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Preliminary Report on the Second Season of Excavations of the Italian-Palestinian Expedition at Tell es-Sultan/Jericho, 1998

Nicolò Marchetti* - Lorenzo Nigro* - Hamdan Taha**¹

Introduction

The second season of excavations of the Italian-Palestinian Expedition at Tell es-Sultan/Jericho took place in 1998 under the auspices of the Palestinian Department of Antiquities of the National Authority of Palestine, the University of Rome "La Sapienza", and the Italian Ministry of Foreign Affairs.² In the framework of the main goal of the Expedition, which is the investigation of the urban topography of the Early and Middle Bronze Age town, the aims of the 1998 season were to prosecute the excavations of Areas A and B, while two other new areas were opened on the ground: in Area F it was intended to explore a large domestic quarter visible on the surface in the northern part of the tell, while in Area E to check the nature of a stone corner identified in 1997 in the north-western part of Area A (Fig. 1); a limited rescue sounding has also been carried out in Area D. Further, another main scientific goal is to obtain a fine periodization of the material culture in the Lower Jordan Valley seen in a historical perspective and to pursue the interdisciplinary approach set up in the first campaign.³ Finally, the valorization of the site was also continued through restorations and realization of touristic facilities on the tell. The preliminary results are illustrated in chronological order.

Area F

Area F was chosen because of its location approximately in the middle of the northern half of the EB III town, at the intersection of previous excavations (Fig. 1).⁴ A 7 m-high section on the south-western limit of Garstang's north-eastern

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² The Expedition has been directed by N. Marchetti and L. Nigro, with the coordination of P. Matthiae, and by H. Taha, with the field direction of J. Yasin. To the 1998 season, held in October-November, have participated, in addition to the directors, the archaeologists B. Panciroli, E. Ascalone, F. Zagari, A. Lisella, S. Antonetti; M. Ghayada, Kh. Khanfar, I. Abu Ghosh, F. Aql and M. Mustafa (also flotation responsible); architects F. Nigro and N. Abu Jdey, draughtsmen C. Putti and I. Iqteit, restorers V. Di Dio and M. Diyab. For the conventions employed here see Marchetti - Nigro - Sarie' 1998: note 2 (with the only addition of the siglum C.=Cut).

³ See the Appendixes in Marchetti - Nigro 1998: 205-254. The analysis of osteological and palaeobotanical materials from the 1998 season is in progress.

⁴ Sellin's excavations recovered a residential quarter between Area F and the northern Inner City-wall (*Hauptmauer*: Sellin - Watzinger 1913: 36-38, fig. 17, pls. 8, II), while Garstang excavated an adjoining area to the east (Garstang - Droop - Crowfoot 1935: pl. XXIII).

trench, in Kenyon's Squares EII-IV (Kenyon 1981: pl. 322), shows a very thick stratigraphy, spanning most of the Early Bronze Age II-III periods at Jericho (Sultan IIb-c). To the south of this section there was a flat terrace, where substantial mudbrick structures appeared on the ground. On the basis of this evidence, four squares (BfII10, BfII11, BgII10, BgII11) have been excavated with the following archaeological goals: 1) to obtain more data concerning the EB III town; 2) to check Sellin's and Garstang's plans and the precise chronology of those structures; 3) to collect an assemblage of stratified materials from what appeared to be an EB II-III domestic quarter; 4) to start the building up of a detailed stratigraphic sequence for the Early Bronze Age.

Stratigraphy

The uppermost stratum was a shallow accumulation of sherds (F.313) discarded by previous excavators along the southern limits of BfII11-BgII11.⁵ In BfII10 a floor (L.300) of beaten earth with small sherds and pebbles, and an adjoining stone foundation wall (W.301), east-west oriented, emerged on the ground, apparently dating from Period IVb (MB II, 1800-1650 B.C.).⁶ L.300 covered the upper layer of a 3.5 m wide-1.2 m deep pit (P.308b), filled with ashy soil (F.308a), which was sunk in the middle the western side of the area (BfII10-BfII11).⁷ P.308b cut another large refuse pit (P.309b), located in the south-western corner of BfII11. P.309b was sunk at a deeper elevation in respect of P.308b; its inner filling (F.309a) has been interpreted as resulting from one or maximum two discharging activities: it contained broken mudbricks, ashes, medium size stones, and few diagnostic ceramic materials, dating from Period IVa (MB I, 2000-1800 B.C.). A unique find from this filling is a clay figurine, possibly representing a female personage (TS.98.F.30). Its body is decorated by small circular impressions and on the rear side it shows the technique of manufacture, with a central core, to which the other parts of the figurine are applied (Fig. 3).

The pits had cut an EB IV silos (S.310) lying on a thick layer of collapsed and destroyed materials, spread over the whole area, which seals mud brick structures of some domestic units from Period IIIc1 (EB IIIA, 2600-2450 B.C.). Four main stratigraphic phases have been distinguished, which actually represent the last utilization of these houses, since the excavations have not yet reached the earliest foundation layer.

The Houses of Period IIIc1 (2600-2450 B.C.)

Below a thick layer of broken bricks and ashes, representing the collapsed superstructures of the buildings under excavation, three main domestic units have been brought to light (Fig. 4).

Structural phases - Activity 5 has revealed two building phases and two dismantling and destruction layers, namely, in chronological sequence, Operations 5d-a. An earliest phase, has been detected only in BgII11 and BfII11 (on the

southern limit of the excavated area), where W.318, and its related floor L.319b, a mud brick structure parallel to the former (W.322) and possibly the floor east of it (L.323b)⁸ indicate the existence of a building phase (Act. 6) preceding the one extensively brought to light. To the second phase of use (Act. 5), which shows two main rebuildings, belongs the central unit (House L.305), delimited by W.302, the main wall of the entire complex (7 m long, 0.8 m width), and walls W.326 and W.316+W.330. W.302 is also a boundary wall of the large unit to the north (House L.303), delimited by two converging walls (W.304 and W.306), both built with irregular (largely re-employed) mud bricks displaced according to a particular pattern (Fig. 10, foreground). In the central unit, the walls surrounding the entrance room are completely rebuilt (W.328 to the west and W.324 to the east), or partly repaired. The last architectural phase (Oper. 5b), is sealed by a layer of collapse (Oper. 5a).

Architecture and findings - As the join with Sellin's plan reveals,⁹ the houses of Area F can be connected to the EB III road network, already investigated also by the two British expeditions, north and east of the present limit of excavation.¹⁰ Two converging streets ran respectively north-east/south-west (L.307b-c) and north-west/south-east (L.329): the first one bounds the domestic units to the west, along the limit of the excavated area. Below a stratum of collapsed bricks (F.307a),¹¹ the upper surface of this street (L.307b) has been brought to light, paved with small sherds and stones and sloping gently northwards (elev. 13.70 to 13.61).

The central unit - The main domestic unit so far identified is located in between the two streets, in the middle of the excavated area (Fig. 5). It is rectangular in shape, 8.2 m (E-W) by 5.5 m (N-S), and is subdivided into two rooms. The entrance (D.331) is located in the south-east corner. It gives access to a rectangular room (3.5 x 1.9 m), paved with beaten earth (L.327). The doorway has preserved the raised threshold made of a large brick, and its stone socket. Walls have a very short elevation. The highest preserved structure is on the north side (W.302), where it reaches a height of 1.2 m. A bench occupied the NE corner, while the bottom of a hole-mouth storage jar was sunk into the floor in the middle of the room. A second door aligned with the main entry, also provided of stone socket (found not far from the doorjamb) leads to the central square room (4.0 x 3.8 m). Here the stratified deposit was more than 1 m high, and three different phases have been distinguished.

The earliest stratum reached (L.305c) was a thick destruction layer, with ashes, broken mudbricks and various vessels and objects smashed on a floor of compacted reddish earth (L.305d). Apart from some Cananean blades, stone tools included flint scrapers, basalt pestels, and a barrel-shaped weight, corresponding to 3 shekels of 7.80 gr., a unit also known from other sites from northern Palestine and the Levant.¹² Other objects retrieved were pierced sea-shells, two bone nails, and two fragmentary *bullae*, belonging to the sealing of a storage-jar and of a lock,

⁵ In BgII10 these materials formed a regular surface of 2.5 x 2.0 m (L.317).

⁶ Very few *in situ* materials were found on L.300; the chronological attribution to Period IVb is thus that provided by pottery retrieved dismantling this structure, among which pieces of a red-slip carinated bowl of this period were found.

⁷ Though full of residual materials clearly deriving from the EB III structural levels which it had cut, pit P.308b stratigraphically belongs to an early phase of Period IVb.

⁸ Only a later reconstruction of this pavement has been exposed so far (L.323a).

⁹ Sellin - Watzinger 1913: pl. II.

¹⁰ Garstang - Droop - Crowfoot 1935: pl. XXIII; Kenyon 1981: pls. 319b-320.

¹¹ These are partly deriving by the collapse of W.306, partly by rasing activities which took place at the establishment of the overlying W.301 of Period IVb.

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as it shown by the rectangular impression (Fig. 6). The latter finds hint at some kind of control on the distribution and storage of goods.

A second layer of occupation (L.305b), represented by a grey surface of hardened soil, has provided other domestic tools (a stone axe and several flints) and some bovine bones. In this phase a shallow circular installation, possibly used for food transformation, was present in the south-west corner of the room.

The latest filling (L.305a), preserved only in the northern half of the room,¹³ is characterized by the presence of two limestone slabs in the NW corner, one set into the floor, the other slightly shifted from its original location.¹⁴ In the area around the slabs a group of stone tools was retrieved, which, together with a number of fragmentary animal bones, hint at meat-cutting activities.

The northern unit - The northern house is triangular in shape (L.303), with an unroofed corner occupied by a stone-paved hearth (T.312a-b), and the rest of the space devoted to various domestic activities connected to the transformation of food and to weaving (Fig. 10).

As far as architectural features are concerned, an interesting device is a post-hole in the middle of the room, belonging to a wooden pillar supporting the roof. It is placed in front of two corresponding offsets of W.302 and W.306, possibly sustaining two beams converging to the top of the pillar. The room was found filled with a compacted stratum of fallen mud bricks (L.303a), which, due to their orientation could have been collapsed from W.302 or W.304. In the last phase of occupation (L.303b) the offset abutting from wall W.302 was reinforced with some bricks on the east side¹⁵ and a pulping hole was sunk in front of the fireplace (T.312b). Various objects were found on the floor: sea-shells pendants, spindle-whorls, flint blades, grinding stones, pestles, and a group of so-called jar-stoppers, actually pottery sherds cut like disks, which may have had other functions, for instance as counterweights.

