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Box 626
SE-751 26 Uppsala, Sweden
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The New Swedish Cyprus Expedition 2011

Excavations at Hala Sultan Tekke

Preliminary results. With appendices by T. Bürge, L. Franz and R. Feldbacher

Abstract*

The main objective of the excavations of the Late Cypriote city of Hala Sultan Tekke is the investigation and determination of the complete occupational sequence of the pre-12th century levels. The ground-penetrating radar survey (GPR) led to the discovery and excavation of numerous rooms of a large Late Cypriote complex. During the second year of excavations at the site the expedition exposed a third phase of occupation (Stratum 3).¹ A Stratum 2 compound, with extraordinarily wide walls was uncovered in the eastern part of the excavations. Intact vessels include Base-ring I and II, and White Painted VI, and Late Hell-

adic imports.² Other wares include: White Painted Pendant/Cross Line Style, Red-on-Black/Red, Bichrome Wheel-made, White Slip I and II, Monochrome, Base-ring I and II, Red Lustrous Wheel-made, White Painted/Plain-White Wheel-made, and White Shaved. Unique discoveries amongst the small finds are a haematite cylinder seal and a stone pendant figurine. The numerous tools related to textile production point to the manufacture of fabric on a larger scale.

Introduction

Excavations directed by the author were carried out in the extended Area 6 of Hala Sultan Tekke from 26th April–27th May 2011 (*Fig. 1a*).³

In 2010, a large Late Cypriote complex was discovered during a pre-excavation ground-penetrating radar survey (GPR).⁴ The compound is situated in the southern part of Area 6, where no substantial structures were found during test soundings in the 1970s. The GPR survey suggested a compound a minimum of 25 m in length, of which only minor parts in the south-easternmost part of Area 6 were partly exposed during the 2010 season. Since major parts of the compound are situated outside the present fence, to the west and south, permission to double the size of the present, fenced Area 6 was sought from and kindly granted by the Department of Antiquities of Cyprus.

Two phases of occupation could be ascertained in 2010, of which most of Stratum 1 (the most recent) was exposed (Trenches 1A–D, 2 and 3A; *Fig. 1b*). The compound is bordered to the north by a more substantial wall against which

* Acknowledgements

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¹ “Stratum” should be considered only as a term of convenience for use during fieldwork and in the preliminary reports. It is used to designate a level of occupation regardless of the area of excavation and numbered from below colluvial soil as it is excavated. In the final report the designation “Phase” will be used with “Phase 1” as the most ancient.

² No division here between the phases of occupation.

³ The trenches from 2011 are: T3B; 4A, B; 5A, B; 6A; and 7A. Additional excavations were carried out in the trenches from 2010: T1A–D; and 3A.

⁴ Fischer 2011a.

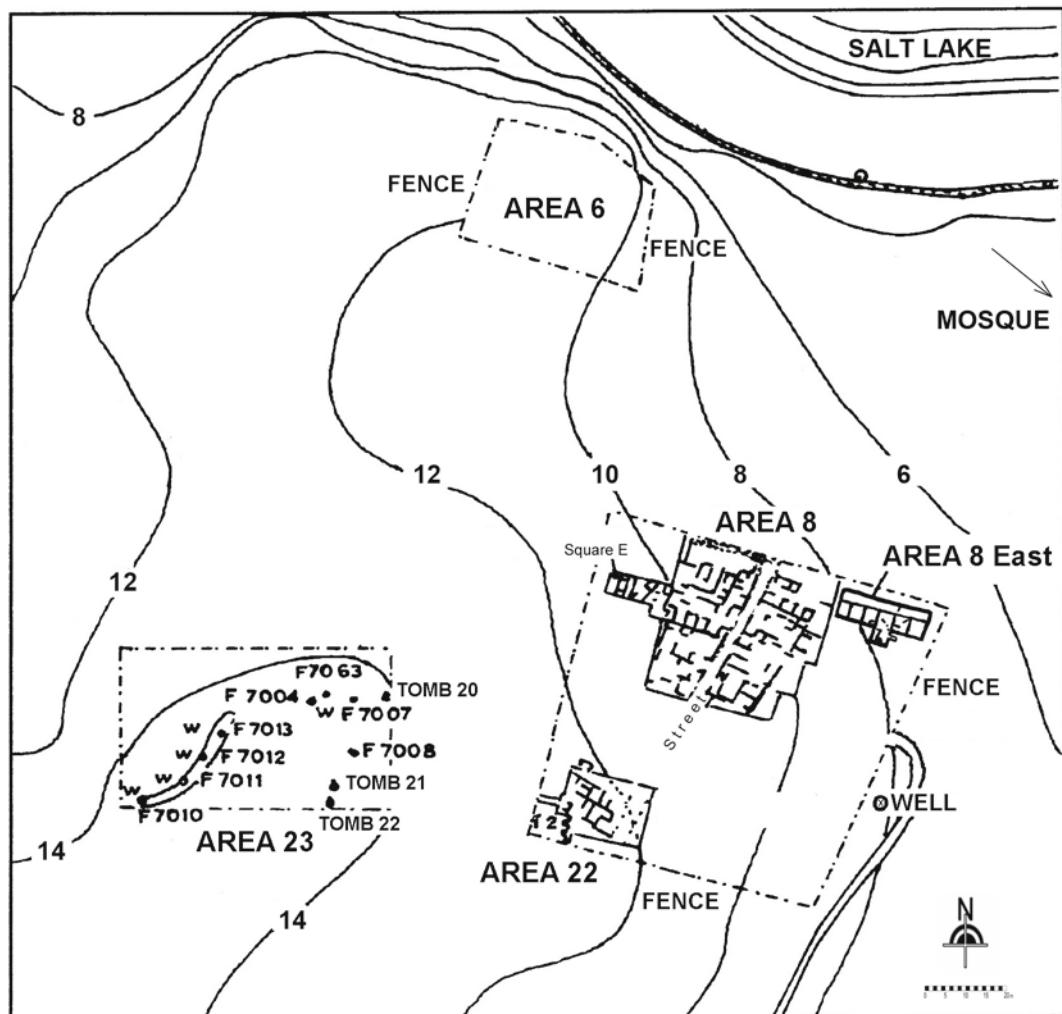


Fig. 1a. Overview of previous excavations, i.e. before 2010 (original drawing by E. Markou, modified by P.M. Fischer).

a number of rooms/spaces were built; nine of these were exposed in 2010. The suggested functions of the exposed structures are those of living, working, storage and administration spaces. Finds included numerous loom weights and spindle-whorls, which point to the production of textiles, and copper slag and lead which point to the production of metal objects. Other finds included jewellery, tools and weapons of bronze, amongst which are a weight in the shape of a bull's head, spearheads and arrow-heads, finger-rings, bracelets, toggle pins and fish-hooks. Numerous, locally produced vessels of high quality as well as imports mainly from the Mycenaean sphere of culture should be mentioned. It has been suggested that Stratum 1 was probably destroyed during a military assault, but substantial ash layers are absent. The complete "Creature

Krater", which is locally produced White Painted Wheel-made ware, belongs to Stratum 2 of which only minor parts were exposed in 2010.⁵ The painted decoration consisting of cattle, birds, fish, a dog, and various symbols is of a high artistic standard. It could be generally observed that more than a few sherds were older than the date of the actual excavated occupational phases, viz. the end of the Late Cypriote period. There are six radiocarbon dates from Stratum 1 (3 samples) and Stratum 2 (3 samples), which do not show any unambiguous chronological differences between the strata (see Table

⁵ Fischer 2011a, 82, fig. 15.

The New Swedish Cyprus Expedition 2010, 2011
Hala Sultan Tekke ; Area 6

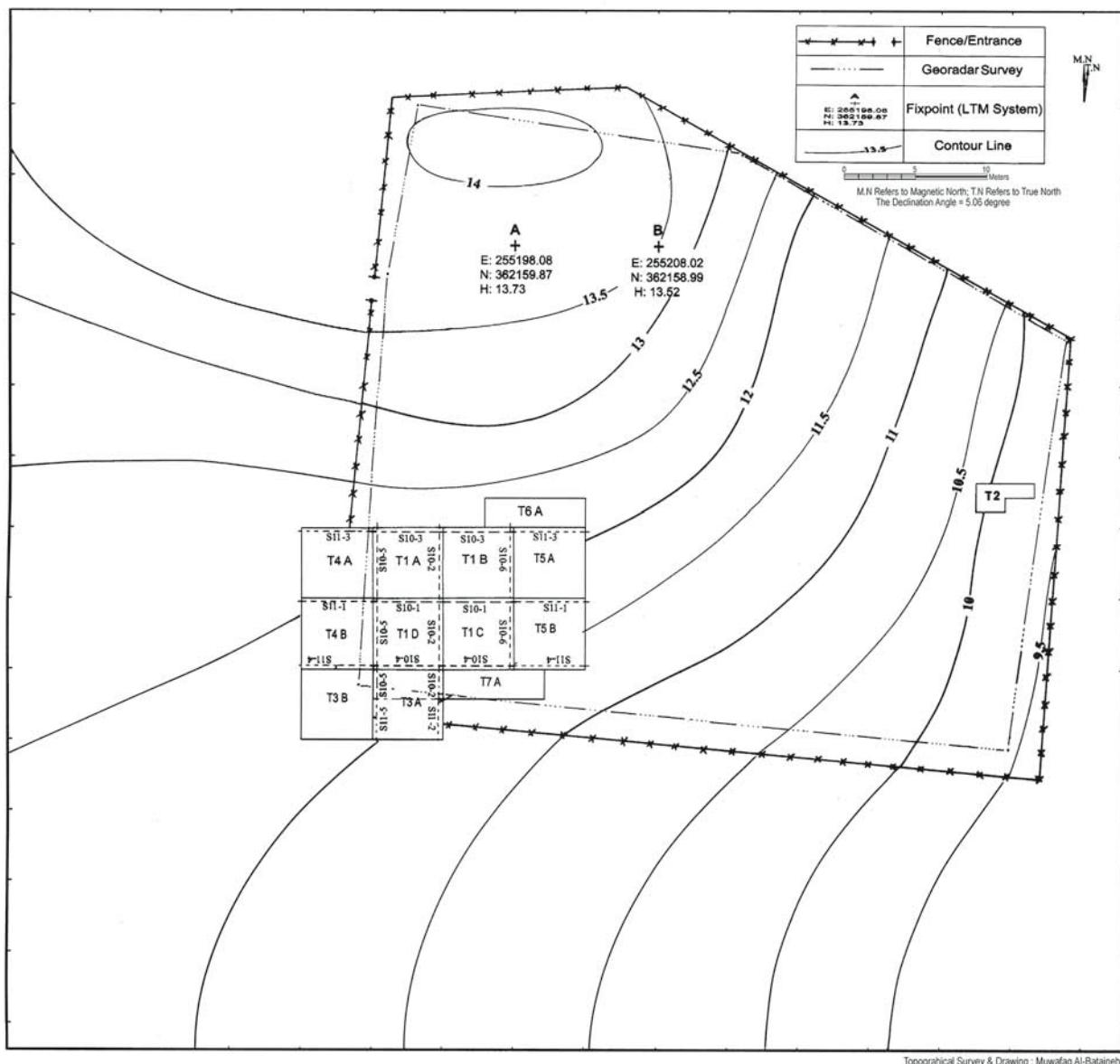


Fig. 1b. Contour map with overview of the opened area in 2010 and 2011 (drawing by M. Bataineh).

