware jars is not as widespread as combed vessels without slip’ (Esse 1991:110-1, 114). The disagreement over these points shows that without detailed petrographic and elemental analysis, the specific features of Combed Ware workshops cannot be established with certainty.

6.3.2 One-Handed Jugs (Type 2)

One-handled jugs represent an extension of the Early Dynastic/EB II trade in Abydos Ware and their contents (Hennessy 1967:71; Ch. 2.3.5). The shape has antecedents, appearing as imports in the Naqada IIIc at Hierakonpolis and elsewhere (Adams and Friedman 1992:fig. 15). They were hand-made by coils, with the surface slipped and burnished for added strength. Often pots were finished on a turning device (Greenberg and Porat 1996:6-10). The lightweight fabric, offering great tensile strength and the functional shape, made such vessels ideal for long distance transport of liquid contents.

In the Old Kingdom, this type is vastly outnumbered by Combed Ware jars (Esse 1991:114). Moreover, there is little unanimity of ware or form in the corpus [54-62, 76, 78]. Indeed, so considerably do one-handled jars vary in shape, size and ware that these vessels cannot be considered as a homogenous group (Ch. 3.3.1c). While some clearly resemble Abydos Wares with a ‘metallic’ fabric [56], others are quite different in their surface finish, forming a separate ware class. Of particular note is the appearance of vessels coated with a white or cream slip [57-9, 76], a distinct
departure from the red slipped and burnished examples of the Early Dynastic era. On the basis of ware, equivalent vessels elsewhere in the Levant were hard to find.

6.4 Depictions of foreign pottery

Foreign pottery is occasionally illustrated in figurative art. A carved ivory label from Dynasty 0 depicting an Asiatic bearing a two-handled jar is possibly the earliest known representation (Petrie 1901:22, pl. 4.6). Locally manufactured calcite examples were also made for inclusion in burial equipment in the 1st Dynasty and continued into the Old Kingdom (Emery 1949:fig. 77, Type DD1; Reisner and Smith 1955:pl. 34a).

Foreign pottery is occasionally shown on the walls of Old Kingdom tombs and temples in both a symbolic and representational manner. By the 3rd Dynasty tomb of Hesi-Re, the one-handed jar shape was a standard inclusion in offering lists and scenes (Balcz 1934:79; Quibell 1913:21). The concept of the one-handed vessel as a hieroglyphic determinative for the ḫnum vase also emerged (Balcz 1934:91-2). Later association of the ḫnum jar with the seven sacred oils (Balcz 1934:914) suggests a symbolic link to the contents of original 1st Dynasty imports.

One-handed jugs are illustrated in Old Kingdom tomb scenes with some frequency. For example, a scene from the late 5th Dynasty Saqqara tomb of Ni-ankh-khnum and Khnum-hotep shows the preparation of wine associated with a one-handed spouted jar (pl. 41a) (Moussa and Altenmuller 1977:fig. 16; Paice 1989:60, fig. 8). Interestingly, no actual examples are known with handles, either imported or locally made (Reisner and Smith 1955:fig. 104, no. 14-4-13). Hence, the appearance of one-handed jars in Old Kingdom wall reliefs and offering lists probably implies the idea of a vessel and its contents rather than actual pots.

Two handled ceramic jars are sometimes depicted. Again, the shape appears in offering lists from the tomb of Hesi-Re, and in later lists of the seven sacred oils (Balcz 1934:82, 94; Quibell 1913:15.7). Many scenes are also known, too numerous to list here. For example, the shape appears in the context of actual use in the 5th Dynasty Giza tomb of Ptah-hotep (pl. 42) (Junker 1941:fig. 10). Appearing amongst a group of offerings, the jar is shown along with Egyptian vessels before a seated tomb owner. The early 6th Dynasty tomb of Shedu at Deshashah illustrates several
two-handed jar types and a one-handed jug in a much-damaged grape harvesting/wine making scene (pl. 41b) (Kanawati and McFarlane 1993:pl. 53). The jars are being filled with wine. While extrapolating the symbolic nature of such scenes into real life must be approached cautiously, the two-handed jar with a Nile mud stopper bearing a seal impression of Pepy II found at Giza [53] shows that the Egyptians did re-use imported jars. This custom is probably illustrated in Shedu’s tomb.

In a scene from Ni-ankh-khnum and Khnum-hotep’s tomb, a large, wide-necked storage vase with what may be ledge handles is shown. The artist has perceived this jar quite differently to physical examples, placing the ledge handle vertically along the vessel wall (Moussa and Altenmuller 1977:fig. 16; Paice 1989:60). While ledge handles are common on EB III pottery from Canaan (e.g. Tufnell 1958:pl. 61.255-6), no actual imports have been found in Egypt. Likewise, ledge handles do not occur on Egyptian pottery from this time. If the artist is illustrating a foreign vessel, perhaps this is the memory of ledge-handled wine jars from the Late Predynastic era (see for example Dreyer et al. 1993:pl. 9.c-d).

The best-known depictions of foreign pottery come from the Syrian ‘tribute’ scene on the Mortuary Temple of Sahure. Twelve red-painted one-handled jars are shown in association with bears (pl. 43a) (Borchardt 1910-13:pl. 3). The vessels are a very slender type, with a tall neck and long handle extending from rim to shoulder, a shape appearing in the EB II/Early Dynastic Period and closest to Emery’s Type G9 (Emery 1958:pl. 123; Amiran 1970b:59-66; Helck 1971:30-2, Type I). Many actual jars of similar shape appear in 1st Dynasty tombs at Abydos, Saqqara and other sites (Petrie 1901:pl. 54; Emery 1954:fig. 98, G9, G11; Emery 1958:pl. 75, G3, G15). Although one-handed jars of narrow proportions are also known from Byblos Phase KIII and KIV (Sagheieh 1983:92, 106, pl. 36.A8-11), they do not occur in Old Kingdom Egypt. Only two red-painted one-handed jars are known, one dating to the 4th Dynasty [56] and another belonging to the mid/late 4th-early 5th Dynasty [60]. None have the same proportions as the red-painted jars from Sahure’s temple.

The often symbolic nature of royal reliefs means that the extent to which this illustration can be regarded as an historical event is problematic (see Ch. 1.4.1).
Given the detailed rendering of this and related images, especially the accurate drawing of the bears (Houlihan 1996:195), the scene represents either an actual event during Sahure’s reign or a tableau copied from another monument (Stevenson Smith 1971:183). That Sahure engaged in long-distance trading expeditions is shown by his entry on the Palermo Stone, detailing a mission to Punt for myrrh (Urk. IV:246.4). Evidence for Sahure’s direct involvement at Byblos is less persuasive, as a stone vessel bearing his name from Byblos was found out-of-context.

Perhaps examples like the pots depicted on Sahure’s mortuary temple are yet to be found. Alternatively, they may be representations of imported vessels, rather than depictions of actual pots, with the vessel shape becoming a standard image designed to indicate the symbolic acquisition of foreign commodities (see Balcz 1934; Hawass 1995:230-2). Either way, as historical evidence, they are problematic.

6.5 Contents

The general consensus of opinion is that the jars contained imported olive oil, wine or coniferous (cedar) resins (Junker 1929:119, Ward 1963:53-4; Stager 1985; Lucas and Harris 1989:320; Esse 1991:122; Stager 1992:39). In particular, coniferous resins were used in mummification, although only people of sufficient status must have had access to this product (Frankfort 1926:83; Lucas 1931:31-21; Ward 1963:55; Gardiner 1969:32). It is probably no accident that imports of Abydos Ware, some containing coniferous resins, began at the time when the earliest attempts at mummification are attested (see Petrie 1901:16-7). As noted above, some imported jars were also re-used in Egypt as wine containers for local vintages, and undoubtedly for other storage purposes.

Depictions of one and two-handled pots in inventories of the seven sacred oils and offering lists are common, as are the words ‘s’-oil and sft-oil, probably denoting imported coniferous oils (Balcz 1934; see also Ch. 7.2.9). However, apart from offering lists, more general references to the contents are rare. One inscription comes from the 5th Dynasty tomb of Ptah-hotep: offerings piled before the tomb owner include a two-handled jar, and on the same register, an inscription nearby says ‘see, the sweet oil’ (pl. 42) (Junker 1941:49, fig. 10; Kantor 1992:20).10
Only a small amount of archaeological evidence provides clues about the original contents. An imported one-handled vessel from the 1st Dynasty tomb of Djer was found to contain a vegetable oil and at least one contained coniferous *Pinaceae* resin (Serpico and White 1996; Ch. 2.3.6). Residue analysis was conducted by Lucas on three imported Combed Ware jars (Hassan 1936:145-7; Reisner and Smith 1955:75; Lucas and Harris 1989:320), with tests on two 5th Dynasty vessels proving inconclusive. The results showed that the contents of a one-handled jug [61] comprised largely calcium carbonate with varying quantities of fatty matter, ‘nitrogenous organic matter’, and in the other Combed Ware pot [37] a ‘small proportion of resins-like material’ was identified (Hassan 1936:145-7).

From another jar dated to the late 4th-early 5th Dynasty [25], Lucas did find ‘true’ resin from a coniferous tree which may have been perfumed (Reisner and Smith 1955:75; Lucas and Harris 1989:320), helping confirm that at least some imported vessels did contain this substance. Esse also noted the presence of Combed Ware sherds associated with an olive press installation at Ras Shamra, suggesting that other vessels may have contained olive oil, depending on their point of origin (Stager 1985; Esse 1991:122; Stager 1992:39). At Beth Yerah, a Combed Ware jar was found associated with large vats, assumed to have been used in olive oil production (Esse 1991:119). Exported oils of this kind may have been perfumed also (Stager 1985:180). Exported commodities from Canaan possibly included wine, as it had been from the time of U-j (Dreyer 1993:49-56; Stager 1985:179-80; see Ch. 7.2.5-6), and during other periods, especially the New Kingdom (Bavay et al. 2000a:83-4).

Limited residue analysis was also conducted on a Type 2 jug from Dashur [76], with milk, oil perfume and wine all excluded as possible contents (Alexanian 1999:109).

As can be seen, insufficient data currently exists about the contents of nearly all imported vessels. As Lucas’ residue analysis determined, some jars undoubtedly contained resin from coniferous trees, belonging to trees of the *Pinaceae* family. Further testing of the Boston corpus is required.
6.6 Transport

One of the most striking features of Old Kingdom ceramic imports is the rise of Combed Ware and the decline of one-handed jugs which were so common during the Early Dynastic Period (Prausnitz 1954:96). Esse suggests that this represents either a change in the product such jars contained, or a change in the mode of transportation (1991:115-6). Ships rather than overland caravans could transport larger Combed Ware jars, whereas smaller one-handed jugs were more easily handled by travel overland (Hennessy 1967:72). The narrower shape of EB III Combed Ware jars in Egypt compared to those from the EB II may support the notion that they were transported by sea (Stager 1992:39).

However, it is hard to judge the method of transportation on the basis of size and shape. In general, Combed Ware jars in Egypt are smaller when compared to the large combed ware pithoi of EB III Canaan (Esse 1991:115), but the range of sizes in the corpus is great. The tallest recorded example in Egypt stands at nearly 60cm [10], with others touching 49.5cm [42], comparable in size to complete vessels from Tell Dan (Greenberg and Porat 1996:fig. 2.3-6) and Tell Erani (Yeivin 1961:pl. 5). Even empty of their contents, some of the Giza vessels are heavy, with [50] weighing 5.188kg (11 lbs 7 oz). Another Combed Ware jar in Boston [52] with plaster stopper intact and presumably its desiccated contents still inside, weighed 7.27kg (16 lbs).12

There is no certainty that the ancient sea route was automatically preferred in every case. Size and weight of large vessels was potentially no hindrance to overland trade activity; indeed, a combination of land/sea/river journey is certainly possible. For example, Oren noted the presence of large Egyptian ceramic storage jars at north Sinai sites, some of which stand nearly half a metre tall (Oren 1989:393, fig. 7.1). These were certainly conveyed for part of their journey by land via donkey caravan. The many sherds of large Egyptian Late Predynastic-Early Dynastic marl clay storage jars at inland southern Canaan means that these were probably transported overland for part, or all, of their of the trip across the Sinai (Oren 1989:400-4).

Various representations depict how such vessels may have arrived in Egypt. Carved ivories from Dynasty 0-early 1st Dynasty tombs depict two-handed jars arriving at the hands of what may be bearded Asiatics (Petrie 1901:pl. 3A.2, 4.6), but it is unlikely that
the pots were carried all the way to Egypt. More plausibly, the well-known late Chalcolithic/EB I clay statuette from Azor of an ass bearing two large jars illustrates the method by which large vessels may have been transported overland (Ben-Tor 1992:fig.4.6). A metallic ware model of an ass carrying two jars strapped to its back dating to the later phases of the EBA suggests a continuation of this practice (Greenberg and Porat 1996:fig.4.3). In Nubia, the use of donkey caravans is attested in Old Kingdom texts, despite the availability of a river route for part of the way, albeit peppered with cataracts (Shinnie 1991:49). Harkhuf records a caravan of 300 laden asses (Urk. I:127), while Sabni records taking 100 asses to Nubia loaded with products (Urk. I:136). Evidently sizeable official caravans could cover long distances, and were used throughout the Old Kingdom if this was the most efficient means of transport.

However, noting the absence of 2nd Dynasty sherd s from sites along the ‘Way of Horus’ in north Sinai, Oren suggested that this route was no longer used by this time (Oren 1989:400). Oren noted that he 'could not determine how late within Dynasty I did the settlements in northern Sinai survive', proposing a date sometime in the 1st Dynasty for their abandonment (1989:400). This suggests that the Sinai path was probably superseded (but not completely abandoned) by the same maritime route that saw large coniferous timbers imported for use in Abydos royal tombs at the beginning of the Early Dynastic Period (see Ch. 2.4.5). However, that the ‘Way of Horus’ continued in use during the Old Kingdom is attested by the appearance of Meydum bowls of mid to late Old Kingdom date discovered during the survey (Oren and Yekutiel 1990:pl. 6.1-3; Ch. 4.2).

Taking all this evidence into account, Old Kingdom Combed Ware jars originating in southern Canaan could have made the trip overland across the Sinai. They are comparable in size to Naqada III imported vessels but often narrower and taller than those of earlier periods (Stager 1992:38-9). This would have made them easier to transport by either caravan or sea, with the narrower shape allowing for more pots to be stored in the confined space of a boat.

It is also probable that overland routes were used in conjunction with a coastal port to convey large vessels by sea to and from Canaan for part of this journey. Vessels from Byblos (and further afield) were transported by sea, probably along with coniferous
timbers (Marfoe 1987:27; Esse 1989:88). Imported bears and jugs on Sahure’s funerary installation at Abusir appear to have arrived by ship (pl. 43a). Stager has suggested that, on the basis of EB II-III Combed Ware sherd s from Ashkelon, this city was part of a coastal trade network stretching along the Levantine coast (Esse 1989:88; Stager 1992:41). The connection of the Ashkelon region with a port of call on the north-south maritime route dates back to the EB Ia (Gophna and Liphschitz 1996:148). Yavne-Yam may have been a similar way-station (Ch. 4). This network not only involved the sea route, but probably also included links with inland centres such as Tell Erani, located a short distance inland (Gophna and Liphschitz 1996:149). At Beth Yerah, the EB II-III Egyptian connection was probably facilitated through a combination of land and sea travel to a port settlement via the Plain of Esdraelon.

6.7 Distribution
Helck compiled a table outlining the chronological distribution of specific imported shapes (1971:33). In Chapter 3, the date of each known vessel was re-examined using published data provided by the excavators, but on the basis of the evidence it was difficult to ascribe many vessels to the reigns of specific kings as Helck had done.\(^\text{15}\)
Most could be dated only in broad terms, but this nevertheless does not affect Helck’s original observations, that the largest quantity of vessels arrived in the 4th Dynasty (1971:33; \textit{contra} Marfoe 1987:27; Stager 1992:39). The tabulated results are as follows:

The largest quantity of jars comes from 4th Dynasty cemeteries associated with early kings: Meydum, Dashur and Giza. Significantly, the biggest group, nearly half the total number in Egypt, were found at Giza, the epicentre of the centralised royal administration. This suggests that the jars and their products did not filter beyond the court during the early Old Kingdom, even to senior officials living in major centres further south. The king or his officials, who also controlled the means of importation and distribution, evidently regulated access to luxury goods (Ward 1963:54; Marfoe 1987:27). Moreover, if the accident of discovery is discounted, it also points to a very active commodity exchange during this period.\(^\text{16}\)
Table 3: Distribution patterns of imported pottery (Types 1 and 2)

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td>1</td>
</tr>
<tr>
<td>Meydum</td>
<td>1</td>
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<td></td>
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<td></td>
<td>1</td>
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<td>10</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>71</td>
</tr>
</tbody>
</table>

Minimum number of vessels: 71

**Key:**
- I = early 4th Dynasty (Sneferu to Chephren)
- II = mid 4th Dynasty to early 5th Dynasty
- III = 4th Dynasty, more specific date not possible
- IV = mid 5th Dynasty to late 5th Dynasty/early 6th Dynasty
- V = 5th Dynasty, more specific date not possible
- VI = 6th Dynasty, more specific date not possible
- VII = 6th Dynasty, reign of Pepy II
- VIII = Old Kingdom, specific date not possible to ascertain

Only a small number of vessels are attested outside Giza/Saqqara, all in later 5th and 6th Dynasty contexts (*contra* Stager 1992:39). This may point to a weakening of the central administration (Stevenson Smith 1971:195), which saw luxury imports filter down to officials elsewhere in Egypt during the later Old Kingdom (Marfoe 1987:27). The appearance of a Combed Ware jar in a relatively modest late 5th-early 6th Dynasty burial at Matmar [81] also shows that acquisition of such vessels was not limited to Giza high officials by this time (Kantor 1992:20; *contra* Ward 1963:54). The Matmar jar may also represent the re-use and continued circulation of
vessels, long after they were emptied of their original contents. One cannot assess to what extent a ‘secondary market’ may have existed for empty jars, particularly for useful storage vessels with exotic origins. The Matmar jar may represent an example of this phenomenon: it came from an intact burial, yet one handle was gone, and the rim and part of the neck were largely missing. The broken neck was sealed with mud over a sherd lid with a layer of leather in between (Brunton 1948: pl. 37.2). As has been demonstrated elsewhere, intact storage vessels were often recycled (see [53]), sometimes for many years after their date of production (Knapp 1991:24).

Surprisingly, while Combed Wares are known at 5th and 6th Dynasty Giza, none have been found at the 5th Dynasty royal cemetery at Abusir, notwithstanding the Sahure reliefs. Likewise none are known from the Teti cemetery at Saqqara. Only two occur at South Saqqara, despite the fact that a number of later Old Kingdom rulers were buried there. Perhaps rampant tomb is the reason the cause and further excavations will yield additional examples. On the other hand, possibly fragmentary ceramics were not noted during early and more recent excavations.

The latest known Combed Ware jars can be firmly dated to officials who served Pepy II [49-53, 71-2], although re-use of at least one vessel is certain [53]. Notably, while vessels [49-53] (all from the same tomb) vary a little in shape, the ware is identified as Red Ware for all jars (Ware Type viii). However, in Esse and Hopke’s NAA report, the jars did not cluster, indicating different origins (Tables 4 and 5).

It is possible that the accident of discovery or tomb robbing resulted in fewer recovered vessels in the 6th Dynasty, as there is no shortage of reliable late Old Kingdom evidence for Egypt’s continued relations with Byblos at this time. The Aswan tomb of an official speaks of no less than eleven trips to Byblos under Pepy I (Urk.I:140; Newberry 1938). Two vessels from the late 6th Dynasty tomb of Impy came from Byblos [49, 51] (Table 5). Furthermore, stone vessels from Byblos with the names of Pepy I or II indicate that Egypt was still in direct connection with that city until well into the 6th Dynasty (Dunand 1958:fig. 1044; see Ch. 5.3). Moreover, a stone vessel from Ebla with the name of Pepy I was recovered in-context, attesting to active relations with the northern Levant in the late Old Kingdom (Ch. 5.5). Perhaps production of the commodity (or access to it) was disrupted (Redford 1992:57-61),
resulting in a decline in the number of imported containers during this time, but the continuation of other activities, such as the importation of cedar and elite gift exchange. Internal difficulties in Egypt itself, resulting in a shift in the focus of foreign expeditions, may have made the contents of these jars a luxury that Egyptian elites had to forgo in favour of more important commodities. Hence, when the 'Admonitions' speak of disruption to the arrival of resinous oils from Byblos for elite mummification (Gardiner 1969:32), this process may have begun in the later 6th Dynasty.

6.8 Seals/potter's marks
A number of potter’s marks are known on the corpus. These are placed on the upper body of the vessel, between the handle and the neck. The meaning of these marks is not properly understood: they could signify the workshop producing the vessel, the contents, the end-user or quantity (Esse 1991:112). The marks can be summarised as follows:

(a) Applied ‘ram’s head’ or buchraria, or other plastic decoration
Visible on [14], this consists of pieces of clay applied to the surface of the shoulder, made of the same clay as the vessel. Mazzoni attempted to demonstrate a relationship between this motif and similar ones from Byblos, thus apparently confirming a Byblite origin for the jar (Mazzoni 1985). Esse refuted this proposition, correctly noting that the motif is found elsewhere (Esse 1991:112-3). Nonetheless, when tested by NAA, the jar’s provenance was found to be Byblos, thereby strengthening the relationship of this motif to the site on this vessel at least. Another vessel bore part of an applied decoration above one handle in the same clay as the body of the pot [13].

(b) Distinctive patterns combed on to the body with a pronged tool or comb before firing [19, 38]. These are exclusively arrow designs on vessels of the same ware, which may suggest a similar point of origin. Elemental analysis could not identify the provenance any more accurately than ‘Syria/Palestine’ (Table 4).

(c) Motifs incised onto the surface when the clay was wet or leather hard, placed either above one handle or the shoulder between the handles [22, 26, 37, 39, 47, 71, 86]. This is the most common type of mark.

(c) A seal impression rolled onto the shoulder at the place of production before firing [42], known from only one jar in Egypt. The design features a quadruped tête-beche,
with the tail over its back and mouth open, probably representing a lion. Similar seal impressions were also found at Jericho (Sellin and Watzinger 1913:97-8, 106, fig. 66), Numeira (Lapp 1989:7-9), Byblos (Dunand 1958:pls 195:18016, 196:11572, 11298; Lapp 1989:7-9; Lapp 1995:47) and other sites (Helck 1971:34). The design has Mesopotamian antecedents (Hennessy 1967:64), but the widespread diffusion of the motif from Byblos to southern Canaan in the EB I-III means that no particular conclusions about the jar’s origin can be drawn from the seal impression. NAA concluded that the jar was from ‘Syria/Palestine’ but no more specific provenance could be determined.

(d) An Egyptian seal with the name of Pepy II, rolled onto a Nile mud cap, sealed [53]. The Nile mud cap, applied in Egypt, indicates that the vessel was re-used after having been emptied of its original contents.

6.9 Provenance in the Levant

In the past, scholars largely believed that Byblos was the city exporting commodities in ceramic jars to Old Kingdom Egypt (Reisner and Smith 1955:73-6; Hennessy 1967:84; Stager 1992:39, 41). NAA and PIXE-PIGME results (see Ch.6.11-12) support this conclusion in part, but also reveal that vessels came from a range of different sources.

While elemental analysis helps place the issue of provenance beyond the realm of speculation and into the sphere of fact, sampling is not always possible for various reasons. In such cases, typological and stylistic parallels still have their place. This is largely the case for those vessels belonging to Type 2. For example, a Byblos origin is generally accepted for the Type 2f jug from Meydum [78] (Stager 1992:38) and a large Type 2e Reserved Slip Ware jar [62], although parallels for the latter are known from Ras Shamra (de Contenson 1989:320-1). The origin of Type 2a.ii [55] from Tarsus in the region of Cilicia, or northern Syria (Reisner and Smith 1955:73) is likewise largely unquestioned. More problematic is a Type 2d jar of mid 5th Dynasty date [61], the origin for which should be sought in northern Syria or south eastern Turkey.

Other vessels probably originated closer to Egypt. Type 2b, represented by [56] from the tomb of Hetepheres resembles the Abydos Ware jugs of the Early Dynastic Period in both shape and fabric. Reisner noted that the fabric was ‘red with white inclusions’
(Reisner and Smith 1955:64), thus linking this vessel to Porat and Adams’ Abydos Ware Group A from northern Canaan/Lebanon (Porat and Adams 1996:102). While examination of the fabric would be desirable, typological parallels and the ware description point to the probability that the jar arrived via well-established networks from northern Canaan/Lebanon (Ch. 2.3.6), evidently still in operation during the early 4th Dynasty.

Another vessel belonging to Type 2a.i [54], has solid parallels in Canaan and hence may originate there, but such a conclusion must remain extremely tentative as not even Reisner and Smith could examined the pot (Reisner and Smith 1955:73).

6.10 Fabric and ware types

6.10.1 Combed Ware fabric types

Recent results from a landmark petrographic study on metallic ware by Greenberg and Porat means that much clearer distinctions can be made between north Canaanite fabrics and those from the Lebanese/Syrian coast and southern Canaan (1996:11). These results are summarised as follows:

(a) Byblos and north Syrian coast fabric

Detailed work on the petrography of Byblos and northern Levantine Combed Ware is yet to be done. Greenberg and Porat note the similarity of combed, metallic Brittle Orange Ware from Amuq G-J with northern Canaan material, but on petrographic grounds this ware is a local variant (Greenberg and Porat 1996:17-8).

(b) Northern Canaan

Clays from the Hatira Formation were carefully selected by potters to construct vessels (Kempinski and Niemeier 1991:43, Greenberg and Porat 1996:17). These iron rich clays could be fired at higher temperatures, thus allowing potters to make larger, thin-walled vessels with great tensile strength (Kempinski and Niemeier 1990:43). Tempers used included minute shale fragments, fine and coarse (sand-sized) quartz, a small proportion of carbonates, siltstone, igneous rocks and oolites (Greenberg and Porat 1996:13-16).
(c) Southern Canaan
Combed Ware jars from southern Canaan are characterised by a ‘local calcareous, silty clay, with limestone and chalk temper’, with surfaces often coated with a lime wash (Greenberg and Porat 1996:17). Type sites with this fabric include the main EB III centres of Tel el-Hesi, Tel Halif, Tel Yarmouth, Megiddo and Tel Erani (see also Appendix 1). However, similar, smaller formations to those in northern Canaan from which raw materials for metallic ware were gleaned are known in ‘the Negev, Samaria, east of the Dead Sea and the eastern slopes of the Galilee hills’ (Greenberg and Porat 1996:16).

6.10.2 Giza ware groups
Old Kingdom imported ceramics accessible for study come largely from Reisner’s excavations at Giza (listed in Reisner and Smith 1955:73-6). These are housed in the Boston Museum of Fine Arts. Other jars are located in Leipzig [43], The Louvre [86], The British Museum [81], and the Carlsberg Glyptotek, Copenhagen [78]. Ceramics from Junker’s excavations or the remaining vessels from Reisner’s Giza work could not be found despite extensive enquiries; these pots are probably in Egypt.

The writer personally examined as many pots as possible during this research. Each accessible vessel was inspected, and where a section was visible, this was examined under a 10x hand lens. Some vessels were intact or so completely restored (especially the Pink Buff Wares) that the fabric could not be seen. The conclusions below should be regarded as tentative observations only, as detailed petrography is required on the whole group to place any visual characteristics on a firmer footing. Moreover, the Ware Types represent only those vessels that could be examined by the writer.

Initial observations reveal the presence of a number of different ware groups not apparent from the published excavation reports (contra Hennessy 1967:84). The groups are broadly defined, with some variation present, particularly for Ware (vii). These observations are noted below, and summarised against chronological data in Table 4.
(i) Fine Yellow-buff Ware (Reserve Slip Ware)
This is the vessel from coastal northern Syria or Cilicia, and found in an early 4th Dynasty tomb. The fabric was fine yellow-buff fabric, very homogenous, no visible inclusions.
Boston MFA 20.1904 [55]

(ii) Cream Burnished Red Ware
The one-handled vessels largely fell into this category, all dating to the 4th Dynasty. The clays of each differed in colour from orange-yellow to red-brown, but each was coated with a cream slip and two were finely burnished. The vessels all featured plastic rope decoration or a raised ridge at the base of the neck. The fabric of each vessel contained calcareous inclusions and rounded quartz sand temper; other variations in the fabric are noted below.

Boston MFA 20.1899 [57] brown-red with a grey core streak, grog and sub-angular calcareous inclusions <1mm.
Reisner Reg. No. 13-10-68 [58] contained fine dark angular stone inclusions.
Boston MFA 20.1905 [59] contained fine dark angular stone inclusions; the surface was not burnished.

(iii) Dark Brown Ware
This was a distinctive ware in colour and surface finish, with no surface wash or slip. The finer fabric was an homogenous dark brown paste, with a grey core streak and sporadic calcareous inclusions < 1mm visible. Fine and coarse varieties were present: the coarse version was the same, but with larger, angular inclusions.

Coarse version: unnumbered "BG 437" (Ch. 3.3.1b)

(iv) Fine Orange Red Ware
An unnumbered bag of sherds with rim and base from either Tb 4440 or G4240, probably the former (KS 1,000). Probably Reisner Reg. No. 13-11-107 [8]
Probably Boston MFA 37.2723 [47]
Boston MFA 20.1889 [20] (either (iv) or (vii))
(v) Coarse Orange Red Ware
Similar to (iv) but with large stone and calcareous inclusions visible on the exterior. No
slip or wash. Combing pattern of horizontal and vertical lines. Visually, these two
vessels were very similar.

Boston MFA 47.1662 [39] British Museum EA 63698 [81]

(vi) White Slipped Orange Red Ware
Fine hard orange red clay matrix, very dense; plenty of fine rounded quartz sand and
some dark angular stone; plenty of calcareous inclusions <1mm in size. White slip or
wash on the surface.


(vii) Pink Buff Ware
This assemblage comprised the largest single ware group of the Giza corpus.
Unfortunately all had been conserved so completely that no section was visible for
examination. However, a distinctive aspect of the vessels was the light horizontal and
vertical combing, and application of a white wash or slip over the whole body and rim,
giving the exterior surface a distinctive pale pink colour. The ware could be
characterised as pink, red to brown or grey in section, with plenty of white inclusions
1mm - 2mm, and probably also some sand and angular stone. Softer and not as metallic
sounding as (vi).

Boston MFA 37.2724 [42] Boston MFA 20.1903 [33]

(viii) Red Ware
As a ware, these vessels formed a fairly homogeneous group. They were all complete
vessels with no section visible. The pots were large, all dark red to brown in colour and
hard fired, and distinctive in that the surface of all pots was unslipped and combed
extremely lightly, if at all. Two vessels were very tall; the other three were shorter, but
with a more rounded body. Three vessels were still sealed, two with a plaster seal and
another with a cap of Nile mud bearing a seal impression of Pepy II. They all came
from a tomb dating to the reign of Pepy II. The exterior surface was red. Some
calcareous inclusions < 2mm were visible.

Although the above material comprises less than half the imported Old Kingdom
ceramics, it still represents a substantial sample from which to draw some provisional
conclusions. Examination of Table 4 shows that several ware groups occur within
relatively narrow chronological windows. For example, Wares (i) and (ii) occur only in
the 4th Dynasty. Ware (v) occurs only from the mid 5th to early 6th Dynasty, by which
time (iii) and (vii) had disappeared. Ware (viii) is known only in the 6th Dynasty;
indeed by this time most of the other ware groups are no longer found. Table 4 shows
the broad geographical distribution of Ware (viii), thus suggesting that Red Ware
represents the final stage of Combed Ware production right across the Levant as far
north as Byblos at least.

The Giza ware group that most closely resembled Combed Wares from Byblos held in
the AUB Museum was Ware (vi). In particular PIXE-PIGME sample 2004 from Byblos
(Appendix 1), with a thick cream slip on the surface and a clay matrix peppered with
large calcareous inclusions, was very similar in visual appearance to certain vessels
with Byblos sherds, revealing not only the close visual match but a chemical similarity
as well (Table 5). Other combed ware sherds from Byblos closely resembled Ware (v).

