EGYPTIAN AND EGYPTIANIZED POTTERY IN LATE BRONZE AGE CANAAN¹

Typology, Chronology, Ware fabrics, and Manufacture techniques. Pots and People?

By Mario A.S. Martin

Introduction

The Late Bronze Age and the very beginning of Iron Age in Canaan are characterized by a strong Egyptian involvement and influence starting with the expulsion of the Hyksos at the beginning of the Eighteenth Dynasty. While in the course of the Eighteenth Dynasty Egypt seems to rely on a suzerain-vassal relationship with a minimal permanent physical presence, as it is well displayed in the Amarna letters (MORAN 1992), the archaeological evidence of numerous Canaanite sites contemporaneous with the Nineteenth and Twentieth Dynasties reflects a change in the mode of Egyptian interference and control. Local unrest, the Hittite activity in Syria and, finally, the Sea Peoples' movements in the Twentieth Dynasty cause Egypt to a more aggressive approach, based on a raised presence of military and administrative personnel in Canaan, especially in the south and along the main strategical and trade routes (for historical introductions consult, e.g., Weinstein 1981; Redford 1992; MAZAR 1997: 232-300). It is mainly in this second stage, in which a physical Egyptian presence is signalled by the discovery of Egyptian and Egyptian-style buildings, architectural elements, statues, stelae, hieroglyphic and hieratic inscriptions, burial practices, a variety of small finds, and, finally, by imported Egyptian and,

mainly, locally produced Egyptianized (say also: Egyptian-style) pottery (for a comprehensive overview over the various Aegyptiaca see HIGGIN-BOTHAM 2000). While certain sites like Tell el-^cAjjul, Tel Sera^c, and Deir el-Balah² in the south as well as Beth Shean in the north exhibit assemblages of Egyptian and Egyptian-style pottery already in an earlier part of the Late Bronze Age in the fifteenth and fourteenth centuries (Eighteenth Dynasty), the bulk of the material originates from thirteenth and twelfth century contexts (Nineteenth and Twentieth Dynasties). Apart from above-mentioned sites considerable quantities of Egyptian-style material as well as the occasional import can be cited from Tell el-Farcah (South), Tel Mor, Aphek, Jaffa, and Tell es-Sacidiyeh.3

Note that Egyptian imports are very rare in Canaan. They suggest a connection to Egypt on a basis of trade,⁴ but they do not imply an impact expressed by actual Egyptian presence. The bulk of the Egyptian material consists of locally produced utilitarian household pottery, which, when found in large quantities and in a variety of types, can be regarded as evidence for the presence of Egyptian administrative or military personnel. Apart from shape it is mainly fabric and technological properties, which suggest that this pottery was mainly produced by Egyptian potters or, at least, under close Egyptian guidance.

¹ I would like to thank Prof. Manfred Bietak, who is my advisor for many years and supports me in my study of the relations between Egypt and Canaan in the Late Bronze Age and Early Iron Age, and Prof. Amihai Mazar, Prof. Eliezer Oren, Dr. Tristan Barako, and Yuval Gadot, who entrusted me with the Egyptian and Egyptianized pottery of Beth Shean, Tel Sera^c, Tel Mor, and Tel Aphek respectively. Finally I am deeply indebted to Dr. David Aston, who introduced me into Egyptian pottery as tutor and as friend.

Deir el-Balah was founded in the late Eighteenth Dynasty at the earliest. Also a foundation only in the early Nineteenth Dynasty was considered by the excavators.

For an overview of these sites and their Egyptianized assemblages, see, for instance, Killebrew 1998: 140–167 and Higginbotham 2000. Smaller collections of this pottery were found at sites, such as Ashdod (M. Dothan 1971: fig. 81:14; Dothan and Porath 1993: fig. 11:1–5, 24) and Megiddo (Loud 1948: pls. 60:7, 61:10–11, 65:1–3, 67:15, 69:3).

⁴ This observation is based on the appearance of Egyptian imports at sites in Canaan (Akko, Tel Nami, Tel Abu Hawam) and as far as Crete (Kommos) and Cyprus (Hala Sultan Tekke), where locally produced Egyptianized pottery seems quite rare or not existing (MARTIN and BARAKO forthc.).

This paper is to present certain aspects of this Egyptian and Egyptian-style pottery, namely its typology, chronology, fabric properties, manufacture techniques, and quantitative analysis. In the following, cultural as well as historical implications shall be shortly discussed. The conclusions are mainly based on the collections of four type sites (see Figs. 1 and 2), the publications of which the author is presently preparing: Beth Shean in the north in the Beth Shean valley (MARTIN forthc. a-c), Tel Aphek in the northern Shephela (MARTIN, GADOT and GOREN forthc.), Tel Mor (MARTIN and BARAKO forthc.) in the southern coastal plain, and Tel Sera^c in the Negev (MARTIN in preparation). In the renewed excavations at Beth Shean under the direction of Amihai Mazar (Hebrew University) a small assemblage of Egyptianized vessels was found

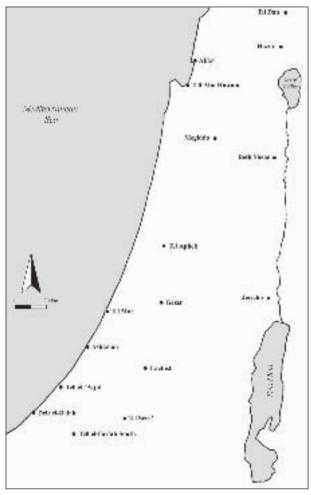


Fig. 1 Map of Canaan

in local Strata R-1b-a in Area R, dated to the late fifteenth-fourteenth centuries BCE. This assemblage will be published by Robert Mullins in the near future (MULLINS forthc.). The author of the paper in-hand was working on the large Egyptianized assemblage of Area S. Strata S-5 to S-3, dated to the thirteenth and twelfth centuries (MARTIN forthc. b), and on the smaller contemporaneous assemblages of Areas Q (MARTIN forthc. a) and NB (MAR-TIN forthc. c). An assemblage of Egyptian and Egyptian-style pottery from Aphek mainly originates from the so-called "Governor's residency" of Stratum X-12, which was destroyed sometime in the late thirteenth or maybe even in the early twelfth century (MARTIN, GADOT and GOREN forthc.). Egyptianized vessels at Tel Mor were found in Strata IX-V, the bulk of the material originating from Strata VIII/VII in the thirteenth century and VI/V in the twelfth century with a possible extension into the late thirteenth century (MARTIN and BARAKO forthc.). Like at Tel Mor Egyptian and Egyptianstyle pottery at Tel Sera^c was found in contexts dating from the fourteenth to twelfth centuries BCE, namely Strata XI–IX (MARTIN in preparation).⁵ It is interesting to note that all these sites cannot be regarded as cities but rather as small "garrison"centres (Beth Shean: for the Late Bronze Age A. Mazar reconstructs a settled area of c. 1.5 ha.; A. Mazar pers. comm. - Tel Aphek: upper mound 0.6-0.7 ha.; Y. Gadot pers. comm. - Tel Mor: 0.6 ha. lower mound, 0.1 ha. upper mound; T. Barako pers. comm. - Tel Serac: 1.6-2 ha. when excvated; E. Oren reconstructs a size of c. 3-4 ha. before the Tell was eroded; E. Oren pers. comm.). Large collections of Egyptianized pottery are missing from the major Canaanite cities, such as Tel Haror (16 ha.; E. Oren pers. comm.), Gezer (13.4 ha.; NEAEHL II: 496), Megiddo (6.1 ha.; NEAEHL III: 1003) and Hazor (12.1 ha. [upper mound], 68.8 ha. [lower mound]; NEAEHL II: 595). At these sites buildings of the Egyptian administration were

Typology and Chronology

either not yet found or not existing.

In the following the various Egyptian forms are presented.⁶ Unless a type is specifically described as import, it should be assumed that it is locally reproduced.

A few Egyptian forms were already encountered in pits below Stratum XI dating to the fifteenth century.

⁶ It is mainly forms, appearing at more than one site and

represented by more than one example, which are included into the here presented typology.