In the earliest phase, there was no central bench and another hole for food processing was in use in the south-east corner of the room. In the same area the retrieval of pottery disks and loom weights hint at textile activities.

Pottery - A rather rich pottery assemblage has been provided by the excavation of L.305. Common Simple Ware shapes are radial-burnished reddish-slip bowls (Fig. 7:1-3),¹⁶ straight walls bowls (Fig. 7:4,14), cylindrical goblets (Fig. 7:5), and emispherical bowls, often with a stick burnished surface (Fig. 7:7-10). Small jars are also attested to (Fig. 9:13), sometimes with a hatchy-burnished reddish slip (Fig. 9:11-12). Hints at a serial production are bases with string-cut impressions (Fig. 7:6), hence made on a fast wheel, and potter's marks (Figs. 7:4; 9:10). A distinguishing feature of the Sultan IIIc1 pottery horizon is the presence of the so-called Khirbet Kerak Ware, some shapes of which have been retrieved in L.305

¹³ The surface of erosion slopes southwards.

¹⁴ It was initially attributed to Oper. 3d, then it became clear that it belonged to Oper. 4a.

¹⁵ The northern face of W.302 was strengthened in this phase with the addition of a line of mudbrick at its bottom.

¹⁶ Of a type already identified by Kenyon in the nearby squares EIII-IV, phases B-A+ (Kenyon - Holland 1983: 369-372, figs. 145:27, 146:31).

(Fig. 8).¹⁷ A similar chronological indication is provided by a Simple Ware carinated bowl, imitating a typical Khirbet Kerak shape (Fig. 7:11). Simple Painted Ware has a large diffusion; two kinds of decoration are attested to: horizontal bands, especially on the rim, sometimes extending to the entire inner surface (Fig. 7:10,13,16), and wavy vertical strips, usually covering completely the outer surface (Fig. 7:12,17). This kind of decoration is present also on small jars and jugs (Fig. 7:18-23). A unique specimen represents another EB IIIA painted production, characterized by a hatched brown decoration on a cream slip (Fig. 7:15). As regards Preservation Ware, large jars belonging to a very common production, characterized by a thick white slip, have up-turned ledge handles and embossed everted rim, often marked by a fingered horizontal band at the bottom of the neck (Fig. 9:1-5). These jars were used for storing solid foods, while those for liquids are made of a finer fabric and have a highly burnished reddish slip (Fig. 9:6-8). Typical domestic containers are the hole-mouth jars, which continue to represent the vast majority of the Preservation Ware assemblage (Fig. 9:9-10). No significant differences have been noticed in the ceramic assemblages of the various phases of Area F, except for the distribution of types. The material culture of the last utilizations of the houses in Area F indicates a dating in Period IIIc1, probably towards its end (late EB IIIA, c. 2500-2450 B.C.).¹⁸

Area B

Stratigraphy

Under the topsoil there was a very hard grey deposit (L.201), sloping northwards, which can be interpreted as the surface of erosion of a layer of rubble (F.60), possibly from the discharge of materials deriving from the disturbed Period IVc (MB III) rampart.¹⁹ The underneath stratum (F.61, F.202) has been identified as the surface of the tell, as it is shown by an Islamic burial (D.205) sunk into it.²⁰ Below these strata two pits have been identified (P.31 and P.203b); at its bottom pit P.203b, which occupies the eastern half of the square (AsIV4), had cut the original floor of the room (L.215),²¹ exposing an intentional filling with large stones (F.208).²²

A third large refuse pit (P.207c) was detected in the NW sector, filled with layers of discharged materials (small stones, pebbles, broken mudbricks and few sherds: F.207a-b). It had cut a compacted stratum of clay (L.32), preserved only on

¹⁷ Two similar fragments were also found during previous excavations (Kenyon - Holland 1983: 373, fig. 147:12-13).

¹⁸ The dating seems to correspond in general to that of Kenyon's Trench I Stages XXXIX-XI, Trench II Stages XVIII-XIX, Trench III Stages XVII-XVIII, Squares III-III-VI Stage III (Kenyon - Holland 1983: xxxiv-xviii), and, especially as regards Squares EIII-IV (adjacent to Area F), Phases B-A+ (Kenyon 1981: 337-338, pls. 321-322).

¹⁹ Marchetti - Nigro - Saric 1998: 122; Marchetti - Nigro 1998: 31, figs. 1:2, 1:14.

²⁰ A group of Islamic burials of the last century were identified in various spots of the site by the Austro-German expedition (Sellin - Watzinger 1913: 92-96).

²¹ Similarly, a sounding below the bottom of P.31 has revealed two compacted surfaces (L.212 and L.214), possibly the remains of floors of Building B1.

²² Among these stones also two mortars (TS.98.B.318, TS.98.B.319), and a door-socket (TS.98.B.315) have been found.

top of W.204.²³ These pits, dating from Periods VI-VIII, have all cut through the structures of Building B1 described below.

Building B1 of Period IIIc2 (EB IIIB, 2450-2300 B.C.)

The excavation of Building B1 (Figs. 11-12), a large construction abutting on the inner side of Period IIIc2 city-wall (EB IIIB, 2450-2300 B.C.),²⁴ has been continued towards north and west in squares AsIV4 and ArIV4. The removal of a thick layer of collapsed mud bricks has been completed in the westernmost room identified, exposing various superimposed floors of beaten earth (L.39b-d). The latest floor had two large limestone mortar on it (Fig. 13).²⁵ A door socket was uncovered in the north-west corner of the room, in front of a niche, suggesting that a staircase did exist leading on top of W.34, where there was a E-W passage.

A good assemblage of EB IIIB ceramic vessels was retrieved in L.39, including hole-mouth pots²⁶ and small jars, of a typical Period IIIc2 shape.

In the new squares, two large refuse pits (P.203, P.207) had cut throughout two more rooms of Building B1, separated by a huge north-south mud brick wall (W.204), testifying to the extension of Building B1 northwards.

One of the most interesting achievements of the enlargement of Area B has been the identification of the northern wall of W.34,²⁷ a structure with an inner fill and an overall thickness of 2.0-2.1 m. The inner filling was mainly constituted by EB IIIB pottery sherds and stones and was used as a passage for connecting the various rooms of Building B1 on the E-W axis.

The complete excavations of W.34 and the discovery of W.204 have provided further insight on the architecture of Building B1 (Fig. 12). Since they show the same alignment of the structure excavated slightly to the north by E. Sellin in 1908, this permits to delimit the area occupied by Building B1 (Fig. 13), which apparently was further extended north- and eastwards.

Area D

The rescue excavations on the eastern side of the tell, in front of 'Ain es-Sultan, where erosion and the cut of the modern road have destroyed considerable archaeological deposits, have been prosecuted towards the north. Two new squares have thus been excavated (BIIII7, BIIII8), exposing the inner face of the huge mudbrick wall on stone foundation (W.7) identified in the first campaign.²⁸ This massive wall proved to have been cut almost in a straight line on the N-S axis, and, since it is NW-SE oriented, it has been brought to light to its extreme preserved section to the north. The stone foundations have been exposed on both

²³ The same stratigraphic unit was excavated on top of W.34 in ArIV5/AsIV5; Marchetti - Nigro 1998: 26-27, fig. 1:2.

²⁴ Marchetti - Nigro - Sarie' 1998: 125-127, figs. 2-5; Marchetti - Nigro 1998: 23-80, fig. 1:1.

²⁵ A charred wooden beam, that was exposed in 1997, was actually lying over one of the two mortars (Marchetti - Nigro - Sarie' 1998: fig. 3; Marchetti - Nigro 1998: 40-41, figs. 1:14, 1:20).

²⁶ See also Marchetti - Nigro - Sarie' 1998: 127-128, fig. 8:9.

²⁷ This wall had been previously named W.33 (Marchetti - Nigro - Sarie' 1998: 127; Marchetti - Nigro 1998: 39-40, fig. 1:18); it is now resulted to be the northern section of W.34.

²⁸ Marchetti - Nigro 1998: fig. 2:1, where the squares are B and not A.

sides and they testify that this structure climbs gently northwards. Conversely, its mud brick superstructure, due to erosion, is preserved to a higher elevation to the south and gradually disappears to the north. New chronological data have been provided by the excavation of a stratified deposit west of W.7. This area was already explored by K.M. Kenyon (Square HVI), who identified at the bottom of the excavations another massive mud brick structure, which she interpreted as a tower (see note 36 below), still partly visible. On the eastern edge of Square HVI Kenyon identified a mudbrick wall which can probably be identical with W.7 (Kenyon 1981: pls. 331a-b, 340, Walls HCP+HCJ). In the 1998 excavations, a filling covered by the stone foundations of W.7 yielded pottery materials mainly dating from EB III, but with a few sherds dating from Period IVa (MB I, 2000-1900 B.C.). The dating of the structure, previously attributed to Period IIIc,²⁹ thus remains an open question, to be further investigated in the next campaigns.

Area E

After the discovery in 1997 of a stone corner (W.5) at the north-western edge of Area A (Fig. 19; Marchetti - Nigro - Sarie' 1998: 134, fig. 16; Marchetti - Nigro 1998, 120-123, figs. 4:5, 4:6, 4:8), preliminarily interpreted as connected to a possible city gate, it was decided to open a new area to the west in order to check the nature of this massive structure connected to the foot of the MB I-II (1850-1650 B.C.) rampart. Two squares (AmIV9, AnIV10) were thus opened 10 m to the north-west of W.5, on the projection of its alignment.

Stratigraphy

The area was occupied by a massive dump accumulated on the steep slope of the tell mostly by Garstang digging one of his trenches across the EB III fortification wall,³⁰ but partly also by the digging of nearby Kenyon's Trench III. The dump is c. 5 m high (Fig. 15) and consists of alternating layers of rubble and decayed mudbricks (F.252, F.256, F.260, F.261, F.262).³¹ Immediately below the original surface of the tell (F.264), a surface of beaten earth was exposed (L.271), from which came materials dating from the Middle Islamic period (Sultan Xb).³² The Middle Bronze Age layers are represented by some collapsed stones (F.273), belonging to the top of a massive stone fortification structure (W.270+W.268), which was covered by a rubbly fill F.269 probably belonging to the Period IVc rampart (MB III, 1650-1550 B.C.). At a lower elevation, in square AmIV9, an ashy fill (F.275) emerges, but its nature has yet to be ascertained.

Period IVa-b Structure E1 (Middle Bronze I-II, 1850-1650 B.C.)

