THE BRITISH MUSEUM EXCAVATION AT SIDON: MARKERS FOR THE CHRONOLOGY OF THE EARLY AND MIDDLE BRONZE AGE IN LEBANON

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Lebanon has very few pottery typologies that can be used for chronological purposes in dating archaeological contexts. Great cities like Sidon and Tyre which, according to textual evidence, played an important part in the events of the ancient world, have until now been insufficiently excavated.

Very little is known about the city-state of Sidon, located 20 km south of the Lebanese capital Beirut. Archaeological activities undertaken in 1920 by Georges Contenau around Sidon's land castle (Contenau 1920, 120–124; 1923, 261–273;1924, 9–23, 123–134) the work of P.E. Guigues in 1937 and 1938 who opened up Middle Bronze Age tombs in Lebe'a,

Kafer-Jarra and Qraye in the foothills overlooking the city (Guigues 1937, 35–76; 1938; 27–72) and Maurice Dunand's (Dunand 1967, 27–44) excavations in Sidon itself were not fully published and did not use the more modern methods of excavation that are common today, namely the special attention given to archaeological layers and their relation to structures. The few sherds published by Contenau do not mention their relative chronological position in accordance to stratigraphy.

In 1969 ROGER SAIDAH (1979, 29–55) excavated the site of Dakerman, 1 km south of Sidon's *tell*, and unearthed the earliest settlement in the area which



Fig. 1 The excavation on "College site"

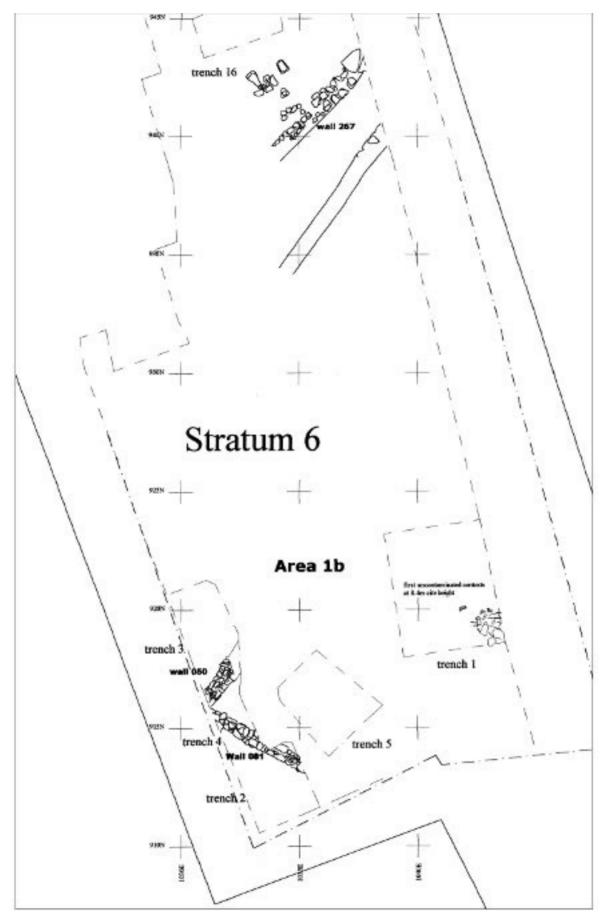


Fig. 2 Stratum 6 dating to Early Bronze Age III B $\,$

dated to the Chalcolithic period. Nothing further was known about later settlements beyond that until the 14th century BC, when Dakerman was used by the people of Sidon as their common burial ground until the early Roman Period.

In 1998 permission was granted by the Lebanese Department of Antiquities for a British team to begin excavations on the site of the ancient city of Sidon, (Curtis 1999, 27-28) (Fig. 1). This was made possible through grants from the British Museum. The British Academy, the Council for British Research in the Levant, the Foreign and Commonwealth Office and Lebanese private institutions (the Hariri Foundation, Byblos bank and Nokia Lebanon). So far there have been four seasons of excavation, in 1998, 2000, 2001 and 2002 all under the direction of the writer. Team members of this excavation included: Dr John Curtis, Keeper of the Department of the Ancient Near East at the British Museum, Special Advisor to the excavation, Miss Sarah Collins from the same department, Mr Rod Brook and Mr Jonathan Crisp, free lance archaeologists, Dr Dafydd Griffiths, ceramic petrologist at University College London, Mr Hugh Barnes, surveyor, Mrs Helen Hoffbeier, bone specialist, Bradford University and James Osborne from Toronto University as well as a team of students from the Lebanese University at Sidon. None of the above would have been possible without the assistance and support of the Director General of Antiquities of Lebanon.

The finds from the various excavations enabled us to provide a chronological framework for the pottery of the Early and Middle Bronze Ages and to establish a sequence of chronological development from the Chalcolithic/EBI to the end of the Middle Bronze Age. As the excavation continues this framework will be adjusted and refined by the new data as it becomes available. While the pottery and other artefacts have been divided into strata for the Early Bronze Age and phases for the Middle Bronze Age burials that are still being uncovered, it is important to underline that from Chalcolithic/EBI to the end of the Middle Bronze Age, the occupation of Sidon was for the most part uninterrupted. Materials uncovered from layer to layer show a gradual development of earlier deposits and the tendency that emerges is that of a steady evolution from within (Doumet-Serhal 2006, 56–60, 69–70).

RELATIVE CHRONOLOGY FOR THE EARLY BRONZE AGE

Apart from Byblos, Tell Arqa EB III & IV (THALMANN 1991, 28–32) and the Beirut excavations (EB III) (BADRE 1997, 6–22) the Early Bronze Age was poor-

ly represented in the Lebanon. Six levels have now identified at Sidon ranging Chalcolithic/EBI to Early Bronze Age IIIB. The dating is based mainly on stratigraphy and the gradual development and changes in the local pottery types and surface finishing techniques (DOUMET-SERHAL, 1998-1999, 181-224; 2000, 75-122; 2006, 39-60, 69-70) of which very little comparative material is from the Lebanon itself. Objects showing comparisons with Egypt as well as an identifiable relationship with Byblos have been presented here as they have contributed, along with the development of local products, to the dating of these levels. At this stage, absolute chronology remains uncertain for strata 1 to 6. Carbon¹⁴ analysis is being undertaken with a view to provide a more exact date for the end of EB III B (stratum 6, Fig. 2).

The beginning of Early Bronze Age II is placed around 3000 BC on the basis of Egyptian parallels. One narrow stump-base jug (Fig. 3) was found at Sidon with black slip and vertical burnishing. A similar example was found in Byblos KI (DUNAND, 1954; pl. III, 1; SAGHIEH 1983, pl. XXXV & p. 104). This type of jug, common in the so-called "foreign ware groups" of First Dynasty Egypt (Hennessy 1967, 49–50), was discovered in tombs at Sakkara (EMERY 1958, pl. 31, G 11 tomb no 3505; pl. 75, G 12 tomb no 3506) and Abydos (Petrie 1902, pl. VI, 17, pl. VII, 28; 1903; pl. XLII, 41 (Ist Dynasty) & pl. XLIV, 93–95 (Hnd_Vth Dynasty).

Other comparisons with Egypt and Byblos were found in stratum 6, the latest Early Bronze Age IIIB level.

- A two-handled slender egg-shaped jar with a narrow flat base and combed decoration on the outer surface resulting in plain horizontal bands in relief (Fig. 4) shows, in shape and decoration, close parallels with the jars from Gizah dating to the IVth_Vth Dynasties (2613–2345 BC) (Mazzoni 1987, 147, figs. 6, 237). On a morphological basis, this Sidon jar is also comparable to a Fourth Dynasty jar (14406) from Byblos that bears only horizontal combing (Mazzoni 1987, 149) whereas other jars with similar shape but with more complex patterns are found in Egypt during the Sixth Dynasty.
- A small jug (Doumet-Serhal 2001, 9–15) with a loop-handle springing from its flaring rim to its shoulder and surmounted by the head of a quadruped, "a ram in an upright position with its head resting on the rim", was also discovered (Fig. 5). The jug is 17.5 cm high, oval in shape (diameter. 12.5 cm), almost perfectly symmetrical and widest at the shoulders. The diameter of the base (3 cm) is slightly smaller than



Fig. 3 Narrow stump-base jug, stratum 3 (EB IIA)

the neck (3. 4 cm). This Sidon jug is very similar to a twin jar from Byblos dated between 3100 to 2800 BC (BARAMKI 1973, 27, 28, fig. 1). The Byblos twin jar is reminiscent of vessels with diagnostic ceramic features of the Chalcolithic period in Palestine. Other examples from Byblos were found in a structure where cult-objects were in situ on the floor. Dunand assigned this structure to the "period of the Amorite conquest" (Dunand 1954, no 12842, fig. 637, 555; no 15758, fig. 913, 799; pl. CLXXIV, 14284, 15757, 42, 12261). The position of this structure within the "sacred enclosure" indicates that it was erected after an earlier structure was destroyed by fire at the end of the VIth Dynasty (2180 BC). This was before the vast rebuilding within this same enclosure at the beginning of the XIIth Dynasty (2000/1973 BC) (NEGBI 1972, 98, 109-110). It is also worth noting that the caprids protruding- above-rim jugs found at Sidon and Byblos, are associated with slow-pouring vessels.

