

## THE EARLY BRONZE AGE IV SITE AT SHA'AR HA-GOLAN

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### INTRODUCTION

In the summer of 1979, when I served as the archeological staff officer of the Galilee region, I was notified by the regional inspector, the late Pinchas Porat, of damage to the site of the famous Neolithic settlement at Sha'ar Ha-Golan (Fig. 1).<sup>1</sup> When I arrived at the site, it was evident that severe damage had been caused by mechanical equipment to a later settlement dating to the Early Bronze Age IV, and as a result, the eastern part of the site had been damaged and the rest of the site was in danger. A salvage excavation was clearly necessary.

### *Geographical Setting*

The site of Sha'ar Ha-Golan is located in the Middle Jordan Valley, c. 3.5 km south of the Sea of Galilee at 200–210 m below sea level (Fig. 1). The site lies on the ancient alluvial fan of the Yarmuk River, which spread westward into the Jordan Valley. The surface of the site slopes gently southward, toward the Yarmuk riverbed that cut through the alluvial fan. This fan was created during the Pleistocene Age when the Yarmuk River flowed into the Lisan Lake; thus, the cutting of the riverbed into it was a result of the decrease in the flow that began with the end of the ice age some 13,000 years ago. Until the construction of the fish ponds of Kibbutz Sha'ar Ha-Golan, the ancient site had remained buried by the clayey alluvial soil distributed by the Yarmuk River. This clayey soil may have originally blocked the Yarmuk drainage system, forming a dam (Niv 1978:18).

Sections from the excavations of Stekelis (see below) provide a picture of the continual process of the Yarmuk River's spreading alluvium, from the Neolithic period until the present, which resulted in the burial of the site.<sup>2</sup>

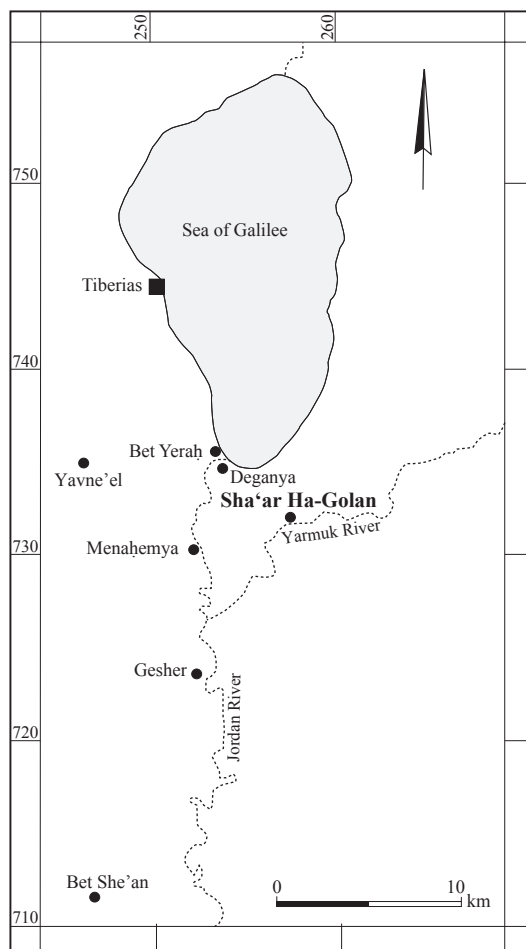


Fig. 1. Location map.

### *History of Research*

*The Excavations of Stekelis.* The site of Sha'ar Ha-Golan was first discovered in 1943 when an archaeological expedition on behalf of the Ancient Near East Research Association undertook to explore ancient sites in the area between the Jordan River, the Yarmuk River and the Sea of Galilee. The members of the expedition conducted a sounding on a steep outcrop near the northern bank of the Yarmuk River, in proximity to the modern kibbutz, and uncovered remains of a Neolithic settlement that was covered by sterile alluvium, and upon this the remains of another settlement from EB IV (Stekelis 1972:2). At the same time, Mordechai Golani and Yehuda Roth (both of Kibbutz Sha'ar Ha-Golan) showed Stekelis their collection of unique artifacts that had been collected at the end of the 1930s by kibbutz members in the area of the fish ponds. These objects included pottery, flint tools, stone objects and figurines made of clay and river pebbles. The date of these objects corresponded to the finds from the first sounding of the expedition and attested to the existence of a Neolithic site that extended over a large area. These finds inspired Stekelis to organize and head an archaeological expedition with the aim of uncovering the Neolithic remains, whose culture he termed "Yarmukian".<sup>3</sup> The excavations of Stekelis took place during 1949–1952 and ended without achieving their goal, as they did not expose any definite architectural remains. In order to clarify the stratigraphic problems of the site, Stekelis excavated probes within the fish ponds. He also examined sections exposed in an anti-tank trench dug by the British army in 1941 as part of their defenses against a possible German invasion. The trench, c. 1000 m long and 5 m wide, extended north from the Yarmuk River in the western part of the site. Today, only a depression remains after it collapsed and filled in. We found EB IV sherds here as well, although Stekelis does not mention such finds in his report.

His report on the finds of the Yarmukian culture (Stekelis 1972) also provides important data on the later, EB IV settlement at the site. In all the areas that Stekelis excavated or examined, he discerned a stratum of buildings near the surface, which he correctly attributed to this period (Stekelis 1972:3–7). In the sounding conducted in 1943 in Site 3 next to Abu Naml, EB IV pottery sherds were recovered in Layer A (Stekelis 1972: Pl. 1). In the 1949 excavations, EB IV pottery and architecture were uncovered in Trial Trenches A and B, as well as from the outcrop on the bank of the Yarmuk River (Stekelis 1972:4–5, Pl. 3). In the new excavation area opened in 1952 (Figs. 2, 3), which comprised five squares of 5 × 5 m, he expanded somewhat his discussion of this stratum. A structure comprised of four rooms and an inner courtyard in Layer B was described thus: "Layer B: 0.6–0.8 m; black earth mixed with basalt boulders and sherds of the Early Bronze Age (*sic*). We uncovered a house of four rooms and an inner court in which was a round stone installation. The two to three remaining courses of the walls of the house were built of rolled river boulders taken from the banks of the Yarmuk River. The rooms were more-or-less of equal size (1.5–1.7 × 2.0 m) and the floors were mostly paved with river basalt slabs, chalk and sand. On the floor we found potsherds of the MB I" (Stekelis 1972:6–7; Pl. 3).

*The Excavations of Garfinkel.* The renewed excavations at Sha'ar Ha-Golan took place from 1989 to 2004 on behalf of The Institute of Archaeology of the Hebrew University of Jerusalem, under the direction of Yossi Garfinkel (Garfinkel and Miller 2002; Garfinkel and Ben-Shlomo 2009). These excavations concentrated on exposing as much as possible of the Yarmukian Neolithic settlement, and in two areas (Areas E and H) unique complexes were revealed comprising large courtyard buildings extending over 250–750 sq m. In this project, the excavators completed the goals that



Fig. 2. An EB IV domestic structure uncovered in 1952 in Area D of the Stekelis excavations (courtesy of O. Bar Yosef).



Fig. 3. A room in the building shown in Fig. 2 (courtesy of O. Bar Yosef).

Stekelis had taken upon himself and revealed the Yarmukian culture in all its glory. In these two areas, which were located near our Areas 100 and 200 (Fig. 4), the excavators noted that the EB IV remains were insignificant, although substantial enough to attest that the later

occupation covered the Neolithic settlement (Garfinkel and Miller 2002:10). We presume that the damage to the EB IV level in Areas E and H was caused during 1980–1989, when the fish ponds were converted into fields and orchards.

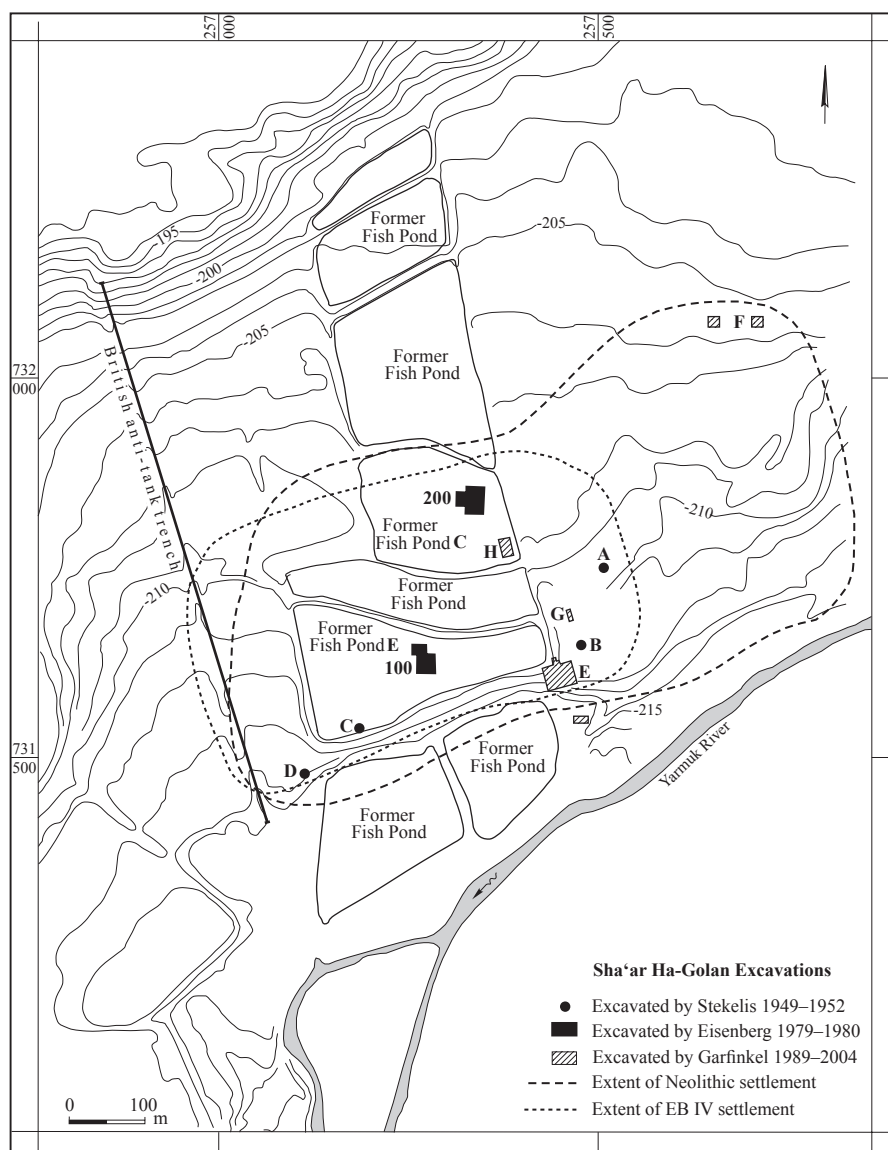


Fig. 4. Locations of the excavations at Sha'ar Ha-Golan and the estimated borders of the Neolithic and EB IV settlements.



*Archaeological Surveys.* In order to further clarify the borders of the EB IV site, a surface survey was conducted in 1980 by the author and the late Pinchas Porat, with the assistance of foreign volunteers, in the cultivated ground extending between Kibbutz Sha'ar Ha-Golan to the north and the Yarmuk River to the south, and between Abu Naml in the east and Kibbutz Masada in the west. The aims of the survey were: (1) to mark on a plan the concentrations of river pebbles mixed with sherds and flint tools—such concentrations are all that remain of structures that were close to the surface and consequently destroyed by intensive agricultural activity; (2) to mark architectural remains at the bottom of the fish ponds that were later destroyed when the area was converted to orchards; (3) to determine an estimated borderline after which no more sherds appear. All finds were left in place following identification.

After entering all the data on a plan, it became clear that the EB IV settlement had extended over 600 m along the northern bank of the

Yarmuk River, its width from north to south c. 300 m (Fig. 5). Thus, the area of the settlement reached some 180–200 dunams (20 hectares).

In another survey conducted in 1998 by The Hebrew University expedition, it became evident that the settlement of the Yarmukian culture extended over an area of  $700 \times 1000$  m. In the opinion of the surveyors, only 200 dunams of this area were actually occupied; even so, it is one of the largest Neolithic sites known in the Levant (Miller 2002:39–41). The surveyors further concluded that most of the EB IV settlement was concentrated to the west of Area E, in the areas previously occupied by the fish ponds (between our Areas 100 and 200). Its size was estimated as  $250 \times 650$  m (c. 160 dunams), slightly less than our estimation (Miller 2002:43). It should be noted that the surveyors were unable to discern the building remains that were visible at the time of our survey in the area to the east of Area E, as these had been removed in 1979. If we add this area of c. 50 dunams to our estimate of the size of the



Fig. 5. Aerial photograph from 1980 of the site of Sha'ar Ha-Golan. The Yarmuk River is seen at the bottom right. Today this entire area is under cultivation.

site, we reach a similar estimate of 200 dunams. In any case, this EB IV settlement of 160–200 dunams is one of the largest sites of this period known in Israel. It should be emphasized that the existence of two such large sites at the same location, despite the layer of sterile alluvium that separates them, indicates a similar reason for settlement in this specific location.

The surveys conducted in the past and the physical condition of the area today leave no doubt that a large part of the EB IV settlement has been destroyed or has disappeared since 1979. As attested in our excavations, the ground surface during EB IV was not level; therefore, we can assume that sparse remains of the EB IV settlement may still survive within the vicinity of the former fish ponds. This was not established because we did not have the means to continue the excavations, nor did we have sophisticated equipment to survey the area. We must acknowledge our good fortune that we were able to uncover even part of this unique settlement, despite being unable to complete the project as we had planned.

#### THE EARLY BRONZE AGE IV SETTLEMENT

In 1979, following damage to the remains of the EB IV settlement, it was decided to conduct a salvage excavation in the soil of one of the fish ponds, after it had dried sufficiently. The location was chosen on the basis of data that had been collected over the years from workers in the fish ponds, who had described remains of ancient stone walls that were intermittently exposed in the clay sediments at the bottom of the ponds<sup>4</sup> (Fig. 6). Based on the observations of the regional inspector, Pinchas Porat, and of the late Yehuda Roth<sup>5</sup> of Kibbutz Sha'ar Ha-Golan, it was evident that these structures belonged to the EB IV settlement.

Fish Pond E (see Fig. 4), which stood near the ancient bank of the Yarmuk River, was the first to be dried and excavated. On the bottom of this pond, the remains of buildings were visible in three separate places. From their state of preservation, it was clear that these buildings had been spared destruction due to their location slightly below the surface that



Fig. 6. The appearance of building remains in one of the fish ponds after the water was drained.

had been leveled by the bulldozers in order to raise earthen ramps around the ponds.

The area chosen for excavation (Area 100; map ref. OIG 20725/23160; NIG 25725/73160) was the most westerly of the three places exposed in the pond and also the best preserved.<sup>6</sup> The first season of excavations, in November–December 1979, uncovered an area of c. 900 sq m. The winter conditions dictated a slow pace of excavation and forced us to adopt an excavation method of peeling off thin layers of earth and allowing the surface to dry for one day before continuing. This way, we descended to the level of the floors of the buildings and even lower. However, the dampness prevented us from sieving the soil and thus, a certain amount of small finds were certainly lost.

Some time after the first season, the kibbutz drained the water from an additional fish pond (Pond C), located c. 250 m to the north of Area 100 (see Fig. 4). On the bottom of this pond, Inspector Porat discerned the remains of straight walls covered by piles of stones. Preliminary examination revealed that the pottery sherds from this building and its immediate vicinity dated to EB IV, and we assumed that the structures belonged to the same settlement excavated in the previous season in Area 100. The opportunity to study this settlement in an additional area, further away from the river, led to our decision to conduct the second season in this area, rather than to continue in Area 100.

In March 1980, we excavated in Area 200 (map ref. OIG 20740/23185; NIG 25740/73185), located in the northeast of Fish Pond C, uncovering an area of c. 1000 sq m. The dampness of the soil dictated that we adopt the same excavation method used in Area 100, that is, slowly peeling away thin layers. In retrospect, it became clear that our decision to excavate despite the difficult conditions was fortunate, as this excavation project did not continue after the second season. Today, after all the ponds have been converted into fields and orchards and irreversible damage has been caused to the upper strata of the site, it is doubtful if any intact remains are preserved for the research of future generations.

Areas 100 and 200 have defined the borders of the site to the south and north. In Area 100 the settlement extended until the bank of the ancient Yarmuk River, 30–40 m to the south. Slightly to the north of Area 200, no architectural remains or pottery sherds were discerned on the surface.

#### *Area 100*

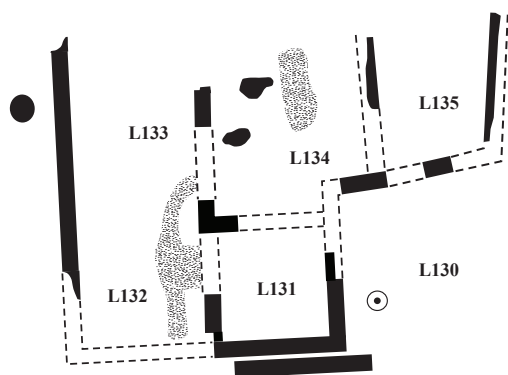
The excavation began with architectural remains exposed in the center of the fish pond and was expanded to the northern bank of the pond (Fig. 7). The area uncovered was 42 m long from north to south and its maximum width was 23 m (Plans 1, 2). Only the stone foundations of the buildings were preserved beneath the layer



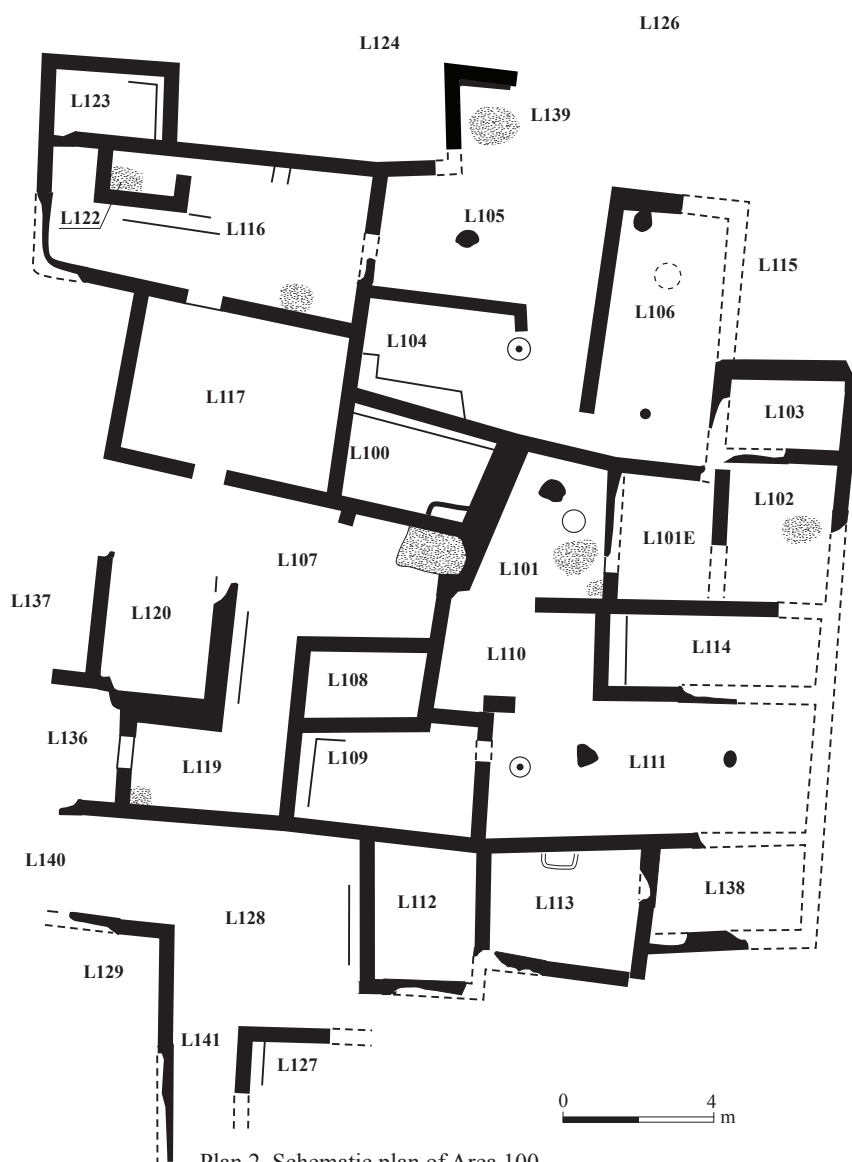
Fig. 7. Area 100: overview of the excavations, looking east. In the background left, the Golan Heights; to the right, the Mountains of Gilead.