The main structure, called E1, is formed by a rectangular tower (W.270+W.268) made by undressed limestone blocks (Figs. 14, 15). The tower is

²⁹ Marchetti - Nigro - Sarie' 1998: 130; Marchetti - Nigro 1998: 95-102, fig. 2:1.

³⁰ Such trench was cleared in 1997 in Area B West: Marchetti - Nigro - Sarie' 1998: 129-130, fig. 2; Marchetti - Nigro 1998: 81-92.

³¹ The various layers of which the dump is made are very loose and the continuous collapse of the excavation walls has forced to make some steps in the upper part of the sections, also for safety reasons.

³² A whole lamp with moulded relief decoration (TS.98.E.82/1), dating from the Mameluke period, was found on L.271.

7.5 m large and to the west is adjoined by a stone revetment wall (W.274), which seemingly represents the continuation of the fortification to the north-west (Fig. 16). Since W.5 does not lie on the same line of W.270+W.268, it can perhaps represent a structure analogous to W.274;³³ the interpretation of Structure E1 as a city gate is hampered by the relation between the retaining wall (*Böschungsmauer*, W.4) of the MB III rampart and an hypothetical city gate, since Sellin, in his tracing of W.4, recovered no evidence of a large structure close to it.³⁴ Further, since the EB III city walls are located more than 5 m higher than the top of Structure E1 and are 25 m distant to the north (Fig. 1; Kenyon 1981: pl. 273; Marchetti - Nigro 1998: figs. 1:7, 4:8), the gradient necessary to overcome them seems too steep for a passageway. Under the chronological profile the connection of W.270+W.268 with W.5 places the former within the first rampart, which dates from late MB I-MB II (1850-1650 B.C.); the rubble fill (F.269) covering Structure E1 would then belong to the following MB III rampart (1650-1550 B.C.), at a time when Structure E1 was apparently no more in use. The problem of the location of the MBA city gate(s) at Jericho thus remains an open one,³⁵ although the 1998 excavations of Area E have in any case revealed a massive fortification structure of the MB I-II period.

Area A

In Area A, in order to prosecute the investigation of the MB II residential structures brought to light in the first season, an extension was planned to the east and south of the already excavated area, where it was clear that such levels were apparently well preserved.³⁶ The results of the 1998 season have not only added substantially to this aim, but have also furnished most important elements for the reconstruction of the stratigraphic history of the southern Lower Town of Jericho.

Stratigraphy

The top layers of the area (Activity 1) include the trench dug by Sellin along W.4 (P.9) and the earth dumped by him to the south (F.150). A small pit (P.8) was cut (Activity 2) into the MB III rampart (Activity 3), which is formed by the superficial layers F.13a (visible in the sections of Figs. 18, 20-21) and F.13b-c, covering the foundation trench for W.4, the retaining wall of the rampart (Fig. 25). Such trench presents a partly different internal stratigraphy to the east in respect of the 1997 results, being filled here by the layers P.14 and F.176, the latter one including a stone structure of uncertain interpretation (W.174). Within the very

³³ W.3 in Kenyon's Trench III thus represents a retaining wall joining W.5 (Kenyon 1981: 216, pls. 126a, 127, 271a, Wall NFP).

³⁴ See the area at the intersection of squares M-N/3-4 (Sellin - Watzinger 1913: fig. 35:2, pl. I).

³⁵ At Jericho, thus far, only a mudbrick tower excavated in front of the spring was interpreted by Kenyon as a possible MBA gate on the eastern side of the tell (Kenyon 1981: 351-352, pl. 329a), but such identification has remained hypothetical (see also Area D, *supra*); one wonders if Wall HAJ actually joined the tower, rather than being cut by it as Kenyon maintained (*ibid.*: pls. 328a, 329a, 339-340), in this case representing its annexed defence wall. Such tower can possibly be part of a fortress.

³⁶ After the removal of a large dump from Kenyon's excavations located on the south-eastern flank of Trench III (visible e.g. in Marchetti - Nigro 1998: figs. 4:3, 4:40, 4:42), the halves of squares AsIV11, AtIV11, AsIV12, AtIV12, AsIV13, AtIV13 were opened on the ground.

thick occupational sequence from MB II (Activity 4), various phases have been distinguished (Fig. 25): Building A1 (identified in 1997) was in fact followed in a second phase by the construction of Building A2. The two upper phases are represented by levelling and rebuilding of small residential units over the ruins of Building A2 (such phases are well visible in the east section: Fig. 25).³⁷

Period IVb Building A1 (Middle Bronze II, 1800-1650 B.C.)

Building A1, constructed at the very beginning of Middle Bronze II,³⁸ is represented by a massive tower with no doorway (W.190+W.164+W.15; Fig. 17) adjoining a boundary wall (W.19), which was at least 14 m long (Fig. 18). To the south-west W.19 has a buttress 0.5 m deep, which possibly had a corresponding one to the north-west, since the stone foundations of W.19 (there cut by the foundation trench for W.4) are larger to the west than the average width of W.19 (1.7 m). The building technique of the walls is very regular, with square reddish mudbricks (the side of which measures from 30 to 35 cm) separated by 1 cm of grayish plaster, preserved to a maximum height of 2.5 m. The original floor to the west of W.19 was sealed by the collapse of W.19 (F.23). Two floors of beaten earth were identified in the tower (Fig. 19): the lower one (L.199), at the level of the stone foundations, was soon covered with a 30 cm thick layer of stones and earth, representing the upper floor (L.198), which was perhaps necessary because of the subsiding of the inner face of W.164. The floor excavated in 1997 to the east of W.19 (L.21) is probably contemporary with L.199 and L.198.

The final destruction of Building A1 is represented by a layer (F.162) of debris and burnt wooden beams,³⁹ in which many pottery jars (see below) and stone tools were found, sealing the floor L.198 and clearly belonging to the assemblage of an upper storey; some burnt fallen materials were in fact also collected at the junction of W.22 with W.15. A fill of collapsed mudbricks (F.177) was also exposed to the east of W.164, belonging to the same phase of the collapse of W.168. No further stratigraphic relations are available for Building A1 before the construction of the MB III rampart, since the latter one made to the south a sharply sloping cut across the building, and so the relations with the later layers to the east (dating from the end of Period IVb) remain hypothetical, although they should be later than the destruction of Building A1.

Although only one incomplete side of Building A1 is known thus far, the building seems to have encompassed a space (probably a courtyard judging from its extension) located to the west of the excavated structures: W.19 would thus be the eastern boundary wall of the building, with an adjoining tower. The tower had no access from the ground floor and L.198/L.199 was probably accessible through a ladder from the upper storey, a circulation system already attested to in MBA defensive architecture, being attested to for instance in fortresses and city gates (Kempinski 1992: 132-135; Matthiae 1997: 10-12, figs. 22-24; Woolley 1955: 150, fig. 55). While Building A1 might be of different nature, it nonetheless represents a public building located in the Lower Town, close to the first MBA

³⁷ Some pottery fragments illustrated in Figs. 23 and 24 come from *loci* of these phases: F.165a, W.26 and F.171 belong to the later phases, when extensive levelling took place, while F.169 is the fill sealing the mudbrick collapse F.177.

³⁸ An earlier date cannot however be excluded since the materials retrieved in Building A1 only refer to its destruction layer.

³⁹ Some beams have been preliminarily identified as being of olive wood.

rampart to which was at least partly contemporary (see Marchetti - Nigro 1998: 135; Marchetti - Nigro - Sarie' 1998: 138). The set of stone grinding and pestling tools⁴⁰ and the pottery equipment, found in F.162, might be interpreted as a proof that the storage and transformation of vegetal food was carried out in the upper storey of the tower of Building A1.

Period IVb Building A2 (Middle Bronze II, 1800-1650 B.C.)

The 1998 excavations have clarified that courtyard L.20 and W.25 (Marchetti - Nigro - Sarie' 1998: fig. 15) belong to a residential building, called A2, which was built just by Building A1 when the pebbled floor L.21 went partly out of use (Fig. 17). W.22 was then built either in order to create a partition to the west for Building A2 or for structural reasons, although W.19 does not show any trace of subsiding (at least in its preserved portion); towards the south-east, between W.25 and W.15 a blocking fill of mudbricks was also built. Four rooms of Building A2 have been identified thus far (Fig. 21), of which only one (L.186) has been completely excavated (Fig. 20). The walls are c. 0.5 m thick and they are made of square (W.25) or rectangular (W.168) mudbricks on stone foundations, as visible in W.188. One doorway is present between L.186 and L.191, which both have the same kind of floor, made of small pebbles covered by a thin layer of crushed limestone (L.185 and L.197 have instead a thicker layer of crushed limestone). The preservation state of room L.186 is noteworthy since its walls are up to 1.8 m high. The four rooms of the building were sealed by a layer of collapsed mudbricks (F.183 over L.186, F.175 over L.191, F.184 over L.185, F.192 over L.197), upon which a levelling of roughly crushed limestone (F.173) was made in the following phase, extending also over and through W.25.

From F.183 a bronze adze (Fig. 22), seven polishing pebbles, two pierced stones (see Fig. 21) and a grinding stone were retrieved, indicating that, apart from some side activities connected to the transformation of food, the main function of L.186 was possibly connected to household craft activities.

Building A2 is approximately contemporary with Building A1, being slightly later in construction and probably going out of use a little earlier than the latter. It probably represents a house of some importance, on the basis of its scale and regular layout, which however, having been continuously rebuilt, is not rich either in small objects and pottery finds. Courtyard L.20 might be considered functionally connected to Building A2, since its courtyard was devoted to activities connected to the transformation and cooking of food (see Marchetti - Nigro 1998: 134, 231-239); in this case the courtyard was probably accessible from L.191 through the northern, destroyed, portion of W.25.