Sidon's stratum 6 is a transitional horizon (Fig. 2). It follows an EB IIIA stratum and precedes a Middle Bronze Age stratum. This horizon, referred to as EB IV (WRIGHT 1937, 8), MBI (ALBRIGHT 1932, 8–18), "Intermediate Early Bronze-Middle Bronze Age" is, in some regions recognized as an independent EB IV (RICHARD 1980, 6–8; DEVER 1980, 35; IDEM, 1998; 282)

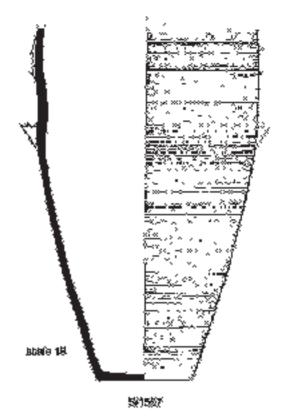


Fig. 4 Egg-shaped jar, stratum 6 (EBIIIB)

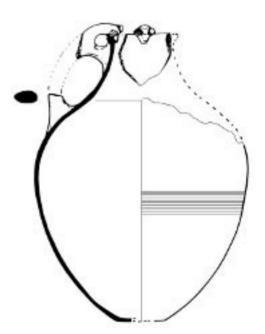


Fig. 5 Ram's head handle on a jug stratum 6 (EBIIIB)

sub phase distinct from the previous EB III. At Sidon, the stylistic transformation taking place in stratum 6 does not demarcate it from the preceding period and types of vessels remain almost the same. Excavations in southern Palestine, at Tell Yarmuth, Tell el-Hesi and even the bulk of the pottery from Tell Beit Mirsim J and of sites in central Palestine have not however produced EB IV (Dever 1980, 38, 42) levels.

It is a widely held view that at the end of the third millennium, the EB IV culture of Palestine became rural and pastoral or nomadic (Dever 1998, 295) as a consequence of the decline of urbanism (Tubb 1983, 57 on a different situation in the north; PALUMBO 2001, 262, EB IV emerges as a renewed and stronger urban culture). However contemporary developments in some parts of Syria, such as Ebla, are characterized by great technological development. This boom is tied to a general improvement in the economic conditions of the region and its ceramic production and is an expression of a prosperous and sophisticated urban culture (MAZZONI 1985, 12-13). The material of stratum 6 is more closely linked to developments in the north rather than the south of contemporary central and southern Palestine.

At Sidon, the increased production of a particular type of standard vessel namely the hole-mouth jar constitutes through an analysis of percentages, an indication of a systematic production. An increase in body sherds also illustrates the progressive increase of population and urbanization that culminated in stratum 6 (Doumet-Serhal 2003, 3–6; 2006, 64). This could be linked to the Syrian trend (Palumbo 2001, 261) as a regional phenomenon.

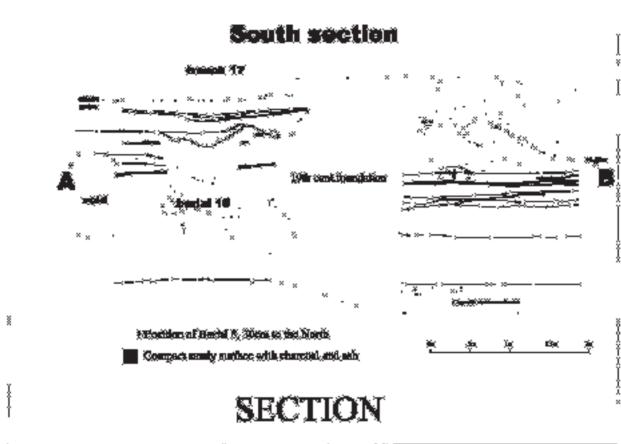
The last quarter of the 3rd millennium that has in terms of terminology been so controversial, appears at Sidon as a *continuum* (DE MIROSCHEDJI 1989, 72) and an extension of the earlier deposits in stratum 5, a period of rural prosperity that resembles the Syrian EB IV pattern.

Nevertheless because there was no distinct change in pottery style we consider stratum 6 to belong to the EB III B horizon. Following the same principle as Tell Beit Mirsim Stratum J, the late EB III tombs of Lachish and Jericho and the late EB III phases at Ai and Jericho (DEVER & RICHARD 1977, 1–2) stratum 6 at Sidon falls within the EB III period and reflects a late EB III B (GERSTENBLITH 1980, 65; DEVER 1980, 38–39) horizon. It is not seen as a peri-



Fig. 6 Sand level at Sidon

Burial 16 in Plan and Section



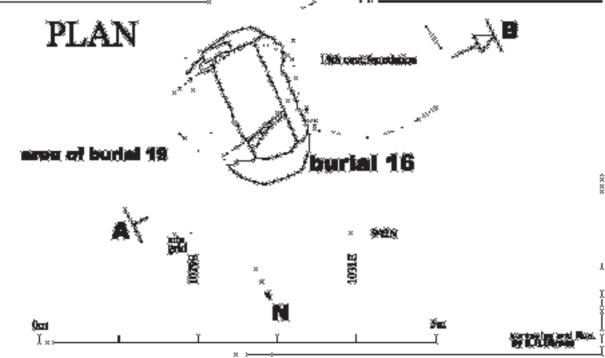


Fig. 7 Sand level at Sidon

od of decreased economic activity (DEVER 1980, 55–58), neither is it a sharp break (DOUMET-SERHAL, 2001, 153–171; 2006, 69–70) preceding the beginning of the MB I/ IIA culture (for terminology see GER-STENBLITH 1980, 65–75; BAGH 2000, 2–3).

RELATIVE CHRONOLOGY FOR THE MIDDLE BRONZE AGE

Immediately above the Early Bronze Age level there was a layer of sand (Figs. 6–7). This sand varies in depth from 90 cm to 140 cm. It is extremely fine and was brought to the site from the nearby sea shore (Doumet-Serhal, 2001, 162). Twenty five burials have so far been found, some of which were uncovered in this sandy layer. A comparable sand layer also appears at the end of the 3rd millennium in Tyre (Maynor-Bikai 1978, 6) where three graves of a later period than those found at Sidon were found dug into it. The existence of this sand level at the end of the Early Bronze Age at both sites suggests a correlation between the two city-states.

The twenty Middle Bronze Age burials found during the 2001 season have been be published in *Levant* (Doumet-Serhal 2004, 89–154). It is therefore not the purpose of this paper to present all the material found in the burials but rather to highlight the defined limited life span of objects and styles found throughout Sidon's five burial phases. Patterns of association between specific types of artefacts, types of grave and burial gender data at different phases emerge.

A further five burials were discovered during Sidon's 2002 season. Some of the material found belongs to phase 2 and has been discussed here in detail as it presents important chronological markers such as the discovery of a pottery assemblage with a Minoan cup, as well as a new complete infant jar burial (24), which is clearly an import from Egypt, containing Levantine Painted Ware.

The objects from the Middle Bronze Age burials fall into five distinct phases (1 to 5) each one agreeing with certain changes in pottery styles as well as types of personal possessions deposited in the graves.

Phase 1: The beginning of the Middle Bronze Age MBI/1 (= Early MB II A) (Fig. 8)

 Six constructed graves: three warrior burials with weapons, two child burials with weapon and jewellery and one empty grave.

- Animal offerings in all burials (Fig. 9). Only constructed graves contained complete animals (VILA 2004, 169).
- Pottery with incised decoration and Levantine Painted Ware as the only type of decoration.
- One goblet (S/1826) is an import from Egypt (BADER 2003, 31–37) (Fig. 19).