L121



Plan 2. Schematic plan of Area 100.

of mud, 0.10–0.25 m thick, which covered the bottom of the pond. This layer of mud, which cracked as it dried, contained no archaeological finds. Beneath this layer, down to the level of the floors of the buildings, was a layer of crumbly, light-brown earth and small river pebbles that contained EB IV finds, including *in situ* vessels. This layer of earth also contained a small number of Neolithic finds, such as sherds and flint artifacts. We believe that the source of the Neolithic material is in the collapsed mudbrick walls that covered the buildings. A thick layer of sterile alluvium separates the Neolithic and Early Bronze Age strata. Thus, the ascent of the Neolithic objects to the surface was clearly a result of quarrying by the EB IV inhabitants into the remains of the Neolithic settlement near the banks of the Yarmuk River in search of building materials and clay.<sup>7</sup>

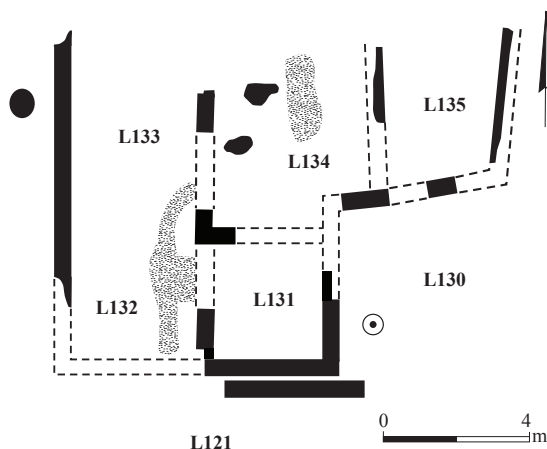
A stratigraphic probe measuring  $3 \times 3$  m (L118) was conducted on the western side of Room 105 (see Plan 1), although we were only able to descend to a depth of 0.4 m below the floor due to the moist ground. The finds included a number of EB IV sherds, but no architectural remains.

River pebbles of various sizes collected from the Yarmuk riverbed—the only source of stones in the immediate vicinity—were used for the foundations of the houses, the installations and the stone tools. These are mainly black basalt stones that were carried by the river from the volcanic plateau to the east, and a few limestone pebbles originating to the north in the Mountains of Gilead. The foundations of the buildings, 0.35–0.50 m wide and one to three courses high, were built of two faces between which was a packed fill of mud and small stones. The size of the foundation stones was not consistent and it seems that the builders made use of the stones at hand. The upper surface of the foundations had been leveled, as was customary in structures with mudbrick superstructures.

In Area 100, a complex made up of more than 20 adjoining rooms or spaces, and remains

of an additional building to the north of this block (Building 133), were uncovered, which we suggest can be divided into individual dwelling units, based mainly on entrances—a main entrance from a courtyard or passage and entrances between rooms within the unit (Plan 2). The structures are described from north to south.

**Building 133** (Plans 1–3). The six loci (130–135) located to the north of the central block apparently comprised a single dwelling unit that was not completely exposed. This building was poorly preserved and its dimensions are unknown, as the walls of the northern rooms are missing (Fig. 8). Room 133 on the west is preserved to a length of 8.5 m and its width, between W56 and W57, is 3.25 m. The contents of the room had been washed away and only a segment of stone paving along the eastern wall, W56, was preserved. This room was apparently a broadroom functioning as the central dwelling space of the building, similar to other broadrooms uncovered in the central complex (Rooms 106, 111, 116). To the west of W57 of Room 133, a basalt lower grinding stone with a worn surface was still *in situ* ( $0.38 \times 0.72$  m), although this area was not excavated and therefore, its nature was not clarified.



Plan 3. Building 133.



Fig. 8. Building 133, looking northeast.

In Room 131 ( $2.80 \times 2.95$  m), parts of three jars were discovered on a paved floor in the southeastern corner, at elevation -203.50. Outside of this room, adjoining W54 and at the same level as its base, was a section of W66 that could be interpreted as a low fence wall, a supporting wall for W54, or perhaps an earlier building phase. Locus 130 was apparently an inner room in the southeast of the building, although its walls were not preserved. Near W55, a hard floor of earth and gravel was exposed that contained a basalt mortar with an inner diameter of 0.14 m. The mortar was buried up to its rim in the floor and held in place by small stones, similar to another mortar in Room 111 (see also Area 200, Loci 209, 227). In L134, in the center of the building, were remains of a pavement and two large stone slabs fixed in an earthen floor. It is possible that this locus was an inner courtyard (see Fig. 2),

as in the building exposed by Stekelis in the 1952 excavations (1972:6–7).

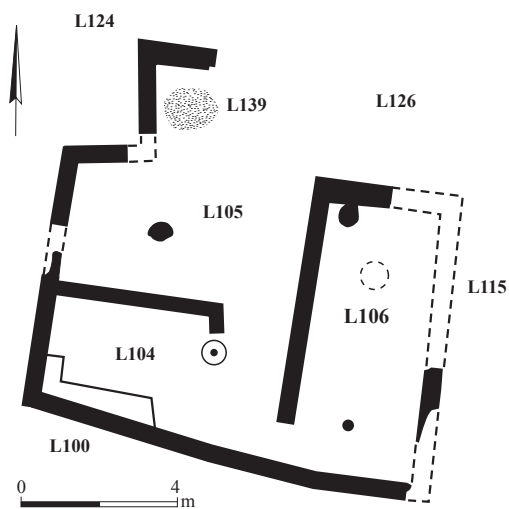
*Loci 121, 124, 126* (Plans 1, 2). These loci comprised an open area more than 5.5 m wide between Building 133 to the north and Buildings 104 and 116 to the south, which was most probably used as a passageway. No architectural remains were discerned here apart from an installation adjoining W51 made of stone slabs held in place by small stones.

*Building 104* (Plans 1, 2, 4). This building was originally rectangular in shape (c.  $7 \times 10$  m) and included three long rooms (L104, L105, L106). At a later stage the building was extended to the north and east, although from this extension only Room 139 in the north, which is paved with small stones, is partially preserved, and Room 103, which was built to the east (Fig. 9).

The entrance to this building is no longer extant, although it can be assumed that it led from Passageway 126 in the north through Room 139. The walls of Room 105 (W7, W10, W43), measuring  $3 \times 6$  m, were preserved only on the western side. The stone base of a column was sunk in the earthen floor on this side of

the room and it appears that the roof of this broadroom was also supported by an additional column on the eastern side. Alongside W6, upon the earthen floor at elevation -203.53, were the sherds of three jars and a complete deep bowl (Fig. 42:10).

Room 104 ( $2.7 \times 6.0$  m) is a broadroom with similar dimensions to Room 105; its floor comprised a beaten surface of earth and sherds. The entrance from Room 105 into this room was not preserved, although it was probably in the northeastern corner, near W6. A section of stone paving was discerned along W7 in which was a sunken basalt mortar. Along the southern wall, W1, a shelf of earth was built whose edges were supported by upright stones (Fig. 10). The contents of Room 104 were better preserved than those of the other rooms in Area 100 and included seven storage jars, two shallow bowls, two cups, a spouted bowl, a cooking pot, an amphoriskos and a lamp (Figs. 10; 11; 41:1, 2; 42:1, 5, 7; 44:9; 46:1, 2; 47:1, 2).<sup>8</sup> On the shelf were parts of two jars and an upper basalt grinding stone. An additional upper grinding stone (Fig. 51:3) was found leaning against W1



Plan 4. Building 104.



Fig. 9. Building 104, Room 139, looking west.





Fig. 10. Building 104, Room 104: *in situ* finds, looking west.

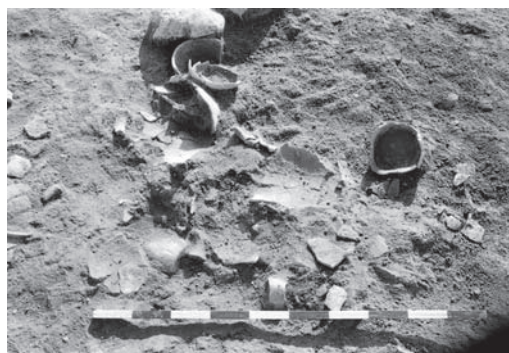


Fig. 11. Building 104, Room 104: bowls on the earthen floor.



Fig. 12. Building 104, Room 106: *in situ* pottery between the entrance to the room and the column base, looking north.

and a lower basalt grinding stone, 0.42 m long, was found at the foot of the shelf, near W9.

Broadroom 106 (2.95 × 6.50 m) was built perpendicular to Room 104. Its entrance was through Room 104, in the southern part of W6, and its threshold, composed of a flat basalt slab, was 0.1 m higher than the floors of the two rooms. Opposite the opening, at an equal distance from W5 and W6, was a column base sunk into the earthen floor (Fig. 12). In the center of the northern part of the room was a

round depression, 0.2 m deep. The location of the depression along the same axis as the southern column base and the sediments it contained, raise the possibility that an additional column base had been ‘uprooted’ by mechanical equipment during construction of the fish pond. In the northwestern corner of the room, at floor level, was a surface comprising a round, flat stone slab, surrounded by small stones. The finds from Room 106 include a jar with loop handles and painted with a net pattern

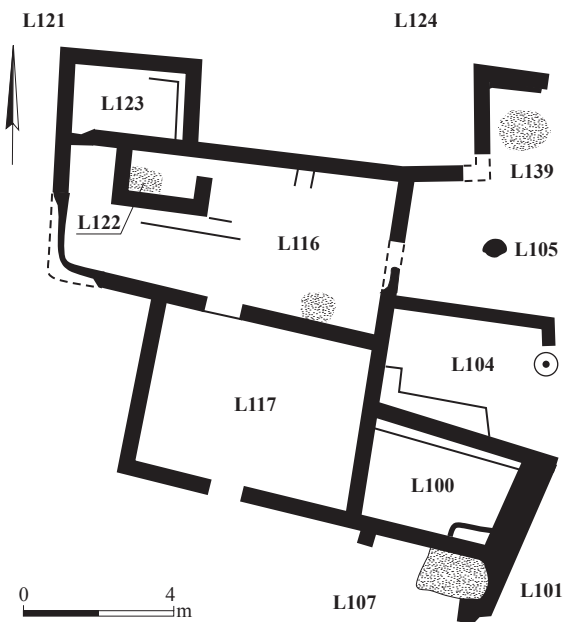


Fig. 13. Building 104, Room 106, looking south.

(Fig. 45:1) lying alongside the stone surface, an amphoriskos with two pierced handles (Fig. 44:11), two spouted bowls (Fig. 42:6, 8) and a pierced basalt weight (Fig. 49:1). Also found in the entrance and inside the room were parts of bowls and a cup from Room 104 (Figs. 13; 42:1).

*Building 116* (Plans 1, 2, 5). Building 116 was the best-preserved dwelling unit excavated in Area 100. It adjoined Building 104 on the west and comprised four or five rooms (L100, L116, L117, L122, L123; Fig. 14). It was entered from L107 to the south, through an opening in the center of W40, 0.65 m wide. Although all the walls of Room 117 were exposed, only its eastern half was excavated. No finds were recovered on the beaten-earth floor at elevation -203.66. To roof such a large space ( $4.1 \times 5.4$  m) would have necessitated the support of columns; however, no column bases were discerned despite the good preservation. Therefore, it can be assumed that Room 117 was an unroofed space that functioned as an open courtyard.

Room 116 was one of the largest broadrooms exposed at the site ( $3.5 \times 8.3$  m). Its entrance



Plan 5. Building 116.

was in the southern wall, W42, where the socket stone was found *in situ*. The floor, at the level of the threshold stones (-203.71), was of beaten earth and contained numerous sherds. No column bases were found in this room; therefore, it is assumed that the roofing





Fig. 14. Building 116, looking east.



Fig. 15. Building 116, Room 122, looking west.

rested on the walls of the small, inner room, L122, built against W43. A row of stones (W65) uncovered at the height of the floor and parallel to W48, and an additional section of a wall (W67) against the northern wall, W43, are evidence that an earlier inner room of slightly larger dimensions preceded the construction of

Room 122. Room 122 ( $1.2 \times 1.7$  m) was entered through W49. Its floor was slightly lower than that of Room 116 and paved in its western part with small, flat stones. The single find from this small room was a jar with folded ledge handles. The size of this room suggests it functioned as a storeroom (Fig. 15).

Room 123, measuring  $1.6 \times 2.8$  m, was added to the northwest of the building at a later stage. Its entrance, made in the northwestern corner of Room 116, had a flat stone threshold. A narrow stone shelf was constructed along W45 and W46.

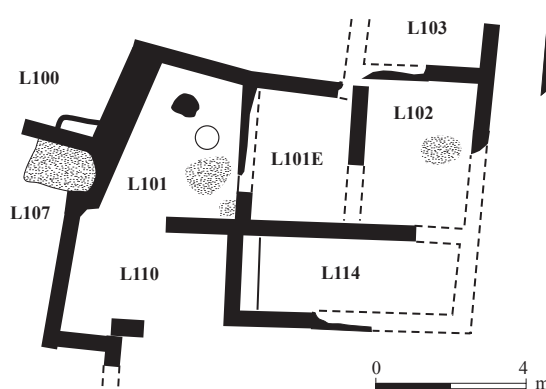
In Room 100, located in the center of the built-up block, no entrance was discerned. The room was attributed to Building 116 based on a number of considerations: the southern wall, W39, was the continuation of W40, and W12 of Building 101 adjoins its eastern wall, W13.

*Building 101* (Plans 1, 2, 6). This building extended over an area of c.  $7 \times 10$  m, between Building 104 in the north and Building 111 in the south. Five rooms are attributed to it (L101, L101E, L102, L110, L114). Locus 101 was apparently an unroofed, inner courtyard based on its location adjoining Building 104, and the installations within it. In the center of the locus were the remains of a *ṭabun* (diam. 0.6 m) and walls of burnt clay (4 cm thick). The beaten-earth floor of this courtyard was covered with a thin layer of ash and contained two surfaces of flat limestone slabs. The northern surface consisted of a round slab (diam. 0.4 m) held in place on the floor by a ring of stones, similar to

the surface in Room 106 and that in the passage in L126 (Fig. 16).

A row of stones (W11) separating Courtyard 101 from L101E may have been a low partition within a larger courtyard comprising both L101 and L101E, or L101E may have been a roofed room that bordered the courtyard. The few sherds recovered from L101E did not assist in determining the nature of this space.

The walls of Room 110 were partially preserved; however, its closure on the south by W21 attests that it was abutted onto Building 111 that preceded it. On the hard earthen floor of Room 110, at elevation -203.63, a large



Plan 6. Building 101.



Fig. 16. Building 116, Room 101, looking south.





Fig. 17. Building 101, L107: paved surface in the presumed entrance to the building, looking east.

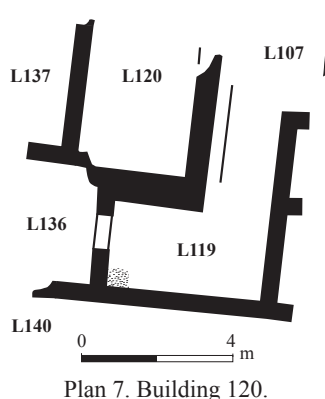
quantity of sherds was recovered, as well as two *in situ* jar bases, evidence that this room functioned as a storeroom.

Room 114 was preserved only in its western part. Its hard floor surface was composed of a cement-like mixture of earth and gravel. Along the length of W15 was a bench, 0.3 m wide, made of two rows of stones.

To the northeast, in Room 102, a hard surface similar to those in Rooms 110 and 114 was exposed c. 0.1 m below the surface. Near W3 was a round, stone-paved surface, 0.7 m in diameter.

The entrance to Building 101 was not preserved, but it may have been through the southern part of W12, which was adjoined on the other side, in L107, by a fine stone paving. It appears that in the early stage of the settlement, L107 was an open space or a street that ran east–west. It was later blocked by W12 when the buildings in the north and south were joined into a single large complex, and at this time L107 became an alleyway that gave access to Buildings 101 and 116 (Fig. 17).

*Building 120* (Plans 1, 2, 7). Four rooms (L119, L120, L136, L137) are attributed to this building, although its plan is unclear.



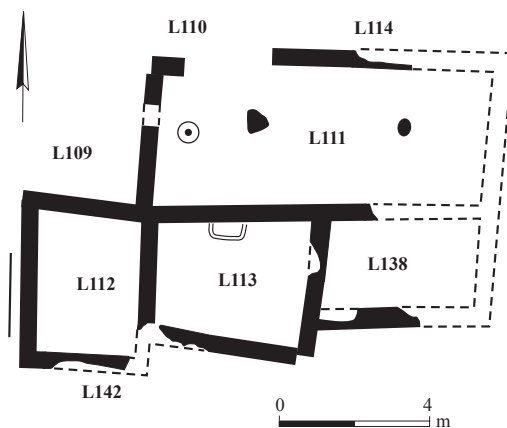
The closing wall on the north that bordered Alleyway 107 was not preserved; therefore, the dimensions of the rooms are unknown. In addition, due to the partial exposure of the building we were unable to determine whether it included more rooms on the west (Fig. 18).

Room 119 had an unusual, L-shaped plan and contained benches 0.4 m wide along the length of W30 and W31. In the center of W34, an opening was discerned connecting this room with Room 136 to its west. All the rooms of this building were empty of finds, except for Room 120 that contained the lower sections of four pottery vessels *in situ* along W33.



Fig. 18. Building 120 and the southern part of the complex, looking east.

*Building 111* (Plans 1, 2, 8). This building comprised a long, central room, L111, and three adjoining rooms to the south (L112, L113, L138) along a single axis.<sup>9</sup> It is possible that L113 functioned as an unroofed courtyard and the entrance to the three rooms of the house. A socket stone found *in situ* in the center of W27 is evidence that the threshold of Room 112 was incorporated as part of the foundation wall. While only the western half of Room 138 is preserved, it can presumably be reconstructed as measuring  $2.2 \times 3.7$  m, based on the line of W3, which enclosed the block on the east. In Room 111, two large stone bases, upon which stood wooden columns to support the roof, protruded some 0.1 m above the earthen floor. This room also lacked its eastern end and its size is estimated at  $3.5 \times 8.2$  m. It is reconstructed in the same fashion as Room 138, based on the line of W3, as well as the distance between W23 and the western column base. The floor of Room 111 was a hard surface composed of earth and gravel mixed with a binding agent. The finds from this room include a small amount of pottery and jar bases *in situ* near W24 and a basalt mortar sunk into the floor near W23.



Plan 8. Building 111.

The southern side of the complex, comprising Rooms 112, 113 and 138, is characterized by its irregularity, which can probably be attributed to the expansion of the building in stages.