1 in "Preliminary conclusions").⁶ The obviously residual (earlier) sherds include those of White Painted Cross Line Style, White Painted Pendant Line Style, White Slip I (bichrome

and monochrome),⁷ White Painted VI, Red-on-Red/Black, Bichrome Wheel-made ware, and others. The older ceramic material points to the presence of an older settlement. This settlement was situated in or around Area 6.

⁶ Fischer 2011a, 84, Table 1; observe that the heading in this table mentions only Stratum 1.

⁷ For selected White Slip I bowls see Fig. 8:1–2 (White Slip I monochrome and bichrome decorated).



Fig. 2. Stratum I overview, with the position of walls, loci and finds included (drawing by M. Bataineh).

Excavations 2011

STRATUM I (FIG. 2)

All architectural remains are orientated roughly north-south/east-west, with a slight deviation of the longitudinal axis towards the west. In addition to the nine walled spaces (R1–9) which were exposed in 2010, another four spaces were uncovered in Stratum 1 (R10–13).⁸ The description of the walled spaces is done clockwise, starting in the north-west with the rooms from 2010, in which the excavations were continued. The description of the spaces which were excavated in 2011 follows after the overview of the spaces from 2010.

The architectural remains are enclosed to the north by a wall with a stone foundation, running east–west (W1 from 2010). W1, which is at least 25 m long running from the western fence towards the east as indicated by GPR, was completely exposed at a length of 14.2 m. It is roughly 0.7 m wide and preserved to a height of approximately 0.7 m.

The western limit of W1 was completely exposed. Here the wall meets W18, forming the north-western corner of R1. W18 runs perpendicularly to W1 for some 10 m, from north to south. W18 forms the western limit of the compound, along which a partly exposed road runs from north to south. Two ovens (L131, 133) and a hearth (L115) were found along W18. Other finds from the road area include a loom weight of fired clay (N42) which was found inside one of the ovens (L133), another loom weight of stone (N53) and a bronze ring (N64). The road area also contained many sherds of locally produced and imported, mainly Mycenaean, vessels.

Finds from the further exposed R1, which is 3 m × 3 m in size⁹ and has a working bench of stone in the south-western corner, include a Plain White Wheel-made carinated bowl (N81; *Fig. 3:10*), a Coarse ware cooking pot (N80; *Fig. 5:2*), a Mycenaean-type stirrup jar (N59; *Fig. 3:1*), two biconical spindle-whorls of black stone (N18, 56), a loom weight of limestone (N3), a weight of a so far unknown paste/mineral (N67), two faience beads (N63), a lead sling bullet (N55), a spear-head (N4) and a bronze ring (N17). This roofed space (R1) was obviously used as a room for living and working. To the north of R1 is a kind of annex (R13, W24). It is an open space with two fireplaces which could be accessed via the road.

The next room, R2, which is roughly 6 m × 3 m in size and which was approached through an entrance in W8, via stone steps, was further excavated until the floor of Stratum 1

was completely exposed (cf. the previous report). This roofed space (R2) was used for various activities, one of which may have been the production/decoration of pottery.

There is no direct access from R2 to R3, the next room to the east. The latter, measuring roughly 6 m × 3 m, could be entered via R4 and R5. In the north-eastern corner of R3 there is a stone-lined circular structure which was originally built in Stratum 2 (see below, where its use as a bath is suggested). The structure was approached from the east, through an opening in W19, via two steps and protected by upright ashlar blocks. In Stratum 1 this structure had a different purpose, namely as a rubbish container: the upper part was filled with several kilograms of animal bones and other waste. Other finds from R3 included a fairly complete chalice of Plain White Wheel-made ware (N26),¹⁰ a Canaanite jar (N19), a loom weight of fired clay (N37) and a Plain White Wheel-made jar (L123-2; *Fig. 5:5*). The northern limits of W1 were partly exposed. A sherd of a Phoenician (?) bichrome decorated pilgrim flask derives from the fill of a locus just below colluvial soil (L203) north of W1, i.e. outside the Stratum 1 compound; it may be intrusive. R3 also contained pieces of copper slag. This space may have been a roofed (?) courtyard and could have been used as a workshop.

The next room, R4, could be reached from R3 via a 0.7 m wide opening in W11. This room is 4 m × 3 m in size and has another entrance from R5 through W10. The function of W20 is not entirely clear, but it seems to separate R4 into a smaller space to the north and a larger space to the south. There were only a few finds from this occupational phase in this room, two of which are a wall bracket of fired clay (N16) and a loom weight (N36), both found at the entrance between R4 and R5, and another partly preserved cooking pot with one handle. The finds and the architecture do not provide any clues as to the precise function of this space. R4 is separated from R12 by W28, which is partly excavated. A circular stone setting attached to W28, most likely a hearth, as well as a cooking pot (L198-1; *Fig. 5:3*) should be mentioned.

The excavations of R5 and R8 continued.¹¹ A crucible of limestone was found in R5 (N35). Other finds from R5 are an almost complete Plain White Wheel-made jug (N75), and the rim and neck of an Egyptian-imported faience vase (L199-3; *Fig. 3:14*) were found. It may be that the space, which is at least 8 m long (the width is between 2 m and 3 m), and which was partly stone-paved in the northern part, was an open or only partly roofed courtyard where food was

⁸ The key to all abbreviations is in the report from 2010. R stands from Room, L for Locus (feature), W for Wall and N is a find of Class 1, viz. a "museum find".

⁹ All measurements of spaces are internal measurements.

¹⁰ Finds with numbers below N35 derive from the excavations in 2010 (see previous report in Fischer 2011a). Consequently N35–81 belong to the excavations in 2011.

¹¹ R6 is the only space exposed in 2010 in which no excavations were carried out this year.

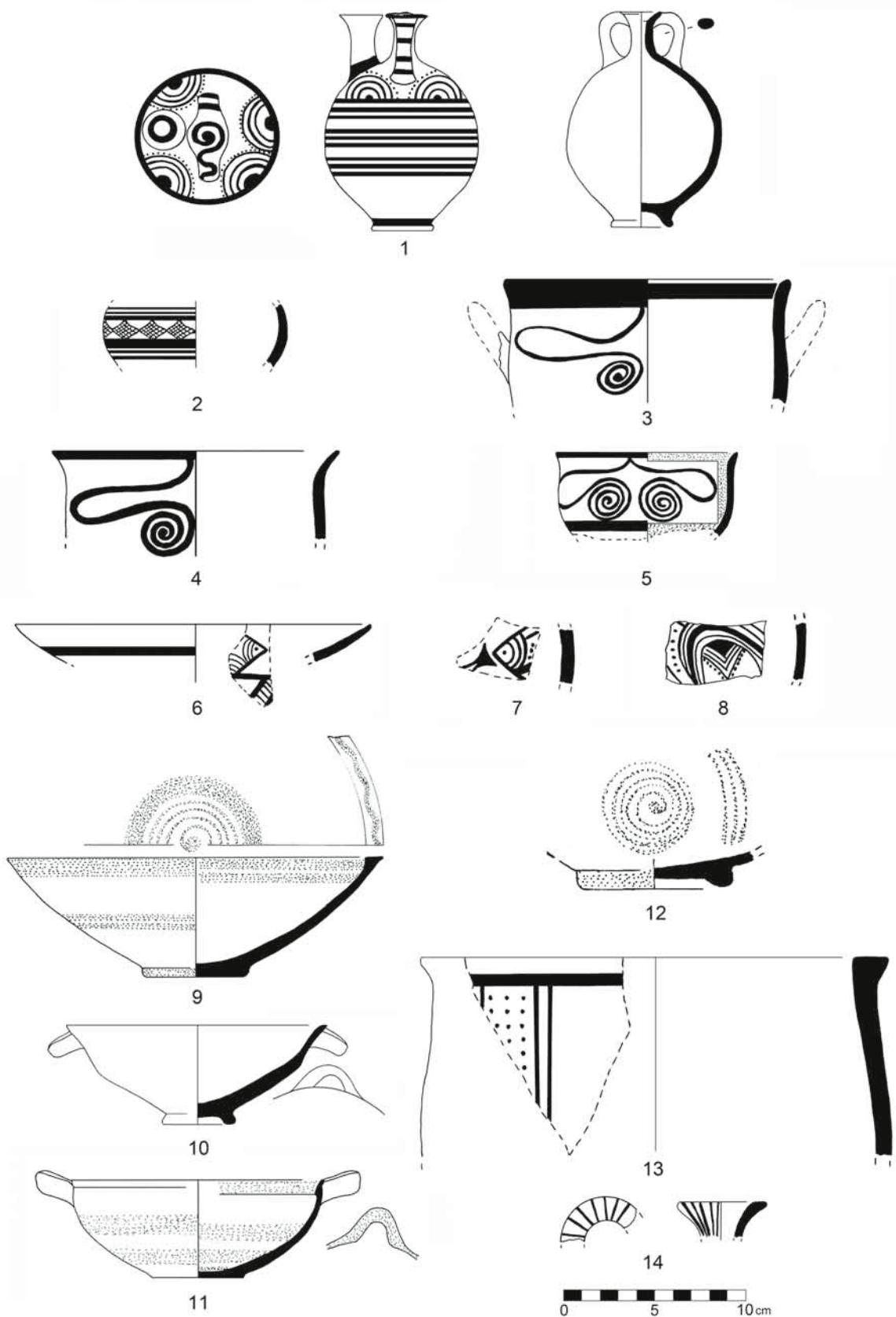


Fig. 3. Mycenaean-type, Plain White and White Painted Wheel-made pottery: no. 14, Egyptian-imported faience vase (drawing by M. Bataineh and T. Bürge).