6.11 Esse and Hopke’s NAA study
In 1986, Esse and Hopke published the detailed results of NAA on over 500 samples
of Early Bronze Age III pottery in the Near East (1986). The sample size included
Combed Wares, in addition to a substantial amount of Khirbet Kerak Ware and other
regional fabrics. Twenty-one samples were taken from twenty imported Giza
Combed Ware jars in Boston and compared to sherd collections from a wide variety
of sites in Canaan and the northern Levant (Esse and Hopke 1986; Hopke pers.
comm. 13/4/95).

This study is important because its conclusions have been used to construct a pattern of
trade between Egypt and the Levant.\textsuperscript{18} However, while important, it is deficient in
several respects. Firstly, only three samples from Byblos were included, caused by the
difficulty of obtaining samples from Lebanon at the time (Esse and Hopke 1986; Hopke
pers. comm. 17/4/95). Secondly, detailed visual observations of the vessels were not
published to assess differences in surface finish, size and other relevant properties
against the elemental results. Thirdly, the published results failed to identify each
Boston jar against the sample numbers (Esse and Hopke 1986:fig. 31.3), thereby
limiting the capacity for further analysis with the inclusion of chronological and
ware/fabric observations. Fourthly and most importantly, the elemental and other
technical data on which the cluster analysis was based was not published. The only data
that could be found eventually was the list of sample numbers and corresponding
Boston MFA numbers (Hopke pers. comm. 13/4/95). Even then, mistakes were noted in
this numbering scheme (see below).

Discovery of the sample numbers allowed the inclusion of Boston inventory numbers
against the sample numbers in a revised cluster analysis (Table 4). As Esse and Hopke
pointed out, the greatest number of Giza Combed Ware jars (eight) clustered tightly
around the sample from Byblos (1986:333). Esse and Hopke noted the visual
similarities in ware between the Byblos sample and a jar from G4530, MFA 20.1881
[18], but this particular vessel from Boston was not on the list of sampled Boston jars
supplied by Hopke (pers. comm. 13/4/95), and so was not evidently tested. Esse and
Hopke also noted the relationship of the Byblos cluster to MFA 47.1661 [25], the
contents of which were found by A. Lucas to be 'true resin from a coniferous tree'

The jar from southern Turkey/Cilicia (Ware Group (i) [55]) sat apart from this group.

Another group included two cream slip and burnished one-handed jugs [57-9] and a jar
with the Pepy II seal [53]. Another Giza sample in this group, EP03, was incorrectly
numbered and could not be identified against the Boston vessels. However, Esse and
Hopke stated that five Boston one-handed jugs were sampled (1986:333); as the
inventory number of [58] is not noted elsewhere in their list, by a process of
elimination, EP03 must be Reisner Reg. No. 13-11-68. Esse and Hopke noted that this
'cluster was internally cohesive but did not match the tested sherds from Syria-
Palestine, other than in a general way' (1986:333). The fact that these three one handled
jars cluster together, all with a similar surface finish and overall appearance (Ware Group (ii)), may indicate a similar point of origin.

This observation concurs with the difficulties experienced in finding precise parallels for the one-handled vessels, as the singular combination of shape, fabric and surface finish was hard to identify geographically. Perhaps this represents pots manufactured especially for export.  

More loosely related to this group was the Combed Ware jar bearing a cylinder seal impression [42], but the relationship was distant and no real conclusions could be drawn about its provenance. Likewise, [19] showed elemental affinities with Early Dynastic Abydos Wares of north Syrian origin.

Four samples [39, 47, 50, 52] clustered with samples from southern Canaan, specifically Lahav (Tel Halif), Tel Beit Mirsim, Tel Erani, Tel el-Hesi and Lachish. Despite chemical similarities, the jars had a variety of surface finishes (see Ch. 6.10.2 above). This may reflect the traditions of specific workshops, or, in the case of [50] and [52], chronological differences. Furthermore, Esse and Hopke suggested that these jars originated in the region, but owing to what they perceived as a paucity of other evidence for Egyptian contact with Canaan, drew only tentative conclusions about possible Egyptian trade routes during the EB III (1986:334; contra Ben-Tor 1991:5). However, they contended that these results indicated a ‘continuing trade relationship between southern Palestine and Egypt...in addition to the famed Byblos connection’ (1986:334; Stager 1992:41).

*Egyptiaca* from southern Canaan shows that these results do not occur in a vacuum of other evidence (Ch. 3). Interestingly, these four vessels date from the early-mid 5th Dynasty to the end of the 6th Dynasty, indicating that trade continued with Canaan until the latter years of the Old Kingdom. Despite the military incursions of Weni under Pepe I, commodity acquisition with southern Canaan was not completely severed (*contra* Hennessy 1967:88-9); indeed, perhaps the commercial activities between Egypt and the region were one of the reasons for it.
Hierarchical clustering of Metallic, Combed Metallic, and Standard ware samples. Sample designations are given for material analyzed at the University of Illinois and Brookhaven National Laboratory. (Ab = Abydos; Ar = Arad; Bb = Byblos; Ga = Gaza; Gi = Giza; Gi = Gath (Tell el Ereini); Ha = Hama; He = Hesi; Hm = Tahat el Hamman; Ju = Judeidah; Kk = Khirbet Kerak; La = Lachish; Lh = Lahav; Nr = Neirah; Qa = Qasrish; Tbm = Tell Beit Mirsim; Wb = Wadi el Bir.)

Table 4: Revised cluster analysis of Esse and Hopke's NAA study (after Esse and Hopke 1986)
6.12 A new chemical study by PIXE-PIGME
Given that a large body of material had been sampled already by Esse and Hopke, repeating this exercise using the same material was considered futile. However, only 21 samples from Boston were taken for that study, with the remaining jars not tested at all (Hopke pers. comm. 13/4/95). Furthermore, vessels from other museum collections around the world were not tested. Therefore, it was decided to test the remaining vessels against a further sample of Levantine Combed Ware sherds. In particular, a larger corpus of material from Byblos was now available. A total of 25 samples of Levantine Combed Wares were obtained, and compared to 8 samples of Combed Ware from Egypt. PIXE-PIGME was used, a form of elemental analysis using proton-induced x-ray and gamma ray emission (Grave et al. 1996).

6.12.1 Results
The results (Appendix 1) showed the presence of three general groups in the dataset. The plot of the first two components for the elements (Appendix 1, Figure 2) assists in comprehending these groups. In addition, the data should be read in conjunction with the petrographic observations made on metallic wares published by Greenberg and Porat (1996) and summarised above (see 6.10.1). The three clusters were as follows:

- **Cluster A** – comprises sherds from Byblos, and with them clustered five Giza samples [5-9]. All the vessels clustering with this group dated to the early 4th Dynasty.
- **Cluster B** – this cluster features more Fe-rich clays, observed in metallic wares of clays derived from the Hatira formation in northern Israel (Greenberg and Porat 1996:13-7). A feature of this cluster was a more mixed geographical spread of this clay, illustrating the broad trade patterns of the jars’ contents. Of importance is the close clustering of three Egyptian samples, two from Giza [15, 18] and one from Matmar [81], with a sample from Beth Yerah, and with the group generally. This may not, however prove that the imported vessels in Egypt were sourced from Beth Yerah (although this is possible); the wide distribution pattern of this clay type means that the jars may have been obtained at any number of cities involved in the same exchange mechanisms.
<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Museum Inv. No.</th>
<th>Shape Type</th>
<th>Ware</th>
<th>Prov.</th>
<th>Date</th>
<th>NAA No. &amp; Prov.</th>
<th>PIXE-PIGME No. &amp; Prov.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[57]</td>
<td>Boston MFA 20.1899</td>
<td>2c.i</td>
<td>(ii)</td>
<td>Giza</td>
<td>early 4th Dynasty</td>
<td></td>
<td>EP10 Syria/Palestine</td>
</tr>
<tr>
<td>[58]</td>
<td>Reisner Reg. No. 13-10-58</td>
<td>2c.i</td>
<td>(ii)</td>
<td>Giza</td>
<td>early 4th Dynasty</td>
<td></td>
<td>Probably EP03 Syri/Palestine</td>
</tr>
<tr>
<td>[59]</td>
<td>Boston MFA 20.1905</td>
<td>2c.ii</td>
<td>(ii)</td>
<td>Giza</td>
<td>early 4th Dynasty</td>
<td></td>
<td>EP09 Syria/Palestine</td>
</tr>
<tr>
<td>[16]</td>
<td>Boston MFA 20.1881</td>
<td>1</td>
<td>unknown</td>
<td>Giza</td>
<td>mid-late 4th Dynasty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[33]</td>
<td>Boston MFA 20.1903</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>mid 4th-early 5th Dynasty</td>
<td></td>
<td>EP02 Byblos</td>
</tr>
<tr>
<td>[38]</td>
<td>Reisner Reg. No. 13-1-506</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>mid to late 5th Dynasty</td>
<td></td>
<td>EP04 Syria/Palestine</td>
</tr>
<tr>
<td>[39]</td>
<td>Boston MFA 47.1662</td>
<td>1</td>
<td>(v)</td>
<td>Giza</td>
<td>mid to late 5th Dynasty</td>
<td></td>
<td>EP14 Southern Canaan</td>
</tr>
<tr>
<td>[42]</td>
<td>Boston MFA 37.2724</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>late 5th Dynasty</td>
<td></td>
<td>EP01 Syria/Palestine</td>
</tr>
<tr>
<td>[81]</td>
<td>British Museum EA 63668</td>
<td>1</td>
<td>(v)</td>
<td>Maltar</td>
<td>mid 5th to early 6th Dynasty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[50]</td>
<td>Boston MFA 13.2929</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>6th Dynasty (Pepy II)</td>
<td></td>
<td>EP06 Southern Canaan</td>
</tr>
<tr>
<td>[52]</td>
<td>Boston MFA 13.2931</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>6th Dynasty (Pepy II)</td>
<td></td>
<td>EP05 Southern Canaan</td>
</tr>
<tr>
<td>[53]</td>
<td>Boston MFA 13.2932</td>
<td>1</td>
<td>(vii)</td>
<td>Giza</td>
<td>6th Dynasty (Pepy II)</td>
<td></td>
<td>EP19 Syria/Palestine</td>
</tr>
</tbody>
</table>

Table 5: Results of provenance studies by NAA and PIXE-PIGME for Old Kingdom imported ceramics
• Cluster C – this group, comprising sherds from Canaan, confirmed the petrographic observations of Greenberg and Porat (1996:16-7), regarding the highly calcareous, potassium-rich and silty nature of clays from the region. No Combed Wares in the dataset matched samples from Cluster C.

The clusters reveal that five vessels were made in Byblos or the region near that city, which is consistent with Esse and Hopke’s NAA findings (Table 5).

According to the PIXE-PIGME results, the origin of three other jars should be located close to clays from the Hatira Formation, consistent with an origin in northern Israel (Cluster B).24 Interestingly, the date range of the vessels tested by PIXE-PIGME spans the early 4th Dynasty [5] to possibly the early 6th Dynasty [81], suggesting that these networks, established during the Early Dynastic Period, remained open for much of the Old Kingdom.

6.13 Other chemical analyses
After exhaustive analysis of the jug from Dashur [76], Alexanian excluded Syria and Canaan/Jordan as possible points of origin both on chemical and typological grounds (Alexanian 1999:110). Chemical analysis found the vessel contained high percentages of silica, Al2O3, and Fe2O3 (Alexanian 1999:108, 110). This profile is consistent with Cluster B clays from northern Israel/Lebanon (see above and also Appendix 1, fig. 2), and may therefore suggest an origin in this region.

The jar was almost identical typologically with [57] from Giza, a vessel that was tested by Esse and Hopke. They could not determine the origin of the Giza vessel with any more accuracy than simply ‘Syria/Palestine’ (1986:333). However, the chemical results obtained by Pape (Alexanian 1999:108) for the identical Dashur jar help secure an origin from northern Israel/Lebanon for this group of one-handled jugs.

6.14 Conclusion
A detailed examination of foreign pottery imports in Egypt reveals important information about the geography and chronological scope of the commodities trade.
During the Early Dynastic Period, the most common imported vessel were Abydos Ware jugs containing coniferous resins and vegetable oils. Combed Wares appeared sporadically, but the main era of its *floruit* was the 4th to 6th Dynasties. The appearance of Combed Ware in the 4th Dynasty coincides with the disappearance of Abydos Ware in Egypt; indeed, only one vessel, from the tomb of Hetepheres, can be directly linked with earlier jars. Other Old Kingdom one-handed jugs differ considerably in shape and ware to earlier Abydos Wares.

The reasons for this change from Abydos Ware to Combed Wares are not clear. The north-south maritime route to the Lebanon was well established at the beginning of the Early Dynastic Period (Ch. 2.3.5), hence the appearance of Combed Ware can not be ascribed to any major shift in methods of transport at the beginning of the 4th Dynasty. A more likely explanation is that larger Combed Ware jars facilitated transport of greater quantities of the commodity, or indeed reflected a change in the commodity itself.

Imported ceramics are known almost exclusively from cemeteries. Only one Combed Ware sherd has been positively identified in a settlement deposit (Elephantine), and even this was a secondary context. This pattern of deposition may point to the inherent value of the vessels themselves, both as exotic imported containers, in addition to useful storage jars that could be re-used for other things. Indeed, re-use of the vessels in Egypt is attested at Giza and Matmar, and in Old Kingdom tomb reliefs.

The greatest number of imported vessels occurs in 4th Dynasty Giza tombs. Imports plateau during the 5th Dynasty, but there is a marked decline in the 6th Dynasty. No imported pottery is known to date from the 3rd Dynasty, although this could represent an accident of discovery rather than the absence of any imports. The preponderance of imports in the 4th Dynasty, particularly the early part of this era, may reflect the greater ability of the highly organised, centralised Egyptian state to frequently fund and mount expensive long-distance trade missions to acquire luxury products.

After the 4th Dynasty, imported ceramics appear at sites beyond the royal burial grounds of Meydum and Giza, with material travelling south to Matmar and Edfu. The reasons for this changing chronological and geographical pattern are not clear. Fewer imports in the 6th Dynasty might reflect the declining ability of the Old Kingdom state to mount
foreign expeditions for anything but essential products (like timber) and diplomatic missions. It could also relate to problems of supply in the Levant. The greater diffusion of imported pottery beyond Giza in the late 5th and 6th Dynasties may likewise represent a reduction in state control over the fruits of foreign missions. In the later Old Kingdom, officials beyond the capital were better able to access products previously available only to a select network of officials and family belonging to, or close to, the king’s circle at Giza/Memphis.

No imported wares, or sherds thereof, have been found at Abusir thus far, representing either robbing, a break in the sequence or poorly documented ceramics. This is despite the well-known scene of foreign pottery from the Mortuary Temple of Sahure. As to whether this can be regarded as evidence of the arrival of such pots during his reign is doubtful, as very few one-handled jars are known from the 5th Dynasty, and none with this shape from the whole Old Kingdom. Similar jars are, however, known from the corresponding period at Byblos. It is therefore possible that the scene depicts vessels which have not survived in the archaeological record; alternatively, the images may be copied from an earlier monument or function as a symbolic representation of the fact that such expeditions took place. Sahure is known to have engaged in foreign missions from other archaeological and textual sources, so the arrival of foreign ceramics (not necessarily of this shape) during his reign is possible.

Further work is required to identify the contents of imported pots. Limited residue analysis revealed that one vessel contained a fragrant coniferous resin, thus pointing to the possible contents of other pots. NAA confirmed that this particular vessel clustered most closely with a Combed Ware sherd from Byblos. This albeit slender link verifies later textual evidence that coniferous resins were a product of Byblos and one of the reasons for Egypt’s connection with the city.

The Boston corpus reveals that at least eight ware types are represented by imports in Egypt. Several chronological patterns in the production of certain ware types are present, but there is no apparent regional pattern to suggest that manufacturing centres produced distinctive wares. The exceptions are Ware (i), Reserved Slip Ware from the northern Levant, and Ware (v), Coarse Orange Red Ware, which may have been limited to northern Canaan/Mt Hermon during the mid 5th-early 6th Dynasty/EB IIIB. Likewise
Ware (viii), Red Ware, probably represents the standard form of Combed Ware produced across much of the Levant (or at least production centres at Byblos and further south) at the end of the Old Kingdom: No new information about the origin of the jars can be offered on the basis of potmarks or seals.

As supported by other archaeological evidence, Byblos or its environs was a major centre for the trade in the commodity contained inside the jars. NAA and PIXE-PIGME results show that many imports tested thus far cluster with Byblos samples. However, this is not the only place from which commodities were sought. At least two vessels originated in Cilicia or northern Syria, and another finds its closest typological parallel in northern Syria or south eastern Turkey. Whether this reflects direct or down-the-line trade cannot be ascertained.

NAA shows that several vessels were also imported from southern Canaan. They may have contained wine or vegetable oils such as moringa or olive oil. Other archaeological evidence pointing to Old Kingdom contacts with the region helps put the NAA results on a sounder footing. Jars from southern Canaan appear in Egypt from the mid-5th Dynasty onwards, a finding which may help support textual evidence of greater Egyptian involvement in the region during the latter part of the Old Kingdom.

PIXE-PIGME results show that other vessels come from the Galilee (Beth Yerah) or northern Israel. Imports from the region were spread chronologically from the early 4th Dynasty to the later stages of the Old Kingdom, and probably include a group of early Old Kingdom one-handed jugs. While the commodity inside may have been olive oil, it is also possible that coniferous resins or admixtures of resins, oils and perfumes were also obtained, continuing the trade in this commodity via the network established during the Early Dynastic Period. Typologically the jugs have few if any direct parallels from the region, suggesting that the shape was made specifically for export.

All these results show that Old Kingdom Egypt sourced products from a variety of regions. The primary link was with Byblos, but the old link with northern Israel/Lebanon via Beth Yerah probably continued. From the mid-5th Dynasty, imports from southern Canaan are attested, with *aegyptiaca* from the region demonstrating an active relationship between Egypt and this large centres. While the importance of these links
paled with the establishment of a close relationship with timber-bearing region of the northern Levant during the Early Dynastic Period, Egypt continued obtaining products via its existing networks in northern and southern Canaan, thus maintaining connections with her nearest neighbours throughout much of the Old Kingdom.

Endnotes

1 I am indebted to the former Curator of the Petrie Museum (University College London), Mrs Barbara Adams, and the current Curator, Dr Stephen Quirke, for the opportunity to examine Early Dynastic Combed Ware sherds under their care.
2 Compare actual examples to the wide-mouthed two-handled ‘wine-jar’ illustrated in the Deshasheh tomb of Shedu (pl. 41b).
3 All the jars examined in Boston, except for one [53], were combed.
4 In discussing this technique on 18th Dynasty wine jars, McGovern states that not only did ‘such treatment [as the application of a white slip and burnishing] help make the vessels more impervious to leakage, but ha[d] the additional benefit for wine that less oxygen is available to allow Acetobacter bacteria to multiply and convert alcohol to vinegar’ (1997:75).
5 Hennessy was of the opinion that ‘all of the Egyptian examples were coated with a heavy cream slip and often pebble burnished’ (Hennessy 1967:84). Personal examination of the Giza corpus located in Boston and London shows that this is not the case, with a number of vessels unslipped [19, 38, 49-53, 81] and none burnished.
6 These observations cannot now be verified owing to the current state of the post-civil war Beirut Museum. None of the Byblos material in that museum was available for study when the writer visited Beirut in 1996.
7 The writer observed Combed Ware sherds from Byblos with a white lime slip on the surface, very similar to a number of Giza jars, although the contexts are uncertain (AUB 3646a and c).
8 Adams and Friedman suggest that this vessel from Hierakonpolis may even be a local copy of an imported shape (1992:334).
9 This practice is also known in later periods (Knapp 1991:24).
10 The relationship of the text to the jar in the picture is ambiguous, unless the text refers to the contents of all the jars presented to the tomb owner.
In addition, resinous substances may have been used as a sealant to reduce porosity (Esse and Hopke 1986:334).

Pers. comm. 9/5/00: MFA 13.2929, a two handled jar dating to the reign of Pepy II [49], weighed courtesy of Denise Doxey, Assistant Curator, Ancient Egyptian, Nubian and Near Eastern Art, BMFA.

Pers. comm. 27/7/00: MFA 13.2931, a two handled jar dating to the reign of Pepy II [51], weighed courtesy of Denise Doxey, Assistant Curator, Ancient Egyptian, Nubian and Near Eastern Art, BMFA.

Compare the size of Old Kingdom combed ware jars with those from the tomb of U-j at Abydos, some of which are certainly from southern Canaan (Dreyer et al. 1993:49-56).

Helck does not describe the method by which imported vessels were dated to specific reigns in his table published in 1971:33.

However, sustained excavations at Giza over the last 100 years has resulted in considerable quantities of 4th Dynasty material relative to other sites.

Esse and Hopke reported the same observation (1986:333).

For example, see the extrapolation of these results by Kantor 1992: 20, and cited by Greenberg and Porat 1996:18.

But see the observation noting the similarity between the surface finish of a Giza jar and an example from Byblos not in Beirut (Esse and Hopke 1986:333). Prof. L. Stager organised the sampling process with the Boston MFA (Hopke pers. comm.)

On the list of sample and corresponding MFA numbers supplied by Hopke, only four one-handled jars were identified.

Dreyer noted this same phenomenon in relation to the wine jars from U-j’s tomb: many could not be directly paralleled in Canaan, although the ware and fabric was from the region (1992:297).

This list was checked by identifying drill holes in the vessels, made to obtain powdered ceramic material.

Dever and Richards noted the presence of northern combed metallic ware among sherd collection from Stratum J at Tel Beit Mirsim (1977).

Porat and Adams’ Group A Abydos Ware is also a fabric from northern Canaan/Lebanon (1996:104).
CHAPTER 7

THE EGYPTIAN – LEVANTINE COMMODITIES TRADE

7.1 Introduction

Egyptian texts and reliefs provide some information about the commodities exchanged between Egypt, the Levant (Borchardt 1910-3:pl. 3; Helck 1971:12-37; Grimm 1985; Redford 1986a and b). Of particular importance are the autobiographical inscriptions from 6th Dynasty Aswan tombs belonging to the officials who led trading caravans, diplomatic missions and military expeditions to Nubia (Urk. I:120-141). Although these missions were largely focused on the south, these texts highlight the sort of products obtained by such expeditions, the goods exchanged in return, and importantly the context of this exchange. Nevertheless, the textual record is still ambiguous, particularly in relation to the translation of words denoting specific commodities or locations (eg Stager 1985:175; Helck 1971:25-8; Ward 1991:13-5, also Ch. 7.3.7).

The nature of Egypt’s exports still remains largely speculative (Ben-Tor 1982:14). Some manufactured Egyptian goods like palettes, stone vessels and other small objects are easily identified in the Levant; these objects are discussed in Chapter 8. Yet the possibility of ‘invisible’ exports such as foodstuffs and other organic materials has been raised repeatedly, but not satisfactorily resolved from an archaeological perspective (Helck 1971:25-36; Ben-Tor 1986:10; Andrassy 1991:135; Ward 1991:14).

The focus of this chapter is not philological discourse but the archaeological evidence for the Egyptian-Levantine commodities trade, to address the question of precisely what products were exchanged during the Old Kingdom. It will be seen that ambiguity is not confined to the textual data, as the nature of the commodities trade still requires detailed technical analysis (Ward 1991:18; Knapp 1991:23). Needless to say, it is possible to gain a glimpse of the interregional and international commodities exchange based on studies conducted to date. This chapter will also demonstrate that, in view of the ambiguity and fragmentary state of written texts, archaeological data provides a more secure foundation
fragmentary state of written texts, archaeological data provides a more secure foundation upon which to assess exchange networks and the identity of raw materials (Aldred 1978:45).

7.2 Commodities sought by Egypt

7.2.1 Lapis lazuli

Lapis lazuli, or ḫsbd in Egypt (Helck 1971:25, n. 1; Aston 1994:72), is semi-precious stone from Badakhshan in north eastern Afghanistan that was highly prized throughout the Levant (Herrmann 1968; Lucas and Harris 1989: 399; Aston et al. 2000:39). Other sources are recorded in the Pamir mountains of the old Soviet Union and from Pakistan in the Chagai Hills (Wilkinson 1999:164).

In Egypt, lapis lazuli is attested from burials dating to Naqada I, but the stone is more common in richer Naqada IIc-d graves (Aston et al. 2000:39-40). The appearance of lapis lazuli in the 4th millennium is explained in part by apparent links between Mesopotamia and Egypt (Moorey 1990; von der Way 1992). Uruk traders could have brought the stone by using the northern Euphrates route, crossing northern Syria, and then travelling by sea to Buto, thus establishing the network that continued supplying Egypt after the decline of the Uruk connection at the end of Naqada IIId1. A Jemdat Nasr cylinder seal (ca 3,100 BC) on a necklace of lapis lazuli beads from Naqada grave T29 indicates the continuation of lapis lazuli trade links with Western Asia in the late Predynastic era (Frankfort 1939:293, pl. 46a; Crowfoot Payne 1968:58).

While lapis lazuli occurs in 1st Dynasty contexts, none is found in the 2nd and 3rd Dynasties (Crowfoot Payne 1968:58). This apparent sudden break in Egypt may have been due to supply problems that also affected the lapis lazuli trade with Early Dynastic Mesopotamia (Astour 1995:1405-6). However, since the archaeology of the 2nd and 3rd Dynasties is so poorly understood, further excavation of elite tombs from the period is needed to confirm that this break is well founded (Emery 1961:91-104; Kantor 1992:20).

The stone re-appears in the 4th Dynasty in both texts and archaeological deposits (pl. 19) (Crowfoot Payne 1968:59; Herrmann 1968:37; Roccati 1982:38). During this period
period it was used for inlay, beads and amulets, but the overall quantity is not large and little is known of the exchange mechanism used to obtain it. Lapis lazuli beads, amulets and inlay occur at Giza [63-4], Saqqara [73], Deshasheh [80], Matmar [82], Mostagedda [83] and Qau [84], with the best-known finds coming from the Giza tomb of Queen Hetepheres [63]. Silver bracelets featured lapis inlay and a blue-painted paste, filling gaps where the craftsman had insufficient stone to complete the design (pl. 19). The small amount of lapis lazuli used here was evidently so highly prized that the craftsman used what was at hand rather than none at all. This may indicate lapis lazuli curated from existing sources in Egypt rather than a resumption of the Mesopotamian trade. On the other hand, the high incidence of tomb robbing may explain the relative absence of lapis lazuli, even from elite contexts, although such stones would presumably end up in circulation once again. It is also possible that the stone was obtained abroad by Egypt and exchanged elsewhere in the Levant for other goods or as gift exchange. In any case, the iconography of lapis lazuli objects from Old Kingdom contexts, noted above, evidently belongs to the period, which suggests that quantities of raw stone were obtained at the time and worked in Egypt.

Archaeological evidence from northern Syria indicates that the 3rd millennium lapis lazuli trade from Badakhshan crossed the Iranian plateau before passing through Mari and Ebla (Pinnock 1984:25-6; Pinnock 1988; Scandone Matthiae 1988:70). At Ebla, 22 kg of raw lapis lazuli was discovered in the administrative quarter of Palace G which dates to ca 2400-2300 BC (Pinnock 1985; Weiss 1985: 169). These blocks, apparently stored in bags, were of a standard size and weight (Weiss 1985:169).³ Eblaite rulers evidently kept the lapis lazuli trade as a royal prerogative and so played a major role in the stone’s distribution to regional and more distant end-users; in addition, the product was also used by local elites (Pinnock 1988:109; Weiss 1985: 169).

The precise mechanisms of the lapis lazuli trade with Egypt cannot be determined on the basis of current evidence. A trade in lapis lazuli may have been conducted between Ebla and Byblos with the latter acting as an ‘independent and autonomous’ entity (Pettinato 1991:114, 119, 128-31). Hence, lapis lazuli was possibly shipped to Byblos or Ugarit where the Egyptians acquired it (Scandone Matthiae 1988:71). Alternatively, emissaries of
the Egyptian court may have obtained lapis lazuli and other products directly from Ebla elites, bringing with them stone vessels and other commodities (Pinnock 1988:110; Scandone Matthiae 1988:70; Ch. 8.2.4-6).

7.2.2 Copper and turquoise

Evidence for the extraction, smelting and use of copper and various alloys by Egypt is comprehensively summarised in recent work by Odgen (2000). Copper is derived from ores and, unlike gold, is not normally found in its metallic state, although examples of the latter are known (Lucas and Harris 1989:199-201). Small amounts of copper appear during the early 4th millennium (Brunton and Caton-Thompson 1928;), continuing into the Early Dynastic Period, when larger quantities of the metal came to be fashioned into tools and vessels (Emery 1949:20-57, pls 8-10; Emery 1954:pl. 31b, 32a). During the Old Kingdom, copper was used for tools, full-size and miniature vessels (see for example Reisner 1931a:pl. 65d), piping (Borchardt 1910:78), statues (Quibell and Green 1902:46-7) and even boats (Sethe 1914:235-6). A number of smelting and craft scenes point to familiarity with metal working techniques (Weinstein 1974; Scheel 1985).

Mfkt, or turquoise, was obtained in the region of Wadi Maghara and used primarily for jewellery and inlay in the Old Kingdom (Aston et al. 2000:62). Indeed, from the 3rd Dynasty the phraseḥtyw mfkt ‘the turquoise terraces’ is recorded (Spencer 1993:101, fig. 77). While the origin of turquoise is undisputed, the source of copper and the precise role of Egypt in the Sinai during the 3rd millennium is controversial (Aston et al. 2000:62). Beit Arich proposed that Sinai copper and turquoise from the south west were exploited by local Canaanite peoples in the EB Ib–EB II, then on-traded to Egypt via Arad (Beit Arich 1974, 1981, 1984; Stager 1992:35; contra Rothenberg and Glass 1992). This view has been challenged, with doubt now cast on the extent to which the Sinai played a role in the EB II copper trade with Egypt and Canaan (Hauptmann et al. 1999:4). Early Dynastic Egypt may have directly accessed Sinai copper by conducting itinerant mining activities (Wright 1985:248), but conclusive evidence for this activity is wanting.

Like the Early Dynastic Period, the precise source of Old Kingdom copper cannot be confirmed. By the 3rd Dynasty Egypt was directly exploiting the Sinai resources at Wadi
Maghara and nearby sites (Lucas and Harris 1989:202-6; Ogden 2000:149-50; see also Ch. 2.5.6-7, Ch. 4.2). Numerous Old Kingdom inscriptions confirm these expeditions (Gardiner et al. 1952:pl. I.1-2; Andrassy 1991:128; Ch. 4.2), yet only turquoise is ever mentioned as a product of the region (Urk. I:246:3; Fischer 1959:265). Nevertheless, traces of Old Kingdom settlements at Wadi Maghara show that copper smelting, refining and ingot production, but not mining, did take place there (Petrie 1906:39, 51-2; Aston et al. 2000:62; Ogden 2000:149, 152). Despite the slender and poorly documented evidence, it seems, as Lucas suggests, ‘churlish to suggest that these expeditions did not seek copper in addition to whatever other raw materials could be obtained from the region’ (Lucas and Harris 1989:204-5 and references). Possibly both copper and malachite were sought, in addition to turquoise (Aston et al. 2000:62).

Alternatively, Kaczmarczyk and Hedges believe on the basis of chemical analysis that an Eastern Desert origin for all Old Kingdom copper is equally plausible (1983:232-5). Extensive copper ore deposits are known from the region (Ogden 2000:150). Evidence of early Old Kingdom copper mining and processing installations have been found in the Eastern Desert near Gebel Zeit (Tawab et al. 1990:361). Ore was also obtained from Upper Nubia in the ‘gold bearing region of Kush’ and smelted at Buhen (el Gayar and Jones 1989; Ogden 2000:150-1).

The other potential source for Old Kingdom copper was southern Canaan. From the Chalcolithic Period, copper was mined in the Wadi Feinan (Hauptmann and Weisgerber 1987:434) and possibly Timna (Rothenberg et al. 1978 and references). The role of Timna sources in the EBA is clouded, with little extant evidence for copper mining and production dating to that period (Rothenberg et al. 1978:2; Ilan and Sebame 1989:156). Moreover, the closer proximity of the Feinan to major north-south and east west trade routes means that Timna was probably too far away to fully participate in a land-based EBA copper trade network (Hauptmann et al. 1999:14).