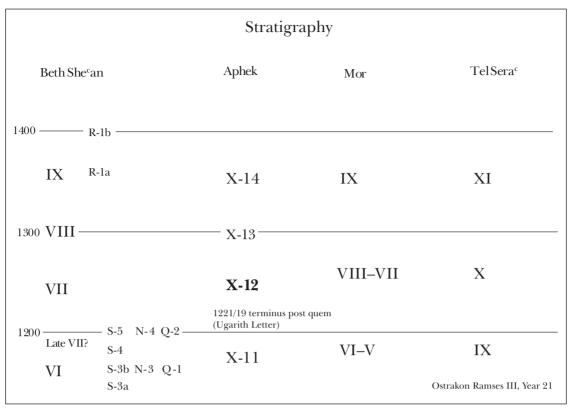


Fig. 2 Stratigraphy of various Egyptianized sites

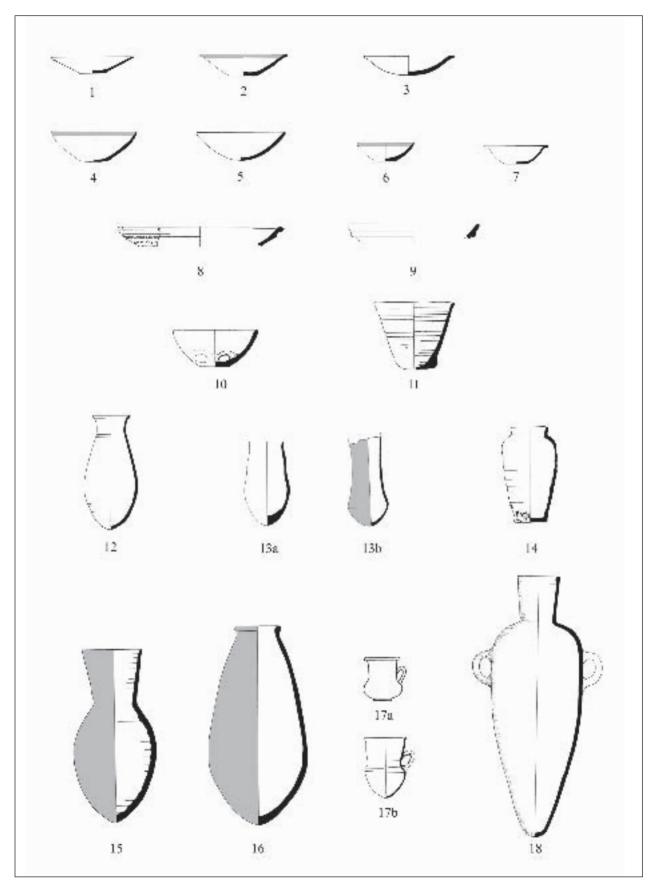
As to the chronology of the presented types, it should be emphasized that until recently Egyptian and Eyptian-style pottery was not reckoned a valuable means of contributing to the relative and absolute dating of closed contexts at sites in the Southern Levant. Vessels are mostly only referred to as characteristic New Kingdom types without further attempts of specification. This is mainly due to the fact that in Egypt itself a finer dating of vessel types was not yet established. It is mainly in the last 10-15 years that the publication of well dated settlement and tomb contexts in Egypt lead to a well established chronology of Egyptian pottery assemblages (HOPE 1989; ASTON 1991; 1996; 1997a; 1997b; 1998; 1999; 2001; ASTON and PUSCH 1999; ASTON, ASTON and BROCK 1998; ASTON, ASTON and RYAN 2000; BOURRIAU, ASTON, RAVEN and VAN WALSEM forthc.). In Egypt, pottery assemblages are generally best dated by marl vessels, with which a finer dating can be established than with the Nile silt wares, many of which show only slight modifications in time. This is unfortunate in a way, as Canaanite assemblages of locally produced Egyptian forms consist mainly of characteristic Nile silt types. However, the recent studies succeeded also in refining our understanding of morphological changes of certain Nile silt types (mainly BOURRIAU 1981: 72–73; 1990: 19*; HOPE 1989; ASTON 1996; 1998; 1999; ASTON and PUSCH 1999; ASTON 2001).

Simple bowls

Simple bowls of local fabric form the main component of every Egyptianized assemblage in Canaan. The bowls range from shallow to medium-deep in depth, have straight or rounded walls and a plain, everted or, occasionally, flanged rim (Fig. 3:1–7). Bases are mostly flat (Fig. 3:1–2, 4, 6–7); rounded and round bases appear more rarely (Fig. 3:3, 5). Judging from their form, size, manufacture techniques, and fabric characteristics these simple bowls find their closest parallels in New Kingdom Egypt⁷ and Nubia, where they form the backbone of every ceramic assemblage.

⁷ Cf. Nagel 1938, Kelley 1976, Hope 1989, Aston 1998, Aston and Pusch 1999.

⁸ HOLTHOER 1977, e.g. pls. 25 type CU1, 26 type CU4, 27 type PL3, 27 type PL1.



 $\begin{array}{c} Fig.\ 3\ \ Typology\ of\ Egyptian\ forms\ in\ Late\ Bronze\ Age\ Canaan\ (scale\ 1:10).\ Deir\ el-Balah\ (18),\ Tell\ el-{}^cAjjul\ (17a), \\ Tel\ Sera^c\ (1),\ Tel\ Mor\ (9,\ 12),\ Tel\ Aphek\ (3,\ 5),\ Megiddo\ (11),\ and\ Beth\ Shean\ (2,\ 4,\ 6-8,\ 10,\ 13-16,\ 17b) \end{array}$

Note that bowls with a pronounced rim eversion (Fig. 3:2, 3) initially become popular in Egypt towards the end of the Eighteenth Dynasty. In Canaan, however, a survey of sites, at which this bowl type has been found in sealed contexts, suggests that, with a few possible exceptions (*i.e.*, Deir el-Balah), these bowls do not appear until the thirteenth century BCE, and are most widely distributed in the twelfth century.

Large, shallow bowls

A group of large, rather shallow bowls can be regarded as Egyptian in inspiration. Their rim diameter mostly ranges between 35 and 50 cm. They are mostly standing on ring bases. Often horizontal rows of rope impressions are visible on the upper part of the sidewalls (Fig. 3:8). The rim varies from rounded, squared off or modelled (Fig. 3:8) to ridged (say also: ledged; Fig. 3:9). With rounded, squared off or modelled rim in Egypt bowls in these sizes are very popular in the New Kingdom starting from the later Eighteenth Dynasty (Amenophis III) through the entire Nineteenth and especially in the Twentieth Dynasties. In Canaan many parallels to these bowls can be cited from Beth Shean.⁹ A rim fragment was found at Aphek, Stratum X-12 (MARTIN, GADOT and GOREN forthc.), intact examples come from Tel Sera^c (MARTIN in preparation). Bowls with a ledge below the rim are known in late Eighteenth Dynasty contexts at Tell el-Amarna¹⁰ and Saqqara¹¹ and in Ramesside contexts at Qantir¹² and Deir el-Medineh¹³. The shape occurs also in earlier Eighteenth Dynasty contexts in the Valley of the Kings¹⁴ and at Malkata¹⁵ but in no case an entire profile is preserved. Further parallels are known from Nubia. 16 An example with complete profile originates from Qantir¹⁷ Area Q-IV, Stratum Bb, dated to the period between Sethos II and Ramses III. Another possible parallel was found in a foundation deposit of Queen Tausret at Thebes.¹⁸ This characteristic rim type was not found in deposits, which came from the tombs of Merenptah, Ramses III, Ramses IV, Ramses VI and Ramses VII (ASTON, ASTON

and Brock 1998: 137–214). This might indicate that this type has disappeared by the early Twentieth Dynasty. At Tel Mor this type of bowl is most common in Stratum IX, dated to the late Eighteenth Dynasty (Martin and Barako forthc.). Also from Beth Shean it is known from Eighteenth Dynasty contexts (Mullins forthc.). This evidence fits well to an occurrence of this shape at Aphek in Stratum X-14 (Martin, Gadot and Goren forthc.).

"Spinning bowls"

"Spinning bowls" are deep bowls of pottery with one to four loop handles attached to the interior bottom of the vessel, the variant with two centered, interior handles being the most common one (Fig. 3:10). These bowls were used to spin thread from flax roves, which were placed inside or beside the vessel, and/or to ply yarn from an already spun thread. For both actions tension is needed, for which the interior handles could have served. On the inside of the handles deeply cut grooves can be observed, which originate from the flax roves or thread. The interior handles also prevented an entanglement. To spin thread the flax fibres have to be spun in a damp condition. Therefore the bowls are believed to have contained water. Spinning bowls were first introduced into Canaan by the Egyptians and later adopted into the local Canaanite textile industry, where they remain in use also after the end of the Egyptian presence in Canaan in the late twelfth century BCE. Their distribution and use were exhaustively discussed by T. DOTHAN (1963), Vogelsang-Eastwood (1987–88), and, more recently, by ALLEN (1997).

