

AN ASSESSMENT OF THE CONTINUITY AND CHANGE IN THE LBI POTTERY AT TELL ʿARQA, LEBANON

By Hanan Charaf

Tell ʿArqa is one of three major sites in the plain of Akkar in North Lebanon. It is located in the southern part of the plain, twelve kilometers to the south of Nahr el-Kébir (ancient *Eleutheros* on the present-day border between Lebanon and Syria), and one hundred kilometers north of the capital Beirut. The other two sites are Tell Kazel (most likely Simira of the Amarna period) and Tell Jamous in the Syrian part of the plain (Fig. 1).

The ancient city of ʿArqa is rendered as *Irqata* in a number of early writings like the Execration Texts (PRITCHARD 1955, 329; POSENER 1940, 90), the Annals of Thutmose III (PRITCHARD 1955,

241), and the el-Amarna letters (MORAN 1987, letters n° 62, 75, 88, 100, 103, 139 and 140).

Since 1972 the French excavations at Tell ʿArqa directed by Dr. Jean-Paul Thalmann have revealed a complex site with a continuous sequence of occupation stretching from Early Bronze Age II (EBII) to the Crusader period.¹ The uncovering of these multiple periods was made possible by focusing on only one area of about 600m², *Chantier I*, on the western edge of the tell.

Eighteen levels (*Niveaux* according to the Tell ʿArqa stratigraphic nomenclature) have been excavated so far. Each level is divided into layers or sub-levels (*Couches*). While the term *Level* designates a homogeneous stratigraphic and architectural entity found at ʿArqa, the term *Phase* refers to one cultural period not only relevant to Tell ʿArqa but to the entire Akkar Plain. For example: Phase P has two levels (16 and 15), architecturally distinct from each other, but belonging to the same cultural horizon of the Early Bronze Age IV (EBIV). The periodization used in Fig. 2 is based on those of Syria and Palestine aiming at pegging

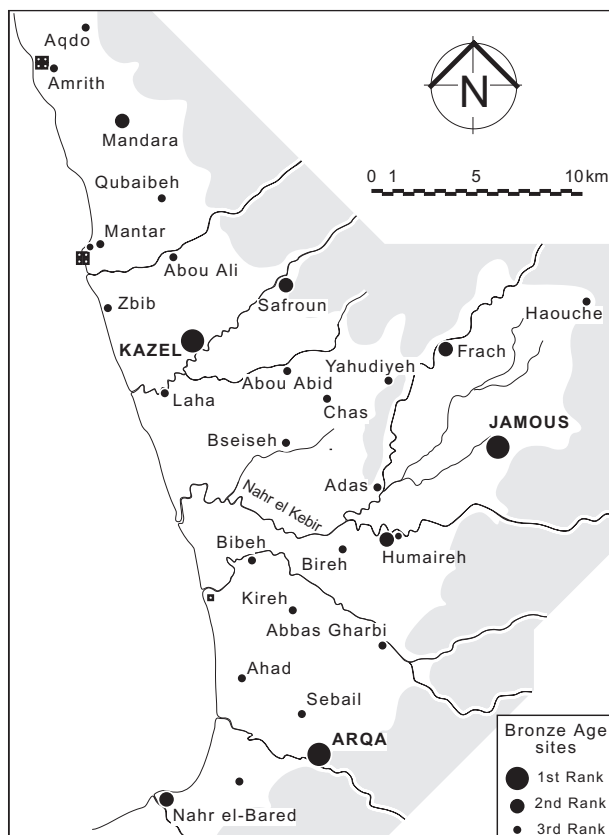


Fig. 1 Archaeological sites in the plain of Akkar (after J.-P. THALMANN 2002)

PHASES	Dates C14 / conventional	Conventional periodization	Tell ARQA levels/strata
A		Mameluke	1, 2
B		Crusader	3, 4
C		Early Islamic	
D		Byzantine	5, 6
E		Roman (imperial)	
F		Hellenistic	7, 8
G		Iron III	9
H		Iron II	10
J		Iron I	
K	1200	Late Bronze II-III	11
L	1450	Late Bronze I	12
M	1550	Middle Bronze II (IIB/C)	13
N	1750	Middle Bronze I (IIA)	14
P	2000	Early Bronze IV	15, 16
R	2400	Early Bronze III	17
	2700		

Fig. 2 Periodization system of Tell ʿArqa (after J.-P. THALMANN 2002)

¹ For reports on the excavations at Tell ʿArqa, see E. WILL, J.-M. DENTZER and J.-P. THALMANN, 1973 (for the first season of excavations), J.-P. THALMANN, 1978, 1983, 1991, 1993, 2000. The final report on the Bronze Age

levels by J.-P. THALMANN is due to appear in 2005 in the collection "Bibliothèque Archéologique et Historique" published by the French Institute of the Near East (IFPO).

the *Niveaux/Couches/Phases* of Tell ʿArqa into a familiar timeframe. It must therefore be used cautiously as a useful time reminder and in no way as a rigid scheme or *fait accompli*.

This article focuses mainly on Level 12/Phase L which roughly corresponds to the Late Bronze Age I (LBI) period. It also touches the prior (Phase M) and the subsequent (Phase K) phases of ʿArqa due to the peculiar character of Level 12 pottery as shown below.

STRATIGRAPHY OF LEVEL 12: A BRIEF SUMMARY²

Level 12 represents the last stage in a process of regular development of the site beginning in Level 13 (Middle Bronze Age II/MBII); however, the structures and material culture are culturally and architecturally distinct from the previous MBII occupation. Architecturally, Level 12 has an array of dwellings built on four terraces (A to D) set against a rampart partly reused from Level 13, to which a tower was added (Fig. 3). No roads were found, but the layout of the houses shows that they occupied the edge of the tell. This suggests the existence of a peripheral road running parallel to the edge of the tell, along with possible radial secondary roads or alleys. Unfortunately, the Iron Age levels damaged badly the LBI levels northeast of the excavated area.

A total of three layers/*couches* were identified. Layer 12C represents the earliest settlement. It consists of a 30 cm thick fill covering all the Level 13 structures and was probably laid down to level out the remains of Level 13 surfaces. This fill was placed directly on the ruins of Level 13, which indicates that Level 12 directly followed Level 13 with no signs of abandonment in between.

Multiple superimposed beaten earth floors (Floor 12/III) were found on Terraces B, C and D. Some covered the Level 13 rampart, indicating the beginning of a new building level. One stone-built channel and two ovens/*tannours* were located on Terrace B beneath the floor of layer 12B.

On Terrace A, to the north, a fairly large part of a settlement was excavated with another stone-built channel, two *tannours* and a cobbled paving. Two graves were excavated as a part of this sub-

level: one collective infant jar-burial with three individuals in it (T12.45), and one infant pit-burial (T12.46).

An extensive remodeling of the site began shortly after this in Layer 12B, with no indication of abandonment between 12C and 12B.

The general layout of the tell was preserved with four terraces and a rampart running along the edge of the tell. A square tower was added to the rampart at this time. Its function was probably more of a watch tower overlooking the Akkar Plain than a defensive one guarding an entrance to the city.

There is a difference in absolute level of 0.50m between Terraces C–D, and Terraces B–C, and more than 1,80m between Terraces A and B. Four houses, each occupying one terrace, were built against the inner face of the rampart. These dwellings were entirely destroyed by fire. The destruction was observed throughout the excavated area. It is well represented on Terraces C and D, and less so on Terraces A and B. The good state of preservation in the southern terraces (C and D) is explained by the later building phases: at the beginning of Level 10, the inhabitants leveled the tell horizontally beginning from the north. As a result, Terraces A and B were damaged, while Terraces C and D another 2m below were well preserved.

The destruction of sub-layer 12B2 consisted of a 40 to 80 cm thick deposit of ash and charcoal (including charred wooden beams from a porch on Terrace C) and fallen mudbricks on the floors of the buildings (Floor 12/II). Crushed pottery was also found on these floors and in the destruction debris.

Layer 12B2 constitutes the principal stratigraphic reference mark of Level 12. To rule out any contamination from subsequent *loci*, the top of 12B2 was ascribed to a different layer, 12B1, characterized by additional brick debris from the fallen structures and less pottery.

Eight tombs were found below floor levels related to layer 12B: three on Terrace A, four below the cobbled floor on Terrace C, another on Terrace D, and a collective multiple tomb on Ter-

² The description of the Level 12 stratigraphy was summarized from the forthcoming final report on the excavations at Tell ʿArqa: the Bronze Age levels. See also:

J. P. THALMANN, 1993:63–70, J.-P. THALMANN, 2000:63–68; H. CHARAF, 1999:25–43.

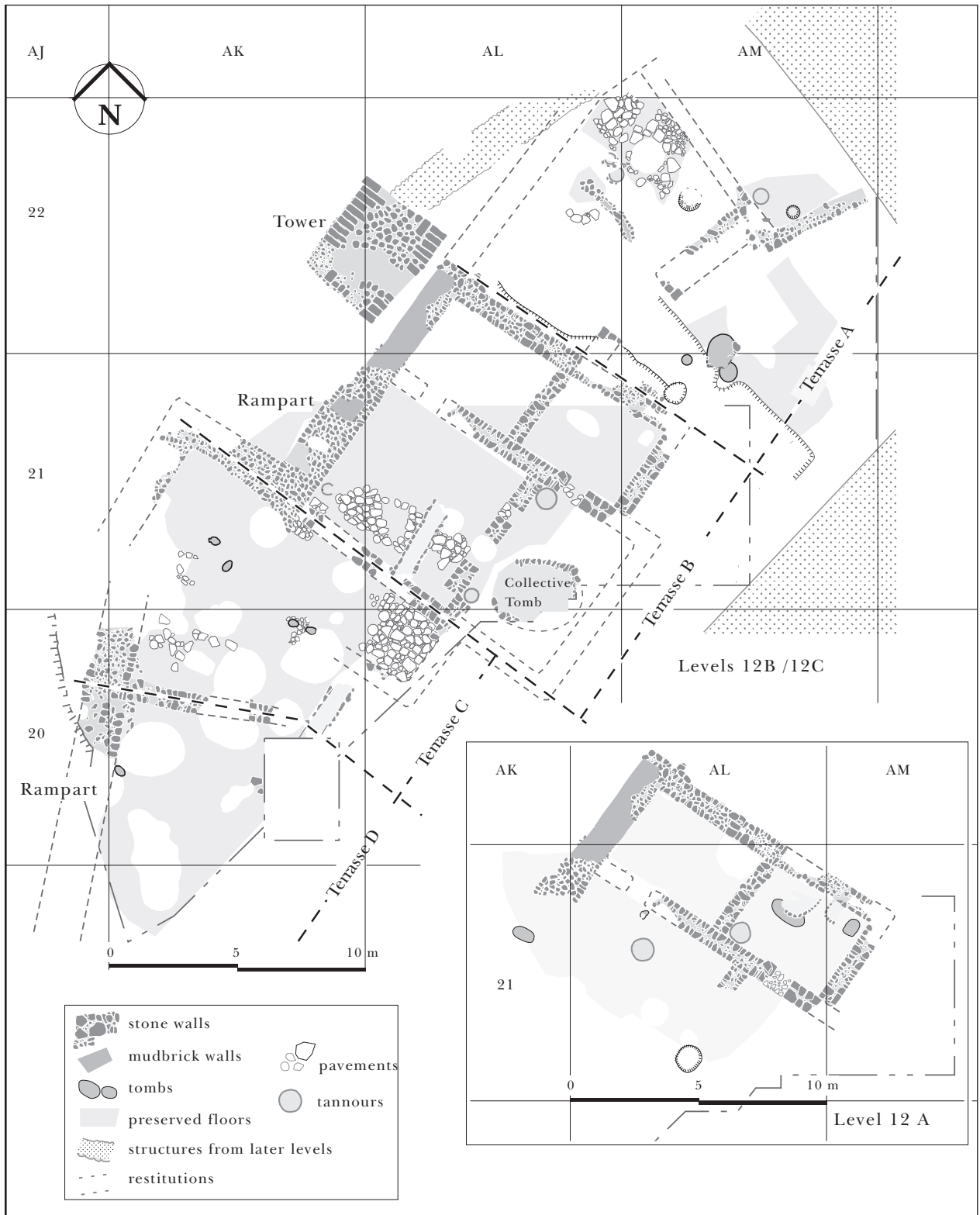


Fig. 3 Stratigraphy of Level 12 (after J.-P. THALMANN)

race B. They are divided into four infant jar-burials (T12.47, T12.48, T12.49 and T12.59), five infant pit-burials (T12.57(A), T12.57(B), T12.57(C), T12.58 and T12.60), and one collective cist burial (T12.67) with up to 14 adults and adolescents, and more than 30 pottery vessels. Some skeletons were disarticulated and pushed to the walls of the tomb, indicating multiple usage of this tomb over a long period of time, probably spanning all of layer 12B. There are no indications that this tomb is a familial one, although one might deduce that the skeletons belong to the same family that occupied the house directly above it. Anthropological analyses of the skeletons might answer this question. Built tombs under houses are extremely rare in the Levant. The best examples of this custom are found in Ugarit dated to the Middle Bronze Age.³ Tomb 12.57 has three successive infant burials in it, which could indicate again an intentional usage of a same burial location during a specific period of time.

Immediately after the destruction of 12B, the ruins of the houses were partially reused in a very limited area (Terraces A and B) and new beaten floors were laid down (Floor 12/I). This settlement, which can be qualified as a „squatter“ occupation of limited extent, constitutes layer 12A. Moreover, the deposits attached to this layer were only 10 to 20 cm thick indicating a limited usage in time. The rampart used since Level 13 was completely covered with an earth-beaten floor (Floor 12/I). This occupation phase included one *tannour* on Terrace B associated with two plastered platforms that covered two tombs. Layer 12C was badly preserved on Terrace A with only a floor and a tomb (T12.56) having been preserved.

A small number of ceramic vessels were found *in situ*, with the major amount of pottery coming from pits, silos and burials. Five tombs were found in this area: four infant jar-burials [T12.56(B), T12.56(D), T12.56(E) and T12.71], one adult jar-burial (T12.70), three infant pit-burials [T12.44, T12.56(A) and T12.56(C)] and one adult pit burial (T12.50).

The end of the reoccupation of Level 12 marks

the decline of ^cArqa as an important site in the Akkar Plain. Level 11, the occupation following 12A, is badly attested throughout the excavated area. It is mainly characterized by flimsy ruins and patchy earth-beaten floors that were hard to piece together into a cohesive settlement. Stone-built walls were rarely found on the site, suggesting that the walls were probably made of mudbricks and thus badly preserved. But from the existing ruins, it appears that the Level 11 inhabitants maintained the same orientation and disposition of the Level 12 terraces. It is important to note in this regard that no tombs or fortifications were found on the tell from this period. Level 11 has been dated on the basis of the local ceramics to the Late Bronze Age II (LBII).

THE POTTERY OF LEVEL 12

In light of the particularities of the Level 12 pottery and any debate it may trigger, only vessels from sealed deposits were considered for this study. Approximately 120 complete vessels were found at Tell ^cArqa in sealed *loci*. These include pottery in the destruction sub-layer 12B2, on the floors of all three layers, in silos, and in burials.

1. Pottery techniques

The pottery techniques used in Level 12 testify to a level of homogeneity in manufacturing techniques with the previous periods. This harmonizes well with our stratigraphic conclusions concerning Level 12 as the final stage of one long regular phase of development beginning with the EBIV. Many vessels (though not all) retain the shapes and decorative techniques of the earlier Level 13 repertoire.

Technologically speaking, Level 12 vessels are made on a fast wheel, except for the cooking pots which are hand-made with the rim thrown on a fast wheel, and the storage vessels such as jars and *pithoi*, which combine techniques of coiling for the body and the fast wheel for rim construction. ^cArqa's LBI pottery continues using fast wheel construction already introduced in EBIV at the site.⁴ This stands in sharp contrast to Palestine

³ S. MARCHEGAY of the University of Lyon II studied the MB built tombs of Ugarit as a PhD dissertation submitted in 1999. She catalogued and studied all the tombs found on the site using C.F.A. Schaeffer's notebooks and plans since the inception of the excavations.

⁴ For manufacturing techniques of the EBIV pottery of ^cArqa see J.-P. THALMANN, 1993:95–115. A comprehensive overview of the pottery techniques from Phase P (EBIV) to Phase M (MBII) is included in the article of J.-P. THALMANN, 2002:369–371 on the Early Middle Bronze Age at Tell ^cArqa.

and Jordan where most of the LB pottery is hand-made or manufactured on a slow wheel.⁵

A new clay temper appears also in Level 12. It contains a mixture of basalt, soft limestone and vegetal inclusions (chaff) and was used primarily in the manufacture of plates, carinated bowls, jars, and pithoi. The basalt is often red or dark brown, degraded and of poor quality. It comes from the Tell Kalakh plateau in the north Syrian part of the Akkar Plain. Sand is used as temper, though timidly in Level 12. Not until Level 11 (LBII) and especially Level 10 (Iron Age II) do we encounter clays tempered with a high proportion of sand.

The clays range from medium to fine levigation and use rather careful and elaborate methods of preparation. Most striking is the persistence of fabrics used previously in Level 13. Many types of vessels (necked bowls, jugs and jars) are still being made with well-fired and finely levigated clay highly tempered with basalt. At Arqa, we call this type of fabric "*Metallic Ware*." The latter ware entirely disappears at the end of Level 12. By contrast, the clays from Level 11 are coarser and indicate a decline in pottery manufacture during LBII, a fact mirrored in the general decline of the site at that time.

Level 12 ceramics generally have a fired buff or orange exterior and a gray core, except for the "*Metallic Ware*" pots which have a dark grey or brown surface and a dark grey core.⁶ Orange exteriors tend to disappear in Level 11 leaving in its place buff and cream surfaces that have a soapy feel. Such clays will predominate in Level 10.

Painted decoration, a stranger to ^cArqa's ceramic repertoire, starts to appear, although timidly, in Level 12. Monochrome (red) and bichrome (red and black) decorations adorn the surfaces of few plates, carinated bowls and jars. This decoration is always geometrical with a recurrent motif of vertical straight and wavy lines. No figurative decoration was found at ^cArqa with

the exception of two pots: a deer painted on the body of a *pithos* and a duck on a bowl. Red slip is extremely rare in Level 12. Only three piriform juglets were found with this decoration in the tombs (12.57) and (12.67) of 12B. While the form and the decoration of these juglets are typical of the MB, the clay belongs to the LB repertoire.

Burnishing is a frequent type of decoration on many pots, especially on ring-base plates, carinated bowls, necked bowls, jugs, and squat jars. Most of the burnishing is horizontal, but the MB vertical burnishing can still be found on the squat jars and piriform juglets. A particular type of horizontal burnishing, called "*tournassage*" in French, first appears in Level 12. The outer walls of the leather-hard vessel are scraped while the vessel is rotated on the wheel to create a burnishing effect.⁷ This burnishing is restricted to Level 12 and is therefore considered to be a hallmark of the LBI pottery at ^cArqa. Incised lines on the neck comprise one of the most typical decorations in ^cArqa. It is found only on small necked and carinated bowls. The technique originates in Level 13 and continues throughout Level 12.

2. Pottery typology

Although some forms found in Level 12 continue the earlier MB tradition, a number of new shapes do appear: burnished straight-sided plates, flaring carinated bowls, cooking pots with everted triangular or casserole rims, baggy juglets, elongated jars, and *pithoi* with S-shaped molded rims. All of these shapes belong to a repertoire of forms widely distributed in all the Levant. After centuries of isolation in the EB period (exemplified by a unique and original pottery repertoire), Tell ^cArqa must have entered the Levantine cultural *koinè* as early as the MB, if by this we refer to *common* MB pottery forms in levels 14 and 13 (e.g. carinated bowls and stepped-rim juglets amongst others). In addition, during the MB period, a number of imports from Cyprus,⁸ Syria and

⁵ H.J. Franken and P. Bienkowski suggest that LB pottery was hand-made, respectively in Tell Deir ^cAlla and Jericho. B. Wood thinks that going back to hand-made techniques in the LB may be due to the decline in the urban process in Palestine and Transjordan at this period of time. For full discussion of this topic and references, see B. WOOD, 1986.

⁶ The achievement of this type of firing has been fully described in J.-P. THALMANN, 2002:370–371.

⁷ J. COLBECK, 1976:58, explained in detail the manufacturing techniques of the *tournassage*. V. ROUX, 1994:48, thinks that the *tournassage* was used not only as a finishing process, but also for its burnishing effects.

⁸ The author of this article will contribute in the final report on the Bronze Age levels at ^cArqa (J.-P. THALMANN, forthcoming) an article on the Cypriote and Mycenaean imports yielded from this site.

Egypt⁹ start to appear in relatively high quantities. The Level 12 ceramics have been organized morphologically into seven classes or types. An analysis of these types will demonstrate the characteristics inherent to each class and therefore to the Level 12 assemblage in general.