On the other hand, copper samples from Maadi show that metal imported from the Feinan was arriving in Egypt from a very early period (Pernicka and Hauptmann 1989:137-140). The Wadi Feinan has also emerged as the major producer of EBA copper. Slag heaps from
early smelting activities indicate that this was probably the largest copper producing area of the south eastern Mediterranean (Hauptmann and Weisgerber 1987:434).

In particular, Khirbet Hamra Ifdan has been described as the largest copper production centre in the ancient Near East (Levy et al. 2000). Lead isotope analysis of copper objects from EB II Arad reveals a Feinan origin for the ore, indicating that Arad may have acted as a clearing-house on the east-west route for Feinan copper, rather than for Sinai copper (Hauptmann et al. 1999:14).

'Copper' imports from elsewhere in Asia are attested during the Old Kingdom. The 5th Dynasty Abu Sir Papyrus from the funerary temple of Neferirkare-Kakai mentions \( \text{stfj} \) cult objects, usually translated as 'Asiatic copper' (Posener-Krieger and de Cenival 1968:6, pl. 13; Posener-Krieger 1969; Kaczmarczyk and Hedges 1983:238; Redford 1986a:138). Another Old Kingdom reference to \( \text{stfj} \) is known, referring to the same substance mentioned on the Abu Sir Papyrus (Posener-Krieger 1969:423).

The precise identity of this material is not known, and several explanations have been proposed. Firstly, it is possible that the term refers to copper from the Sinai, based on the appearance of the word \( \text{St} \) in an inscription of Sahure's from the Wadi Kharig [92] (Giveon 1977). The word is also found in rock graffiti of Pepy I at Wadi Maghara (Gardiner et al:1952:pl.8.160).

However, given that by the 5th Dynasty copper was so common that it was used for piping (Borchardt 1910:78), possibly some sort of more exotic copper-based product is referred to. Posener-Krieger noted that the context \( \text{stfj} \) in the Abu Sir Papyrus indicates a metal of sufficient value and rarity to rank alongside silver, gold and electrum for the manufacture of royal cult vessels (1969:425-6). This could be a form of imported bronze (Posener-Krieger 1969:425), a copper alloy containing around 10% tin, which was not native to Egypt until at least the Middle Kingdom (Kaczmarczyk and Hedges 1983:239; Lucas and Harris 1989: 219-20; Ogden 2000:153-4). As the archaeological contexts of the few Old Kingdom 'bronce' finds are highly suspect, their dates should be regarded with scepticism and cannot be used as evidence of deliberate local production (Lucas and Harris
Harris 1989:219). True bronze is found in the 3rd millennium from Tell Judeidah in the Amuq and north west Anatolia (Muhly 1995:1506), and was possibly exported to Egypt, perhaps via the Ugarit or Byblos connection. This ‘Asiatic copper’ may have looked similar to copper from more local sources, hence its name (Posener-Kriéger 1969:425).

Alternatively, stff may refer to imported tin from Anatolia. However, tin is found in the Eastern Desert and may have been worked anciently, although no evidence for this has yet been found (Kaczmarkczyk and Hedges 1983:229; Ogden 2000:171). No tin artefacts are attested in Egypt before the New Kingdom, although it was used as a copper alloy during the Middle Kingdom (Ogden 2000:171).

A further possibility is that the term refers to copper from the Wadi Feinan. As noted above, the Feinan was a significant producer of copper in the EBA. Perhaps because Feinan copper could only be obtained at extra expense and effort when compared to mines closer to Egypt, stff from this source was regarded as more valuable. A rationale for the appearance of Egyptian objects in EB III deposits at sites close by Feinan, especially Bab edh-Dhra and Numeira, is therefore established (Ch. 4.3-4). Indeed, at Numeira, copper slag fragments from occupation debris points to nearby metalworking (Rast and Schaub 1980:44). Following the demise of Arad, these towns may have controlled the EB III trade in Feinan copper. Even if stff does not refer to copper from the Feinan, the presence of Egypt artefacts at sites in close proximity to the mines suggests Egyptian exchange of the metal during the Old Kingdom.

On the balance of current evidence, stff should be identified as imported copper from the Feinan or the Sinai, or imported bronze from northern Syria. Much scientific work remains to be done on the composition of Old Kingdom Egyptian copper and the nature of copper working technologies (see Ogden 2000:149-161). Identifying the origin of ores used would confirm suspicions that at least some copper was obtained in the Levant, probably in the Feinan, in addition to the Sinai, the Eastern Desert and Nubia.
7.2.3 Silver

Placed alongside gold in Old Kingdom inventory lists, ḫd (silver) was regarded as a precious metal (Posener-Krieger 1969:425-6; Gale and Stos-Gale 1981:103). In Egypt, silver was locally fashioned into cult vessels and other objects (Hassan 1938:pl. 96; Reisner and Smith 1955:44-5; Posener-Krieger and de Cenival 1968:pl. 13; Posener-Krieger 1969:419-20; Weinstein 1974), jewellery (Reisner and Smith 1955:43-5, pl. 38a) and beads (Brunton 1928:15, pls 99.D6, 101.H28.690). Like gold, as a precious metal silver was probably robbed from many elite tombs.

Silver first appears in the Predynastic era (Prag 1978:38; Ogden 2000:170), but little is known of its composition and metalworking technology (but see Weinstein 1974; Gale and Stos-Gale 1981). Prag suggested that silver was imported from Byblos in the 4th millennium (1986:72). She also regards the chronological distribution of the metal in Egypt as similar to that of lapis lazuli, that is, with a break in supply during the Early Dynastic Period (Prag 1978:41).

However, the balance of evidence indicates that Old Kingdom silver was derived from local sources. Indeed, Lucas was of the opinion that ‘none of the Egyptian silver is of the nature or purity of that smelted from ore’ (Lucas and Harris 1989:248). Egypt today has no native silver or silver ore resources, but local nickel and lead ores have a small silver content, as does Egyptian gold and electrum, which are both high in silver (Gale and Stos-Gale 1981:106-7). Much Egyptian gold has a silver content as high as 24% (Lucas and Harris 1989:245-6), so silver may have been extracted from local gold (Ogden 2000:170-1). Indeed, the probability that surviving Old Kingdom silver was obtained from local gold sources has been established in some measure by limited lead isotope analysis (Gale and Stos-Gale 1981:113).

For example, silver from the famous tomb of Hetepheres was used as foil and to make a variety of objects like bracelets and a boat (Reisner and Smith 1955:46). The famous inlaid bracelets had ‘the appearance of solidity but...[were] only [hollow] shells of very thin metal’ peppered with ‘yellow patches ... due to the unequal distribution of the gold
present’ (Lucas and Harris 1989:246, 248). The metal contained 90.1% silver, 8.9% gold and 1.0% copper (Reisner and Smith 1955:44). Such a combination of metals as well as visible yellow patches point to silver derived from silver-rich gold deposits, thus matching the profile of indigenous gold sources (Lucas and Harris 1989:248).

This does not deny the possibility that silver was imported during the Old Kingdom, as it had been during earlier and later periods (Prag 1978:39; Gale and Stos-Gale 1981:104; Marfoe 1987:27; Lucas and Harris 1989:249). The largest regional source of the metal was Anatolia (Prag 1978:40), which supplied trade routes directly or ‘down-the-line’ all over the Near East during the 3rd millennium (Pettinato 1991:113). Other sources were known from the Amanus Range north of Byblos, (Prag 1978:40), a source from which 4th millennium silver imports in Egypt may have been obtained (Scandone Matthaie 1994:37; Wilkinson 1999:163). The palace economy of Ebla relied heavily on silver: the Ebla texts mention large quantities of silver being traded, received as tribute and stored as wealth (Pettinato 1991:104-8, 244-52; MEE 1, no. 1724, 700, 1279, 1507). The proximity of this city to the silver mines in Anatolia placed Ebla at a decided advantage in regional trade (Pettinato 1991:66-9; Pinnock 1984:24-5). The northern silver trade may account for the presence of Egyptian stone vessels with royal names at Ebla, exchanged for this precious metal, in addition to lapis lazuli (Ch. 5.5, Ch. 8.2).

Such a suggestion runs into the problem of an absence of unambiguously imported silver in Old Kingdom contexts. It could be that the Egyptians sought silver from Ebla via Byblos not only for production of objects back home, but more importantly to facilitate other international trading activities. Scholars have suggested that in the later 3rd millennium, silver had become the ‘standard of reference and means of payment’ (Marfoe 1987:29-30; Evans 1991:367 and references; Pettinato 1991:86-7), thus the metal may have been required as a ‘currency’ for other transactions.11

7.2.4 Animals

In Egypt, livestock provided food and other useful products as well as comprising units of wealth in their own right. Elsewhere in the Levant, the Ebla texts also reveal the
importance of livestock, particularly cattle and sheep, as a store of wealth and commodity used in trade and diplomatic exchanges (Archi 1987:121-2; Pettinato 1991:111).

The 6th Dynasty autobiographical inscriptions describing trade and diplomatic missions to Nubia refer to local chiefs giving gifts of live cattle and goats (Urk. I:127.8; Urk. I:134.6-7). Livestock came to Egypt not only as gifts but also as war booty and tribute; the Palermo Stone refers to ‘200,000 cattle in a year’ coming form Sneferu’s campaign in ‘Nehsyw’ (Nubia), and to 13,100 cattle coming from Libya (Urk. I: 237.13-4).

Other animals of a more exotic kind are known in the Old Kingdom. Bears are depicted in the famous relief from the north side of the court of the mortuary temple of the pyramid of Sahure at Abusir (Berlin Ägyptische Museum Inv. 21828). Found by Borchardt during his excavations in 1907-8, the fragmentary scene reconstructed as ‘Syrian booty’ shows five bears on two registers, although more were doubtless originally shown (pl. 43a) (Borchardt 1910-3:pl. 3, Priese 1991: 38, no. 24). The scene depicts brown painted animals collared and tied down, alongside twelve red-painted one-handled jars. All of these animals are portrayed in a highly naturalistic fashion, suggesting that the artist had actually seen bears personally (Houlihan 1996:195).

Alternatively, the scene may have been copied from an earlier royal monument, and may therefore not depict an actual event but rather a genre scene of the era designed to re-inforce the royal myth (see Hawass 1995:231-2).

Identified as Ursus arctos syriacus, the species came from the forests and mountain country of Lebanon (Priese 1991:38), Syria and the Caucasus. The desire of kings to acquire bears was not confined to Egypt: the Ebla texts mention 14 bears given as part of a dowry, so evidently these animals were exchanged elsewhere (Archi 1987:122). On this basis, the bears in Sahure’s relief may have been gifts to the Egyptian king (Houlihan 1996:195).

Sahure’s relief also depicts the lower legs and forequarters of two other animals in the lower register (pl. 43a). Like the bears they are tied down with a rope around the neck, except that the loose ends of this rope hang in a more decorative fashion. This recalls the
collar of the hunting dogs from scenes elsewhere in Sahure's funerary complex (compare Borchardt 1910-3:pl. 17). The animals are also very fine boned, too fine for lions, and have the paws and legs of canines (compare Borchardt 1910-3:pl.43). If the fragments on which these animals appear also come from the Syrian booty scene, as Borchardt indicates, then these exotic dogs or perhaps wolves are further products of the Levant brought to Egypt.

These scenes belong to a long tradition of elite acquisition involving the importation of exotic animals and animal products. Kings enjoyed a menagerie for which fauna was needed to be constantly supplied by trade, tribute or as political gifts (Houlihan 1996:197; Foster 1999:48). While on one hand adding considerably to the prestige of the king, through the

*possession of rare animals...*Egyptian kings symbolically displayed their personal, political and militaristic mastery over foreign countries through the domination of their faunas* (Houlihan 1996:197; see also Hawass 1995:249).

The tradition of such animal imports continued under later kings is shown by the arrival of unusual fauna depicted in the Theban tomb of Rekhmire from the reign of Tuthmosis III (Davies 1943:pl. 17, 19- 20).

### 7.2.5 Olive oil

The question of whether Egypt imported olive oil from the Levant prior to the New Kingdom is far from settled archaeologically (Ben-Tor 1982:12; Ward 1991:15; Serpico and White 2000:398-99). Both Ben-Tor (1986) and Stager (1985) emphasise the importance of the wine and olive oil trade with Egypt during the EBA. Yet while the recent discoveries at Abydos are helping to clarify the nature of the liquid commodities trade in the EB Ib (see Ch. 2.3.3), EB III/Old Kingdom archaeological evidence for this exchange, while tantalising, is incomplete and circumstantial.
No evidence exists for olive cultivation in Egypt during the 3rd millennium (Lucas and Harris 1989:333-5; Serpico and White 2000:398-9). Moreover, there is no evidence for the importation of olive oil; even textual evidence on the issue is ambiguous with debate continuing over the meaning of the word $b3k$ (for a summary see Helck 1971:28, n.26; Stager 1985:174; Ward 1991:15; Serpico and White 2000:399). Analyses on Combed Ware jars have not identified olive oil residues specifically (Hassan 1936:147; Reisner and Smith 1955:75). However, traces of both vegetable oils and animal fats were noted in 1st Dynasty Abydos Ware jugs (Serpico and White 1996:138-9).

Nevertheless, archaeological evidence from the Levant points to olive oil as an important product of the region from Chalcolithic times (Stager 1985; Liphshitz et al. 1991; Finkelstein and Gophna 1993:12-3; Liphshitz et al. 1996; Gophna and Liphshitz 1996). A major expansion in olive oil production occurred during the EB I in the hill country of Canaan, to which Finkelstein and Gophna link the emergence of stratified, urban communities based on organised and large-scale horticultural activities (1993:14). They tentatively point to Egypt’s demand for wine and olive oil in the EB Ib as another possible impetus for this agrarian transformation (1993:14). At Tel Erani,

more than 50% of the wood was from olive, indicating the existence of olive orchards and most probably olive oil production (Gophna and Liphshitz 1996:151).

Recent identification of an EB Ia maritime port near Ashkelon, combined with significant evidence of nearby olive oil production, provides further circumstantial evidence of olive oil exports to Egypt (Gophna and Liphshitz 1996).

Olive oil production areas located in the hill country of Canaan include the Shephelah, Samaria and Galilee, at EB III Tel Yarmouth, Beth Yerah, Tel es-Sa‘idiyeh and EB II-III Tel Ta‘anach (Tubb and Dorrell 1993:62-6; de Miroshedjji 1999:8-9). Other possible olive oil production centres include Beth Shan, Tel el-Hesi, Megiddo, Tel Qishyon, Hazor, Tel Beit Mirsim, Lachish, Byblos and Qatna where large Combed Ware vats, identified with the presence of this industry, have been found (Esse
1991:119-124). At Ras Shamra, Combed Ware jars were found associated with an olive oil press (Esse 1991:121-4). Esse, following Fargo, described this as evidence for olive oil in some of the Combed Ware jars in Egypt (Reisner and Smith 1955:75; Esse 1991:122). The method of sealing of such jars with an impermeable plaster or mud stopper certainly points to a liquid content (Reisner and Smith 1955:75; see also plaster stoppers on [47, 49, 52]).

NAA results on Combed Ware jars from Giza revealed that four vessels clustered with sherds from southern Canaan (Esse and Hopke 1986:337; see Ch. 6). This again may point to olive oil or wine exports to Egypt from the region during the EB III. However, although residue analysis has been limited, olive oil has not been identified in any testing (Hassan 1936:145-6; Reisner and Smith 1955:75; Lucas and Harris 1989:320). Of course, any such residue analysis is complicated by the fact that storage jars were sometimes reused, as [53] attests. This practice is also known in other periods, thus residues might represent the 'last use' of a vessel rather than the original contents (Knapp 1991:24; Serpico and White 1996:136, 139). Indeed, there is no guarantee that 'virgin' jars were used to transport commodities to Egypt in the first place.

7.2.6 Wine

No evidence exists which can confirm wine as an import from Canaan during the Old Kingdom. Stager regarded wine as a commodity imported in ceramic jars (Stager 1985:175), but this has not been scientifically verified.

However, botanical remains from imported Canaanite jars in U-j's Abydos tomb show that wine was imported from the region on a large scale as early as Naqada IIIa2 (Dreyer et al 1998:92; Finkelstein and Gophna 1993:12-5; Hartung in press). By the 1st Dynasty, Egypt was cultivating its own vineyards (Kaplony 1963:137, fig. 213, Murray 2000b:576). Reliefs and inscriptions confirm that Egyptian viticulture continued well into the Old Kingdom (for example Moussa and Altenmuller 1977:110, figs 15-6; Murray et al. 2000:579), which may have affected demand for imported wines (Marfoe 1987:27).
Like olive oil, no residue analysis has been conducted to confirm the possibility of EB III wine imports (*contra* Andraassy 1991:138). However, Weni's inscription mentions the vineyards of the '3mw (*Urk*. 1:103.14), attesting to continued grape cultivation in the hill country of Samaria and the Galilee during the late EB III (Finkelstein and Gophna 1993:11-4). Thus perhaps only special vintages were imported, as was the case during the New Kingdom (Bavay et al. 2000). Further residue analysis is needed to confirm this possibility for the Old Kingdom.

7.2.7 Coniferous timbers

Large stands of coniferous trees, now much denuded, once covered the hills of the Lebanon and many other parts of the Levant, including south eastern and south western Turkey, Cyprus, Crete, northern Israel and Jordan, the Aegean, the Sinai and Syria (Meiggs 1982:41-3; Germer 1985:6-8; Serpico 2000:432). Highly suitable for shipbuilding, construction and the manufacture of objects, coniferous wood was prized in ancient times for both its aesthetic and durable qualities, and as a result, was extensively harvested (Meiggs 1982; Davies 1995:148).

In Egypt, these timbers were used for ship building, small objects, coffins, doors and furniture (*Urk*. 1:236-7; Serpico 2000:431). One species most associated with Old Kingdom Egyptian trading activity is cedar (*Cedrus libani*). Cedar belongs to the family of coniferous trees that also includes 'cypresses, firs, junipers, larches, pines, spruces and yews' which are not native to Egypt (Lucas and Harris 1989:319). Cedar is found in the cooler, wetter climate of the Levant, from the coastal region up to elevations of 2,700m in the Antilebanon, eastern and south western Turkey, and Cyprus (Meiggs 1982:39-87; Gale et al. 2000:348-52; Serpico 2000:432).

The issue of 3rd millennium cedar wood imports is a complex archaeological and lexiographical problem (see Helck 1971:26-8; Germer 1986; Nibbi 1994 with references). Such uncertainty is not a modern phenomenon; the Roman historian Pliny was himself confused about coniferous timber identification (Meiggs 1982:23-6). Lucas also pointed to the confusion in terminology, suggesting that the term '8-wood, traditionally translated
as 'cedar', was often used to describe junipers and other members of the coniferous family (Lucas and Harris 1989:432-3; Ward 1991:13 and references; Gale et al.: 2000:349).

Translation of ʾš-wood as cedar goes back to the work of Erman (1900) and Sethe (1906, 1908-9; for a summary of the debate, see Meiggs 1982:405-9). However, Lorez argued that ʾš-wood was more likely to be fir or pine, because in Egyptian art a yellowish colour was used to depict this type of timber, whereas a reddish brown colour was used for cedar (1916:33-51; Helck 1971:25-7: Nibbi 1994:47). A second term, mrw-wood, is also known from the Early Dynastic Period and later (Petrie 1901:pl. 10.2). Mrw-wood may refer to cedar (Montet 1962:86; Andrassy 1991:133; Nibbi 1994:47; Helck 1994:105), but this cannot be confirmed (Ward 1991:14). However, a 6th Dynasty coffin bearing the titles of the owner, including 'Overseer of the House of ʾš-wood' [67] was tested and found to be made of cedar, thus lending credence to the likelihood that this word referred to cedar or coniferous timbers more generally by the late Old Kingdom at least (Meiggs 1982:409).

Past unscientific study of timber has made the identification of possible timber imports a vexed issue (Western and McLeod 1995:77-8). As Ward and Ben-Tor rightly point out, Petrie's comment about coniferous wood beams in the roofing of Djet's Abydos tomb is not based on any reported scientific analysis (Petrie 1900:9; Ward 1991:4; Ben-Tor 1991:4). Emery mentioned cypress and cedar in 1st and 2nd Dynasty tombs, but again no analysis was published to substantiate this claim (Emery 1961:204; Emery 1962:7). More recently, science has come to the aid of the archaeologist, identifying wood species and thus helping clear up misunderstandings which have crept into the literature (e.g. Grosser et al. 1992:251-61).

Prag asserts that Levantine coniferous timbers may have been imported into Egypt as early as the beginning of the 4th millennium (Brunton and Caton-Thompson 1928:62-3; Prag 1986:71; contra Ben-Tor 1991:4 and Ward 1991:13). While this claim remains untested, new material suggests traces of cedar pollens and wood as early as the floruit of Maadi (Amorós and Vozenin-Serra 1998:228-31; Kroll in Rizkana and Seeher 1989:134-5). Cedar and Turkey oak pieces were also found at EB Ia sites in the Ashkelon trough,
suggesting the existence of a coastal way-station in Canaan, bringing cedar in small quantities south from the Lebanon as early as the mid-4th millennium (Gophna and Liphschitz 1996).

Cedar is also known from Predynastic tombs at Abydos (Gale et al. 2000:349). Testing confirmed the use of cedar for a box found in Naqada IIc/d Abydos tomb U-127, representing 'the earliest larger object made of cedar wood so far known in Egypt' (Hartung pers. com. 11/7/00). A cedar coffin or box from U-j’s tomb shows that small-scale cedar imports continued into Naqada IIIa2 (Dreyer et al. 1998:165, 189-90, fig. 99, pl. 45a-d; Hartung pers. comm. 11/7/00). A piece of Pinus sp. was also identified from Abydos B tombs dated to Dynasty 0 (Western and McLeod et al. 1995:80). Although such pieces were small enough for overland transport (Ward 1991:14), evidence from Ashkelon cited above makes a sea route more likely.

Recent analysis of wood samples also confirmed that cedar beams were used in the tomb of Aha (Hartung, pers. comm. 11/7/00; Gale et al. 2000:349). While the exact size of these timber beams is not known, the identification of such objects reveals the existence of royal trading networks to acquire cedar on a large scale at the dawn of the 1st Dynasty (Ward 1991:13; contra Ben-Tor 1991:3-4; Marfoe 1987:27). It also points to a significant sea borne trade route along the Levantine coast at the beginning of the Early Dynastic Period, as donkeys would have not been able to carry timber beams over any great distance. Further new evidence of imported timbers used for buried Early Dynastic solar boats at Abydos points to coniferous timber imports on a large scale before the Old Kingdom. Other coniferous timbers have been identified from Early Dynastic contexts in more recent years (see Ch. 2.3.5). Continued wood analysis in the future will doubtless reveal considerable new information about how large this trade was at the beginning of the 3rd millennium.

Old Kingdom archaeological and textual evidence for coniferous wood acquisition continues the pattern established in the Early Dynastic Period. Although the corpus in Chapter 3 cannot be considered exhaustive, it does give some indication of the species imported and the uses to which such timbers were put. The 4th Dynasty in particular
seems to have witnessed significant quantities of coniferous wood imports. Cedar for construction is noted in Sneferu’s Bent Pyramid [77]. The famous river boat of Cheops was also made of cedar, with other components made from various imported timbers, such as juniper [65]. The large quantities arriving in Egypt during this time is also indicated on the Palermo Stone, which describes Sneferu’s ‘40 ships filled with \( \hat{s} \)-wood’, and a further reference to a 100-cubit ship and palace doors, also made of \( \hat{s} \)-wood (Urk. IV:237:3).²⁰ Also mentioned is Sneferu’s ‘Year of cutting red mrw-wood for a hundred cubit ship “The Two Lands Worship”, and sixty 16-ribbed royal ships’ (Urk. IV:236.9-8).²¹

However, much work remains to be done to understand the full extent of coniferous wood use in the Old Kingdom (but see Lucas and Harris 1989:429-31; Davies 1995).²² Microscopic analysis shows that cedar was also used for coffins [66-7] and statues [79, 89]; the latter may have been carved from the off-cuts of cedar coffins (Davies 1995:153, n. 27). The later Amarna letters also show that a cedar ship was sent as a state-to-state gift by the Egyptian king to a foreign ruler (Moran 1992:30, EA14), so the product may have been exchanged by Egypt elsewhere in the Levant. Other imported timbers attested in the Old Kingdom include cypress [70], juniper [74-5], pine [74] and Cicilian fir [69], yew [90], box [68] and possibly hop-hornbeam [65].

Examining the relative frequencies of timber use in Dynastic Egypt, Davies highlighted the greater use of cedar as opposed to other imported wood types, suggesting that on balance ‘\( \hat{s} \)-wood thus probably referred to the more popular cedar wood rather than other coniferous timbers’ (Meiggs 1982:405-9, Davies 1995:149; contra Helck 1994). The cedar coffin of Idu from Giza [67] would also confirm this conclusion. Other scholars prefer to regard ‘\( \hat{s} \)-wood as a generic term for resin-bearing coniferous trees like cedar, pine, fir, juniper, cypress or yew, and that the precise type of timber being imported at any one time was determined by demand and availability (Andrassy 1991:133; Ward 1991:13 and references; Helck 1994). It is also possible that during the Old Kingdom the term referred to all imported coniferous timbers.
Byblos was probably the main entrepot for the coniferous timber trade, as the Admonitions of Ipuwer describe. This text, thought to outline events of the 1st Intermediate Period, states that

\[\text{...men do not sail forth to [Byblos] today. What shall we do for ‘s-wood for our mummies, with the produce of which priests are buried and with the oil of which [chiefs] are embalmed as far as Kefiu} (\text{Gardiner 1969:18, 32}).\]

In addition, some Egyptian expeditions may have been responsible for obtaining their own timber up and down the coast. A copper axe head (pl. 30) found at the mouth of the Adonis River just north of Byblos could have been left by an Egyptian timber expedition (Andrassy 1991:133). Rather than obtaining every timber cargo from Byblos, Egyptian emissaries may have dealt directly with the owner of timber stands along the coast from time to time, loading purchased timber at the mouth of waterways like the Adonis River (Wright 1988:146-7). These people may be the \textit{Fenekhu} (‘woodcutters’) who are described in Egyptian texts of the time (Helck 1971:23-4; Wright 1988:146-7 and references). Either way, obtaining timber from the mountainous regions of the Levant was undoubtedly a difficult and costly task for whoever cut the trees and transported them to the sea for shipment elsewhere (Rowton 1967:275).

7.2.8 Fruit-bearing trees and other timbers
The fruits of several trees not native to Egypt are known from Predynastic times. Many of these trees were eventually cultivated in Egypt, but in some cases it is not known when cultivation began. Whether various fruits were imported or locally grown at different periods also remains an open question (Murray 2000:614).

A wall relief from the late 5th Dynasty tomb of Ni-ankh-khnum and Khnum-hotep depicts the harvesting of fruit from several trees, including the \textit{prt-sni} tree, the only known Old Kingdom reference to this plant (pl. 43b) (Moussa and Altenmüller 1977:102, 111, fig. 15). From the illustration, this small tree yielded a petite fruit with medicinal properties according to Papyrus Ebers (Ebers 1889:240-52). The plant is yet to be positively identified with a known species, but it is assumed to have come from Byblos originally on
the basis of a statement in the same text (Ebers 1889:240; Moussa and Altenmuller 1977:102, n. 530; Kantor 1992: 20). Thus the species in the relief may have been imported as a tree from Byblos or grown in Egypt from seeds or cuttings that were sourced from that city. Another possibility could be the persea, a tree originally imported from Yemen and Ethiopia, the fruit of which also had medicinal properties and religious associations, and known as early as the 3rd Dynasty (Murray 2000:625-6). However, the accompanying inscription speaks of obtaining these products along with game, grapes and figs from ḫ3st, suggesting the 'mountain country' to Egypt's north east. The inscription may refer to the actual importation of trees, their products of even the harvesting of products in a foreign land (Moussa and Altenmuller 1977:111). Juniper berries are known in Old Kingdom burials [75]. It is also possible that the scene may represent the symbolic procurement of such products for funerary purposes (Germer 1985:40).

The same relief also depicts a prt-(w)n or juniper tree (Moussa and Altenmuller 1977:102, 111, fig. 15). A range of juniper species grows at different altitudes in the Eastern Mediterranean; although the tree is not native to Egypt, Juniperus phoenicia occurs in the northern Sinai (Amorós and Vozenin-Serra 1998:228-31; Serpico 2000:433). Juniper berries, according to Lucas, were present in Egypt throughout the Dynastic era, with their first appearance even before this (Lucas and Harris 1989:310-1; Serpico 2000:433). Lucas believed that a type of juniper berry was often used in place of the more expensive 'cedar' oil for mumification and funerary rites (Lucas and Harris 1989:311-2). In addition, berries from some species may have been imported.

Other imported timbers in the Old Kingdom are known from isolated objects. Cork wood from tropical Africa is also attested in the 3rd Dynasty and silver birch from the Caucasus may also be present (Gale et al. 2000:336-7). A wooden headrest was made of Common Box [68] from the 'hills of western Syria' (Gale et al. 2000:337).

From the Mortuary Temple of Djedkarre-Isesi a relief fragment describes 'mnlk'-tree logs, 30 cubits in length', the earliest mention of this wood (Grimm 1985:35-6). The reference occurs in association with the phrase 'overthrowing the foreign land', and toponyms identified as African, suggesting that the wood belonged to a list of tribute or
products procured from Nubia (Grimm 1985:37-8; Schneider 1998:20). According to New Kingdom texts, parts of the tree had medicinal properties (Grimm 1985:nn.29-30). This tree, not native to Egypt, was identified by Germer with the styrrax, known in the Eastern Mediterranean (*Styrax officinalis*) (1985:147), but this is a questionable attribution. Serpico describes the *Styrax officinalis* as a ‘small tree or shrub’ (Serpico 2000:437), hence it seems unlikely that this tree could yield logs 30 cubits long. Based on a cubit measurement of 52.5cm (Helck 1980:1199), this would make the logs nearly 16m in length, too big to be carried by donkey caravan. Rather, logs of this size indicate a sea trip, from a location beyond Egypt with timber resources that could be transported in this fashion. While it is possible that mknk-tree logs were sourced upriver, the Nile cataracts would have affected the passage of heavily-laden larger vessels (Shinnie 1991:49.50). This, however, was not always a barrier to overland and river transport.

7.2.9 Resins and other oils

Tree resin is obtained by tapping the bark of a tree and catching the escaping viscous liquid. Coniferous resins are ‘pale yellow in colour and translucent’ (Serpico and White 2000:430-1). Amongst the most prized resins were the aromatic varieties that were obtained from coniferous trees of coastal Syria and Lebanon, notably the fir and the pine (Serpico 2000:430-1; Murray 2000:430-1). Various resins were used in Egypt during mummification and other rituals, also for cosmetics, ointments, furniture varnish, incense, pitch and tar, and possibly adhesives (Gardiner 1969:32; Lucas and Harris 1989:316-24; Serpico 2000:430). Other imported resins are known from Predynastic tombs (Prag 1986:71; Serpico 2000:430). From the reign of Djer, Pinaceae resins from the ‘pine, cedar, fir and spruce’ were imported from northern Israel/Mount Hermon area (Serpico and White 1996:136-8, Serpico 2000:431; *contra* Lev-Yadun and Gophna 1992).

Oils and resins from Africa were also imported. The Palermo Stone records 80,000 units of myrrh from Punt during the reign of Sahure, the earliest recorded journey to this land (*Urk. IV*:246.4). Harkhuf returned from Nubia with oil and incense-resin (*Urk. I*:126.7 to 127.1-3), the latter probably fragrant frankincense or myrrh from Africa or Ethiopia (Serpico 2000:438-40).
Coniferous resins were also imported during the Old Kingdom (Lucas and Harris 1989:320). Two terms are known for ‘cedar’ or coniferous oil: ‘ṣ, and sfl (Helck 1971:25-27, Ward 1991:13). Numerous Old Kingdom inscriptions on the walls of tombs and on various objects mention ḥ3tt nt ḫnw or ‘best Libyan oil’ and ḥ3tt nt ‘ṣ, usually translated as ‘best cedar oil’ (see for example Kanawati and McFarlane 1993:57). Both of these oils belong to the standard list of seven sacred oils and are extensively mentioned in Old Kingdom offering lists (Barta 1963:48, 55-6, 73). ‘ṣ-oil is generally assumed to be from Byblos, largely on the basis of a statement in The Admonitions of Ipuwer (Gardiner 1969:32).