"Flower pots"

"Flower pots" (Holthoer's group "FP"; cf. HOLTHOER 1977: pl. 18) are deep bowls with coarsely executed, generally perforated base with fingerprints, ribbed body, always of coarse fabric and without any attempt of surface treatment (Fig. 3:11). Their surface appearance relates these vessels closely to the so-called "beer jars"

⁹ James and McGovern 1993: fig. 8:13; Yadin and Geva 1986: fig. 35:1; Martin forthc. b.

¹⁰ Peet and Woolley 1923: pl. XLVII, IX/242.

¹¹ BOURRIAU, ASTON, RAVEN and VAN WALSEM forthc.

¹² Aston 1998: nos. 333, 429, 729.

¹³ Nagel 1938: pl. VII K.2.123.

¹⁴ ASTON, ASTON and RYAN 2000: nos. 14, 46–47.

¹⁵ Hope 1989: 21, fig. 1n.

¹⁶ HOLTHOER 1977: pl. 26 type CU6/IR/0/h-I.

¹⁷ Aston and Pusch 1999: no. 31.

PETRIE 1897: pl. XVII:10; it is not clear from the drawing, whether the vessel really has a ridge.

(see below). While flower pots were more common during the middle of the Eighteenth Dynasty and by the reign of Amenophis III had already become rare (WILLIAMS 1992: 34–35), beer jars (of the type appearing in Canaan, *i.e.* BB/4 – see below) were most popular during the Nineteenth and Twentieth Dynasties. This evidence is well reflected at Beth Shean, where in the Eighteenth Dynasty levels only flower pots appear and in the Nineteenth/Twentieth Dynasty strata only beer jars. Apart from Beth Shean in Canaan flower pots appear on the Sinai (E. Oren, *pers. comm.*), at Tell el-cAjjul, 19 Jaffa (Z. Herzog, *pers. comm.*), and Megiddo. 20

Slender ovoid jars

To the closed forms belong slender ovoid jars with everted rim and rounded base (Fig. 3:12). In Egypt, this type is well known and occurs during the Hyksos Period and Eighteenth Dynasty, after which it disappears. Comparanda from New Kingdom contexts may be found at Qantir,²¹ Tell el-Amarna²² and Deir el-Medineh²³ just to mention a few sites. Examples are also known from Nubia.²⁴ In Canaan these jars appear during the first half of the Late Bronze Age (LB I–IIA), thus corroborating their chronological range in Egypt. Specimens can be cited from Tel Sera^c,²⁵ Tell el-cAjjul,²⁶ Lachish,²⁷ Tel Mor,²⁸ Aphek,²⁹ Megiddo,³⁰ and Beth Shean.³¹

Small ovoid to drop-shaped jars

Small ovoid to drop-shaped jars with round base and plain rim are highly popular in the Egyptian pottery repertoire and appear at virtually every New Kingdom site in Egypt (Fig. 3:13a-b). Regarding the chronological development of

these jars the tendency to lower the location of their maximum body diameter and at the same time to have a higher "neck" above the maximum body width can be noted (D. Aston, pers. comm.; KILLEBREW noted this phenomenon [1998:152]). With a maximum body diameter in the lowest third of the vessel, the jar receives its drop-shape. Such a low maximum body diameter is most typical for Twentieth Dynasty examples (Fig. 3:13b). Many examples of this drop-shaped type with a very high "neck" were found at Beth Shean in Area S, Strata S-4 and S-3 (Twentieth Dynasty). A slight carination in the body profile at the point of the maximum body diameter is common with these examples. Compare hereto an example from Level VII (Fig. 3:13a). With its higher maximum body width, shorter "neck" and its smoother and less curved profile it distinguishes itself from the later examples from Area S.

In Canaan apart from Beth Shean these small jars appear at Hazor, 32 Tel Mor, 33 Tell el-Farcah (S), 34 Tell el-cAjjul, 35 and Deir el-Balah. 36

Funnel-necked jars

Funnel-necked jars are slender and tall jars with ovoid body, a rounded to slightly flattened base and a tall, diverging neck, the neck itself resembling a funnel (ASTON 1998: 188; see Fig. 3:15). Other variants have a bulging neck. Funnel-necked jars are very popular from the mid-late Eighteenth Dynasty to the end of the New Kingdom. At the end of the Nineteenth Dynasty a notable morphological change occurs, which is very indicative as chronological marker. The necks tend to become taller in relation to the vessel's height, the vessels become more slender and the bases tend to be flatter. In Canaan comparan-

¹⁹ Petrie 1931: pl. XXXVII.6E13; Petrie 1932: pl. XXVII.9Q.

²⁰ Guy and Engberg 1938: pl. 59:7.

ASTON and Pusch 1999: $\hat{5}4$, no. 97; Eighteenth Dynasty.

FRANKFORT and PENDLEBURY 1933: pl. LIII:XV/13; late Eighteenth Dynasty.

NAGEL 1938: figs. 39:1-2 [T1145]; 43:4 [T1153-55];
53:2 [T1161]; 70:3 [T1169].

²⁴ Type JO1: HOLTHOER 1977: pls. 35–37; see especially variant IP/1/i–k.

²⁵ MARTIN in preparation, Stratum XI.

PETRIE 1931: pl. XLII:31H7 [T168], 31H8 [T194];
1932: pl. XXIX:31H3 [T1500]; 1933: pl. XXXII:31H8 [T370, T411]; 1934: pl. XLVIII:31K19 [TCT 920].

TUFNELL, INGE and HARDING 1940: pl. LIV [Type 335], Fosse Temple I.

²⁸ M. Dothan 1960: pl. 9:1, Stratum XI.

²⁹ Martin, Goren and Gadot forthc., Stratum X-14.

³⁰ Guy and Engberg 1938: pl. 57:9, Tomb 26; Loud 1948: pl. 60:7, Stratum VIII.

Stratum R1, dated to the second half of the Eighteenth Dynasty; MULLINS forthc.

³² Ben-Tor *et al.* 1997: fig. III:16.1; Stratum XV.

³³ MARTIN and BARAKO forthc.; Stratum VI.

³⁴ STARKEY and HARDING 1932: pl. LXXXVIII: 75N1 (T905), 75N4 (T967).

³⁵ Petrie 1931: pl. XLII.31K3; Petrie 1933: pl. XXXII.31K9.

³⁶ GOULD forthc.: Type II.

da can be cited from Beth Shean,³⁷ Tel Sera^c,³⁸ Tell el-Far^cah (S),³⁹ and Deir el-Balah.⁴⁰

Large neckless jars

Large neckless jars are characterized by an ovoid to bag-shaped body, a rounded base, and a rolled rim (Fig. 3:16). In Egypt these jars form one of the characteristic Nile silt types of the Ramesside period (ASTON and PUSCH 1999: 42). Like their counterparts in Canaan they often occur with a red slip and start to appear in the Nineteenth Dynasty. Well dated examples from the Nineteenth Dynasty were found at Qantir,⁴¹ Saggara,⁴² and Qau. 43 This vessel type is very fashionable in the Twentieth Dynasty, with known examples from Qantir (Q-IV)44 datable between the reigns of Sethos II and Ramses III, from two foundation deposits of Ramses IV45 dug into the temenos of the mortuary temple of (Tutankhamun)-Ay-Horemheb (three red slipped examples), from the tomb of Ramses VII,46 and from Elephantine,47 where such a jar was found inscribed with the titulary of Ramses IX. In Canaan these jars are known in thirteenth and twelfth century contexts at Beth Shean, 48 Tell es-Sacidiyeh, 49 Megiddo, 50 Tel Mor,⁵¹ Tel Sera^c,⁵² and Deir el-Balah.⁵³

"Beer jars"

"Beer jars" are small-sized tall jars (Fig. 3:14), which are characterized by a careless manufacture and, mostly, by a series of fingerprints impressed into the heavy flat base (ASTON 1996: 12–3; ASTON and PUSCH 1999: 42; ASTON 2001: 169–71). Holthoer called these vessels "beer bottles" because he discovered them in association with a series of flower pots, which he interpreted

as bread moulds (HOLTHOER 1977: 83). He concluded that together these vessels were representative for the Egyptian bread and beer offering as it is typical for the Egyptian htp dj nsw offering formulae (HOLTHOER 1977: 86; for bread and beer in the offering formulae see, e.g., BARTA 1968). Note, however, that the most common subtype of beer jars (=Holthoer's BB/4 – the ordinary beer jar) exhibits a differing chronological distribution than the flowerpots, as it is most popular at the time, when flower pots already ceased to exist (see above). Until now there is neither a proof that this jar has to be associated with beer in a symbolic or ritual use nor that it was ever intended to hold beer for domestic or ritual purposes (but see below). The careless manufacture, the fabric (exclusively Nile silt) and the wide distribution mainly in settlement contexts suggests that beer jars were used as utilitarian household vessels. A large number of beer jar bases at Beth Shean, at other Egyptianized sites in Canaan, as well as in Egypt have a perforation located in the centre of the base. The perforation can be pierced before or after firing. A hole in the base rules out a use as storage container. Petrie's excavation in the cemetery at Rifeh might offer a solution to the interpretation of perforated "beer jars": Petrie mentions a specimen of a "large conical bowl with a hole in the bottom" - clearly referring to a flower pot - that contained a pressed cake of barley mash and grains (Petrie 1907: 23). As opposed to the function of flower pots suggested by Holthoer (see above), Petrie suggests that vessels of this type "were used to squeeze out the fermented beer from the grain" (for a function of these bowls as real flower pots in a garden complex at Tell el-

JAMES and McGOVERN 1993: fig. 11:5 (Level VII). Note that this is only a large body fragment. The drawing might be misleading; MARTIN forthc. b.