Period IVb Pottery from Buildings A1 and A2

The pottery assemblages of Buildings A1 and A2 is very homogeneous under the chronological profile, although there can be distinguished a functional distinction between them, with a prevalence of Preservation Ware in the former building and of Simple Ware in the second one. The Simple Ware assemblage of open forms is wheel-made and includes either medium-sized bowls with inturned

rim and a slightly concave flat or disk base (Fig. 23:1-3, the latter one with a whitish slip) and bowls with flaring rim and ring base (Fig. 23:4 with a hatched pattern of burnish inside). While simple forms are also present (Fig. 23:6), well documented are carinated bowls with shallow ring base (Fig. 23:7-8). Painted vessels are represented by a wall fragment, probably from a similar vessel, painted with a wave within parallel lines in dark yellowish brown on an outer white slip (Fig. 23:9), and by a flat base, belonging to a bowl or a pedestal vase (Fig. 23:10; compare Marchetti - Nigro 1998: fig. 4:25.14), painted with irregular hatchings in brown on a smoothed white slip.⁴¹ A single piece of Miniature Ware, a bowl, was also found (Fig. 23:5). Among closed forms, some fragments of juglets, mostly cylindrical, were found (Fig. 23:11-12, the second one with an outer black slip vertically burnished), while a neck of a bottle painted with one black and one red stripe on a white paint reaching also the inner part of the rim (Fig. 23:13) documents a finer production. A whole lamp, with blackened nozzle (Fig. 23:14), belongs to the last phase of Building A2 (as well as Figs. 23:2 and 24:3). It is interesting to note that in Buildings A1 and A2 the percentage of Kitchen Ware is lower than in L.20, where it reached a quarter of the total as a consequence of the cooking activities that took place there (Marchetti - Nigro 1998: 127); shapes include some dishes (Fig. 23:15) and pots (Fig. 23:16), the latter one with outer traces of fire. Preservation Ware jars were particularly attested to in F.162, where some seven jars, albeit largely incomplete, were collapsed from above. One of the few vessels found directly over the floor L.198 is a jar with everted neck, high shoulder and ring base (Fig. 24:1), which is very typical of the central phase of the MBA. The large storage jars, with small flattened base, have two or four handles (for the largest specimens) as in a neckless jar from within W.26 (Fig. 24:3) or an almost complete one from Building A1, decorated with a wavy scrabbled motif on the shoulder and horizontal rilling in the upper half (Fig. 24:2). The rims of the jar may be folded and flaring (Fig. 24:5) or thickened with a ridge below (Fig. 24:2.4).

As noted already for the pottery assemblage from L.20 (Marchetti - Nigro 1998: 129-130), the ceramic horizon from Buildings A1 and A2 has its closest affinities with the upper MBA sequence dug by Kenyon in Squares HII-III-VI. Although most of the pieces may be compared with the "Stage XII-XIII, phase lii-liii" assemblage,⁴² which must date from MB III, this is not surprising either because the materials from such phase are the most abundant and also due to the homogeneity of the material culture throughout the MB II and III periods. However, the presence of painted sherds in Buildings A1 and A2 finds the best parallels with the immediately preceding phases in Squares HII-III-VI, thus supporting a MB II date (probably late in that period if one judges, for example, from the small carinated bowls with ring base and the cylindrical juglets: Kenyon - Holland 1983: fig. 186:9, phase li and figs. 191:13, 195:11, phase lii-liiii).

Period IVc Rampart (Middle Bronze III, 1650-1550 B.C.)

The main stratigraphic relations of the MB III rampart (Fig. 19) were already clarified in 1997, descending from the discovery that the large stone defensive

⁴⁰ From F.162 several pestles and stone tools, a basalt grinder and a grinding stone, in addition to a stone loom weight and two fragmentary cylindrical clay smoothers, were retrieved.

⁴¹ Compare, for the technique, Kenyon - Holland 1983: figs. 175:2, 176:15-16, 185:11, 186:19-20, all from Stages X to XII, Squares HII-III-VI.

⁴² See Kenyon - Holland 1983: 442-460, figs. 189-203.

structure (W.4) at the base of the rampart was actually set inside a high foundation trench (Fig. 25) and that the rampart (F.13b-c) extended further south (Marchetti - Nigro 1998: 136-140, figs. 4:1, 4:37). In 1998 some elements were added: a stone structure (W.174) was found to be built against the base of W.4 and since it has a stepped shape it can perhaps be preliminarily interpreted as a sort of stair or working platform used during the construction of W.4 (it is visible in the background of Figs. 18 and 25). In a small sounding against the east face of the foundations of W.19, the base of W.4 was reached at an elevation of -0.77 m; the stone defensive wall rests on a levelling fill (F.351) c. 10 cm high, which was laid on the bottom of the foundation trench (C.154).⁴¹ Finally, as far as the rampart itself is concerned, to the south a thick layer of crushed limestone was identified (F.13a) although its loose texture makes it probable that it does not represent the upper revetment of the rampart.

Conclusions

During the 1998 campaign the project of rehabilitation of Tell es-Sultan has been further implemented, in the framework of the projected Jericho Archaeological Park. Test restorations with ethyl-silicate have been conducted on mudbrick walls in Areas A, B and F, while surface channels for draining rain water (in Kenyon's Trench III and Square M) and touristic paths (in Areas A and B) have been realized, as well as a ramp for allowing disabled persons to reach the Neolithic Tower and the summit of the tell. The scientific cooperation between Italian and Palestinian Institutions is continuing also in a scholarship program set up by the Italian Ministry of the University and Scientific Research, concerning the formation of the Palestinian school of archaeology.

The second campaign of the Italian-Palestinian Expedition at Tell es-Sultan has continued the investigation of the Bronze Age town, focusing not only on the fortification systems but also on the detailed urban history throughout the III and II millennia B.C. and on the changes in material culture, in order to get a closer historical understanding of the archaeology of Jericho. For the EBA, the results in Areas F and B have highlighted important aspects of the urban plan of the EB III town, while for the MBA Area E has furnished significant data about the extension of the early MBA fortifications, while the excavations in Area A have furnished substantial information on the occupational history of the Lower Town during MB II.

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and interpretation of the excavation results is a truly joint effort of the Authors, H. Taha wrote the Introduction and the Conclusions; L. Nigro the account of Areas F, B and D; N. Marchetti that of Areas E and A.

Bibliography

- Fugmann, E.
1958 *Hama Fouilles et recherches de la Fondation Carlsberg 1931-1938 II L'architecture des périodes pré-hellénistiques*, Copenhagen.
- Garstang, J. - Droop, J.P. - Crowfoot, J.
1935 Jericho: City and Necropolis (Fifth Report), *AAA* 22: 143-184.
- Kempinski, A.
1992 The Middle and Late Bronze Age Fortifications, in A. Kempinski - R. Reich (eds.), *The Architecture of Ancient Israel from the Prehistoric to the Persian Periods*, Jerusalem: 127-142.
- Kenyon, K.M.
1981 *Excavations at Jericho III The Architecture and Stratigraphy of the Tell*, London.
- Kenyon, K.M. - Holland, T.
1983 *Excavations at Jericho V The Pottery Phases of the Tell and Other Finds*, London.
- Marchetti, N. - Nigro, L. (eds.)
1998 *Scavi a Gerico, 1997 Relazione preliminare sulla prima campagna di scavi e prospezioni archeologiche a Tell es-Sultan, Palestina (QGer 1)*, Roma.
- Marchetti, N. - Nigro, L. - Sarie', I.
1997 First Season of Excavations of the Italian-Palestinian Expedition at Tell es-Sultan/Jericho, April-May 1997, *OrEx* 1997/2: 1-4.
1998 Preliminary Report on the First Season of Excavations of the Italian-Palestinian Expedition at Tell es-Sultan/Jericho, April-May 1997, *PEQ* 130: 121-144.
- Matthiae, P.
1997 Tell Mardikh, 1977-1996: Vingt ans des fouilles et des découvertes. La renaissance d'Ebla amorrhéenne, *Akkadica* 101: 1-29.
- Sellin, E. - Watzinger, C.
1913 *Jericho Die Ergebnisse der Ausgrabungen (= WVDOG 22)*, Leipzig.
- Woolley, C.L.
1955 *Alalakh An Account of the Excavations at Tell Atchana in the Hatay, 1937-1949*, London.

⁴¹ Such fill, though thicker, was also noticed by Sellin (1913: fig. 35). The original height of W.4 in Area A is then just more than 5 m.

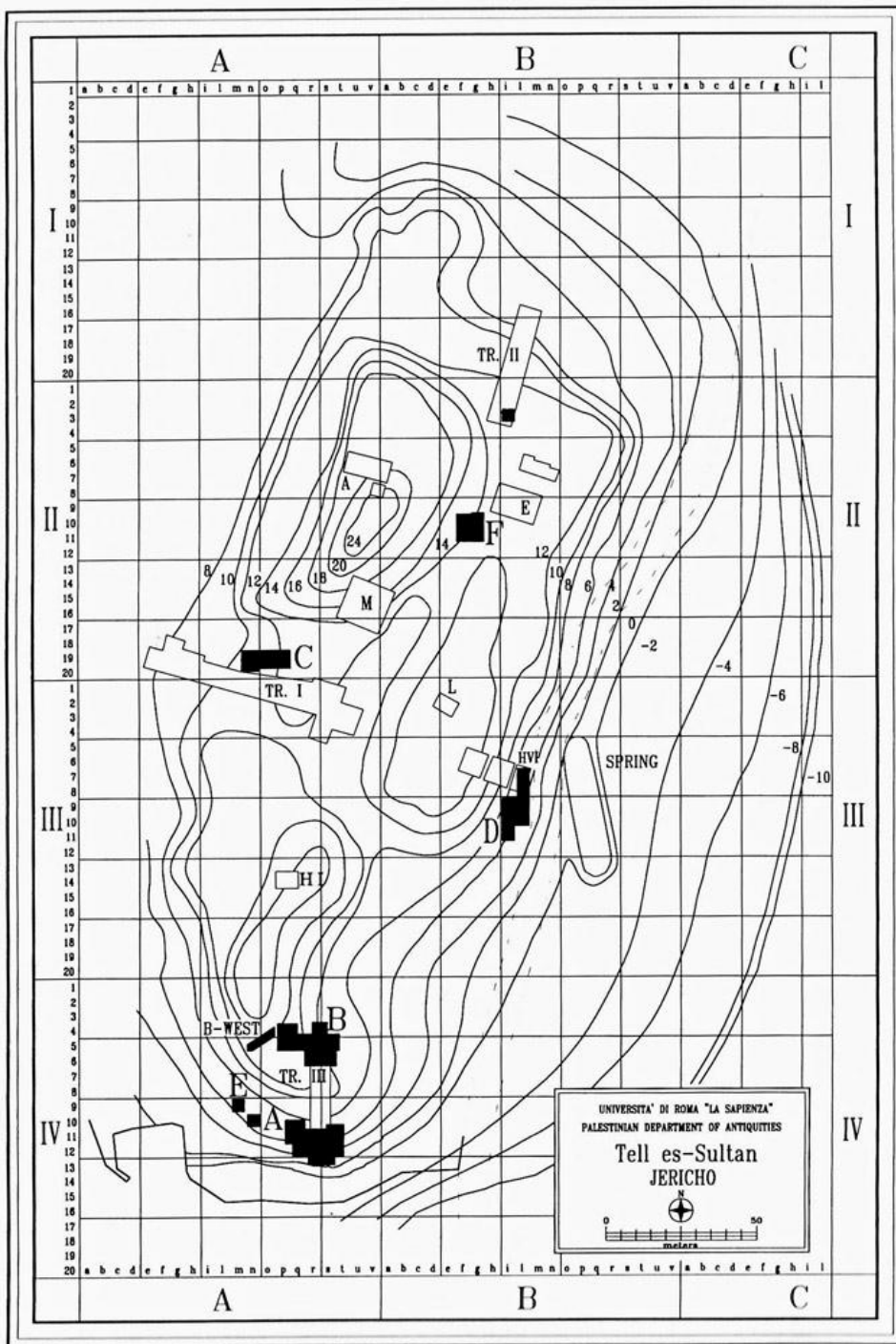


Fig. 1 Topographic plan of Tell es-Sultan with the areas of excavation (black).