There were two types of rectangular constructed graves: one type lined with stones (Figs. 10, 12, 17) the other with mud bricks (Figs. 7–2, 11). Exceptionally burials 13 (Figs. 11, 18) and 5 were entirely sealed with grey clay. These graves contained the skeletons of mature adult male warriors (burials 12, 5, 23) buried with an axe and a spearhead or only with an axe, (burial 23) that of a child of approximately 3 to 4 years old, (burial 9) (Ogden and Schutkowski 2004, 164) and in another the flexed remains of another child of approximately 5 years of age (burial 13) (Doumet-Serhal, 2007, 32–35), buried with a gold leaf, a silver anklet and a bronze dagger (Figs. 9, 13, 18).

Most of the metal deposits were found in phase 1, namely the pairing of axes and spears, a very common practice in the cemetery at Baghouz in the Euphrates valley (Du Mesnil du Buisson 1948, 63-93; Philip 1995, 146). The axes were of the typical Canaanite "duckbill" axe, the classic "prestige" weapon, or the notched, narrow-bladed axe with a bronze spearhead (DOUMET-SERHAL 2004a 154–165). Axe-heads were found near (Fig. 14) or under the skull (Fig. 15). They were generally positioned so that the blade lay behind, or near the skull, suggesting that they were carried resting on the shoulder (PHILIP 1989, 180). One of the duckbill axes is unusual in that it was not meant to be mounted, as it only has a false socket with a knob on either side (Figs. 15–16). The axe had no obvious practical use and was probably a sign of rank. The richness of the grave artefacts suggests that these were the graves of persons of elevated social status.

Warrior burials are not uncommon in the Levant where they represent the local version of a phenomenon widespread throughout western Asia. Comparable burials were found at Tell Arqa, (Thalmann 2000, 50) Gesher, Tel Rehov, Kabri and Baghouz (Garfinkel 2001, 143–157). The warrior burials in phase 1 are all primary burials. The flexed position is the common position of the skeleton. The composition of the offerings placed in the graves is quite lim-

¹ Throughout we have used the MB I (MB IIA) II-III terminology (GERSTENBLITH 1983, 2-3; 103-106).

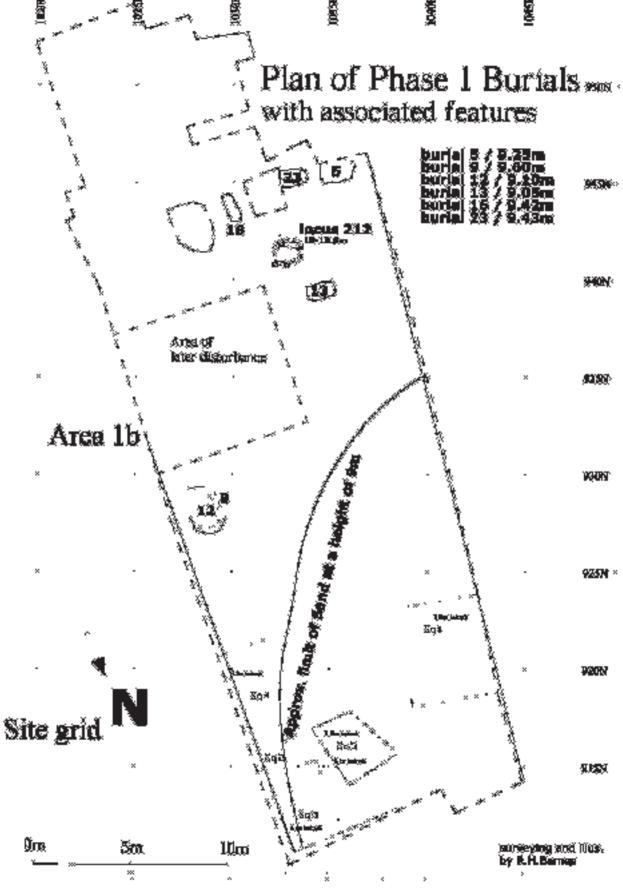


Fig. 8 Middle Bronze Age burials, phase 1



Fig. 9 Animal offerings in burial 13

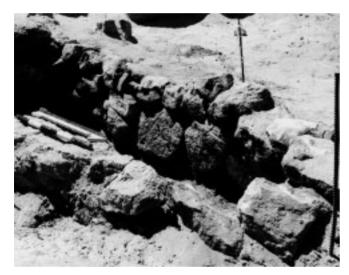


Fig. 10 Burial 12 lined with stones



Fig. 11 Burial 13 lined with mud brick



Fig. 12 Burial 12, the grave of a mature adult warrior



Fig. 13 Burial 13, the grave of a child approximately 5 years old



Fig. 14 A notched, narrow-bladed axe found near the skull in burial 5



Fig. 15 A duckbill axe with a knob on either side found under the skull in burial 12



Fig. 16 A duckbill axe with a knob on either side found under the skull in burial 12

ited meaning that the assemblages have only one to three items, including the weapons. The limited ceramic element in the tombs echoes the pattern found in Syro-Palestinian burials of the early second millennium BC (Philip 1995, 149). Warrior burial 12 at Sidon is however different namely in the position of the skeleton which lies in a supine position as well as the surprisingly large array of goods placed in the grave. This included six pottery vessels, three scarabs and two weapons (Doumet-Serhal 2004a, 175), a total of ten offerings in a single burial. Based on the premise that items were not placed in the grave at random but rather according to an accepted norm (GARFINKEL 2001, 155) then this is the most important burial in terms of social status found at Sidon until now.

The evidence of the pottery (Fig. 19) stresses continuity of settlement between the Early and the Middle Bronze Ages. One type of vessel from burial 12, the spouted hole-mouth jar (Fig. 19, S/1805), has Early Bronze Age antecedents (DOUMET-SERHAL 2003a, 7, 8).

Levantine Painted Ware, a new feature (Tubb 1983, 403–412; Bagh 2000, 1–171; 2000a, 54–55) was found in burials 12, 9, 16 and 7 (a layer of disarticulated remains) only on closed vessels. The designs included:

- The trefoil or pinched mouth jug of the so-called dipper type (Fig. 19, S/1814).
- The juglet with a ridge under the rim forming a gutter (Fig. 19, S/1763).
- The juglet with a round rim (Fig. 19 S/1762).
- The handleless storage jar (Fig. 19 S/1769) (DOUMET-SERHAL 2003a, 8).

Jugs and juglets are decorated with horizontal black and red bands sometimes forming vertical stripes around the circumference of the rim, concentric-circles on the body (S/1814 and S/ 1847) and a collerette or "necklace motif" (S/1765 and S/1762). Jars are decorated with black and red horizontal wavy bands (Fig. 19, S/1769).

The majority of vessels are closed vessels with the exception of two small rounded deep bowls (Fig. 19, S/1770-S/1800).

Phase 2: The second MB I/2 part (MB IIA) (Fig. 20)

- One constructed grave of a child and two jar burials of children. One jar is an import from Egypt.
- Pottery with incised decoration, Levantine Painted Ware and red burnished surface treatment.
- The Minoan cup assemblage.

In this phase, burial 24 contained the skeleton of a 5 year old child (OGDEN 2004, 59). A constructed grave (burial 19) contained the remains of a child between eight to nine years old in a flexed position. Two jars combined together constituted burial 18 containing the remains of a four year old child (OGDEN and SCHUTKOWSKI 2004, 143).

Burial 24

A rounded patch of brown earth indicating burial 24 (fig. 21) dug into the sand layer was discovered during the 2002 season. It contained a large jar burial. The eastern extent of the patch in the sand was difficult to distinguish. It measured 97 cm long and 90 cm wide. A mud brick burial marker 38 cm long, 18 cm wide and 5 cm thick had been placed vertically against the jar opening to fix it shut (Figs. 22-24). Just outside of the jar near the opening a small inverted carinated miniature bowl (S/3025) was found (Figs. 25, 26). This was probably an offering. The body of a child was lying on its right side in a flexed position the head to the east, towards the opening of the jar. The burial contained one bowl and one jug. The following is an inventory of the finds.

Pottery

Jar burial 24 has been identified by Bettina Bader (BADER 2003, 34–36)² as being an Egyptian import into Sidon. The wide base and a narrower rim links this vessel with the earlier half and the middle of the 12th Dynasty, but a date in the reign of Amenemhat III can not be excluded. The most probable date is after Senwosret I (ca. 1953–1908 BC) until Amenemhat III (ca. 1853–1808 BC). These vessels, commonly called *Zir* (BIETAK 1991, 37) are very suitable, because of their very hard fabric (CZERNY 2002, 138) for the transportation of a variety of different commodities.