Plates (Fig. 4)

One of the hallmarks of Level 12 is plate C4. This plate has either a straight-sided body or a more rounded one and a ring base. The ware fabric is orange and tempered with soft white limestone and chaff. C4 plates usually have beveled rims, although rounded rims and even in-turned ones occur; however, the latter are rare and are obviously a carry-over from the Level 13 plates. This plate is always burnished inside and outside using the *tourassage* technique unlike all the Lebanese

parallels as we shall see below. Large plates of Level 13 generally have a disc base, a curved rim and are vertically burnished. Plate C4 appears to resemble the same kind of entirely burnished plates from Hazor that Y. Yadin called *Karom Ware*, which also consists of an orange-colored fabric (BEN-TOR and BONFILL (eds.) 1997, pl. II.14:12). This plate is “*extremely popular in MBII-LBI*”.¹⁰

Levantine sites with this type of plate include Hazor (YADIN *et al.* 1958, pl. CI:5,7; YADIN *et al.* 1960, pl. CIX:1,7,9; YADIN *et al.* 1961, pl. CCLXXXVIII:3; BEN-TOR and BONFILL (eds.) 1997, pl. II.14:8,11, all dated to LBI), Tomb 42 of the Northern Cemetery of Beth Shan (OREN 1973, fig. 27:3,6,9,18 dated to the beginning of the LBI), the LBI tombs of Megiddo (GUY and ENGBERG 1938, pl. 43:16, Tomb 855/856; pl. 45:5, Tomb 1100) and Tyre (BIKAI 1978, pl. LIIA:7, Grave 1). If

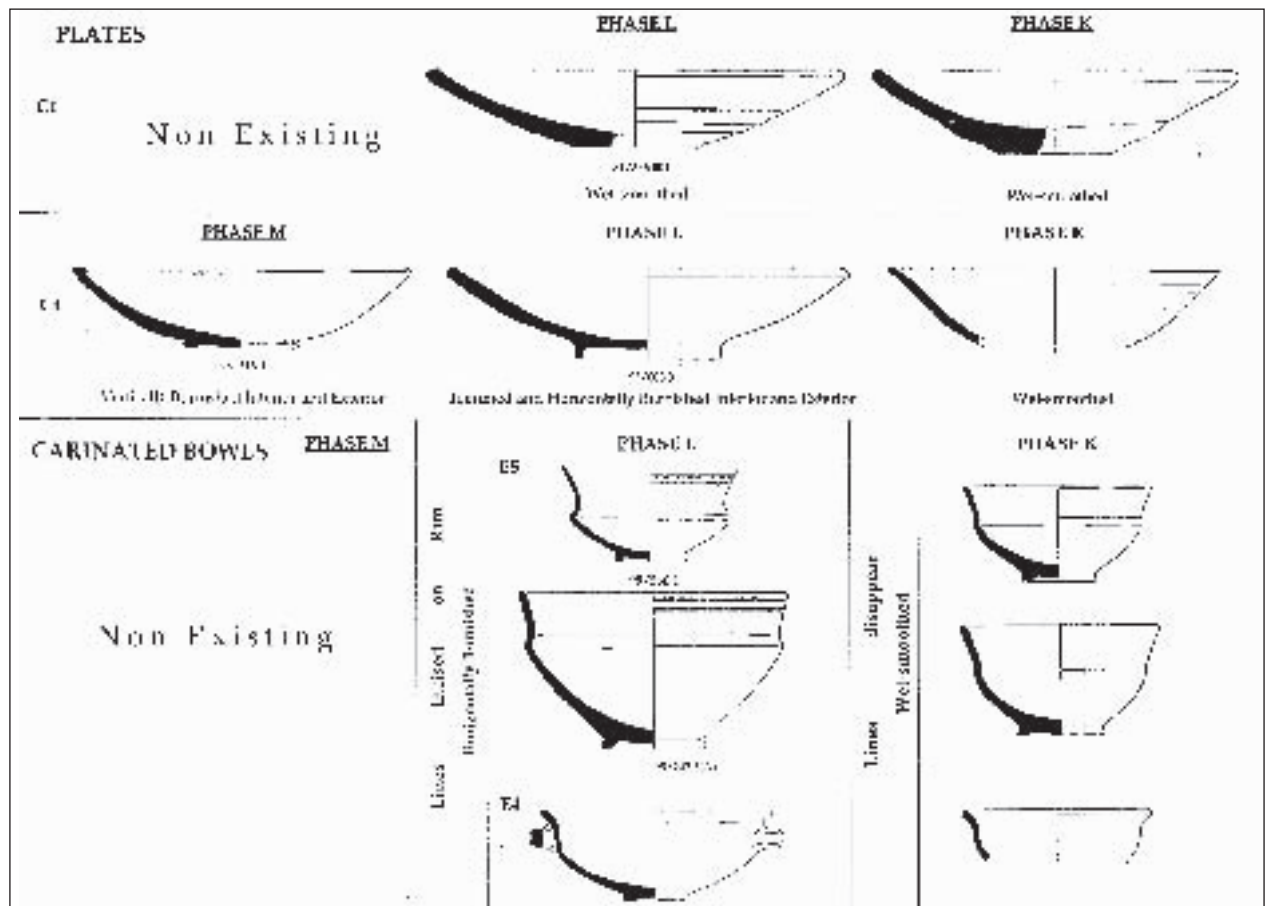


Fig. 4 Plates and carinated bowls

⁹ K. Kopetzky and I. Forstner-Müller from the Tell el-Dab'a team identified Egyptian sherds in Level 13 during the 2002 season. Moreover, as much as eighteen Tell el-Yahudiyeh Ware sherds were found in Levels 14 and 13.

¹⁰ E. OREN (1973:69) based this observation on the large amounts of this type of plate found in Jericho and at Hazor.

all these examples are either burnished on the interior or the exterior, others are simply plain like in some tombs of Megiddo (GUY and ENGBERG 1938, pl. 24:1; pl. 40:11; pl. 42:9,20; pl. 43:17; pl. 45:6; pl. 49:1,20; pl.50:3), Tyre (BIKAI 1978, pl. LIII:14,16, Grave 2), and Pella (HENNESSY *et al.* 1981, fig. 5:32; fig. 7:19, Tomb 20), in the three stages of Temple T3 at Kamed el-Loz (METZGER 1993, pl. 89:1,6; pl. 79:9,14), and in the MBIIC/III level at Tell el-Ghassil (DOUMET-SERHAL 1996, pl. 36:6,7). Examples of plates C4 were found in the three layers of Level 12. This is in contrast to Tell Nebi Mend where this type of plate appears at the end of LBI/Early LBIIA (BOURKE 1993:156; fig. 19:14). The majority of Level 12 plates of C4 are simply burnished, but there are a few examples that were burnished and painted on the interior with horizontal red bands.

Simple plates of type C1 start in Level 12 and continue into Level 11. They are rather coarse, bear a string-cut base and are wet-smoothed. Obviously, these were utilitarian plates made for everyday multi-purpose use and easily produced in large quantities. Level 11 examples tend to be coarser than those of Level 12. These plates are very popular at the beginning of LBI at Hazor (YADIN *et al.* 1961, pl. CCLXI:1–10; pl. CCLXXXVIII:1), in Tomb 42 at Beth Shan (OREN 1973, fig. 27:20,21), and in Temple T3d at Kamed el-Loz (METZGER 1993, pl. 79:2,4,6,7). R. SAIDAH (1977, 88) thinks that they might be slightly posterior to plates C4 basing his assumption on a technological observation: the potters abandoned ring bases because they cracked often when drying and shifted to the more easily built flat bases. This theory might apply also to ʿArqa since all C1 examples were found in layer 12B or later. But this won't be proven until all Level 12 pottery is sorted.

Carinated bowls (Fig. 4)

Another hallmark of Level 12 is the flaring carinated bowl, E5, which appears only in Level 12, whereas in Palestine it occurs already in MBII. These carinated bowls display the same manufacturing techniques as plates C4. The main characteristic decoration is the three incised lines on the

neck. This decoration appears also on the necked bowls N5 (see below) and seems to be quite fashionable in the LBI repertoire at ʿArqa. It was quite difficult to find parallels to this decoration in the various LB Levantine sites, except for Alalakh and Tell el-Dabʿa. Rounded or flat-based pots and cups have this type of incision on the upper body just beneath the rim in D. ASTON's (2004) corpus of Late Middle Kingdom pottery of Tell el-Dabʿa [pl. 209:820 (Stratum E/1), pl. 210:825 (Stratum a/2)], and are all dated to the second half of the MBIIB (1620–1590 B.C.).¹¹ Carinated bowls continue into Level 11, but with a deeper shape, a frequent disc base and without any burnishing or incisions.

Another type of bowl, E4, has a more rounded carination. E4 bowls have a concave disc-base and wheel burnishing over the entire body inside and out. Interestingly enough, these bowls are the ones with disc bases, while the sharply carinated ones like E5 have ring bases. Since these two types coexisted in all Level 12 layers it is impossible to verify whether or not the former appears later.¹² The E4 bowl lacks any incisions on the neck. One possible explanation for this is that the everted neck would not have allowed the potter to easily carry out such decoration on a fast wheel. A few examples have painted horizontal red bands on the interior and are burnished. Others have two adjoining horizontal handles. Bowls E4 and E5 are the standard drinking vessels in Level 12, replacing the carinated pots of Level 14 and 13. We have to wait until Level 11 to see the appearance of small handless drinking cups. Surprisingly, the fine one-handled cups from the EBIV period that look like our modern teacups never continued into the later periods.

Necked bowls (Fig. 5)

These bowls, N5, come in two sizes and were found mostly in tombs, silos and the destruction layer 12B2. The majority retain both the shapes and the careful manufacturing techniques of those from Level 13. They are horizontally wheel-burnished and made from the same “*metallic ware*” fabric mentioned previously, with the exception of later small biconical shapes found on floor

¹¹ I would like to express my gratitude to D. Aston for sending me a copy of his forthcoming publication thus allowing me to quote unsuspected parallels from Tell el-Dabʿa.

¹² R. AMIRAN (1969:129) observes that in LBI, bases are “mostly ring-bases, but the concave disc-base already makes its appearance” and becomes the main type of base in LBIIA “degenerated forms” of the carinated bowl.