Fig. 4a. Cylinder seal (N41; photograph by P.M. Fischer).

processed (see the finds of olive stones). The southern limit of R8 was exposed (W23). R8 is irregular in shape, with an area of approximately 4 m × 3–4 m. Finds from this space include a diorite spindle-whorl (N10) and two loom weights of fired clay (N15, 31). There is an oven in the north-western corner of R8. The processing of food was certainly amongst the activities which took place in this room.

The small space R9 represents the corner room of the compound to the south-west. It is 2.4 m × 1.6 m in size. There is a stone table in the western part which is made of a large ashlar block. It is not entirely clear where the entrance to this room was. There seems to be an open space south of R8 and R9 where a mortar, a loom weight (N61) and a pestle (N49) were found.

R7 was completely exposed and is 3.2 m × 2.5 m in size. In the north-eastern corner there is a 1 m × 1.5 m stone structure which is partly built of reused ashlar blocks. The structure is tightly paved with flat stones and clay sealing between the stones identified as a grain silo. A loom weight of fired clay (N1) and a bronze ring with a flattened upper part (N24) come from the area close to the silo. In the western part of R7, there is a pit 0.6 m deep and 1.3 m in diameter, where no significant finds were discovered.

A new, massive structure was exposed in the eastern part of the uncovered area (R10 and 11), i.e. east of and attached to the compound described above, and measuring at least 14.2 m × 12 m. W19, 26 and 33 belong to it. W26, which was exposed some 4 m to the east, is the continuation of W1. W26 is completely different in terms of construction and dimensions from W1: it is approximately twice as wide as W1, viz. 1.4 m, and mainly built of stones of conglomerate instead of the commonly used limestone. W26 is connected to W19 at a right angle. W19 has a similar structure as W26: it is built of fairly large stones of conglomerate and is between 1.0 and 1.2 m wide. It seems that these two walls form the western limit of quite a large compound, which was built together with the compound exposed in 2010. W33 divides the

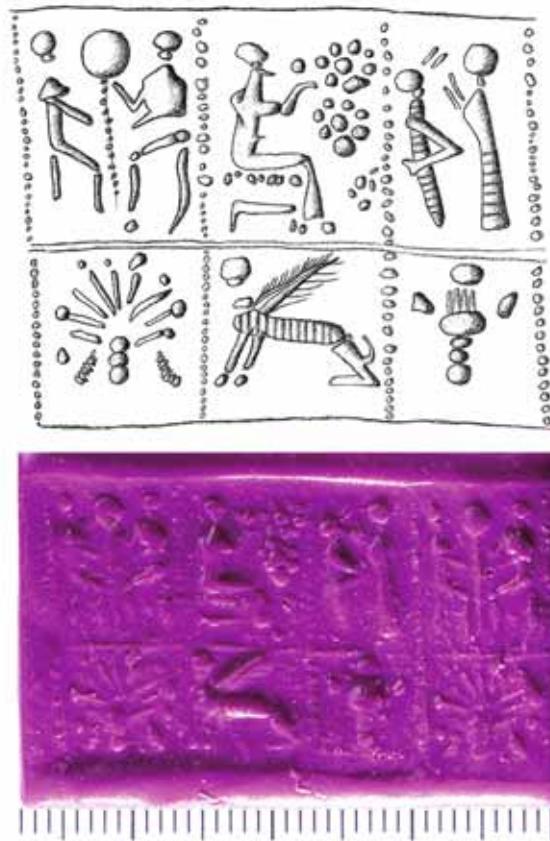
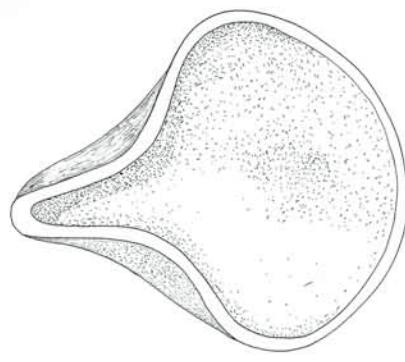
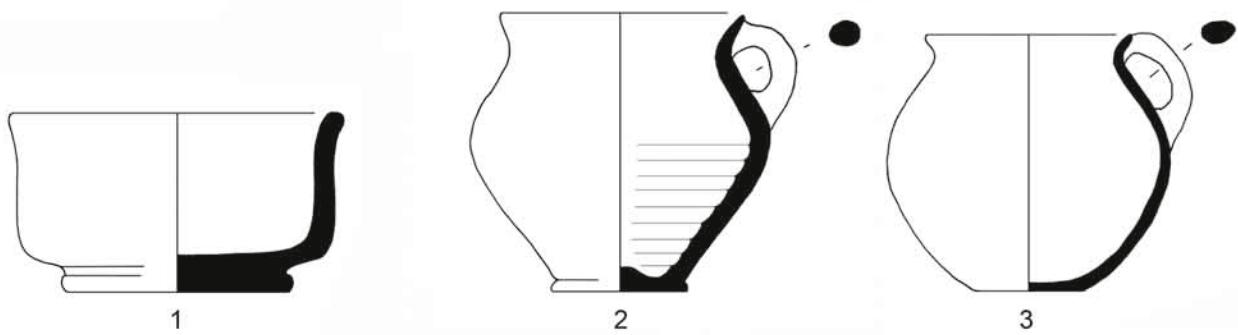
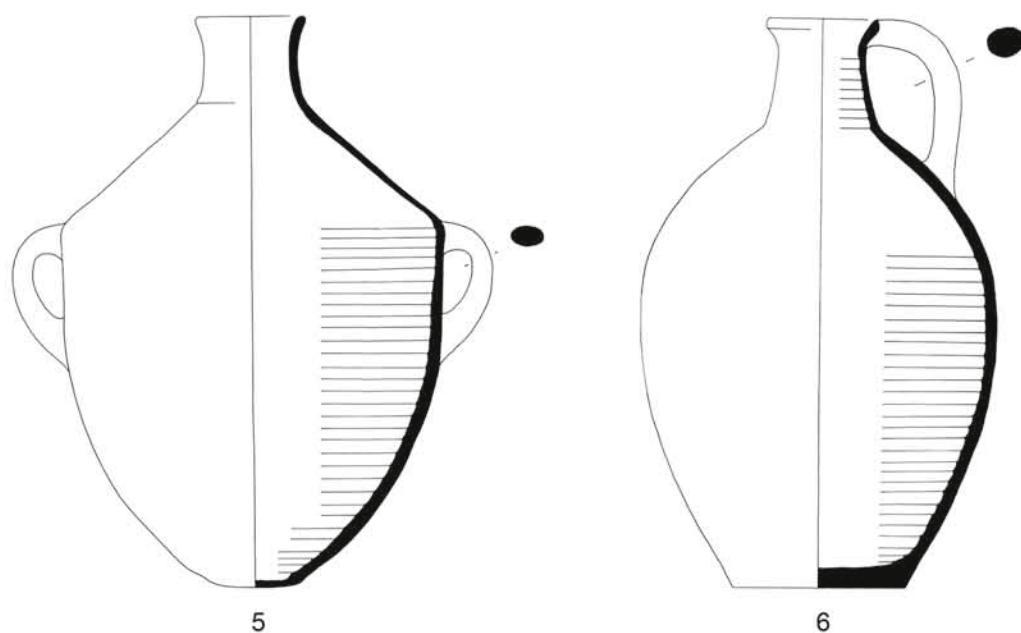


Fig. 4b. Cylinder seal (N41; drawing by L. Franz) and seal impression.



0 5 10 cm



0 5 10 15 20 cm

Fig. 5. Plain White Wheel-made vessels, cooking pots and lamp (drawing by M. Bataineh).

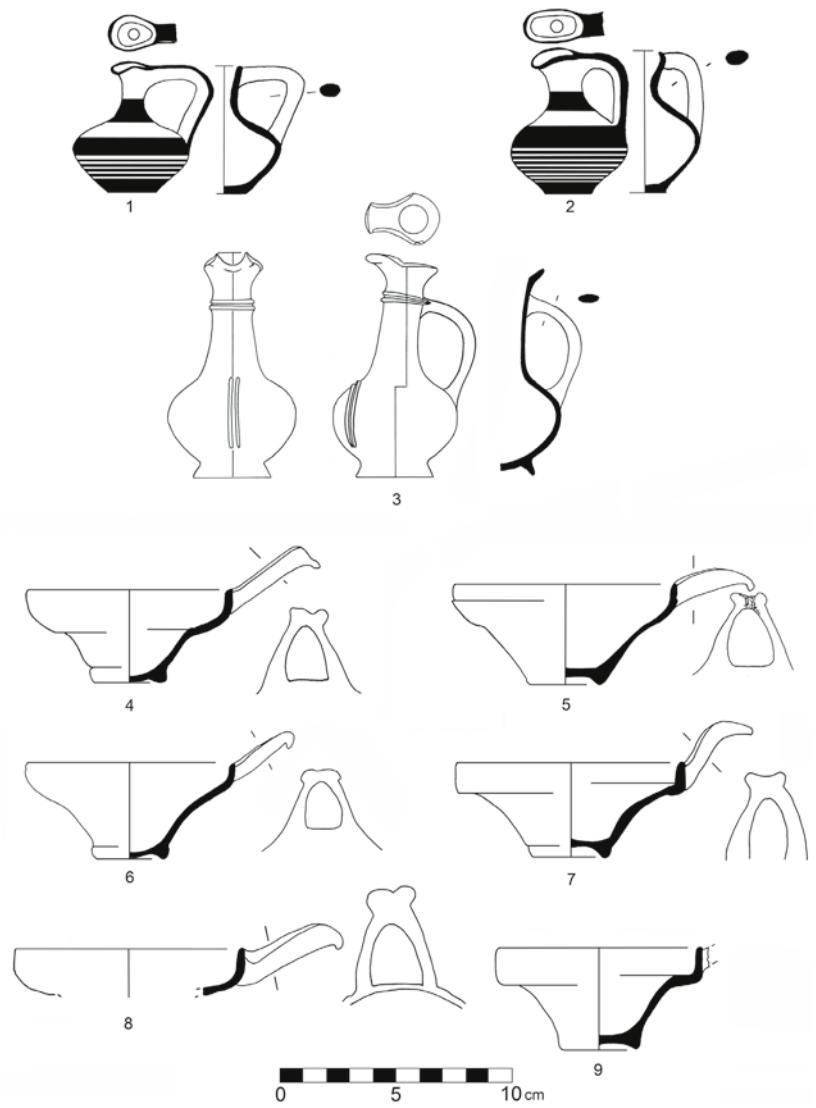


Fig. 6. Mycenaean vessels and Base-ring I juglet from Stratum 2; Base-ring II bowls from Stratum 1 (drawing by M. Bataineh and T. Bürge, photograph by P.M. Fischer and H. Indgjerd).



western part of this new compound into two walled spaces: R10 and 11. Only the length of the northern space, R10, is identifiable: approximately 6 m. It also became clear, during the progress of the excavations, that W19, 26 and 33 were all reused in Stratum 1 or at least used as a foundation, but originally built in Stratum 2 (or even earlier¹²). Finds from the northern part of this new structure, R10, include a Plain White Wheel-made jar (N45; *Fig. 5:6*) and a bent toggle (?) pin of lead (N52). A pit, which is roughly 1 m wide, yielded a loom weight of fired clay (N65) and an almost complete deep bowl of Plain White Wheel-made ware (N71A; *Fig. 5:1*), which was found together with a stone pestle (N71B). The southern space (R11), separated from the northern by W33, is only partly excavated. In this room there were, *inter alia*, seven bowls of Base-ring II ware (see *Fig. 6:4–9*; see Appendix 1),¹³ three of which were intact (N38, 39, 40), a jar of Plain White Wheel-made (L107-1) and three bowls of White painted Wheel-made (L107-2, 3, 4; *Fig. 3:9, 3:11, 3:12*). A biconical bead or weight of lead (N43) was also found.