 $^{^{38}\,}$ Oren 1984: fig. 7:2 and pl. IIc (Stratum IX).

STARKEY and HARDING 1932: pl. XLIX:924 (Tomb 924, Type 75 O).

⁴⁰ GOULD forthc.: Type V.

⁴¹ Aston 1998: 310–311 nos. 999–1008.

 $^{^{42}\,}$ Aston 1991: 51, pl. 48 no. 45.

⁴³ Brunton 1930: pl. XXVII.71.

⁴⁴ Aston and Pusch 1999: nos. 10 and 41.

⁴⁵ Anthes 1939: 116–117, pls. 56, 58.

⁴⁶ ASTON, ASTON and BROCK 1998: 162, 209, pl. 43, no. 373.

⁴⁷ Aston 1999: 44 no. 198.

⁴⁸ YADIN and GEVA 1986: fig. 35:4; Stratum 4; MARTIN forthc. a; b; c.

⁴⁹ Pritchard 1980: fig. 15:5 [Type 63] (T110; undecorated).

⁵⁰ Guy and Engberg 1938: pl. 57:10 (T26; undecorated); LOUD 1948: pl. 65:3 [Type 118] (Stratum VIIB, reassigned to VIIA [FINKELSTEIN, USSISHKIN and HALPERN 2000: 234]; red slipped).

MARTIN and BARAKO forthc.: Strata VIII–VI (undecorated and red slipped).

⁵² Martin in preparation.

⁵³ GOULD forthc.: Type III:2–4, 6.

The term "beer bottle" refers to the earliest appearances of this type (early to mid-Eighteenth Dynasty), which tended to have a slender body and tall neck. By the late Eighteenth Dynasty, however, they assumed more of a jar shape, and, consequently, became known as "beer jars."

Dabca, see Hein 1994: 39-40). The use of perforated "beer jars" in a similar way is proposed by GOULD (forthc.). The possibility of a use of perforated jars in the beer production process and of un-pierced examples as storage containers for beer therefore still has to be considered. Beer jars of the ordinary type presented here (BB/4) are popular from the late Eighteenth Dynasty onwards. Twentieth Dynasty examples differ from their earlier counterparts by the tendency to have a narrower base, a more slender body in relation to the vessel's height and more commonly straight to outward sloping rims as opposed to the inward sloping rims of earlier forms (cf. ASTON 1996: 89). Beer jars in Egypt are known from virtually every site, which produced New Kingdom pottery. At Canaanite sites locally produced beer jars (only BB/4 variants) are known from Beth Shean,⁵⁵ Tell es-Sa^cidiyeh,⁵⁶ Tel Mor,⁵⁷ Ashdod,⁵⁸ Tel Migne-Ekron,⁵⁹ Tell el-Far^cah (S),⁶⁰ and Deir el-Balah.61

Handled cups

Handled cups are a very distinct vessel type. They are also called "squat juglets" or "mugs" (Fig. 3:17a–b). They can be described as small, necked cups with a handle being attached to neck and body. The rim is rolled outwards and the base is round or flattened, resulting in a narrow button base. Handled cups from Canaanite contexts are mostly imported from Egypt. They can probably be interpreted as containers of some kind of precious ointment, the vessels themselves possibly being regarded as *prestige*-ware, enhancing the sta-

tus of the owner. In Egypt, handled cups are mostly made of Marl D fabric, from the Twentieth Dynasty Marl A4 (variant 1) examples appear in higher quantities. They are also manufactured in Mixed Silt and Marl Clays (fabric III; cf. ASTON 1998: 68). Marl F. and in the Twentieth Dynasty occasionally even in Nile Clays. 62 Although only in small numbers, handled cups nevertheless appear at almost every Canaanite site with strong Egyptian influence or presence. In Egypt, this vessel type evolves in the late Eighteenth Dynasty (Amarna period). The early examples differ from their later counterparts in having a squat, wide body with relatively short neck (Fig. 3:17a). Examples of this type are found at Amarna and Nubia, just to mention two sites (Rose 1984: 135 fig. 10.1.25; HOLTHOER 1977: pl. 21 type JU2). By the late Nineteenth Dynasty the vessel has developed a more elongated and slender body profile with rounded contours and a higher neck. These traits become even more developed in the Twentieth Dynasty (Fig. 3:17b). Note also that the handle often tends to be attached at the base of the neck rather than higher up as was the case before, resulting in a ring-like section. The tendency of necked vessels to increase the neck in relation to the vessel's height was already observed above with the funnel-necked jars and can be extended to Egyptian amphorae (HOPE 1989: 55; ASTON 1996: 63), which will be treated below. At Canaanite sites handled cups were encountered at Tell es-Sacidiyeh, 63 Beth Shean, 64 Megiddo, 65 possibly Tel Mor,66 Tel Serac,67 Tell el-cAjjul,68 and Deir el-Balah.69

FITZGERALD 1930: pls. 42:11, 14; 45:7; JAMES 1966: fig. 49:6; YADIN and GEVA 1986: fig. 35:3; JAMES and McGovern 1993: fig. 12:4; MARTIN forthc. a, b.

 $^{^{56}\,}$ Pritchard 1980: fig. 7:5 (T104).

⁵⁷ Martin and Barako forthc.

⁵⁸ M. Dothan 1971: fig. 81:14, pl. 75:3; Dothan and Porath 1993: 46, fig. 11:24, pl. 33:14 (Strata XV–XIV).

 $^{^{59}\,}$ Killebrew 1996: pl. 4:22 (Stratum IX [phase 11D]).

⁶⁰ Starkey and Harding 1932: pl. LXXXVIII:94 (Tomb 939)

⁶¹ YELLIN, DOTHAN and GOULD 1986: 68–73, fig. 1; GOULD forthc.: Type VI. Note that the bulk of the material was retrieved from settlement contexts, only rarely beer jars were found in the cemetery (YELLIN, DOTHAN and GOULD 1986: 69).

ASTON 1996: 65; ASTON 1998: nos. 1686–1690 (Marl D),
1974–1981 (Marl F), 2145–2146 (Mixed Clay), 2496 (Marl A4); Aston 1999: no. 145 (Nile B).

⁶³ PRITCHARD 1980: figs. 5:1 and 52:6 (T102; clearly an imported late Nineteenth–Twentieth Dynasty type).

⁶⁴ In the renewed excavations: Cohen-Weinberger 1998: fig. 2:9; Martin forthc. b. In the northern cemetery: Oren 1973: figs. 46:19 and 74:11 (photo), T227.

 $^{^{65}\,}$ Loud 1948: pl. 67:15 (Stratum VIIA).

MARTIN and BARAKO forthc.: imported; note that only a rim is preserved, an identification as Egyptian amphora is also conceivable.

⁶⁷ OREN 1984: fig. 7:4a and plate IIIa (photo); Marl D.

⁶⁸ Petrie 1931: pl. XLIV:34E2 [T808]; 1932: pl. XXX:34E4 [T1506]; 1933: pl. XI:67 [Governor's Tomb T419]; 1934: pl. XLIX:34E2 [T1687].

⁶⁹ BEIT-ARIEH 1985: fig. 6:1 (surface find; type is somewhat peculiar in shape, possibly a local imitation); T. DOTHAN 1979: 13, 16–7 Ills. 24 and 29 (T114, clearly imported).