Fig. 2 General view of area F from south, Period IIIcI, EB IIIA, 2600-2450 B.C.



Fig. 3 Clay figurine (TS.98.F.30), Period IVa, MB I, 2000-1800 B.C.

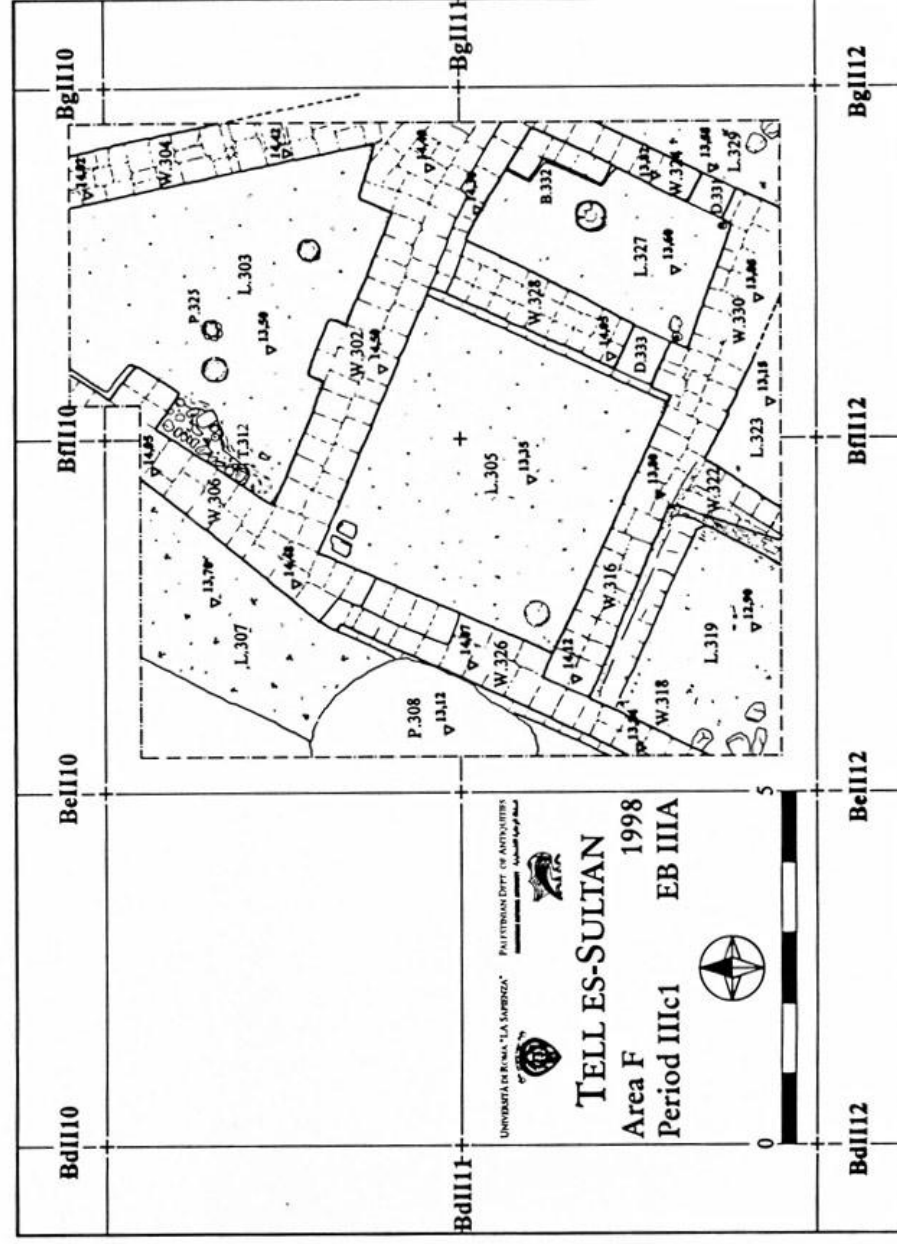


Fig. 4 Detailed plan of Period IIIc1 remains in Area F, EB IIIA, 2600-2450 B.C.



Fig. 5 View of the central unit from east (L.305), Period IIIc1, EB IIIA, 2600-2450 B.C.

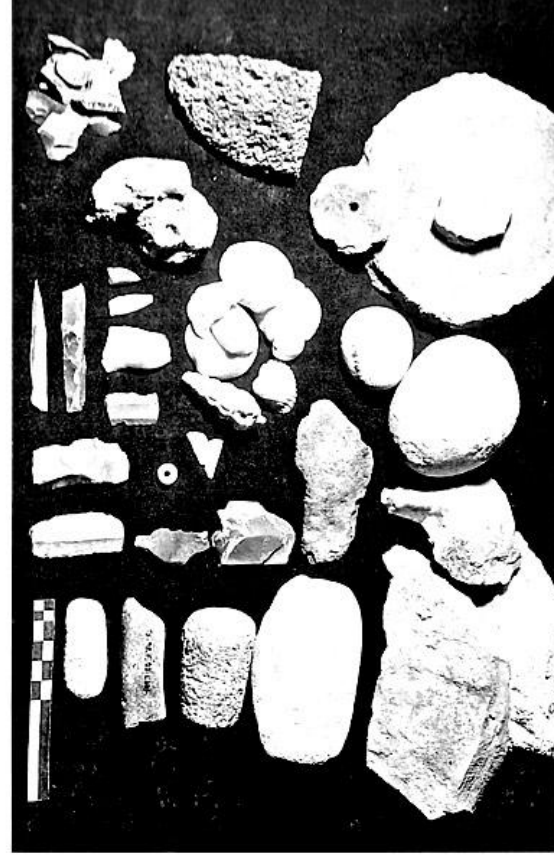


Fig. 6 Objects from L.305, Period IIIc1, EB IIIA, 2600-2450 B.C.

N°	Reference	Shape	Class	F. Colour	Temper	Firing	Locus
1	TS 98 F 130/1	Bowl	SW	7.5YR7/6	Mineral	MHigh	L.305
2	TS 98 F 205/11	Bowl	SW	5YR7/4	Mineral	MHigh	L.305
3	TS 98 F 130/3	Bowl	SW	5YR7/4	Mineral	MHigh	L.305
4	TS 98 F 130/18	Bowl	SW	10YR7/4	Mineral	Medium	L.305
5	TS 98 F 134/1	Goblet	SW	7.5YR7/4	Mineral	MHigh	L.305
6	TS 98 F 141/4	Goblet base	SW	7.5YR7/6	Mineral	Medium	L.303
7	TS 98 F 135/9	Bowl	SW	7.5YR7/4	Mineral	MLow	L.303
8	TS 98 F 135/10	Bowl	SW	10YR7/3	Mineral	Medium	L.303
9	TS 98 F 135/1	Bowl	SW	5YR7/4	Mineral	MHigh	L.303
10	TS 98 F 130/26	Bowl	SPW	5YR5/6	Mineral	Medium	L.305
11	TS 98 F 140/14	Carin Bowl	SW	5YR5/3	Mineral	Medium	L.305
12	TS 98 F 203/6	Bowl	SPW	7.5YR7/6	Mineral	Medium	L.303
13	TS 98 F 145/2	Bowl	SPW	7.5YR7/4	Mineral	MHigh	L.319
14	TS 98 F 135/5	Bowl	SW	7.5YR7/4	Mineral	MHigh	L.303
15	TS 98 F 147/4	Bowl	SPW	7.5YR6/1	Mineral	Medium	L.305
16	TS 98 F 130/24	Carin Bowl	SPW	5YR7/6	Mineral	MHigh	L.305
17	TS 98 F 203/7	Bowl	SPW	5YR7/6	Mineral	Medium	L.303
18	TS 98 F 146/5	Spouted jar	SPW	7.5YR7/4	Mineral	MHigh	L.305
19	TS 98 F 131/7	Jar	SPW	10YR5/8	Mineral	Medium	L.303
20	TS 98 F 134/11	Spouted krater	SPW	5YR6/6	Mineral	MHigh	L.305
21	TS 98 F 205/18	Jar	SPW	10YR7/3	Mineral	MHigh	L.305
22	TS 98 F 139/2	Jar	SPW	7.5YR7/4	Mineral	MHigh	L.319
23	TS 98 F 147/1	Jar base	SPW	5YR6/6	Mineral	Medium	L.305