*Building 109* (Plans 1, 2). This building had two rooms (108, 109), whose foundations are well preserved. Its entrance was apparently from L128 to the south. Room 109 ( $2.5 \times 4.6$  m) had narrow benches on the west along W19 and W20. Its northern wall did not extend along

a straight line and the niche that was created as a result of the joining of W21 to W17 widened the room slightly in the east. In the center of the room, two jar bases were found *in situ* (Fig. 19)—they are all that remained of the contents of the room, which were washed away by the water in the fish pond. Room 108,  $1.9 \times 3.0$  m, was c. 0.1 m lower than Room 109. Its foundations were built to a height of two courses and its beaten-earth floor was located at the level of the lowest course. No finds



Fig. 19. Building 109, Room 109, looking east; the jar bases can be seen in the center of the room.

were recovered in this room and the entrance from Room 109 was not discerned. It should be noted that the definition of these two rooms as an independent building is problematic and stems from the lack of entrances. It could also be proposed that these two rooms be attributed to the dwelling unit Building 111, or to Building 120, to the west.

*Loci 127, 129* (Plans 1, 2). These two loci in the southwest of the excavation area comprise the corners of two separate buildings that were not preserved. The structures were not attached to the central building complex and it can be assumed that L128 ( $5 \times 5$  m) was an open space at the juncture of three alleyways (L140, L141, L142) that approached from the west, south and east.

Despite the distance between these structures and the northernmost structure in the area, Building 133 (c. 28 m), the tops of the foundation walls are all at the same elevation (-203.50), evidence that this part of the site was situated on a natural terrace, formed by the Yarmuk River, that covered the Neolithic site (Fig. 20).



Fig. 20. Area 100 after excavation was ceased due to flooding by rainwater.



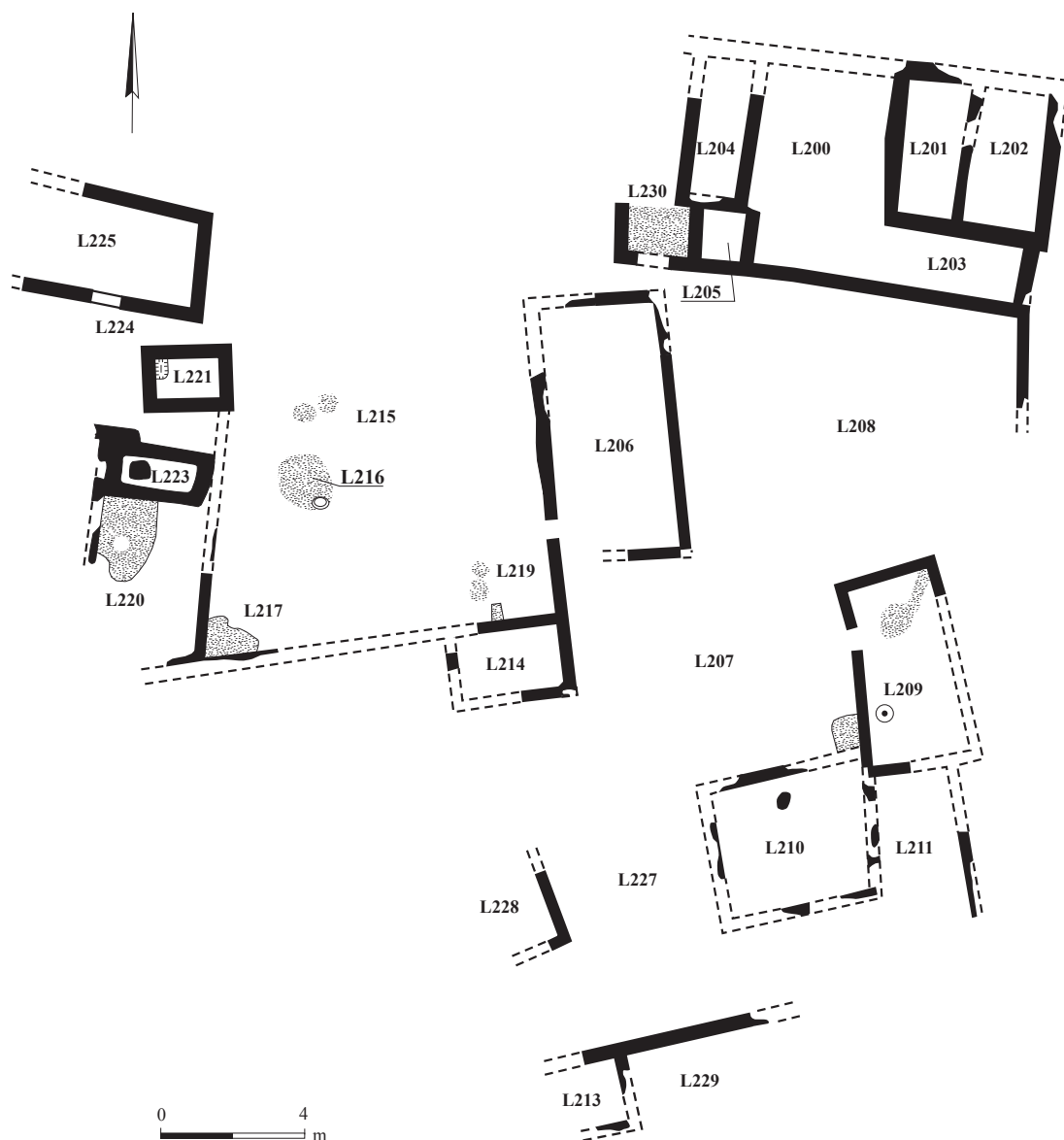




were built of mudbricks and in cases where the walls had survived to slightly higher than the stone foundations, many finds were recovered on the living surfaces preserved below the disintegrated mudbricks. Division of the architecture in the area into dwelling units was facilitated by the physical separation

of the buildings and slight differences in their orientation (Plans 9, 10).

*Building 200* (Plans 9–11). This building stood in the north of the excavation area and its foundations had been exposed by the elements. The area inside the building and immediately

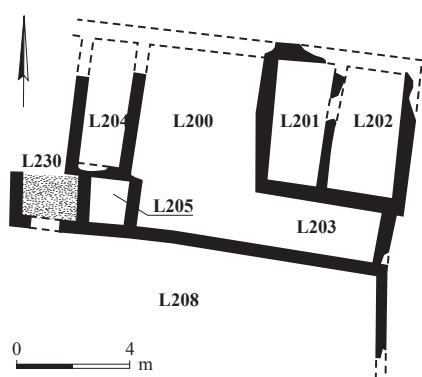


Plan 10. Schematic plan of Area 200.

outside it was covered with stones of various sizes; therefore, its excavation consisted mainly of identifying the foundations and removing the other stones (Fig. 21). The large number of stones surrounding the foundations could be explained as material that was incorporated into the mudbricks and remained in the vicinity after the mudbrick material had washed away. An alternative explanation is that this material

is the fill of the floor make-up and therefore, the actual living surface was not preserved, but only the outline of the building. It is also possible, of course, that these concentrations of stones are a result of bulldozer activity during construction of the fish ponds.

It is possible to discern in the plan and the construction method of the foundations that the building was built in stages. In the first stage, the northern wing apparently included three rectangular rooms (201, 202, 204) with an identical width of 5.5 m. These rooms stood at a distance of 2 m from W303, which was originally built as a boundary wall to the enclosure L208 to its south. In the second stage, the building was enlarged to the west (L230) and the south until W303 (Loci 200, 203, 205) and its plan was now rectangular, measuring  $7.7 \times 14.0$  m (Figs. 22, 23). In L200, which is the large space that occupies the center of the building ( $4.2 \times 6.5$  m), no column bases were discovered; therefore, it is unclear if this was a roofed space, or remained open and functioned as an unroofed courtyard. The entrances to the building and its rooms were not preserved.



Plan 11. Building 200.



Fig. 21. Area 200, beginning of the excavation of Building 200, looking south.





Fig. 22. Building 200, looking southeast.

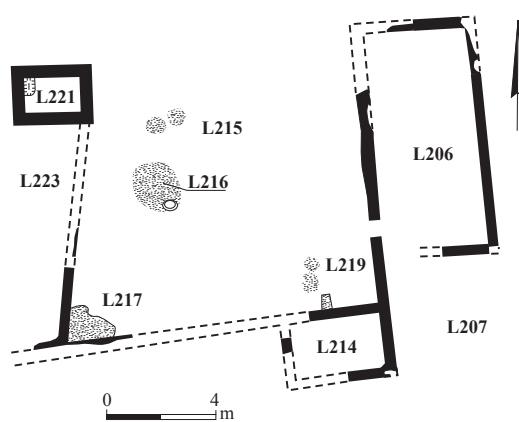


Fig. 23. Building 200 at the end of the excavation, looking south.





Fig. 24. Building 206, Room 206, looking south.



Plan 12. Building 206.

*Building 206* (Plans 9, 10, 12). This building stood to the southwest of Building 200, separated by a narrow passage, 0.75 m wide. Two rooms are attributed to this building (L206, L214), to the east and south of the open courtyard (L215), and it is possible that there were additional rooms on the northern side that have not survived (Fig. 24). The main dwelling

space, 206, was a large broadroom ( $3.9 \times 8.0$  m), entered from the courtyard through an opening in W314, 0.7 m wide. The socket stone set in the entrance was found slightly out of place, although it can be assumed that the door opened inward, as did that of Room 116 in Area 100. Most of the contents of the room had been washed away, apart from the body sherds of a jar and a bowl that remained on the earthen floor in the north of the room at surface level (-200.30).

Room 214 was small ( $1.9 \times 3.0$  m) and stood apart from Room 206. The entrance from the courtyard through the northern W317 still contained the western doorjamb *in situ*. This room contained no finds.

Courtyard 215 was enclosed by W314, W317 and W333. Although the northern wall of the courtyard was missing, its area could be estimated at over 100 sq m. In front of the two rooms, in L219, a hard cement-like floor of gravel and small stones was integrated with





Fig. 25. Building 206: the paving in L217 that reaches W333, looking north.



Fig. 26. Basalt mortar and paving (L216) in the center of Courtyard 215, looking north.

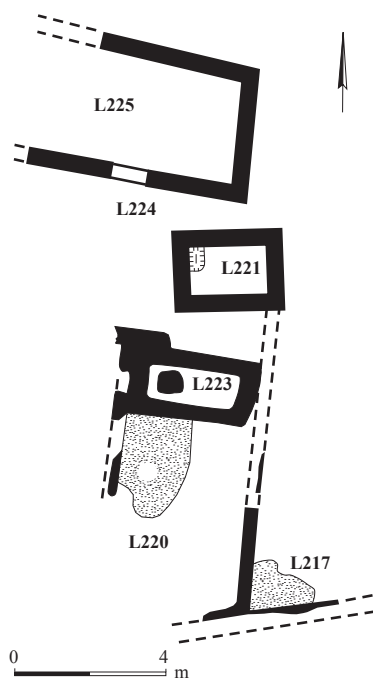
sections of paving. On the southwestern side of the courtyard, in L217, a section of small, closely paved basalt pebbles adjoined W333. Next to this paving was an additional pavement of large stones that was built at a later stage and lay at a slightly higher level (Fig. 25). This later pavement ended on the southern side in a straight line with W317, indicating that it had adjoined the continuation of this wall, which was not preserved. It is possible that the foundations of this boundary wall (W317) were destroyed when the fish ponds were constructed, or perhaps the wall on this side of the courtyard was built of mudbricks

without a stone foundation. In the center of the courtyard (L216), at elevation -200.52, was another paved surface made of large slabs and next to it, an oval basalt mortar on a raised base (0.52 m high, diam. 0.45 m; Fig. 26). Some 3 m to the north of the mortar was an earthen floor containing two paved oval surfaces (diam. 0.5 m), on one of which were the sherds of a jar, a flat lid made of limestone and a pierced object made from a disk-shaped basalt pebble. The few finds in the courtyard suggest activities connected to food preparation.

*Building 225* (Plans 9, 10, 13). This building was located in the northwestern part of the excavation area; it was not completely exposed due to time constraints. Its remains were not visible on the surface as its foundations were lower than those of the other buildings and therefore, better preserved. From the height of its floors it can be deduced that the ground on which it stood sloped down to the west. Its plan comprises rooms built within a courtyard enclosed by W332, W333 and W344 (Fig. 27).

The central dwelling space was probably Room 225, 3 m wide and more than 5.7 m long, located in the north of the complex on an east–west axis. Although only half of the

room's area was uncovered, it was clearly a broadroom. The foundations stood two courses high and the entrance was from the courtyard (L224) through an opening in the center of the southern wall, W344. The threshold was composed of flat basalt stones at the height of the lowest foundation course. The floor of the room was beaten earth, at elevation -200.67,



Plan 13. Building 225.

c. 0.3 m below the surface. Two small, separate square rooms (L221, L223) were located to the south of Room 225. Room 223,  $1.3 \times 2.2$  m, contained a paved surface in the northwestern corner. Its entrance was not discerned, but it may have been located in the western wall, W340, which faced the courtyard. Its back wall was incorporated into the boundary wall, W333 (Fig. 28).

Room 221 ( $1.0 \times 2.5$  m) was smaller than Room 223. A threshold of 0.7 m was revealed in the west between the foundations of W336 and W334, which stood on either side of the opening to a height of two courses (Fig. 29). On the floor in the front of the room was a square stone slab ( $0.55 \times 0.65$  m), surrounded and held in place by small stones. The single find in this room was a stone jar lid.

Locus 220 ( $3.7 \times 5.4$  m), to the south of Room 221, was apparently part of the enclosed courtyard. In this locus, near W334, was a pavement of flat basalt slabs laid in a circle around a depression (diam. 0.6 m), with a rim of small stones. One of the stones in the pavement was a grinding stone of vesicular basalt, indicating that this location was used for grinding grains (Fig. 30). As in Room 221, the only complete find was a stone jar lid found in the southeastern corner. Apart from the two lids, this building contained no other intact finds (Fig. 31).



Fig. 27. Building 225, looking south.





Fig. 28. Building 225, Room 221, looking west.



Fig. 29. Building 225, Room 223, looking west.



Fig. 30. Building 225: paving in L220 with *in situ* grinding stone, looking east.



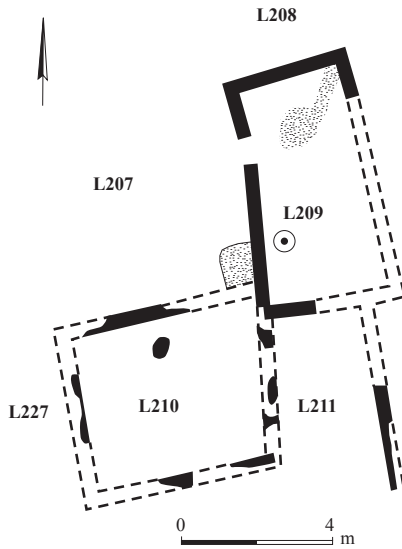
Fig. 31. Building 225, Rooms 221 and 223, looking east; in background, Courtyard 215 and Building 206.

*Building 209* (Plans 9, 10, 14). This building, in the southeast of the excavation area, comprised three rooms (L209, L210, L211), which, based on the irregularity of the plan, were apparently built in stages. Northern Room 209, a

broadroom measuring  $2.9 \times 5.9$  m, was the best preserved. Its foundations were carelessly built to a height of two courses of irregular width (0.30–0.45 m). The entrance was from the west through an opening (0.6 m wide) in W320. The



area in front of the entrance was paved with stones upon which was a layer of beaten earth and gravel (Figs. 32, 33). In its northern part, Room 209 was paved with large stones. Upon



Plan 14. Building 209.

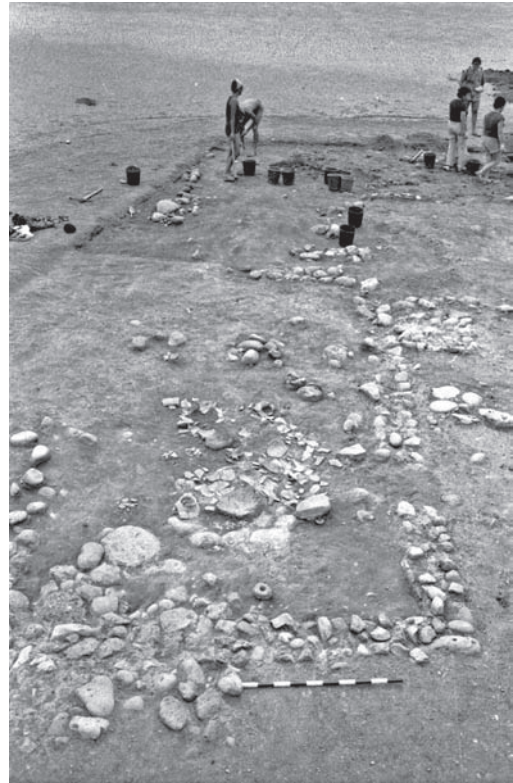


Fig. 32. Building 209: Room 209 with *in situ* finds, looking south.



Fig. 33. Building 209; behind it, open Courtyard 208 and Building 200, looking north.

the stones were sherds of seven vessels (Figs. 32–34)—four jars (e.g., Fig. 45:2), two cups (Fig. 42:2, 4) and an amphoriskos (Fig. 44:12). Also found in this room was a perforated stone (Fig. 49:3) of vesicular basalt and a basalt mortar sunk into the floor near the southern end of W320.

Room 211, to the south of Room 209, was narrower (2 m wide); its length is unknown, as its southern part was no longer extant. The floor was made of beaten earth and a section of paving was preserved near W323. The poor condition of Room 210 ( $4.25 \times 7.60$  m) did not allow us to determine if it was built at an earlier stage than Room 209. Room 210 is one of the



Fig. 34. Building 209: *in situ* pottery on pavement in Room 209.

largest rooms at the site, resembling L200 and Room 206 in the adjacent buildings. The large stone in the center of the room may be the only remaining example of stone column bases that supported the roof. There were no finds in this room or in adjoining Room 211.

*Courtyard 208* (Plans 9, 10, 14). The square area that borders Buildings 200, 206 and 210 was delimited on the east by W311, the foundations of a boundary wall. An intact small bowl was inserted into a depression in the northern wall (W303), where a foundation stone was missing. This open courtyard ( $9 \times 11$  m) was empty of installations apart from two large, flat stones in its center. It may have functioned as an animal pen, and was probably the property of the inhabitants of Building 209, as the other buildings that bordered this courtyard (L200, L206) had their own courtyards. The square space L207 ( $7.5 \times 9.0$  m) was the southern continuation of Courtyard 208, whence an entrance led into Room 209, and probably also into Room 210, although this entrance was not preserved. In this area, near the northwestern corner of Room 209, a pithos<sup>11</sup> (max. diam. 0.6 m) was buried up to its neck in the earthen floor (see Fig 48:1).



Fig. 35. Building 229: *in situ* jar sherds in Room 229, looking north.



*Building 229* (Plans 9, 10). Excavation of this building in the south of Area 200 was not completed. The fragmentary walls that were uncovered are attributed to two rooms (L213, L229). Room 229 was probably the larger of the two, its northern wall, W329, preserved to a length of 4.8 m. Its floor, located 0.15 m below the surface, was made of beaten earth mixed with crude sand and gravel. On the floor on the eastern side of the room was a concentration of five or six smashed jars, *in situ*, that were



Fig. 36. Building 229: concentration of stone lids in Room 213.

poorly preserved due to their proximity to the surface; they could not be restored (Fig. 35).

In adjacent Room 213, only sections of the foundation walls (W329, W330, W331) on the east were preserved. In this room as well, fragments of ceramic vessels were found *in situ* on the earthen floor, along with three stone lids with diameters suited for jar lids and an oval basalt stone with two hollows (a mortar or socket? Fig. 36).

*Building 228* (Plans 9, 10). Between Buildings 206 and 229 was the corner of Room 228 (W327, W328), which stood at a different angle from the buildings around it. It can be presumed that this room belonged to a separate building, most of which extended westward into the unexcavated area, where a concentration of stones could be discerned on the surface. Based on the large body sherds of ceramic vessels and a stone lid (Fig. 50:3) scattered within the room, it seems that this room had also contained *in situ* vessels, although most of the sherds were missing because of its proximity to the surface (Figs. 37, 38).