An important find from R11 consists of a cylinder seal made of haematite with six panels, which was probably moderately recarved (N41, *Fig. 4a–b*; see Appendix 2). The obvious remains of red colour in the carvings can be explained as residue from the recarving, or by the fact that the seal was used to stamp coloured motifs, for instance, on fabric. The seal is most likely a Cypriote product.

The dimensions of the walls of this new structure may suggest that it represents an official building which was attached to a compound of domestic and workspace character. In the previous report the hypothesis was put forward that Stratum 1 may have been destroyed during a military assault judging from the state of the architectural remains and from the position of the sling bullets (see Appendix 3 in the previous report).

STRATUM 2 (FIG. 7)

This stratum is so far only partly visible in the south-western, central and eastern parts of the exposed area.

The massive walls W19 and 26, and W33 were obviously built during this phase. The northern walled space, R14, did not reveal any finds of interest as yet, whereas the southern room, R15, produced a number of significant finds: two intact juglets of Mycenaean ware (N46, 48; *Fig. 6:1, 6:2*) and an almost complete Base-ring I juglet (N50; *Fig. 6:3*; for these three vessels from Stratum 2 see Appendix 1), a biconical spindle-whorl of fired clay (N47) and a diorite pestle (N44).

R16 is surrounded by W19, 22, 21, 16 and 15.¹⁴ The circular water container in the north-eastern corner of R16 was originally built in this stratum. It is a stone-lined circular structure with an inner diameter of 0.8 m. It is approximately 1.4 m deep and lined all the way down to the bottom (= virgin soil) with tightly fitting stones. Clay has been smeared between the stones, obviously in order to keep water inside. The total volume of this water container is approximately 0.7 m³. Access to the structure was from the east, through an opening in W19, via two steps and protected by upright ashlar blocks. Dislocated blocks of hewn limestone, viz. water channels, were found close to the structure. A bone comb (N73) was found on the northern edge of the circular structure. The structure may represent a bath. R16 also contained a pit, approximately 1.6 m in diameter. A find predating the current phase of occupation is an intact spouted juglet of White Painted VI ware with geometric decoration (N74; *Fig. 8:7*) which was found along the south-eastern wall of the pit. Other finds from the central part of this room consisted of a loom weight of fired clay (N60) and a toggle pin of bronze (N79). There seems to be a niche in the south-western corner of the room which contained a juglet of White Shaved ware (N58; *Fig. 8:8*) and a sling bullet of clay (N57).

R17, which is surrounded by W15, 16, 21, 22 and 19, contains a circular working space, approximately 0.7 m in diameter: it was built of medium-sized stones on which a layer of pithos sherds was placed (L185). A clay-built oven (diameter approximately 0.5 m) is in the corner between W21 and 22. A partially preserved cooking pot was found, together with two lumps of melted lead (541 g together) inside the oven (L149). The oven and the cooking pot were obviously used to melt lead, but no moulds were discovered. Other finds from this room include a wall bracket of fired clay, another partly preserved cooking pot of Coarse ware, a millstone (N68), a stone disc of diorite (N51) and a biconical object of fired clay which resembles a large ellipsoid bead which probably was used as a seal together with a string (N54). R17 was no doubt a working space, where lead was melted and worked but also where food was prepared.

No excavations were carried out in the central part of the compound, whereas R18 was partly exposed in the south-western portion of the excavations (W25, 12, 13). Centrally placed in this room is a large ashlar block. Finds from this room include the “Creature Krater” which may have been standing on the ashlar block (see previous report), a wall bracket of fired clay (N70), and two stone tools: a mortar (N69) and a pestle (N76). The space to the south of R18,

¹² Stratum 2 is not completely exposed.

¹³ The two Base-ring II bowls N40 and L107-9 are almost identical and shown in the same drawing, viz. *Fig. 6:4*.

¹⁴ It is possible that another dividing wall which would separate the northern part of R16 from its southern part may be found when the excavations are continued.

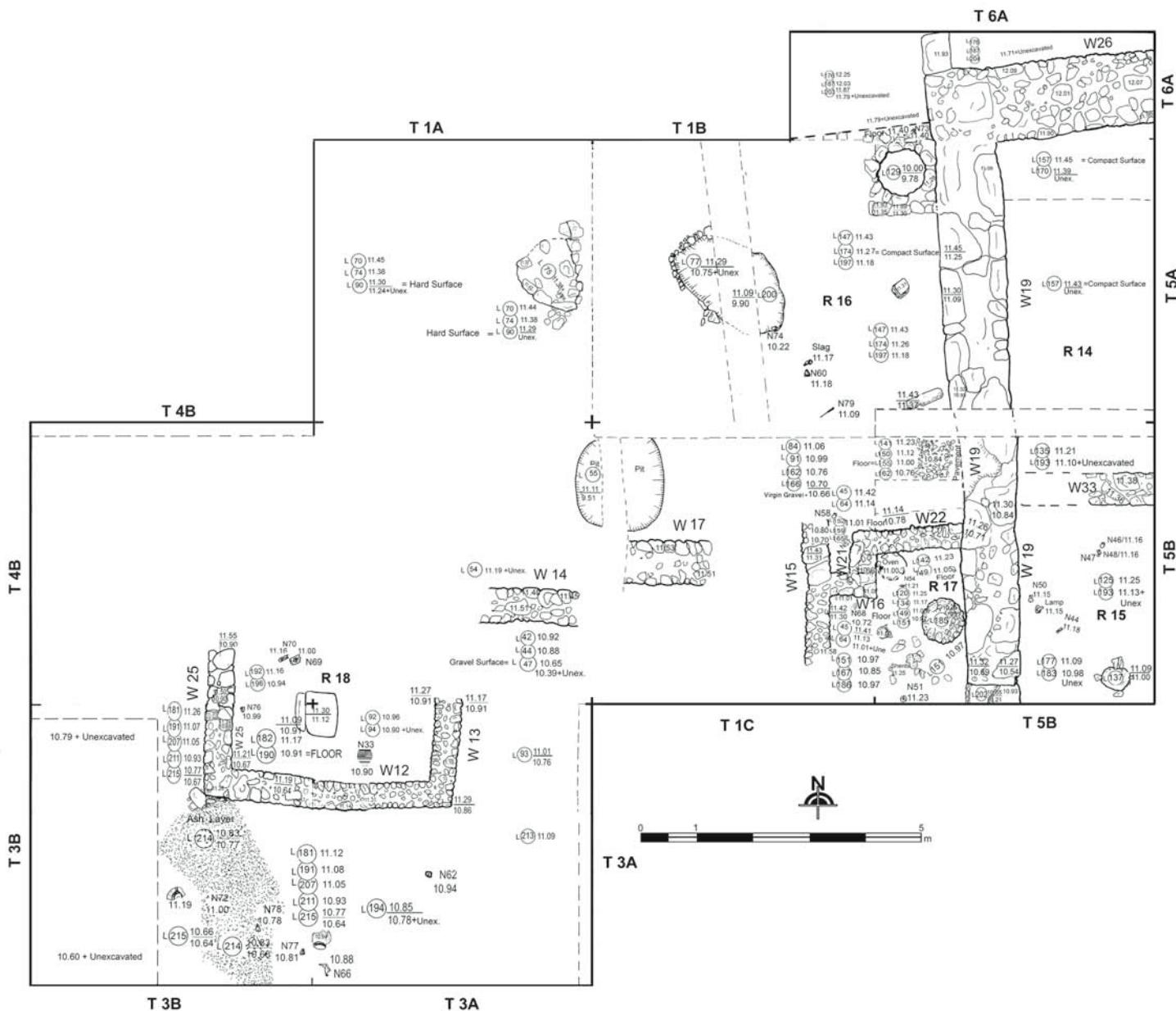


Fig. 7. Stratum 2 overview with the position of walls, loci and finds included (drawing by M. Bataineh).