Two vessels, namely the small carinated miniature bowl (S/3025) (Figs. 25, 26, 28) and the jug with handle from rim to shoulder (Fig. 28, S/3027) (Figs. 27, 33) are Levantine Painted Ware, never before found at Sidon on an open vessel. The only parallel comes from Megiddo (LOUD 1948, 184, Gerstenblith's MB I phase 3 (B); BAGH 2000, 41, T. 5103). Sidon's small bowl, distinguished by its thickened rim, flattened on the exterior is an entirely new type which makes its first appearance in this phase. The jug however, with handle from rim to shoulder and

plain rounded rim with an ovoid body and a rounded base is a shape commonly found at Sidon (Doumet-Serhal forthcoming in *Levant*) and which was also found undecorated in phase 1. This is the first example in phase 2 where decoration is applied on the shoulder extending onto the lower part of the vessel. In contemporary Palestine, Levantine Painted Ware is usually applied on jugs and jars of various types, except for one MB II A–B platter bowl (BAGH 2000, 51). The decoration in phase 2 only consists of plain horizontal black and red bands. Furthermore the small rounded deep bowl (S/ 3026) (Fig. 28) with wheel marks on the side is also found in Sidon's phase 1 (see Fig. 19.).

The Minoan cup assemblage (Figs. 29, 31)

A pottery assemblage along with sheep bones was found on a white plaster floor adjacent to warrior burial 23 only slightly higher. The pottery assemblage consisted of a Minoan cup, a platter-bowl and two juglets. The cup was inverted which may be of some significance (STEWART 1962, 204). The assemblage measured 41 cm long, was 23 cm at its widest end, 18 cm at its narrower end and 5 cm high. The group appears to be an offering for a funeral assemblage but is not obviously associated with a burial.

Minoan sherds have previously been found in Lebanon, Syria and Palestine (MACGILLIVRAY 1998, 105-108; Walberg 1991, 115-116; Merrillees 2003, 341–343) but the reliability and interpretation of find-contexts from Byblos and the Kharji tombs in Beirut (SAIDAH 1993-1994, 164-165; WARREN and Hankey 1989, 134–135) is still subject to discussion (WALBERG 1991, 115-117; BAGH 2000, 89-93). The importance of this new discovery in Lebanon lies in the fact that it is perhaps the only Minoan import which can firmly be dated within a closed context. Minoan sherds of a later period have also recently been found at Tel el-Dabca stratum d/1 namely the early XIIIth Dynasty (1780–40) (WALBERG 1991, 117; WARREN 1995, 3; MACGILLIVRAY 1995, 81) and Ashkelon (STAGER 2002, 357, MM IIB).

The cup found in Sidon was, according to Alexandre MacGillivray (this volume), manufactured in Crete during the MM IIA period. The form and design conform well to a cup type and style which is common at Phaistos in south-central Crete's Mesara Plain, and might have been manufactured nearby. It

² SCIEM, 2003. Petrographic analysis was undertaken by Dr D. Griffiths (Institute of Archaeology, University College,

London). This paper has also benefited from discussions with K. Kopetzky, E. Czerny, and R. Schiestl.

belongs, in "Egyptian terms, in the later half of the Twelfth dynasty or approximately 1850 to 1800 BC" (MacGillivray, this volume). The following is an inventory of the finds.

Pottery

Three pinched-mouth jugs with globular or ovoid bodies and rounded rims were found (fig. 31, S/3006, S/3008, S/3009). The funnel-shaped neck is very distinctive of Sidon's phases 1 to 3 (Doumet-Serhal 2004, 143). A characteristic feature of these jugs is that one is burnished (Figs. 30, 31, S/3009) whereas their predecessors in the earlier phase were always plain.

The platter bowl rim (Fig. 32, S/3010) decorated with two ornamental lug handles is typical of the MBI (DOUMET-SERHAL 2004, 146).

The evidence from phase 2 stresses continuity of settlement.

Some shapes have Early Bronze Age antecedents, particularly the hole-mouth storage jars (Fig. 33, S/1874, S/3055).

- Most of the hole-mouth types (Fig. 33, S/1874, S/3055) belong to a class of globular or oval-shaped jars. These jars are similar to the Montet jar (TUFNELL and WARD 1966, 168–173) and were probably manufactured in two stages with the body built up of coils and the upper part with the rim thrown on the wheel. The two parts were fitted together with the join hidden by a horizontal band of incised rope-pattern relief strip, or by a row of fingernail impressions. This type of decoration is common on Early Bronze Age jars from Sidon (DOUMET-SERHAL 2006, 255, pl. 164).
- Red burnished ware is found for the first time in phase 2 on a miniature juglet with a convex base (Fig. 32, S/3009). This type of vessel with red burnished decoration, a typical juglet of the XIIIth Dynasty in Egypt, is also found at Tell el-Daba'a from stratum G/4=d/1 onwards (KOPETZKY 2002, 229).

Some new shapes are introduced:

- The juglet with "a degenerated stepped-rim" (Fig. 33, S/1887) belonging to the group of juglets is believed by some to be a hallmark for a transitional MBI–II period (EPSTEIN 1974, fig. 1, 1–4). This classification is not unanimous (ILAN 1991, 229–238) (also more recently BECK 2000, 214–215, Post-Palace Phase MB IIa/IIb).
- The small carinated bowl (Fig. 33, S/3025).
- The platter bowl with rim decoration resembling three ornamental lug handles (Fig. 33, S/3010).

Sidon's phases 1 and 2 are roughly contemporary with the Twelfth Dynasty in Egypt.

Phase 3: The third MB I/3 part (MB IIA/3) (Fig. 34)

- A jar burial and one simple inhumation in sand
- Red burnished surface treatment as a popular decorative element
- Beads as the only grave artefact

The burials are those of children 3 to 4 years old (OGDEN and SCHUTKOWSKI 2004, 164).

The majority of the forms continue while others are no longer present (e. g. the small rounded deep bowl). New shapes are introduced namely:

The shoulder-handle juglet with a biconical shaped body (Figs. 35, 36, 40, S/ 1881–S/ 1882). The round carination in the centre divides the body into two halves. This is a common shape in the Sidon area (GUIGUES 1937, 66–67, figs. 9, 5).

The juglet with a bag-shaped body (Figs. 37–39; 40/S/1880–S/1879) which is also found in Lebanon at Kamid el Loz (Hachmann 1969, pl. XVI, 3) and even more commonly in the Sidon area (Guigues 1937, 41, fig. 7a (Lebe^ca); 63, fig. 23e, f; 69, fig. 32a; 1938, 30, fig. 47 & 57, fig. 80 (Ruweise), Early MB IIB).

The pinched mouth jug with straight flaring rims. Jar with triangular sectioned rim (DOUMET-SER-HAL 2003a, 14)

Flat bases become more common.

Phase 4: The intermediate period (MB I/II-MB IIA/IIB) (Fig. 41)

- Six jar burials and two simple inhumations in sand or embedded in a plaster floor.
- Red burnished surface treatment as a popular decorative element
- Bronze artefacts, beads and scarabs as burial goods

The ages of the children in the jars varied from neonate to approximately 12–18 months old (Ogden and Schutkowski 2004, 164). Jar burial 14 is the only burial with the remains of a juvenile of approximately 13 years (Ogden and Schutkowski 2004, 164). This burial is distinguished from other jar burials by the presence of an arrowhead (Fig. 42). Although arrowheads are common in MB I contexts elsewhere they are less so in comparison to other contemporary weapon types (Philip 1989, 145). The rarity of arrowheads from the vast array of metalwork in the "Dépôt" at Byblos is significant according to Philip, which highlights the presence of a single arrowhead in jar burial 14.

The majority of the pottery forms continue while others are no longer present (e.g. the platter bowl with lug handles). Some small carinated bowls with a flat or a disc base are more sharply carinated and a wider version of these bowls is also found (Fig. 43, S/1742).

New shapes are introduced:

- Juglets with button base (Fig. 43, S/1857).
- A jug with trefoil rim (Fig. 43, S/1771).
- Jars with simple or double-ridged rim (Doumet-Serhal 2003a, 14 (which were initially placed in MBH) (Fig. 43 S/ 1853 & S/3056).

Sidon's phases 3 and 4 are roughly contemporary with the Thirteenth Dynasty in Egypt (on MBI/IIA overlapping significantly with the XIIIth Dynasty, Weinstein 1975, 11; Cohen 2002, 132).