Fig. 37. Building 228, Room 228, looking south.



Fig. 38. The southern side of Area 200, looking east.



Fig. 39. Basalt mortar sunk into Floor 227.

Locus 227 was apparently an open area between Buildings 228 and 229. In this locus, near W329, was a basalt mortar with a depression (diam. 0.17 m), which was sunk into the earthen floor up to its rim and held in place with small stones (Fig. 39).

#### *Building Methods and Architectural Elements*

There was a close similarity in building methods between the two excavation areas. The inhabitants of Sha'ar Ha-Golan made use of building materials available in the immediate vicinity, and no evidence was detected of constructional differences that could be attributed to social rank, nor were there any structures that could be defined as being of a public nature.

*Wall Foundations.* All the wall foundations uncovered in both areas were of similar construction, comprising two faces with a fill of small stones mixed with mud. The foundations were 0.35–0.50 m thick and one to three courses high. In the better-preserved walls it was evident that the top surfaces had been leveled in preparation for the mudbrick superstructure. It can be assumed that the mudbrick walls were thinner than the foundations and carried only one



story. Although the nature of the site and the excavation conditions in the two areas prevented us from discerning mudbrick walls without stone foundations, such walls probably existed, as seen at contemporary sites, such as Tell Umm Hammad and Tell Abu en-Ni'aj in the Jordan Valley (Palumbo 1991:75). The existence of such constructions could explain, for example, the roofing of especially large spaces at Sha'ar Ha-Golan, such as Room 117 in Area 100 or Loci 200 and 210 in Area 200.

*Floors.* In most cases, floors of beaten earth, located at a level with the lowest stone foundation course, were sufficient for the needs of the inhabitants. The damp soil made it difficult to detect such floors during excavation. In some cases, the floor levels were indicated by pottery vessels and other finds or by layers of ash and soot that lay upon them. In addition to the beaten-earth floors, there were also hard surfaces and more crumbly floors made by mixing earth with materials such as gravel or crude sand that were brought from the nearby Yarmuk River.

*Stone Pavements and Installations.* Carefully assembled stone pavements were discovered in such locations as the presumed entrance to Building 101 in L107 and in the entrance to Room 209. In other cases, as in Courtyard 220, these pavements could have functioned as work surfaces or even as bases for installations, such as mudbrick silos, as, for example, the surface in the southwestern corner of Room 215. On the other hand, many rooms had sections of irregular paving and only in one case (Room 230 in Building 200) was a room completely paved. It does not seem likely that these sections of paving were designed to hold pottery vessels, as were found in Room 209, but rather, their purpose was to repair earthen floors that had sunk or been damaged by water. Surfaces paved with especially large stone slabs were apparently intended for food

preparation or other household chores, such as the installations in Courtyard 101.

*Column Bases.* Wooden columns were the usual solution for supporting roofs over large expanses, preventing them from sagging. The columns stood on wide, flat stone bases that were fixed into the earthen floors. In Area 100, column bases were found in Rooms 105 and 106, which were defined as broadrooms. When large stones were found on the central axis and at appropriate distances from each other, they could be defined as column bases even if part of the room was missing, as, for example, in Room 111. Room 116 attests that not all broadrooms were supported by columns, as here an alternative solution for supporting the roof was the construction of partition walls or a small inner room. This may explain why no column bases were found in the broadrooms in Area 200, although it is possible that a different method of roofing was applied, such as the use of long tree trunks that did not need the support of columns. Such wooden beams could have derived from date palms, which grew abundantly in this geographic region.

*Benches.* In a number of rooms, raised surfaces, which are termed benches or shelves, were built along walls. They measured 0.3–0.5 m wide and some, such as those in Rooms 104, 114 and 119, were built of stones standing upright on their narrow ends. In our opinion, the upper part of the benches—comprising a platform of two to three courses of mudbricks—was missing. These benches were used to hold vessels, as in Room 104 of Area 100 (see also Khirbat Iskandar in southern Transjordan—Richard and Boraas 1988: Fig. 6) and perhaps for other functions, such as seating.

The benches, like the column bases, are architectural elements that were found only in some of the buildings in Area 100, and it is therefore difficult to establish to what extent this element was characteristic of the EB IV buildings at Sha'ar Ha-Golan.

## THE FINDS

*Pottery*

The pottery vessels illustrated in Figs. 41–48 are representative of the EB IV ceramic assemblage uncovered in the two excavation areas at the site (Table 1). Complete, *in situ* vessels (Fig. 40) were found as well as diagnostic sherds. As it was clear that the two assemblages were contemporaneous and belong to the same settlement, they were combined into one large assemblage. This assemblage is, however, still incomplete due to the constrictions of the



Fig. 40. Complete EB IV pottery vessels.

excavation (missing, for example, are such types as high-necked jugs and teapots, which are found in domestic contexts, although much more common in tomb assemblages). The unequal distribution of vessels in the two areas (see Fig. 55) and the fact that complete vessels were only found in isolated rooms, is most certainly due to the depth to which the bulldozers penetrated during construction of the fish pond. The assumption that the contents of the houses remained in place after the site was abandoned is based on the lower parts of vessels that remained on the floors.

The pottery vessels from Sha'ar Ha-Golan did not undergo petrographic analysis. We assume that they were formed of local clay quarried near the banks of the river, as the ware is characterized by limestone and basalt inclusions originating in the Mountains of Gilead and the Golan Heights. The clay was fired to a brown or light brown color, with stains of varying shades appearing on the vessels as a result of inconsistent firing. A large percentage of the sherds have gray cores, indicating that most of the vessels were incompletely fired.

Table 1. The EB IV Ceramic Assemblage

Type	Code	Area 100	Area 200	Total	%
Small shallow bowls	B1	6	2	8	2.2
Large shallow bowls	B2	36	17	53	14.7
Cups	C	11	1	12	3.3
Deep bowls	B3	6	6	12	3.3
Chalice	CH		1	1	0.3
Holemouth kraters	K	9	19	28	7.7
Cooking pots	CP	43	34	77	21.3
Jugs	J	9	3	12	3.3
Narrow-necked amphoriskoi	A1	1		1	0.3
Wide-necked amphoriskoi	A2	2	2	4	1.1
Storage jars	SJ	67	77	144	40.0
Pithoi	P	1	5	6	1.8
Lamps	L	1	1	2	0.5
<i>Total</i>		<i>192</i>	<i>168</i>	<i>360</i>	<i>100.0</i>

The vessels were handmade and are characterized by large flat bases. The closed vessels have a spherical shape and the bases are wider than the necks. The upper parts of the vessels were prepared separately on a tournette. The two parts were then joined and the juncture carefully smoothed even on the inside, making it difficult to detect. Handles were very popular in this assemblage, adapted to fit the specific type of vessel: ledge handles on jars and bowls, strap handles on jugs and jars and pierced lug handles on amphoriskoi. The pottery of Sha'ar Ha-Golan is characterized by painted, incised and plastic decoration. The vessels were often red slipped, although the relative frequency of this surface finish could not be quantified, as some of the vessels had lost the slip due to prolonged contact with the damp soil of the fish ponds, while others were covered with incrustation. Small and medium-sized serving vessels were usually completely slipped, while larger vessels were sometimes decorated with red-painted stripes applied with a brush over fine combing. Incised decorations comprising horizontal and wavy lines and herringbone patterns appear on various vessel types. In addition, thumb-impressed decoration was applied to large vessels, appearing mainly on plastic, rope-like strips.

The vessels are described from open to closed categories and from small to large vessels. For convenience, parallels from other sites are presented in the figure descriptions accompanying the illustrations.

*Shallow Bowls (B1, B2)* (Fig. 41).— The diameter of the shallow bowls, which reaches up to 0.45 m, is two to three times their height. There is no difference in shape between the small and large shallow bowls (B1, B2), although it is clear that they served a different function. The small bowls, with a diameter of 0.15–0.20 m (Fig. 41:1, 2), were probably personal bowls for solid food, while the large bowls were used mainly for serving, as well as for preparation. The shallow bowls can be divided into three subtypes: (1) bowls with straight and

flared walls (Fig. 41:1–3); (2) bowls with a slight carination near the rim (Fig. 41:4); and (3) bowls with in-turned walls (Fig. 41:5–10). The rims are mostly simple (Fig. 41:1, 2) or cut (Fig. 41:10), others have a gutter (Fig. 41:3, 6), ridges (Fig. 41:7), or a thumb-indented edge (Fig. 41:5). Most of the bowls have ledge handles of varying width, usually attached near the rim. The ledge handles on bowls are smooth (Fig. 41:1) or folded (Fig. 41:6, 8) and frequently thumb-indented (Fig. 41:7, 9). The bowls from Sha'ar Ha-Golan resemble in shape the uniquely decorated 'Trickle-Painted Ware' bowls characteristic of sites from this period in the Middle Jordan Valley and the Jezreel Valley (Wightman 1988:158).

*Cups (C)* (Fig. 42:1–4).— The cups, with a diameter of 0.10–0.12 m, can also be classified as personal vessels. All the cups have a simple rim and a slightly in-turned wall. Most are red slipped, sometimes decorated with one to three deeply incised, horizontal lines. These cups are the northern equivalent of the most common cups of this period in the assemblage of the southern family (Dever 1980:45–49), termed by the excavators of Lakhish 'the Calciform Culture' (Tufnell 1958:41–42). This vessel type is unknown in the pottery assemblages of earlier periods and may owe its existence to the influence of imported, Syrian wheel-made vessels (Bunimovitz and Greenberg 2004:27).

*Deep Bowls (B3)* (Fig. 42:5–10).— Two types of deep bowls were discerned:

1) The first type comprises bowls without handles, resembling the cups, although their capacity is twice that of the cups and they all have a spout formed by pinching the rim. Similar to cups, most of the deep bowls are red slipped on the outside, sometimes also on the inside. Bowls of similar shape and size are known from nearby sites such as el-Husn (Harding and Isseerlin 1953: Fig. 1:2), although the spouted bowls characteristic of Sha'ar Ha-Golan are not common, and parallels for these



are known only from Dhahert Umm el-Marar (Palumbo 1991: Fig. 32:7) and Jericho (Kenyon and Holland 1983: Fig. 19:28). The idea of forming a spout in this way was apparently adopted from the closed EB IV vessels common mainly in the north of the country, such as the jugs in the tombs at Menaḥemiya (Bahat 1976: Fig. 2:5–11) and Tel ‘Amal (Feig 1991:122, Fig. 5:10), as well as jars and amphoriskoi at Qedesh (Tadmor 1978:11, Figs. 3, 4) and ‘Enan (Eisenberg 1985: Fig. 4). However, it is possible that the bowl with the pinched rim is a Syrian influence, based on the parallel from Tomb IV at Mishrefe-Qatna (Du Mensil du Buisson 1935: Pl. XLVII).

2) The second type of deep bowl (Fig. 42:9, 10) has folded ledge handles and is unslipped. The wavy incision on the vessel in Fig. 42:10 is very characteristic of the southern pottery

of EB IV and is virtually unknown in northern assemblages (Smithline 2002: Fig. 17:18).

*Chalice (CH)* (Fig. 42:11).— This chalice, or goblet, is completely red slipped with a flared wall and a foot formed by a carination above the flat base. Such chalices are known from various EB IV sites, where they are also relatively rare. This vessel type continues a long ceramic tradition (Prag 1974:81–83), as demonstrated by the EB III chalices at ‘Ai (Marquet-Krause 1949: Pls. LII:1534; LIII:1486). The unusual shape of the chalice in the EB IV assemblage raises an alternative possibility that its source of inspiration was the imported metal vessels, such as the silver chalice from ‘Ain Samiya (Yeivin 1971:79), or perhaps it was an imitation of a Syrian ceramic, wheel-made chalice (Tadmor 1978:22, Fig. 8:74–1202).

Fig. 41 ►

No.	Reg. No.	Locus	Description	Parallels
1	1020	104	Light brown clay, lime and basalt inclusions	Tel ‘Artal (Hess 1984: Fig. 1:1) Tiwal esh-Sharqi (Tubb 1985: Fig. 3: NE 16:5) Meggido T.1120 A (Guy and Engberg 1938: Pl. 22:10) Kabr el-Faras (Meyer 1975: Fig. 3:6)
2	1011	104	Light brown clay, lime and basalt inclusions, red slip ext. and int.	Menaḥemiya (Bahat 1976: Fig. 3:5) Wadi el-Hammeh (Wightman 1988: Fig. 14:7)
3	2061	Surface	Light brown clay, gray and black stains	H. Qishron (Smithline 2002: Fig. 11:3) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:4) Dhahret Umm el-Marar (Palumbo 1991: Fig. 37:1) Tel Bira (Peilstöcker 2003: Pl. 5.1:2)
4	1062	124	Brown clay, lime and basalt inclusions	Murhan (Tsori 1971: Fig. 2:6) H. Qishron (Smithline 2002: Fig. 11:5) Tel Na‘ama (Greenberg et al. 1998: Fig. 20:6)
5	1061/6	123	Light brown clay	Kh. Abu-Hawaja (Meyer 1975: Fig. 4:1)
6	2035/22	227	Brown clay, gray core, lime and basalt inclusions	H. Qishron (Smithline 2002: Fig. 11:2) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:5) Tell Umm Hammad Stage 6/7 (Helms 1986: Fig. 17:12)
7	2035/23	227	Brown clay	Kabr el-Faras (Meyer 1975: Fig. 3:4) Iktanu Phase 1 (Prag 1974: Fig. 7:1)
8	1057/8	119	Brown clay, gray core, lime and basalt inclusions	H. Qishron (Smithline 2002: Fig. 10:9) Iktanu Phase 2 (Prag 1974: Fig. 7:6) Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 39:3)
9	2016/4	210	Gray-brown clay, lime and basalt inclusions	
10	1052/11	116	Light brown clay, mending holes	H. Qishron (Smithline 2002: Figs. 10:4; 13:6)

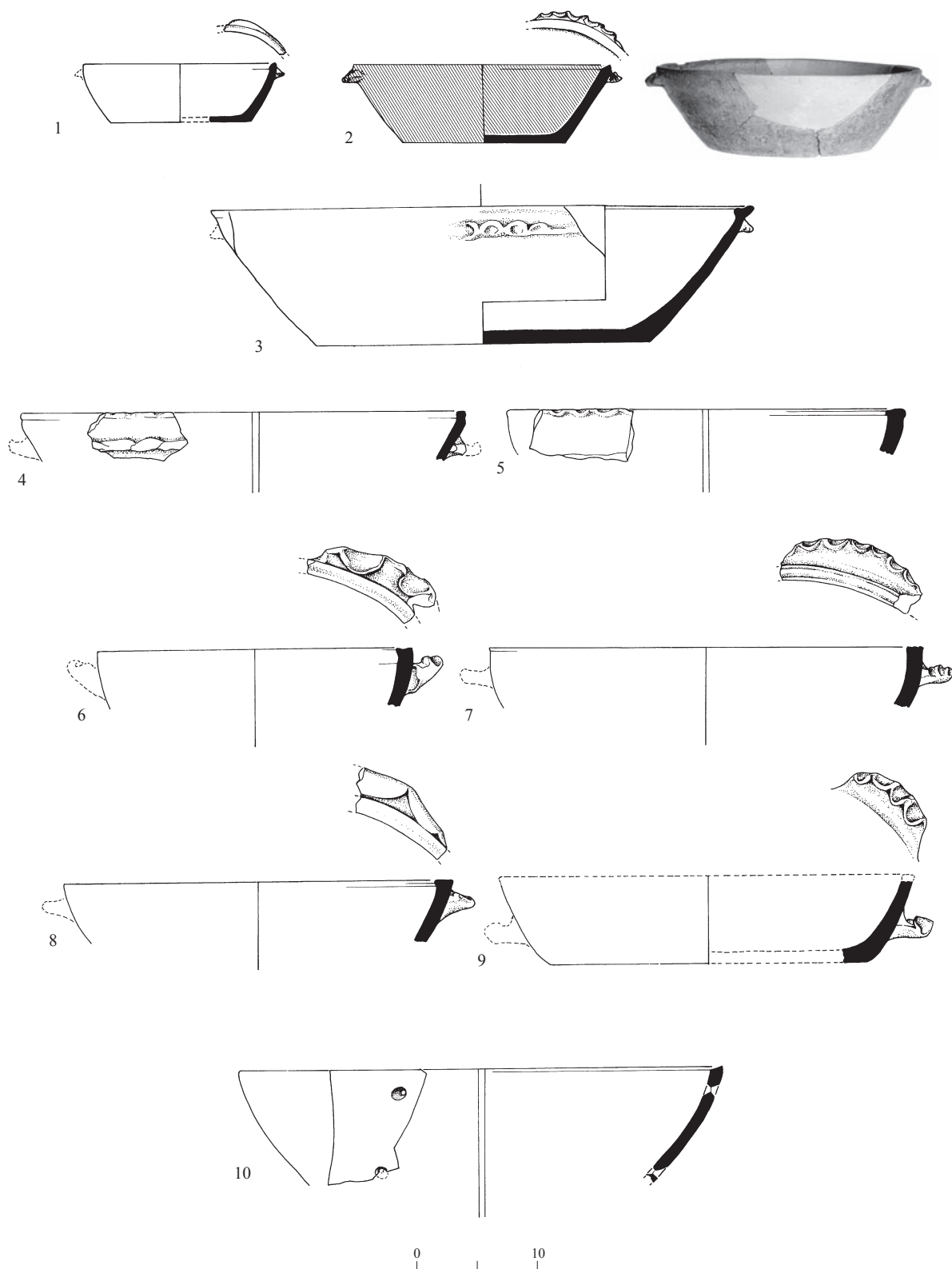


Fig. 41. Shallow bowls.

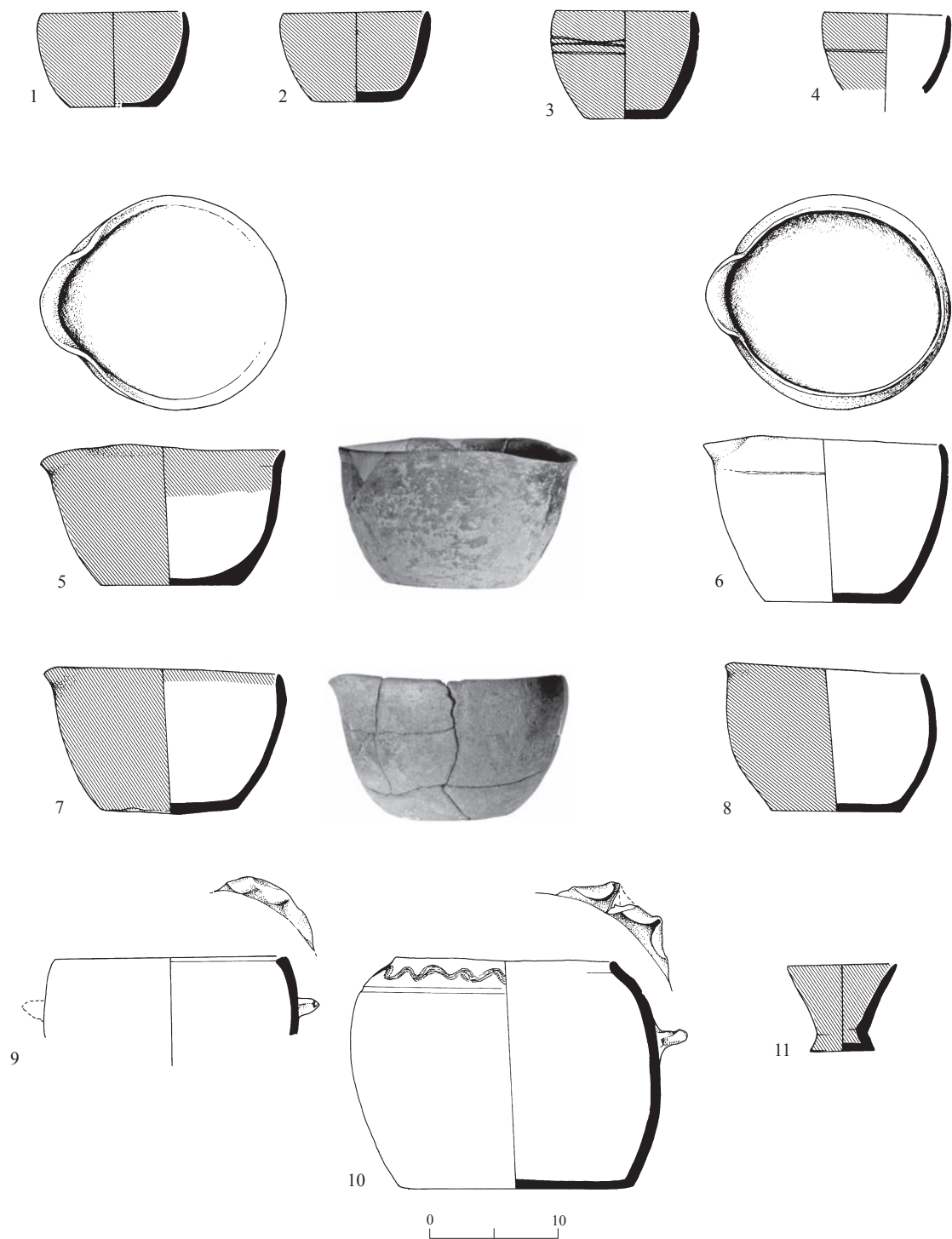


Fig. 42. Cups, deep bowls and a chalice.