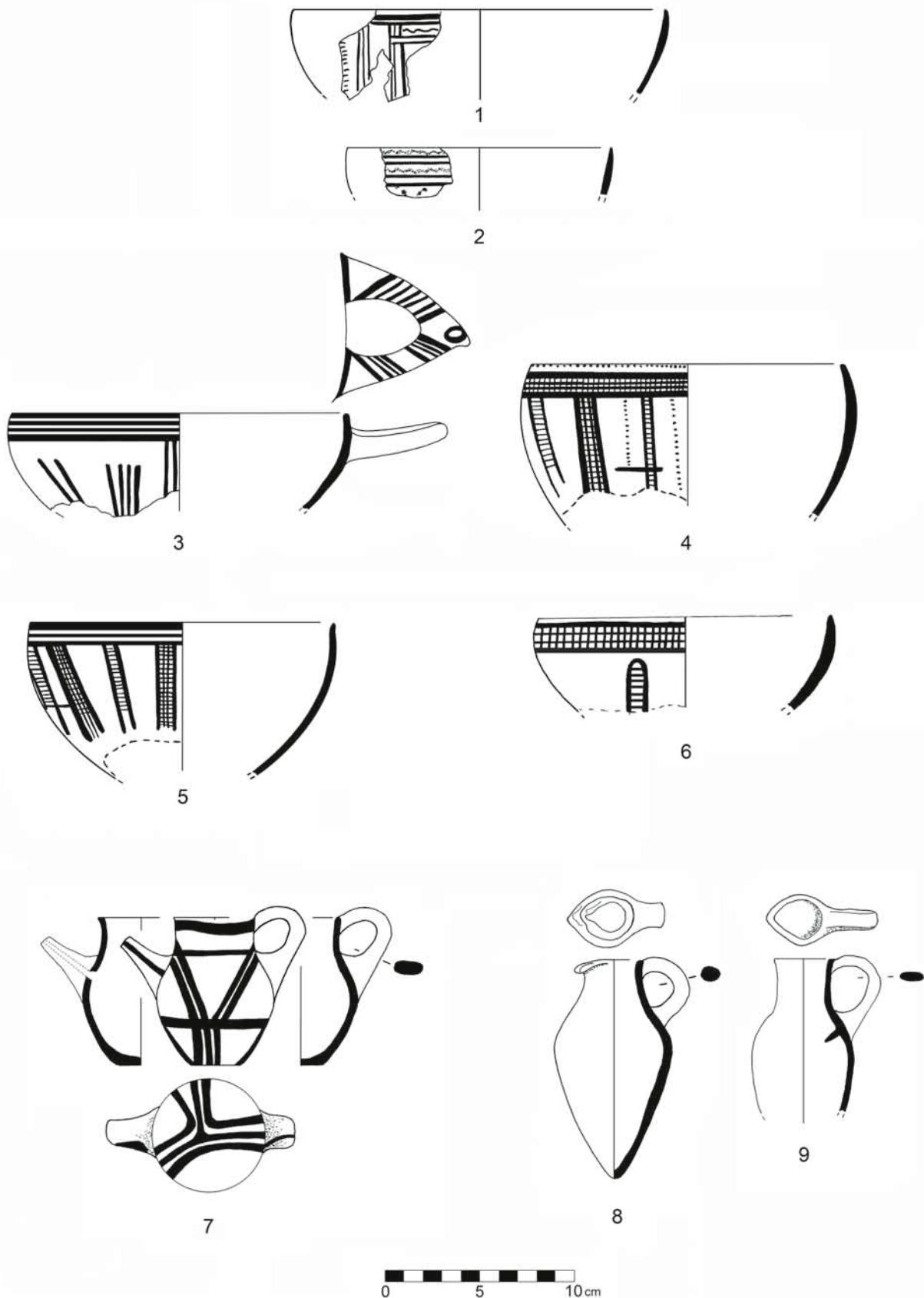


Fig. 8. White Slip I and II, White Painted VI and White Shaved vessels (drawing by M. Bataineh).



Fig. 9. Pendant-pataikos (N72) of stone (drawing by M. Bataineh, photograph by P.M. Fischer and H. Indgjerd).

which represents an open area, revealed a number of interesting finds which lay embedded in a substantial ash layer: two large Plain White Wheel-made kraters of a light green fabric, a stopper of fired clay (N62), two loom weights of fired clay (N77, 78), a carnelian bead (N66) and an unique, pendant figurine of stone (N72; Fig. 9). The pendant figurine is made of a black stone with white marbling with traits which show foreign influence, maybe from Syria/Lebanon. The dwarf-like figurine, a *pataikos*, has a pierced neck pointing to its use as a pendant. It most likely depicts a male deity: the face shows enlarged eyes, nose and mouth, but no headdress is indicated. The breasts and the hips are somewhat accentuated and so is the belly. The arms are clutched below the belly. A kilt is noticeable below the hips but it is not clear if the upper part of the body was naked or clad.

The open area is limited to the south by another wall (W29, not on the plan) which was discovered during the last day of the excavations. It is noticeable that this wall runs in a different direction, in comparison with the other walls belonging to Stratum 2, and may belong to yet another phase, Stratum 3.

STRATUM 3 (FIG. 10)

A third phase of occupation was reached in only three spots:¹⁵ one spot in Trench 5B, below R17, where two walls meet at right angles (W30, 31). The construction of these walls is different from those of the more recent strata: they are smaller, not more than 0.3 m in width. W31 seems to continue below the massive W19, which is ascribed to Stratum 2. The pottery from the area between W30 and 31 may belong to Stratum 2 because it derives from the same level as the top of the walls, and includes White Shaved and White Slip II sherds (some types in Fig. 8:3–6).

The other two spots where Stratum 3 is present are in Trench 3A (W32) and possibly W29 in Trench 3B (see above).

¹⁵ It must be emphasized that there is no stratigraphical connection between the three spots.

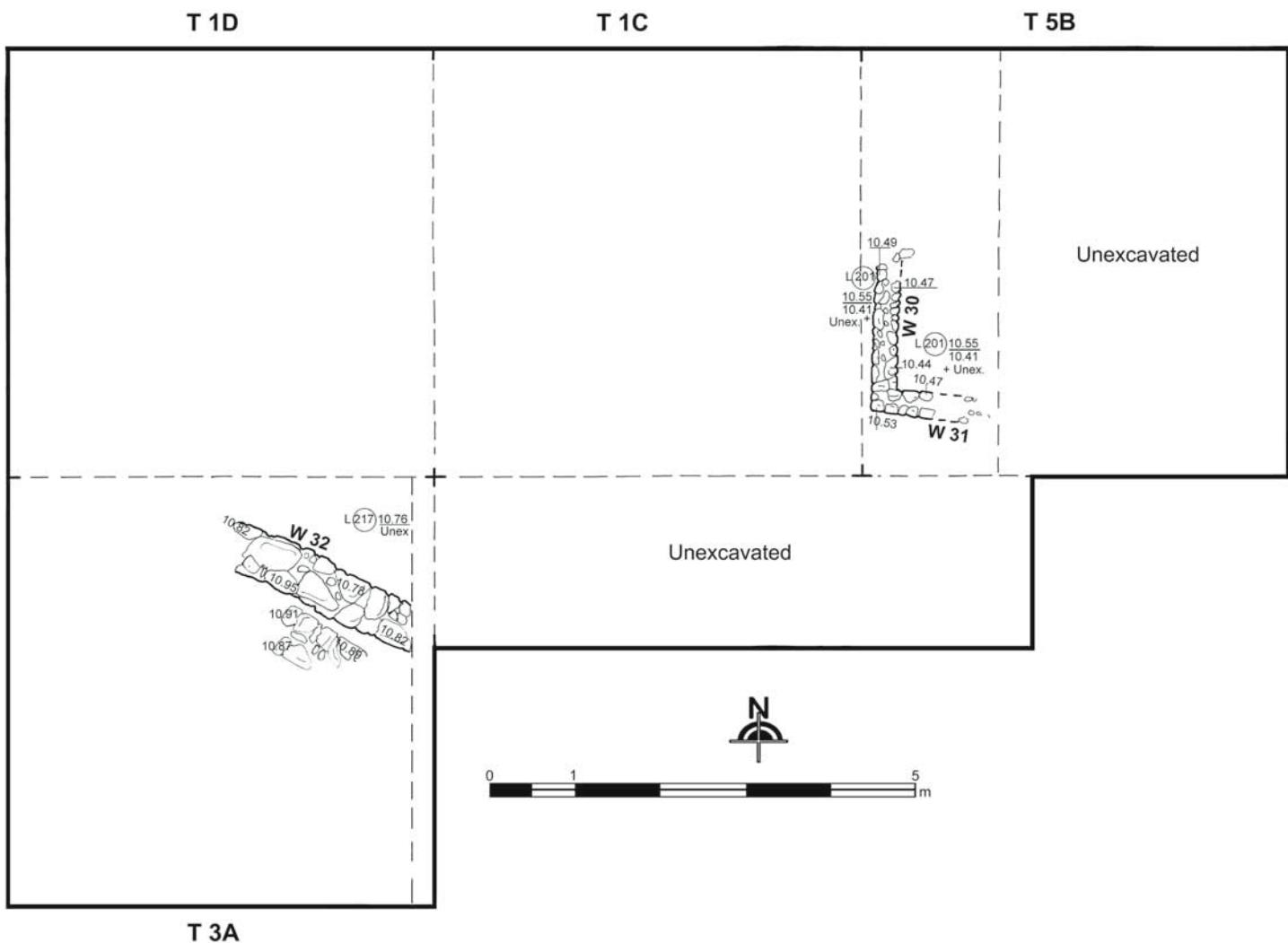


Fig. 10. Stratum 3 overview with the position of walls, loci and finds included (drawing by M. Bataineh).

Preliminary conclusions

The 12th century levels at Hala Sultan Tekke have been investigated over the course of several decades by the late P. Åström. The main objective of the resumed excavations at Hala Sultan Tekke in Area 6, which are guided by the GPR since 2010, was the investigation and determination of the complete occupational sequence of pre-12th century levels. The large, Late Cypriote complex which was discovered and partly exposed in 2010 was further excavated in 2011.

Thirteen walled spaces which belong to Stratum 1, the most recent phase of occupation, have now been uncovered. They represent working and living spaces. A few partially ex-

posed spaces, which obviously had the same functions, are from Stratum 2. From the latter is a compound with extraordinarily wide walls, which was reused in Stratum 1 and exposed in the eastern part of the excavations. Some complete vessels of Base-ring I and II and Mycenaean-type vessels derive from this Stratum 2 compound. A third stratum, Stratum 3, could only be partly uncovered.¹⁶

¹⁶ For selected sections see *Figs. 11, 12*.

Table 1. Radiocarbon dates of samples from Strata 1 and 2.

Laboratory number	Stratum	Sample	Material	$\delta^{13}\text{C} [\text{‰}]$	$^{14}\text{C}\text{-age} (1\sigma) [\text{BP}]$	Calibrated age (2 σ) (INTCAL09 / OxCal 3.10)
VERA-5408	1	H10A6T1B L32	charcoal (twig)	-33.5 ± 1.6	2955 ± 40	1310BC (95.4%) 1020BC
VERA-5409HS	1	H10A6T1B L61 Humic acids	charcoal (twig)	-28.5 ± 1.2	3005 ± 55	1410BC (95.4%) 1050BC
VERA-5410	1	H10A6T1C L82	olive stones	-22.7 ± 2.3	2955 ± 35	1300BC (95.4%) 1040BC
VERA-5411	2	H10A6T1DL55-1	charcoal (twig)	-27.1 ± 1.4	3005 ± 35	1390BC (95.4%) 1120BC
VERA-5412	2	H10A6T1DL55-2	charcoal	-27.0 ± 1.4	2935 ± 40	1270BC (95.4%) 1000BC
VERA-5407	2	H10A6T1A L90	charcoal (twig?)	-23.7 ± 0.7	2980 ± 35	1380BC (3.6%) 1340BC 1320BC (90.6%) 1110BC 1100BC (1.2%) 1080BC

In addition to absolute radiocarbon dates,¹⁷ there are also a number of primary contexts¹⁸ specifically from Room 11, which are valuable for the relative dating of Stratum 1. The six intact or complete Base-ring II bowls from Room 11 can only be roughly dated to the period from LC II to LC III (see Appendix 1). A White Slip II bowl, which belongs to the “Normal White Slip II” group, derives from the same context. A complete example of this type of bowl was found in the new excavations at Tell el-‘Ajjul (Phase H1B) and has been dated to the later part of the 18th Dynasty or LC IIB/C.¹⁹ The other ceramic wares from this, and other Stratum 1 contexts, do not allow for a more precise dating at present. The cylinder seal of haematite, which could have been recarved (see Appendix 2), is of little use for chronological considerations: it most likely represents an heirloom from the 14th century BC which was altered later on.