Lucas viewed ‘ṣ-oil as resin obtained either from the Aleppo pine (Pinus halepensis), Cilician fir (Abies cilicica), Stone or Umbrella pine (Pinus Pinea) or Oriental spruce (Picea orientalis) rather than cedar. He determined that ‘cedar…although it does produce resin when wounded, does not produce it readily or in great quantity…[therefore] cedar resin may be excluded’ (Lucas and Harris 1989:319). On the other hand, Serpico states that except for Abies cilicica it is otherwise impossible to separate chemically cedar resins from those produced by other members of the Pinaceae family (2000:445). Hence, on the current state of knowledge it may be more accurate to translate ‘ṣ-oil as ‘oil of the coniferous tree’ rather than the traditionally accepted ‘cedar oil’ (Ward 1991:13).

Few imported ceramic containers have had their residues tested: to date, only three imported Giza jars have had their contents or residues examined scientifically. Only two yielded any useful results. The study by Lucas of a 5th Dynasty jar [37] revealed the presence of ‘a small proportion of resins-like material’, but he was unable to be more definite (Hassan 1936:147). He tested another mid 4th–early 5th Dynasty vessel [25] and found that it contained:

* a fragrant resin, a true resin as distinguished from fragrant gum resins, such as frankincense and myrrh. It is almost certainly from a
coniferous tree, and from Western Asia, that is, from Syria or Asia Minor (Reisner and Smith 1955:75; Knapp 1991:30).

Lucas identified this resin as an example of ‘s-oil mentioned in Egyptian texts, probably from Abies cilicica (Cilician fir) or Pinus halepensis (Aleppo pine), and possibly mixed with a fragrant oil (Lucas and Harris 1989:319-20). Other vessels may have contained a mixture of resins and oils (Serpico and While 1996:132-3). Moreover, NAA revealed that this particular vessel came from Byblos (Esse and Hopke 1986:334; see Ch. 6).

Pinaceae resin, perhaps mixed with oil or perfume, was certainly one of the commodities imported from the Levant in ceramic jars during the Old Kingdom. Byblos was a coastal entrepot for this trade, although the Pinus halepensis is also known in Jordan and Israel (Serpico 2000:432-3). Pinaceae resin in a jar from northern Canaan points to northern Israel/Hermon, in the region of Tell Dan and Tell Te’o, as another source of this product as early as Djer’s reign, with Beth Yerah probably acting as a ‘clearing house’ (Serpico and White 1996:136-8; Ch. 2). Continuing in the Old Kingdom, this trade served as the rationale for Egypt’s on-going relationship with Beth Yerah, evidenced by the probable origin of at least three Giza combed ware jars from the region (see Appendix 1, Ch. 6.12). Further work is needed to isolate specific resin types, and more particularly to test the contents of imported Old Kingdom ceramic vessels.

7.2.10 Slaves and human cargoes
Several scholars have pointed to the possibility of slaves forming part of state-to-state trade with Egypt (Borchartd 1913:26; Anati 1963:350; Helck 1971:16; Ben-Tor 1986:10; contra Ward 1991:14). Cargoes of people are known to have arrived in Old Kingdom Egypt as prisoners of war, vanquished populations or a form of tribute from a foreign centre. While such influxes are only recorded in the textual and pictorial records, leaving no trace in material culture, such acquisitions must nonetheless be included in any discussion of foreign interconnections.
A number of texts describing military activity in Asia and Nubia refer to prisoners of war and/or people taken captive by Egypt (Schneider 1998:13-24). During military expeditions in Nubia and Libya Sneferu took 70,000 and 1,100 captives respectively (Urk. I:237:14; Urk. I:236:12; Vachala 1991:93-4). If they are to be believed as records of historical events, reliefs from a likely 4th Dynasty royal monument (Goodieke 1971:145-8) and those of Sahure and Niuserre (Borchardt 1910-3:pl. 1; Borchardt 1907:46-7, pl. 8-12, figs 63-5) suggest that large groups of captives included children, defeated chiefs and their families.\footnote{27}

Taking foreign captives from a walled Asiatic town is also depicted in Inti’s late 5th Dynasty tomb at Deshasheh (pl. 44a). The last register shows Egyptians leading away men, women and children (but no material booty) to an unknown fate from the defeated settlement (Vachala 1991:96-7). The late 5th Dynasty scene from the tomb of Ka-em-hesit at Saqqara depicts Egyptian military action against another walled town, but no captives are shown (Pl. 44b). The 6th Dynasty military activity of Weni describes taking many prisoners during his campaign against the ‘Sand dwellers’ (Urk. I:104:3; Vachala 1991:95-6; Redford 1992:54-5).\footnote{28} Also in the 6th Dynasty, Pepynakht brings prisoners from Wawat and Irthet in Nubia (Urk. I:133:14-5).

In contrast, a more peaceful arrival of human cargo during the reign of Userkaf is recorded on the Palermo Stone. The entry notes an ‘expedition’ by Userkaf to a place whose name ends in a crenellated oval but is otherwise unreadable, and the inhabitants of this locality bringing to Userkaf’s mortuary temple \textit{in(w)} of ‘seventy foreign women (\textit{h3sttwt})’ (Urk. I:240:3-4; Vachala 1991:95). Ultimately the precise source of this \textit{in(w)} is unknown (Andrassy 1991:134), although Redford would have it placed in Canaan, owing to the crenellated determinative denoting a ‘foreign’ town or region (1986a:136, n. \textit{an}). Redford suggests that the \textit{in(w)} (benevolence) behind this and other ‘gifts’ described in similar terms was in fact a form of ‘enforced gifts’ or ‘spontaneous tribute bringing’ from Canaan which, along with the acquisition of products, largely motivated Egypt’s relationship with the region (Redford 1986a:133, 140-1). However, the meaning of Old Kingdom \textit{in(w)} has been more plausibly defined as a specific kind of official gift, ‘an exchange between the
king and others that could be redistributed", suggesting that other, more benign interpretations, of the Userkaf text are possible (Bleiberg 1996:53).

As with wars throughout the ages, we can only assume that the taking of prisoners was part of Egyptian military victories and possibly one of the reasons for it. However, without understanding more of the political context of the relationship between Egypt and Canaan, if indeed Userkaf's inscription refers to the region, such exchange may still refer to a trade in slaves. Interpretations of this text depends heavily on the meaning of the word in(w), a debate which is by no means completely settled, although the more militaristic interpretation of in(w) as 'conqueror of...' is now rejected (Ogden 1982; Redford 1986a:135, n. ab).

The movement of peoples is also attested in other sources. The well-known scene from Sahure's funerary installation at Abusir depicts the apparent peaceful arrival of Asiatics to Egypt (pl. 45a). The same can be said for a similar scene from the Unas Causeway (pl. 45b). Harkhuf describes how in Year 2 of Pepy II's reign a dancing pygmy was brought from Punt and explains how this recalls a similar event under Djedkare-Isesi (Urk. I:128-131; Kadish 1966:26; Schnieder 1998:20). Evidently this acquisition was so much admired that not only did the memory of this pygmy live on for several generations, but Pepy II himself was desirous of owning one. The basis on which both Djedkare-Isesi and Pepy II acquired their pygmies was probably trade/exchange as there are no indications that these individuals were brought to Egypt by force on either occasion.29

7.2.11 Other products

Obsidian is a naturally occurring volcanic glass that from earliest times was traded extensively throughout Western Asia (Renfrew 1975; Torrence 1986). In the 5th-6th Dynasties, obsidian was used as inlay (Corteggiani 1987:58-9, no. 26) and for model vessels (Aston et al 2000:47; Verner 1978:159). In all documented uses of Old Kingdom obsidian the quantities would appear to be small, notwithstanding the uncertain identification in some older reports (see especially Firth and Gunn 1926:pl. 15A top row; Hassan 1941:12, figs 11 and 13c; Hassan 1943:157, fig. 110 lower right, pl. 44c;). Obsidian was probably imported from the hinterland of western Yemen on the
Arabian peninsula, or from a region on the Eritrean coast around the Buri peninsula and the 'northern part of the East African Rift Valley in Ethiopia' (Zarins 1989:367; Aston et al. 2000:46; Bavay et al. 2000). Like lapis lazuli, there appears to have been a hiatus in supply during the early 3rd millennium (Zarins 1989:367; Aston et al. 2000:47). Obsidian in the Delta may have come from sources in the north, but this is untested (Dixon et al. 1976:figs 15.8, 15.13; Wenke et al. 1988:27-8; Bavay et al. 2000:19). 5th and 6th Dynasty expeditions to Punt and Nubia may also have obtained obsidian either directly or via down-the-line trade (Vercoutter 1988:15).

Hennessy has pointed to the possibility of traded bitumen (asphalt) from the Dead Sea during the EBA (Hennessy 1967:60), but no firm evidence exists (Serpico 2000:454-5). Foodstuffs such as legumes and moringa oil (perhaps mixed with other oils or herbs) may have been imported (Ward 1991:14-5; Serpico and White 1996:132-3), but again no evidence is known (Lev-Yadun and Gophna 1992). Salt from the Dead Sea could have been another product.

7.3 Egyptian Exports
It was noted earlier (Ch 7.1) that a lack of scientific evidence plagues research into Egyptian commodity exports. The following section draws together what slender literary and archaeological evidence has survived to shed at least some light on this side of the commodity exchange ledger. The situation is more promising for manufactured goods, and these Egyptian exports are considered in the next chapter.

7.3.1 Raw stones and shells
Alon points to a trade in raw stones and shells during the Chalcolithic, and this may have continued at a low level for centuries (Alon in press). In relation to the Old Kingdom/EB III, the possibility of Egyptian stone as a commodity has not been examined, although debate has occurred in relation to 3rd and 2nd millennium stone vessels in Mesopotamia and Crete (Potts 1989:123; Warren 1991:297). However, a piece of raw turquoise from Tel Yarmouth points to such a trade (Ch. 4.9.5) in the EB III. In addition to stones, imported Red Sea shells include *dentalium*, mother-of-pearl
and possibly Red Sea Spider Conch or Scorpion shell [96]. These materials may have come directly from Egypt or down-the-line via Sinai networks.

A number of Egyptianising palettes found in EB III Canaan are manufactured from stones that are, on the present state of knowledge, not found in Canaan. But the palette shapes lack strong Egyptian parallels, thereby suggesting a local product. For example, psammatic slate was used for palettes from EB II Tel Yarmouth (Reg. C.12276-1, Sowada in press). This stone is found in

'...southern Sinai Peninsula (Wadi Kid region of SE Sinai and Wadi Sa'al-Zrara areas of southern-central Sinai), ... the Central and Southern-Eastern Desert of Egypt ... [and] the Midain region of Arabia' (A. Shimron, pers. comm. 2/4/98).

From Stratum G2-A at Tel Yarmouth, dating to the EB IIIC, a large palette of felsic tuff or quartzo-felspathic siltstone was identified (Reg. C.10157-1, Miroshchedji 1999:12; Sowada in press). Again this stone is known not in Canaan but in the Eastern Desert in Egypt, Arabia, the southern Sinai Peninsula and the Sudan (A. Shimron, pers. com. 2/4/98; Sowada in press). A rough mica schist palette from Bab edh-Dhra (Schaub and Rast 1989:455, fig. 261:6) again may reflect a local object made from a non-local stone or an imported type. Mica schist is found in the Egyptian Eastern Desert and was used for making small objects (Aston et al. 2000:45).

Calcite and other hard stones may have also been imported to Canaan for machead production, but again the question of whether these materials are actually Egyptian arises (Braun 1993:124). The lack of relevant Old Kingdom settlement material hampers an assessment of these everyday objects (Giddy 1987:198). Likewise, carnelian is widely regarded as a material found in Egypt and not Canaan (see Aston et al. 2000:26-7), however, the presence of carnelian nodules in the wadis of Jordan (Broeder pers. Comm. 28/9/99) means that a local source of the stone is likely.
7.3.2 Gold

Egypt had abundant gold sources, located in the Eastern Desert, Upper and Lower Nubia (Lucas and Harris 1989: 224-8 with references; Ogden 2000:161). It was mined and used extensively as a luxury product from Predynastic times onwards (Ogden 2000:161). During the Old Kingdom, the ‘gold of Koptos’ in the region of the Wadi Hammamat was the most likely source of bullion (Ogden 2000:161).

No textual evidence exists for the Egyptian export of gold during this time. Nevertheless, in light of the country’s great resources and its later role as a net gold exporter, it is a strong possibility that gold was exchanged with Levantine elites to help pay for what Egypt imported from the region (Ward 1963:56; Ben-Tor 1982:13; Marfoe 1987:27). Indeed, royal gifts of gold to foreign rulers are well known from the Ebla texts and the Amarna letters (Pettinato 1991:248-9, MEE 1 no. 700; Moran 1992:19-20, EA10), although the suggestion that Egyptian ships came to Byblos with gold for Ebla (Pettinato 1991:113) lacks any textual or archaeological foundation.

To establish whether Egyptian gold was exported, we must rely largely on typological analysis to isolate possible cultural influences and origins of specific objects. However, this avenue of investigation is fraught with difficulties. Firstly, as gold objects rarely escape the melting pot over time, only small quantities have been found in Canaan (Ben-Tor 1982:13). Secondly, gold as a raw material may have been imported from one region and fashioned into objects bearing the stylistic influences of another. A more promising avenue of research is elemental analysis using recently developed technologies to identify gold ‘fingerprints’, which could pinpoint gold sources and thus help illuminate ancient trading patterns (Waltin et al. 1994).

Isolated amounts of gold have been found in Canaan. A bead comes from Lachish (Tufnell 1958:73, pl. 29.17 – broadly dated context from EB I-III) and a piece of gold leaf jewellery was found in the EB II/III Charnel House A22 at Bab edh-Dhra (Rast and Schaub 1980:39). The radiating leaf pattern recalls similar designs from Early Dynastic stone vessels from Saqqara (Petric 1900:pl. 38.1-2; Emery 1961:pl.33b, 39a). The possibility that such objects came from Egypt as luxury traded items during this time is
possible (Ben-Tor 1992:119); conversely gold as a relatively rare precious metal in Canaan probably had a significant ‘heirloom value’, with objects passed down from one generation to the next.

7.3.3 Egyptian foodstuffs and oils

Evidence for the export of Egyptian foodstuffs during the Old Kingdom is scanty, making scholarly consideration of the issue highly speculative (contra Ben-Tor 1986:10).

Egypt may have exported grain but again no Old Kingdom textual or archaeological evidence is known. However, as the text from Sabni’s Aswan tomb from the 6th Dynasty illustrates, foodstuffs were included in trading missions. The inscription describes Egyptian goods of a perishable nature, such as honey (Urk. 1:136.5). A bee keeping scene from the 5th Dynasty Sun Temple of Niuserre shows that bees were kept in Egypt by the late 5th Dynasty (Serpico and White 2000a:410), hence high quality honey could have been a gift exchange or trade item in the Levant. Indeed, the discovery of an Egyptian jar, designed to hold a liquid product like honey or oil, at EB III Bab edh Dhra [104], suggests that Egyptian liquid products travelled not just to Nubia with Sabni but also to the Levant. It is possible (but entirely unattested) that high quality Egyptian bee’s wax was also traded. Sabni also mentions mrht-oil (Urk. 1:136.5), the identity of which is not known.

7.3.4 Animal products

The appearance of hippopotamus ivory in EM II Crete (Ch. 5) points to a possible down-the-line trade in ivory products from Egypt (Krzyszowska 1984, 1988; Phillips 1996:459-60). However, hippopotami were also known swampy areas from Syria/Palestine (Krzyszowska 1990:20), so local supplies were certainly available for exchange in the Eastern Mediterranean and for use in local workshops. Ostrich shells are also known in the Levant during this time (e.g. Reese 1992:155), but as ostriches were known in Jordan (Reese 1985:374-78), the products of this bird cannot be assumed to have come from Egypt.
Harkhuf brought back elephant ivory and leopard skins from Yam, which may have been traded by Egypt in the Eastern Mediterranean (Urk. I:126.7 to 127.1-3).

7.4 Conclusion

The above discussion highlights how much scientific work remains to be done on the precise nature of the Egypt-Levantine commodities trade. The insufficiency of relying solely on visual inspection of an object, or the literary record, means that debate on the commodities trade often lacks a secure and verifiable scientific basis. Further residue analysis and raw materials testing are required on virtually every commodity that may have been imported or exported. Notwithstanding these remarks, it is still possible to characterise aspects of the Old Kingdom/EB III commodities trade.

The Egyptian commodities trade had three principal geographical focii: the north Levantine coast, northern and southern Canaan. The most important of these links was Byblos and the coastal region around this city, connections that stretched back to the 4th millennium, but which gained real momentum in the Early Dynastic Period. Canaan continued supplying Egypt with commodities, but previously strong links in the EB Ib weakened as the ‘Byblos run’ increased in importance at the beginning of the 3rd millennium BC.

Coniferous timbers and their by-products were the key commodities that continued attracting Egypt to the Levantine coast. This sea borne trade is attested as early as the EB Ia/Naqada IIc-d, and possibly earlier. At the dawn of the Early Dynastic Period, large-scale timber imports for royal construction projects began, continuing for much of the 3rd millennium BC. As the entry for Sneferu on the Palermo Stone indicates, this trade was conducted on a large scale and was state-sponsored.

Textual and archaeological evidence from the 4th Dynasty highlights the quantities of these shipments and the various uses to which imported timbers were put, including shipbuilding, construction and decorative architectural elements. Indeed, the 4th Dynasty may have witnessed the zenith of the sea-borne timber trade, but this conclusion would require testing against a larger body of material. Imported timbers
were also used for making coffins, statues and other small objects throughout the Old Kingdom.

The most common foreign timber in Egyptian texts is 'ṣ'-wood, which was imported in significant quantities and used for shipbuilding and other items. Limited analysis of Old Kingdom wooden objects indicates that cedar was the most common imported timber, and therefore may be 'ṣ'-wood, but the coniferous timber trade also embraced pine, juniper, fir, yew and cypress. Hence, the term may refer to coniferous timbers generally. Other timbers such as box are also known in small quantities. To date, only limited scientific identification of Old Kingdom timbers has been conducted; further work is required to more fully understand the use of the timber in Egypt, including the extent to which imports filtered beyond the king and his circle.

Byblos acted as an entrepôt, but Egyptian agents may have obtained wood directly from those owning or controlling timber stands along the Levantine coast. Other foreign timbers such as mnḫ-tree wood, mrw-wood and ebony from Nubia were also imported. Pictorial evidence also suggests that species of live trees foreign to Egypt, such as the prt-sni tree from Byblos and juniper (Juniperus phoenicia) from the Sinai, may have been imported and cultivated in Egypt. The medicinal properties of the fruit, in addition to their use in mummification, required a steady source of produce. Yew was also imported in small quantities from the Levant.

Coniferous tree resins and perfumed oils were also imported in ceramic jars from the reign of Djer onwards. Egyptian texts describe the products as 'ṣ, and sff-oil. The terms probably refer generically to resin from coniferous trees. The base product was probably Pinaceae or fir resin rather than the traditionally accepted cedar oil. During the Early Dynastic Period, the Galilee and northern Canaan/Mount Hermon region via Beth Yerah were the focus of this trade. By the Old Kingdom, these products came from Byblos as well, resulting in the decline (but not total cessation) of the northern Canaan resin network. NAA shows that one Old Kingdom imported jar with fragrant resin came from Byblos; PIXE-PIGME results reveal that jars containing products from northern
Canaan continued arriving in Egypt. Oils and resins from Nubia, including myrrh, were also sought.

The ceramic jar from Giza [55] originally from northern Syria/Cilicia, indicates that Egypt sourced oils, resins or perfumes from the furthest reaches of the northern Levant, either directly or down-the-line. This pattern of exchange included Ebla, a focus of Egyptian interest owing to its position as an entrepôt for lapis lazuli and silver. Silver may have been used as a means of exchange elsewhere rather than obtained exclusively for the production of objects in Egypt, for which locally extracted silver may have been used. The extent to which the silver and lapis lazuli trade was conducted directly with Ebla is unknown, as either Byblos or Ugarit may have served as exchange centres. However, the presence of stone vessels at Ebla with royal names suggests that like timber, networks with Ebla did exist, and were state-sanctioned.

Live animals, animal products and plants were also obtained. From at least as early as the reign of Sahure, the Egyptian elites sourced exotic animals from the northern Levant for royal menageries. Animal products such as skins and elephant ivory were imported from Nubia. Hippopotamus ivory was also traded in the Eastern Mediterranean, finding its way to Crete and probably elsewhere. Exchanges between rulers, and war booty, also involved live animals such as cattle.

A trade in people is known from the textual evidence and wall scenes, but care should be taken in describing this as slavery. Captives and prisoners of war in large numbers are attested in inscriptions as early as the reign of Sneferu, and again in the 5th and 6th Dynasties. As to whether the arrival of a 'royal benevolence' consisting of seventy women from an unknown region occurred as a result of an enforced gift or other exchange must remain an open question. Indeed, it is uncertain whether the region involved was even located in the Levant. Dancing pygmies from Punt were brought back to Egypt for the enjoyment of the king during the reign of Isesi and Pepy II.

The products of Canaan were still in demand during the Old Kingdom. While coniferous resins arrived in Combed Ware jars from northern Canaan via Beth Yerah,
the quantities were greatly reduced when compared to this trade in the Early Dynastic Period. Olive oil or other oils may have been imported from southern Canaan in Combed Ware jars. Early Dynastic imported jars contained traces of vegetable oils, but no residue analysis has been conducted to confirm the presence of such products in Old Kingdom imported ceramics. However, the association of Combed Ware jars with an olive oil production installation at Ras Shamra points to the use of at least some jars for olive oil transport. The wide extent of olive cultivation in EBA Canaan, combined with NAA results pointing to an origin in southern Canaan for at least four Combed Ware jars from Giza (Ch. 6.11), provides compelling circumstantial evidence for an olive oil trade, or other oils such as moringa, or a mixture of oils and perfumed resins. By the Old Kingdom, grape cultivation was well established in Egypt, so demand for imported wine may have decreased, although special vintages may have still been obtained. Other products such as asphalt and salt were possible imports, but no evidence is known.

In all likelihood, copper was also obtained from the Wadi Feinan, as it had been from earliest times. This is suggested by the presence of Egyptian objects in EB II and EB III deposits at Bab edh-Dhra and Numeira. Again, a program of testing Old Kingdom copper objects and residues is required to confirm this conclusion. Archaeological evidence from the Sinai also indicates that Egypt was exploiting the copper resources at Wadi Maghara, in addition to turquoise. In addition, local sources near Gebel Zeit were exploited during the early Old Kingdom at least. Textual evidence for cult objects of ‘Asiatic copper’ points to a precious metal that ranked in rarity and value behind silver or gold. The precise identity of this material is unknown, but this metal was possibly imported bronze from northern Syria or imported copper from the Feinan.

Characterising Egyptian exports is difficult. Manufactured goods such as palettes, faience beads, and stone vessels are easily identified ‘exotica’ and were probably traded and given as gift exchange, diplomatic presents or keepsakes (See Ch. 8). Honey and *mwt*-oil, known from Sabni’s caravan, leave no trace in the archaeological record, and yet textual evidence points to their exchange by Egypt as a diplomatic gift. Gold may have been exported, but no real evidence exists without further analysis of gold objects from the Levant. Palettes from EB III Canaan have been examined petrographically,
showing that Egyptian and Sinai stones were used in the production of objects. This may suggest an export of Egyptian raw stones, but it is also possible that these were Egyptian finished goods of a type not widely known from Egypt at the time. Other exported raw materials include Red Sea shells and turquoise via Sinai networks. Carnelian may have been obtained from local wadis rather than directly from Egypt in every case.

The commodities imported and exported by Egypt fit into the pattern of 3rd millennium state-to-state gift exchange, trade and war booty, highlighted in the fragmentary Egyptian textual record, the Ebba texts, and records from southern Mesopotamia. Trade involved the exchange of luxury items such as gold, silver and other metals, lapis lazuli, exotic timbers, resinous oils and perfumes, raw stones, exotic foodstuffs, animals and people, to provide elites with high-status goods not available locally.

Endnotes

1 In later times, the Egyptian term Tfrrt was used to describe the place from which the Egyptians obtained the stone (Aston 1994:72). As some ‘lapis lazuli’ in early Egypt may be a similar looking stone called lazulite, only scientific testing of objects can put actual provenance beyond doubt (Aston et al. 2000:39). No such study on lapis lazuli objects from the Old Kingdom has been conducted.

2 For example, the Amarna letters record lapis lazuli, including a finished object, sent by Egypt as a royal gift to a foreign ruler (Moran 1992:19-20, 29, EA10 and EA14).

3 No such raw materials have been found in Old Kingdom Egypt. However, blocks of raw lapis lazuli in addition to finished objects were found in the famous Tod Treasure dating to the 12th Dynasty (Bisson de la Roque 1937; Shaw and Nicholson 1995:291; Warren 1995:12-3); blocks of the stone are also illustrated in the 18th Dynasty tomb of Rekhmire (Aston 1994:72).
4 Without any evidence, Ward suggests that surplus copper obtained by Egypt was on-sold at Byblos to acquire other products (Ward 1963:56).

5 Identification of the word as 'Asiatic copper' is based on the use of the same determinative for copper here as used elsewhere (Posener-Krieger 1969). The issue of whether Ṣṭḥ should be read as 'Asia', or a region closer to Egypt, such as the Sinai, has been canvassed in Ch. 2.5.1. However, by the 5th and 6th Dynasties Ṣṭḥ probably had a wider geographical meaning (Redford 1986a:139; Ward 1991:12).

6 A ewer and basin from the 2nd Dynasty tomb of Khasekhemwy had tin levels of 7.9% and therefore could be regarded as bronze, albeit of potentially accidental production (Odgen 2000:153).

7 A lead model hawk from Grave 721 at Naqada, dating to Naqada II, had a high silver content indicating an origin beyond Egypt for this object. This shows that exotic metals were sourced abroad from an early time (Gale and Stos-Gale 1981:115).

8 Lucas suggests that Egypt may have had small local silver deposits that are now exhausted (Lucas and Harris 1989:248).

9 Gale and Stos-Gale also suggest that the earliest term for silver, Ṽḥw ḫḏ, 'white gold' shows that the Egyptians 'regarded gold and silver as two forms of the same mineral, distinguished by their colour' (1981:113).

10 See also the wooden cylinder seal with the name of Khafre, covered with silver foil (Reisner 1931a:104, 234, Pl. 64.1).

11 Again, the later Tod Treasure shows that silver ingots, in addition to finished objects, were exchanged across long distances (Shaw and Nicholson 1995:291, photo).

12 Another depiction of a bear was reported on the Unas Causeway, but these could not be found by the writer on examination of the publication and extant blocks on the Causeway (Hassan 1955:138; Smith 1965: 8).

13 The olive tree is not attested in Egypt until the Middle Kingdom, where evidence has been found amongst plant remains at Memphis (Krauss 1999:294).

14 However, the basis upon which Ward states that 'olive oil was used very little in Egypt [during the EB]' is unknown (1991:15).
15 The possibility of olive oil imports at Maadi has been suggested but never substantiated (Finkelstein and Gophna 1993:13).

16 The significant quantity of imported wine jars in U-j’s tomb indicates that Levantine communities were capable of manufacturing and distributing surplus commodities on a large scale as early as the EB Ib (Ch. 2).

17 Nibbi takes this argument one step further by attempting to reduce the importance of the timber trade and therefore the role of Byblos in Egypto-Levantine relations in the 3rd millennium (see Nibbi 1994, 1996). Few scholars support her contention that kbn was not Byblos, and that Egyptian coniferous timber-getting was focused on local resources.

18 See for example the timber descriptions in Junker 1926:75, Firth and Gunn 1926:12 and Kamal 1937.


20 Lehner suggests that large doors to the valley temple of Chephren (now gone) may have been made of cedar (1997:126).

21 The colour in this instance might describe cedar as opposed to fir or pine.

22 For example, many wooden statues are known from the period, but few publications identify the species of wood used (e.g. Smith 1946:58-61).

23 Gardiner notes, however, the difficulty in reading the word ‘Byblos’ and follows Sethe’s interpretation (Gardiner 1969:33). For a contrary view on the dating of this text, see Lichtheim, who places it in the late Middle Kingdom. She also disputes its historical basis (1973:149-50).

24 Other plants appearing in this wall relief are a grapevine and a fig tree, both of which were cultivated locally (Murray et al. 2000:577; Gale et al. 2000:340). Judging by its size and the harvesting method, the fig tree here is a sycamore (Ficus sycomorus) (Hepper 1990:58-9).

25 Harkhuf mentions ebony wood as a product from Nubia in his returning caravan (Lichtheim 1973:26).

26 In respect of the Pinus halepensis, Meiggs states that the wood of this tree ‘is not strong; today in many areas it is valued most for the resin it supplies’ (1984:44).
27 The same reliefs on the monuments of Pepy II are copies of the Sahure illustrations and are disregarded as evidence for an actual military campaign (Schulman 1979:88-101; Gaballa 1976:23).

28 This and similar moves by Egypt are regarded by some scholars as having contributed to the de-population of the region which occurred during the EB IV (Richards 1980:1-11).

29 In the case of Djedkare's official we are told he was 'treasurer of the god'. Harkhuf did not have any military titles, described rather as 'governor of the south' and 'caravan conductor' amongst other things (Urk. I:120). These, at least, were not military expeditions, even though the army formed part of the caravan contingent.

30 It should be noted that these provenance studies are based on analyses of obsidian from other periods, not the Old Kingdom (Zarins 1989:367; Aston et al. 2000:46-7).

31 The debate surrounding the gold objects in the EB II Kinneret tomb is a good example of this (see Mazar et al. 1973).

32 Ward notes that later Egyptian texts mention the export of 'cereals and various fruit and vegetables' (Ward 1963:56).
CHAPTER 8

THE TRADE IN MANUFACTURED GOODS

8.1 Introduction
Archaeological and textual evidence shows that both raw materials and manufactured goods were exchanged in the Eastern Mediterranean during the EB III. Imported Egyptian objects also inspired a local class of ‘Egyptianising’ artefacts designed for local consumption.

This chapter discusses the various classes of imported manufactured goods found in the EB III Levant. It will be seen that very few manufactured goods of foreign origin are found in Egypt (apart from ceramics), yet Egyptian products such as palettes, stone vessels and beads are widely known in Canaan, the Aegean and the northern Levant. Owing to the durability of the material, these pieces have survived, unlike perishable commodities. Some of these objects are also attested in the textual record.

In addition, various classes of Egyptianising manufactured items are known, and the reasons for the production of these objects will be canvassed. It will be argued that Egyptian manufactured items, largely objects of a luxury nature, were widely exported as trade items, gift or diplomatic exchange, although the distinction between these categories is sometimes hard to define.

8.2 Stone Vessels as Egyptian ‘exports’
8.2.1 Some observations on Old Kingdom stone vessel production
For many years, Old Kingdom stone vessel studies have relied on the work of Petrie (1937), von Bissing (1904-7) and Reisner (1931a, 1932, 1942; Reisner and Smith 1955:90-102). However, a series of recent works adds significantly to our understanding of the use and development of stone vessels (el-Khouli 1978; Spencer 1980:18-23; Aston 1994; more generally, Lilyquist 1995; Lilyquist 1996; Sparks 1998). These studies concentrate on typological development, distribution, manufacturing techniques and the accurate identification of stone types.
Reisner’s typological study is still the main reference text, but even this work focuses mainly on the 1st-4th Dynasty, with the addition of some 5th Dynasty material (Aston 1994:76-7). Although his work is not without its problems (Aston 1994:76-8), Reisner demonstrated that Old Kingdom stone vessel production belongs to a tradition of craftsmanship stretching back to Naqada IIc (ca. 3400 BC) (Reisner 1931a:130-199). Like pottery, it is possible to chart typological changes and the use of different stones through time (Aston 1994), although sadly any statistical work using the vast quantities of stone vessels found in repositories like the Djoser Pyramid is now almost impossible owing to the inaccessibility of the material.