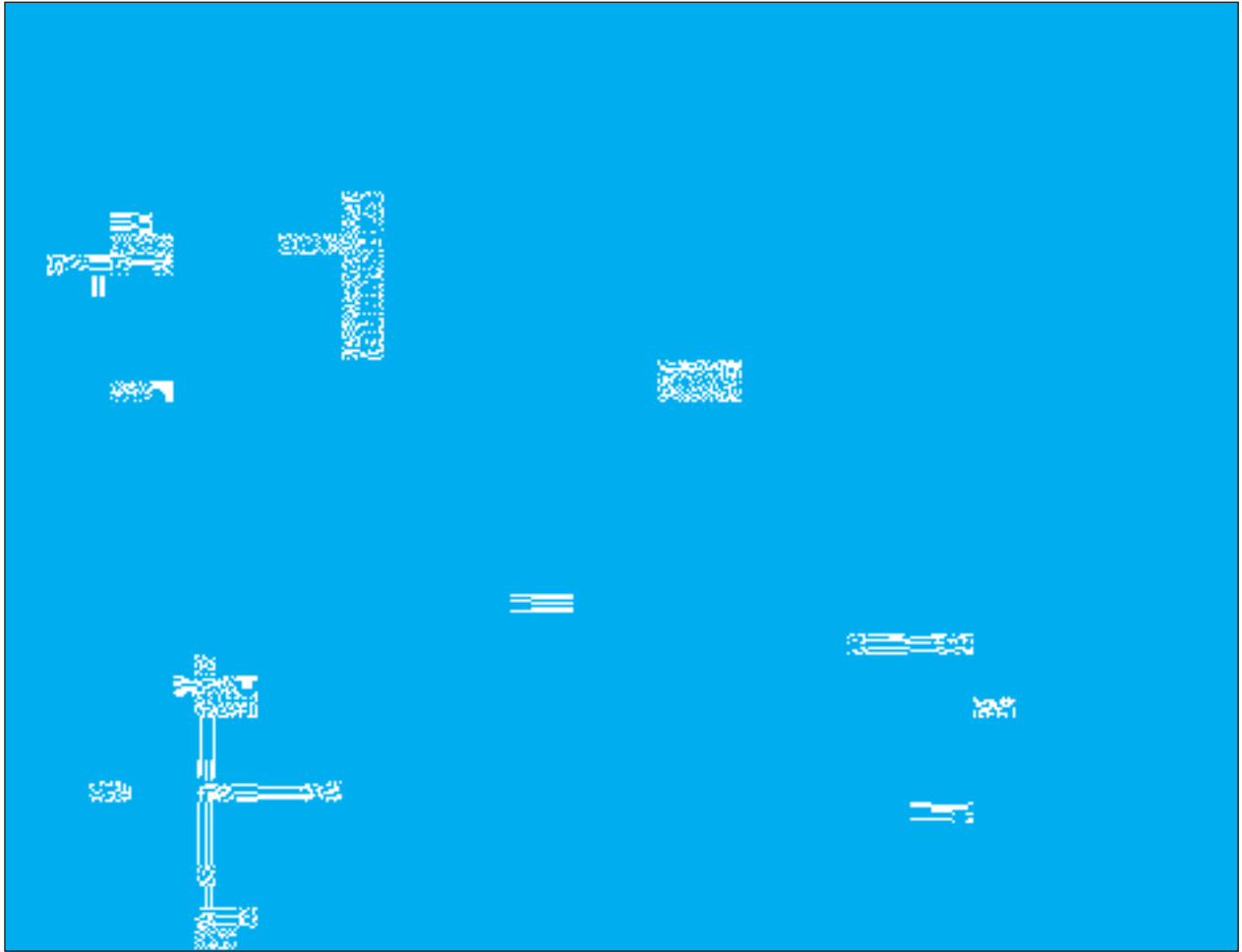


Fig. 5 Necked bowls

12/II, and in the collective tomb of 12B, which are plain and made with bright orange clay.

A thorough analysis of these pots enabled us to draw a tentative diagram of the evolution of this type, particularly since they are the best example for tracing the development of one type of vessel at ^cArqa.

We begin in Level 13 with the sharply carinated short-necked pot. In Level 12, they start to develop rounded bodies and tall necks. These direct heirs to the Level 13 carinated bowls are the earliest in Level 12. Another early type is characterized by the double sharp carination on the body, fine lines incised on the neck (a clear inheritance from Level 13 bowls) and careful horizontal burnishing. Four strikingly similar examples of

this bowl were found in tombs of 12B and could be the product of one potter. The biconical bowls occur only in 12B onwards.

These bowls are totally absent from coastal sites in Lebanon. The best parallels to the necked bowls come from Hazor where they are “*distinguished by their thin wall and delicacy of finish.*”¹³ Y. Yadin placed their appearance in the MBIIA and noted how the LBI examples continue the MB traditions with their fine burnishing.¹⁴ Another example was found in Tomb 42 of Beth Shan dated by E. Oren to LBI.¹⁵ Similar pots with incisions on the neck (but from MB contexts) came from Alalakh Str. XI and VII (HEINZ 1992, pl. 6:32), and from Tell el-Dab^ca dated to the Late Hyksos Period (ASTON 2004, pl. 271:986–991 and

¹³ YADIN *et al.* 1960:87, pl. CIX:37. See also: YADIN *et al.* 1958: pl. CXIX:23 (Cistern 9024, MBII levels). YADIN *et al.* 1961: pl. CCLXIII:1,2.

¹⁴ YADIN *et al.* 1960:87.

¹⁵ E. Oren bases his dating on examples found at Tell ^cAjjul and Ugarit where this bowl was found together with Bichrome Wheel Made Ware and Cypriote Black Lustrous Ware. OREN 1973:74, fig. 28:36 (unburnished).

pl. 272:993). These pots are “relatively common at Tell el-Dab^ca, generally well made of a Nile D fabric and the neck is always decorated with fine lines made with a pointed tool.”¹⁶ We believe that the origin of these pots (both Level 13 and Level 12 examples) in terms of shape and possibly also decoration is to be found in Northern Syria. The large number of imports originating in Northern Lebanon and appearing at Tell el-Dab^ca during MB and LB¹⁷ could have brought in the trade flow this decoration from Egypt in the MB, even if this decoration may have originated in Northern Syria in the MB. Hopefully, the new excavations at Qatna will shed some light on this subject.¹⁸

Large necked bowls, N4, were also found in Level 12, but generally in tombs. They have a ring

base, a carination on the upper part of the body, and display careful horizontal burnishing. Their morphological features are reminiscent of the MBII bowls at ^cArqa and at several sites in the Levant. But some of them are deeper than the Level 13 bowls. One particular example with the narrow constricted neck, N4.c, has no antecedent in Level 13 but is known at MBII sites in Palestine. Bowl 98/561.001 bears a resemblance to the flaring carinated bowls from Level 12. A parallel to it was found in Tomb 19 from Pella dated to the MBIIC (HENNESSY *et al.* 1981, fig. 3:13).

Jugs and juglets

The large bulk of jugs and juglets come from burials. Here again, we witness tangible survivals

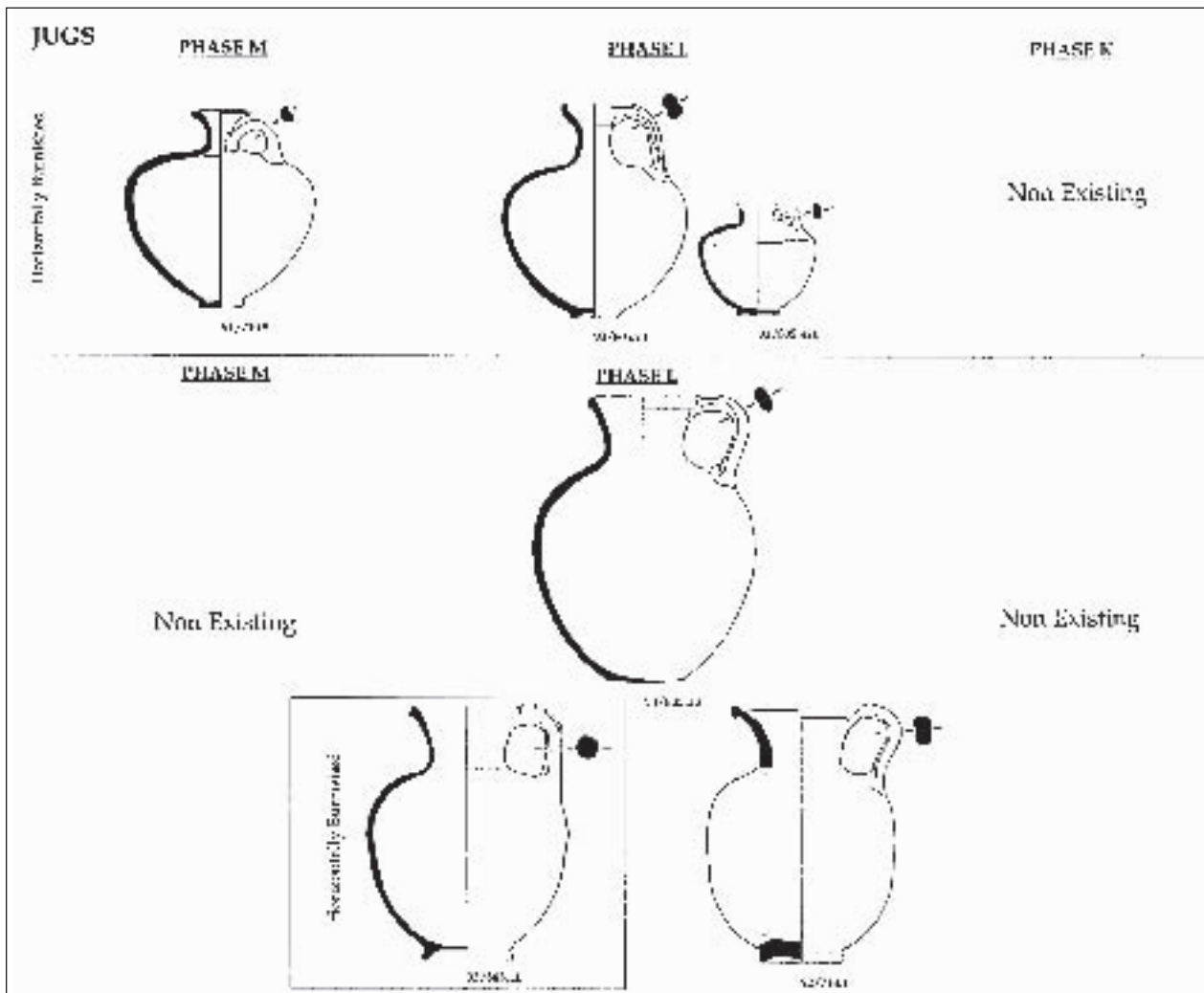


Fig 6 Jugs

¹⁶ ASTON, 2004:243.

¹⁷ As shown by Y. GOREN from the analysis of the Levantine imports from Tell el-Dab^ca. See YANNAI *et al.* 2003:8.