◀ Fig. 42

No.	Type	Reg. No.	Locus	Description	Parallels
1	Cup	1019	104	Light brown clay, red slip	Menahemiya (Bahat 1976: Fig. 3:6) Iktanu Phase 1 (Prag 1974: Fig. 3:19)
2	Cup	2015	209	Brown clay, red slip	‘Enan (Eisenberg 1985: Fig. 3:2)
3	Cup	2010	208	Gray clay, basalt inclusions, red slip, 3 horizontal incisions	Kabr el-Faras (Meyer 1975: Fig. 3:14) Jericho (Kenyon and Holland 1983: Fig. 19:23, 27)
4	Cup	2029	209	Brown clay, red slip, horizontal incision	Megiddo T.1120 A (Guy and Engberg 1938: Pl. 22:11) Jericho (Kenyon and Holland 1983: Fig. 20:1)
5	Spouted bowl	1012	104	Brown-gray clay, red slip	Iktanu Phase 2 (Prag 1974: Fig. 6:9, not spouted)
6	Spouted bowl	1031	106	Light brown clay, lime and basalt inclusions	Mishrefe-Qatna T.IV (Du Mensil du Buisson 1935: Pl. XLVII:212) Dhahret Umm el-Marar (Palumbo 1991: Fig 32:7, 8)
7	Spouted bowl	1010	104	Light brown clay, lime and basalt inclusions, red slip	
8	Spouted bowl	1045	106	Light brown clay	
9	Bowl	1029/5	108	Light brown clay	‘En Helu (Covello-Paran 1999: Fig. 39:5)
10	Bowl	1013	105	Light brown clay, horizontal and wavy incisions	H. Qishron (Smithline 2002: Fig. 17:18) Jericho (Kenyon and Holland 1983: Figs. 67:1; 104:2)
11	Chalice	2035/1	227	Brown clay, lime and basalt inclusions, red slip	Mishrefe-Qatna T.IV (Du Mensil du Buisson 1935: Pl. XLVII:40) Bet She‘an T.88 (Oren 1973: Fig. 20:7; Loud 1948: Pl. 9:14) Gal‘ed T.XI (Meyer 1974: Fig. 10:23) Wadi el-Hammeh T.65 (Wightman 1988: Fig. 14:5) Iktanu Phase 1 (Prag 1974: Fig. 3:20) Tel Esur (Yannai 1996: Fig. 7:12) Kh. el-Kirmil (Dever 1975: Fig. 5:26)

*Holemouth Kraters (K)* (Fig. 43).— All the vessels in Fig. 43 are various types of neckless or holemouth kraters. These vessels are characterized by a thick, flat or triangular rim, and a number of examples are red slipped on the outside and sometimes on the inside, as in the example in Fig. 43:10. Some of these vessels are decorated with horizontal, wavy or stabbed incisions, as well as plastic rope decoration, which is common on large kraters (Fig. 43:9). As with most of the vessels, it can be assumed that the kraters also had a flat base, although it is uncertain if they had handles, as no complete

vessels were recovered. The variations in the size of these vessels may indicate their different functions. The smaller kraters were more appropriate for preparation and the serving of food or drink, while the larger vessels were used for storage of solid as well as liquid food, as evidenced by the short spouts on some of the kraters (Covello-Paran 1999:57).

It should be noted that kraters are household vessels typical of settlement sites such as Ḥorbat Qishron (Smithline 2002:30–34, Figs. 14, 15:1–7) and are almost never found in burial contexts.

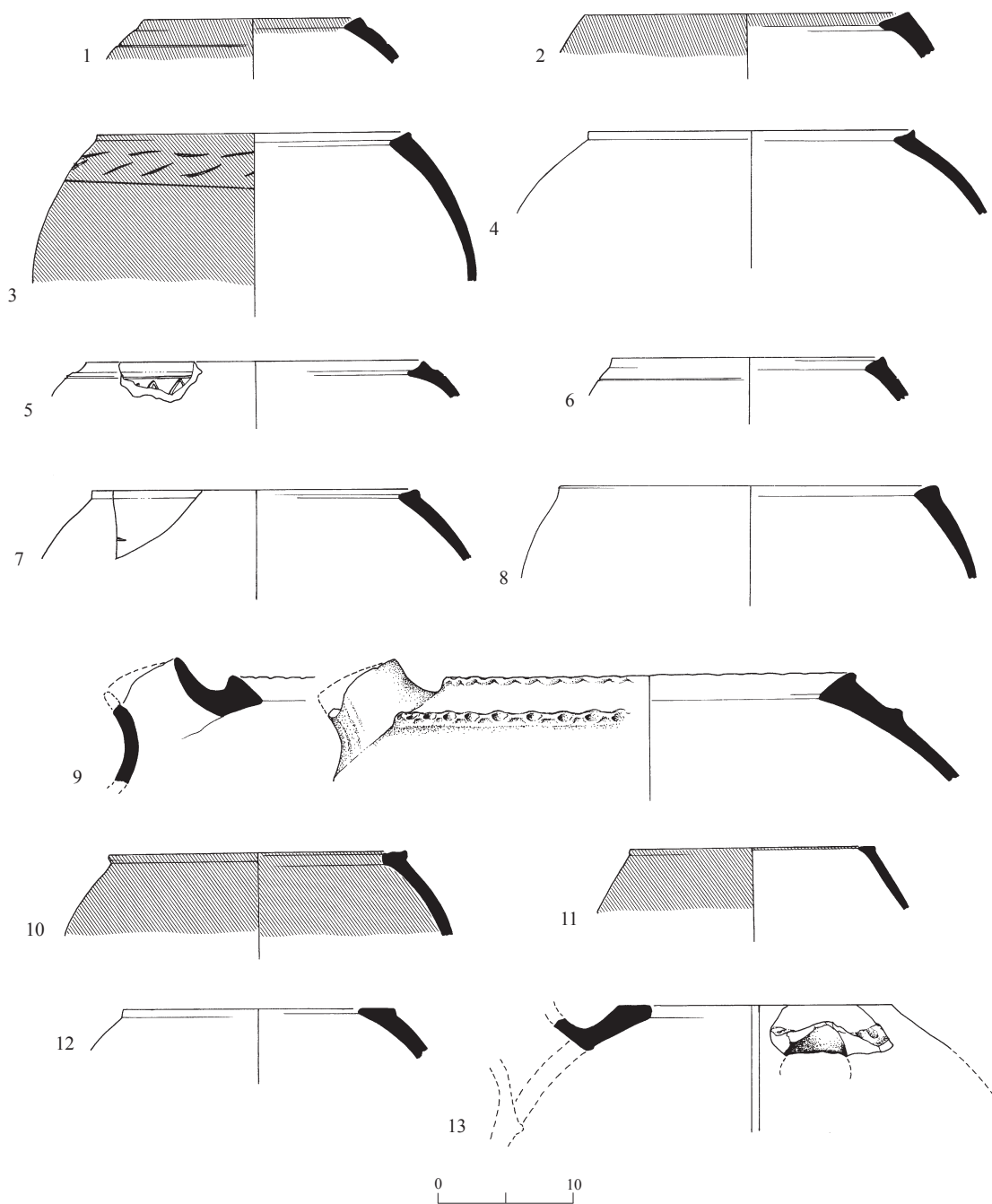


Fig. 43. Holemouth kraters.

*Cooking Pots (CP)* (Fig. 44:1–6).— Cooking pots were made of heat-resistant ware containing large quantities of calcite and basalt inclusions. They are vessels with a short neck, a wide mouth and a simple everted, rounded or cut rim. The

cooking pot belongs to the small number of vessel types in the assemblage that were not slipped, although some have plastic rope decoration or thumb-impressed decoration on the shoulder. While no complete cooking pots were found—

◀ Fig. 43

No.	Type	Reg. No.	Locus	Description	Parallels
1	Krater	1029/1	108	Brown clay, red slip, horizontal incisions	Kabr el-Faras (Meyer 1975: Fig. 2:24)
2	Krater	2002/24	201	Light brown clay, red slip	H. Qishron (Smithline 2002: Fig. 14:14) Kabr el-Faras (Meyer 1975: Fig. 2:23)
3	Krater	2064	Surface	Brown clay, red slip, incisions	
4	Krater	1052/10	116	Brown clay	Iktanu Phase 1 (Prag 1974: Fig. 3:17) Tell Umm Hammad Stage 7 (Helms 1986: Fig. 19:7) ‘En Helu (Covello-Paran 1999: Fig. 40:10)
5	Krater	2033/12	226	Light brown clay, horizontal and wavy incisions	
6	Krater	1059/13	111	Light brown clay	
7	Krater	2002/31	201	Light brown clay	H. Qishron (Smithline 2002: Fig. 14:11) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:6)
8	Krater	2033/2	226	Brown clay	Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 42:4) Tel Na‘ama (Greenberg et al. 1998: Fig. 20:15)
9	Spouted krater	2060	Surface	Brown clay, rope-like decorations	‘En Helu (Covello-Paran 1999: Fig. 40:17)
10	Krater	2017/9	215	Light brown clay, red slip	H. Qishron (Smithline 2002: Fig. 14:13) ‘En Helu (Covello-Paran 1999: Fig. 40:3)
11	Krater	1060/12	114	Brown clay, red slip.	
12	Krater	2039/8	213	Brown clay	Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 42:6)
13	Spouted krater	1060/13	215	Brown-gray clay	Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 41:1)

perhaps due to the more friable ware from which they were made, they were probably spherical in shape without handles, based on parallels from other sites. The vessels in Fig. 44:1–3, without decoration, belong to the type of pot common in the northern family (Family N according to the classification of Dever 1980:45–46) and appear at sites such as Ḥanita, Ma‘ayan Barukh, Ha-Gosherim, ‘Enan and Qedesh. On the other hand, cooking pots with rope decoration below the neck were found at the sedentary habitation site of Tel Na‘ama in the Ḥula Valley (Greenberg et al. 1998: Fig. 20:9, 14), although these are more typical of sites in the Lower Galilee, the Jezreel Valley and the Middle Jordan Valley (the region of Dever’s Family NC).

*Jugs (J)* (Fig. 44:7, 8).—Although no complete jugs were recovered, it can be assumed that

these vessels resembled the type with a short neck common in tombs in the region of the Jordan Valley (Feig 1991: Fig. 5:1–4). The jugs are red slipped inside and out, with wide strap handles that extended from the rim.

*Amphoriskoi (A1, A2)* (Fig. 44:9–12).—These vessels are characterized by a squat body with two pierced, triangular-sectioned lug handles. They can be divided into two types:

A1) Amphoriskoi with a short neck and a wide mouth (Fig. 44:10). The vessel in Fig. 44:9 is probably also of this type, although it is not complete. Amphoriskoi of this type, like the jugs, are typical burial vessels and are less common in settlement assemblages.

A2) Amphoriskoi with a long neck and a narrow mouth. The amphoriskos in Fig. 44:11 has an



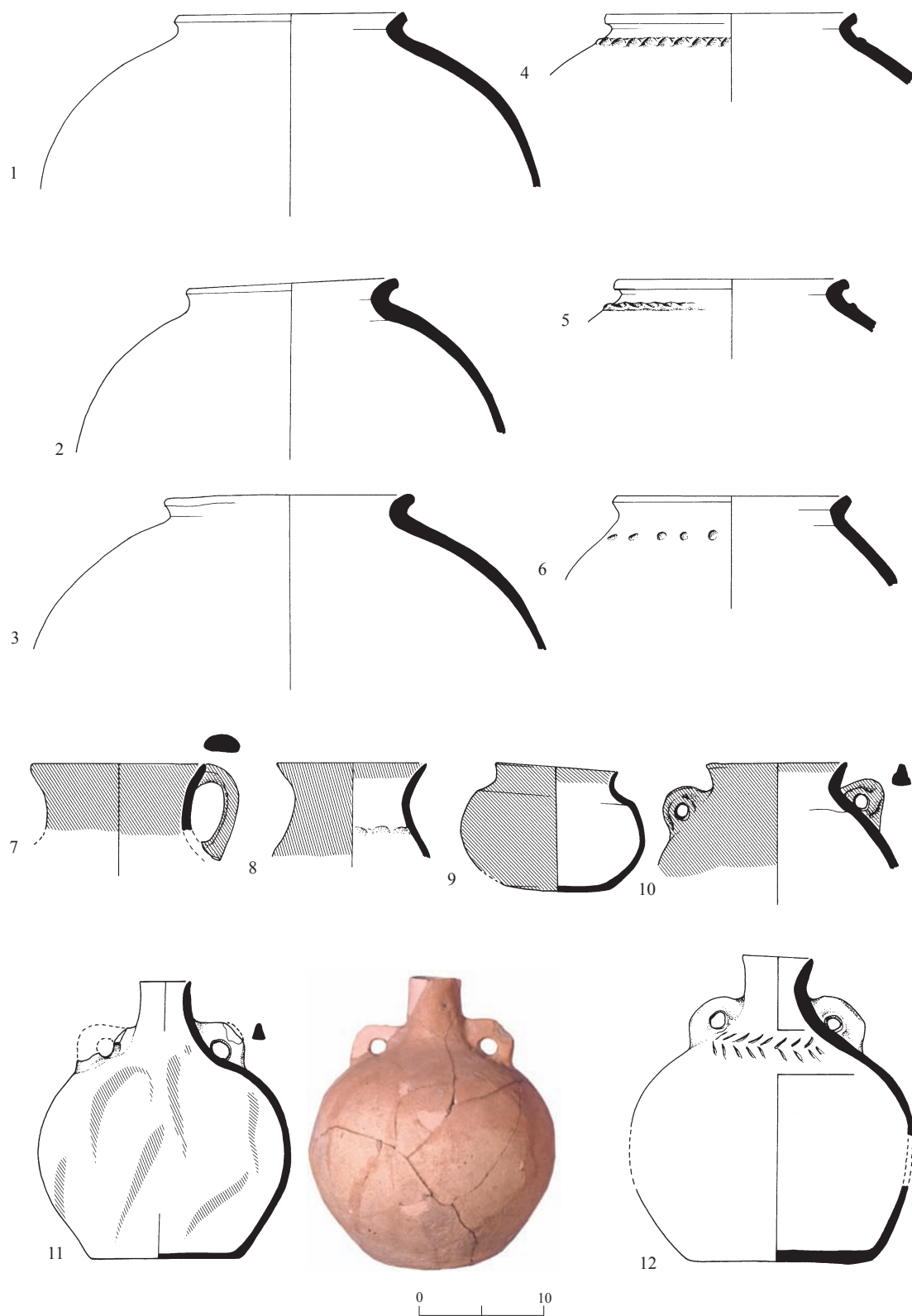


Fig. 44. Cooking pots, jugs and amphoriskoi.

◀ Fig. 44

No.	Type	Reg. No.	Locus	Description	Parallels
1	Cooking pot	1039	106	Brown clay, gray core, basalt and calcite inclusions	Qedesh (Tadmor 1978: Figs. 5:70–5.10)
2	Cooking pot	1042	106	Brown clay, basalt and calcite inclusions	H. Qishron (Smithline 2002: Fig. 13:1) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:10) Nahf T.3 (Getzov 1995: Fig. 8:11) ‘En Helu (Covello-Paran 1999: Fig. 42:2)
3	Cooking pot	1043	106	Brown clay, gray core, basalt and calcite inclusions	‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:13) Ha-Zore‘a (Meyerhof 1989: Pl.9.3:69) ‘En Helu (Covello-Paran 1999: Fig. 42:10) Tel Na‘ama (Greenberg et al. 1998: Fig. 20:12)
4	Cooking pot	1044/1	106	Brown clay, basalt and calcite inclusions, rope-like decoration on shoulders	Bet She‘an T.108 A (Oren 1973: Fig. 24:5) H. Qishron (Smithline 2002: Fig. 12:2) Tel Na‘ama (Greenberg et al. 1998: Fig. 20:9)
5	Cooking pot	1045/4	106	Brown clay, gray core, basalt and calcite inclusions, rope-like decoration on shoulders	Bet She‘an T.110 (Oren 1973: Fig. 22:4) Murhan (Tsori 1971: Fig. 2:8) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 10:16) H. Qishron (Smithline 2002: Fig. 12:11) Kabr el-Faras (Meyer 1975: Fig. 2:20) Tel Bira (Peilstöcker 2003: Pl. 5.3:11)
6	Cooking pot	1040	106	Brown clay, basalt and calcite inclusions, thumb decoration on shoulders	Kabr el-Faras (Meyer 1975: Fig. 2:18) Ma‘ayan Barukh (Amiran 1961: Fig. 6:5) Tel Bira (Peilstöcker 2003: Pl. 5.3:1)
7	Jug	1052/8	116	Brown clay, basalt and lime inclusions, red slip	Menahemiya (Bahat 1976: Fig. 2:1) Yavne‘el T.2 (Liebowitz and Porat 1992: Fig. 1:4) Tel ‘Amal (Feig 1991: Fig. 5.1:2) Ha-Zore‘a (Meyerhof 1989: Pl. 8. 3:1) H. Qishron (Smithline 2002: Fig. 17:13) Nahf T.3 (Getzov 1995: Fig. 8:5)
8	Jug	1052/12	116	Brown clay, basalt and lime inclusions, red slip, thumb decoration on shoulders	
9	Amphoriskos?	1021	104	Light brown clay, basalt and lime inclusions, red slip	Menahemiya (Bahat 1976: Fig. 2:6) El-Husn (Harding and Isseerlin 1953: Fig. 1:11,12) Megiddo T.1120 A (Guy and Engberg 1938: Pl. 22:13)
10	Amphoriskos	2059	Surface	Light brown clay, red slip	Tell Iztabba (Zori 1962: Pl. 16:5 left) Tel Rehov T.2 (Yogev 1985: Fig. 1:8) Wadi el-Hammeh (Wightman 1988: Fig. 8:8) Gal‘ed T.XI (Meyer 1974: Fig. 10:21) Tel Esur (Yannai 1996: Fig. 7:8) Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 43:4)
11	Amphoriskos	1031	106	Light brown clay, red brush stripes	El-Husn (Harding and Isseerlin 1953: Fig. 1:8) Nahf T.3 (Getzov 1995: Fig. 8:8,9) Tell Abu en-Ni‘aj (Palumbo 1991: Fig. 43:5)
12	Amphoriskos	2027	209	Light brown clay, incised herringbone decoration	Tel Rehov T.7 (Yogev 1985: Fig. 1:3) Qedesh (Tadmor 1978: Figs. 4:70–4.87)

upright neck and red-painted stripes applied by brush in a style similar to the Trickle-Painted Ware. The rim of the vessel in Fig. 44:12 is slightly flared and decorated with an incised herringbone between the handles.