Two-handled storage jars (amphorae)

Like the handled cups also Egyptian two-handled storage jars (amphorae) are generally imported from Egypt (for discussions of this type see ASTON and PUSCH 1999: 43-45; ASTON 2001: 174-175; HOPE 1989: 87-125). It has to be acknowledged that Egyptian amphorae themselves are an imitation and adaptation of twohandled Canaanite storage jars. It is therefore the Egyptian imitation of a Canaanite form that comes back into its original homeland (GRACE 1956: 86, T. DOTHAN 1979: 10, HOPE 1989: 87). One of the main differences is generally the longer, often slightly bulging neck of Egyptian amphorae. Egyptian amphorae appear mainly in Marl D, Marl A, Marl F, Mixed clay, and, rather rarely, in Nile silt fabrics. They therefore can be

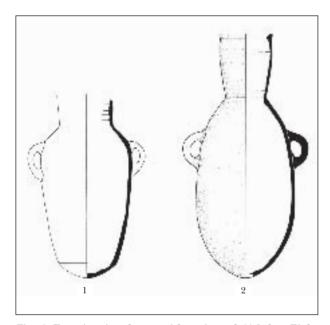


Fig. 4 Egyptian Amphorae with carinated (4:1; late Eighteenth and Nineteenth Dynasties) and round (4:2; Twentieth Dynasty) bases at Qantir (scale 1:10)

regarded as characteristic Marl clay type. The two main variants are a slender type with tapering body and pointed base (e.g. Tell el-Dab^ca, ⁷⁰ Tell el-Amarna, ⁷¹ Malkata, ⁷² the Tomb of Tutankhamun in the Valley of the Kings, ⁷³ and Deir el-Medineh ⁷⁴), which in Marl D and Mixed clays is limited to the late Eighteenth and Nineteenth Dynasties, and a broader type with carinated (Fig. 4:1; e.g. Saqqara ⁷⁵ and Qantir ⁷⁶) and later rounded base (Fig. 4:2; see below). A specimen of the slender type was found in a tomb at Deir el-Balah (Fig. 3:18; T. DOTHAN 1979: 10; 12–14 ill. 14 and 16; cream-slipped and burnished).

An example of the wide-bodied type found at Beth Shean is one the vessels, which provides a finer dating and contributes to the absolute chronology of the site (Fig. 5). The vessel is produced of Marl D, cream-coated and burnished. The last Late Bronze Age IIB horizon at Beth Shean is represented by local Strata Q-2 in Area Q (renewed excavations), N-4 in Area NA (renewed excavations), Level VII of the Pennsylvania expedition, and, probably, Stratum S-5 in Area S (renewed excavations). The assemblages are still characterized by Mycenaean (Late Myc. IIIB) and Cypriote imports.⁷⁷ Until now a faience plague with the name of Merenptah (1213–1203)⁷⁸ found in the vicinity of the steps of the Level VII temple (JAMES and McGovern 1993: 6-9; fig. 165:6) was regarded as terminus post quem for (or being contemporaneous with) the end of this level (KILLEBREW 1998: 73).79 The here presented Egyptian amphora was found in a secure context in Area NA (Room 10429/98417), attributed to local Stratum N-4.80 Among other vessels the amphora was found together with a collared rim jar, a Late Bronze Age IIB Canaanite storage jar with carinated shoulders and stump base, and

 $^{^{70}\,}$ Aston 2001: fig. 3:10 [base]; stratum a, Haremhab.

⁷¹ PEET and WOOLLEY 1923: pls. LI:XLIII/1015B; LIII:LXIII/104.

 $^{^{72}\,}$ Hope 1989: 27 fig. 7 a–b; late Eighteenth Dynasty.

⁷³ Holthoer 1993: 44–56; fig. L; pls. 5–9, 26–32.

⁷⁴ NAGEL 1938: *passim*.

Cf. the tomb of Tia and Tia, where the broad type prevails and the tomb of Jurudef, where the pointed form is completely absent: ASTON 1991; 1997a.

ASTON 1998: nos. 1786–1791, Nineteenth Dynasty; ASTON and PUSCH 1999: no. 87, late Eighteenth–early Nineteenth Dynasty.

Off. James and McGovern 1993: 103–124. Such imports also come from Areas Q (Stratum Q-2) and NA (Stratum N-4) of the renewed excavations. They are absent from Twentieth Dynasty Strata S-4 and S-3 in Area S, in which Mycenaean IIIC pottery makes its first appearance.

⁷⁸ Chronology after KITCHEN 2000: 49.

For an attribution of this deposit to Level VI see PORTER 1994–5.

This vessel was first discussed by Killebrew (1998: 162, Ill. 23:2). Its dating is firstly presented in the paper in hand.

a very late Cypriote milk bowl. Although a small part of the base is missing, it is clear that the amphora belongs to a round-based variant of Egyptian amphorae (ASTON and PUSCH 1999: 41,45). This type of amphora appears with carinated base (Fig. 4:1) throughout most of the Nineteenth Dynasty.⁸¹ In the time between Sethos II (1200–1194) and Tausret (1188–1186)⁸² it evolves into a round-based variant (Fig. 4:2). Examples dating to the Twentieth Dynasty were



Fig. 5 Imported Egyptian Amphora with round base from Beth Shean, Area NA, Stratum N-4 (Marl D); courtesy of A. Mazar

found at Qantir,⁸³ Tell el-Yahudieh,⁸⁴ at Thebes in the Valley of the Kings⁸⁵ and as far as Hala Sultan Tekke⁸⁶ in a Late Cypriote IIIA1 context dated to 1190–1175 BCE.

Based on above-discussed vessel, the end of Level VII of the Pennsylvania expedition and its correlates in the renewed excavations (Strata Q-2, N-4 and, probably, S-5) date to 1200 at the earliest, but probably 10-20 years later. The following Level VI of the Pennsylvania expedition, the first part of which is represented by Stratum S-4 of the renewed excavations, therefore has to fall within the reign of Ramses III (1184-1153) and his successors. Mycenaean IIIB and Cypriote imports are absent and Mycenaean IIIC wares make their first appearance. One can assume that S-4 covers a large part of the reign of Ramses III. The accumulation in this stratum averages half a meter in depth, and represents a relatively longlived phase of minor rebuilts and floor raisings. The subsequent Stratum S-3 must also have accumulated over a considerable amount of time, as two substantial subphases (S-3b and S-3a) were encountered in many places. One might therefore date the destruction of S-3a in the second half of the twelfth century, possibly in the reign of Ramses VI (1143-1136) or even later. Note, however, that the latest royal name attested at Beth Shean is the one of Ramses IV (WEINSTEIN 1993: 221; see also PORTER 1994–5; 1995).

WARE FABRICS

Egyptian imports are quite rare in Egyptian assemblages at Canaanite sites. While they provide data about trade connections and give important chronological clues, it is the locally produced Egyptian forms, which are more interesting from a cultural and ethnical point of view. Locally produced Egyptian shapes form the bulk of the Egyptian assemblages at the here presented type sites as well as at other "Egyptianized" sites, such as Deir el-Balah (Gould forthc.). Although a local clay source is used for the production of these vessels, the clays show certain

Aston showed that a few reported exceptions do not come from sealed contexts (Aston 1997b: 43–66; Aston and Bader 1998; Aston and Pusch 1999: 45; Aston 1996: 66).

⁸² The change definitely takes place after Merenptah and has fully evolved by Ramses III.

⁸³ ASTON and PUSCH 1999: no. 49; ASTON 1998: nos. 2498, 2511, 2513.

⁸⁴ Griffith 1890: pl. XIV:5.

⁸⁵ ASTON, ASTON and BROCK 1998: 161, 205, pl. 39, no. 335; 163, pls. 45–48, nos. 383–384, 392–399.

⁸⁶ Eriksson 1995: 201.

distinct properties, which can be closely related to the properties of Egyptian Nile clays. Based on the observation that it is the characteristic Egyptian Nile silt forms, namely every-day household wares, which are locally reproduced, while the typical Egyptian Marl clay forms (amphorae, "meat jars", handled cups; i.e. long distance transport containers and vessels for precious ointments) generally only appear as imports, it can be argued that the clay preparation of the Egyptian forms is to be interpreted as an imitation of Egyptian Nile clays. It is more than likely that the potters involved in the production of Egyptianized vessels at Beth Shean, Tel Aphek, Tel Mor, and, probably, also at Tel Serac were Egyptians, or, at the very least, were intimately familiar with Egyptian modes of pottery production (see already JAMES and McGOVERN 1993: 244-245, Cohen-Weinberger 1998: 411 and KILLEBREW 1998: 275).