Notwithstanding these problems, several observations can be made about stone vessel production during the 3rd millennium which bear on the identification of Egyptian products abroad. Firstly, the 1st–2nd Dynasty is characterised by use of a greater variety of stone types (particularly hard stones), shapes and overall, higher quality vessel production (Reisner 1931a: 131, 138; Ben-Dor 1945:93; Spencer 1980:18-9; Aston 1994:27, 47). Output also increases, with a greater number of even modest burials containing stone vessels (Reisner 1931a:7). The reign of Khasekhemwy marks a new phase of expanded output that continued until the end of the 3rd Dynasty (Reisner 1931a:138). Great stone vessel deposits from the 3rd Dynasty funerary monuments of King Djoser and Horus Sekhemkhut characterise the scale of production from this era (Lauer 1939:6-34, pls 6-19; Goneim 1957:pls 29, 34B, 35).

Reisner claimed that stone vessel production declined in quantity and quality during the 4th-6th Dynasties, attributing this to the widespread use of the potter’s fast wheel, capable of quickly making large quantities of fine ceramic forms previously manufactured in stone (1931a:174). However, as the Egyptian corpus at Ebla, Byblos and elite contexts in Egypt shows, stone vessels for high-level consumption were still well-made and of superior standard (léquier 1933:28-33; Minault-Gout et al. 1992:81-3, 107-14, pl. 35-40; see also Ch. 5.3, 5.5).

Secondly, noticeable in the Old Kingdom is a change in the range of shapes and number of stone types used. Craftsmen adopted a monochrome palette of black, white and grey by using white limestone (both soft and indurated), porphyry, syenite, gneiss, diorite and especially calcite (Reisner 1931a:174-82; Sparks 1996:53). Egyptians called the
latter deserve in the modern literature it is erroneously described as alabaster (Ben-Dor 1945:95; Lucas and Harris 1989:413; Harrell 1990; Aston 1994:1-2, 43, 48-51; Sparks 1996:52-3). 'Chephren diorite' or anorthosite (or diorite) gneiss appears in the 4th Dynasty, made into fine bowls with everted rims, and a limited number of other forms (Aston 1994:62-4). The 5th Dynasty witnesses the introduction of new shapes (Reisner 1931b:202). Many tombs contain larger numbers of model stone jars rather than a suite of full-size hard stone examples.

Problematically, insufficient geological knowledge has resulted in the incorrect identification of stone types, and other finds wrongly ascribed as Egyptian in origin, when they should be identified as Egyptianising or even totally non-Egyptian (Aston 1994:1; Lilyquist 1996:136). The identification of ancient quarries and stone sources is helping clarify the origin of many vessels, especially when they can be examined petrographically (Aston 1994:11-73; Lilyquist 1996:136-43).

For example calcite/travertine differs from alabaster (or gypsum) in several key respects. Firstly, calcite a strong, crystalline version of calcium carbonate with a Moh’s hardness of 3-3.5, often yellowish in colour and with a banded appearance. Calcite occurs in Egypt in a variety of locations, notably near Helwan and at the famous Hatnub quarries in Middle Egypt (Lucas and Harris 1989:59-60; Aston 1994:44-5). According to Ben-Dor, it is not known ‘in workable deposits in Syro-Palestine’ (1945:95; Bourke et al. 1994:93).

Gypsum is a form of calcium sulphate that is often mistaken for calcite in the literature. It is whiter and can be scratched with a fingernail [Moh’s 2.5] (Ben-Dor 1945:94-5; Lucas and Harris 1989:57, 413; Sparks 1996:53). The stone is known in Canaan (and also Egypt), which in the 2nd millennium formed the basis of a local stone vessel industry with strong Egyptian antecedents (Sparks 1996:53). As a result, scholars have tended to regard many 2nd millennium calcite vessels in the Levant, when made using Egyptian stone working techniques, as being of Egyptian origin (Sparks 1996:56; contra Lilyquist 1996:145-6). However, in a recent survey of known quarries in the eastern Mediterranean, Lilyquist demonstrated that calcite deposits were more widespread than previously thought, hence not every calcite object may be
Egyptian (1996:140-1). Indeed, in recent years deposits of banded calcite have been identified in Canaan (Lilyquist 1996:140).

A number of Old Kingdom stone vessels bear royal inscriptions, primarily king’s names and epithets, a tradition which began in the Early Dynastic Period (Petrie 1900:pl. iv-ix; Petrie 1901:pl. viii; Jéquier 1936:fig. 6; Lacau and Lauer 1959). The burial equipment of many senior Old Kingdom officials also included stone vessels carved with their names and titles, but tomb robbing means that few examples exist.² A significant quantity also comes from temples associated with royal funerary complexes (e.g. Reisner 1931a:178-99; Jéquier 1929:fig. 94-5; Jéquier 1933:28-33).

Complete and fragmentary stone vessels, particularly those with royal inscriptions, acquired particular value that saw many kept and re-buried at a later stage (Ward 1991:13).³ An example of the historical retention of stone vessels or fragments inscribed with the names of past kings is found in Djoser’s Step Pyramid, where a number were recovered within it passages (Firth and Quibell 1935-6: pl. 88; Lacau and Lauer 1959; Stevenson Smith 1971:156). Burial of this material appeared to be a deliberate, politico-historical act to associate and therefore legitimise Djoser with past rulers by establishing ‘dynastic continuity’ (Baines 1995b:131-2). The same phenomenon was also observed at the Mycerinus Temple (Reisner 1931a:179). Some stone vessels at the Mycerinus Temple are typologically much earlier than the reign of that king, indicating that this building functioned as some sort of stone vessel repository (Reisner 1931a:180, 199, 201). The same can be said for stone vessels in Sahure’s funerary complex, and also Niuserre and Neferirkara (Reisner 1931a:199-200).⁴ These repositories of antiquated stone vessels existed ‘for the funerary service of [the] royal tomb’; in Reisner’s view they represented ‘an attempt to construct for the king’s tomb a set of these old forms which had, by tradition, been placed in tombs since Dynasty 1’ (Reisner 1931a:199, 201).

Indeed, Schulman observed that there

is no non-royal individual in pharaonic Egypt who owned an object inscribed only with a royal name… excluding those instances …where
there was a royal name accompanied by the statement 'given as a favour from the king, himself' (1979:94).\textsuperscript{5}

While systematic excavation of as yet undiscovered Old Kingdom tombs may yield more exceptions, the general absence of vessels inscribed only with royal names from non-royal contexts indicates that they were not intended for general circulation. As Schulman suggested, a

'royal name implies a royal provenance and a royal ownership... the vessel so inscribed came from a royal magazine or storehouse' (1979:94).

8.2.2 Egyptian copies of foreign shapes
Stone vessel production centres were located in Egypt, Crete and Mesopotamia (Reisner 1931b; Warren 1969; Potts 1989). In Canaan, a large-scale fine stone vessel working industry did not arrive until the 2nd millennium BC, and even then the technology focussed on working softer, locally available stone types (Sparks 1996:56). Hence, 3rd millennium Egyptian stone vessels found in the Levant are easily identified owing to the combination of shape, material and technology (Ch. 1.5.1). The exception is stone vessels found in Crete, about which considerable debate exists as to their Egyptian or local origins (Vercoutter 1954:47-52; Warren 1969; Pomerance 1991; Lilyquist 1996; Warren 1995).

From the Early Dynastic Period, stone vessels for local consumption appear in a small number of shapes clearly imitating foreign ceramic vessels (Möllers and Scharff 1926:39, pl. 23.206; Aston 1994:124-5). Limited quantities of larger calcite one-handled jugs are known from 1st-2nd Dynasty tombs (Lacau and Lauer 1959:pl. 10; Aston 1994:124-5), imitating Abydos Ware ceramic jars. Although the stone types are made in Egypt, they probably intended to magically provide for the deceased the exotic pine resins and vegetable oils contained in imported ceramic types (see Serpico and White 1996:136-7; see also Ch. 2.3.6). Some illustrations of one-handled jars in Egyptian tombs also represent stone versions (Balcz 1934:fig. 118.1).
Calcite and limestone one-handed jugs were manufactured throughout the Old Kingdom both as full-size and model vessels (Firth and Gunn 1926:26, fig. 20:7; Lauer 1939:fig. 1, pl. 13.2, 16.1-2, 17.12, 18.6; Reisner 1942: fig. 245; Reisner and Smith 1955:pl. 34a, 95-6; Aston 1994:124-5, 133). Extant examples are relatively few in number; perhaps their small quantity means that such objects were highly prized by tomb robbers for their shape/material or contents.

Egyptian-made stone vessels in other foreign shapes are even rarer. A large calcite jar from the south Saqqara burial complex of Pepi II, so far without known parallel, imitates a Combed Ware jar (Jéquier 1936: fig. 6, top right). Schematic combing is shown by means of three groups of raised horizontal bands across the body, while the king’s name and titles are incised just below the neck. The jar was found with a collection of other large quality calcite vessels of a different shape, and each bearing the name and titles of the king incised horizontally and vertically over the surface. What is possibly a model 5th Dynasty Combed Ware jar came from Giza Tomb G 4733E (Reisner 1955: 98, fig. 144).

A small quantity of other Egyptian copies of foreign shapes is known, but not in Egypt. Two green lapilly tuff fragments from EB IIIA Tel Yarmouth, undoubtedly from the same bowl, are Egyptian imports [115-6]. The shape is unknown in Egyptian pottery, but known from ceramics of EB II-EB III Canaan. The closest stone parallel in Egypt is a 3rd Dynasty bowl with an inverted (but not flattened) rim (Garstang 1904:pl. 8.4). The unusual Egyptian stone, lapilly tuff, could place the vessel in the Early Dynastic Period, but the absence of any parallels in Egypt for the shape pre-dating the 3rd Dynasty points to the 3rd-early 4th Dynasty. The closest stone parallel elsewhere is the bowl from Ai [130], which Amiran describes as an Egyptian imitation of a Canaanite type (Amiran 1970a:177). Amiran also rightly suggests that the segmented jar with a vestigal handle [121], found in the Ai Sanctuary, is likewise an Egyptian copy of an EB II Canaanite ceramic vessel (Amiran 1970a:172). Less persuasive is her suggestion that the zoomorphic vessel, which has good Early Dynastic and later parallels, was likewise ‘made to order’ (1972:13).
The absence of any such bowls in Egypt in either stone or ceramic suggests that the Tel Yarmouth and Ai bowls and segmented jar were made by Egyptian craftsmen, probably in Egypt, and given with its Canaanite recipients in mind (Amiran 1970a:177).

8.2.3 Stone vessels at Byblos and their significance

The in-context Egyptian stone vessels from Byblos form an unusual group. They were found in three different locations, with the majority excavated from an elite residence or palace [143-61] (Saghieh 1983:36-7). Of these, the earliest ‘signed’ stone vessel dates to the reign of Sneferu or Cheops [144], but it was found alongside Early Dynastic and 6th Dynasty objects. As a result, the earlier types cannot be taken as definitive proof of official contact with Byblos during the Early Dynastic Period or early Old Kingdom, as they may have arrived at the site through tomb robbing or as a later traded item or gift. However, the sea-borne heavy timber trade had begun in the 1st Dynasty so such objects may have arrived in context (see Chs 2 and 7.3.7).

A range of stone types are present in the corpus, with calcite the most common. The shapes also vary, with the majority comprising open types such as ornamental vessels, bowls, models, offering tables or platters, rather than jars which might have been used as containers (on this, see Potts 1989:146). The similar shapes are known at Ai, Ebla and Tel Yarmouth.

At Byblos, a significant number were also inscribed with names, titles or designs associated with royal inscriptions, with names present including Hetepheres [144], Unas [139], Niuserre [140] and Pepy I or II [145]. These vessels, in addition to those incised with decorative elements such as wings or lotuses that accompanied king’s names [146, 147,149], should be associated with an Egyptian royal source and as such were probably state-to-state presents or trade items. Elsewhere at Byblos, the vessels bearing the names of Pepy I and Pepy II are well represented but not in stratified Phase KIV deposits. Notwithstanding this problem, they are often attributed to Pepy I’s close association with the cult of Hathor at Dendera and the parallel links of Hathor with the Baalat Gebel cult (Fischer 1968:37-54; Chéhab 1969; Redford 1986a:141; Redford 1992:41-8). The names of many other kings are also represented. These inscribed
vessels are also often regarded as gifts to the Byblos temple by Egyptian kings (Nelson 1934).

The problem with such propositions is the lack of unambiguous evidence at Byblos and in Egypt linking Hathor with the Baalat Gebel cult in the Old Kingdom (Helck 1994; Wright 1988). Secondly, we have no way of knowing precisely who placed the vessels in the temple at Byblos. Thirdly, only Unas [139] and Niuserre [140] are represented amongst the Old Kingdom stone vessels found in Phase KIV of the Baalat Gebel temple, rather then Pepy I-II. Rather, in the Old Kingdom, any religious rationale may have been linked with the deity Kai-tau of Negaw, associated with coniferous timbers, who is mentioned in the Pyramid texts (Helck 1994:107).

Nor can the vessels be regarded as indicative of an Egyptian colony at Byblos (Wright 1988:150, contra Ward 1963:24). However, the importance of the maritime ‘Byblos-run’ (Sethe 1909; Faulkner 1940:3; Stager 1992:41), and the city itself as an entrepot for commodities has already been demonstrated (Chs 6-7). Aswan inscriptions show that officials visited Byblos as agents of the state (Urk. I:140-1; Newberry 1938). Like the Egyptian presence at Beth Yerah in the EB II (Ch. 2.3.4), Egyptian emissaries or officials may have been stationed in the city to help procure commodities. The stone platter of Nefer-seshem-ra (Ward 1964) and the plaque of Ta-sen (Dunand 1927:98) may thus have arrived through such means, although their contexts cannot be established with certainty.

8.2.4 Stone vessels at Ebla and their significance
Various explanations have been sought over the years for the large cache of Egyptian stone vessels from Ebla. They could be evidence of direct trade (Scandone Matthiae 1997:416-7), war booty from a gateway community like Byblos in contact with Egypt (Scandone Matthiae 1997:416; see also Potts 1989:124-5, 130-1, 133), direct elite gift exchange (Pinnock 1988:110; Andrassy 1991:135-6) or simply goods sent to Byblos or other towns that later arrived at Ebla as traded items (Pinnock 1984:29; Weiss 1985:170; Andrassy 1991:136; Scandone Matthiae 1997:416).

The fragments, all high-quality Old Kingdom stone vessels, span the early 4th to 6th Dynasties in both inscriptions and typology. The shapes are mainly bowls, with three
types represented: carinated bowls (similar to ceramic Meydum bowls) [164-5], shallow lamps [167] and spouted bowls [168-9]. Other forms appear but these are less common [163, 166, 170-3]. The stone types present are calcite and Chephren diorite. Only two were inscribed with royal names and titles: a quatrefoil lamp with the name of Chephren [167], and a calcite lid with the name of Pepy I [173]. The name of Pepy I or II was also found in context at Byblos.

As the majority of vessels are bowls, this would preclude them as containers for perfumes, oils, unguents or other exotic products (Scandone Matthiae 1981:125). Hence, the vessels evidently had some inherent value or prestige in their own right. Moreover, the objects with royal inscriptions point to an origin from a regal source, such as a temple magazine or royal storehouse (Schulman 1979:94). The appearance of two inscribed vessels alongside the others may point to a similar origin for the whole corpus.

However, the means and reason for the presence of the vessels at Ebla is a source of considerable debate. Whereas some stone vessels from Mesopotamia bear inscriptions describing them as war booty (Potts 1989), none of the Egyptian vessels at Ebla bore any such texts. Perhaps they represent the fruits of Eblite military activity against a city in direct or indirect contact with Egypt, such as Byblos or Ugarit, but military action against those cities is not attested in any Eblite textual material (Pettinato 1991:128-31). Moreover, unlike Egyptian vessels in the Ai and Tel Yarmouth, none were found in the Ebla cult centre. Rather, they were discovered in Palace G, in a series of closely related contexts which were sealed by a destruction level attributed to Naram-Sin (ca 2300/2250 BC) (Pinnock 1984:22). The findspots belong to a common storage facility within the confines of the royal treasury, supporting the contention that they were royal acquisitions. These chambers were repositories for the archive, special gifts, treasures, trade goods or valuable items acquired by the king and his predecessors, in a city where trade and exchange was largely state-based (Pettinato 1991:44, 51, 88-9).

As with the Byblos corpus, the Ebla group spans a wide chronological period. Scandone Matthiae doubted whether the vessels arrived at different times on the basis that Ebla was not a major city during the 4th Dynasty (Scandone Matthiae 1997:416). More
recent research disputes this, indicating that ‘Ebla was probably a politically meaningful centre by 2500 BC, the age when Chephren was reigning in Egypt’ (Scandone Matthiae 1997:426, n. 1). It is possible that the 4th Dynasty Egyptian court was sufficiently aware of Ebla’s importance as an entrepot for silver and lapis lazuli to warrant establishing a relationship with its rulers. The one-handed jug from an early 4th Dynasty Giza tomb [55], almost certainly from southern Anatolia or northern Syria, shows that Egypt sourced products either directly or down-the-line from the furthest reaches of the northern Levant at this time. Hence, the inscribed lamp [167] would be consistent with gift exchange involving Eblist rulers in the 4th Dynasty (Andrassy 1991:135-6). However, as with Byblos, the nature of the contexts are such that one cannot determine if the vessels arrived at once or over long period of time, and were later collected and stored in the Palace (Scandone Matthiae 1981:126).

Ebla is not mentioned in any Old Kingdom Egyptian texts. On the other hand, the term \textit{DUki DUki} in the Ebla texts may mean ‘Two Lands’, an Old Kingdom term for Upper and Lower Egypt (Pettinato 1991:128). Given the importance of Ebla during the 3rd millennium (Pinnock 1988), the proposition that the stone vessels were a direct Egyptian gift or diplomatic exchange in return for luxury products is likely (Pinnock 1988:110). The vessels themselves were not containers, but rather objects with an inherent preciosity, probably linked to their exotic and distant origins. They may have found their way to Ebla in the hands of Egyptian officials via Byblos (Scandone Matthiae 1981:126; Pettinato 1991:113), where lapis lazuli and silver from Ebla was exchanged with Egyptian emissaries. Byblos is mentioned in the Ebla texts and it is likely that considerable trade took place between the two centres (Pettinato 1991:119, 128-31; see also Scandone Matthiae 1981:138-9).

Caubet suggested that the presence of Early Dynastic and Old Kingdom stone vessel fragments at Ras Shamra indicated that vessels destined for Ebla, along with other products from Egypt, passed through the port (Caubet 1991:208). Ugarit is also mentioned in Ebla texts but not in any meaningful sense (Pinnock 1984:30; see also Scandone Matthiae 1981:127). However, these fragments all occur in Late Bronze Age deposits, and as such are probably related to later activity, and can not be seen as evidence of direct contact with Egypt in the 3rd millennium BC. Nevertheless, as ceramic parallels with the furthest reaches of the northern Levant suggest [55], Egypt...
may have used Ras Shamra (via Byblos) to service connections with the northern reaches of the Levant (Matthiae 1988:79).

Notwithstanding the foregoing discussion, the precise means of transmission of the Egyptian objects to Ebla cannot be defined with certainty. Moreover, their role as traded items, gift exchange, diplomatic present or war booty cannot be ascertained, although the latter seems unlikely. However, their intrinsic preciosity is demonstrated by the fact that they were stored in the Palace, and were not containers for other commodities. This points to gift or diplomatic exchange, or even trade in the vessels themselves. Either way, the objects were evidently regarded as a source of wealth, in addition to any inherent worth linked to the political and religious importance associated with their exotic origins (Potts 1989:143).

8.2.5 Stone vessels in Canaan and their significance

Stone vessels have appeared at a range of EB III sites in Canaan, although their contexts differ. They could have arrived centuries earlier as heirlooms, or though direct or down-the-line exchange with Egypt. War booty via Egypt seems unlikely, as any raids on Egyptian installations where such vessels may have been kept is not otherwise attested. It is possible that they were acquired as a result of military activity from other EB III cities, but again this cannot be proved. When seen in the context of other Egyptian material in Canaan, their role as trade items or elite gift seems far more likely. Moreover, the contexts of many stone vessel fragments in Canaan is paralleled by the find spots of the stone vessels from Byblos and Ebla, thus suggesting that these, too, were a form of royal gift exchange, arriving via state-to-state contact with Egypt.

The precise time of arrival is, however, a matter of controversy (Amiran 1970a). For many years the Ai vessels in particular underpinned the argument for Old Kingdom connections with the region (Hennessy 1967:69-74; Callaway 1972, 1978). In the first place, the vessels do not represent an homogenous group from the latter part of the 1st Dynasty (contra Amiran 1970a:179). A number of types have long date ranges, with some scholars placing the group as a whole not later than the 3rd Dynasty (e.g. de Vaux 1971:232). Indeed, the ledge rimmed bowl [130] is not earlier than the 3rd Dynasty, and indeed probably dates to that era. The waterskin [123-4] may belong to the end of the 1st Dynasty, but the best Egyptian parallel was poorly stratified, and a similar calcite
type was found in the Step Pyramid (Firth and Quibell 1936:pl. 94.4). The cylinder jar [122] is too generic in shape to be of value, but the relatively thick rim and walls indicates a jar early in the sequence. For the bowls [125-9], incised circles on the interior is normally associated with the 2nd-3rd Dynasty. Other shapes have a wide potential date range. On this basis, one cannot say with certainty that the vessels all arrived at the same time towards the second half of the 1st Dynasty, as Amiran suggests. Moreover, as we have seen, such vessels could have come from stone vessel repositories, where older vessels were kept for a considerable period of time (Reisner 1931a:180, 199, 201).

The Ai vessels appear to have belonged to the temple’s cult equipment; indeed, their position on the Sanctuary floor indicates the vessels were still in use at the time of the temple’s destruction (Amiran 1972:11). This may illustrate

\[ \text{the tendency for temple holdings to be kept within the gods precinct, long} \]
\[ \text{after their dedication, even when broken (Potts 1989:126).} \]

Indeed, Amiran believed that the zoomorphic vessel [123-4] symbolised the ‘Bilulu aspect of the Dumuzi myth’, which saw the goddess turned into a waterskin (1972:13). She later identified the vessel with a Canaanite Rain goddess (Amiran 1989). Waterskins made of stone, while unusual, are known in Egypt during the Early Dynastic Period and later so as to whether this vessel was made to order must remain an open question. Likewise, the specific role of this vessel in the Ai temple cult is not known, although Amiran’s suggestion of an association with a rain deity is tantalising (Amiran 1989).

Elsewhere in Canaan, fragments from Bab edh-Dhra [105] and Tel Yarmouth [112-20] are connected chronologically to the EB III and must be regarded as more contemporary imports. The fragmentary state of these examples also suggests that the vessels ‘had thus gone out of use by the time of the contexts (sic)’ (Warren 1991:296). At Tel Yarmouth, the stone vessels appear in different sectors, unlike the EB II when they were largely concentrated near the White Building cult complex. In the EB III, some were found near the White Building [115-6] but others came from Palace B [112-4] and the Acropolis [126-7]. No inscriptions remain, and the number is small relative to the quantities.
unearthed at Byblos and Ebla. This suggests either the accident of discovery, the removal of similar material in antiquity, or that Egypt’s relationship with the ruling elites of the EB III cities in Canaan was less important than links to the north, resulting in fewer gifts.

Egyptian vessels from the Baalat Gebel complex [139-40] provide an important parallel for the appearance of Egyptian stone vessels in the cultic contexts at Tel Yarmouth and Ai. Evidently such vessels did end up in foreign temples. However, as no direct religious association between the temples or deities in Canaan and Egypt can be proven, the vessels cannot be described as representing Egyptian offerings to the local cults (contra Amiran 1970a; de Vaux 1971:235). However, the fact that some of the vessels appear to be of Egyptian production with Canaanite elements suggests that they were given or even manufactured with the foreign recipients in mind. Thirdly, like the Ebla corpus, the vessels are mostly bowls or platters, not closed containers used for the transport of precious oils, perfumes or unguents, which would rule out the commodities trade as the reason for their presence, unless the vessels themselves were the commodity.

All this points to elite gift exchange as the rationale for their appearance at Ai (de Vaux 1971:235; Rast 1980:11; Ben-Tor 1986:18; Mazar 1992:136) and Tel Yarmouth. These two cities were the largest EB III centres in southern Canaan, whose elites must have ranked as some of the most important in the region whom the Egyptian court thought important enough to send offerings, precious trade items or gifts (Sowada in press). Moreover, gifts of this kind may have been linked to commodity exchange (de Vaux 1971:235). The rarity of these vessels in a region with no high-quality stone vessel industry added value by virtue of their exoticism. As a form of elite display, the vessels served to enhance the prestige of the elites (Sherratt 1994:63).

At Bab edh-Dhra, the importance of the copper trade provides a reason for the appearance of Egyptian objects at the site (Ch. 7.2.2). However, the context of [105], from the town site, does not signal any particular exchange mechanism. The same can be said for [109] from Tel Erani. Indeed, both could be the product of local down-the-line exchange. However, Bab edh-Dhra’s important role in the Feinan copper trade probably provided the rationale for Egyptian expeditions to the region.
8.2.6 Egyptian stone vessels in the Levant as elite gifts or trade items

In describing findspots of stone vessels from 3rd millennium southern Mesopotamia, Potts noted that the

'value of such objects was clearly very closely tied to the contexts of their 'use', in which cultural and religious considerations were paramount, and often depended crucially on the means of acquisition' (Potts 1989:143).

Textual evidence from 3rd millennium Western Asia and later points to the use of stone vessels as diplomatic gifts, trade items and war booty. In the Akkadian Period, stone vessels were taken as war booty and inscribed with dedication of the victor (Potts 1989:130-1, 133). Amarna letter EA14 describes royal gifts sent abroad from Egypt consisting, amongst other things, of 'stone jars full of sweet oil', and over 160 stone vessels with no contents, including bowls, jars, empty vessels, goblets and other containers (Moran 1992:32-3, EA 14). While no literary evidence exists from the Old Kingdom, texts and archaeological evidence from other regions point to these roles.

Exported Old Kingdom stone vessels, largely objects not used as containers for commodities, likewise fulfilled a similar role in the Levant. Indeed, vessels from Byblos and Ebla inscribed with royal names or motifs associated with the king show that these must have originated from a royal source (Reisner 1931a:179; see discussion in Ch. 8.2 above). Redford suggests that the presence of Egyptian luxury items like stone vessels at sites beyond

'Egypt's sphere of influence belong to an age old pattern of exchanging gifts, favors and considerations as part of the never-ending social strategy of securing influence between equals' (Redford 1986a:141).

Specific findspots are also significant (Schulman 1979:95; see also Caubet 1991:219). At Ebla, Byblos, Ai and Tel Yarmouth, vessels (or fragments) were found associated with palatial or temple structures. Indeed, the presence of an Egyptian stone vessel from the Chalcolithic shrine at Ein Gedi (Ussishkin 1980:21-5) points to the long history of use or re-use of Egyptian luxury products in elite contexts in Canaan.
Indeed, all of these contexts are associated with political or religious elites, implying elite acquisition of the vessels, either directly or indirectly, and the inherent preciosity of these objects (Sherratt 1994:63-4).

Caution should be exercised in using stone vessels as chronological markers. As the Mycerinus temple stone vessel magazine indicates, older Egyptian stone vessels stayed in circulation long after their date of production (Ward 1991:13). The 6th Dynasty tomb of Ima-pepy in the Dakhlah Oasis shows that this is true even for the burial equipment of officials on the periphery of Egypt (Minault-Gout et al. 1992:110, 112-3, nos 1878, 1816-7). Hence, it is possible that stone vessels beyond Egypt’s borders may have been exported long after their production date, as Reisner suggested (1931b:202-3; Ward 1991:13).

The geographical spread, elite contexts, presence of inscriptions, the overwhelming presence of vessels that were not containers all point to the use of such items by Egypt as a form of elite gift exchange or prestige trade item. Literary evidence from elsewhere in Western Asia shows that stone vessels were regarded as valuable items in their own right, sufficiently precious to exchange with foreign elites, and that this was a relatively common practice.

8.3 Stone Palettes

8.3.1 The stone palette in Egypt

The stone palette has a long history in Egypt and North Africa as a whole, dating back to Neolithic times (Kroeper 1996:70). As early as the Badarian Period, simple long rectangular palettes were fashioned of siltstone for grinding mineral pigments (Brunton and Caton-Thompson 1928:30-1, pl. 21). Palettes of various shapes were common burial items in Egyptian graves of the 4th and early 3rd millennium BC (Kroeper 1996). Also found more rarely in settlements, they were used to grind mineral pigments such as galena, malachite and haematite. Wear marks and pigment traces show that many were employed on a regular basis prior to burial. In particular, galena (kohl) was used as a medicinal and cosmetic preparation for the eyes by both men and women (Needler 1984:319-20).
The palette underwent a range of morphological changes during the 4th millennium BC. By the Protodynastic Period, a form of rectangular siltstone palette less than 1cm thick with incised lines around the edge became the most common type (Petrie 1914:pl. 24.95, 98; Kroeper 1996:74-9, 81-3, figs 3-5, 8). Many feature a hole at the top drilled from both sides (Petrie et. al 1913: pl. 29.5 and 26). In the Naqada IIIb plain rectangular palettes emerge at sites like Minshat Abu Omar (Kroeper 1988:fig. 154-5) and Tarkhan (Petrie 1914:pl. 24.90r, 24.93d, 24.94g) where they appear beside incised examples. By the 1st Dynasty, plain siltstone palettes replaced incised types (Petrie 1901:pl. 38.53; Petrie 1902:pl.40.47-8; Emery 1939:65, fig. 49.4; Emery 1958:83, pl. 101b; Klasens 1958:54, fig. 21.5, pl. 26, Cat No. 28; Kroeper 1996:79, fig.6-8).

Egyptian palettes are usually made of siltstone, a material quarried near the Wadi Hammamat (Aston 1994:31-2). Palettes in other stones such as quartzite, banded slate and limestone are found in A-Group Nubia (Kroeper 1996:70; Nordstrom 1972:120-1, pl. 191). Banded pink limestone, white limestone, ‘alabaster’, and diorite palettes are also known from the Fayum and Mostagedda, but these belong to the early 4th millennium BC and earlier rather than the Old Kingdom (Caton-Thompson and Gardiner 1934:32-3, pl. 12.22, 24-9; Brunton 1937:pl. 13.19-20, 23-4, pl. 22.17-20).

By the end of the 2nd Dynasty, simple palettes had largely disappeared from the archaeological record (Kroeper 1996:72). Hoffman notes the importance of the Egyptian palette, along with the mace, as an object that came to symbolise kingly power and authority (Hoffman 1984:260; Hassan 1988:173; Baines 1989:476-7). Monumental palettes like the Narmer Palette and other elaborately carved siltstone examples emerge as an avenue of royal display. Whether this heightened the importance of more ordinary palettes is not known, but certainly by this time the palette generally had acquired a ‘ritualistic or magical connotation’ (Shaw and Nicholson 1995:218).

Baines suggests that ‘the later disappearance of cosmetic palettes might relate to religious meanings of cosmetics, which were made of valuable ores from the Eastern Desert and could have been restricted to certain groups of people or gods’ (1989:477). Very few have been found in later graves of the 3rd millennium, but it seems unlikely that Egyptians abandoned the practice of using galena altogether; in any case, some sort
of grinding surface was undoubtedly required for other pigments (Baines 1989:477). Needler suggests that palettes were simply replaced by rectangular ‘mortars’ with bevelled edges and other more elaborate palette forms (Needler 1984:327), but again these occur infrequently in the archaeological record. Perhaps the palette simply became less fashionable as a burial item and the systematic excavation of Old Kingdom settlements will unearth the continuing use of palettes in domestic situations.\textsuperscript{10}

Palettes have been recovered from Old Kingdom sites but in small quantities. From Elephantine, a fragment of a 1st-2nd Dynasty rectangular slate palette was found in a 5th Dynasty temple deposit (No. 7957a). This context contained other Early Dynastic items in addition to later objects (Dreyer 1986:137, pl. 46, No. 365). Similar votive deposits with mixed, but predominantly earlier material are also known from Hierakonpolis, Abydos and Tell Ibrahim Awad in the Delta (Quibell 1900; Quibell and Green 1902; Kemp 1968; Dreyer 1986; van Haarlem 1995). At Abydos, plain and incised palettes were found in the Osiris/Khenti-amentiu temple/town area, but the stratigraphic contexts are unclear (Petrie 1902a:pl. 1.40, 52, 62 and 70).