*Storage Jars (SJ)* (Figs. 45–47).— Storage jars are among the most common vessels at the site. They are made of brown fabric that varies between shades of yellowish brown, gray and black due to inconsistent firing conditions. The

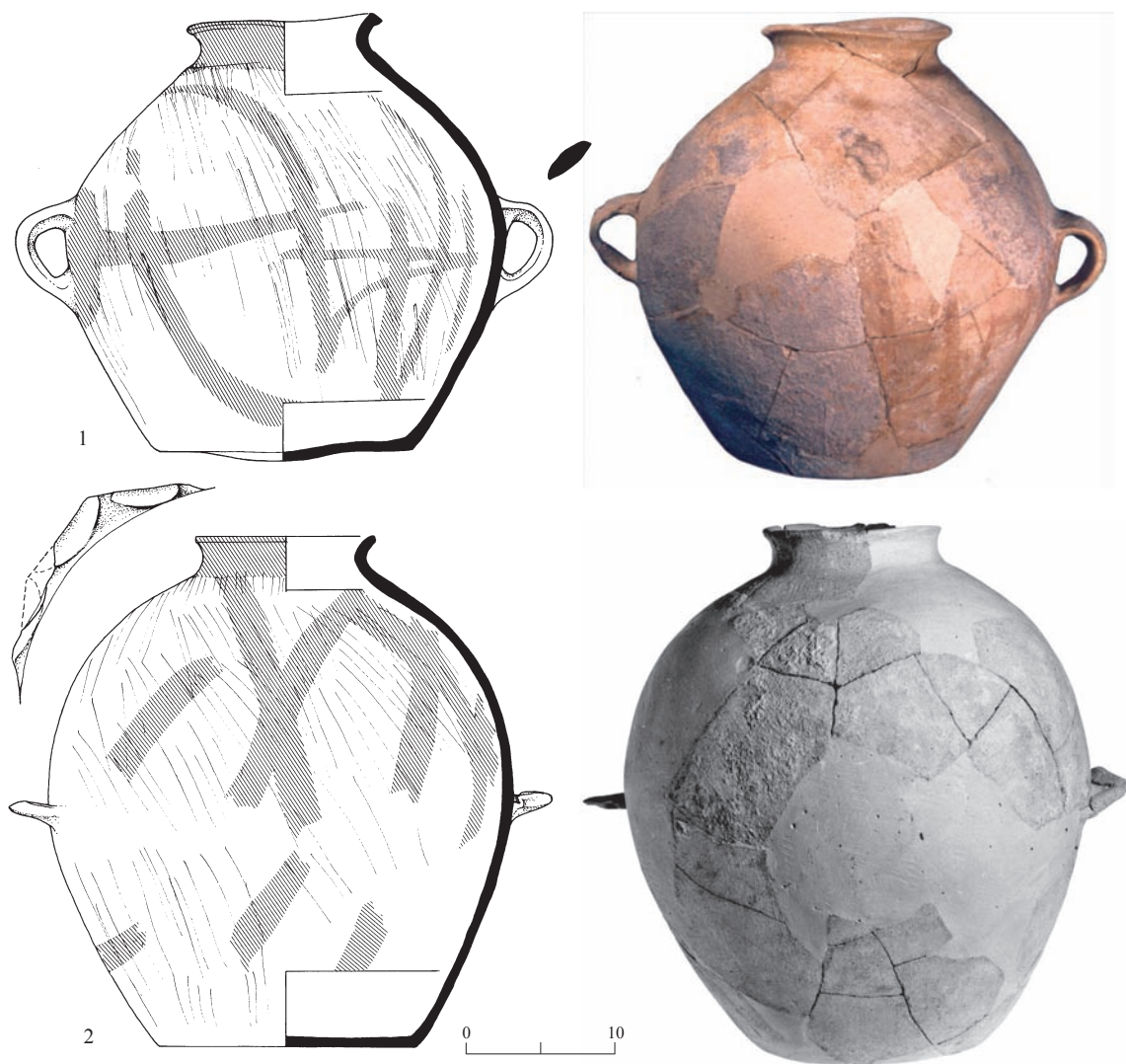


Fig. 45. Storage jars.

No.	Reg. No.	Locus	Description	Parallels
1	1037	106	Light brown clay, red bands above delicate combing	Menahemya (Bahat 1976: Fig. 2:14) Tiberias (Tzaferis 1968: Fig. 5:11) Qedesh (Tadmor 1978: Fig. 3:70–492) Ha-Zore'a (Meyerhof 1989: Pl. 10.3:50) 'En Helu (Covello-Paran 1999: Fig. 43:7)
2	2027	209	Light brown clay, red bands above delicate combing	Bet She'an T.203 (Oren 1973: Fig. 19:1) Tel Rehov T.24 (Tzori 1975: Fig. 3:4) Tel 'Amal (Feig 1991: Fig. 6:8) Ha-Zore'a (Meyerhof 1989: Pl. 10.:3:33) Nahf T.2 (Getzov 1995: Fig. 6:5)



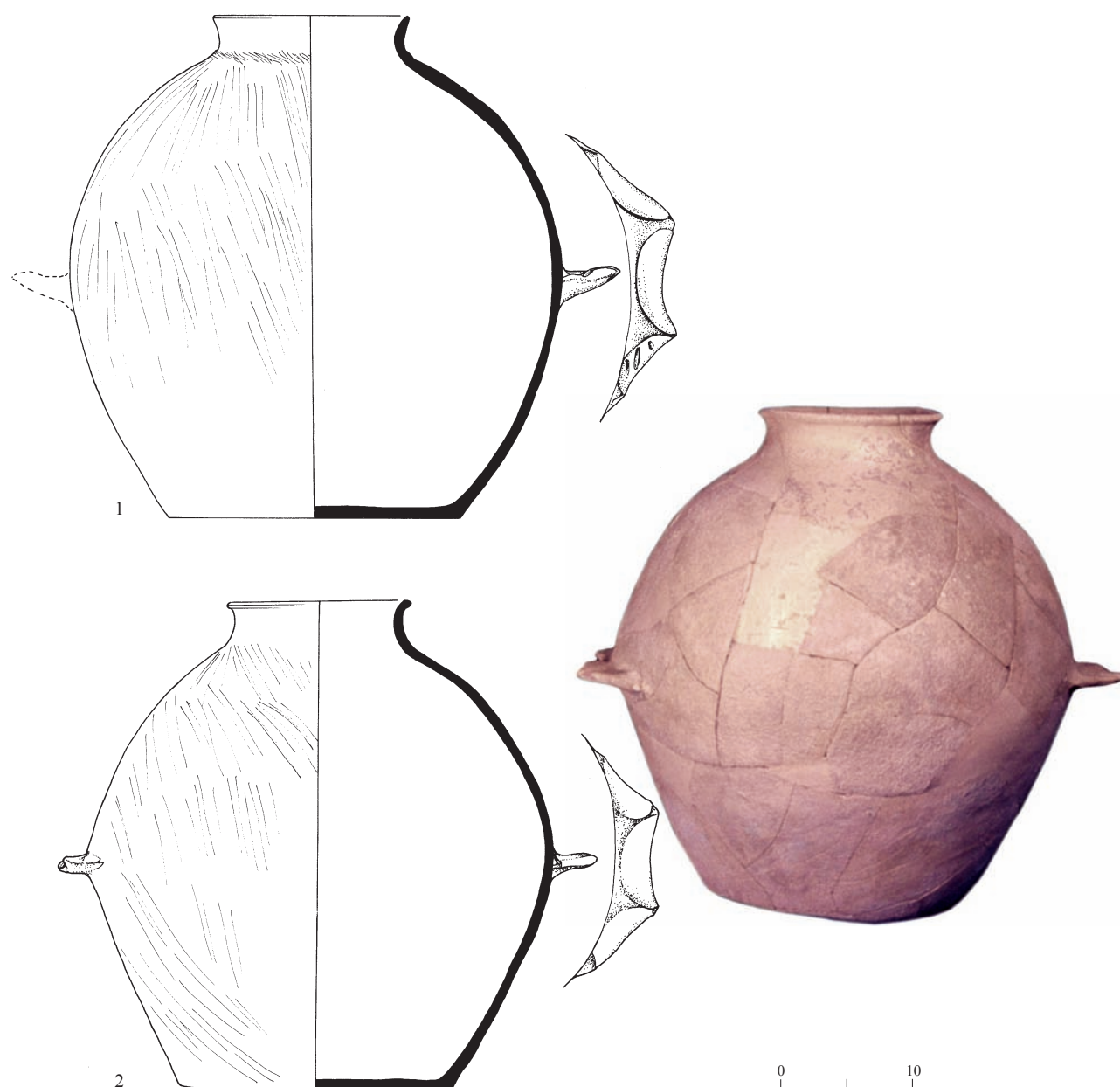


Fig. 46. Storage jars.

No.	Reg. No.	Locus	Description	Parallels
1	1017	104	Light brown clay, delicate combing, incised marks on ledged handle	Tel Rehov T.12 (Tzori 1975: Fig. 3:1) Tel Rehov T.7 (Yogev 1985: Fig. 1:13) El Husn (Harding and Isseerlin 1953: Fig. 4:59) Qedesh (Tadmor 1978: Fig. 3:70–497) Ha-Zore'a (Meyerhof 1989: Pl. 11.3:51) 'En Helu (Covello-Paran 1999: Fig. 44:1)
2	1018	104	Light brown clay, delicate combing	Tel 'Artal (Hess 1984: Fig. 1:10) Tiwal esh-Sharqi (Tubb 1985: Fig. 4:SE 1:1) 'Afula Str. V (Gal and Covello-Paran 1996: Fig. 11:15,16) Megiddo T.887 B2 (Guy and Engberg 1938: Pl. 12:6) H. Qishron (Smithline 2002: Fig. 16:7)

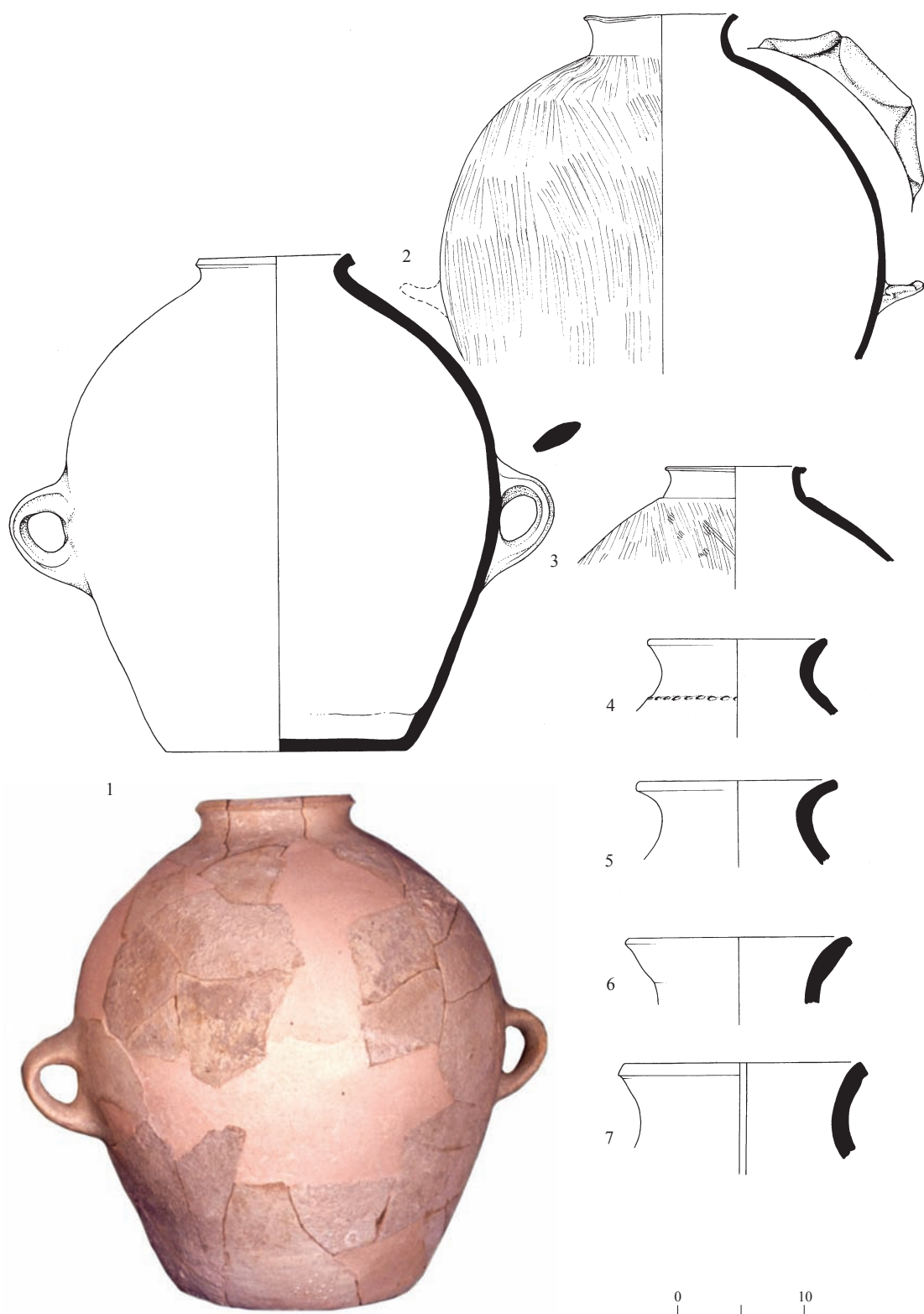


Fig. 47. Storage jars.

◀ Fig. 47

No.	Reg. No.	Locus	Description	Parallels
1	1016	104	Light brown clay	‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 11:3) H. Qishron (Smithline 2002: Fig. 16:5) ‘Enan (Eisenberg 1985: Fig. 4:18)
2	1023	104	Light brown clay, delicate combing	H. Qishron (Smithline 2002: Fig. 16:10) ‘En Helu (Covello-Paran 1999: Fig. 43:10)
3	1036/2	106	Light brown clay, traces of red paint above delicate combing	Murḥan (Tsori 1971: Fig. 2:9)
4	2036/2	228	Brown-gray clay, basalt and lime inclusions, incised decoration on shoulders	Deganya A (Seligman and Yogev 1993: Fig. 3) H. Qishron (Smithline 2002: Fig. 16:12) Tel Rehov T.7 (Yogev 1985: Fig. 2:12) Tiwal esh-Sharqi (Tubb 1985: Fig. 3:SE 1a:4)
5	2008/4	206	Brown clay, basalt inclusions	Tel Rehov T.7 (Yogev 1985: Fig. 1:14) ‘Afula Str. V (Gal and Covello-Paran 1996: Fig. 11:12) Megiddo T.1120 B (Guy and Engberg 1938: Pl. 22:20)
6	1002/7	102	Brown-gray clay	Tel Bira (Peilstöcker 2003: Pl. 5.2:4)
7	2005/1	203	Light brown clay, gray core, basalt inclusions	H. Qishron (Smithline 2002: Fig. 17:9)

body of the jars is spherical or oval and the walls and base are thin. The neck is short with a flaring, simple or triangular rim.

All the jars have wide strap handles or folded ledge handles, both types being diagnostic features of the period. Some of the jars were smoothed, while others were finely combed; this is also a finishing technique, not just a decorative element. In some cases, the entire neck and the area around the handles were painted red-brown with a brush. The jar in Pl. 45:1 was decorated with a careless grainwash similar to jars from Menahemiya, Tiberias and Tel ‘Amal (Feig 1991: Fig. 6:6). The jar in Fig. 45:2 was painted over combing with a net pattern in a similar method to that used to decorated jars from EB I–III.

*Pithoi* (P) (Fig. 48:1–4).— The small number of sherds attributed to this vessel type suggests that such vessels were only produced in small numbers. The pithos in Fig. 48:1 was almost completely preserved, apart from the rim, as it

was partially buried in the floor of the courtyard near Building 209 in Area 200. This is an oval storage vessel, c. 0.7 m high, with a rounded base. Two rope-like strips decorate the body and a third, ring-like strip was located near the base. Thick sherds attributed to pithoi were found in both excavation areas; therefore, the missing upper part of the vessel in Fig. 48:1 can be reconstructed according to rims from other vessels (Fig. 48:2). No parallels were found for this pithos, although smaller oval storage vessels with rounded bases comprise part of the northern ceramic repertoire in both tombs (Oren 1973:34; Amiran 1974:1) and settlement sites (Covello-Paran 1999:63–65). On the other hand, the rope-like plastic decoration is widely distributed, common on large vessels at settlement sites such as Tel Bira in the ‘Akko plain (Peilstöcker 2003:207, Pl. 5.2:12), at sites in the Negev plateau (Cohen 1999:250–251) and at Kh. Iskandar in Transjordan (Richard and Boraas 1988: Fig. 7).



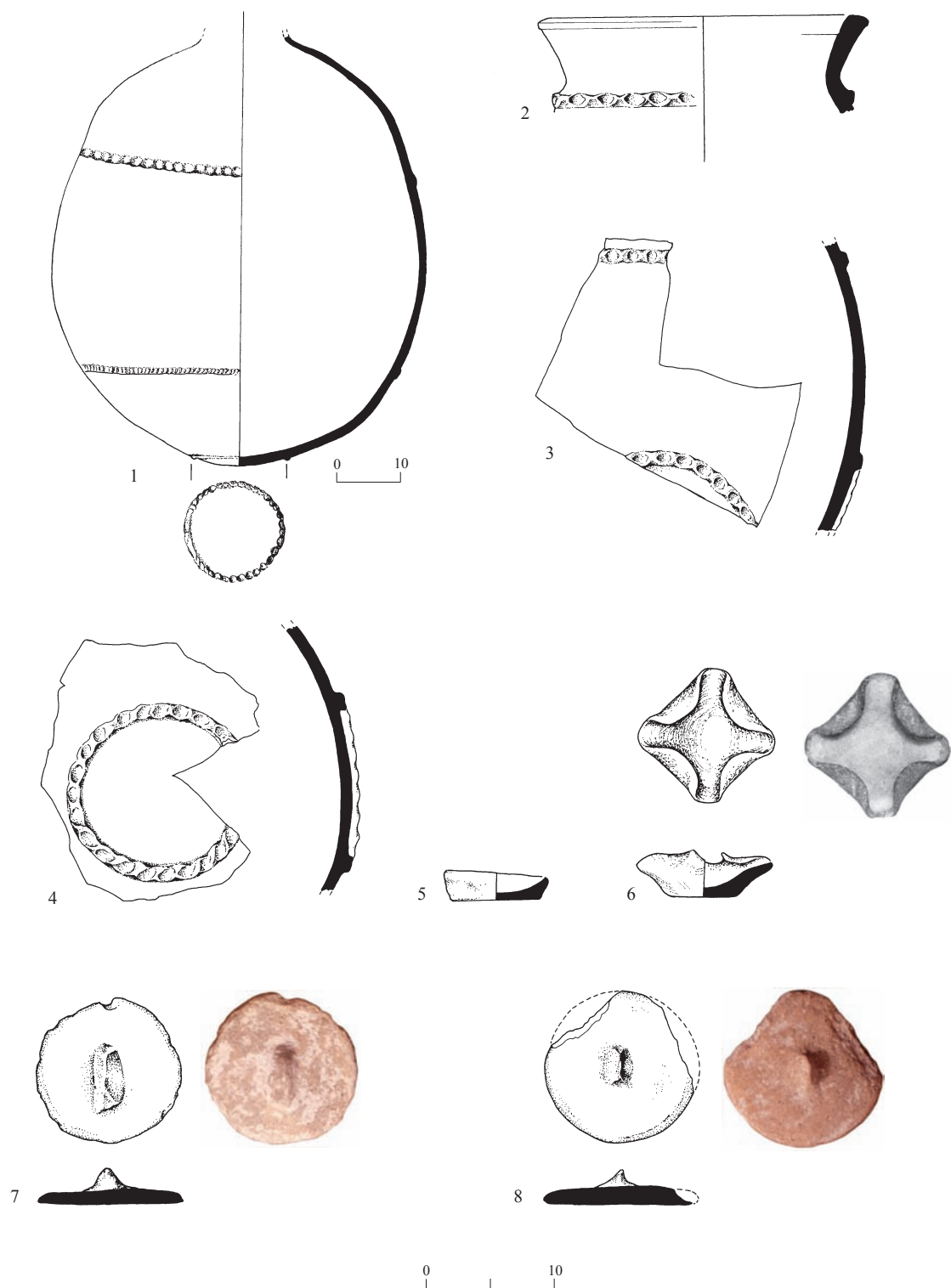


Fig. 48. Pithoi, lamps, lids and spindle whorls.