Phase 5: The MB II//III phase = MB IIB/IIC (Fig. 44)

- One constructed grave, three jar burials, one simple inhumation on top of the sand layer and one reused grave.
- Red burnished surface treatment in a high proportion and painted decoration ocurring only in two instances.
- Bronze artefacts, scarabs and stone objects as burial goods

Two jar burials (2 and 11) belonging to this phase also contained bones from other individuals suggesting secondary burials (OGDEN and SCHUTKOWSKI, 2004, 163). The only constructed grave (burial 4) (Fig. 45) which was built on top of constructed graves 12 and 9 (phase 1) contained the remains of a 15 month old child together with adult bones and pottery. A bronze knife made of thin metal had been placed on top of a large deposit of animal bones (Fig. 46). It has a distinctive curved cutting edge with a turned up point and an animal hoof handle (DOUMET-SERHAL 2004A, 172-174) and was insufficiently robust to have functioned as a weapon. The placing of the knife on the bones suggests that it had been used for the slaughtering and/or butchering of the animal. Elsewhere these knives have only been found in a small number of graves suggesting some degree of exclusivity. Curved-bladed knives are common in the southern Levant, north-eastern Egypt and at coastal sites such as Byblos and Ruweise. The type appears in the late MBI period and is more common in the MBII period.

Unlike phase 1 painted decoration is only applied on open vessels, namely on

- The small rounded deep bowl (Fig. 47, S/1735).
- The carinated bowl with a neck (Fig. 47, S/ 1718; Fig. 48).

Bowls have a horizontal red band on the rim or are covered with white and pink paint on a red fabric

with four vertical lines forming a broad "ladder" motif (Bagh 2000, 45) a well-known design in Syro/Cilician ware (Fig. 47, S/ 1718; Fig. 48). The geographical distribution of the ladder motif indicates, according to Ilan (1996, 162,169–170) a northern Levant or Syro/Cilician (Bagh 2000, 45) heartland.

ILAN (1996; 162–163) notes at Dan the introduction in stratum XI (early MB IIB) of a type of painted ware known as Monochrome Painted Cream Ware. This is a reddish-brown paint applied on white finely levigated ware, which is most probably a local variant of Syro/Cilician Ware. This should perhaps be considered as the most likely prototype for Chocolate-on-White Ware (ILAN 1996, 170).

The Sidon vessel with white and pink paint applied on a pink fabric could prove to be another local variation of Syro/Cilician ware appearing at Sidon in MB II/III.

New shapes are introduced:

- Carinated-necked bowls with flaring rims and ring bases (Fig. 47, S/1751, S/1757).
- Narrow-necked juglets with a ring base (Fig. 47, S/1764). Some of the juglets with a button base have a more elongated shape (S/1689).
- Large jugs with a handle on the shoulder (Fig. 47, S/1730).

Platter-bowls with simple rims (Fig. 47, S/1687).

- The jar with a thickened and grooved rim (DOUMET-SERHAL 2003a, 14, fig. 12) (Fig. 47 S/1793).

Conclusion

In conclusion, the evidence of the Sidon material so far underlines the following:

- That Levantine Painted Ware is the only decoration found in phases 1 and 2 (Egypt's XIIth Dynasty).
- That changes in pottery styles took place during phase 2 with the introduction of red burnished ware and with an imported Minoan cup. Egyptian goods were also transported to Sidon as shown by the imported goblet S/1826 (burial 13) and the jar S/3024 (burial 24) (BADER 2003, 31–36). The jar (CZERNY 2002, 138 for comparison) is dated on the basis of fabric and shape to the first half of the 19th century BC. There may be some connection with the Egyptian jar found at Tel Ifshar (PALEY and PORAT 1997, fig. 13, 3) an import from Upper Egypt dating to the reign of Senwosret II to Senwosret III and which in spite of its unclear stratigraphic position, also marks the transition between LPW and red burnished ware (BAGH 2000; 166; see

MARCUS 2003, 98–99 for the LPW-Red-slipped and burnished transition from 1878/1853 BC depending on the Ifshar jar; also COHEN 2002 130–131).

- The red burnishing which began in phase 2 becomes the most popular decorative element in phase 3 and 4. This also happened in Palestine, mainly at Tel Ifshar and Tel Aphek.
- Red burnished style decoration is found in a higher proportion in phase 5 together with painted ware with one vessel bearing a decoration, which may be a local variation of Syro/Cilician ware. Phase 5 shows continuity in the material with only minor changes.
- The appearance of luxury items and metal weapons in the burials of phase 1 attests to the existence of a special group of individuals. In terms of energy expenditure the most labour intensive and elaborate burials are associated with metalwork.
- The appearance of the Minoan cup in phase 2 raises the question of the relations between Lebanon and Crete. There may already be evidence of links between Sidon and Greece during the third Millennium: a seal impression with running or interlocked spiral motifs was found in stratum 4 (EB IIB) (Fig. 49). The running spiral motif is similar to that found at Lerna in mainland Greece in the Early Helladic period (2500-2400 B.C., WIENCKE 1970, 105; Manning 1995, 150; Joffe 2001, 368). Cado-GAN (1979, 64-67). This underlines the possible continuity of relations between Crete and Cyprus throughout the Middle Bronze Age and suggests an additional connection between Crete, Syria, Lebanon and Egypt (Doumet-Serhal 261-262).

A locally manufactured jar (Mommsen 2006, 48–50) found in a layer of disarticulated remains (burial 7) has painted bichrome (red and black) horizontal bands applied on the surface with incised lines outlining the body of six dolphins (Artzy 2002, 12 note 8, the incised decoration with white fill appears in the Cyclades before it appears in Egypt, or in Syro-Palestine) painted on the surface of the vessel (Fig. 50). The type of decoration, combining bichrome painting and incision together with the fish motif, has similarities with the "Dolphin Vase"

from shaft 879 at el-Lisht dated ca. 1750–1700 BC. (McGovern 1994, 32–35). This jug, of Levantine inspiration, with dolphins, which appear Aegean in style and found in Egypt, illustrates the complexity of iconographical transfers (Warren 1995, 3; for a full description of the jar see Doumet-Serhal 2006, 40–43).

According to MacGillivray, the XIIIth/XIVth Dynasty is the time (MacGillivray 1998 107, 108) when Cretans began new trading relationships with the Levantine coast. During this period, Crete's MM IIB, Knossian exports reached Sidon, Byblos and Ugarit and Aegean motifs, e.g. Aegean-like dolphins, were found on local pottery (ARTZY 2002, 12).

The stratigraphy of Sidon is a major factor that makes the site important in the study of the Early and Middle Bronze Ages in Lebanon. Most of the material has for the time being been divided into strata 1–6 for the Early Bronze Age, and phases 1–5 for the Middle Bronze Age burials, on the basis of stratigraphy and typology. This should tentatively connect this material to Palestinian chronology and to Egyptian Dynasties. It is however important to keep in mind that at this early stage the typology suggested here is still subject to revision as the excavation is ongoing.

ADDENDUM

Since this article was written, four further seasons of excavation have taken place in Sidon. This has allowed us to revise the Middle Bronze Age stratigraphy in a much more detailed manner re-classifying the 69 burials found to date within their respective stratigraphic levels. Phases 1-3 correspond to different stages occurring in the sand level. Phase 4 or level 4 corresponds to the first occupation above the sand (around 1750 BC) and new levels (5–8) have been identified within phase 5 which represent the later Middle Bronze Age. In addition, more Egyptian pottery was also found for each level which will allow us to clarify the number of imports found throughout the Middle Bronze Age as well as to establish a relative chronology between Tell Daba^ca and Sidon. This on-going investigation of the Egyptian pottery is part of the "stratigraphie comparée" SCIEM 2000 project.