Palettes are also known from other Old Kingdom sites. Reisner reported rectangular palettes of both slate, diorite and granite from 3rd, 4th and 5th/6th Dynasty graves at Naga ed-Deir (Reisner 1932:155, 159, fig. 58 and 417, 209, fig. 114, no. N547-9). Two of these were very worn. Another slate palette was reported from a 3rd Dynasty grave at el-Kab (Quibell 1989:8). Reisner believed that, although they ceased by the 3rd Dynasty, ‘sporadic examples [of slate palette were] known even as late as Dynasty VI’, and palette use continued in Nubia until the Hyksos Period (Reisner 1932:155).\textsuperscript{11} Presumably these examples from Naga ed-Deir were included in his assessment, but other evidence is hard to find. Palettes were not evidently part of the standard burial equipment of the time. In reliefs from the mortuary temple of Sahure, a plain rectangular cosmetic palette is probably illustrated in a scene depicting the anointing of oxen (Borchardt 1910-13:57, pl. 47, top row, Rast and Schaub 1989:455). While the schematic representation of the palette may mislead the viewer as to its actual form and decoration, this illustration does suggest that such objects still had a role and function, although the \textit{floruit} of the type was earlier. This may account for the presence of palettes in Egyptian ritual deposits noted above, and the limited appearance of other examples.
8.3.2 *Egyptian and egyptianising stone palettes in Canaan*

In Canaan, rectangular or square palettes (or ‘plaques’ as they are sometimes described in the literature) emerge in the Chalcolithic. As Hennessy noted, in function and shape they are close to Predynastic Egyptian types such that one can only regard the palette as belonging to a repertoire of shared regional objects and shapes (Hennessy 1967:32; Ward 1963:5-6, n. 3).

Inadequate publication and description of stone types prevents a comprehensive assessment of the EB palette material. For example, examples from EB Ib Tell Far‘ah South are described respectively as ‘chlorite schist or cupreous shale’ and ground limestone (MacDonald 1932:17-8, pl. 28.7 and 11), but visual inspection would be required to confirm this identification. A nearly square palette from a 4th millennium context at Meser could be an Egyptian import (compare Dothan 1957:pl. 37A with Brunton and Caton Thompson 1928: pl. 20.16, centre, pl. 21.9). Other EB palettes are known from Wadi Ghazzeh (unknown stone type - Kantor 1942: 174-6), Jericho, Horvat Beter (Rast and Schaub 1989:454; Brandl, pers. com. 31/3/00), Horvat ‘Illin Tahtit (Braun et al. in press) and EB II Tel Erani (Yeivin 1961:pl. 5, bottom, second and third from right). Such palettes may have Egyptian antecedents: a granite palette from Mishmar Ha-Negev (cited in Rast and Schaub 1989:454) may be made from a stone imported from Egypt, or may be an actual import on the basis of a parallel from Naga ed-Deir (Reisner 1932:159, figs 58 and 417). Two stone palettes were found in EB II levels at Jericho, but again these are simply described as ‘finely made’; the shape and drilled hole is similar to Egyptian examples (Kenyon and Holland 1983:fig. 230.12-30).

A small number of Egyptian siltstone palettes can be identified in Canaan owing to the combination of material, shape and technology. Found mainly in EB Ib tombs, they probably arrived via the exchange networks developed between the two regions during the second half of the 4th millennium BC. For example, at Azor, a Naqada II double bird head palette was found in a tomb (Ben-Tor 1975:28, fig. 14.1, pl. 21.2; Brandl 1992:450). At Gaza, a Naqada II fish-shaped palette was identified (Brandl 1992: 450, 468) and a further palette was recently recovered from a tomb at Assawir,
(Brandl, pers. comm.). A fragment of an Protodynastic Egyptian palette with incised lines around the edge was found in Arad Stratum II (Amiran 1978a:55, pl. 68.21).

Imprecise identification and publication in many excavation reports of the stone used for palettes means that a number of other Egyptian palettes remain to be identified. At Jericho, Garstang found a palette fragment with incised lines in an EB I context, but apart from describing the stone as 'black' no other information is included (Garstang 1936:pl. 36.26). This is undoubtedly Egyptian. Likewise, a plain rectangular palette with a drilled hole at the top found in Jericho Tomb D12 (mixed EB II-III) may be Egyptian but the publication is too schematic (Kenyon 1960:fig. 40.3). Others of uncertain identification include a stone palette from EB Ib Azor (Ben-Tor 1975: 28, pl. 21.3), a calcite example from Tel Far‘ah North (de Vaux 1951: pl. 27b.4) and a trapezoidal 'diorite' palette from EB Ai (Marquet-Krause 1949:60, pl. 38.482). The Tel Far‘ah is an unusual stone for a palette as no Egyptian calcite palettes are known to the writer.13

A further subset of palettes exist in the EB III which are less clearly Egyptian on the basis of style and stone type. Ben-Tor explains these the local Levantine examples by suggesting that during the EB I, Egyptian prototypes inspired local craftsmen to produce palette-like objects (Ben-Tor 1975:28). However, as outlined above, palettes in Canaan do have an earlier indigenous history, so later palettes may not be the direct result of Egyptian prototypes.

Local EB III palettes from Canaan are all plain, rectangular palettes, many with holes drilled in the top centre. While stylistically related to Egyptian palettes, they are different. From Tel Yarmouth, a large rectangular palette of light grey quartzofelspathic siltstone (Cat. No. C.10157-1) was found on a floor in Area G, Locus 721 dated to the EB IIIC (de Miroshchidi 1999; Sowada in press). The most likely source for the stone is the Eastern Desert in Egypt, Arabia, the southern Sinai Peninsula or the Sudan (Dr A. Shimron, Geological Survey of Israel: pers. comm. 14/1/97). The writer could not find a single Old Kingdom Egyptian parallel for this palette in either the stone or size, but the stone type would suggest an Egyptian import or at least local fabrication based on an imported raw material. A palette made of psammatic slate or mica schist (Cat No. C.12276-1) also found at Yarmouth, is made from a stone found in south
central Sinai, or the Central and Eastern Desert of Egypt (Shimron pers. comm. 14/1/97; Sowada in press). Once gain this may be imported, but no examples in Egypt are known. At Bab edh-Dhra, a number of simple rectangular palettes were recovered made of soft micaceous schist, the origin of which may be Egypt (Aston 1994:61-2; Schaub and Rast 1989: 453-6, Figs 261.1-2, 4-6).14

Identifying these particular palettes as Egyptian, Egyptianising or even of local inspiration is problematic. As we have seen, palettes have a long local tradition in Canaan (Hennysey 1967:32). Yet, these unusual examples occur at sites where Egyptian palettes have been found in EB III levels (Tel Yarmouth, Bab edh-Dhra, Tel Halif). At Bab edh-Dhra and Numeira, Egyptian and locally made examples are known from tombs attesting to their importance as a luxury burial item [95, 99-102], yet they are also known from the settlement [97-8] (Rast and Schaub 1989:453-6; Sowada 2000). Hence, the palettes could be Egyptian, reflecting a wider variety of palette types in circulation during the Old Kingdom but not widely known from tombs of the era.15 On the other hand, EB II-III Canaanite craftsmen may have accessed regional and imported stones for palette production. Evidence for this is tantalising but by no means conclusive at this stage (see Ch. 7.3.1); an exchange in raw stones is certainly suggested in Mesopotamia (Potts 1989:123). Further data from Egypt, in addition to petrographic analysis, is required before the origin of these apparently Egyptianising palette types from in Canaan can be settled.

8.4 Palettes and other manufactured goods as traded items
As the corpus in Chapter 4 illustrates, Egyptian siltstone palettes have been found in good EB II-III contexts at Tel Yarmouth, Tel Halif, Beth Yerah, Bab edh-Dhra and Numeira. However, their find spots are much later than the general date of manufacture, suggesting that they might be heirlooms from earlier deposits at each site. As noted in the discussion above, very few of these palettes are found in EB Ib contexts, synchronised with their Protodynamic floruit.

In the past, many such finds have been explained away as heirlooms or antiques (eg. Seger 1989:125). ‘Heirloom’ implies the deliberate transmission from one generation to the next of an object (or objects) of intrinsic value. Their significance might be a combination of personal, cultic or economic. As Baines rightly suggested, in the case of
kings, the importance of such objects was often politico-historical, legitimising present kings with past rulers by establishing dynastic continuity (1995b:131-2).

Objects in contexts dating much later than their general date of circulation is not new. In Egypt, stone vessels in particular had a genuine ‘heirloom value’, as stone vessels from the funerary installations of Djoser, Mycerinus and Sahure attest (Reisner 1931a:178-201; Firth and Quibell 1935-6:pl. 88; Lacau and Lauer 1959). At Kerma in Nubia, Early Dynastic and Old Kingdom stone vessels were found in a late 2nd Intermediate Period deposit, but this is probably the result of later tomb robbing (Lacovara 1991). A late Predynastic serpentine jar inscribed with the name of Amenhotep III is a more extreme example (von Droste zu Hülshoff and Schlick-Nolte 1984:Ae:1, 1). In Egypt, early palettes have also been found re-used in later contexts: fragments of a Predynastic palette were carved with a scene which included the cartouche of Queen Tiye (von Bothmer 1969).

In the Levant and the Aegean, out of context stone vessels and other objects are known, for example, from Tel Mevorakh (Brandl 1984: 61-62), Beth Shemesh (Grant 1931:pl. 47.3; Grant and Wright 1938:pl. 54.65), Beth Shean (Rowe 1940: 18, pl. IIIA.6), Alalakh (Woolley 1955:295, no. 9, pl. 81.9), Ras Shamra (Caubet 1991:207-8, 240), Crete (Warren 1995:8; Schulman 1979:84-6) and elsewhere (Phillips 1992:173-77). At Megiddo, a rectangular slate palette of probable Early Dynastic date was found in Stratum VIIA, dating to the Iron IA, equivalent to the Egyptian 20th Dynasty (Loud 1948:pl. 196.1; Mazar 1992:301).

In respect of a number of Ai stone vessels, their appearance in EB IIIB levels, far removed from their EB II (possibly early EB IIIA) date of production, certainly speaks of vessels imbued with a special significance and therefore retained as heirlooms from the 2nd-3rd Dynasty. However, given that certain Egyptian stone vessels were themselves regarded as heirlooms by the Egyptians, it is always possible that already old vessels were presented to foreign elites by later kings (Ward 1991:13). The same explanation could be offered for early Old Kingdom stone vessels in later deposits at Ebla and Byblos.
The Egyptian palettes in Canaan offer another case in point. These appear in the region with a frequency and geographical spread suggesting more than just one-off finds (Jacobs 1996:30-1). They were manufactured much earlier than their mostly well-dated EB III contexts. Many are in excellent condition, although showing signs of use by way of surface abrasion or staining. They may be heirlooms, particularly as similar palettes have been found in EB I b and EB II strata at Jericho and Arad, suggesting that the type was imported during their *floruit* in Egypt. But it would seem highly co-incidental for every Egyptian palette at every EB III site to have been retained as an heirloom.

One possible explanation is that the palettes represent local Canaanite products based on Egyptian prototypes (Jacobs 1996:130). Persuasive as this may seem, there are several problems with this line of argument. Firstly, on the basis of shape, decoration, material and technology, the palettes fit easily into the corpus of similar objects from Early Dynastic Egypt. Secondly, the regional source of siltstone was Egypt (Aston 1994:31-2), not Canaan, so the raw material must have been imported if the palettes were locally made. While possible, this scenario is unlikely because on the basis of shape, technology and workmanship, the palettes are the products of Egyptian craftsmen (cf. Kroeper 1996:fig.2-8).

Less plausible still is the possibility that enterprising Old Kingdom craftsmen continued making them for a foreign market market. Some Egyptian stone vessels in Canaan such as [130] and [115-6] made in foreign shapes were evidently given with the foreign recipients in mind. However the difference here is that these stone vessels in Canaanite shapes occur alongside a wide repertoire of Egyptian shapes, whereas there seemed to be little if any Egyptian palette production by the Old Kingdom.

A simpler explanation is that the palettes were robbed from Egyptian graves during the Old Kingdom (*contra* Jacobs 1996:127). The problem posed by the proliferation of objects from ancient tomb robbing affects almost every century of the Bronze Age in Egypt and the Levant and must be considered as a possibility when faced with seemingly ‘out of context’ objects, even in elite contexts (Pomerance 1971; Phillips 1992). That tomb robbing was endemic in Egypt is witnessed by the huge number of burials with evidence of robbing, much of it ancient, and the preparations people made to prevent it (Phillips 1992:157-8). As the Ramesside Tomb Robbery Papyri
show, objects of particular interest to robbers included gold and other precious jewellery with a metal content, amulets, metal vessels, ornaments, exotic woods such as cedar and ebony, oils, ivory, mirrors, textiles, unguents and perfumes and their stone vessel containers (Phillips 1992:163-5). These are high value objects, easily transported and disposed of. Local villagers may have likewise removed objects of a more mundane nature from cemeteries; evidence for this practice was observed at the Middle Kingdom settlement of Kahun (Phillips 1992:165-6). Considerable pillaging of Egyptian burials took place during the Hyksos period and later, with the result that ‘out-of-context’ Old Kingdom stone vessels can be found at many sites in the Eastern Mediterranean (Pomerance 1971; Brandl 1984:62; Lacovara 1991:118; Caubet 1991:207-8, 240).

In describing the presence of old stone vessels in more recent contexts in Crete, Phillips suggested ‘the time discrepancy [between production and deposition] is pronounced enough that the only reasonable explanation is interment in a tomb for a large part of the difference’ (Phillips 1992:182). The same phenomenon is observed in EB III Canaan. Indeed, the absence of older more decorative Naqada I-II palettes in EB II-EB III Canaan may be due to the fact that the palettes were robbed from one or two similarly dated cemeteries in Egypt, perhaps over a short period of time. As the corpus of palettes from Bab edh-Dhra illustrates (Schaub and Rast 1989:452-6; Sowada 2000), a local preference in Canaan for palettes in simple shapes possibly led to a preference for rectangular or square imports from Egypt.17

Either way, at some point Egyptian palettes were transported to Levantine towns where they were traded as luxury goods or exotica during the EB II-III, either directly or down-the-line. Sabni’s inscription shows that Egyptian officials in charge of trade and diplomatic missions took a range of Egyptian commodities and manufactured goods to exchange with local elites, including clothing and faience (Urk. I:136.5). Another inscription from Harkhuf’s tomb described how he returned to Egypt with throwsticks amongst other things (Urk. I:126.17 to 127.1-3). Throwsticks were produced in Egypt during the Old Kingdom yet were still brought back to Egypt on trading missions.18 A list of gifts from the Egyptian kings to a foreign ruler in Amarna Letter EA14 notes ‘117 whetstones, for a barber’ (Moran 1992:34, EA 14), objects of a more prosaic nature. Egyptian palettes and other exotica found in Canaan should
therefore be considered in the same light: an unusual but useful object in a quality stone unavailable in Canaan, exchanged by visiting Egyptian emissaries, and lent prestige by virtue of its Egyptian origins.

That some of the Ai stone vessels may represent the products of tomb robbing is also possible, but the presence of similar deposits at Byblos suggests heirlooms or antiques. Whether they represent Egyptian or locally retained heirlooms is hard to determine. Possibly the Ai vessels represent EB III arrivals from a temple magazine in Egypt. Given the presence of royal names at Ebla and Byblos, it hardly seems likely that the vessels were robbed from such a source. Examination of the Ai corpus also indicates production dates ranging from the 1st–3rd Dynasty and later (contra Amiran 1970a), suggesting that the vessels may not have arrived at the same time, even though they were finally collected into one building.

8.5 The problem of maceheads

Like palettes, stone maceheads have a long history in Egypt and the Levant, stretching back the Chalcolithic. Made of stone, ivory or copper, the pear-shaped macehead in particular had a wide distribution during the 4th millennium (Ward 1963: 4-5; Prag 1986:66). While they were originally used as weapons, with time maceheads came to have a ceremonial/ritual function, with perhaps the best known assortment coming from Nahal Mishmar (Gonen 1992:66-71, pl. 11). The country of origin for the macehead concept is not known (Ward 1963:4-5), with scholars variously suggesting Mesopotamia (Hennessy 1967:33) and the Sudan (Ciałowicz 1989:263).

Ciałowicz notes that by Naqada IIId, Egyptian maceheads ceased to have a practical use, and later became ‘symbols of power’ (Ciałowicz 1989:264; Hendrickx 1994:51). Toward the end of the 4th millennium, the palette joined the mace as a symbol of royal power and authority (Hoffman 1984:260; Baines 1989:476-7). Curiously, like the palette, maceheads were not produced in any quantity by the Early Dynastic Period, although the imagery of the king striking his enemies with a mace was a continuing image of royal domination that lasted throughout the Dynastic age (Henrickx 1994:51). Baines notes the royal ‘appropriation’ of maceheads and the
palette but can offer no real explanation for their disappearance from the archaeological record (Baines 1989:477).

For the EB II-III, many sites in Canaan have yielded maceheads in a variety of stones. Examples from Megiddo (Loud 1948:pl. 270.2-9), Jericho (Kenyon 1960:fig. 66.4), Beth Shan (Fitzgerald 1935:pl. 23-4) and Tell Far‘ah North (in calcite - Reg. F.3897), and many other sites show that during first half of the 3rd millennium, it was an enduring object in the region. Although we cannot trace these maceheads directly to Egyptian prototypes, the stones from which many are made may suggest an Egyptian origin.

The stone type of many maceheads found in EB II-III excavations requires further scientific study, owing to the inadequacy of their descriptions in most publications. However, the writer has handled a number of maceheads from EB II-III sites that, on the basis of stone type and finish, speak of Egyptian production or an imported raw material at the very least. The same is undoubtedly true of the EB Ib, as a calcite pear-shaped macehead from EB Ib Horvat ‘Illin Tahtit, and a polished calcite macehead from Pella attests (Braun et al. in press; Bourke et al. 1994:91-3, fig. 7.1).

For example, at Bab edh-Dhra a number of maceheads from variety of contexts ranging in date from the EB I to EB III may be Egyptian (Braun 1993:124). A host of other maceheads were found in a range of tomb and settlement contexts, made of materials variously described as ‘alabaster’ (Reg. Nos 752, 766, 1340) and other stones which have yet to be identified. An unfinished macehead was found at a probably EB IV site nearby (Rast and Schuab 1974:13, pl. 11.2), suggesting that such objects were manufactured locally. At Tell el-Hesi, limestone maceheads were also noted from the EB III settlement (Dahlberg and O’Connell 1989:157), but again they are probably local rather than imported.

At present, EB II-III maceheads are insufficiently studied and published to be of real value to the discussion. Nevertheless, the concept of the mace may have been employed as a power-fact in Canaan during the EB II-III, the result of this object’s elite associations in Egypt. Quality Egyptian hard stones may have been imported for their manufacture, but this requires further study.
8.6 Beads and amulets

Beads and amulets are some of the most common finds from archaeological sites, and yet one of the least studied artefact classes (Broeder and Skinner 1992:135). Beads are important as a traded item because

\[\text{such goods ... point toward social exchange and the whole body of ideas, relationships, and even myths that often accompany exchange (Hoffman 1979:189).}\]

Beads of faience, carnelian, amethyst and other stones are known from EM II and EB III sites in which may be Egyptian in origin. Few have been scientifically analysed and for the most part, quarry sources are poorly understood (on this, see Lilyquist 1996:136-7). Faience, also made in Egypt, poses problems owing to the possible spread of this technology in the Eastern Mediterranean, about which little is known.\(^2^1\)

Scientific techniques of analysis, such as non-destructive X-ray flourescence, have been used to great effect to characterise the composition of Old Kingdom faience pastes and glazes, and certain stones used for making beads (Kaczmarczyk and Hedges 1983:A78-90; Broeder and Skinner 1992). To the knowledge of the writer, no comparable work has been conducted on faience objects from Canaan to examine whether or not an EB III faience object is locally made or imported. Such studies would place the debate of an exchange in these items on a firmer footing.

\((a)\) Faience

Faience or frit-making making technologies make an early appearance in Egypt, with some of the earliest objects dating to Naqada I period (Moorey 1994:168; Friedman 1998:15; Nicholson and Peltenberg 2000:179). It was widely used throughout the 4th-3rd millennium and later for a myriad of objects ranging from statues to beads, amulets, vessels, tiles, inlay and other small items. Friedman suggests that it may have been a low-cost alternative to lapis lazuli and turquoise, although faience had an important symbolic meaning in its own right (1998:15).

Scholars have not satisfactorily settled the question of where faience technology first appeared. Moorey prefers a northern Mesopotamian origin for the technology, with
the present weight of evidence [favouring] somewhere in Western Asia, probably Iran or Northern Mesopotamia with diffusion into Egypt to the west [and] the Indus region to the east (Moorey 1994:169, 172).

Foster favours northern Syria in conjunction with northern Mesopotamia as centres of faience working technology during the 3rd millennium BC, concurrently influencing the development of local Cretan faience working (Foster 1979:56, 59). Faience beads appear in a wide range of 3rd millennium sites across the Eastern Mediterranean, from Cyprus (Peltenberg 1995) and Crete (Warren 1995:2; Phillips 1996:463) to Canaan and as far north as Troy (Peltenberg 1995:fig.1), in varying quantities, shapes and contexts. Faience occurred in both Egypt and Mesopotamia but the technology could have been equally exported from either region to the other (Bianchi 1998:23). These questions are far from settled; in addition, the nature of regional faience making technologies (apart from Egypt) is not widely understood (Moorey 1994:182).

The case for faience as an exported Egyptian product is circumstantial, but compelling. The 6th Dynasty Aswan official Sabni refers to faience as a product in his diplomatic caravan to Nubia (Urk I:136.5-6). Egyptian faience may have been a commonly traded item in the Levant. However, on the current state of knowledge, ascribing an Egyptian origin for all faience in Canaan and elsewhere in the Levant is injudicious. Separating imported objects (regardless of the region from which it may have come) from a locally manufactured product is almost equally difficult.

To assist in this task, scholars have established a series of ‘tests’ for the presence of a local industry, including

product uniqueness, frequency of examples, technological idiosyncrasies and the presence of contemporary metalworking (Kaczmarczyk and Hedges 1983:241; Harding cited in Peltenberg 1995:36).

Based on these assumptions, faience beads from mid 3rd millennium Kissonerga, may be Syro/Palestinian imports (Foster 1979:56-9; Peltenberg 1995:41; Ch. 5.9). A calcite bowl, possibly also originally from Egypt, suggests that small quantities of
other objects eventually found their way to Cyprus during the Old Kingdom, probably via the Syrian coast (Phillips 1996:466).

On the above-mentioned criteria, faience found at many sites in Canaan would pass the ‘local’ test on the grounds of say, the presence of a local metal-working industry (e.g. Bab edh-Dhra), but fail on the grounds of frequency or product uniqueness. The proximity of southern Canaan to Egypt, along with the presence of well-established networks of communication during the EB III, means that many faience objects may have originated in Egypt. The faience necklace from Tel Halif (Ch. 4.5.2) may be an imported rather than a local product, perhaps included in a trading caravan like that of Sabni. Such objects, easily transportable and regarded as unusual by a culture that may have had access to only rudimentary faience or frit-making technology, played an important role in ‘social exchange’ mechanisms (Hoffman 1979:189). Likewise, the faience breast cones from Ai is certainly an Egyptian import, found alongside other exotic aegyptiaca preserved as temple equipment [133]. It is always possible that these objects arrived in Canaan via down-the-line mechanisms that saw aegyptiaca arrive in Cyprus, however, given the demonstrated close links between the region, a more direct route of transmission is probable.

(b) Carnelian

Carnelian is a mineral quartz, a “semi-transparent to translucent orange-red to brownish red or brownish-orange chalcedony” (Broeder and Skinner 1992:144). Known as ḫ.rst to the Egyptians (Aston 1994:67), carnelian was used extensively in jewellery, inlay and even vessels from the Predynastic age onwards and is found in graves all over Egypt of people from a range of social strata (Aston et al. 2000:26-7). In the Old Kingdom, carnelian was widely used for these purposes and is commonly found. The stone may have be used for its supposed ‘therapeutic properties’, in addition to warding off evil (Broeder and Skinner 1992:144, 147).

Carnelian is found in pebble form in the Egyptian Eastern and Western Deserts from earliest times (Lucas 1962:391; Aston et al. 2000:27), more specifically in the desert region between the floodplain and the cliffs (Aston 1994:67-8). Extensive deposits may have occurred in the Upper Egyptian Red Sea hills near Wadi Abu Gerida and Wadi Saga (Aston 1994:68). Other sources are known in far-off Anatolia, India, Western
Arabia and Oman (Moorey 1994: 97). Carnelian is also known in the Canaan. Broeder noted ‘small pebbles of carnelian in the wadis of Jordan’ but was otherwise unable to confirm the origin of carnelian from Bab edh-Dhra with certainty (Broeder pers. comm. 28/9/99).

Very little research has been conducted into the use, significance and distribution of carnelian in Egypt and the Levant. The primary work on Egyptian bead types is still largely that of Brunton (1928), although beads are still among the commonest of objects found in archaeological sites (Broeder and Skinner 1992:135). Even less scientific analysis has been conducted on bead materials generally, with many archaeologists, most not schooled in geology, struggling to even correctly identify the precise material from which beads or other stone objects are made (Lilyquist 1996:136). As Broeder’s observation from the wadis of Jordan illustrates, local sources of carnelian cannot be ignored, but conclusive research is slender. The destructive nature of certain forms of analysis, combined with the need to remove objects to suitable laboratories far from the security of the archaeological site, means that finds are rarely tested.

Despite these technical difficulties, carnelian in EB II-III Canaan and earlier is often assumed be Egyptian (Broeder and Skinner 1992:144-6, 149; Alon:in press). Alon believed that it was traded as early as the Chalcolithic Period in the form of both finished beads and a raw material (in press). Carnelian beads are found in many EB III sites, but many are simple disk beads that are too generic to be of value typologically (see for example Callaway 1980:fig. 115.33). Barrel shapes are common in the Old Kingdom, but likewise this type may have been manufactured across a wide geographical area during the EB III. Such beads have been noted at Tel Yarmouth, Tel Halif and possibly Lachish.\footnote{22}

Ultimately, further investigation of possible sources may reveal that some carnelian in Canaan used for bead making was obtained locally by simply scavenging desert wadis.
Other beads, amulets and cylinder seals

Several carved stone amulets from Megiddo should be regarded as Old Kingdom imports [134]. A carved amulet from Tel Halif [106] was made of a non-local stone and is also an import. Likewise, the Egyptian cylinder seal from Bab edh-Dhra [103] fits the pattern of Egyptian exotica established at this and other sites.

8.7 Textiles, furniture and other organic materials

Identification of textiles, wood and basketry in the archaeological record is particularly difficult in wetter climates of the coastal Levant. More often than not, all that remains of basketry and textiles are fabric impressions and small fragments, if they survive at all (see Adovasio and Andrews 1982; Ben-Tor et al. 1997:21).

The bone comb at Ai [132] may be one such gift in a perishable material. Similar wooden combs have been found at Bab edh-Dhra (Adovasio and Andrews 1982:62-6), but their identification as Egyptian is not possible without sampling the wood. However, the Ai comb was found alongside other Egyptian objects in the cult centre thus lending credence to the probability that this object is Egyptian. The Amarna letters show that ivory combs were sent as gifts by Egyptian kings to foreign rulers in the 18th Dynasty (Moran 1992:34, EA 14). Likewise, the dagger handle from the same context [131] should be regarded as a similar type of present from Egypt. Such gifts are attested in the Ebla texts (Pettinato 1991:246, 248-9, MEE no. 1, 1724).

The high quality of Egyptian linens, and hence its likely desirability as a traded commodity, is well known. Textile production was an important aspect of the Egyptian economy, and was also used as a form of making payment and storing wealth (Vogelsang-Eastwood 1993:2-3; Roth 1994:235-6; Vogelsang-Eastwood 2000:293-4), and as a result may have been a key Egyptian export during the Old Kingdom to Byblos and elsewhere. Sabni took clothing to exchange on his expedition to Nubia (Urk. I:135.5; Smith and Giddy 1985:324), so it is possible that Egypt exported linen all over the Levant, but little now remains in the archaeological or literary record. The Amarna letters show that quality linen and linen garments were given by Egypt as a state-to-state level in later times (Moran 1992:32-3, EA 14).
Likewise, textile production and trade was also important to the Ebla economy, as were metals; at Ebla, textiles were used as a method of payment and formed a significant commodity for the palace administration during the 3rd millennium (Pinnock 1984:22-3; Archi 1987:116; Pettinato 1991:104, 247-50, e.g. MEE1, no. 700).

Other perishable exports may have included papyrus but again no evidence exists (Montet 1939:194).

The Amarna letters refer to the Egyptian king sending gilded furniture as a trade item/gift, including gilded beds, chairs and footrests of ivory and ebony (Moran 1992:10-1, EA 5). Likewise, such exotic goods are also mentioned as items exchanged between elites in the Ebla texts (Pettinato 1991:240, MEE1, no. 1781). The Old Kingdom furniture pieces at Dorak, if they are to be believed, may represent such an example of the Egyptian court sending important pieces of furniture abroad to foreign rulers (Ch. 5.8).

8.8 Egyptian ceramics and influences on local ceramic production

To date, only one ceramic vessel of almost certain Egyptian origin has been identified in an EB III context [104]. From Bab edh-Dhra, the best parallels are 5th Dynasty and thus its identity as such is in little doubt. Its shape, a round narrow-necked vessel capable of being sealed, suggests storage for a liquid commodity.

Unlike the EB Ib, little work has been attempted on the issue of Egyptianising ceramics in the EB II-III. Kantor points to shared ceramic shapes between Egypt and Canaan (1942: 174-77), but whether this represents a direct exchange of ideas or a regional koine of types is hard to detect. For example, large spouted vats and shallow dishes with three stump legs appear (de Miroschedji 1993:fig.11; idem. 1999:13.1, 13.7), which are paralleled in Old Kingdom forms (Reisner 1931a:226, fig. 78.1, 78.8; Reisner and Smith 1955:83, fig. 117). In addition, the technique of using a red burnished slip on pottery was widely used in the region for much of the 3rd millennium.
In EB Ib southern Canaan, the presence of Egyptian imports alongside Egyptianised ‘domestic’ wares means that scholars have been quick to suggest ‘Egyptianising pottery made by Egyptians’ resident at the site (Brandl 1992:441-8; see Ch. 2). While the data points to this phenomenon in the EB Ib, this conclusion is not suggested by the evidence in the EB III. Between the EB Ib and the EB III, Egyptian pottery imports go from considerable to almost nil. Identifiably Egyptian manufacturing techniques are harder to spot, particularly as the long period of Egyptian influence during the EB Ib undoubtedly resulted in the adoption of some methods by local Canaanite craftsmen.

However, several classes of local EB III ceramics reveal Egyptian antecedents. The shapes have good parallels in the Egyptian pottery repertoire, but the fabrics clearly indicate a local product. The context and associated material point to a deliberate attempt to imitate Egyptian prototypes.

8.8.1 The flaring cups from Ai

An EB II-III ceramic shape often associated with Egyptian production is the flat-based cup with a flaring rim. It is identified as a ceramic copy of an Egyptian stone vessel type (Schaub cited in Dever 1973:50), known in the Early Dynastic Period and Old Kingdom at Saqqara, Giza, Matmar and elsewhere (Reisner and Smith 1955:94, fig. 138; Aston 1994:105, no. 37-8; van den Brink 1988:fig. 21.60; Bermann 1999:94, no. 29). A ceramic version also appeared in Egypt (Reisner and Smith 1955:78, fig. 102).