A few partially exposed spaces, which obviously also had domestic functions, were found in Stratum 2. However, a compound with extraordinarily wide walls which was partly exposed in the eastern portion of the excavations was also found in Stratum 2. It was reused in Stratum 1. Complete Base-ring I and Mycenaean-type vessels (FS 149) derive from this compound: ceramic parallels point to an overlapping time-span corresponding to LC IIA2–LC IIC1. A third stratum, Stratum 3, could be uncovered only at a few spots.²⁰

There are numerous sherds which belong to the first half of the Late Cypriote or even the Middle Cypriote period. However, architectural remains have not yet been found—unless they were reused. There are, for example, sherds of White Slip I (monochrome decorated in *Fig. 8:1*; and bichrome decorated ware in *Fig. 8:2*). These have counterparts from the new excavations at Tell el-‘Ajjul (Phase H4/3) which are dated to the first half of the 18th Dynasty or LC IB.²¹ Amongst the

earlier wares from another context is a White Painted VI spouted juglet (*Fig. 8:7*).

The following ceramic wares (not divided according to phases here) are represented: White Painted Pendant and Cross Line Style, Red-on-Black/Red, Red and Black Slip, Monochrome, Bichrome Wheel-made, Proto White Slip (?), White Slip I (both monochrome and bichrome decorated) and White Slip II (early, mature and late), Base-ring I and II, Red Lustrous Wheel-made, White Painted VI, White Painted Wheel-made, Plain White Wheel-made, White Shaved, Coarse and Pithei. Imports were also found, amongst which are some intact vessels from the Mycenaean sphere of culture. A few, possibly intrusive, sherds of globular jugs of Phoenician Bichrome (?) ware were found just below colluvial soil.

There are some unique discoveries amongst the small finds: one is a haematite cylinder seal with six incised panels, of obvious Cypriote origin; another is a pendant figurine of black and white marbled stone, a *pataikos*, with possible influences from Syria/Lebanon.

The importance of the coastal city of Hala Sultan Tekke is further highlighted by the new finds from Area 6, which did not produce any stratified architectural remains from the pre-2010 excavations. The find complex confirms intense intercultural relations during the second half of the Late Cypriote period. There is strong evidence from finds belonging to the first half of the Late Cypriote period, or even the Middle Cypriote period, that the city played an important role even earlier. However, distinct architectural remains have not yet been found from the early stages of existence of this city. The discovery, exposure and recording of these early remains are the main task of the future excavations. An extended ground-penetrating radar survey is planned for 2012.

PETER M. FISCHER
Professor of Cypriote Archaeology
Department of Historical Studies
University of Gothenburg, Sweden
Contact: Dörjeskärgatan 37,
SE-421 60 Västra Frölunda
peter@fischerarchaeology.se

¹⁷ Fischer 2011a, 84.

¹⁸ Primary contexts are defined as: sealed settlement contexts which were not disturbed by later activities prior to excavation.

¹⁹ Fischer 2003, 277, fig. 5:7.

²⁰ For selected sections see *Figs. 11, 12*.

²¹ Fischer 2003, 274, figs. 4:4, 5.

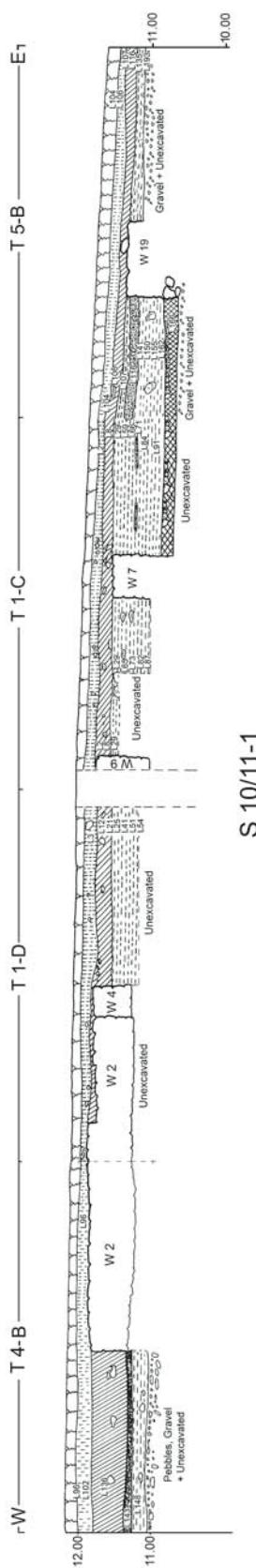


Fig. 11. Section S 10/11-1 from west to east (drawing by M. Bataineh).

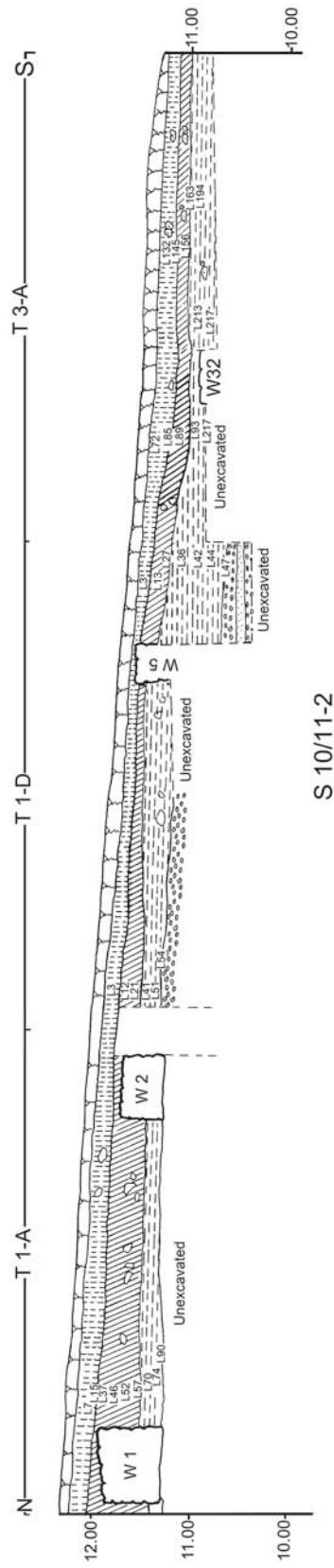


Fig. 12. Section S 10/11-2 from north to south (drawing by M. Bataineh).

Appendix I: Two primary contexts with Cypriote and Mycenaean pottery

BY T. BÜRGE

Material and context

During the 2011 campaign at Hala Sultan Tekke, two primary contexts containing a number of complete vessels were found. The two contexts follow each other stratigraphically (Stratum 1 is directly above Stratum 2, see also main article) and, therefore, allow relative chronological studies and provide hints about their absolute dates.²² In principle, complete vessels of Base-ring and Mycenaean wares will be discussed here, although other wares will also be referred to. It is important to highlight the fact that single sherds may represent residual finds and should be treated with care in connection with chronological discussions.²³ Other finds, for instance tools and jewellery, do not contribute to a meaningful chronological discussion and have been omitted.

CONTEXT STRATUM 2

The older context was found on the floor of Room 15, which is situated east of W19 and south of W33. Both walls are made of conglomerate. W19 is around 1 m wide and W33 approximately 0.6 m (preserved height of both is approximately 0.3 m). It includes two remarkably well-preserved, small Mycenaean beaked jugs (N46 and N48), a Base-ring I juglet (N50), a lamp (L125-1), a spindle-whorl (N47) and a diorite pestle (N44).

N46 (*Fig. 6:2*): Small Mycenaean beaked jug, wheel-made, hard fired, light orangish-brown fabric, fine, yellowish-brown slip, orangish-red decoration.

N48 (*Fig. 6:1*): Small Mycenaean beaked jug, wheel-made, hard fired, light orangish-brown fabric, fine, yellowish-brown slip, orangish-red decoration.

N50 (*Fig. 6:3*): Small Base-ring I juglet, complete (part of handle missing), hand-made, hard fired, light brownish-red fabric, grey core, medium fine, light brownish-red slip, worn grey wash.

L125-1 (*Fig. 5:4*): Lamp, wheel-made, medium hard fired, light brownish-yellow fabric, medium fine, self-slip, traces of secondary firing on spout.

CONTEXT STRATUM I

The more recent context was exposed in Room 11, which had the same dimensions (so far exposed) as Room 15, as both W19 and W33 were reused or used as foundations for the structures of Stratum 1.²⁴ Three intact Base-ring II bowls (N38, 39, 40) were lying on the floor (L116). Four more (L107-5, 8, 9, 10) were broken, but their complete profiles could be reconstructed in three cases; the base of L107-8 is missing. Fragments—mostly handles and rims—belonging to approximately three more bowls of the same type were found on the floor of R11, as well as a cylinder seal of haematite with six panels (N41; *Fig. 4a–b*; see Appendix 2 by L. Franz), a lead bead or weight (N43), three White Painted Wheel-made bowls (L107-2, 3, 4) and fragments of a White-Slip II bowl (L107-6).

N38 (*Fig. 6:5*): Base-ring II bowl, hand-made, very hard fired, light red fabric, thick grey core, self-slip, grey wash.

N39 (*Fig. 6:6*): Base-ring II bowl, hand-made, very hard fired, light red fabric, thick grey core, self-slip, grey wash, worn.

N40 (*Fig. 6:4*): Base-ring II bowl, hand-made, very hard fired, light red fabric, thick grey core, self-slip, grey wash, worn.

L107-5 (*Fig. 6:9*): Base-ring II bowl, hand-made, medium hard fired, light red fabric, thick grey core, self-slip, light red wash, very worn.

L107-8 (*Fig. 6:8*): Base-ring II bowl, hand-made, hard fired, light red fabric, thick grey core, fine, self-slip, dark grey wash, very worn.

L107-9 (*Fig. 6:4²⁵*): Base-ring II bowl, hand-made, hard fired, light red fabric, thick grey core, fine, self-slip, dark grey wash, very worn.

L107-10 (*Fig. 6:5*): Base-ring II bowl, hand-made, medium hard fired, light orange fabric, medium fine, whitish-orange slip, very worn.