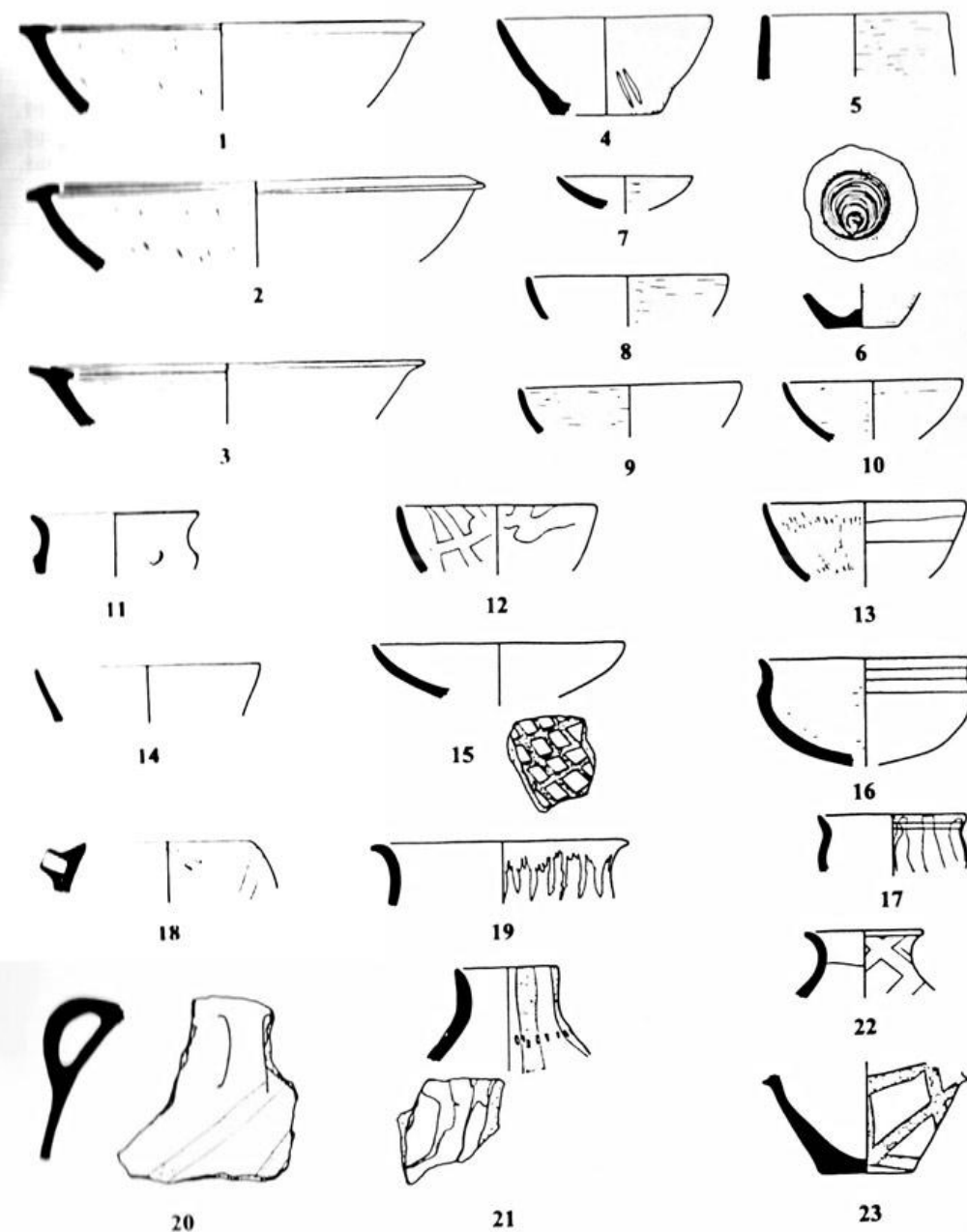


Fig. 7 Period IIIc1 Simple Ware pottery from L.303, L.305 and L.319, EB IIIA, 2600-2450 B.C. (scale 1:4).

	Reference	Shape	Class	F. Colour	Temper	Firing	Locus
1	TS.98.F.132/9	Ledge handle	PW	7.5YR6/4	Mineral	Medium	L.305
2	TS.98.F.132/5	Ledge handle	PW	7.5YR7/6	Mineral	MHigh	L.305
3	TS.98.F.132/2	Ledge handle	PW	5YR5/4	Mineral	MHigh	L.305
4	TS.98.F.132/4	Ledge handle	PW	5YR6/6	Mineral	MHigh	L.305
5	TS.98.F.205/24	Storage jar	PW	10YR6/2	Mineral	Medium	L.305
6	TS.98.F.132/1	Storage jar	PW	7.5YR7/4	Min./Veg.	MHigh	L.305
7	TS.98.F.140/1	Storage jar	PW	5YR5/6	Mineral	MHigh	L.305
8	TS.98.F.140/6	Jar	SW	5YR5/6	Mineral	Medium	L.305
9	TS.98.F.126/17	Hole mouth jar	PW	5YR6/6	Mineral	MLow	L.305
10	TS.98.F.145/12	Hole mouth Jar	PW	10YR6/2	Mineral	Medium	L.319
11	TS.98.F.140/3	Jar	SW	2.5Y5/8	Mineral	MHigh	L.305
12	TS.98.F.140/4	Jar	SW	2.5Y5/8	Mineral	MHigh	L.305
13	TS.98.F.139/3	Jar	SW	5YR6/6	Mineral	MHigh	L.319

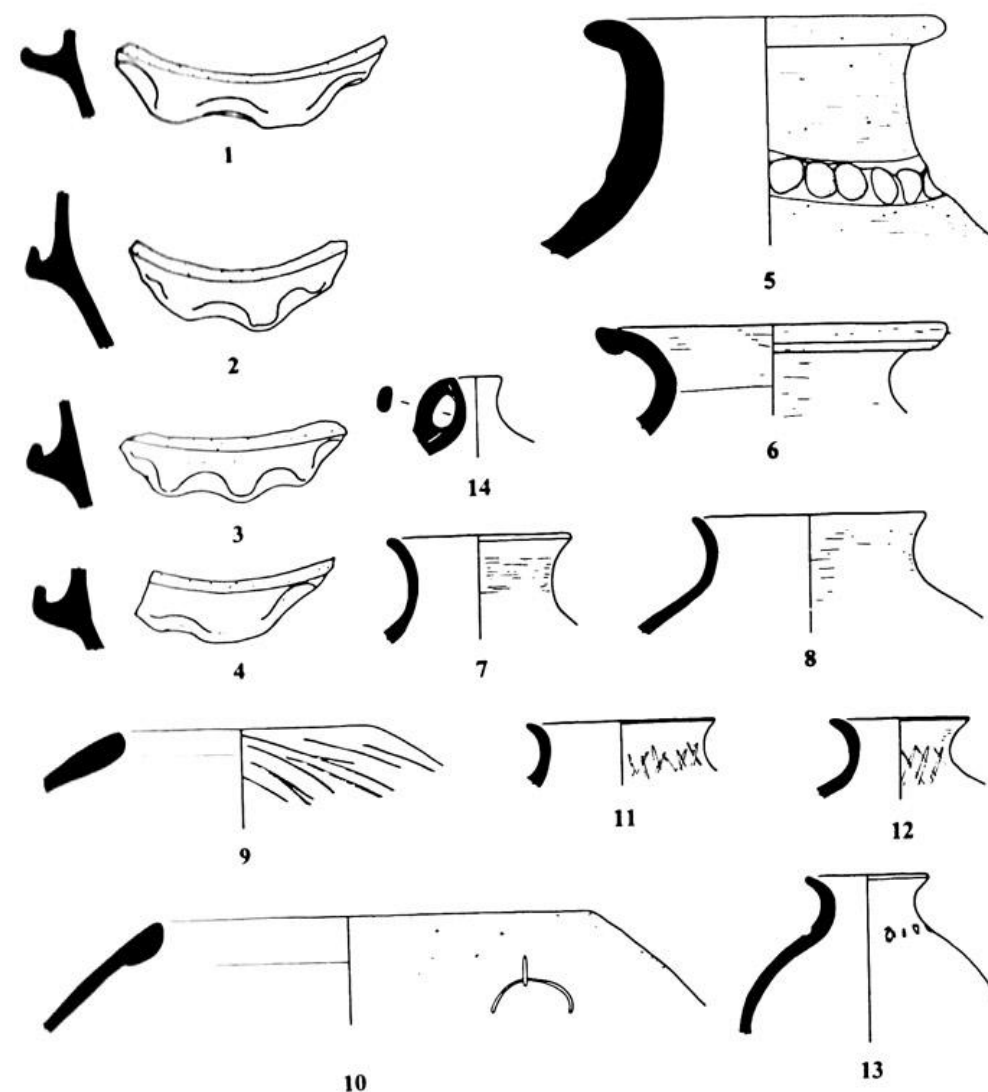


Fig. 9 Period IIIc1 Simple and Preservation Ware pottery from L.305 and L.319, EB IIIA, 2600-2450 B.C. (scale 1:4).

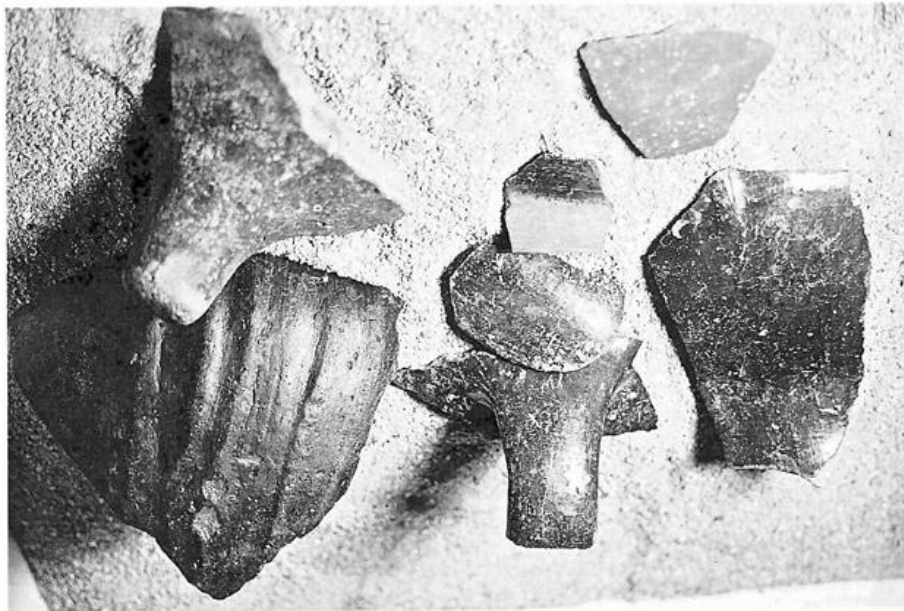


Fig. 8 Khirbert Kerak sherds from L.305, Period IIIc1, EB IIIA, 2600 - 2450 B.C.



Fig. 10 The northern unit (L.303) from north-east, Period IIIc1, EB IIIA, 2600-2450 B.C.



Fig. 11 General view of Area B: in the foreground L.39 and Building B1, Period IIIc2, EB IIIB, 2450-2300 B.C.



Fig. 12 View of Building B1 from south, Period IIIc2, EB IIIB, 2450-2300 B.C.