The most coherent collection of such vessels comes from Sanctuary A at Ai (pl. 46) (Marquet-Krause 1949:pl. 52 bottom row, pl. 53; Callaway 1972:321-2, fig. 73, 76). The group comprises variations of the same cup shape, with a number showing signs of use. Blacking on the interior indicates that burning oil had been poured out or had caught alight. Other cups bear smoke patches on the surface, but none were affected in such a way as to suggest damage in a major conflagration.

The vessels have close parallels in Old Kingdom Egypt (Reisner and Smith 1955:78, fig. 102; Kenyon 1970:116-7; Aston 1994:105, no. 37-8), but the fabrics are local. The shape is also known elsewhere in EB II-III Canaan (Hennessy 1967:24), from
the Kinneret tomb (Mazar et. al 1973:pl.6.32), Beth Shan (Fitzgerald 1935:pl. 9.25)
and Jericho (Garstang 1932:pl. 3.4). Indeed, rather than seeking an Egyptian
inspiration, Callaway preferred to regard them as linked with the Khirbet Kerak
cultures of the north (Callaway 1972:304; Sagieh 1983:115-6). Parallels from
Byblos, both in form and context, are particularly compelling, but these are from the
later Phase I/II (Sagieh 1983:115-6). An Egyptian inspiration for the cups therefore
seems more plausible, given the presence of imported stone vessels and other
objects.

8.8.2 Other Egyptianising shapes - Megiddo
Another group of vessels has been recently excavated from EB III Megiddo (Joffe in
Finkelstein et al. 2000:161-85). Made of local clays, the shapes are best paralleled in
the Egyptian pottery repertoire but with some interesting twists. The group of 16
vessels can be divided into six shapes. None were slipped red and burnished:
(a) Small flaring bowls with a flat base and an everted rim (pl. 47). The so-called
‘lotus-shaped’ bowl is known as early as Naqada IIIa2 at Buto (Köhler 1998b:pl.
33.3) and continues with minor variations throughout much of the Old Kingdom
(Reisner and Smith 1955:figs 75, 121). Locally made examples are well known in EB Ib southern Canaan where evidence of Egyptian activity is present (see for
example Brandl 1989:fig.12.12). Indeed, an example from Ai may be an
Egyptian import (Marquet-Krause 1949: pls 46.59, 68.59, 59.643, 70.643b).
(b) Large bowls with concavo-convex walls, a concave base and slightly everted rim
(pl. 47). Again this type has a long date range throughout the Old Kingdom with
variations known from the 4th to 6th Dynasty (Reisner and Smith 1955:figs 75,
121; Simpson 1978:pl. 70.G7101, Reg. No. 24-12-182, 3).
(c ) Small shallow round-based bowls tapering to a blunt point; rounded everted rims
(pl. 47). The best parallels are mid 5th to 6th Dynasty (Reisner 1931a:fig. 72, no.
1-5; Reisner and Smith 1955:fig. 105; Simpson 1978:pl. 71.24-12-269).
(d) Round-based basins with a rounded rim and a horizontal groove underneath (pl.
47). Perhaps the earliest precursor to this type comes from Dynasty 0-1st Dynasty
Buto (Köhler 1998b). The shape is also reminiscent of large and smaller Egyptian
ceramic basins (See Reisner and Smith 1955:fig. 106, no. 36-11-40 mid to late
5th Dynasty; Fisher 1924:fig. 136.5). The shape also recalls large spouted 6th
Dynasty basins from Giza (Reisner and Smith 1955: fig. 117, Tomb G2379A).
(e) Tall drop-shaped jars with a rounded base to a slight point (pl. 47). The shape recalls cylindrical offering or beer jars of the Old Kingdom, but the narrow shape defies precise parallel from this period. Indeed, the shape looks forward to 1st Intermediate Period/Middle Kingdom bread moulds (Petrie and Brunton 1914:pl.30.34; Jacquet-Gordon 1981:fig. 4.4-12).

(f) Flat or concave-based ovoid jars with a short neck and roll rim (pl. 47). Good parallels for this shape are known in EB Ib Canaan and Naqada III Egypt (Brandl 1989:figs 10.6, 14.6); the shape continues in the early 4th Dynasty and beyond (Reisner and Smith 1955:fig. 90; Kaiser et al. 1984:fig. 9c). Two jars of very similar shape and size came from Stratum V (1st-2nd Dynasty) at Buto (Köhler 1998b:fig. 30). Found along with other ceramic vessels, Köhler believed the deposit represented offering or cultic objects, possibly even copies of stone vessels (1998b:55).

In the light of other Egyptianising material in EB II-III Canaan, the corpus warrants closer examination. Firstly, Goren examined the fabrics, identifying them as a local product on petrographic grounds (Finkelstein et al. 2000:498). However, the use of chaff and other organic temper speaks of a deliberate attempt to imitate Egyptian clay preparation techniques otherwise not known in EB II-III Canaan (Finkelstein et al. 2000:499). The unique preparation of the clay recalls the organic/chaff tempered loessy clays of Egyptianising wares from southern sites like Tell Erani (Porat 1992) and the straw tempered Nile silts of Egypt (Do. Arnold and Bourriau 1993:169-75).

Secondly, when compared to Egyptian pottery types the assemblage has a possible date range of Naqada IIIa2-6th Dynasty, but again some unique characteristics emerge. The vessels are small and some shapes are unique at Megiddo with precise parallels in either Egypt or Canaan difficult to find (Finkelstein et al. 2000:172). The only shape with connections to the Egyptian stone vessel repertoire is (f) (Aston 1994:122-3), but equally strong ceramic parallels exist. Hence, it cannot be said that the whole group represents ceramic copies of more precious luxury temple items. Joffe plausibly suggests that the group represents the product of a craftsman with an ‘incomplete familiarity with the original Egyptian forms and technology’ (Fineklstein et al. 2000:173). Even so, only shape (d) and (e) are without precise
Egyptian parallel, indicating that the potter appeared to be familiar with Egyptian shapes.

Thirdly, the context from which the assemblage was found (Locus 96/J/38) is problematic. The cache was discovered as ‘a dense accumulation of crushed vessels’ (Finkelstein et al. 2000:171). The pit was sandwiched between Level J-6, a context with EB III pottery (including Khirbet Kerak ware) and Level J-4, containing EB Ib material (Finkelstein et al. 2000:171-4). Immediately above Level J-6, was the EB III Temple 4040 in Level J-7. The excavators differ on their dating of the deposit, with Finkelstein and Ussishkin proposing an early EB III date, and Joffe preferring the late EB Ib (Finkelstein et al. 2000:586). However, as Finkelstein and Ussishkin noted, further exposures of Level J-5 in 1998 contained EB III material; in addition, there appeared to be a deposit of mud brick fill and pebbles immediately above the EB Ib layer representing ‘a long period of time’ (Finkelstein et al. 2000:586-7).

That the assemblage is deliberately Egyptianising seems clear in both the shapes, technology and in the nature of the deposit itself. The context, located in the heart of Megiddo’s cultic structures, suggests an important group of ritual or temple vessels. Perhaps the deposit represents a foundation deposit or a deliberate burial of cultic equipment in the manner of similar Egyptian repositories at Elephantine, Abydos, Hierakonpolis and Tell Ibrahim Awad (see Dreyer 1986:44-54; Kemp 1991:69-79). The ceramic cultic/ritual vessel deposit from Dynasty 0-1st Dynasty Buto (Köhler 1998b:55-7, fig. 30) offers a further good parallel for this practice both in the rough number of vessels and variety of shapes; two ovoid jars from this context are closely paralleled by two jars in the Megiddo cache (see (f) above). At Tell Ibrahim Awad, a deposit of 61 cultic vessels in a pit was associated with the Old Kingdom temple; this included a large number of tall, narrow storage jars of an unusually ‘slim form’ (van den Brink 1992b:49, pl. 8).

And what would be the reason for creating a group of vessels, found in one deposit at Megiddo, with such clear links to Egypt? To offer the explanation of an Egyptian presence at the site, akin to the EB Ib Egyptian activity in the south, is weak owing to the absence of supporting evidence. In addition, the combination of typology and the
probable date of the deposit as proposed by the excavators, indicates an EB III date for the cache rather than the EB Ib or EB II.

The best parallels for this deposit are in Egypt, as noted above. Indeed, the overall character of the deposit, number of vessels, variety of shapes and even the quantity of each type, speaks of a group of ritual vessels with close links to Egypt. The Ai stone vessels, and to a lesser extent the ceramic cups, show that objects with an Egyptian flavour were used as EB III temple equipment. Likewise, the EB II Beth Yerah jar incised with hieroglyphs could be associated with this phenomenon. Found in an apparent ritual deposit (Ch. 2.5.4), its significance lay not with the jar in itself (a common local product), but in the Egyptian inscription and therefore its association with the Egyptian state. Probably these vessels, with an indirect or direct Egyptian association, were invested with significance, thus helping elevate them to a special status.

8.9 Architectural Features

So-called Egyptian architectural features have been noted in the monumental buildings at several EB III sites notably Ai (Ch. 4.11.6), Tel Yarmouth (Ch. 4.9.6) and Beth Yerah (Ch. 4.17.2).

Callaway in particular used this, in combination with the other Egyptian objects at the site, to suggest that

_Egypt control[ed] Ai in some kind of political or economic relationship,
or both_ (1978:47).

Callaway also claimed that the

_'EB IIIA city was profoundly influenced in the reign of Zoser'


The 3rd Dynasty ledge rimmed bowls stone bowls from Ai and Tel Yarmouth [115-6, 130] indicate contact with Egypt at this time or later. Both were found associated with cultic structures. However this does not indicate foreign control. Rather, these
vessels should be identified as state-to-state gift or diplomatic exchange (see Ch. 8.2.6).

Archaeological evidence found at Tel Yarmouth indicates that the city’s elites enjoyed a direct relationship with Egypt. In addition, use of the Egyptian cubit in EB IIIC Palace B (ca 25th century BC/5th Dynasty) suggests an exchange of ideas at an elite level, in addition to objects. As the ceramic jar with incised hieroglyphs from Beth Yerah shows (Ch. 2.5.4), Egyptian agents were located abroad in the EB II at least, and it is possible that the cubit was introduced by such an official based at Tel Yarmouth in the EB III. Conversely, itinerant contact with Egyptian officials engaged in trading/diplomatic missions may have resulted in the adoption of certain forms of Egyptian administrative organisation, such as metrology.

Baines describes architecture in Early Dynastic Egypt as ‘the chief form of more general [royal] display’, alongside writing and representational art (1989:477). The same role for architecture as a form of royal or elite display can be ascribed to monumental and civic structures in the Levant. However such structures and other power-facts operated on two levels. Firstly, they visually symbolised status and reinforced the reality of power and authority to those of lesser rank, and secondly, they operated as a display of power and status to elites of comparable standing (Baines 1989; Bard 1992; Trigger 1993:55-85).

Hence, use of the cubit and internal buttressing only in Palace B at Yarmouth takes on additional significance. It was used specifically because of its association with Egyptian and northern elites. Use of the cubit, and hence its association, would have been invisible to those without knowledge of it. Thus using the Egyptian cubit was a subtle form of display to enhance status and prestige.

It should be noted, however, that use of the cubit for EB III monumental architecture in Canaan may have been more widespread than hitherto attested. Further work is required on the metrology of EB III civic buildings to understand if use of the cubit was widespread, but this is beyond the scope of this study.
At Beth Yerah, the so-called EB III granary was identified as an Egyptian inspiration (Maisler 1952:227-8; Currid 1986:23-4). No major granaries are known from other EB III sites in Canaan against which to compare the Beth Yerah building. However, the known presence of an Egyptian official at the site in the EB II, and glimpses of contact in the EB III means that a direct Egyptian inspiration for this structure is possible.

Saghiieh points to the use of Egyptian architectural elements in elite architecture at Byblos (1983:56-7, 106, 121). Other Egyptian influence is noted in Phase KIII-IV, but on the basis of the publications, it is difficult to assess the contexts and thus the interpretation of these finds.

8.10 Conclusion
Manufactured Egyptian objects in the Levant fit into the broad pattern of state-to-state gift exchange and trade goods established by scattered textual material of the 3rd and 2nd millennium. Goods attested in the Levantine archaeological record include prestige objects such as stone vessels, toilet articles, and special items. Objects of a more prosaic nature such as palettes, beads and other small pieces also formed part of this exchange, but their exotic origins may have lent them prestige and value in the eyes of those who received them.

Early Dynastic and Old Kingdom stone vessels form the largest group of objects in the Levant. The deposits in which fragments have been found at Ai, Tel Yarmouth, Byblos and Ebla are largely elite or cultic installations, which at the very least signal the preciosity of these objects.

At Ai and Tel Yarmouth, stone vessels found in cultic contexts may also be gifts to the local cult, but this is less likely as no direct affiliation with the local deities can be established. More likely, the vessels were gifts or trade items from Egypt to local elites. The wide date range of the vessels in EB III Canaan suggests either the vessels arrived at different times or came from an Egyptian stone vessel repository. While some are of Early Dynastic date, other vessels date to the 3rd Dynasty and possibly later. Two vessels one each from Ai and Bab edh-Dhra, may have been containers for Egyptian commodities.
At Byblos, the Egyptian stone vessels belong to the terminal Phase KIV, but the types belong to the 4th-6th Dynasty and possibly earlier. The majority of them are found in an elite residence rather than the Baalat Gebel temple. Vessels of probable north Syrian origin were also found there. This points to elite gift exchange and trade rather than any cultic rationale for their presence at Byblos. The fact that a number of these are inscribed with Egyptian royal names further supports their regal origins. Only a small number of vessels are found in the Baalat Gebel temple; three are inscribed, and they may represent Egyptian endowments to the temple. However, the precise identity of the people who placed them there is unknown. Many other Old Kingdom objects at Byblos are without a verifiable provenance and therefore cannot be used in any debate on Egypt's relationship with the city.

At Ebla, not only do the vessels span a wide chronological period, but the manner and purpose of their arrival cannot be established with certainty. However, the majority of the vessels are bowls (as with Ai and Tel Yarmouth) stored in the Palace G complex, pointing to direct or indirect gift exchange, probably in exchange for Eblaite silver and lapis lazuli. Like Byblos, a vessel bearing the name of Pepy I occurs at Ebla, which may point to a particularly active role of this king in the Eastern Mediterranean. As with Byblos, a 4th Dynasty royal name, that of Chephren, is also attested, from which one could also draw the same conclusion.

In Crete, only one Egyptian vessel can be positively dated to the EM II (synchronised with the Old Kingdom); it was found in a domestic context and should be associated with down-the-line exchange mechanisms via Cyprus and the Syrian coast.

In Canaan, the Egyptian slate palettes appear in a range of EB II-III tomb and settlement contexts. They are found largely in contexts much later than the floruit of the type in Egypt, suggesting they may be heirlooms from an earlier age. However, they are probably the product of Egyptian tomb robbing or come from a temple magazine, arriving in the hands of Egyptian emissaries seeking commodities, or via local down the line exchange mechanisms. Old Kingdom textual evidence and the Amarna letters point to the exchange of more mundane objects like throw-sticks and whetstones; Egyptian palettes in Canaan should be viewed in the same light.
Other prestige objects such as the comb, dagger handle and faience cone from Ai likewise fit the pattern of precious gift exchange between elites in antiquity. Their context in Sanctuary A and appearance with other luxury Egyptian items points to the precarious of the objects by virtue of their exotic origins and craftsmanship. Further raw materials analysis is required to more precisely confirm the origin of such objects, rather than simply relying on stylistic attribution.

The presence of Egyptian beads, amulets and seals in Canaan should be viewed as part of an exchange in such items dating back to the Chalcolithic Period. This exchange not only involved finished objects in carnelian and possibly faience, but also raw materials like Red Sea shells and semi-precious stones as raw materials. The question of Egyptian faience exports has not been comprehensively settled, but the text from Sabni’s tomb describing Egyptian faience as a diplomatic gift certainly indicates that objects of this material were exchanged. Some faience in Canaan may likewise originate in Egypt.

A range of other perishable items may have formed part of the Old Kingdom repertoire of manufacture trade goods. Sabni’s text points to textiles in gift exchange and as a commodity, although not surprisingly no archaeological evidence is found in the Levant. Other objects include papyrus and furniture, but the evidence for this is slender to non-existent. However, once again such items would fit other evidence for a Levantine gift exchange in furniture and textiles.

The impact of Egyptian contact in Canaan is seen in a range of Egyptianising ceramics from EB III Megiddo and to a lesser extent, Ai. At Megiddo the ceramics were deposited in a manner that points to cultic or ritual significance; while the vessels are locally made, their Egyptian inspiration is deliberate. In particular, the cache from Megiddo is directly paralleled by similar deposits in Egypt, which when examined alongside the shapes themselves, indicates a more than passing familiarity with Egyptian pottery. The locally made cups from the Ai Sanctuary are also closely related to similar vessels from Egypt, and were found alongside Egyptian imports. This suggests the appropriation of certain Egyptian symbols for status display by local elites.

Likewise, various Egyptianising features in local architecture speak of direct Egyptian influence. Use of the Egyptian cubit for Palace B and no other building at Tel Yarmouth
indicates the exchange of ideas between Egyptian and local elites, as suggested by the appearance of other objects at the site. The internal buttresses on the same building, best paralleled at Byblos, point to a deliberate attempt by local elites to appropriate various symbols of status display involving not only prestige objects but ideas as well. So-called Egyptian features in buildings at Ai and Beth Yerah and could reflect more local traditions and hence their links with Egypt require more study.

We cannot ascertain the level of direct political and cultural influence exercised by Egypt over her immediate neighbours; in any case this question is beyond the scope of this study. However, evidence suggests that Egypt was in direct contact with elites at a number of key cities, including several major centres in Canaan, whom the Egyptian state thought of sufficient importance to send exotic gifts and maintain official contact through its agents and emissaries.

Endnotes

1 Dr Ali el-Khouli is preparing a major work on Old Kingdom stone vessels as a companion volume to his important book on Predynastic and Early Dynastic stone vessels (el-Khouli pers. comm. 11/96).

2 The tomb of Kagemni, dating to the reign of Teti, contained four large inscribed calcite vessels, each with lids and of a slightly different shape. They are possibly canopic jars (Firth and Gunn 1926:pl. 12A and B).

3 Many scholars have exhibited a frustrating tendency to publish only the hieroglyphic inscriptions with little or no information about the actual shape or stone type of the vessel (see for example Nelson 1934). Similar problems have been encountered by archaeologists seeking to study ceramic pot marks (van den Brink 1992:267).

4 Reisner notes that stone vessels from the funerary monuments of the latter two kings were never published by Borchardt (Reisner 1931a:201).

5 The writer knows of only two exceptions. A calcite jar from Edfu with the name and titles of King Teti from an unnamed non-royal tomb; also a jar bearing Teti’s name comes from an unnamed grave from Matmar (Bruyère 1937:35, pl. 17; Brunton 1948:pl. xxxviii, Grave 3243.8). Exceptions to such dogmatic statements can always be
found.

6 An inscribed platter, again not apparently found in a Phase KIV deposit, names the official Nefer-seshem-ra and probably dates to the 6th Dynasty (Ward 1964). A further object of Old Kingdom date naming a private official is an ivory plaquette with the name of Ta-sen (Dunand 1927:98-9; Helck 1994:106).

7 Potts notes that Naram-Sin took stone vessels as war booty from other vanquished towns (Potts 1989:130-1,133), yet these Egyptian stone examples seemed to have escaped the attention of potential conquerors. To the knowledge of the writer, no Egyptian stone vessels are known in Early Dynastic II-III or Akkadian levels in southern Mesopotamia.

8 The large calcite vessels from Kagemni’s tomb at Saqqara are inscribed with his name and titles, but no royal name appears (Firth and Gunn 1926:pl. 12A and B).

9 Redford’s assertion that ‘the Old Kingdom in Egypt rarely yields presents sent in the other direction’ (1986:141) ignores the possibility that such gifts consisted of raw materials, perishables like timber objects, textiles or even metals, in raw form or later re-used and not now present in the archaeological record.

10 For example, palettes and palette fragments were found in the EB I settlement at Maadi, but rarely in the burials (Kroeper 1996:70). On the lack of Old Kingdom sequences, see Giddy 1987:198.

11 Square, rectangular and diamond-shaped palettes of quartzite, porphyry and breccia are known from Early Dynastic Nubia (Reisner 1910:330-1, pl. 63c).

12 Brandl states that the Tel Erani palettes are Egyptian (1989:368, no. 7), but this is not the case. The writer examined these objects in 1996. One palette was made of a mica schist or chlorite schist, similar to the example from Bab edh-Dhra published in Schaub and Rast 1989:455, fig. 261:6, also handled by the writer. The other was of local origin on the basis of stone type, manufacture and quality.

13 But see the palettes of various materials from A-Group tombs in Nubia: Nordstrom 1972:pl. 191. An ‘alabaster’ palette was found in a ‘Tasian’ grave at Mostagedda, but as to whether this is calcite or gypsum is unknown – Kantor, cited by Schaub and Rast 1989:455. Spencer notes an Early Dynastic alabaster palette (Spencer 1980:80, pl. 62.581).

14 Aston notes the Egyptian use of mica schist, almost certainly from as yet undiscovered local sources (Aston 1994:61-2).
Small finds from the late Old Kingdom settlement at Ain Asil shows the variety of 
miscellaneous material that such sites yield. See the preliminary reports cited in Giddy 
1987:203-5. No palettes have yet been published among the small finds.

Tutankhamun’s tomb is perhaps the known example of this phenomenon: it was 
robbed anciently and re-sealed by officials (Carter and Mace 1933:103-8).

Jacobs’ (1996:127) belief that decorated Egyptian palettes were inherently more 
valuable than plainer types and as such should have been more preferable trade items, 
has no real basis other than a value judgement placed upon them by modern scholars 
and connoisseurs.

Old Kingdom wall scenes show that throwsticks were fairly common hunting 
implements. Retainers in the tomb of Hesi at Saqqara even carry fresh supplies 
(Kanawati and Abder-Raziq 2000:27-9, pl. 54).

Tell el-Far‘ah. Notes de Chantier 1958, 29/9/58

The identity of this stone as calcite or local gypsum has not been confirmed.

The terms ‘faience’ and ‘frit’ are often used interchangeably in archaeological 
reports to describe objects made with an artificial silica-based material. More 
correctly, the term frit should only be applied where the glaze has worn off, 
otherwise the term ‘faience’ or ‘glazed composition’ is more appropriate (Moorey 

The bead corpus from Bab edh-Dhra and Tel Halif are yet to be published in detail, 
but on searching through the register of finds for these projects, the writer noted many 
beads of carnelian among the inventories.

EA 14 lists of gifts from Egypt to a foreign king, describes ’19 combs of stained 
ivory’ (Moran 1992:34).

See the well-known 1st Dynasty linen shirt from Tarkhan (UC 2861Bi) and the 5th 
and 6th Dynasty garments from Deshasheh (UC 31182 and UC 31183) all located in the 
Petrie Museum, University College London. Another linen fine garment from a 6th 
Dynasty tomb at Naga ed-Deir is located in the Boston Museum of Fine Arts (Boston 
N.94.5 – Hall 1986:15, 19-20).

These cups were examined by the writer in Jerusalem during 1996.

Hennessy was not sure if they were Egyptian or of local production (1967:114, no. 
27). The writer examined these vessels in the Israel Museum, the Hebrew University 
Museum (Mt Scopus) and the Rockerfeller Museum during several trips to Jerusalem in
1995 and 1996. Where possible, a section through the fabric was examined under a 10x hand lens. Other vessels published by Marquet-Krause could not be located.

27 Porat actually describes the vessels of this clay, all domestic in character, as ‘Egyptian’ (1992:433).
CONCLUSION

A REVISED VIEW OF EGYPTIAN RELATIONS WITH THE LEVANT IN THE OLD KINGDOM/EB III

The characterisation of Old Kingdom Egypt's relations with the Eastern Mediterranean has been hampered by several factors. The first is the recent emphasis on the EB Ib (and to a lesser extent the EB II) which has largely failed to regard the Old Kingdom/EB III as part of the ebb and flow of Early Bronze Age interconnections. The second factor is the lack of any new documentary discoveries in recent years, and the unreliability of royal inscriptions as historical documents. Thirdly, there has been a dominance in scholarship of the textual and artistic evidence over archaeological sources.

However, a fresh view of Egypt in the Levant during the Early Bronze Age can be gleaned from a re-evaluation of old data, well-known textual sources, new archaeological remains from more recent excavations and the application of scientific methods of analysis to material evidence. As a result, it can be seen that the pattern of Old Kingdom Egypt's formal relationships in the Eastern Mediterranean is rooted in the EB II, although its engagement with the region has an earlier history.

The EB I-Predynastic/Protodynastic Period

In the EB Ia–Naqada IIb trade was sporadic and low level, embracing land-based networks with southern Canaan. There is also some evidence to suggest a link with Byblos. By the early EB Ib-Naqada IIc/d2, stronger evidence for trade and exchange exists, based on a series of land-based trading networks designed to supply elites with exotic products not available in Egypt. During this time, a sea connection with Byblos was probably established. By the Naqada IIIa2, the increasing need of local elites to acquire and display exotic imports to symbolise and legitimate their political power became more pronounced. This need saw the importation of cedar by sea from the north, and significant quantities of wine from the hill country of central and southern Canaan and the Jordan Valley. Imported pottery in both Canaan and Egypt
increases, attesting to a more intense relationship between the regions based on commodity exchange.

Links reached their peak in the late EB Ib/Naqada IIIb-c1, when the relationship previously based on an exchange of goods underwent another fundamental shift. A more intense core/periphery association develops, with the emerging Egyptian state spreading its control from the eastern Delta to southern Canaan (ḫ3ṣṭ), where it established a series of outposts to manage the acquisition of goods such as copper, wine, olive oil and timber. This shift involved the peaceful movement of Egyptians into southern Canaan at the behest of the nation-building leadership, creating strong administrative centres on the Tel Halif eastern terrace, at Tel Erani, ‘En Besor and possibly also Lod. This presence was at its strongest under Narmer, but continued under Aha. The impact of this activity on the comparatively underdeveloped urban complexes of the Levant was profound, bringing with it political and economic organisation, economic enterprise and religious ideas, accelerating the development of complex society in the EB II.

The EB II-Early Dynastic Period
At the beginning of the EB II, another shift occurs and the Egyptian presence retreats for reasons that are not clearly understood. This shift should be placed at the reign of Djer, which marks the appearance of Abydos Ware in Egypt. A greater focus on domestic affairs, combined with a greater level of confidence on the part of emerging local elites, may have resulted in Egypt withdrawing its presence on the ground in Canaan. This growing assertiveness on the part of elites may have produced sporadic military activity with Egypt, as suggested by the fragmentary textual record. Egyptian military activity also took place against the inhabitants of the Sinai, probably to gain control of the rich resources at Wadi Maghara and to protect mining and trading expeditions.

The emergence of complex society in EB II Canaan and the withdrawal of the Egyptian presence produced a subtle shift in regional power structures. The relationship returned to one based on commodity exchange, acquisition and this time, diplomacy with local elites. This change in the status of each region is visible in the decline of the Egyptian presence in Canaan combined with the appearance of
imported fine Egyptian stone vessels. They appear at a range of sites, but in significant quantities at Tel Yarmouth and Ai. They were used in the diplomatic act of royal commerce, as royal 'gifts' or trade items between Egyptian and Canaanite elites. Contact with Egypt also provided local elites with a form of status and display involving Egyptian objects. This more formal relationship is also reflected in the appearance of Egyptian officials with responsibility for administering affairs with her north-eastern neighbours.

The Egyptian state sourced products from a range of different locations during this time (pl. 48). Byblos emerges as the probable entrepôt for the coastal coniferous timber trade and other exotic products like lapis lazuli. The appearance of Egyptian stone vessels of possible Early Dynastic date at Byblos, although in much disturbed contexts, suggests the commencement of formal relations between Egypt and Byblite rulers at this time. The importation of cedar, seen in small quantities during Naqada III, begins on a significant scale under Aha, with large timber beams for construction transported via the coastal maritime route from the forests of the northern Levant. Moreover, these links to the north may have extended as far as the Amuq, with the importation of commodities in lattice burnished Abydos Ware jugs.

The need for heavy coniferous timbers like cedar, required for construction of royal monuments and shipping, transformed exchange patterns. The large-scale acquisition of imports, especially timbers by sea, required significant resources and high levels of political organisation and control. In all likelihood, the establishment of the sea route at the beginning of the 1st Dynasty along the coast to Syria provided a more efficient means of transportation that did not require a network of land-based outposts to manage the acquisition and shipment of goods. This same link may have facilitated the commodities trade in Canaan, particularly from the north, by shipping products from coastal anchorages rather than transporting products overland all the way to Egypt by donkey caravan. The relative lack of Egyptian ceramics across the Sinai land bridge during the latter part of the Early Dynastic Period is probably the result of this change in transport mechanisms.

Despite the growing importance of the coastal sea route, Egypt’s links with central and southern Canaan still functioned (pl. 49). Arad emerged as a strong player in the
Feinan copper network, and in the market for other commodities. The wine and olive oil industry of the hill country in Canaan continued supplying the Nile Valley, but in much reduced quantities for wine at least, owing to the commencement of viticulture in Egypt during the Early Dynastic Period.

The acquisition of Sinai turquoise was probably maintained using a combination of the Arad network, Egyptian mining parties and exchange with local tribespeople. Early Dynastic elites may have begun directly sourcing turquoise via itinerant expeditions to Wadi Maghara. Military skirmishes with hostile Sinai inhabitants in the Early Dynastic era, as suggested by the textual evidence, helped Egypt establish the confidence to exert direct, on-going royal control over these assets by the early 3rd Dynasty. The large copper resources of the Feinan, in addition to local mines in the Eastern Desert, probably continued supplying Egyptian needs for the metal.

However, a growing level of Egyptian interest in northern Canaan is also evident. From Djer’s reign onwards, Abydos Ware imports reveal a systematic trade with northern Canaan, which existed without the Egyptian presence in the south so evident in the EB Ib. Beth Yerah emerges as an important centre not only for the manufacture of commodities, but for product procurement further north. A physical Egyptian presence is based there, which dates to the middle of the 1st Dynasty, and possibly into the 2nd Dynasty. As a result, the official Egyptian ‘reach’ extends even further north with the import of commodities in Abydos ‘metallic’ Ware jugs from the region of northern Israel/Mount Hermon, where Pinaceae resin was obtained. The Egyptian demand for coniferous resins may have been linked to emerging techniques of mummification, for which the aromatic and preservative qualities of coniferous resins were highly prized. Egyptian officials probably sent these commodities to Egypt using a combination of donkey caravans and sea links.

Little is known about what Egypt sent to the Levant in return. Egyptian objects in EB II Canaan are poorly documented; in all likelihood, more exists in the archaeological record than has been identified thus far. Durable prestige objects such as palettes, stone vessels and ‘trinkets’ like beads appear, and some pottery is mentioned in the literature, but the latter is poorly published. As with the EB III, Egyptian exports may have been of a perishable nature, like linen, oil or grain.
This exchange activity continued under 2nd Dynasty rulers. Analyses conducted on a small number of 2nd Dynasty wood samples reveals the continuation of coniferous timber imports, particularly on a large scale during the reign of Khasekhemwy. In addition, a number of stone vessels were probably sent from Egypt to Ai and Tel Yarmouth as elite gifts during this period. Egyptian textual material also points to the arrival of tribute or produce from Canaan. On the other hand, Abydos Ware is not well-attested in 2nd Dynasty Egypt, which could represent a break in supply or the fact that the period is poorly known to archaeologists. Further 2nd Dynasty evidence is required to illuminate this shadowy period, but the relative absence of historical information does not mean that it was not an active economic player in the region.

**The EB III-Old Kingdom**

By the Old Kingdom, the Egyptian state existed in a ‘mature’ form, with kings sitting at the apex of a strictly hierarchical and highly organised administrative system. In Canaan and elsewhere in the Levant, the EB Ib and EB II pattern of large towns servicing numerous smaller settlements was replaced by a smaller number of bigger fortified towns in key locations, with temples, structures associated with state administration and presumably more complex social organisation.