¹⁸ Marco Iamoni is currently preparing a PhD dissertation on the pottery from the transitional MB-LB Period from Qatna at University College of London.

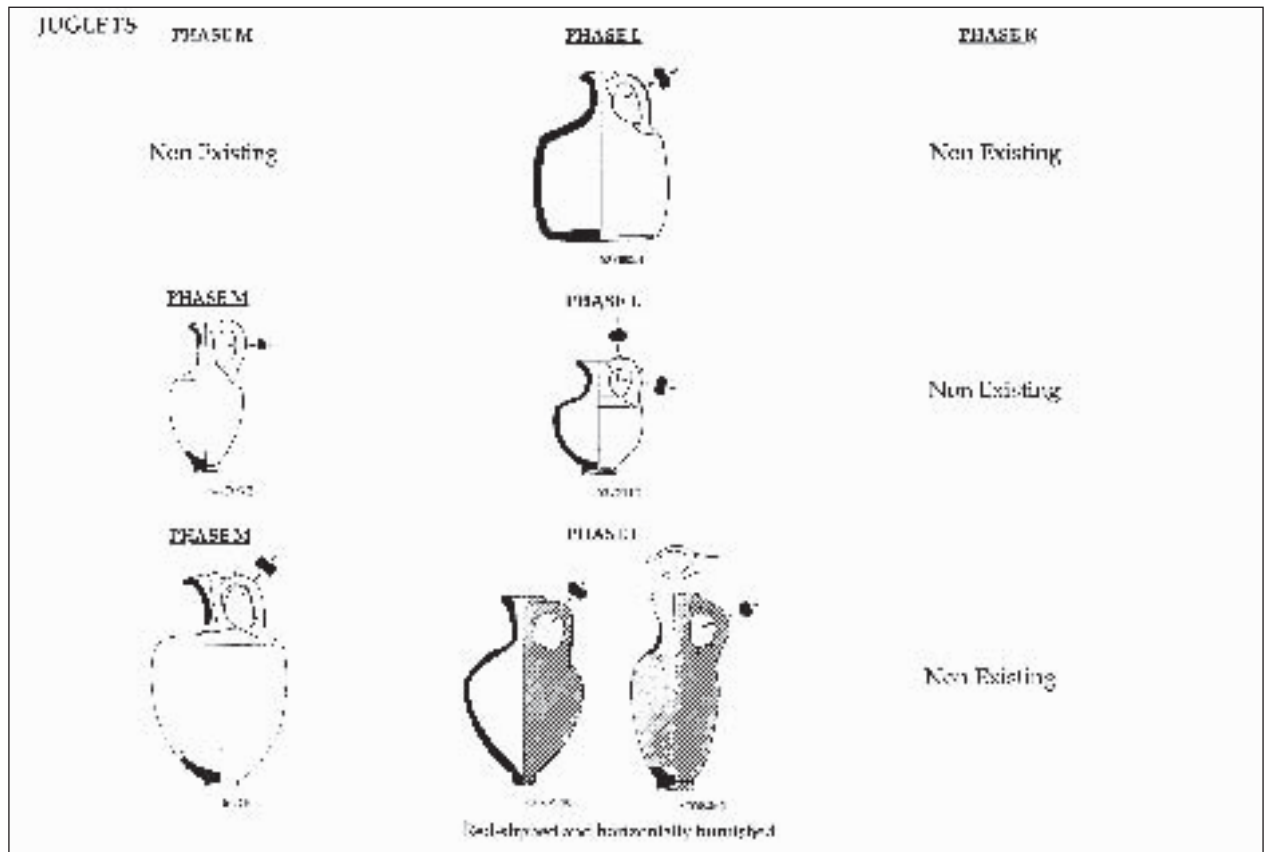


Fig. 7 Juglets

of shapes and decoration from Level 13. All the jugs have either a ring base or a slightly bulbous flat one, an ovoid or globular body and one handle that can be single or double (Fig. 6). Most have a shiny horizontal burnishing. Jugs of type K5.d have round mouths and tall necks except for jug 93/805.024 and probably jug 93/805.041a with slightly shorter necks and a gutter rim that might be a degraded version of the MB “stepped rim” found on many Levantine juglets. The double loop handle on jug 93/805.041a and the double handles on jugs 93/805.024 and 92/714.001 are carry-over MB features but found in clean LBI tomb contexts. R. Saidah dates the tall flat-based ovoid jugs to the beginning of LBI (SAIDAH 1977, 101). They were found in LBI contexts at Hazor (YADIN *et al.* 1961, pl. CCXLI:14, tomb in Area F) and Megiddo (GUY and ENGBERG 1938, pl 44:1, Tomb 855/856; pl. 44:15, Tomb 876; pl. 46:4, pl. 48:16, Tomb 1100, found with Bichrome Wheel

Made Ware; pl. 51:4, Tomb 1145, found with Cypriote Base Ring I, all these examples are not burnished). The globular jug 93/805.024 has a parallel at Hazor in Stratum 4 of Cistern 9024, but with a triple handle and dated to MBII (YADIN *et al.* 1958, pl. CXX:1).

The juglets also strike one as clear carry-overs from the MB period (Fig. 7). Cylindrical juglets, K8.d, while extremely popular in MBII tombs in the Levant, only appear in Level 12 at ^cArqa. Not a single example was found in Level 13. All these juglets came from tombs, a common feature in the Levant (see for example the MBII tombs of Tell el-Far^ca South¹⁹). These juglets can be wet-smoothed or horizontally burnished. They may also have a single or a double vertical handle. Both types of handles were found in the same tomb, confirming them as contemporaneous as at Hazor and contradicting the opinion of O. Tufnell who said that the single handle replaced the double

¹⁹ D.P. WILLIAMS (1977): *The tombs of the Middle Bronze Age II period from the “500” cemetery at Tell Far^ca (south)*. Institute of Archaeology, London.

one in MBII (YADIN *et al.* 1960, 88). If these juglets appear to be popular in the MBII in the Levant, they continue into the LBI period at Beth Shan (OREN 1973, fig. 35:30, Tomb 27; fig. 30:2–7,9 in Tomb 42) and Pella (POTTS *et al.*, 1985, fig. 10:7, with white burnished slip in Tomb 62). R. Amiran places the disappearance of this juglet at the end of the LBI (AMIRAN, 1969, 146). Therefore, our examples should not be considered as awkward features or even heirlooms. Nevertheless, it is interesting to note that these juglets appear only in MBII tombs in Lebanon (Kafer Garra, Lebeʿa, Majdalouna, Sarepta, and Kamed el-Loz²⁰) and seem to be absent from other interior sites like Tell el-Ghassil and Tell Nebi Mend according to the published material (respectively DOUMET-SERHAL 1996 and BOURKE 1993).

Piriform juglets, K8.b, covered entirely with a bright red slip, vertical burnishing and having a double handle also appear for the first time in Level 12 in two tombs of layer 12B. Even though Level 13 yielded piriform juglets, none of them was red slipped. E. OREN notes Kenyon's observation that around 1550 B.C., piriform juglets completely disappear and are replaced by the cylindrical ones (OREN 1973, 75). This is untrue at ʿArqa where both juglets were found in the same tomb (Tomb 12.67). Sites with published parallels assign this type of juglet to the MB period (Hazor, Megiddo, Kamed el-Loz, Pella). Juglet 98/559.002(C) from tomb 12.57 is clearly a crude local adaptation of the latter piriform juglet with a concave disc base and a pinched spout.

Another juglet (92/714.002) found in a tomb bears an old feature in the form of a pellet on top of the handle. Dippers are extremely rare at ʿArqa. While this kind of vessel is frequently found in tombs in the southern Levant, the excavations yielded only two baggy-shaped examples found in the destruction layer 12B2.

Most of the jugs and juglets are thrown using a fine and well-fired ware, except for the piriform juglets, which are fired buff and made in clay tempered with limestone unknown to the Akkar plain.

Cooking pots (Fig. 8)

Three types of cooking pots coexist throughout Level 12. All are hand-made and display a wide

mouth and a shallower body in contrast to the Level 13 examples with narrower necks and deeper bodies. Most of LBI cooking pots have carinated bodies which distinguish them from the MBII ones which are more rounded, even though some rounded examples are still found in Level 12 (Fig. 8, 81/335.006). What's more, all the LBI cooking pots lose the distinctive MBII incised grooves decoration on the shoulder.

Two types of cooking pots have everted rims that are either rounded M4 or triangular M5. The rounded rim is the earlier type that appears already in Level 13. The triangular one appears for the first time in LBI, a development observed elsewhere at most Levantine sites (AMIRAN 1969, 135; DOUMET-SERHAL 1996, 96; YADIN *et al.* 1989, 56). Similar cooking pots were found in LBI levels from Sarepta (ANDERSON 1988, pl. 22:1–6, Stratum K), Tyre (BIKAI 1978 pl. XLIX:23, Stratum XVII), Hazor (BEN-TOR and BONFIL (eds.) 1997, fig. II.14:24,27, Area A; fig. II.15:12; YADIN *et al.*, 1958, pl. CXXXVIII:1–3, 10; pl. CXXXIX:12, 13,17, Locus 7021, Area E), Tel Batash (Panitz-Cohen, personal communication, Level VIII, LBIB) and in LBII levels from Tel Michal (NEGBI 1989, fig. 5.6:1,4), Hazor (YADIN *et al.* 1958, pl. CXLV:3,5, Locus 7013, Area K; YADIN *et al.* 1961, pl. CCLXXXIX:5,8, Stratum 2, Area K), Dan (BEN-DOV 2002, fig. 2.31:9, Stratum VII, LBII; fig. 2.55:19, Mycenaean Tomb, Stratum VII) and Kamed el-Loz (MARFOE 1995, fig. 90:4–6, the Palace). Interestingly, these cooking pots occur already in the MBIIIC on some sites like Hazor (YADIN *et al.* 1958, pl. XCVIII:22, Area D2) and Beth Shan (R. Mullins, personal communication). Handles on cooking pots are very rare at ʿArqa and occur so far on four examples only.

The third type of cooking pot has a casserole-shape rim (M6). It is made with orange clay highly tempered with very coarse calcite. Crystallized calcite was the exclusive temper in the cooking pots of Levels 17–14. Starting from Level 13 onwards calcite is less frequently replaced by limestone and basalt (THALMANN 2002, 376). The casserole rim is pierced at regular intervals, probably to be suspended with a rope over the fire. We didn't find any type of plate or bowl made with the same clay that could have served as a lid. Common

²⁰ GUIGUES, 1938, fig. 62, Tomb 62; GUIGUES, 1937, fig. 5:b, Tomb 2; CHÉHAB, 1940, fig. 2c; ANDERSON, 1988, pl. 20:8, Tomb 1; MIRON, 1982, pl. 24:3, Tomb 100.