Three lines of evidence display the close affinities of local "Cananite" fabrics of Egyptian forms to Egyptian Nile clays:

a) Firstly, at all examined sites the admixture of large amounts of chopped straw into the paste is very common among the Egyptian forms.⁸⁷ Straw temper is mostly visible with the free eye. It appears in form of elongated, burnt out voids in the section and on the surface or, if not burnt out, as whitish-yellowish, rod-shaped fibres instead of the voids. Burnt out organic inclusions result in a porous matrix (= "coarse ware"). The fabric is often soft and somewhat brittle. Especially more thickwalled vessels, namely large bowls and beer jars, commonly exhibit a grey to black core of varying thickness, an indication that not all the organic temper was fully oxidized. From a functional point of view, the addition of straw raises the plasticity of the clay to make it better workable on the wheel, allows a faster and more even drying of the vessel, helps to reduce shrinkage during the drying process (ARNOLD 1993: 105), and finally saves raw material. The porosity provided by the straw makes possible a faster and shorter firing and, therefore, a saving of fuel material. The temper allows the freer penetration of hot gases through the vessel wall, leading to a better-fired product, and permits the escape of steam from the vessel, which impedes bursting (ARNOLD 1993: loc.cit.). In short, straw is an ideal temper for mass-produced vessels like the Egyptian-style bowls and jars.

Above a purely functional background this method of clay preparation co-occuring with Egyptian forms and production techniques without doubt also has a cultural background. While not unknown in Canaanite pottery manufacture throughout all periods, the admixture of chopped straw and animal dung respectively, especially in large amounts, is a characteristic property of Egyptian Nile clays (e.g. Nile B, C, and E classes; cf. "Vienna system": NORDSTRÖM 1986: 629–634, "Tell el-Dabca system": BIETAK 1991a: 324ff.). A comparative analysis of the fabrics of Egyptian and Canaanite forms at the various sites reveals that the admixture of large amounts of straw is more typical of the Egyptian than of the Canaanite forms, especially with Egyptian-style simple bowls and beer jars. At Aphek, Stratum X-12, considerable amounts of straw temper appear only in the Egyptian forms. At Tel Mor, vessels with large amounts of added straw are almost absent prior to the appearance of Egyptian-style pottery in Stratum IX. Also at Beth Shean, straw temper gradually appears in larger amounts and in more Canaanite vessels between the fifteenth and twelfth centuries co-occurring with an increase of Egyptian influence and of the share of Egyptian forms within the assemblage. A similar situation can be reconstructed for Tel Sera^c (MARTIN in preparation). While straw temper in considerable amounts is rare in strata predating a strong Egyptian influence at the site, it becomes more and more popular with the advent of considerable quantities of Egyptianized material. A steady increase in the use of straw temper (in Egyptian and Canaanite forms) can be attested towards the twelfth century, co-occurring with an increasing share of Egyptianized vessels. For Tel Sera^c, Tel Mor and Beth Shean it is therefore likely to assume an Egyptian influence in the indigenous Canaanite pottery tradition. No statistical analysis could be conducted for the pottery fabrics of Deir el-Balah. Killebrew notes that identi-

While solely the addition of chopped straw was observed at Tel Sera^c, Tel Mor and Beth Shean, at Aphek vegetal matter also seems to have been added in

form of animal dung, a very characteristic property of certain Egyptian Nile clays.

cal clays were used to produce Canaanite as well as Egyptian shapes (KILLEBREW 1998: 273). However, as one of the distinguishing technological features she mentions a larger amount of straw that was added to the Egyptian-style bowls (KILLEBREW 1998: op.cit.).

b) The second line of evidence is displayed by the special case of Aphek, where Egyptian-style vessels belong to a different petrographic family than Canaanite forms. The deliberately chosen *terra rosa* clay, which is used for the Egyptian forms, closely resembles Egyptian Nile clays (see below).

c) A third relation to Egyptian Nile clays was noted at Beth Shean. JAMES and McGOVERN 1993: 245, observed that pottery artefacts, including Egyptian and Canaanite pottery forms, from Levels VIII and VII were fired at a lower temperature (500-700°C) than wares from the previous Stratum IX⁸⁸ (see also Cohen-Weinberger 1998: 409). They explain this decrease of firing temperature as general Egyptian influence on the pottery tradition at Beth Shean (JAMES and McGOVERN 1993: op.cit.). In Egypt, Nile Silt pottery was also fired at a low temperature (600-800°C). The finer Egyptian marl pottery, on the other hand, was fired at a temperature of 800-1050°C and for a longer time (ASTON 1998: 37). It was noted above that in Canaan it is only the characteristic Nile silt forms, which are locally reproduced. No refiring studies were conducted by the author. It can, however, be stated that at Tel Mor, Tel Aphek, as well as in the renewed excavations at Beth Shean in many examples large amounts of straw rods are not combusted, suggesting a very low firing temperature for these vessels. Referring to MACKENZIE (1957), NORDSTRÖM and BOURRIAU note that in an oxidizing atmosphere the combustion of organic matter takes place at temperatures between 380-600°C (1993: 155).

EXEMPLARY CASE STUDY - WARE FABRICS AT APHEK

Petrographical analyses conducted by Y. Goren identified a distinct clay source for the bulk of the Egyptian-style vessels originating mainly

from Stratum X-12, namely terra rosa soil covering the foot of the Samarian hills (MARTIN, GADOT and GOREN forthc.). None of the local Canaanite forms were manufactured in this fabric. The distinctiveness of this clay was already evident by a macroscopic examination. While Egyptian-style vessels exhibit a red to reddishbrown surface, Canaanite forms are yellowish. In many cases, a large number of elongated voids covers the surface of the Egyptian-style vessels, indicating the admixture of large amounts of straw temper. Fresh breaks of Egyptian forms exhibit the same tones as the surface.89 The matrix is mostly very porous due to the large amounts of intentionally added organic temper. The temper consists of rod-shaped fibres of chopped straw, occasionally also of very thin and fine fibres probably deriving from animal dung. In many cases the fibres are not completely burnt out, suggesting a rather low firing temperature. Local Canaanite forms of Stratum X-12 mostly exhibit a yellowish section. The matrix is denser than in the clay of the Egyptianized vessels, organic temper is not common, especially not in such large amounts. If tempered the fibres are always better burnt out than in the fabric of Egyptian-style wares. Inclusions comprise abundant quartz particles and, occasionally, limestone grits. The fabric characteristics of the Egyptian-style wares can in all aspects be closely related to Egyptian Nile fabrics, especially Nile B2 or the slightly coarser Nile C1 of the Vienna system (Nordström and Bourriau 1993: 171–173). Nile Clays in general are ferrugineous siliceous clays (ASTON 1998: 61-63), and therefore generally fire to the same red to reddishbrown colour as the likewise ferrugineous Egyptian-style wares at Aphek. Examinig fresh breaks, even in a twenty times magnifying stereo-microscope, many local Egyptian-style wares are almost indistinguishable from their counterparts in the Nile valley. Often only the petrographical analysis revealed their local origin: The sand grains in the terra rosa clays are more finely sorted than in the Nile clays. As opposed to Nile

⁸⁸ The material of Stratum IX was only preliminarily analysed by James and McGovern. As to firing temparatures it was, however, compared to the Late Bronze Age I material of the Beqah Valley [700–850°C] (McGovern 1986).

While the petrographical analysis conducted by Y. Goren comprised a sample of c. 10 breaks of Egyptian and Egyptian-style vessels, fresh breaks of the entire assemblage were examined in a x20 magnifying stereomicroscope by the author.

clays, which exhibit the entire size range of grains scattered throughout the matrix without order, in the terra rosa family well sorted smallsized grains are alternating with a few bigger ones. Another distinguishing feature is the Nârilimestone, which often appears in big particles in the terra rosa fabric. Furthermore, as opposed to the Aphek fabric, Egyptian Nile clays are micaceous and exhibit mineral inclusions, such as feldspar, hornblende, pyroxen, and biotite, which are absent in the terra rosa group. Summarizing it can be attested that the fabric properties of the locally produced Egyptian-style pottery at Aphek clearly can be interpreted as imitation of Egptian Nile clays in many aspects. From the nearby clay sources, one which closely resembles Egyptian Nile clays, was deliberately chosen. Co-occurring with Egyptian shapes at a site like Aphek, where Egyptian influence is also indicated by other finds, the potters producing these vessels most likely have to be identified as Egyptians.

DECORATION

The variety of decoration styles of Egyptian-style pottery assemblages at Canaanite sites is restricted when compared to New Kingdom pottery assemblages in Egypt (for the various decoration styles see e.g., ASTON 1998: 75–81). Blue painted pottery, for example, is almost absent in the Southern Levant. The decoration styles appearing on Egyptian forms in Canaan are, however, also the most popular ones in Egypt.