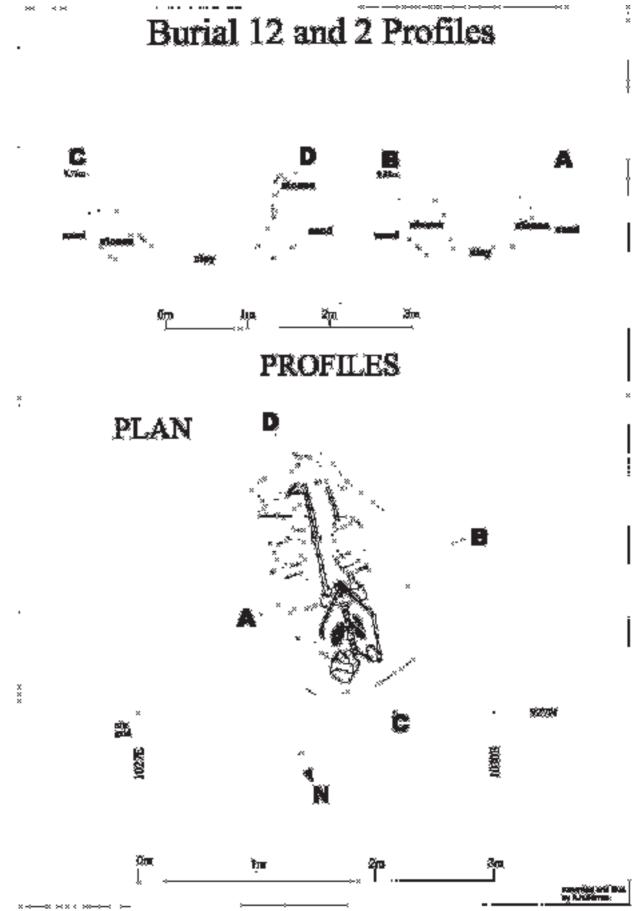


Fig. 17 Plan of burial 12

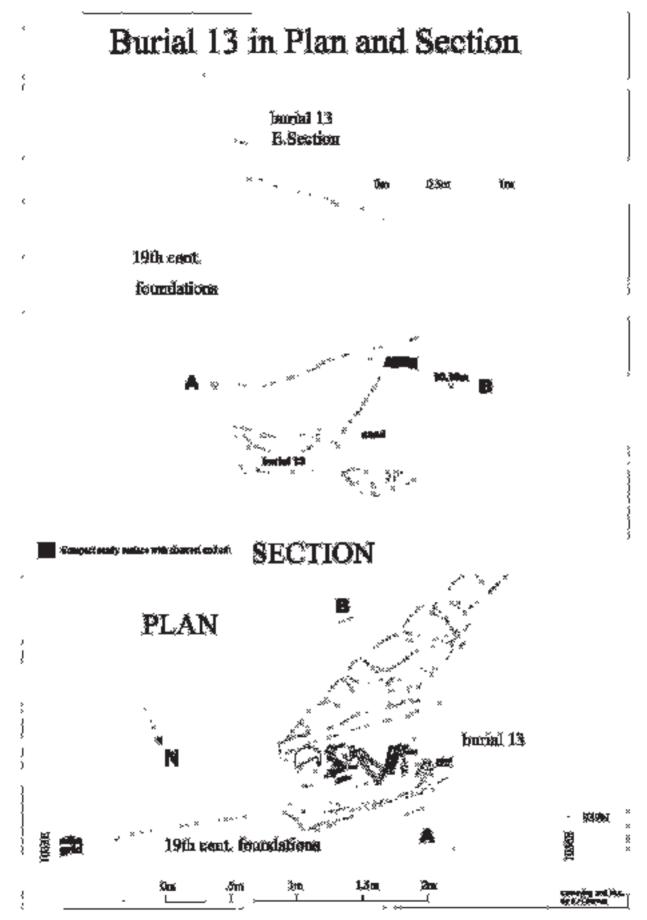


Fig. 18 Plan of burial 13

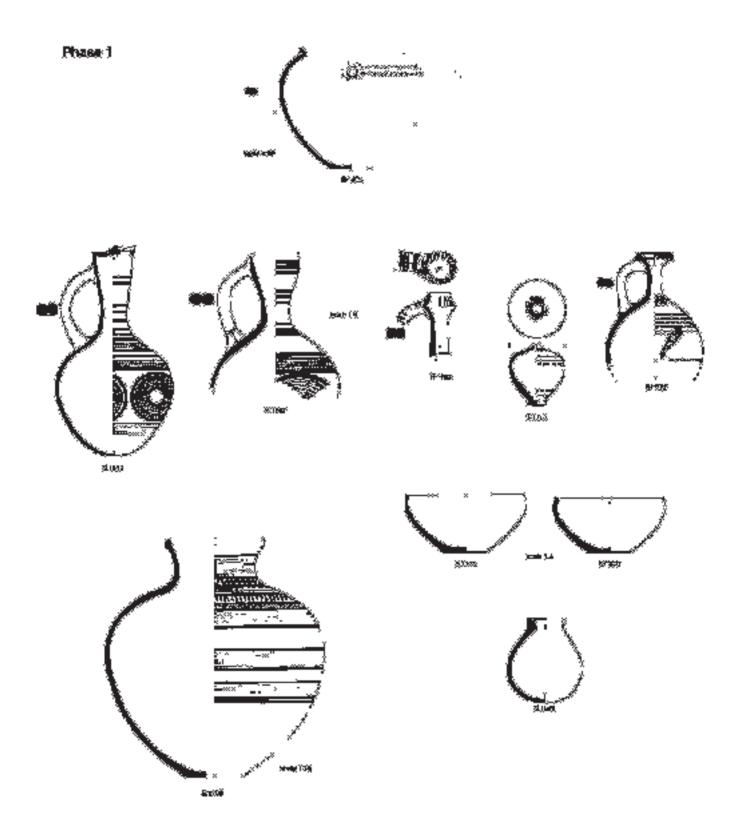


Fig. 19 Pottery from phase 1

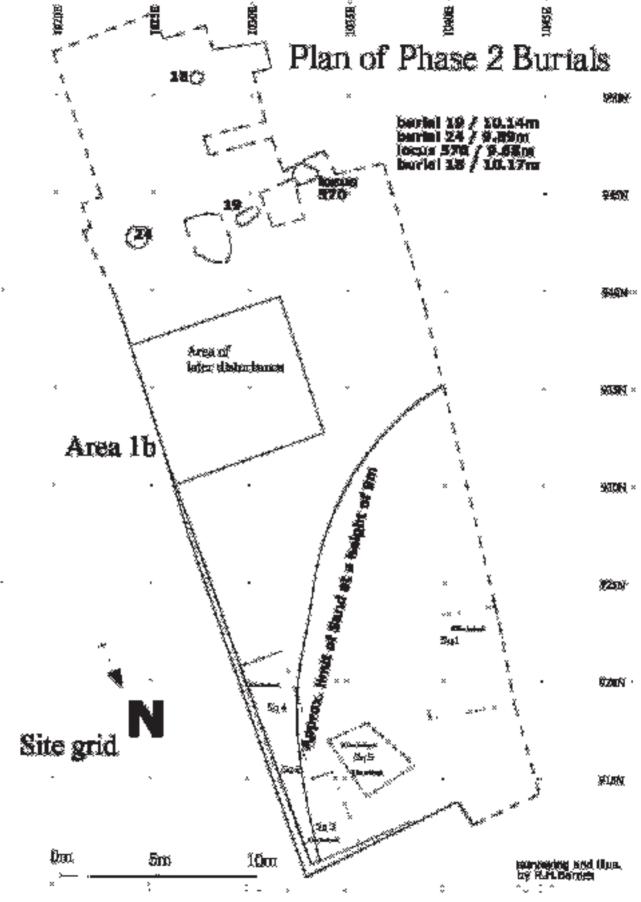


Fig. 20 Middle Bronze Age burials, phase $2\,$

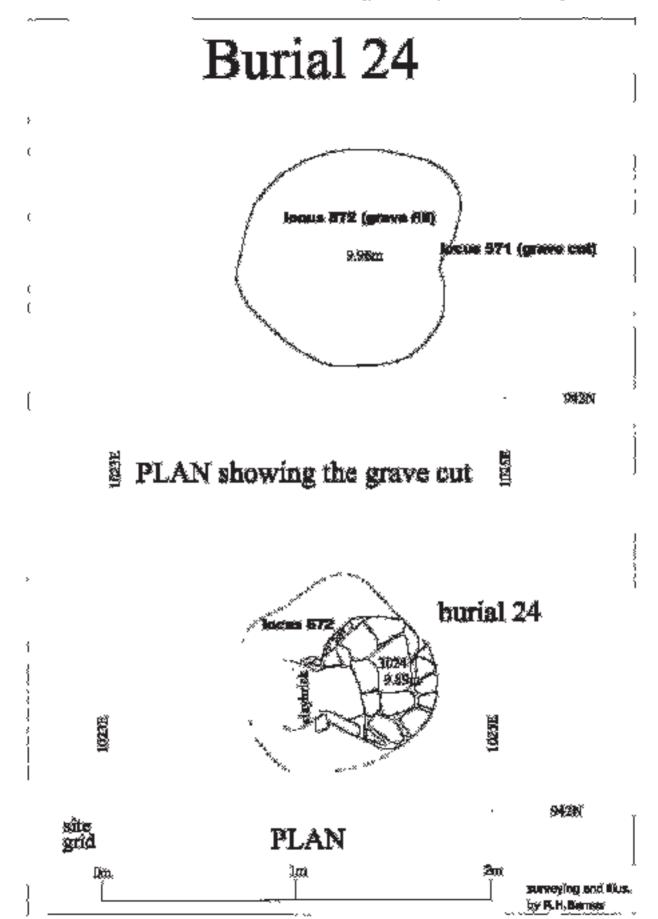


Fig. 21 Plan of burial 24



Fig. 22 Jar burial 24



Fig. 23 Jar burial 24



Fig. 24 Jar burial 24



Fig. 25 Small car inated miniature bowl found inverted outside jar burial $24\,$



Fig. 26 $\,$ Small car inated miniature bowl S/3025 $\,$

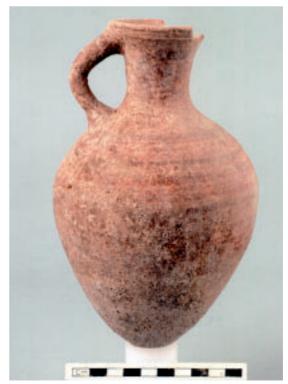


Fig. 27 $\,$ Jug with handle from rim to shoulder S/3026 $\,$

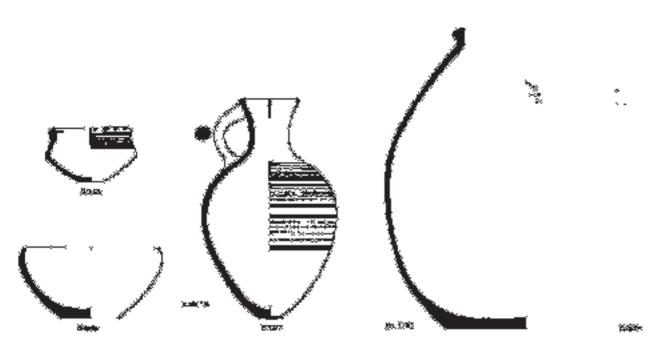