²² See the radiocarbon dates in Fischer 2011a, 84.

²³ Fischer 2006, 359–362.

²⁴ See above, main article.

²⁵ The two Base-ring II bowls N40 and L107-9 are almost identical and shown in the same drawing: *Fig. 6:4*.

L107-2 (*Fig. 3:9*): White Painted Wheel-made bowl, hard fired, light brown fabric, medium fine, yellowish-white slip, light reddish brown decoration.

L107-3 (*Fig. 3:12*): White Painted Wheel-made bowl, medium hard fired, light brown fabric, medium fine, light yellowish-brown slip, reddish-brown decoration.

L107-4 (*Fig. 3:11*): White Painted Wheel-made bowl, medium hard fired, light orangish-brown fabric, fine, light reddish-yellow slip, red paint.

L107-6 (*Fig. 8:6*): White-Slip II bowl, hand-made, hard fired, brownish-red fabric, medium fine, thick greyish-white slip, dark brown decoration.

Shapes and parallels

CONTEXT STRATUM 2

Base-ring I juglet (*Fig. 6:3*)

Juglets are common amongst the Base-ring I ware repertoire. However, the vertical relief decoration on the body, two parallel ridges joined at the upper end²⁶ and especially the trefoil spout are rare. The best parallel so far found is in Medelhavsmuseet, Stockholm;²⁷ another similar juglet was found in Enkomi but this has white painting on the neck.²⁸

Mycenaean beaked juglets (*Fig. 6:1, 2*)

The depressed globular shape of the two Mycenaean juglets, with one handle from the rim to the shoulder and a narrow neck, corresponds roughly to FS 149.²⁹ Parallels outside of Cyprus can be found in Rhodes³⁰/Ialyssos,³¹ Aigina³² and Eleusis,³³ at Eleusis with flat base. However, the shapes of the spouts and the decoration differ from our examples. Five vessels from Cyprus, viz. one from Hala Sultan Tekke,³⁴ two

from Maroni³⁵ and two from Kition,³⁶ are the closest parallels so far, the two from Kition being almost identical to those from Hala Sultan Tekke. The elongated trefoil spout apparently only appears in the Cypriote examples from Hala Sultan Tekke and Kition. The horizontal band and line decoration on the body and neck of two of the Cypriote samples also contrasts with the aforementioned Aegean vessels, which have additional decoration.³⁷ Painting on the rim and the outer part of the handle is common to all these vessels.

CONTEXT STRATUM I

Base-ring II bowls (*Fig. 6:4–9*)

The seven Base-ring II bowls exhibit three different shapes, all of them, however, slightly differing in size: N38 and 107-5 have a defined carination.³⁸ N40 and 107-9 are similar to each other, almost identical, but have wider rims. In comparison with these examples, N39, 107-8 and 107-10 are smoothly carinated.³⁹ These Base-ring II bowls are common finds in Cypriote Late Bronze Age contexts.⁴⁰ Also our White Slip II bowl (*Fig. 8:6*) is a common find in contexts where Base-ring II is found.

Possible influences

While the Base-ring vessels belong to the typical pottery repertoire, parallels with the Mycenaean juglets are difficult to find. There are many similar vessels from the south-eastern Aegean, differing, however, in terms of decoration and the shape of their spouts. Nonetheless, the closest parallels were found in Cyprus. Here, the simple band decoration and the trefoil spout appear to be characteristic. The latter attribute might have been influenced by local Base-ring juglets with trefoil spouts,⁴¹ for instance our N50. Vessels of shape FS 149 have not been recorded in the Levant.⁴² These observations

²⁶ Åström 1972a, 160.

²⁷ Inv. no. acc. 709; see Sjöqvist 1940, 36 fig. 7, 3b; also Åström 1972a, 160; pl. 50, 1. Type VID 2b γ' with further parallels.

²⁸ Tomb 10: Dikaios 1969, pl. 212, 5.

²⁹ See Furumark 1992, 83. Other similar shapes might be FS 112, FS 114 and FS 144.

³⁰ Benzi 1992, pl. 154 i; 154 l.

³¹ Tomb 31: Mountjoy 1999, 998 fig. 404, 31; 999; also Benzi 1992, pl. 54 g.

³² Hiller 1975, pl. 29, 267, 268.

³³ Mountjoy 1999, 527 fig. 188, 143; 528; also Mylonas 1975, pl. 191 8, 900.

³⁴ Tomb 2: Karageorghis 1976, pl. 58, 195; 77, 195.

³⁵ Tomb 14: Johnson 1980, pl. 19, 99 (classified as a variant of FS 144); Tomb 23: *ibid.*, pl. 36, 178.

³⁶ Walters 1900, fig. 124, 109; also Kiely 2010, 72 fig. 3. Karageorghis 1981, pl. 4, 10; 11, 4.

³⁷ Except for two vessels from Rhodes, see Jasink & Bombardieri 2009, 383, pl. 90, RO.024; RO.025; with slightly different shapes of body and spout.

³⁸ See parallels in Åström 1972a, pl. 52, 7.

³⁹ See parallels in Åström 1972a, pl. 52, 5.

⁴⁰ E.g. Enkomi, Areas I and III, Tomb 10: Dikaios 1969, pl. 62. 95. 212; Kition, Area I and II: Karageorghis & Demas 1985, pl. 38 and 61 (No. 1149A, 1153/2, 1149/B); pl. 107 (No. 3047, 3045); pl. 111 (no. 4920, 4949, 2212, 2213, 2214); pl. 113 (no. 4283, 3687, 4263, 4255, 4293).

⁴¹ Also S. Deger-Jalkotzy, personal communication with P.M. Fischer, June 2011.

⁴² Leonard 1994, 41.

suggest that such juglets were produced for the Cypriote market, maybe outside the Mycenaean mainland, and adapted to Cypriote taste.

Chronological conclusions

According to Åström, Base-ring I ceramics are documented with a high amount of certainty between LC IA2 and LC IIA2, while Base-ring II wares occur primarily between LC IIA1 and LC IIC2 but later occurrence has been reported.⁴³ However, this chronology and typology of Base-ring ware, which is primarily based on differences in shape and decoration,⁴⁴ has been challenged by Vaughan who suggests a classification of Base-ring wares according to material and technical features.⁴⁵ With reference to Vaughan, juglet N50 from Stratum 2 can be classified as “red burnished” (LC IA–LC IIC), while bowls N38–40, 107–8 and 107–9 from Stratum 1 belong to the group with “metallic slip” (LC IA–LC IIIB), and bowls 107–5 and 107–10 also from Stratum 1 to “uncoated or matte slip” (LC IIB–LC IIIB or LC IB–LC IIIB).

Our White Slip II bowl, also found in Stratum 1, belongs to the “Normal White Slip II” group which was also found at Tell el-Ajjul in Stratum H1B, for instance, and has been dated to the second half of the 18th Dynasty or Late Cypriote IIB/C.⁴⁶

Parallels of the Mycenaean beaked jugs from Stratum 2, and FS 149 in general, are dated to LH IIIA2/B1,⁴⁷ which corresponds roughly to LC IIA2–LC IIC1.⁴⁸

Thus, according to these two contexts, the dating of Stratum 2 can be restricted to the period between LC IIA2 and LC IIC (according to the Base-ring dates by Vaughan, see above), while Stratum 1 can—based on pottery evidence—only be dated roughly to the period from LC II to LC III. This relative dating is not contradicted by radiocarbon dates.⁴⁹ Differentiating the contexts in absolute chronological terms, however, remains a problem, as the two contexts may have been deposited within a year or a couple of decades of each other.

⁴³ Åström 1972b, 700–701.

⁴⁴ But also on the fabric, see definitions in Åström 1972a, 137 (Base-ring I); 173–174 (Base-ring II).

⁴⁵ Vaughan 1991, 27; also Vaughan 2001.

⁴⁶ Fischer 2003, 277, figs. 5, 7.

⁴⁷ See e.g. Mountjoy 1999, 528, 999 (LH IIIA2); Karageorghis 1976, 77 (LH IIIA2–LH IIIB); Karageorghis 1981, 7 (LH IIIB); Benzi 1992, 299 (LH IIIA2); *ibid.*, 461 (LH IIIA–B); Johnson 1980, 28 (LH IIIA2b–LH IIIB); examples from Jasink & Bombardieri 2009, 341–342 (RO.024 and RO.025) are dated to LH IIIC (?).

⁴⁸ Åström 1972b, 760, 762.

⁴⁹ Fischer 2011a, 84.

Appendix 2: The cylinder seal

BY L. FRANZ

Material and description

CYLINDER SEAL (N41; FIG. 4a–b)

Haematite, 2.2 cm × 0.8 cm, d. of hole 0.25 cm, weight 5 g. The seal depicts six incised panels of approximately the same size, separated by a continuous horizontal line and three vertical dotted lines.⁵⁰ The three panels of the upper register display representations of humans: the first panel depicts two persons, grouped antithetically around a standard. The next panel depicts a seated figure in a long robe holding up a cup, facing two to three rosettes (grapes?) arranged vertically in front of the person. The third panel depicts a long robed, human figure to the right and another—not necessarily human—figure to the left. The panels of the lower register are decorated with a tree, a winged griffin or sphinx, and a bull’s head. Remains of red colour were found in the depressions of the carvings.

PARALLELS

The separation of the seal’s design into panels is a phenomenon which rarely appears. There are only a few examples from the Near East⁵¹ and the Aegean.⁵² One of them, seal no. 906 from the Ashmolean Museum, bears some resemblance to our seal.⁵³ Here, however, only the similarities with our seal will be discussed. Seal 906 from the Ashmolean Museum also has six panels. Even though the separating lines are more distinct, and thicker in comparison with our seal, the two seals bear the same overall appearance, viz. six almost-square panels, with one to two humans or animals each. Notwithstanding the fact that the two seals are stylistically different, there is a striking similarity in the motifs of two of the panels: Ashmolean 906 displays the same juxtaposition of a sitting person with raised hand in front of three rosettes/grapes in the upper register and a sphinx in the lower register.

⁵⁰ Description according to seal impression.

⁵¹ For citation cf. Collon 1975, 102.

⁵² Cf. Porada 1970, 13.

⁵³ A detailed description of the design of this seal, Ashmolean 906, can be found elsewhere. Cf. Buchanan 1966, 168.

DISCUSSION

Upper panel

1. Two humans grouped antithetically around a stylized tree or standard with a globe on top: both are shown grasping the standard with their hands, standing on one leg and lifting the other leg with the knee bent, possibly indicating a dance movement. The motif of two people grasping a globe-topped standard frequently occurs in Syrian glyptics.⁵⁴

2. A person sitting on a chair, wearing a long robe and holding up a cup, facing two or three rosettes or grapes arranged vertically in front of him/her: this is almost exactly the same motif as in Ashmolean 906.