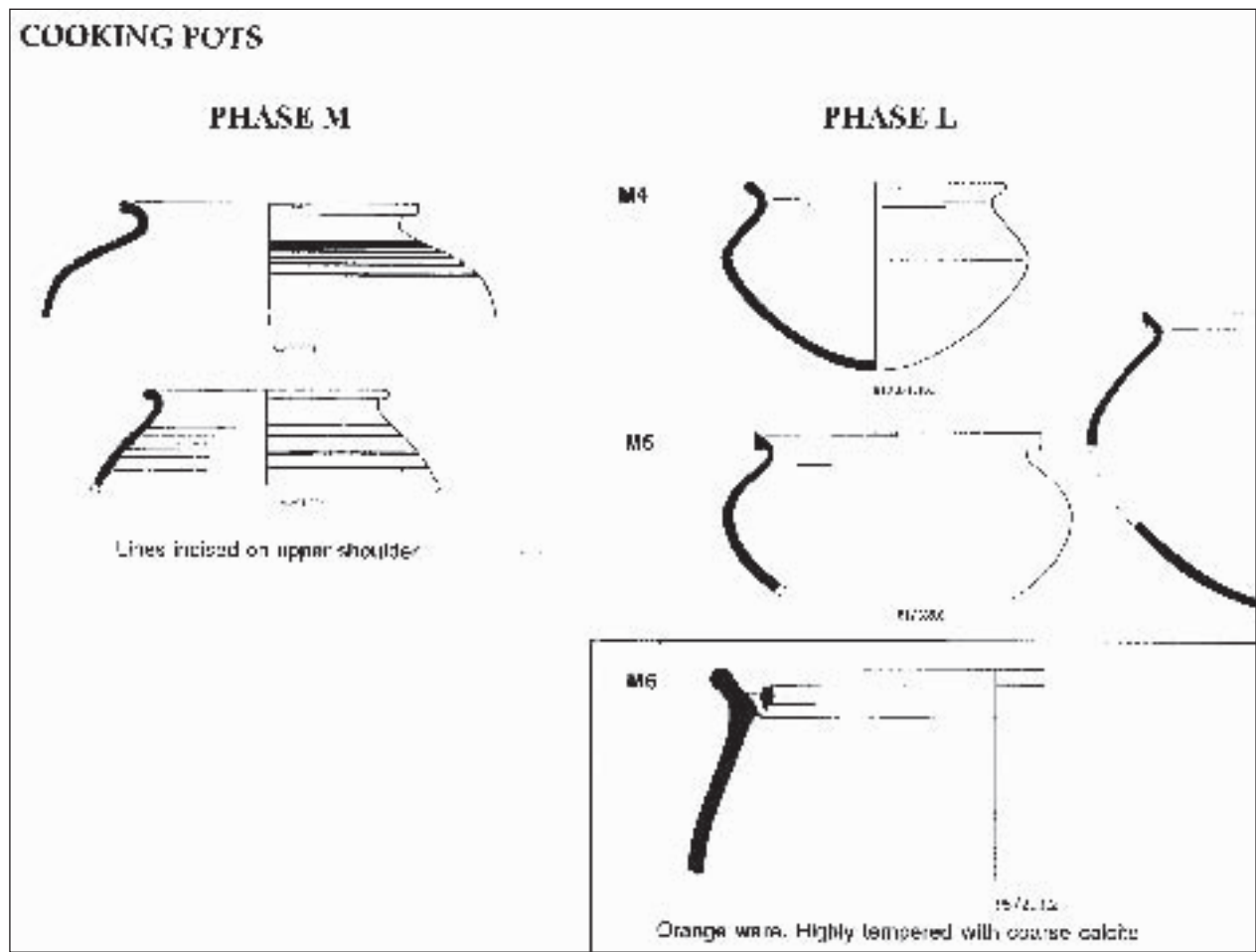


Fig. 8 Cooking pots

bowls and plates must have been utilized for this purpose. This type is confined to the Level 12 and only a handful examples occurred at ^cArqa. Hazor yielded a substantial amount of this cooking pot in its LBI levels (YADIN *et al.* 1958, pl. XCV:7, Area D, room 9042; pl. CXXXIX:1–4, Area E Cistern 7021; YADIN *et al.* 1961, pl. CCXLI:4,5, Tombs, Area F). In 1969, R. AMIRAN (1969, 135) noted that this cooking pot “*has neither forerunners in the preceding period nor any descendants in the following*”, but the recent excavations at Beth Shan showed that the casserole-rim cooking pot appears already in the MBIIC (R. Mullins, personal communication).

Jars (Fig. 9)

The Level 12 repertoire yielded three types of jars. Type P6, already found in Level 13, has a large neck, a flat base and two vertical handles positioned on the mid-body. It displays vertical stroke burnishing and two lines incised on the shoulder that mark the joint of the coiled lower body to the wheel-made upper body. P6 was

found only in tombs and is restricted to the earliest layer of Level 12 (layer 12C).

Jar type R7 features also continue Level 13 characteristics: ovoid body, tall neck with everted triangular rims, vertical burnishing and low-placed handles. Some early examples still display lines incised on the upper body and flat bases like on jars P6 (and could be earlier versions of R7), while the slightly round bases are found later in examples from layer 12B2 onwards. Such jars are widely distributed in the Levant in LBI and at the beginning of LBII. In Palestine we find them at Tell el-^cAjjul (FISCHER and SADEQ 2002, fig. 17:9, H5, MB/LBI; PETRIE 1931, pl. XLVI:22, 43, D1, F4; PETRIE 1933, pl. XXXVII:43D9, 43F4; PETRIE 1934, pl. LII:43C, 43C3; pl. LII:43F8), Lachish (TUFNELL, 1958, pl. 87:1010), Dan (BEN-DOV 2002, fig. 2.56:24, Mycenaean Tomb, Stratum VII, LBII), Hazor (YADIN *et al.* 1958, pl. CXXIV:14, Pit 9024, Stratum 3, Area D5, LBI), in Jordan at Amman (KAFABI 1977, fig. 9:99, LBIB/LBIIA) and Pella (SMITH 1973, pl. 54:269, Tomb 1, LBI, pl. 56:132, 47 (jar with one handle), Tomb 1, LBI), in

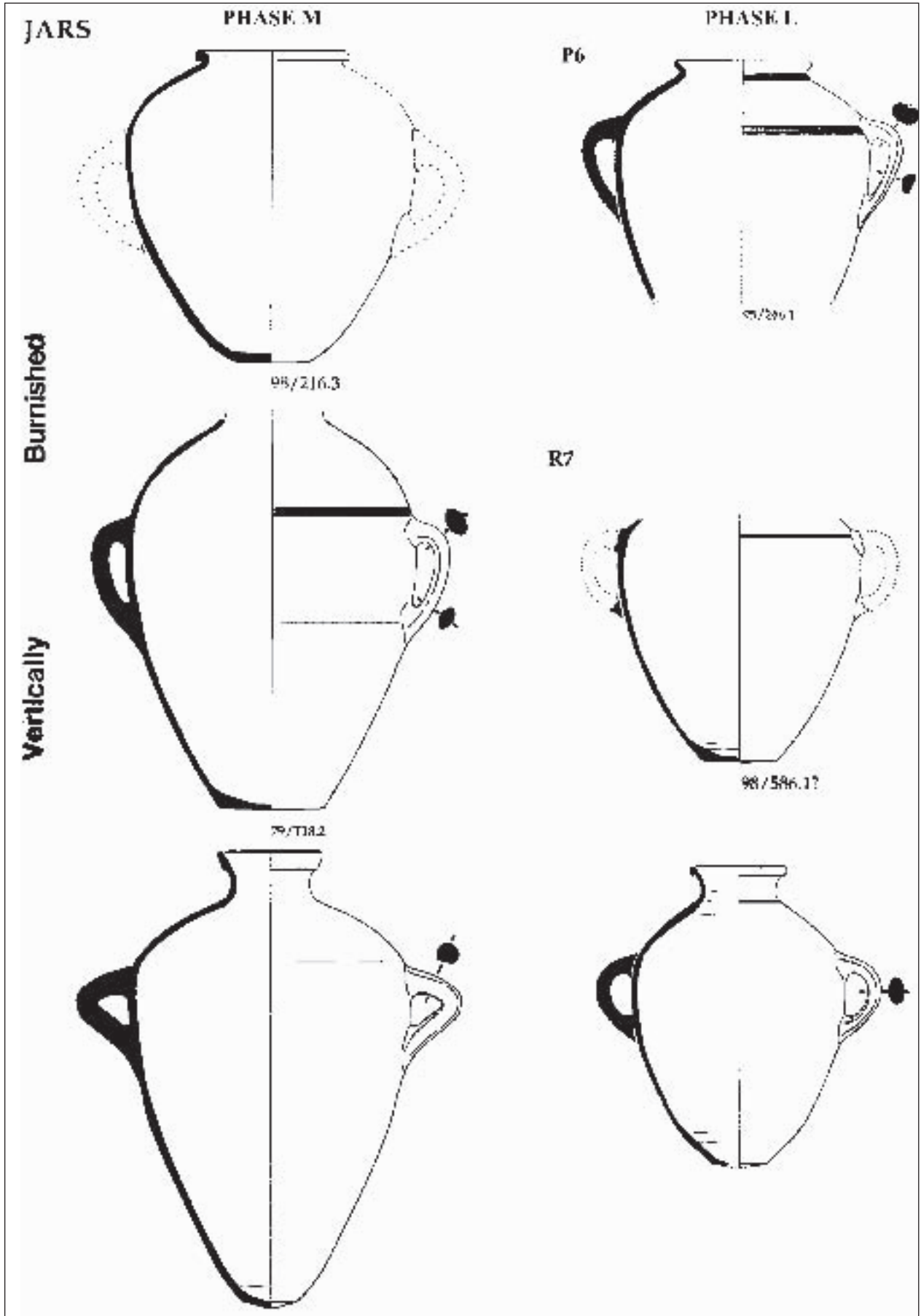
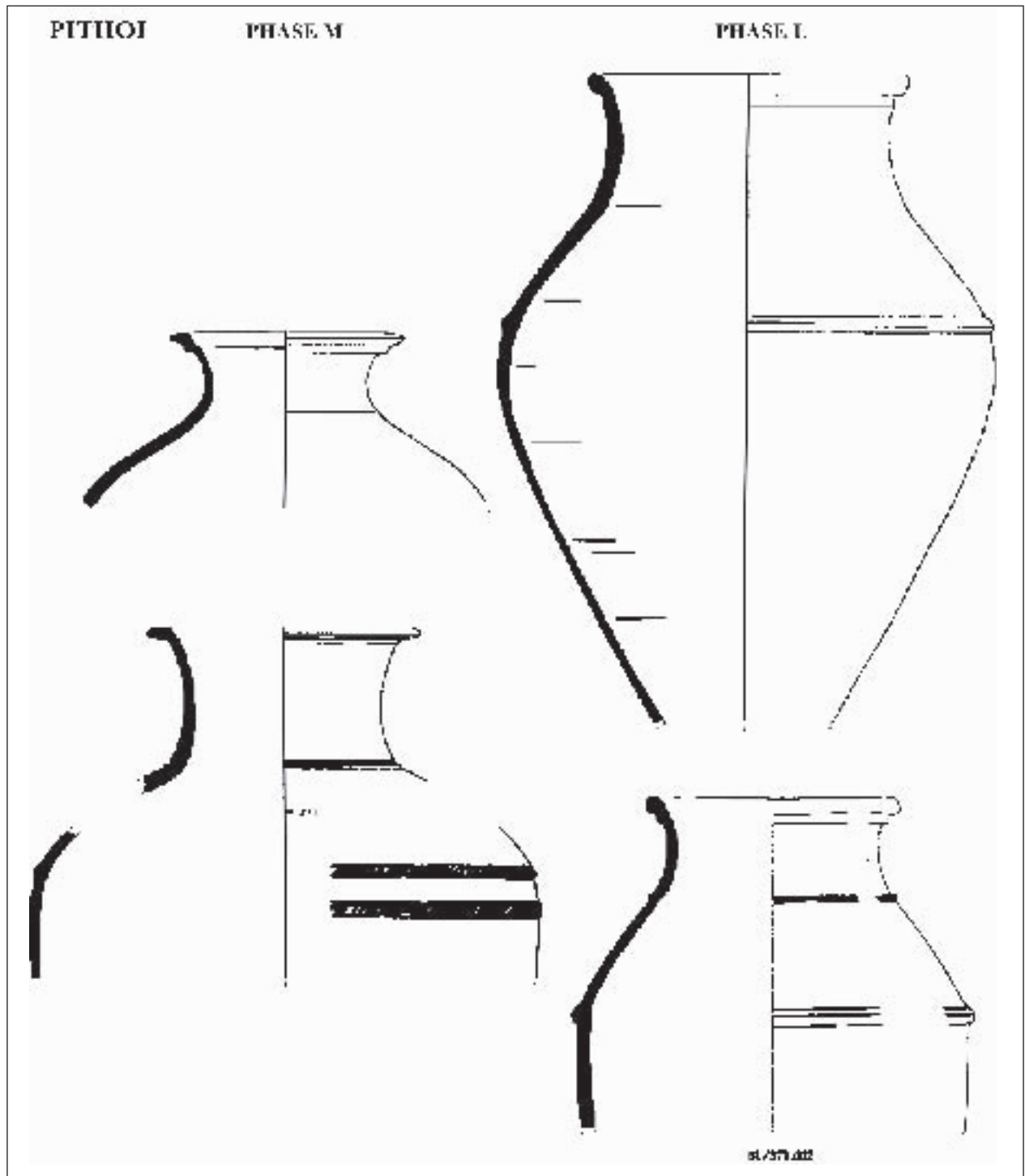