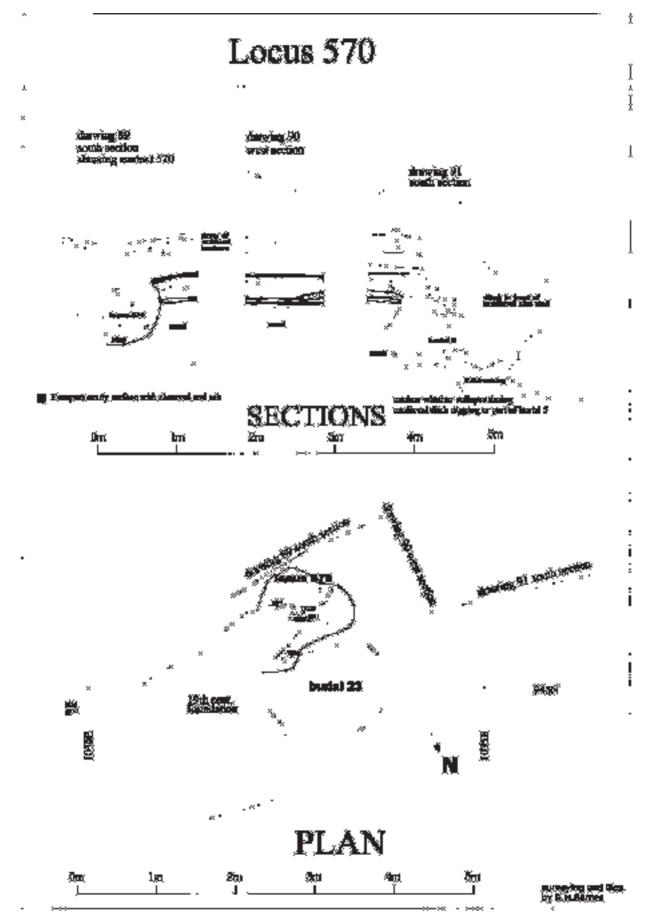
Fig. 28 Pottery from burial 24



 ${\bf Fig.~29~~The~Minoan~cup~assemblage}$



Fig. 30 $\,$ Jug S/3009 from the Minoan cup assemblage



 ${\bf Fig.~31~~The~Minoan~cup~assemblage}$

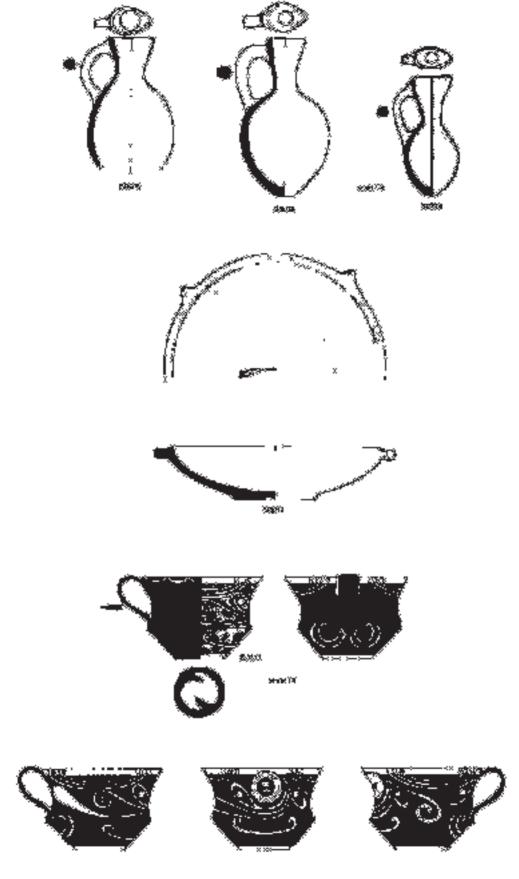


Fig. 32 Pottery from the Minoan cup assemblage

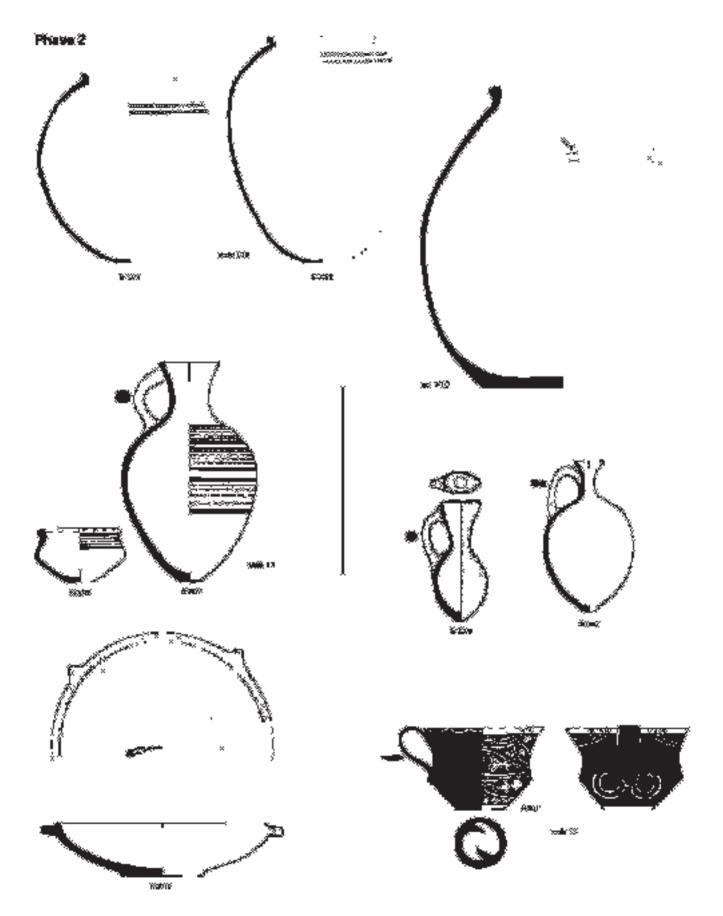


Fig. 33 Pottery from phase 2

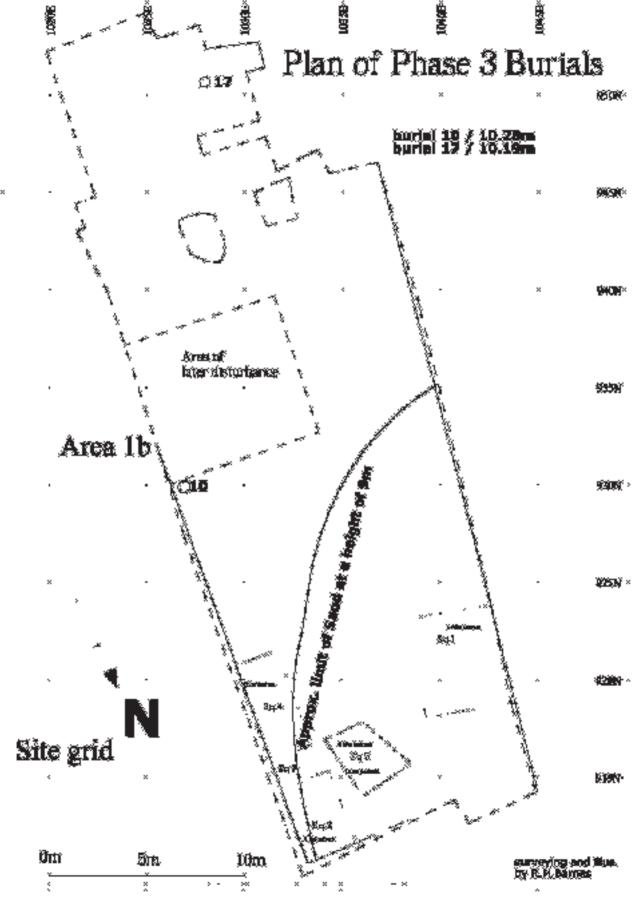


Fig. 34 Middle Bronze Age burials, phase 3



Fig. 35 The shoulder-handle juglet with a biconical shaped body



Fig. 36 The shoulder-handle juglet with a biconical shaped body



Fig. 37 The juglet with a bag-shaped body



Fig. 38 The juglet with a bag-shaped body