Egyptian-style simple bowls appear undecorated (Fig. 3:1,3,5,7), with a red band on the rim (Fig. 3:2,4 and 6) or with a red slip on one or both sides. The red rim can be more or less thick and was seemingly applied with the finger or with a brush (ASTON 1999: 18). The tone mostly ranges around 10 R 5/6. A red paint on the rim of simple bowls is very fashionable in New Kingdom Egypt (ASTON 1998: 75). It already appears at the beginning of the Eighteenth Dynasty but is still rare until and during the reign of Thutmosis III. Starting with the Amarna period it appears in higher quantities (D. Aston, personal communication and observations of the author at Tell el-Dab^ca). Although highly fashionable during the entire Ramesside period it seems to become most popular during the late New Kingdom and, followingly, in the Third Intermediate Period (ASTON 1999: 18). This might be paralleled at Beth Shean in Strata S-3 and S-4, in which a red

band on the rim is the prevailing decoration on Egyptian-style bowls (as much as 77% of the bowls in S-4 and 88% in S-3 are red-rimmed).

A red band on the rim cannot be defined as purely Egyptian feature, it is also well known in the Canaanite pottery tradition (e.g. Megiddo: LOUD 1948: pl. 14:6, Stratum XIV – T3143; pl. 14:17, Stratum XIV – T3148 [Middle Bronze Age]; Gezer: SEGER 1988: pls. 13:8, 32:15; Stratum XVII/XVI [Late Bronze Age]). However, applied onto an Egyptian-style bowl, an association with Egypt can be stated more affirmatively.

Interesting is a group of red-rimmed bowls with flat bases, rounded sidewalls and plain rim that exhibit a series of red splashes and sometimes running down colour. While an occasional splash might easily have happened accidentally, the splashes of this group clearly have been executed deliberately and should be regarded as decoration style. These red-splashed bowls are very popular in Egypt during the time of Thutmosis III and still rarely appear in the time of Amenophis II (D. Aston, personal communication). According to E. Oren they are highly popular on the Sinai, namely in the time of Thutmosis III (E. Oren, personal communication). At Tel Serac one example was attributed to Stratum XI, roughly dated to the fourteenth with a possible extension into the fifteenth century. Several examples originate from Beth Shean, Stratum R-1b, which can be dated to the fifteenth century (B. Mullins, personal communication).

Red slipped bowls can be slipped on both sides of the vessel, on the outside or on the inside only. The tone ranges from light red (2.5 YR 6/8) to red (7.5 R 5/8) and dark red (7.5 R 3/6). When red slipped on one side the slip often overlaps onto the other side forming a red band on the rim (ASTON 1999: nos. 128-130). At Beth Shean red slipped bowls are very popular in Stratum S-5. Followingly, in Strata S-4 and S-3, this style of decoration almost disappears and the red rim is the preferred decoration. Red-slipped bowls appear in Level VII of the Pennsylvania expedition (JAMES and McGOVERN 1993: 79; e.g. figs. 12:9, 12:12, 36:3, 41:2), corroborating the suggested correlation with Stratum S-5 in Area S. They are absent from the published material from the few Level "Late VII" loci (JAMES and McGovern 1993: figs. 48-51), from which a large number of redrimmed bowls originate. From this point of view it seems therefore that Level "Late VII", although flimsy in character, can be regarded as a separate

14 th cent.		18 th cent.	12 th cent.
Beth She'an	c. 5% (R15,a)	c. 15% (james, Motowen v II) 44% (S-5) 64% (Q-2)	50% (47% in 84) 50% in 88
Aphek		35% (X-12)	
Mor ²¹	3% (IX)	7% (VIII-VII)	13% (VI-V)
Sena ^c	13% (XI)	30% (X)	38% (IX)

Fig. 6 Quantitative analysis of Egyptian forms

phase postdating S-5 in Area S and possibly correlating with S-4.

Small ovoid to drop-shaped, funnel-necked, and neckless storage jars often appear coated with a red to dark red slip on the outside (Fig 3: 13b,15–16). In Areas S, Q and NB at Beth Shean all examples of these types are red slipped.

Note that beer jars are always left undecorated (Fig. 3:14). In Egypt, a few red slipped examples are known (e.g. at Qantir, ASTON 1998: nos. 905–910), but the bulk of the material either bears no decoration.

A white to pink creamy slip and burnishing characterizes imported handled cups and amphorae of Marl D (Figs. 3:17b,18; 5).

MANUFACTURE TECHNIQUES

Egyptian-style vessels, namely bowls and beer jars, are often characterised by a coarse appearance. Simple wet smoothing is generally the only surface finishing. Simple bowls commonly exhibit warped walls and an uneven stance, indicating a fast and careless production. Wheelmarks mostly mark their flat bases, either concentric circles or an off-center spiral. The latter results from cutting the vessel from the wheel with a string. Such string cut bases are also prominent among the beer jars. Bases with con-

centric grooves, on the other hand, display a further stage of fabrication. On bowls they generally appear associated with wheelmarks on the lower exterior part of the body. This surface marks reflect a stage in the production, in which the meanwhile leather-hard vessel, which already had been cut from the wheel, was returned onto the wheel, but this time upside down. With the help of the turning wheel the superfluous clay was now scraped away from base and lower part of the vessel with a tool, resulting in the abovementioned concentric grooves and often also in a difference in wall thickness between the lower and upper body. Secondary trimming of sidewalls and base also occurs on simple bowls with round or rounded bases. On some bowls the lower body was trimmed, yet the string-cut marks on the base remain.

Horizontal grooves also appear on various Egyptian-style jars (slender ovoid jar with everted rim, small ovoid to drop-shaped jar, funnel-necked jar) with round bases, which are also produced by placing the leather-hard vessels back onto the wheel and shaping the base with a scraping tool. The trimming marks often rise up to the maximum body diameter.

Beer jar bases are mostly left entirely unworked, as evidenced by lumps of superfluous clay at the bottom as well as more or less deep fingerprints. Often the bases are perforated pre- or postfiring, a phenomenon well known in Egypt too.

Finally one should draw attention to rope impressions on large bowls (Fig. 3:8). Generally two to four lines of impressions are visible on the upper part of the vessel. These impressions are very common on large bowls in Egypt (cf. for example at Qantir, ASTON 1998: no. 329). The ropes, which caused the impressions in the finished products, were intended to hold larger vessels together during the drying process (ASTON 1998: 110).

Concluding one can attest that the various Egyptian pottery forms in Canaan were produced in the same manufacture methods as in Egypt. While technological features like stringcut bases and secondary trimming cannot be defined as purely Egyptian manufacture techniques, other features, such as the fingerprints on the beer jars, unambiguously point to Egyptian pottery technology.

STATISTICS

Observing the shares of Egyptian-style pottery at the various sites (Fig. 6), a strong increase in the Nineteenth and Twentieth Dynasties is evident at Beth Shean (note, what seems to be a regional variation in Level VII), Tel Mor, and Tel Sera^c. There is no sign of decrease of the percentage of Egyptian forms in Twentieth Dynasty Beth Shean, and a further increase can be attested for Tel Mor and Tel Sera^c. Beth Shean is the only site with a well defined stratum after the retreat of the Egyptians from Canaan sometime in the late twelfth century. In this stratum (S-2 in Area S) Egyptian forms comprise less than 10%, consisting mostly of tiny sherds probably being dug up from earlier levels.

The bulk of all Egyptian-style assemblages is formed by open forms (78–96% at Beth Shean [MARTIN forthc. b]; 71–87% at Tel Mor [MARTIN and BARAKO forthc.]; similar shares can also be attested for Aphek and Tel Sera^c). Such a high ratio of open forms is distinct for Egyptian-style assemblages.

DISCUSSION:

CULTURAL AND ETHNICAL IMPLICATIONS

The well established paradigma, which assumes a strong Egyptian physical presence in thirteenth and twelfth century Canaan in form of garrisons ("Direct Rule"; for a summary see, e.g., WEINSTEIN 1981), was recently challenged by a model, which

holds that a large part of the Egyptian material culture was used by Canaanite elites in an attempt to partake of Egyptian prestige and authority (HIGGIN-BOTHAM 2000). While this theory might explain the presence of goods of high prestige, such as jewelry, stone vessels, scarabs, and other objects (these goods only display the strong interaction between the Egyptian and Canaanite cultural spheres in form of artistic eclecticism, hybridisation and syncretism and are likely to be imitated but their existence does not presuppose an Egyptian physical presence), it is argued here that namely the locally produced Egyptian-style household pottery as a good of low prestige is not expected to be imitated and emulated in large amounts for local Canaanite elites. Appearing mass-produced like at Beth Shean, Tell es-Sacidiyeh, Tel Mor, Aphek, Tel Serac, and Deir el-Balah this pottery is a strong ethnic marker for Egyptian physical presence at these sites. At a site like Tel Mor, where no inscriptional evidence was found, Egyptian-style household pottery is a welcome tool to argue for an Egyptian physical presence.