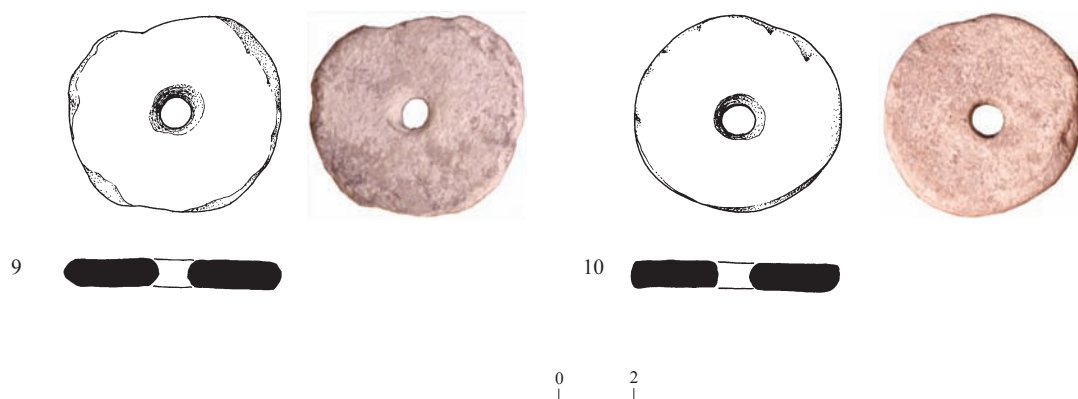


Fig. 48. (cont.).

No.	Type	Reg. No.	Locus	Description	Parallels
1	Pithos	2062	207	Brown-gray clay, plastic rope-like decorations on base and body	Iktanu Phase 2 (Prag 1974: Fig. 8:5) ‘En Helu (Covello-Paran 1999: Fig. 45:9)
2	Pithos	2063	Surface	Light brown clay, plastic rope-like decoration	Murhan (Tsori 1971: Fig. 2:7) Yavne’el T.1 (Liebowitz and Porat 1992: Fig. 1:13) ‘Araq en-Nasaneh (Dever 1974: Pl. 1:4) Tell Umm Hammad Stage 7/8 (Helms 1986: Fig. 18:9) Dhahret Umm el-Marar (Palumbo 1991: Fig. 33:5)
3	Pithos body	1048/1	110	Brown clay, plastic rope-like decorations	
4	Pithos base	1048/2	110	Light brown clay, plastic rope-like decorations	
5	Oil lamp?	1022		Brown clay	
6	Oil lamp	Private collection	Surface	Brown clay	Tel Rehov T.26 (Tsori 1975: Fig. 4:1) El Husn (Harding and Isseerlin 1953: Fig. 1:1) Wadi el-Hammeh (Wightman 1988: Fig. 11:1–7) Tiwal esh-Sharqi (Tubb 1985: Fig. 4:SE 2:4; Loud 1948: Pl. 9:20)
7	Lid	2055	Surface	Light brown clay	
8	Lid	2056	Surface	Light brown clay	
9	Spindle whorl	1007/2	104	Brown clay	Murhan (Tsori 1971:6) ‘En Helu (Covello-Paran 1999: Fig. 49:1,2) Tel Bira (Peilstöcker 2003: Pl. 5.3:14)
10	Spindle whorl	1007/1	104	Brown clay	H. Qishron (Smithline 2002: Fig. 18:1, 2) Tell Abu en-Ni’aj (Palumbo 1991: Fig. 40:4)

*Lamps (L)* (Fig. 48:5, 6).— The lamp in Fig. 48:6, with four spouts, is a surface find.<sup>12</sup> The excavations in Area 100 yielded a single fragment of a spout of a lamp of this type. The four-spouted lamp is widely distributed and is one of the most typical vessels of EB IV. Similar to most of the EB IV repertoire, this lamp type also continues a ceramic tradition from EB II–III (Richard 1980:18).

Traces of soot on the rim of the simple bowl in Fig. 48:5 indicate that such bowls may also have been used as lamps; however, it is difficult to determine on the basis of a single example if this vessel type was specifically produced for the purpose of illumination.

*Lids* (Fig. 48:7, 8).— These two objects were found on the surface outside of the excavated area, between Buildings 200 and 225. They have a round, flat, disk-like shape with a diameter of c. 0.12 m, and a pinched protrusion in the center. They are made of the same brown clay from which the other vessels at the site were produced, and based on their shape and diameter, are appropriate for jars, similar to lids that were fashioned from sherds (Covello-Paran 1999:66) and stone disks (see Fig. 50). Parallels to these lids were found in the kitchen ware of the EB IV building in Area X at Bab edh-Dhra', although the diameters of the disks at this site were larger, as they were intended to cover cooking pots. It should be noted that the excavators of the site interpreted these objects differently, as "hotplates used for items placed within the fire" (Rast and Schaub 1978:19).

*Spindle Whorls* (Fig. 48:9, 10).— It is commonly accepted to view these disk-shaped objects with smoothed edges, biconically-drilled in the center, as spindle whorls (Shamir 1996:149). They were made from sherds of large vessels that were reshaped into disks with a diameter of 5.5 cm. It should be noted that two of the spindles were found in one room (Room 104), where grinding stones were also found; therefore, it can be assumed that in this part of Building 106 various household

activities took place, including the weaving of textiles.<sup>13</sup>

Spindle whorls are common objects at all EB IV sites in the settled lands and are evidence that cloth weaving was an essential craft in every household. It is, therefore, surprising that in all the sites excavated in the Negev plateau, only a single spindle whorl was recovered (Cohen 1999:259).<sup>14</sup> This would seem to indicate that in the semi-arid regions where subsistence was based on pastoralism, these objects were not in use. Thus, it can be inferred that they were not used to spin wool and if this is so, perhaps they were used to spin linen, which grows in all the regions where it was possible to subsist on agriculture.

#### *Groundstone Assemblage*

The groundstone industry at Sha'ar Ha-Golan is characteristic of EB IV settlement sites and no different from those of the preceding urban period. Judging by the many objects collected on the surface and exhibited in the Sha'ar Ha-Golan Museum, the groundstone objects recovered in our excavations represent only part of the repertoire that was in use at this site. The groundstone tools (see below), together with the pottery and flint tools, attest to a society that subsisted mainly on agriculture and produced, processed and consumed grains and other seeds.

*Perforated Objects* (Fig. 49).— These objects were made of round, flat basalt pebbles with a diameter of 0.10–0.13 m. The biconical hole was drilled from both sides, in the center of the pebble, with a triangular-tipped drill. Some view these objects as digging-stick weights (Palumbo 1991:117), although it seems more likely that they functioned as flywheels of bow-drills or as maceheads.

*Lids for Pottery Vessels* (Fig. 50).— In Area 200, six disks were recovered (diam. 0.15–0.18 m, thickness 0.03–0.05 m thick), made from limestone slabs formed by radial flaking. These disks were probably used as lids, similar to



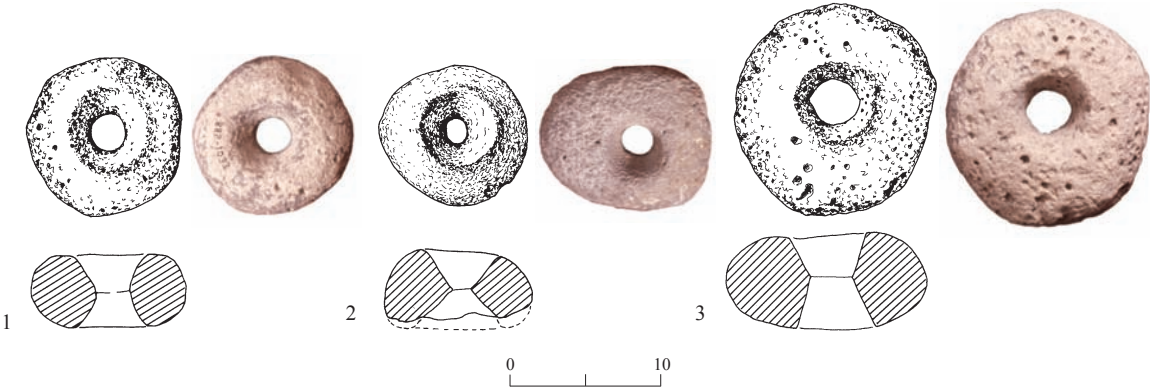


Fig. 49. Selection of perforated basalt stones.

No.	Reg. No.	Locus	Parallels
1	1033	106	H. Qishron (Smithline 2002: Fig. 18:4)
2	2048/6	229	
3	2031	209	Murhan (Tsori 1971: Fig. 7a) ‘En Helu (Covello-Paran 1999: Fig. 47:14)

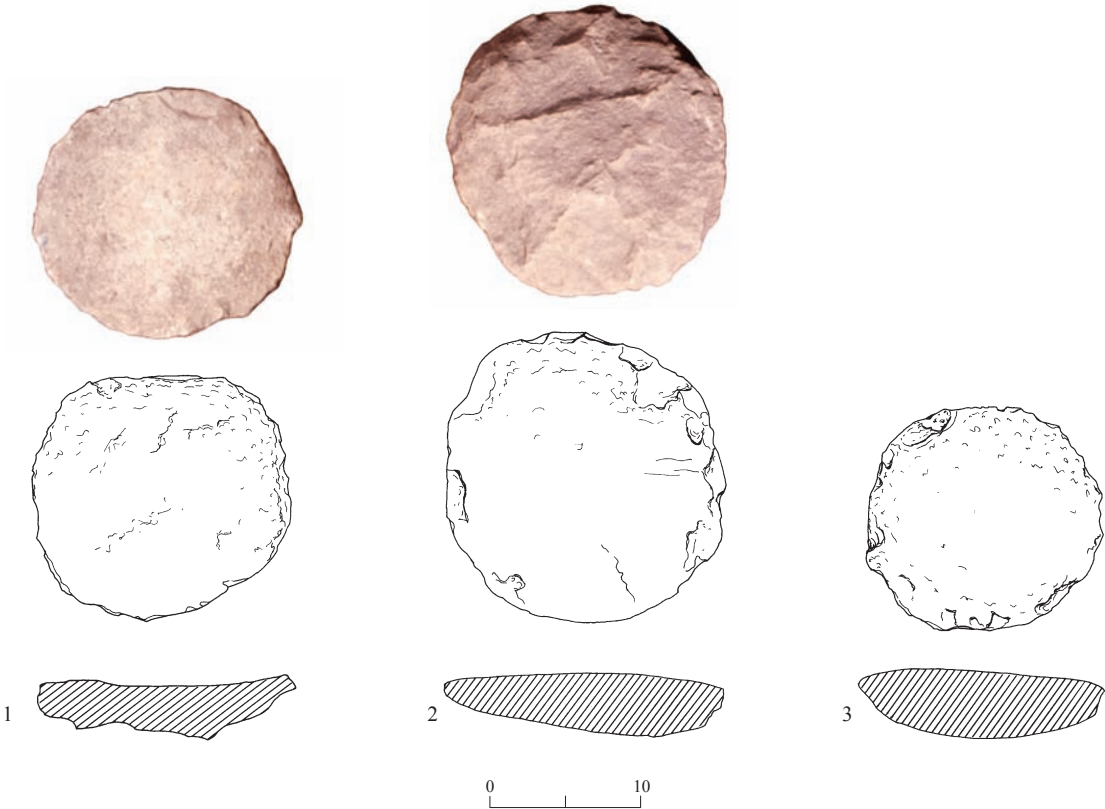


Fig. 50. Limestone lids.

No.	Reg. No.	Locus	Parallels
1	2025	220	‘En Helu (Covello-Paran 1999: Fig. 49:3)
2	2045	221	
3	2053	228	

those made of pottery sherds (Fig. 48:7, 8), and are suitable to cover the mouths of large vessels. It is possible that round, flat basalt pebbles of similar dimensions found in the buildings were also used for the same purpose, although the lack of any traces of flaking prevented a definite identification of these objects as man-made artifacts. Parallels for these stone lids are known only from ‘En Helu, where they were found *in situ* on jars (Covello-Paran 1999:91).

*Drill Pivots* (Fig. 51:1, 2).— These objects, made of round limestone pebbles (diam. 0.08–0.10 m), are probably the pivots of bow-drills. In the center of both sides, hollows were initially made with a drill, although they were deepened and smoothed by the pressure of the axle upon which the head of the drill was fixed (Nodet 1980:320).

*Grinding Stones* (Fig. 51:3).— The stone in Fig. 51:3 represents a type of upper grinding

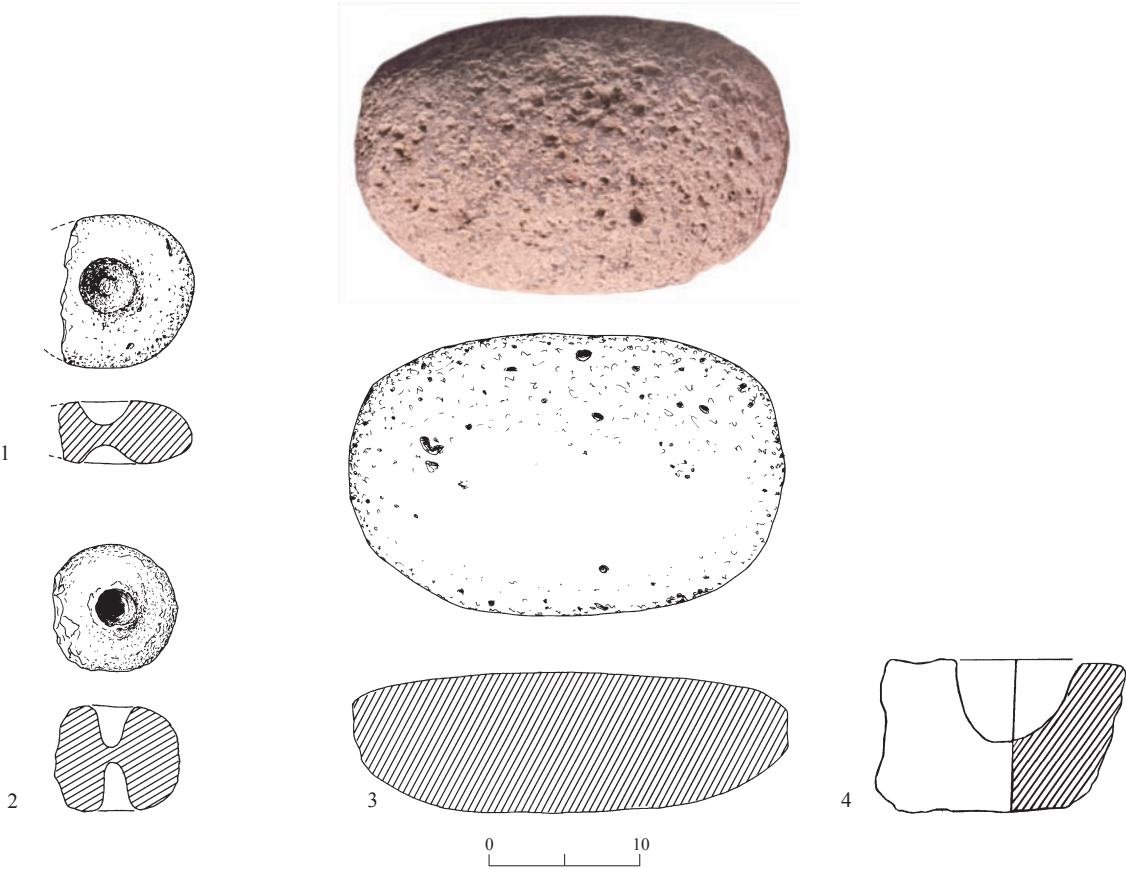


Fig. 51. Stone Objects.

No.	Type	Reg. No.	Locus	Description	Parallels
1	Drill pivot?	1034	106	Limestone	
2	Drill pivot?	1015/5	100	Limestone	
3	Grinding stone	1027	104	Basalt	H. Qishron (Smithline 2002: Fig. 18:11, 12) Murhan (Tsori 1971: Fig. 7) ‘En Helu (Covello-Paran 1999: Fig. 48:2)
4	Mortar	2035/21	227	Limestone	H. Qishron (Smithline 2002: Fig. 18:9, 10) ‘En Helu (Covello-Paran 1999: Fig. 48:4)

stone that was common at the site. These stones were made of unworked, vesicular-basalt pebbles, elliptical in shape, 0.2–0.3 m long, with a plano-convex section. As they were used for grinding, they became thinner and worn down and the working side became convex. From the functional point of view, the grinding stones were suitable for grinding grains and their shape remained the same over thousands of years, beginning in the Neolithic period.

In each of the excavation areas, one lower grinding stone was found *in situ*, fixed into a floor. These stones, twice the size of the upper grinding stones, were also made of vesicular basalt and had become concave from use.

*Basalt Mortars* (Fig. 51:4).— The mortar in Fig. 51:4, from Area 200, L227, is one of five mortars found *in situ* (the others were found in Area 100, Loci 104, 111, 130, and in Area 200, L209), sunk into the floors and sometimes held in place by a ring of small stones. Mortars of this type have a hollow depression (diam. 0.10–0.17 m, depth 0.15–0.24 m). They are made of crystalline basalt and their outer walls are unworked. These vessels are clearly a pounding tool, very common at contemporaneous settlement sites such as Ḥorbat Qishron, 'En Helu, Naḥal Refa'im and Tell Iktanu. They are the product of a long tradition of material culture beginning in EB II–III, when mortars in floors were part of the 'fixed furniture' of houses. Such mortars have been found in EB II–III urban sites such as Bet Yerah (Eisenberg and Greenberg 2006: Plan 8.9, Fig. 8.42), Tell es-Sa'idiyeh (Tubb and Dorrel 1991:81–83), 'Ai (Marquet-Krause 1949: Pls. XXV:1; XXXVIII:2), Tel Yarmut (de Miroshedji 1999:8) and Tel 'Arad (Amiran et al. 1978:58; Amiran and Ilan 1996: Pls. 22:3; 28:1; 34:1; 37:3; 39:1).

The fact that there are no elongated stone pestles in the assemblages of the EB II–III urban sites or at EB IV sites suggests that pounding in these deep mortars was performed with long wooden pestles, perhaps while standing. This, in our opinion, is the reason that the mortars

were very smooth from use on the surface around the depression as well as on the inside.<sup>15</sup>

*Footed Mortar* (see Fig. 26).— This natural basalt stone of cylindrical shape, 0.6 m long, has a worked, oval-shaped depression (max. diam. 0.42 m, depth 0.2 m). The mortar was found in the paved area in the center of Courtyard 216, turned slightly on its side. This vessel shape is not typical of the period and no parallels were found at contemporaneous sites. It is possible that it was a Neolithic vessel in secondary use.