Fig. 9 Jars

Fig. 10 *Pithoi*

the Bekaa Valley at Kamed El-Loz (MARFOE 1995, fig. 77:3, Temple T3, LBI, fig. 98:10, Settlement, LBI), in Syria at Tell Nebi Mend (BOURKE 1993, fig. 22:2, Phase C, LBIIA), and on the Levantine Coast at Tyre (BIKAI 1978, pl. XLVIA:10, Stratum XVI, LBIIA; pl. XLIX:8, Stratum XVII, LBI), Sidon (SAIDAH 1977, pl. 5:1, Tomb 1, LBI), and Beirut (BADRE 1997, pl. 22:4, Destruction layer over Glacis I). All these jars are wet-smoothed

except the Tell Nebi Mend example which displays vertical burnishing.

New forms of jars appear in Level 12 as part of the category known as “Canaanite jars”. Some of these are decorated, which is quite unusual, since paint is rare in all periods at Tell Arqa. A new type of jar appears in Level 12 with high placed handles, a short neck and elongated body. It is never burnished. The best example

came from a tomb and it has an exact parallel in Tomb 3 of Tyre (BIKAI 1978, pl. LIIA:4, Stratum XVIII, LBI).

Pithoi (Fig. 10)

The bulk of the *pithoi* came from Floor 12/II. They are coil-mounted in multiple parts and put together after they reached a leather-hard state to prevent the vessel from crumbling. Some of the junctions between these parts are hidden by combed clay ropes, typically at the junction of the shoulder and lower body in type S2. Rope decorations are also found at the base of the neck, usually on *pithoi* displaying MBII features in both form and clay. All these *pithoi* are manufactured with clays highly tempered with straw or chaff.

The S2 *pithoi* belong to a very well known type ranging in date from MBIIc through LBII in the northern Levant (AMIRAN 1969, 143), at sites in the Bekaa Valley along the ancient interior pathway: Tell Nebi Mend (BOURKE 1993, fig. 14:1,4), Tell el-Ghassil (DOUMET-SERHAL 1996, pl. 39:15, Stratum VIII, MBIIc; pl. 47:8, Stratum VII, LBI) and Kamed el-Loz (METZGER 1993, pl. 113:14; MARFOE 1995, fig. 89:2, the Palace, LBII). They are also found at Tarsus (GOLDMAN 1956, fig. 390:D, LBII) and at Hazor (YADIN *et al.* 1958, pl. LXXXVIII:11, Stratum 1A, Area C, LBII; pl. CXXI:8, Locus 7021, Area C, LBI; YADIN *et al.* 1960, pl. CXXII:6, Stratum 1B, Area C, LBII; pl. CXLV:3, Stratum 1A, LBII). Hazor is one site that displays more northern features in its ceramic repertoire than any other site in Palestine. Tell Kazel in the Akkar plain has *pithoi* similar in shape but without any clay rope addition and with an everted triangular rim instead of a molded one (BADRE *et al.* 1994, fig. 41:c–e, Level 6). All of them are dated to the LBII.

Imported pottery

396 Cypriote and Mycenaean vessels were found at Tell ^cArqa. 24 Cypriote pots came from the destruction layer 12B2 and 8 from floors 12/II and 12/I. These include one bottle of Red Lustrous Wheel Made Ware (Eriksson's Type VI A1a), locally made, five Monochrome bowls, one Red-on-Red Bowl, one Red-on-Black jug, two Base-Ring I wishbone handles, nine White Painted V/VI vessels, and a

sherd of Bichrome Wheel Made Ware. Tomb 12.57 yielded eight Cypriote vessels of various styles like Base Ring I, Red-on-Black, White Painted V/VI, and a jar of the White Painted V Framed Broad Band Style. Tomb 12.58 had two sherds of the White Painted V/VI Ware.

3. SUMMARY AND CONCLUSIONS

As seen from the pottery, Tell ^cArqa clearly belongs to the cultural sphere of the northern Levant sharing most ceramic features in common with Tell Nebi Mend, Tell Kazel, Tyre, and sites in the Bekaa valley. Most parallels to a site in the south came from Hazor, which is known to have strong cultural links to the north and might be considered a site of the northern sphere. Most instructive in this regard are the *pithoi* S2, which are strikingly similar at Hazor and ^cArqa. Typical forms to this northern assemblage include the broad, shallow, more straight-sided plates, the small, necked pots, and the large *pithoi*. Even so, there are parallels to the south with the use of red and black painted decoration, jars R7, bag-shaped dipper juglets (though extremely rare), and the carinated cooking pots with their variety of rims. A major part of the Level 12 ceramic corpus displays shapes, techniques and fabrics traditionally attributed to the Level 13 or MBII. In some ways this is comparable to the southern Levant where several LBI sites also display stylistic continuity with the previous MB period. What is most striking at ^cArqa, however, is that the MB ceramic tradition is much stronger and more persistent than in the south. One reason for this persistence might be the geographical isolation of the plain of Akkar as already evident in the EB period. Although it is a natural passage leading to the hinterland of Syria, this plain was never used militarily in an extensive way that could have led to changes in the established political and social order in the settlements. If the Egyptian campaigns of the early New Kingdom had an impact on the south and contributed to the changes that we see on some of the LBI sites, there seems nothing to indicate that this turmoil reached the Akkar plain. The city of ^cArqa was not affected by Egypt until much later during the 16th or 17th campaign of Thutmose III.²¹ Since the pottery

²¹ Thutmose III, in the year 42 of his reign, "was on the coast road in order to destroy the town of Irqata" (PRITCHARD 1955:241).

remains consistent throughout all phases of Level 12, we might postulate that the “archaic” MB ceramic traditions persisted and continued to develop in LBI without much change, while some innovations consistent with changes in other regions of the Levant during LBI appear as a result of normal commercial exchange.

A tentative absolute date for Level 12 is based on the destruction layer 12B2 attributed to Thutmose III in 1437 B.C. This date is supported by Cypriote imports found on Floor 12/II (a White Slip II sherd) and fit into the cohesive stratigraphic sequence of ^cArqa. If we put the beginning of Level 12 around 1550 B.C. (considering the White Slip II sherd intrusive) to accommodate the MBIIIC date that many see in our material, then we have to assume that the whole Level 12 lasted 250 years up till 1400 B.C., the beginning of Level 11. The 1400 B.C. date for the beginning of Level 11 cannot be changed because of the appearance of Mycenaean LHIII A:2 pottery in the earliest *loci* of Level 11. Moreover, only one destruction layer was observed in Levels 13 to 11 and that is 12B2. If we are correct in believing that Thutmose III destroyed the city (as the pharaoh claimed in his annals), then 12B2 must be this destruction. If not, then we have to attribute 12B2 to another event inexplicable to date in any ancient Near Eastern texts.