Into this regional political context, Egypt prosecuted its interests via four principle geographical focii: the north Levantine coast, northern and southern Canaan, and the Sinai (pls 50-1). The most important of these links was with the Sinai, Byblos and the coastal region around this city. Canaan continued supplying Egypt with commodities, but previously strong links in the EB II, especially with northern Canaan, competed with products available through the Byblos network. This trade activity was largely prosecuted using the Levantine sea route, which serviced inland towns via coastal way-stations and donkey caravans. The purpose of all this activity was the acquisition of valuable resources by the Egyptian state, including commodities and manpower, achieved through exchange with local elites and the forced possession of human booty through military campaigns.

The 3rd Dynasty witnessed the continuation of Early Dynastic interaction with Canaan. Stone vessels at Ai and Tel Yarmouth show that royal gifts continued during
this period, which may be equated with the EB IIIA. Indeed, two of these are Egyptian-made bowls made in Canaanite shapes, thus likely given with the recipients in mind. Egyptian control over Sinai turquoise and probably copper was also established during the reign of Sanakte. However, in Egypt itself, few imported goods are found; even so, these comprise foreign coniferous timbers found at Saqqara, which probably arrived via the sea-borne Byblos route. Some stone vessels at Byblos probably date to this period, but they were not found in-context and hence may not be contemporaneous imports.

The advent of the 4th Dynasty witnesses the continuation of networks with the Byblos region. The Palermo Stone and archaeological evidence attests to the large-scale importation of coniferous timbers as early as the reign of Sneferu, especially cedar for shipbuilding, construction and the manufacture of smaller objects such as coffins. Indeed, the 4th Dynasty may have witnessed the zenith of the sea-borne timber trade. The most common foreign timber in Egyptian texts is ‘3-wood, equated with *Cedrus libani* and possibly other coniferous woods. Byblos probably acted as an entrepôt for this exchange. A stone vessel at Byblos bearing Hetepheres’ name may point to official contact during the reign of Sneferu or Cheops, but as this was found in Phase KIV along with much later Old Kingdom material, the value of this as evidence for 4th Dynasty contact is diminished. Egyptian agents may have also obtained wood directly from those owning or controlling timber stands along the Levantine coast.

The re-appearance of lapis lazuli in the 4th Dynasty also reflects the importance of links with the north, providing a rationale for the presence of 4th Dynasty stone vessels at Ebla, an entrepôt for the eastern lapis lazuli and silver trade. Two of these bore royal names and the majority were bowls, indicating elite gift exchange or a trade in the vessels themselves. Although the Old Kingdom stone vessels were all found in Syria EB IVA (Mardikh IIB1) contexts, it is possible that links between Egypt and Ebla have a long history, based on the trade in these commodities. Silver may have been used as a means of exchange elsewhere rather than obtained exclusively for the production of objects in Egypt, for which locally extracted silver was used. The extent to which the silver and lapis lazuli trade was conducted directly with Ebla is unknown, as either Byblos or Ras Shamra may have served as exchange
centres. However, the presence of stone vessels at Ebla with royal names suggests that like timber, official networks with Ebla existed.

There is also a sudden increase in the quantity of imported pottery relative to the 3rd Dynasty, although this could represent the accident of discovery. The greatest number of imported vessels during the Old Kingdom occurs in elite 4th Dynasty Giza tombs. The appearance of Combed Ware in the early 4th Dynasty coincides with the disappearance of Abydos Ware in Egypt, a change probably occasioned by the fact that larger Combed Ware jars facilitated transport of greater quantities of the commodity, or indeed reflected a change in the commodity itself. One-handed jars also occur, but in much reduced quantities and in a ware type largely different to earlier metallic wares. Elemental analysis shows that a number of Combed Wares from early 4th Dynasty tombs came from Byblos; vessels from northern Syria/southern Turkey probably arrived via down-the-line mechanisms through Ras Shamra and Byblos.

Residue analysis confirmed that coniferous resins were also imported from Byblos in the 4th Dynasty. Egyptian texts describe the products as 'ṣ, and sjt-oil. The terms probably refer generically to resin from coniferous trees, with the base product consisting of Pinaceae or fir resin. Elemental analysis on the jars also shows that in the 4th Dynasty, vessels continued arriving from the region of northern Canaan/Mount Hermon. The presence of Egyptian objects at EB III Beth Yerah also confirms the continuation of the commodity network that existed in the Early Dynastic Period.

In Canaan, less evidence can be definitively ascribed to the 4th Dynasty. The wide date range of stone vessel types and other exotic imports means that precisely characterising the relationship is more problematic. Imported Egyptian objects continue to be found in EB IIIA contexts, but these finds cannot be synchronised with the actions of particular kings or even Dynasties. Moreover, some of these objects, such as a range of siltstone palettes, are much earlier than the date of deposition, suggesting that this material was acquired from Egyptian tombs, or retained as heirlooms in either Egypt or Canaan. The fact that no imported pottery in Egypt dating to the 4th Dynasty (tested thus far) bears the ceramic signature of
southern Canaan may simply reflect the preference for obtaining certain liquid commodities via the sea lanes from northern sources, rather than any break in trade with the region. In the Sinai, inscriptions reveal the active role of kings in the Wadi Maghara.

5th Dynasty kings continue activities abroad, but perhaps on a lesser scale. Sinai expeditions carry on, with Sahure, Niuserre and Djedkare-Isesi all sending mining parties. In Egypt, imports seem to plateau, with fewer foreign ceramics; these also begin appearing in non-elite contexts beyond the royal burial grounds of northern Egypt. The documentary record also increases, with illustrations from Sahure’s and Unas’ funerary monuments suggesting Asiatic expeditions. Given the problematic nature of royal inscriptions and scenes, these images may be symbolic representations rather than actual historical events. This is suggested by the fact that no foreign vessels of the type depicted in Sahure’s reliefs are known in Egypt during the 5th Dynasty (although they are known at Byblos).

However, there is evidence to indicate that certain 5th Dynasty rulers were active abroad, and such scenes may have a factual basis. Sahure and Isesi sent expeditions to Punt, hence long-range missions in the Eastern Mediterranean are also possible. In-context stone vessels are known from the Baalat Gebel temple at Byblos bearing the names of Niuserre and Unas. Such finds help support the notion of official communication with Byblos during this time. Moreover, the use of the Egyptian cubit at Tel Yarmouth appears in levels tentatively synchronised with the 5th Dynasty, likewise suggesting official engagement with Canaan. Late 5th-early 6th Dynasty Meydum bowls are found along with Way of Horus. Scenes of military activity from the tombs of Inti at Deshasheh and Ka-em-hesit at Saqqara may represent military action in Canaan during the latter part of this era.

Documentary evidence from the 5th Dynasty also broadens the picture of the kinds of commodities acquired by Egypt. However, much scientific work remains to be done on the precise nature of the Egypt-Levantine commodities trade. The insufficiency of relying solely on the documentary record, or visual inspection of an object means that debate on the commodities trade often lacks a secure and verifiable
scientific basis. Further residue analysis and raw materials testing are required on virtually every commodity that may have been imported or exported.

A trade in people is known from the textual evidence and wall scenes, but care should be taken in describing this as slavery. Rather, they are captives and prisoners of war, attested in large numbers as early as the reign of Sneferu, and again in the 5th and 6th Dynasties. Dancing pygmies from Punt were brought back to Egypt for the enjoyment of the king during the reign of Isesi and Pepy II.

Other products attested in the archaeological and documentary record include live animals, animal products, plants and other rare timbers. From at least as early as the reign of Sahure, the Egyptian elites sourced exotic animals such as bears from the northern Levant for royal menageries. Such animals were also exchanged as royal gifts in northern Syria during this time. Animal products such as skins and elephant ivory were imported from Nubia. Hippopotamus ivory was also traded in the Eastern Mediterranean, finding its way to Crete and probably elsewhere. Exchanges between rulers, and war booty, also involved live animals such as cattle.

Other foreign timbers such as mnh-tree wood, mrw-wood and ebony from Nubia were also imported. Pictorial evidence also suggests that species of live trees foreign to Egypt, such as the prt-sni tree from Byblos and juniper (Juniperus phoenícia) from the Sinai, may have been imported and cultivated in Egypt, with berries from the latter known from Egyptian tombs. The medicinal properties of the fruit, in addition to their use in mummification, required a steady source of produce. Wall scenes must, however, be treated cautiously owing to the symbolic nature of funerary art. Cilician fir, cypress, box wood and yew were also imported in small quantities from the Levant. Oils and resins from Nubia, including myrrh, were also sought.

In all likelihood, copper was also obtained from the Wadi Feinan, as it had been from earliest times. This is suggested by the presence of Egyptian objects in EB II and EB III deposits at Bab edh-Dhra and Numeira. A program of testing Old Kingdom copper objects and residues is required to confirm this conclusion. In addition, local sources near Gebel Zeit were also mined during the early Old Kingdom at least, while evidence points to the exploitation of Sinai copper at Wadi Maghara, although
the extent of this activity is not known. Textual evidence for cult objects of ‘Asiatic copper’ points to a precious metal that ranked in rarity and value behind silver or gold. The precise identity of this material is unknown, but this metal was possibly imported bronze from northern Syria or imported copper from the Feinan or the Sinai.

Other products of Canaan were in demand during this time. Jars from southern Canaan appear in Egypt from the mid-5th Dynasty onwards, a finding which may help support textual evidence of greater Egyptian involvement in the region during the second half of the Old Kingdom. They may have contained wine or vegetable oils such as moringa or olive oil from towns like Tel Halif, Ai or Tel Yarmouth. Indeed, Early Dynastic imported jars contained traces of vegetable oils, but no residue analysis has yet confirmed the presence of such products in the Old Kingdom. However, the extent of EBA olive cultivation, combined with an origin in southern Canaan for some Combed Ware jars from Giza, points to a trade in olive oil or special vintages of wine. Liquid commodities continued arriving in Combed Ware jars from northern Canaan via Beth Yerah, but the quantities were reduced when compared to this trade in the Early Dynastic Period.

During the 6th Dynasty, there is further documentary evidence of Egyptian activity in the Eastern Mediterranean. Officials speak of making many trips to Byblos, and military activity in Canaan by Weni is attested during the reign of Pepy I. Caravaneers and diplomats, acting in the king’s name, take Egyptian products to Nubia and return with exotic commodities. The ‘Byblos ship’ is the standard seagoing vessel for long-haul expeditions.

In levels synchronised with the 5th and 6th Dynasty, large quantities of aegyptiaca are clustered at Byblos and Ebla. Collections of inscribed and uninscribed Egyptian stone vessels appear in the terminal Phase KIV of an elite residence and in the Baalat Gebel temple complex at Byblos, and also in the final EB phase of Palace G at Ebla. Indeed, Pepy I’s name occurs at both sites, which may point to particularly active exchange activity during his reign. The stone vessels represent a collection of exotic imports that were not all containers for commodities. Indeed, the predominance of bowls, offering platters and ornamental vessels indicates that they were either royal
gifts or trade items in their own right. The elite nature of their contexts indicates that these objects were exchanged at high levels within the administration of these centres. The presence of vessels with royal names also indicates that they originated from the repositories of Old Kingdom rulers. As to whether they represent collections of *aegyptiaca* obtained over a long period of time, or a group of vessels spanning various dates gathered over a short time span, must remain an open question, as such objects had a particular heirloom value, even in Egypt itself.

Likewise the question of whether the Egyptian vessels at the Baalat Gebel temple at Byblos represent gifts given by Egyptian kings as endowments to the local cult is uncertain. The overall quantity of in-context vessels found there is small when compared to the number found elsewhere at Byblos. Perhaps they were placed there by local elites as offerings rather than Egyptians. However, it is now impossible to ascertain how many other Old Kingdom stone vessels from Byblos, found scattered in many different levels, originally belonged to the temple, if at all.

In Egypt, there is even less imported pottery, much of it located at sites other than Giza. This might reflect the declining ability of the Old Kingdom state to mount foreign expeditions for anything but essential products (like timber) and diplomatic missions. It could also relate to problems of supply in the Levant, or to simply an excavation bias given the significant archaeological work at Giza over the last 100 years. The greater diffusion of imported pottery beyond Giza in the late 5th and 6th Dynasties may likewise represent a reduction in state control over the fruits of foreign missions. A wider regime of materials analysis would help clarify the spread of imported raw materials usage across various social strata and geographical locations in Egypt at this time.

Characterising Old Kingdom exports is difficult. Manufactured goods such as palettes, faience beads, and stone vessels are easily identified ‘exotica’ and were probably traded and given as gift exchange, diplomatic presents or keepsakes. Some of this material is Early Dynastic in date but found in later contexts; other objects are more securely Old Kingdom. Such objects appear in Canaan in elite and non-elite contexts. The many early objects are so out-of context that it seems likely their appearance is the product of Egyptian tomb-robbing or a trade in archaic Egyptian
goods which had a particular appeal in Canaan. Other objects, such as the Ai stone vessels, almost certainly represent elite heirlooms. They appear in the terminal EB IIIB destruction of the Sanctuary and, by the nature of their contexts, represent Egyptian gifts retained as heirlooms from the earlier EB II or EB IIIA temple or in-context imports from an Egyptian stone vessel repository.

Evidence for other products is circumstantial but compelling. Honey and mrkh-oil, known from Sabni's caravan, leave no trace in the archaeological record, and yet textual evidence points to their exchange by Egypt as a diplomatic gift. Their only trace would be the ceramic or stone containers used for transportation, such as those found at Bab edh-Dhra. Gold may have been exported, but no real evidence exists without further analysis of gold objects from the Levant. Palettes from EB III Canaan have been examined petrographically, showing that Egyptian and Sinai stones were used in the production of objects. This may suggest an export of Egyptian raw stones, but it is also possible that these were Egyptian finished goods of a type not widely known from Egypt at the time. Carnelian may have been obtained from local wadis rather than directly from Egypt in every case. Other exported raw materials include Red Sea shells and turquoise via Sinai networks. Egyptian textiles may have been exchanged, but nothing remains in the archaeological record. Other exotic finished Egyptian goods like calcite headrests, cylinder seals, amulets, daggers and faience objects are all found in the Eastern Mediterranean and are likely precious items to be identified as elite gifts.

Contact with Egyptian officialdom in Canaan and Byblos resulted in more than just the exchange of exotic goods. The adoption of certain Egyptian motifs and ideas is reflected in the appearance of the uraei as an architectural element at Byblos, and the use of the cubit for Palace B at EB IIIB Tel Yarmouth. Egyptianising pottery at Megiddo and Ai speak of more subtle influences, with Egyptian shapes produced locally for use as cultic vessels. Indeed, at Ai, Egyptian imports found their way into the cultic ritual of the local temple. Whether they were originally intended as Egyptian gifts to the local cult is impossible to tell, but evidently the objects had an element of preciosity which elevated them to a special status. The highly organised and literate Old Kingdom state cannot claim any political dominance over the
Levant, but its cultural impact on the societies with whom it dealt may have had profound implications which are beyond the scope of the present study to explore.

Likewise, Egypt’s role in the end of the EB III cannot be tackled in the present work. However, ceramic imports were still arriving in Egypt from southern Canaan and Byblos during the late 6th Dynasty. Evidently, despite whatever political turmoil was beginning to engulf the region, production of commodities for export continued.

Evidence presented in this dissertation does not fundamentally alter well-accepted chronological synchronisms with the Levant, constructed as follows:

<table>
<thead>
<tr>
<th>Egypt</th>
<th>Canaan</th>
<th>Byblos</th>
<th>Ebla</th>
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</thead>
<tbody>
<tr>
<td>1st-2nd Dynasties</td>
<td>ca 3100-2686BC</td>
<td>EB II</td>
<td>Phase KI-II</td>
</tr>
<tr>
<td>3rd-4th Dynasties</td>
<td>ca 2686-2494BC</td>
<td>EB IIIA</td>
<td>Phase KII</td>
</tr>
<tr>
<td>5th-6th Dynasties</td>
<td>ca 2494-2287BC</td>
<td>EB IIIB-EB IV</td>
<td>Phase KIV</td>
</tr>
<tr>
<td>Terminal 6th Dynasty-FIP</td>
<td>ca 2287-2055BC</td>
<td>EB IV</td>
<td>Phase IJ</td>
</tr>
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</table>

The archaeological evidence for Egyptian interaction in the Eastern Mediterranean during the Old Kingdom fits into the pattern of 3rd millennium state-to-state gift exchange, trade and war booty, highlighted in the fragmentary Egyptian textual record, the Ebla texts, and records from southern Mesopotamia. The roots of this pattern are found in the Early Dynastic Period. Trade involved the exchange of luxury items such as gold, silver and other metals, lapis lazuli, exotic timbers, resins, oils, perfumes, stone vessels, raw stones, beads, amulets, palettes and other stone objects, foodstuffs, animals and people. Other products may have included textiles and papyrus. This exchange was prosecuted at a state-to-state level to provide elites with high-status goods not available locally. Some of this ‘trade’ may be characterised as gift exchange between elites. Indeed, the acquisition of valuable products was its fundamental motivation, rather than political domination or empire building. This exchange probably reached its furthest geographical and quantitative peak during the 4th Dynasty. However, throughout the Old Kingdom, the Egyptian
state, with varying degrees of success, continued engaging in direct and down-the-line contact with most of the key political and commodity production centres of Canaan and the northern Levant. While relationships may have soured from time to time, resulting in military action in Canaan in the latter stages of the Old Kingdom, the pressures that engulfed the entire region at the end of the EB III probably fuelled these crises.
APPENDIX 1

PIXE-PIGME STUDY OF COMBED WARE JARS IN THE BOSTON MUSEUM OF FINE ARTS

Prepared by Dr P. Grave (University of New England) and Karin Sowada

A1.1 Method and Sample Description

PIXE-PIGME is a form of elemental analysis that uses a proton beam to irradiate powdered ceramic samples to isolate key trace elements (Grave et al. 1996). Owing to the availability of local testing facilities and expertise, this form of analysis was adopted to test selected samples from imported Giza combed ware jars held in the Boston Museum of Fine Arts.

Samples were obtained by taking a small ‘clipping’ from a larger sherd using a pair of ordinary pliers, or cut from a bigger piece using s small saw. These were then powdered by the in the N.G. McIntosh Centre for Quaternary Dating (University of Sydney), taking care to ensure that the slipped surface (where present) was not included in the powdered form for analysis. In the case of the Boston MFA samples, these were taken by the Museum’s Conservation Department by drilling a hole either through the base or a clean section of the sherd. One again care was taken to ensure the drill obtained the sample from a clean surface and where necessary a small scraping of the surface was made. Sufficient powdered material of the Boston MFA jars remains to conduct further sampling in the future.

The samples were tested in December 1999 at the ANSTO Lucas Heights Nuclear Reactor (Sydney). The results were then tabulated on the basis of the Principal Components Analysis (PCA) on 33 samples and 19 elements, using the MV-Arch software. Dr Peter Grave reported that ‘no correction was done and analytic precision and accuracy for this session was normal’ (P. Grave, pers. com. 10/3/00).
A1.2 The Dataset

The 33 samples were numbered as follows; other broad visual observations about the ware character and fabric (where it was possible to ascertain) are also noted:

_The Levant_

2001  Byblos - Balaat Gebel area, surface find: orange red ware, fine calcareous inclusions, no slip on exterior.

2002  Byblos - AUB 1001a: very dark brown ware, with visible angular calcareous inclusions, no slip on exterior.

2003  Byblos - AUB 1000: orange red ware, dark grey in section, horizontal combing on surface, no slip

2004  Byblos - AUB 58.381: orange red ware with fine calcareous inclusions; white/cream slip on exterior. Very similar to the Giza Ware Type (vi)

2005  Byblos - AUB 58.376: orange ware with no slip visible; rounded calcareous inclusions in surface

2006  Byblos - AUB 58.380: orange red ware with no slip; rounded calcareous inclusions in section.

2007  Beth Yerah 50-9870: orange ware with a fine lime slip; fine calcareous and other inclusions.

2008  Beth Yerah 195.75/195.90: orange ware with traces of a lime slip.

2009  Tell Kinrot Kin 83 A-19/5: orange ware with traces of a light lime slip.

2010  Tell Kinrot Kin 83: orange ware, grey core streak, no slip; horizontal and diagonal combing.

2011  Tell Kinrot Kin 83: orange ware, possibly a lime slip on exterior; fine horizontal combing visible.

2012  Megiddo 17.5 or 3/4: orange buff ware with traces of a lime slip on exterior.

2013  Megiddo 64.003: orange ware with red core and many inclusions; uncoated exterior; thick walled. Horizontal combing on exterior.

2014  Megiddo 17.5 or 3/4: buff ware, with large angular quartz and grey stone inclusions; uncoated with horizontal and diagonal combing.

2015  Megiddo 17.5 or 3/4: orange buff ware, no slip.

2016  Tell Erani Gath D: fine brown ware, with large angular quartz and grey inclusions. Uncoated, with horizontal and diagonal combing.

2017  Tell Erani Gath D, D.57: orange ware with a thick white lime slip; plenty of calcareous inclusions.
Tell Yarmouth Area C, Loc. 261: orange-red ware with a grey core; uncoated.

Tell Yarmouth Area C, Loc. 2198: brown ware with no slip; horizontal and diagonal combing.


Beth Yerah Str. IV Basket 1194/30: orange ware with calcareous inclusions, scattered round sand. Uncoated with horizontal combing.

Beth Yerah Str. IV Basket 706/40: orange buff ware, with no slip and horizontal combing on the exterior.

Beth Yerah Str. Ivc Basket 698/27: red-brown ware, with traces of a light lime slip.

Beth Yerah Str. IV Basket 1228/17: light brown ware, exterior coated with a thick lime slip.

Megiddo 64.003, below floor of EB III megaron: buff ware, thick walled. Exterior coated with white lime slip and with horizontal and vertical combing.

Egypt
(for a description of the wares and fabrics, see Chapters 3 and 6)

Matmar, British Museum EA63698: Coarse Orange Red Ware (Type v).

Giza Reisner Reg. No. 13-11-64: White Slipped Orange Red Ware (Type vi).

Giza Reisner Reg. No. 13-10-29: Pink Buff or White Slipped Orange Red Ware (Type vi or vii).

Giza Reisner Reg. No. 13-11-108: Pink Buff Ware (Type vii).

Giza Boston MFA 20.1881: not examined.

Giza Reisner Reg. No. 13-11-65: White Slipped Orange Red Ware (Type vi).

Giza Reisner Reg. No. 13-11-106: Pink Buff Ware (?) (Type vii).

Giza Reisner Reg. No. 13-11-107: Fine Orange Red Ware (Type iv).
A1.3 The results (P. Grave)

The table below indicates that the first three components account for the most significant variation (almost 70%) for the dataset. This is consistent with a dataset that is highly structured (ie compositional groups are present).

<table>
<thead>
<tr>
<th>Eigenvalues</th>
<th>6.9</th>
<th>4.32</th>
<th>2.32</th>
<th>1.43</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>34.5</td>
<td>21.61</td>
<td>11.58</td>
<td>7.15</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>34.5</td>
<td>56.11</td>
<td>67.69</td>
<td>74.84</td>
</tr>
</tbody>
</table>

The plot of the first two components for the samples (Figure 1) indicates that the dataset is composed of three general groups. These groups have been labelled A, B and C.

The plot of the first two components for the elements (Figure 2) helps us understand the character of these groups. It shows that Group A is silica rich (probably present as quartz sands); Group B has overall lower silica (ie it may be considerably less sandy) with more clay elements (eg Fe, Al) present. Higher concentrations of flourine in Group A samples may also indicate a lower firing temperature for this group (flourine can be volatile). Group C samples are very homogenous with relatively high concentrations of calcium and potassium. The homogeneity of this group suggests that the Ca/K is part of the original clay chemistry or present as very finely divided particles rather than reflecting discrete inclusions. If not a distinct group themselves the two samples (2017 and 2020) intermediate between C and A may belong to general Group A but are unlikely to belong to C given that latter groups’ overall homogeneity.

The general groups can be further decomposed with the addition of the third component of the PCA that identifies A and B subsets. A three dimensional plot of the first three components (Figure 3) identified these subsets (Ai, Aii etc.). Note the allocation of sample 2029.
BY=Byblos  BE=Beth Yerah  TK=Tell Kinrot  ME=Megiddo  TE=Tell Erani
TY=Tell Yarmouth  EMT=Matmar  EGI=Giza

Figure 1: Bivariate plot of the first two PCA components for the samples showing the highly structured character of the dataset.

Figure 2: Bivariate plot of the first two components for the elements. The relationship of the elements to each of the three general groups is depicted using A, B and C
Figure 3: 3-D plot of the first three components with subsets identified within general groups
A1.4 Conclusions

General groups A and B could represent two classes of ware (eg coarse and fine) derived from the same clay course (the difference attributable to dilution of the fabric with quartz sands). The higher concentration of flourine in the Group A samples may be a possible further indicator of a technical difference between the two groups. One possible alternative to this scenario is suggested by the correlation of two minor and one trace element (Mg, Na and Rb) in Groups A. These indicate that the samples of this group have an additional exotic mineral component in addition to high silica and therefore may not have the same origin as Group B. The samples of Group C, characterised as an homogeneous and calc-potassium rich fabric, are most likely to come from a geologically different region. (P. Grave)

The elemental composition of two of the three groups, Group B and C, correlates with the structure of clays from northern Canaan identified by Greenberg and Porat (1996). The presence of more clay elements in Group B (Fe and Al), fits petrographic observations of clays from the Hatira Formation of northern Canaan or the Lebanon (Greenberg and Porat 1996:13-17). Sherds from Beth Yerah, Byblos, Megiddo, Tel Yarmouth and Tel Kinrot belonged to this cluster, signalling the potentially wide distribution of vessels (or rather the contents thereof) from production centres using these clays. Combed Ware vessels from Egypt belonging to this group were [15], and [18] both from Giza and [81] from Matmar. Group C, representing vessels from Megiddo and Beth Yerah, has a high potassium and calcium content, which may reflect the ‘local calcareous, silty clays, with limestone and chalk temper’ from southern Canaan and exported northwards (Porat 1989:73; Greenberg and Porat 1996:17). The third cluster (Group A) chemically represents a potentially different point of origin. Significantly, the cluster comprised five samples of imported vessels from Giza and four sherds from Byblos. The close association between these samples points to Byblos or the nearby environs as the point origin for the pots [5-9].

The clusters may be interpreted to show two origins for this group of Combed Ware vessels from Giza: a production centre at Byblos or nearby (Group A), and another in northern Canaan (Group B).
Endnotes

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2 The software was developed by Emeritus Professor Richard Wright, University of Sydney.
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Plate 1: EBl1a sites in Canaan (after Gophna 1995b)
Plate 2: EB1b sites in Canaan (after Gophna 1995b)
Plate 3: Major EB II sites in Canaan (after Ben-Tor 1992)
Plate 4: Egyptian stone vessels in EB II Canaan

(a) Tell Far'ah North Reg. F.3935 (1:1)

(b) Tell Far'ah North Locus 747 (1:1)

(c) Tel Yarmouth calcite bowls
(a) Indurated limestone, schist and gabbro stone vessels from EB II Tel Yarmouth

(b) Jericho (after Kenyon and Holland 1983) Scale 1:2

(c) Arad Str. II (after Amiran 1978)

(d) Megiddo Str. XVIII (after Loud 1948:pl. 258.1) Scale 1:4

Plate 5: Egyptian stone vessels in EB II Canaan
Plate 6: Map of Egypt (after Tooley 1995)

________ indicates sites with imported material in Old Kingdom contexts
Plate 7: Egypt - Combed Ware jars (Type 1) from Giza
Plate 8: Egypt-Combed Ware jars (Type 1) from Giza
Plate 9: Egypt - Combed Ware jars (Type 1) from Giza
Plate 10: Egypt- Combed Ware jars (Type 1) from Giza
Plate 11: Egypt - Combed Ware jars (Type 1) from Giza
Plate 12: Egypt - Combed Ware jars (Type 1) from Giza
Plate 13: Egypt - Combed Ware jars (Type 1) from Giza
Plate 15: Egypt- Combined Ware jars (Type 1) from Giza and other sites
Plate 16: Egypt - One-handled jars (Type 2) from Giza
Plate 17: Egypt - One handled jars (Type 2) from other sites
Plate 18 – Egypt: Combed Ware jars (Type 1) other sites
Plate 19: Lapis lazuli in Old Kingdom Egypt
Plate 20 – Major EB III sites in Canaan (after de Miroshchadji 1999)

**indicates sites with in-context *aegyptiaca***
[92] Graffito of Sahure at Wadi Kharig (after Giveon 1977)

[94] Location of Meydum bowls in northern Sinai (after Oren and Yekutiel 1990)

[94] Meydum bowls from northern Sinai (after Oren and Yekutiel 1990)

Plate 21: Evidence from the Sinai
Plate 24: Canaan – Egyptian objects
Plate 25: Canaan – Egyptian objects from Tel Yarmouth

(after de Miroschedji 1988)
[121] Scale 1:2 (after Amiran 1970a)

[122] Scale 1:2
(after Amiran 1970a)

[123-4] back view, Scale 2:5
(after Amiran 1970a)


Plate 26: Canaan – Egyptian stone vessels from Ai
[125] Scale 1:4 (after Amiran 1970a)

[126] Scale 1:4 (after Amiran 1970a)

[127] Scale 1:4 (after Amiran 1970a) [128]

[129] Scale 1:4 (after Amiran 1970a) [130]

[131] (after Callaway 1972) [132] (after Callaway 1972)

Plate 27: Canaan – Egyptian objects from Ai
Plate 28: Canaan – Egyptian objects

Knife from Yavne-Yam (after Gophna 1969)

Egyptian jar from Tel Yiqneam (after Ben-Tor 1970)
The Beth Yerah granary (after Currid 1986)

El-Kab model granary (after Tooley 1995)

Plate 29: Beth Yerah granary and the 4th Dynasty model granary from El-Kab
Copper axe head from the mouth of the Adonis River 
(after Rowe 1936)

Map of the region (after Wainwright 1934)

Plate 30: Northern Levant – Egyptian objects
Plate 31: Northern Levant – Stone vessels from Byblos
Plate 32: Northern Levant – Stone vessels from Byblos
Plate 33: Northern Levant – Stone vessels from Byblos
Plate 34: Northern Levant – Stone vessels from Byblos
Plate 35: Northern Levant – Stone vessels from Byblos
Plate 36: Northern Levant – Egyptian objects
Plate 37: Northern Levant – Egyptian stone vessels from Ebla
[165] Scale 1:2 (after Scandone Matthiae 1981)

Plate 38: Northern Levant – Egyptian stone vessels from Ebla
Plate 39: Northern Levant – Egyptian stone vessels from Ebla
Plate 40: Northern Levant – Egyptian stone vessels from Ebla

[170] Scale 1:2 (after Scandone Matthiae 1981)

[171] Scale 1:2 (after Scandone Matthiae 1981)

[172]

[173] (after Scandone Matthiae 1979)
(a) Tomb of Ni-ankh-khnum and Khnum-hotep (after Moussa and Altenmüller 1977)

(b) Tomb of Shedu (after Kanawati and McFarlane 1993)

Plate 41: Representations of foreign pottery in Old Kingdom tombs
(a) Imported bears and jars from Sahure's funerary installation at Abusir (after Borchardt 1910-3)

(b) Scene from the tomb of Ni-ankh-khnum and Khnum-hotep (after Moussa and Altenmuller 1977)

Plate 43: Old Kingdom tomb scenes of imported goods
(a) The tomb of Inti at Deshasheh (after Kanawati and McFarlane 1993)

(b) The tomb of Ka-em-hesit at Saqqara (after Stevenson Smith 1965a)

Plate 44: Battle scenes from Old Kingdom private tombs
a) Asiatics arriving, from the funerary installation of Sahure at Abusir (after Stevenson Smith 1965a)

(b) Ships arriving bearing Asiatics, from the Causeway of Unas (after Stevenson Smith 1965a)

Plate 45: Scenes from 5th Dynasty royal funerary monuments
Plate 46: Canaan - Egyptianising cups from the Sanctuary at Ai (Scale 1:2)
Plate 47: Canaan – Egyptianising pottery from Megiddo
Plate 49: Early Dynastic/EB II exchange routes in Canaan
Plate 50: – Old Kingdom/EB III exchange routes in the Eastern Mediterranean

direct transmission routes

indirect or down-the-line routes

400 kms.