3. A female person with long robes and raised hands, standing behind a figure that may be human. The latter has an elongated, finely hatched body which is rounded at the bottom, a v-shaped horizontal feature pointing towards the female person. Two thin lines are protruding from what seems to be the back of its head. The combination of the elongated, hatched body and V-shaped element resembles a locust: the hatchings may indicate the exoskeleton, the V-shaped element its legs; the lines at the back of the head can be interpreted as the antennae of the animal.

Lower panel

1. The short stem of the tree is created by three drill-holes. The rounded crown of the tree consists of radially arranged lines, each ending in a drill-hole. On both sides of the lowest part of the crown, there is a hanging feature which probably represents a cluster of dates.

2. The mythical creature could be either a sphinx or a griffin, with its hind legs crouched below the body and the tail pointing upwards. It has a hatched body and the wings appear to be carved quite diligently in comparison to the overall style of the design. Considering Ashmolean 906 as a parallel, it is more likely to be a sphinx.

3. Bucrania, made up of drill-holes of different dimensions with a roundish element directly above them can be observed in other Cypriote seals (see e.g. the stylistically different Ashmolean 957 and 963).

Style and provenance

The design is cursorily engraved on our seal: the heads of the figures are simply drilled, giving them a quite schematic overall appearance. The bodies are basically coarsely rendered and indistinctly shaped, but there are some striking differences: the sphinx, as well as the two figures in the unclear scene in the third panel of the upper register, appear to be executed more thoroughly compared to the others, and only these three figures are decorated with fine hatchings. In spite of lacking stylistic similarities, Ashmolean 906 can be regarded a parallel for our seal. Although it was found on the island of Kos, Ashmolean 906 is catalogued as belonging to the “Old Syrian Style” by Buchanan.⁵⁵ With reference to the sphinxes, he points out the possibility that it could be “a very early example of Cypriote cylinder-seal glyptic”, with the reservation that evidence for a cultural milieu in Cyprus around 1600 BC, in which this seal might have been produced, was lacking. Anyway, almost fifty years of scientific research in Cypriote Bronze Age culture later, his reservations can be dismissed. Porada agrees with the idea of Ashmolean 906 being an early example of Cypriote glyptic; she generally suggests an Aegean origin because of the panel design and assumes the prototypes to have been in gold.⁵⁶ She even goes as far to say that “we have failed to see the obvious, namely, that the magnificent ‘Syrian’ cylinders with a mixture of Syrian, Aegean, and some Egyptian elements were actually made in Cyprus”.⁵⁷ Our seal supports her hypothesis.

As to stylistic aspects, it is quite difficult to find good parallels. The repertoire of motifs is best reflected in *Flüchtig Plastischer Stil, Gruppe 2. Zyprische Gruppe*, dating to the 14th century BC.⁵⁸ This group comprises depictions of humans, sphinxes, griffins, trees as well as *bucrania*. No. 427, especially, bears a stylistic resemblance to our seal, depicting a woman, a sphinx and a tree.

⁵⁴ Cf. e.g. Otto 2000, nos. 132, 139, 146.

⁵⁵ Buchanan 1966, 168.

⁵⁶ Porada 1970, 13.

⁵⁷ Porada 1971, 783.

⁵⁸ Salje 1990, 130.

Concluding remarks

If we accept the above cited references, it seems that our seal was produced in Cyprus and may be a descendant from older prototypes but carried out in the style of the 14th century BC and using the motif repertoire from this period. This would suggest that our seal is an heirloom, because the context in which it was found is later (see main report). It has also been hinted that our seal could have been recarved,⁵⁹ which could explain the red colour found in the carvings which may be the remains of pulverized haematite.⁶⁰ This would also account for the differences in the diligence of the execution of the figures. However, the residue of red colour in the carvings may also suggest that the seal was used to stamp coloured motifs, for instance, on fabric: an accumulation of murex shells in one of the adjacent rooms points to the production of purple in the building where the seal was found.

Appendix 3: Reflections on the architecture from Areas 6, 8, 21 and 22 at Hala Sultan Tekke

BY R. FELDBACHER

Introduction

The aim of this preliminary study is to compare the architecture from the new excavations in 2010 and 2011 in Area 6 with the architecture from P. Åström's excavations in Areas 8, 21 and 22.⁶¹ The latter three areas have been chosen because they are quite close to each other, and the direction of their walls supports the assumption that they are part of the same city quarter, whereas Area 6 lies somewhat closer to the ancient harbour (the present Salt Lake) and is on a higher level. The local topography, with its rather flat terrain, favoured the planning and building of well-defined orthogonal quarters.

Results

AREA 6

The 2010 campaign in Area 6, which was preceded by a GPR survey,⁶² uncovered a structure belonging to an at least 25 m long compound with a roughly WSW–ENE running wall on the north side, against which rooms were built south of this wall. Not unexpectedly, the structures in Area 6 are fairly similar to those from Areas 21 and 22, as well as Area 8. The walls are, in general, double-faced walls with the largest and most even blocks placed outwards, and rubble and small stones between the façade stones.

The building material for the walls in Area 6 consists of either coarsely cut or naturally rounded limestone or, more rarely, conglomerate. Ashlar blocks of stones as façade material were not used in the hitherto exposed compound. The interstices were filled with soil, and sometimes with pure clay. The average width of the walls is about 0.65–0.75 m and the

⁶¹ Negbi 2005, 7.

⁶² Fischer 2011a, 70–72; 2011b in press. The advantage of pre-excitation prospecting, followed by targeted excavation, is demonstrated by the fact that the random test trenches in the north of Area 6 in the 1970s only exposed some rudimentary structures (Åström 1983, 61).

⁵⁹ Personal communication: P.M. Fischer with D. Collon (BM, London) and J. Smith (Princeton); Smith in press.

⁶⁰ Analysis of the red colour is planned.

preserved heights are up to 0.5 m. Generally, larger stones were used for the lower courses whilst the upper courses contain smaller stones and sometimes also pithoi sherds. In general, larger rectangular stones were used as binders between the walls. Stone slabs, which served as thresholds, were frequently found. Havara floors were common.⁶³ There are no finds, thus far, which indicate the nature of the roofs but it is presumed that they follow the common pattern in the eastern Mediterranean, namely, that they are built of sun-dried mud-brick reinforced with straw/reed/twigs.

Mud-brick (or pisé) on flat stones was used for the upper parts of the structures, traces of which were exposed. The walls were usually built directly on top of the soil. Proper foundation trenches could not be verified so far, but some sort of "levelling" has been carried out. Internal division walls do not follow any strict pattern. Some of the joining walls, at an approximate right angle, have interlocking stones—but not always (see e.g. W1 and W7 which means that W7 was built after W1). The spaces inside the compound are obviously arranged randomly, as most of them were roofed but others were open or had partly-roofed courtyards.

In 2011, in the eastern part of the hitherto exposed compound, a 1.3 m wide wall (W26) was exposed, attached to the northern wall of the compound (W1). It was built of large blocks of conglomerate and limestone. This wall was originally built in Stratum 2 and reused in Stratum 1. In two of the southern trenches (T5B and T3A) there are remains of a third phase of occupation, Stratum 3, of which only a few walls (which do not differ) have been exposed so far.

From the trial soundings in the 1970s in Area 6, the direction of most of the structures of Stratum 1 is WSW–ENE and NWN–SES but in the southern part the direction is NS–EW. In the northern part of the southern sector of Area 6, some of the widest walls, although badly preserved, were found (F2083 and F2084 with widths of 1.2 m and 1.3 m). They were preliminarily interpreted as parts of a city-wall or fortification.⁶⁴

AREA 8

The stone walls from Layer 3 correspond in general to those from Area 6. The main difference between Areas 6 and 8 is that Area 8 contains walls built of ashlar blocks.⁶⁵ The average width of the walls is 0.7–0.9 m, going WNW–ESE and NNE–SSW.⁶⁶ The walls are partially covered with worked

slabs of limestone, for instance Room 1 which has a built floor.⁶⁷ Water installations and wells were frequently found.⁶⁸

AREA 21

The buildings in Area 21 run WNW–ESE.⁶⁹ The walls also have an average width of either 0.4–0.5 m, or 0.65–0.75 m. F5025 in Area 21 is a wider wall which was obviously built to support a heavier structure.⁷⁰

AREA 22

Most of the walls in Area 22 (and Area 8) run NNE–SSW and WNW–ESE, indicating that the two areas were connected.⁷¹ The material consists of hewn blocks and rough stones. The hewn blocks have an average dimension of approximately 0.3 m × 0.2 m × 0.15 m, the stones are somewhat smaller.⁷² In a few places, depending on the local topography, certain structures were built on terraces, for instance in this area. The surface below the frequently found Havara floors was levelled before the transverse walls were built.⁷³

Discussion and concluding remarks

Synchronization based on pottery is beyond the scope of this study. It is so far not possible to synchronize the occupational phases of the discussed areas with radiocarbon dates, since radiocarbon dates of short-lived samples are only available from the new excavations in Area 6. The general layout of the structures and the building material are comparable. The partially exposed eastern compound of Area 6 is fairly large and suggestive of an official building.

Finally, some reflections on the dating of the compounds based on the shape of the structures should be mentioned: Åström dated the main occupational phase of Area 8 to the Late Cypriote IIIA period, whereas Negbi claims that the π-shape of the buildings in Area 8 is diagnostic of LC IIC.⁷⁴ Nevertheless, the discussion on dating the various occupational phases and, in particular, their abandonment cannot be resolved by studying the typology of structures. There are structural similarities with Enkomi and Pyla-Kokkinokremos at the end of the Late Cypriote period, and with compounds at Ras Shamra (Ugarit).⁷⁵

⁶³ For the definition of Havara floors, see: Hult 1981, 15.

⁶⁴ Hatziantoniou 1983, 107; see also Åström 1983, 72–105.

⁶⁵ An overview of Area 8: Åström 1989, fig. 3.

⁶⁶ Hult 1978, 2 and 23–26.

⁶⁷ For the description of the individual slabs: Hult 1977, 74.

⁶⁸ Hult 1977, 76–79.

⁶⁹ Frizzell 1977, figs. 11–13.

⁷⁰ Frizzell 1977, 38.

⁷¹ Hult 1981, 15–16 and fig. 1,48.

⁷² Öbrink 1979, 10.

⁷³ Öbrink 1979, 20.

⁷⁴ Cf. Wright 1992, 212.

⁷⁵ Hult 1981, 20.

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