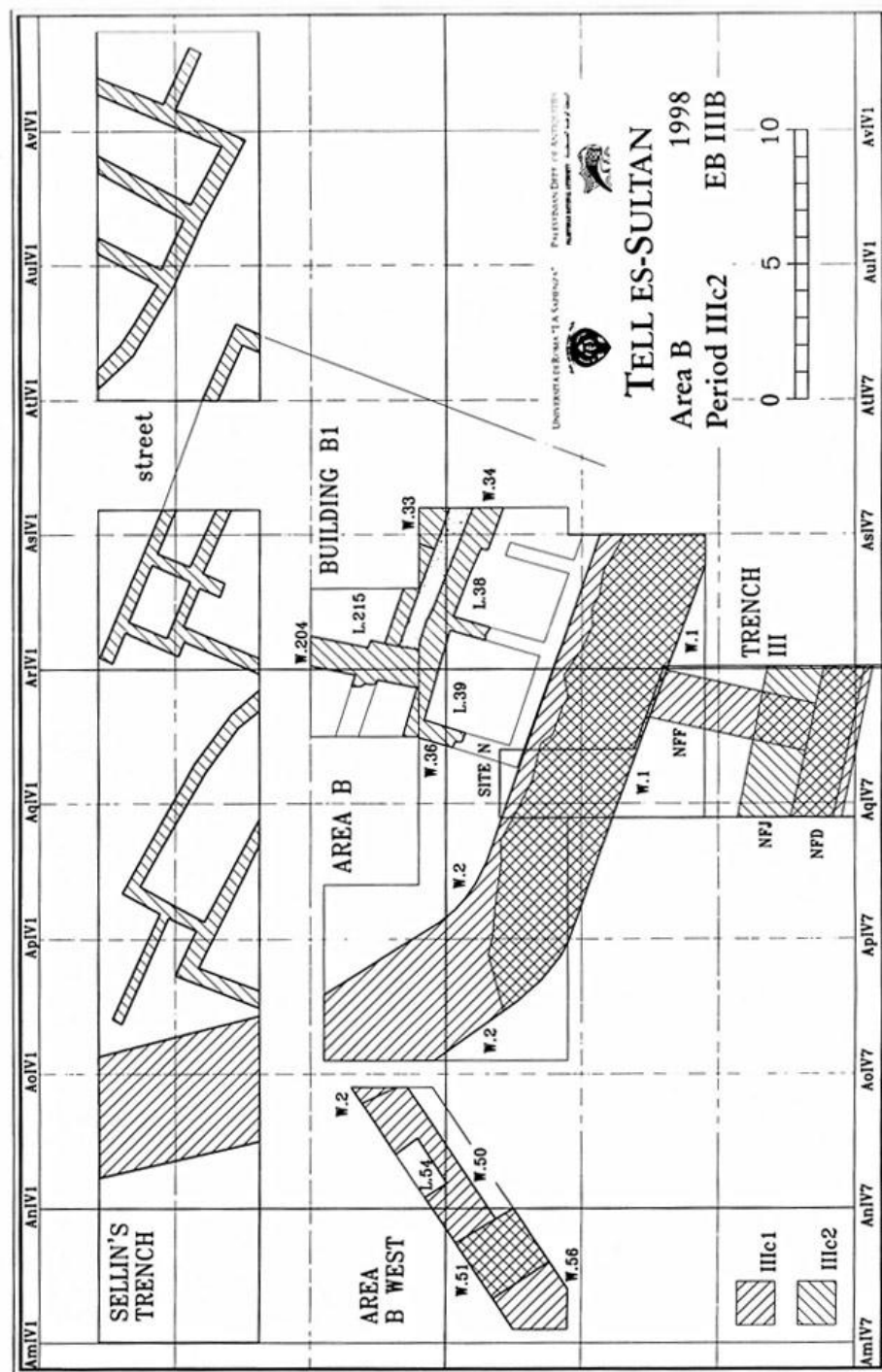


Fig. 13 Schematic plan of Period IIc remains in Area B, including previous excavations, EB III, 2600-2300 B.C.

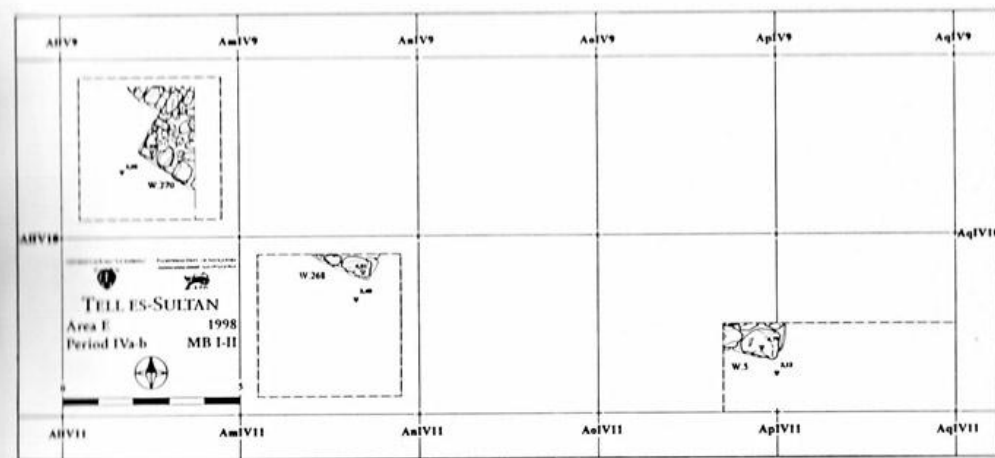


Fig. 14 Detailed plan of Period IVa-b remains in Area E, MB I-II, 1850-1650 B.C.



Fig. 15 View of Structure E1 from the south-west, Period IVa-b, MB I-II, 1850-1650 B.C.; one can note the collapsing excavation walls dug into Garstang's dump.

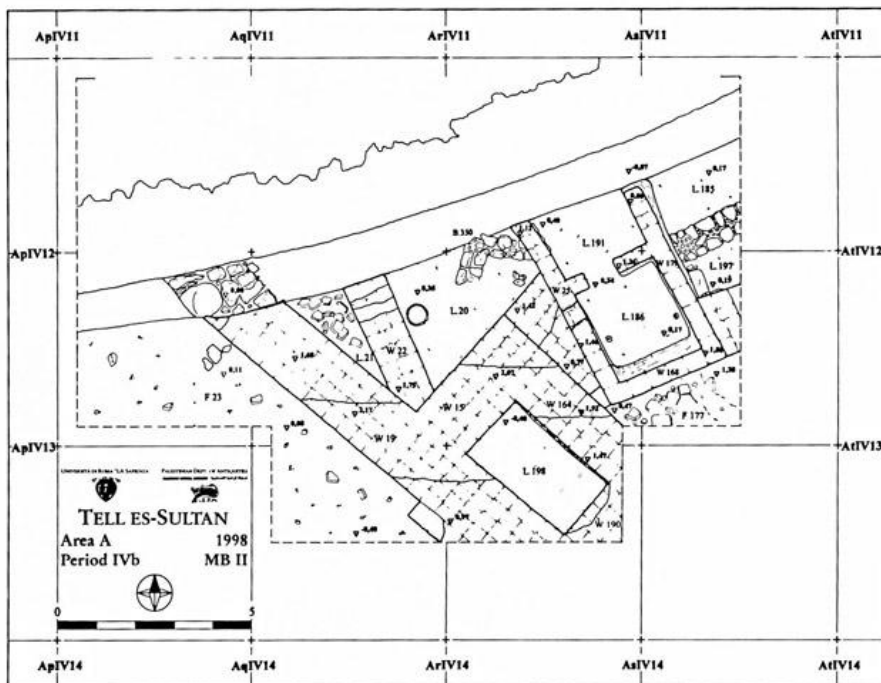
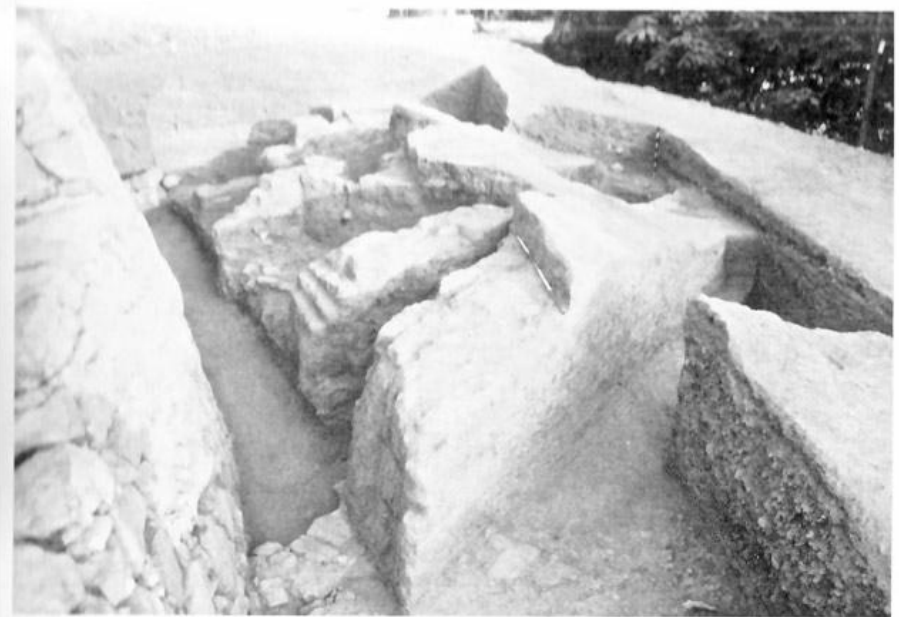
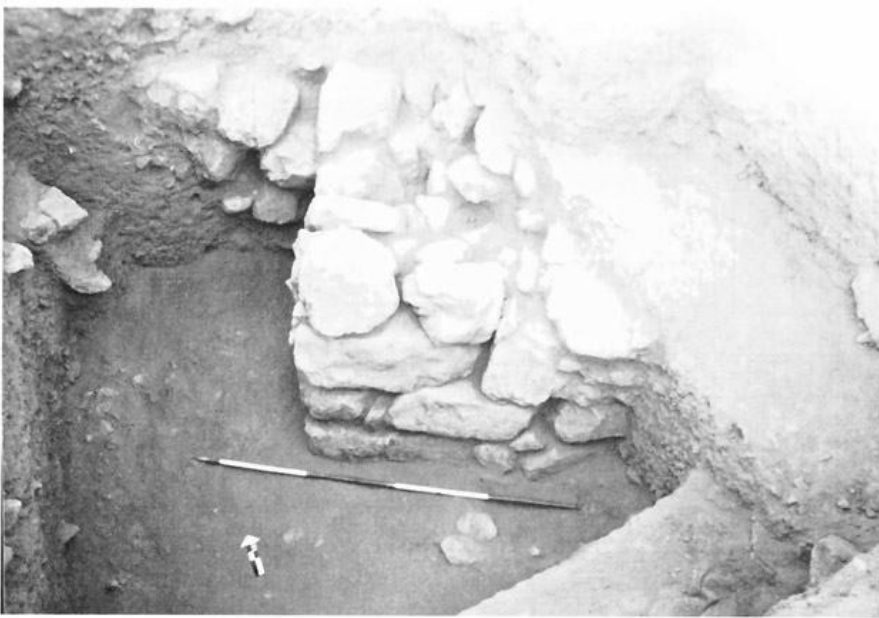




Fig. 20 Building A2 from the north-east, with rooms L.191 and L.186 in the middle and courtyard L.20 in the background

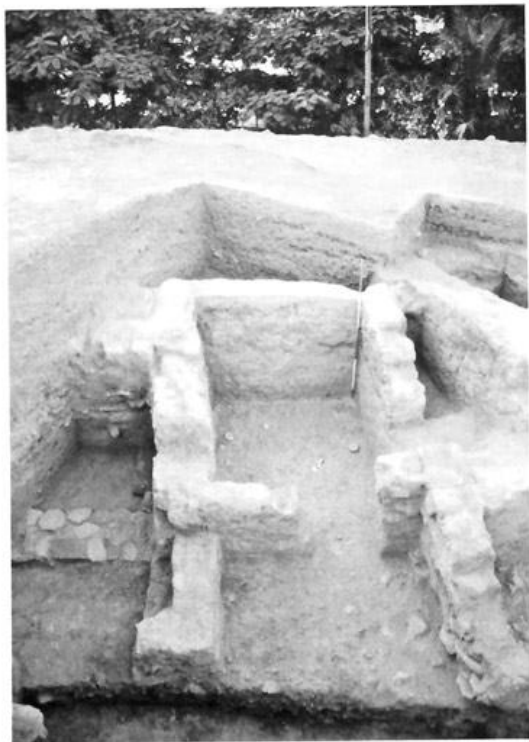


Fig. 21 Building A2 from the north-north-west; one can note two pierced stones *in situ* on the floor of L.186.