The assumption that many of the potters producing Egyptian forms likely were Egyptians or, at the very least, trained by Egyptians (JAMES and McGovern 1993: 245; Cohen-Weinberger 1998: 411; KILLEBREW 1998: 275) is based on several arguments, which, considered in isolation, might be regarded as insufficient grounds for the proposal that Egyptian potters resided in Canaan, but in cooccurrence give persuasive force to the Egyptian presence argument: The presence of Egyptian potters is indicated by distinct fabric properties (see e.g., Aphek, where the potters are deliberately imitating Egyptian Nile clays), Egyptian technological characteristics (e.g. beer jars), the fact that namely the coarse household wares are locally reproduced, which are unlikely to be emulated, and the fact that apart from spinning bowls Egyptian-style pottery has disappeared by the later part of the twelfth century coinciding with the end of the "Egyptian Empire" in Canaan. While this may have already happened in the first part of the twelfth century in the Pentapolis due to the incursions of the Sea Peoples (BIETAK 1991b; cf. the absence of Egyptianized pottery from Stratum XIIIB at Ashdod, where locally produced Mycenaean IIIC pottery first appears), the South, the Jezreel valley, and the northern Jordan valley seem to remain under strong Egyptian influence until at least Ramses VI (BIETAK 1991b; FINKELSTEIN 1995). At Beth Shean, Egyptian-style pottery forms as much as 44–50% of the entire assemblage in Strata S-5, S-4, and S-3 in Area S of the renewed excavations. In S-2 the share suddenly drops down to 10% or less, most of the sherds probably originating from earlier strata. If Egyptian-style shapes would have been imitated or emulated by local Canaanite potters, one would not expect the production of these forms to cease so abruptly after the Egyptian retreat.⁹⁰

For a reconstruction of a cultural scenario it has to be noted primarily that Egyptian forms appear alongside Canaanite ones in virtually all loci. There are no "pure" Egyptian contexts. We therefore have to come to the conclusion that resident Egyptians beside their Egyptian forms also used Canaanite ones (see already JAMES and McGOVERN 1993: 239) and/or, the other way around, that local inhabitants also used Egyptian forms.

Comparing the type range of Egyptianized assemblages in Canaan with the repertoire of Egyptian forms in New Kingdom Egypt it is mainly Egyptian-style cooking pots, which are striking by their rare occurrence. The characteristic Late Bronze Age Canaanite cooking pots are the cooking vessel at all the examined sites. This evidence is even more enlightening, when compared to the situation at early Philistine sites, where so-called "Aegean-style" cooking jugs largely supplant Canaanite cooking pots (BARAKO 2000: 523). Based on the argument that food preparation was primarily the domain of women in the ancient world (e.g. King and Stager 2001: 64-65; Holaubek 1992: 44; WATTERSON 1991: 128-134) it can be argued that women were part of the Philistine migration and settlement (BARAKO 2003), while it must have been mainly men, who were sent to serve in an Egyptian garrison in Canaan (MARTIN and BARAKO forthc.). The theory that Egyptian soldiers and male administrators were living under the same roof in marriage with Canaanite women - hence the sole presence of Canaanite cooking pots – is another appealing alternative.

HISTORICAL CONCLUSIONS

Egyptian-style pottery assemblages well illustrate the historical picture for Twentieth Dynasty Canaan drawn by the archaeological evidence: On the one hand it seems clear that Ramses III lost part of the

Egyptian sphere of influence over Canaan, namely in the coastal strip north of Nahal Besor - the area of the later Pentapolis (BIETAK 1991b; STAGER 1995), on the other hand one can argue that he undertook a last attempt of restoration and re-organization of the endagered Egyptian hegemony over Canaan, namely in the regions, where Egyptian power was still maintained. That Ramses' III last attempt to secure holdings in Canaan, to push back the Sea Peoples' attacks, and, evidently, also to exploit the natural ressources of the country, is much more than a swan song, is suggested by Papyrus Harris I (pHarris I, 9:1-3), 91 where an inauguration of a temple at Gaza by this pharao (see most recently WIMMER 1990: 1086-1089) is mentioned, by the harvest tax as evidenced by hieratic ostraca, such as at Tel Serac and Lachish (e.g. GOLD-WASSER 1984), by the basalt statue of this pharao retrieved from Lower Level V at Beth Shean (L1024, northern temple; Rowe 1930: 36–38, pl. 51; JAMES 1966: 35 fig. 81:3), by the Level VI door lintel of the official Ramses-weser-khepesh kneeling in adoration of this king likewise at Beth Shean (JAMES 1966: 4-8; figs 92:1, 93:1; WARD 1966: 161-163, 167-169), and by the bronze plaque bearing the cartouche of Ramses III in the gate area at Lachisch (Ussishkin 1983: 168–170).

At Tel Mor the Egyptian-style pottery assemblage is larger than ever before in the last Egyptianized levels (Strata VI–V). In the early days of the Twentieth Dynasty the stronghold at Tel Mor might have been supplied with a maybe even larger Egyptian contingent than before, in order to buffer the Sea Peoples' attacks. At the same time Egyptian-style pottery is already absent at nearby Ashdod, where locally produced Mycenaean IIIC pottery, being absent at "Egyptian" Mor, indicates the advent of the Sea Peoples.

The Tel Mor-scenario seems to be repeated at Tel Sera^c, where the share of Egyptian-style pottery reaches its peak in the twelfth century (38% in Stratum IX).

Also at Beth Shean there is no evidence of a decreased Egyptian component in the early Twentieth Dynasty. Egyptian-style pottery in Stratum S-4 forms as much as 47% of the entire assemblage (MARTIN forthc. b).

One would not expect Egyptian shapes to disappear even in the Pentapolis, where the local Canaanite pottery tradition mostly was not disrupted by the arrival of the Sea Peoples (NOORT 1994: 124–125).

For a hieroglyphic edition of Papyurs Harris see ERICH-SEN 1933. For a translation of the relevant passage see e.g. PRITCHARD 1955: 260–261.

References for Figures 3 and 4

- Fig. 3.1 Oren 1984: fig. 4:1.
- Fig. 3.2 James and McGovern 1993: fig. 50:2.
- Fig. 3.3 BECK and KOCHAVI 1985: fig. 2:1.
- Fig. 3.4 James and McGovern 1993: fig. 48:5.
- Fig. 3.5 Beck and Kochavi 1985: fig. 2:3.
- Fig. 3.6 James and McGovern 1993: fig. 48:6.
- Fig. 3.7 JAMES and McGOVERN 1993: fig. 51:2.
- Fig. 3.8 Beth Shean, Area S, Stratum S-3 (L78740, no. 887043/15), unpublished, courtesy of A. Mazar.
- Fig. 3.9 Mor, Stratum VII (square H20; no. A 435), unpublished, courtesy of T. Barako.
- Fig. 3.10 Beth Shean, Area S, Stratum S-3 (L28811, no. 288053), unpublished, courtesy of A. Mazar.
- Fig. 3.11 Guy and ENGBERG 1938: pl. 59:7.

- Fig. 3.12 M. Dothan 1960: pl. 9:1.
- Fig. 3.13a JAMES and McGOVERN 1993: fig. 13:14.
- Fig. 3.13b Beth Shean, Area S, Stratum S-4 (L10809, no. 108043/2), unpublished, courtesy of A. Mazar.
- Fig. 3.14 Cohen-Weinberger 1998: fig. 2:6.
- Fig. 3.15 Cohen-Weinberger 1998: fig. 2:7.
- Fig. 3.16 Cohen-Weinberger 1998: fig. 2:8.
- Fig. 3.17a Petrie 1931: pl. XLIV.34E2.
- Fig. 3.17b Cohen-Weinberger 1998: fig. 2:9.
- Fig. 3.18 T. DOTHAN 1979: 14 Ill. 16.
- Fig. 4.1 ASTON and PUSCH 1999: no. 87 (Stratum Bd, late Eighteenth–early Nineteenth Dynasty).
- Fig. 4.2 ASTON 1998: no. 2498 (Stratum B/1, Twentieth –Twentyfirst Dynasties).

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