With the end of Level 12 there comes a major change in the Level 11 settlement pattern and methods of pottery manufacture at ^cArqa as a result of the Egyptian takeover of the Akkar region and the establishment of an administrative center at Simira/Tell Kazel. For example, all

the ware fabrics and manufacturing techniques that started in Level 14 and continued into Level 12 completely disappear in Level 11. Therefore, we cannot speak of a unified LBI culture throughout the Levant from Alalakh in the north to Tell el-Ajjul in the south. Certainly, there are characteristics common to all these sites in the Late Bronze Age, but there are also traits typical of a region that come about as a result of its own unique history. This factor must be taken into account when discussing the beginning of the LBA in the Levant, and not just be assumed that what appears at one or more sites in a region is necessarily true for the Levant as a whole. Overly broad statements such as “standard MBII” or “typical LBI” should first be abandoned. Near Eastern archaeologists should then attempt to define cultural regions that display similar material cultures and rhythms of development independent of the pressure to put them into a familiar timeframe. For this to be done, especially for the Akkar plain, new sites should be excavated in order to single out the particularities of this region before comparing it (and its material culture) to other regions.

Acknowledgments

I would like to thank Manfred Bietak for inviting me to this conference. I would also like to express my gratitude to Jean-Paul Thalmann for entrusting me with the study of the Late Bronze Age pottery from ^cArqa for my PhD dissertation. As well, he has kindly allowed me to both study and publish the Cypriote and Mycenaean pottery from the ^cArqa excavations.

Bibliography

- AMIRAN, R.
1969 *Ancient Pottery of the Holy Land*, Massada Press, Jerusalem.
- ANDERSON, W.
1988 *Sarepta I. The Late Bronze and Iron Age Strata of Area II, Y*, Université Libanaise, Beyrouth.
- ASTON, D.
2004 *A Corpus of Late Middle Kingdom and Second Intermediate Period Pottery, Tell Dab'a XII*, Österreichische Akademie der Wissenschaften, Wien.
- BADRE, L.
1997 Bey 003 Preliminary Report. Excavations of the American University of Beirut Museum 1993–1996, *BAAL* 2, 6–94.
- BADRE, L., GUBEL, E., CAPET, E. and PANAYOT, N.
1994 Tell Kazel (Syrie). Rapport préliminaire sur les 4^e–8^e campagnes de fouilles (1988-1992), *Syria* 71, 259-346.
- BEN-DOV, R.
2002 The Late Bronze Age “Mycenaean Tomb”, 35–177 in: A. Biran and R. BEN-DOV, *Dan II. A chronicle of the excavations and the Late Bronze Age “Mycenaean” Tomb*, Hebrew Union College-Jewish Institute of Religion, Jerusalem.
- BEN-TOR, A. and BONFIL, R. (eds.)
1997 *Hazor V. An Account of the Fifth Season of Excavation, 1968*, The Israel Exploration Society and the Hebrew University of Jerusalem, Jerusalem.
- BIKAI, P.
1978 *The Pottery of Tyre*, Warminster.
- BOURKE, S.
1993 The Transition from the Middle to the Late Bronze Age in Syria: The Evidence from Tell Nebi Mend, *Levant* 25, 155–195.
- CHARAF, H.
1999 *La céramique du Niveau 12 à Tell ^cArqa au Liban-Nord*, Unpubl. M.A. thesis, Université de Lyon II, Maison de l’Orient Méditerranéen-Jean Pouilloux, Lyon.
- forthc. Les importations chypriotes et mycéniennes à Tell ^cArqa, in: J.-P. THALMANN, *Tell ^cArqa. Les niveaux de l’Age du Bronze*, IFPO, Collection Bibliothèque Historique et Archéologique, Beyrouth.
- CHÉHAB, M.
1940 Les tombes phéniciennes. Majdalouna, *Bulletin du Musée de Beyrouth* 4, 37–53.
- COLBECK, J.
1976 Technique du tournage, in: TESSAIN et TOLRA (eds.), Paris.
- DOUMET-SERHAL, C.
1996 *Les fouilles de Tell El-Ghassil de 1972 à 1974. Etude du matériel*, IFAPO, Collection Bibliothèque Historique et Archéologique 146, Beyrouth.
- FISCHER, P. and SADEQ, M.
2002 Tell Ajjul 2000: Second Season Preliminary Report, *Ä&L* 12, 109–153.
- GUIGUES, P.E.
1937 Lébéc^a, Kafer Garra, Qrayé: nécropoles de la région sidonienne, *Bulletin du Musée de Beyrouth* 1, 35–76.
1938 Lébéc^a, Kafer Garra, Qrayé: nécropoles de la région sidonienne (suite), *Bulletin du Musée de Beyrouth* 2, 27–72.
- GOLDMAN, H.
1956 *Excavations at Gözülü Kule, Tarsus. Vol. II, Plates. From the Neolithic through the Bronze Age*, Princeton University Press, New Jersey.
- GUY, P.L.O. and ENGBERG, R.
1938 *Megiddo tombs*, University of Chicago Press, Illinois.
- HEINZ, M.
1992 *Tell Atchana/Alalakh. Die Schichten VII–XVII*, AOAT 41, Neukirchen-Vluyn.
- HENNESSY, J.B., MCNICOLL, A.W., POTTS, T.F. and WALMSLEY, A.G.
1981 Preliminary Report on a Second Season of Excavation at Pella, Jordan, *ADAJ* 25, 267–307.
- KAFAFI, Z.
1977 *Late Bronze Age Pottery in Jordan (East Bank) 1575–1200 B.C.*, Unpubl. M.A. dissertation from the University of Jordan, Amman.
- MARCHEGAY, S.
1999 *Les tombes de Ras Shamra-Ougarit (Syrie) au II^e millénaire avant JC: architecture, localisation, relation avec l’habitat*, Unpubl. Ph.D. thesis, Université de Lyon II, Maison de l’Orient Méditerranéen-Jean Pouilloux, Lyon.
- MARFOE, L.
1995 *Kamid el-Loz 13. The Prehistoric and Early Historic Context of the Site*, Bonn.
- METZGER, M.
1993 *Kamed el Loz 8. Die Spätbronzezeitlichen Tempelanlagen. Die Kleinfunde*, Bonn.
- MIRON, R.
1982 Die “Mittelbronzezeitlichen” Gräber am Nordhang des Tells, 101–135, in: R. HACHMANN (ed.), *Kamed el-Loz 1971–1974*, Band 32, Bonn.
- MORAN, W.
1987 *Les lettres d’El Amarna. Correspondance diplomatique du Pharaon*, Paris.
- NEGBI, O.
1989 Bronze Age Pottery (Strata XVII–XV), 43–63 in: Z. HERZOG, G. RAPP and O. NEGBI (eds.) *Excavations at Tel Michal, Israel*, Minneapolis and Tel Aviv.
- OREN, E.D.
1973 *The Northern Cemetery of Beth Shan*, Leiden.

- PETRIE, W.M.F.
 1931 *Ancient Gaza I: Tell el Ajjul*, BSAE 53 London.
 1933 *Ancient Gaza III: Tell el Ajjul*, BSAE 55, London.
 1934 *Ancient Gaza IV: Tell el Ajjul*, BSAE 56, London.
- POSENER, G.
 1940 *Princes et pays d'Asie et de Nubie. Textes hiératiques sur des figurines d'envoûtement du Moyen Empire*, Bruxelles.
- POTTS, T.F. *et al.*
 1985 Preliminary Report on a Sixth Season of Excavation by the University of Sydney at Pella in Jordan (1983/1984), *ADAJ* 29, 181–210.
- PRITCHARD, J.
 1955 *Ancient Near Eastern Texts Relating to the Old Testament*, New Jersey.
- ROUX, V.
 1994 La technique du tournage: définition et reconnaissance par les macrotraces, 45–58, in: *Terre Cuite et Société. La céramique, document technique, économique, culturel: XIV^e Rencontres Internationales d'Archéologie et d'Histoire d'Antibes. 21–23 octobre 1993*, Centre de Recherches Archéologiques du CNRS ERA 36 du CRA Ville d'Antibes, Juan-les-Pins.
- SAIDAH, R.
 1977 *Sidon et la Phénicie méridionale au XIV^e siècle avant J.C. dans le contexte proche-oriental et égéen*, Unpubl. Ph.D. thesis, Université de Paris I Panthéon-Sorbonne, Paris.
- SMITH, R.
 1973 *Pella of the Decapolis, vol. 1. The 1967 season of the College of Wooster Expedition to Pella*, London.
- THALMANN, J.-P.
 1978 Tell ^cArqa (Liban Nord) campagnes I–III (1972–1974) Chantier I. Rapport préliminaire, *Syria* 55, 1–151.
 1983 Les niveaux de l'Age du Bronze et de l'Age du Fer à Tell ^cArqa (Liban), 217–221, in: *Atti del I Congresso internazionale di Studi Fenici e Punici. 5–7 novembre 1979*, Consiglio Nazionale delle Ricerche, Rome.
- 1991 Tell ^cArqa, 1981–1991, bilan et perspectives, *Berytus* 39, 21–38.
- 1993 *L'Age du Bronze à Tell Arqa (Liban-Nord). Recherches sur l'origine et le développement des établissements des III^e et II^e millénaires sur le littoral syro-libanais*, Unpubl. Ph.D. thesis, Université de Paris I Panthéon-Sorbonne, Paris.
- 2000 Tell Arqa, *BAAL* 4, 5–74.
- 2002 Pottery of the Early Middle Bronze Age at Tell Arqa and in the Northern Levant, 363–377, in: M. BIETAK (ed.), *The Middle Bronze Age in the Levant*, CChEM 3, Wien.
- TUFNELL, O.
 1958 *Lachish IV (Tel Duweir): The Bronze Age*, Oxford.
- YADIN, Y., AHARONI, Y., AMIRAN, R., DOTHAN, T., DOTHAN, M., DUNAYEVSKY, I., and PERROT, J.
 1958 *Hazor I. An Account of the First Season of Excavations, 1955*, Jerusalem.
 1960 *Hazor II. An Account of the Second Season of Excavations, 1956*, Jerusalem.
 1961 *Hazor III–IV. An Account of the Third and Fourth Seasons of Excavations, 1957–1958. Plates*, Jerusalem.
 1989 *Hazor III–IV. An Account of the Third and Fourth Seasons of Excavations, 1957–1958. Text*, Jerusalem.
- YANNAI, E., GORZALCZANY, A. and PEILSTOCKER, M.,
 2003 A Group of Vessels from the Syrian Coast Found in the Coastal Plain of Israel, *Levant* 35, 101–116.
- WILL, E., DENTZER, J.-M. and THALMANN, J.-P.
 1973 La première campagne de fouilles à Tell ^cArqa (Liban-Nord), *Bulletin du Musée de Beyrouth* 26, 61–75.
- WILLIAMS, D.P.
 1977 *The tombs of the Middle Bronze Age II Period from the "500" Cemetery at Tell Far'a (South)*, Institute of Archaeology, London.
- WOOD, B.
 1986 *The Sociology of Pottery in Ancient Palestine*, JSOT/ASOR Monograph Series 4, Sheffield.