Fig. 22 Bronze adze TS.98.A.286 from room L.186 (l. 12.3, w. 4.8-2.5, th. 1 cm)



Fig. 25 The stone retaining wall W.4 for the MB III rampart from the west, Period IVc, MB III, 1650-1550 B.C.; one can note the cut of its foundation trench in the eastern limit of the excavation.

N°	Reference	Shape	Class	F. Colour	Temper	Firing	Locus
1	TS 98 A 28.1	Inturned rim bowl	SW	10YR7/3	Mineral	MHigh	F.184
2	TS 98 A 14.1	Inturned rim bowl	SW	10YR7/3	Mineral	Medium	F 171
3	TS 98 A 29.1	Inturned rim bowl	SW	10YR6/3	Mineral	Medium	F 183
4	TS 98 A 33.1	Flaring rim bowl	SW	10YR6/3	Mineral	Medium	F 175
5	TS 98 A 22.2a	Miniature bowl	SW	10YR6/3	Mineral	Medium	F 162
6	TS 98 A 29.3	Bowl	SW	10YR8/3	Mineral	Medium	F 183
7	TS 98 A 22.1	Carinated bowl	SW	2.5YR6/6	Mineral	MHigh	F 162
8	TS 98 A 17.5	Carinated bowl	SW	e 1 7.5YR6.6 c 7.5YR7/4	Mineral	MHigh	F 169
9	TS 98 A 29.5	Fragment (bowl)	SW	10YR6/2	Mineral	MHigh	F 183
10	TS 98 A 28.3	Bowl fragment	SW	e 1 10YR6/3 c 10YR5/1	Mineral	MHigh	F 184
11	TS 98 A 22.13	Juglet	SW	7.5YR6/4	Mineral	Medium	F 162
12	TS 98 A 29.6	Base (juglet)	SW	7.5YR5/1	Mineral	Medium	F 183
13	TS 98 A 29.16	Bottle rim	SW	10YR7/4	Mineral	MHigh	F 183
14	TS 98 A 11.1	Lamp	SW	e 1 10R5/6 c 2.5YR6.1	Mineral	MLow	F 165a
15	TS 98 A 22.17	Dish	KW	7.5YR5.4	Mineral	Medium	F 162
16	TS 98 A 18.2	Pot	KW	2.5YR5/6	Mineral	Medium	F 175

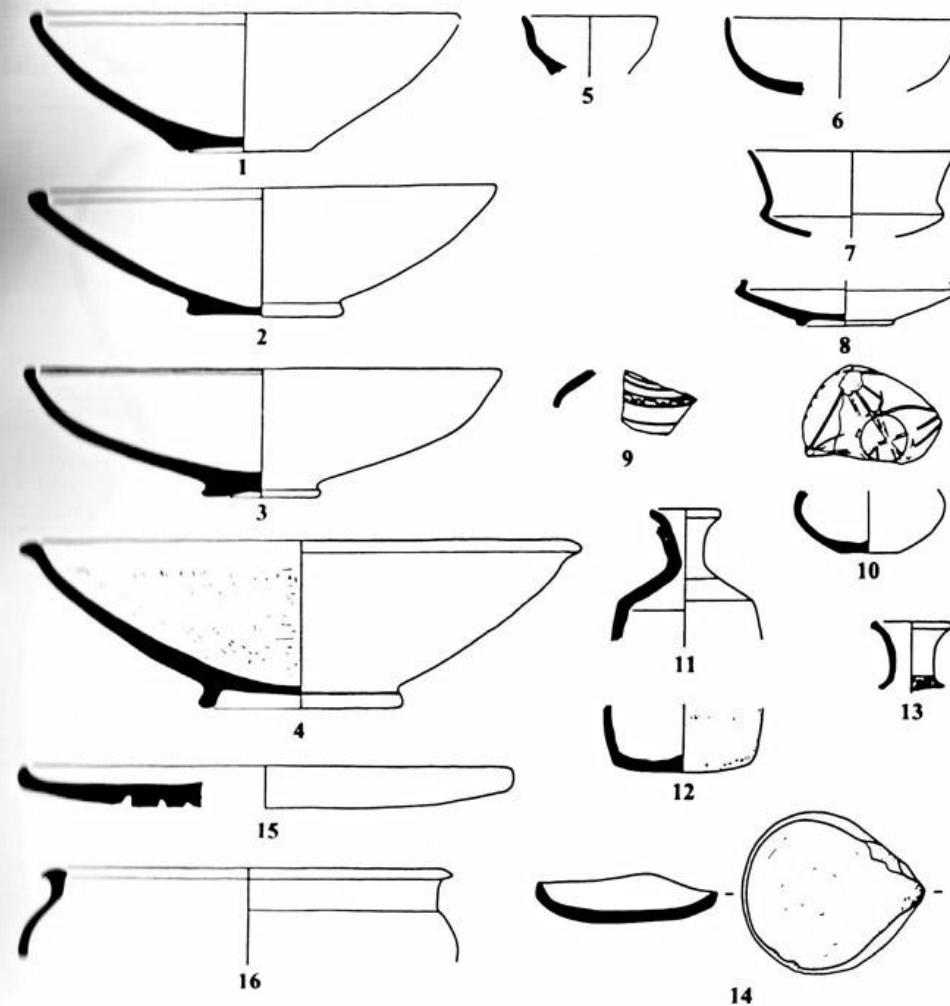


Fig. 23 Period IVb Simple and Kitchen Ware pottery from Building A1 and A2, MB II, 1800-1650 B.C. (scale 1:4).

N°	Reference	Shape	Class	F. Colour	Temper	Firing	Locus
1	TS 98 A 23/10	Jar	SW	10YR7/3	Mineral	Medium	F.162
2	TS 98 A 30/3	Jar	PW	10YR6/3	Mineral	Medium	F.162
3	TS 98 A 16/1	Jar	PW	7 5YR6/4	Mineral	Medium	W.26
4	TS 98 A 29/7	Jar rim	PW	e 1 10YR6/6 c 10YR6/1	Mineral	Medium	F.183
5	TS 98 A 30/6	Jar neck	PW	e 1 5YR6/4 c 5YR6/1	Mineral	Medium	F.162

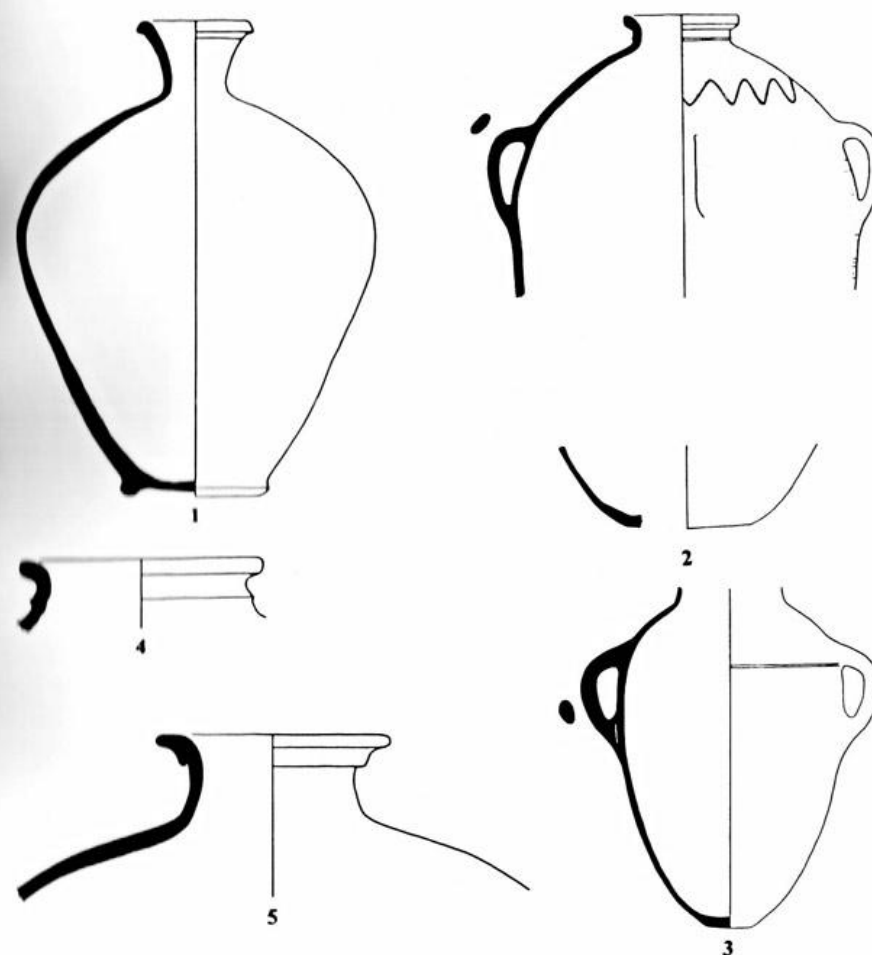


Fig. 24 Period IVb Preservation Ware jars from Building A1 and A2, MB II, 1800-1650 B.C. (scale 1:4, except nos. 2-3, 1:8).