Fig. 39 The juglet with a bag-shaped body

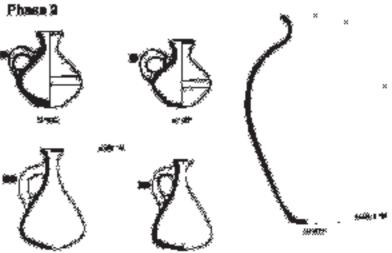


Fig. 40 Pottery from phase 3

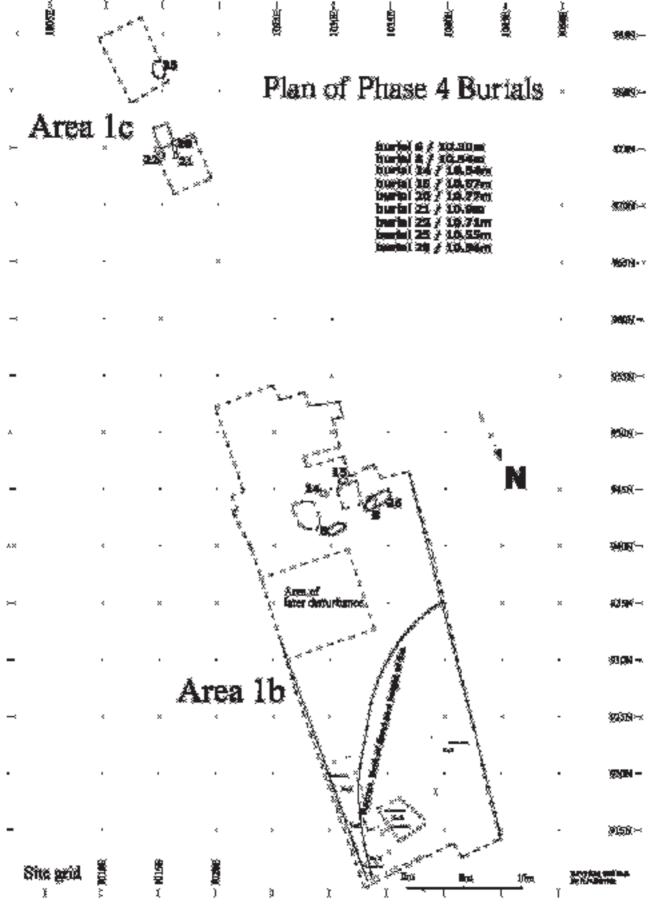


Fig. 41 Middle Bronze Age burials, phase $4\,$



Fig. 42 Jar burial 14 with arrowhead

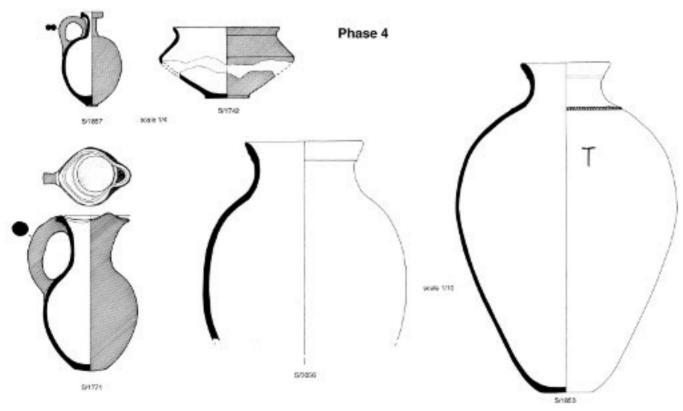


Fig. 3 Pottery from phase 4

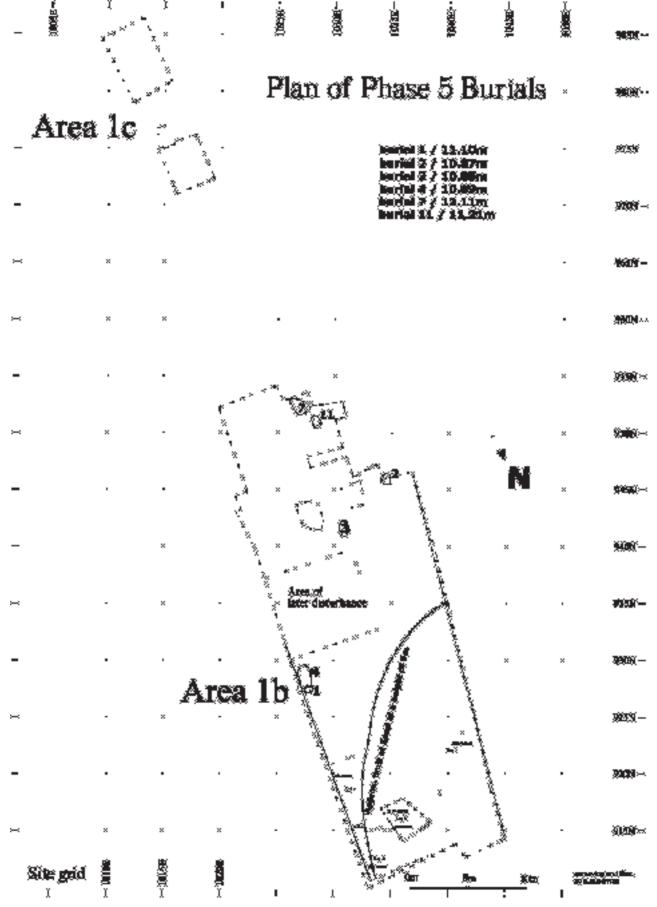


Fig. 44 Middle Bronze Age burials, phase 5



Fig. 45 Burial 4



Fig. 46 Knife placed on a deposit of animal bones

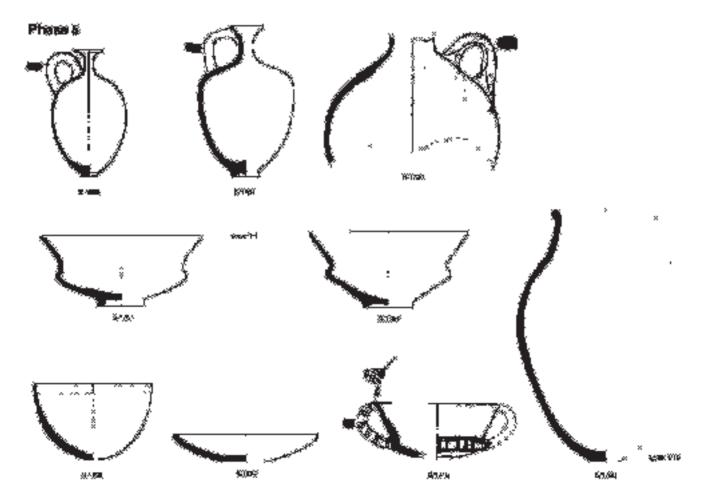


Fig. 47 Pottery from phase 5



Fig. 48 Bowl with a "ladder" motif



Fig. 49 $\,$ Seal impression with interlocked spiral stratum 4 (EB IIB)



Fig. 50 Dolphin jar S/1785

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