### *The Chipped-Stone Assemblage*

Steven A. Rosen

The significance of the post-Neolithic chipped-stone tool assemblage from Sha'ar Ha-Golan lies in the general importance of the site as a representative of EB IV (MB I) village lifeways, and in the fact that there are few well-documented lithic assemblages from this period. Briefly stated, this lithic assemblage shows important techno-typological continuities with the preceding EB I–III that can be interpreted as reflecting economic continuities as well. The lithic assemblage thus provides an important complement to the ceramic one.<sup>16</sup>

Two basic problems were encountered in the analysis of the Sha'ar Ha-Golan lithic assemblage, that of sampling and the issue of mixture with underlying Pottery Neolithic (Yarmukian) materials. With respect to sampling, 31% of the assemblage is comprised of retouched pieces, and of these, over 40% are sickle blades. Given the likelihood that some of the non-diagnostic tools may be Neolithic (as well as some of the waste), these are higher percentages than are typical of most third-millennium lithic assemblages. Along with very low proportions of chips, which are usually ubiquitous, this suggests that the assemblage is somewhat selected, reflecting a tendency to collect the larger and prettier pieces (Rosen 1997:37), such as Canaanite sickles and obvious tools. Given the heavy



**Table 2. Relative Frequencies of Neolithic (Yarmukian) Tools Retrieved in EB IV Loci**

Locus	Sickles	Arrowheads	Axes	Borers	Knives	Burins	Misc.	Total
200	2	1						3
201	1			2				3
202		1						1
203	1							1
204								0
206		1					1	2
207	1							1
208	2					1	1	4
210								0
211		2						2
212								0
215	9	2			1			12
216								0
220							2	2
227	2							2
Misc.	5	2	2					9
Total	23	9	2	2	1	1	4	42

clay soils of the site, with the consequent difficulties in visibility and near impossibility of sieving, and considering that the potentials of lithic analyses to contribute to a better understanding of ancient societies was less recognized 30 years ago, the sample is actually quite reasonable for its time. The fact that the frequency of chips is much less than what one might expect probably indicates the loss of other small pieces as well. However, as microliths do not appear to be a part of the EB IV lithic repertoire, the collection is likely to be reasonably representative and cautious conclusions are not unwarranted.

The problem of the presence of Pottery Neolithic (Yarmukian) materials in a later context does not lie in distinguishing between the diagnostic artifacts of the two periods (e.g., sickle blades, arrowheads and axes), but in the attribution of the non-diagnostic pieces such as scrapers, borers, retouched flakes, and especially the waste. Thus, while 42 of the 134 tools can be assigned unambiguously to the Yarmukian culture, the remainder are treated

as part of the EB IV assemblage, with the understanding that some, perhaps many, may be intrusive.

As the Neolithic materials from Sha'ar Ha-Golan have already been described in detail in a number of reports (Stekelis 1972; Alpersen and Garfinkel 2002; Matskevich 2005; Khalaily 2006), with the exception of Table 2 summarizing the Neolithic materials, this chapter will focus exclusively on the EB IV assemblage.

#### *Waste and Technology*

The absolute dominance of flakes over blades in the waste frequencies (Table 3) is typical of both Pottery Neolithic (e.g., Gopher and Orelle 1989) and Early Bronze Age (Rosen 1989; 1997) assemblages. Flakes are nondescript, showing no special technologies of reduction. The single core recovered (Fig. 52:1) is a wadi cobble reduced to a near exhausted state. It is non-diagnostic, showing much hinge and step fracture. Although it is possible that non-Canaanite prismatic blades were originally

Table 3. Lithic Waste Frequencies by Locus

Locus	Chunks	Chips	Flakes	Primary Elements	Blades	Canaanean Blades	Bladelets	Cores	CTEs	Total
200		4	10	5	2	1				22
201			7	6		1				14
202		7	7	2	4	2	1			23
203		1	2						1	4
204			3							3
206		7	23	3	5	4			1	43
207		1	8	2			1			12
208	1	2	4	2	2	4	1			16
210	1	2	2	1		1			1	8
211			18	12	3	1				34
212	1	1	4	4	1		1			12
215		3	8	6	5	2	1	1		26
216			2	1						3
220	1	2		5	1					9
227			5		1	1	2		1	10
Misc.		7	25	7	9	3	2			53
Total	4	37	128	56	33	20	9	1	4	292

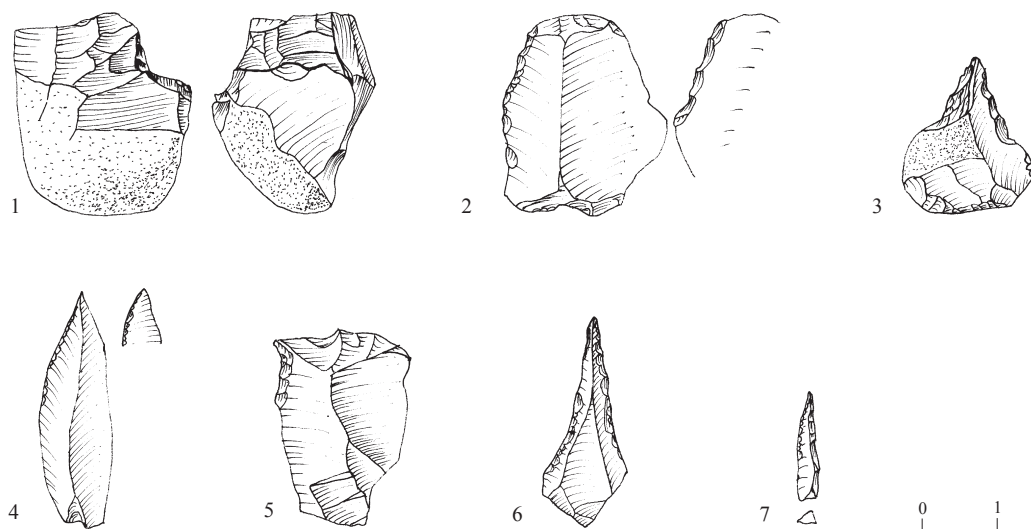


Fig. 52. EB IV lithic artifacts.

No.	Type	Locus	Reg. No.
1	Core	215	2018/22
2	Scraper	211	2032/6
3	Borer	212	2034/38
4	Borer	202	2004/7

No.	Type	Locus	Reg. No.
5	Borer	200	2000/27
6	Drill	206	2009/5
7	Drill	208	2012/15

struck from this core, this seems unlikely. The four core-trimming elements include two long ridge blades, 8.2 and 10 cm long respectively, which may be related to either Early Bronze Age or Neolithic reduction strategies (Hours 1979; Payne 1983: Fig. 295; Shimelmitz, Barkai and Gopher 2000; Shimelmitz 2009), and two trimming flakes of a more ad hoc nature whose affinities are also difficult to assign.

The high proportion of primary flakes is unusual, especially in light of the presence of only a single core, and sample size is almost undoubtedly an issue here.

Of the 53 waste blades, 20 are technologically Canaanite (Rosen 1983a; 1989 and see references therein). The high number of non-Canaanite blades probably reflects at least some Neolithic intrusion, although simple blades are not unknown in the Early Bronze Age. These are generally small, with non-

parallel dorsal scar patterns. The problem of intrusion is even more evident in the case of the bladelets, as the general technology is virtually unknown in EB IV Levant (e.g., Baird 1987; Betts 1991; 1992).

### *Tools*

*Sickle Blades.*— The post-Neolithic sickle assemblage is dominated by Canaanite technology (Fig. 53; see Rosen 1983a; 1989; 1997 and references therein; Shimelmitz 2009), comprising 36 of 39 (92%) of the sickles (Table 4). Given the high degree of breakage (at least 16 pieces are obviously broken), it is difficult to divide the Canaanite sickles into clear subclasses. At least two of the sickles (Fig. 53:6, 7) are long enough to be considered reaping knives that were not hafted in combination with other elements. Given the long length of other pieces, and the high degree of breakage, it seems likely that many of the others were

**Table 4. EB IV Tool Frequencies by Locus**

Locus	Can. Sickles	Other Sickles	Ret. Blades	Scrapers	Borers	Drills	Notches/ Denticulates	Misc.	Total
200	2			1	1			1	5
201	1		1		1				3
202	2			1					3
203	2					3	1		6
204								1	1
206	2		2	2	2	1	1		10
207	4		3		1		1		9
208						1	1		2
210	4								4
211	1			2	1		1	6	11
212	1						1		2
215	1	1			1		1	1	5
216	2								2
220	1			1					2
227							1		1
Misc.	13	2	3	1	1		5	3	27
Total	36	3	9	8	8	5	13	12	94
%	38.3	3.2	9.6	8.5	8.5	5.3	13.8	12.8	100



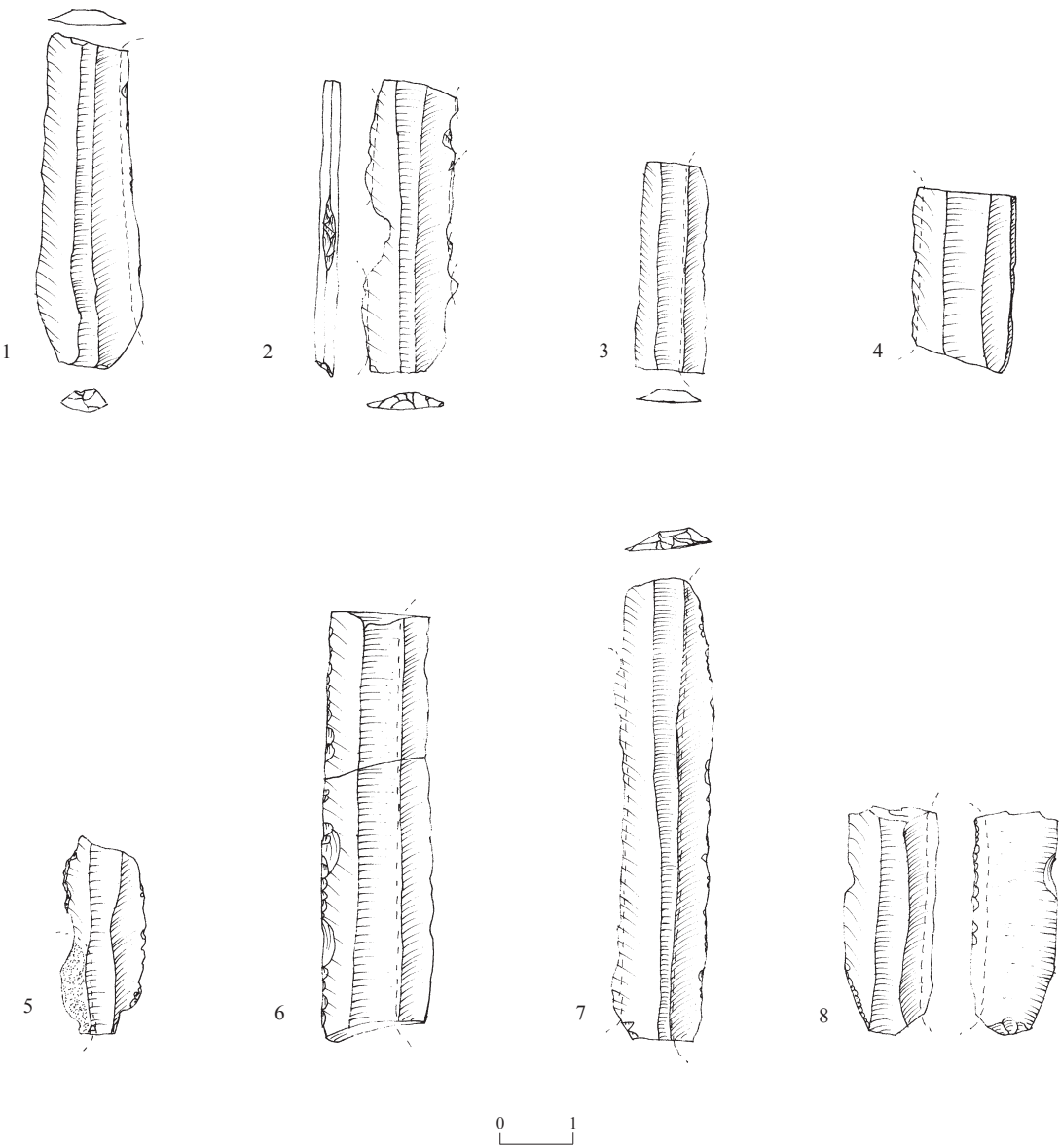


Fig. 53. EB IV Canaanite sickle blades.

No.	Locus	Reg. No.
1	104	1007/3
2	216	2022/9
3	210	2016/7
4	208	2011/25

No.	Locus	Reg. No.
5	207	Surface
6	200	2001/1
7	104	1009
8	200	2001/5

also reaping knives and not sickle segments, although it is impossible to quantify this. Notably, not a single Canaanean blade shows double truncations, and only eight display even a single truncation (e.g., Fig. 53:7).

In terms of other attributes, all but two of these sickles show typical trapezoidal cross sections; the two have triangular cross-sections. Two pieces bear possible clay or resin adhesive along one edge.<sup>17</sup> All the examples display at least one lustrous edge, and eight blades have two lustrous edges (Figs. 53:2, 7). A high proportion of these tools (53%) show no appreciable edge retouch, nor even edge damage, in spite of the presence of sickle gloss. This proportion is even higher when considering the total number of usable edges, 72, of which 55 seem relatively fresh, lacking signs of either edge wear or retouch.

Of the edges which are retouched, five bear edge damage (two of them on one piece), two show angular backing, leaving the blade roughly triangular in shape (end pieces in the haft?), and another has straight backing. The opposite side of this piece displays nibbling. Ventral retouch, varying from nibbling ( $n = 1$ ) to serration and sharpening, occurs on five pieces, and dorsal sharpening/serration occurs on three pieces. The bulb of percussion is retained on nine pieces (see Fig. 53:8 showing bulbar removal), which is a relatively high proportion, again suggesting the common use of reaping knives as opposed to sickle segments.

Average dimensions, without considering breakage or retouch, are  $L = 48.9 + 21.1$  mm ( $n = 10$ ),  $W = 21.2 + 7.1$  mm ( $n = 26$ ) and  $T = 4.6 + 1.4$  mm ( $n = 26$ ). Both length and width are greater than is usual among other assemblages (e.g., Rosen 1983a: Fig. 6). Some scholars (e.g., Waechter 1958; Hanbury-Tenison 1986:148; Betts 1992) have suggested increased width as a chronological trend. Given the evidence for more common use of reaping knives at Sha'ar Ha-Golan (and perhaps in EB IV in general), the greater dimensions of the Canaanean sickles at Sha'ar Ha-Golan may

reflect different hafting techniques rather than a true chronological trend toward wider sickle blades.

Finally, the three non-Canaanean sickles each show truncations, one with double truncations, and two are backed. They are shorter and narrower than the Canaanean sickles, measuring 25, 40 and 42 mm in length, 10, 15 and 17 mm in width, and 3, 3 and 4 mm in thickness respectively.

*Retouched Blades.*—Five of the nine retouched blades are technologically Canaanean. All are broken. One shows backing, another denticulation, two have sharpening retouch and one displays intensive edge damage. None bear sickle gloss, and they probably represent a secondary or ad hoc use of blades produced primarily for sickles. Of the remaining four simple blades, one is notched and four show truncations.

*Scrapers.*—Three flakes bear miscellaneous scraper retouch, while three are endscrapers showing even, regular retouch (Fig. 52:2). Two additional endscrapers on broken blades were also recovered. Absolute attribution to a specific period is impossible and these tools may be Neolithic.

*Borers and Drills.*—Four borers were manufactured by either single or double notching. Three were made on pointed blades (Fig. 52:4) or flakes (Fig. 52:3, 5). Three can be classified as borer/chisels and are thicker and cruder than the others. Their association with EB IV is unclear. The five drills (Fig. 52:6, 7) show longer and more delicate bits. Two were made on flakes, one on a burin spall and two on blades, one of which is thick.

*Notches and Denticulates.*—Nine pieces are single notches on flakes and four show multiple notching (denticulation).

*Miscellaneous.*—Six flakes show simple retouch along one edge, two chips bear apparent

retouch (microtools?), three flakes have abrupt retouch along one edge (backed flakes) and one flake has ventral retouch.

### *Discussion*

The long period of time between the analysis and the publication of this lithic assemblage raises a number of problems. Although the basic data remains the same, and their presentation at the time of the original analysis was methodologically up-to-date, a great deal of research on Bronze Age lithic assemblages has been conducted since both the initial report and the second revision. Today, the materials as published are both methodologically and conceptually incomplete: (1) the data base has expanded significantly over the past 30 years, providing a greater comparative background for the Sha'ar Ha-Golan materials (see e.g., Rosen 1997 for material and references up to that date); (2) new methods of analysis have been applied to Bronze Age lithic assemblages, including microwear studies, detailed attribute analyses and technological replication analyses, as well as various physical and chemical analyses; (3) more sophisticated and more detailed explanatory models and explanations have been developed for both the period in general and for the lithic systems. Unfortunately, it is not possible to fully update the report to account for all of these changes and thus the following discussion, as well as the materials presented above, reflect, for the most part, the state of the art some two decades ago, with only minor adjustments to try to accommodate for new ideas and materials.

The continuation of Canaanite technology into EB IV has been documented from several sources (Rosen 1983a; see also Albright 1936/7; Waechter 1958; Dever 1974; Payne 1983; Baird 1987; Betts 1991; Khalaily 2008), and the evidence from Sha'ar Ha-Golan (excluding the irrelevant Yarmukian intrusions), despite its being a single-period site, demonstrates this

continuity beyond question. The importance of this continuity, of course, lies well beyond the mere typological aspect. Canaanite technology represents an exchange system as well as a technological type. As at most other Early Bronze Age sites, there is no evidence of on-site manufacture of Canaanite sickles. Thus, the continued existence of an exchange system through the collapse of Early Bronze Age urban society and into EB IV village society is an important statement on the nature and continuity of some of the economic mechanisms, as well as the typo-technological aspects of the transition.

The clear variability between the Canaanite technology evident at Sha'ar Ha-Golan and that of the preceding Early Bronze Age sites is difficult to place in proper context in the absence of other EB IV assemblages, and more detailed study of the materials from Sha'ar Ha-Golan could also prove fruitful.

Beyond this brief discussion of the sickle assemblage, the total absence of tabular scrapers is worthy of note. If the assemblage at Sha'ar Ha-Golan is representative, and there is no reason to assume that it is not, then tabular scrapers, a hallmark of the Chalcolithic and Early Bronze Age material cultures (Rosen 1997:71–80 and references therein), did not survive the transition from urban to village society. Again, as with the sickles, this is not a question of the mere cessation of a type, but also of the trade and symbolic system that accompanied it.

The significance of other tool types is difficult to establish given the problems of attribution. The continued use of flint tools for a wide range of tasks is, of course, obvious. The apparently high proportion of sickle blades in the EB IV assemblage can be attributed either to the importance of agriculture in a village site, or perhaps to problems of selection. A more detailed study of EB IV assemblages from other sites could go far to answer some of these questions.



DISCUSSION: THE EB IV SETTLEMENT AT  
SHA'AR HA-GOLAN

*Plans of Domestic Structures*

The domestic structures at Sha'ar Ha-Golan are multi-roomed rectilinear buildings, covering c. 80–100 sq m. The individual dwelling units usually comprise three or more rooms. The plans are characterized by a lack of regularity indicative of adaptation to various needs. Most of the buildings have a large central broadroom entered through one of its long walls, its roof sometimes supported by columns. Additional elements, such as benches along the walls and stone mortars sunk into the floors, point to a relationship with the architectural traditions of the preceding urban culture of the southern Levant during the third millennium BCE. The many variations in the plans of the structures prevent us from defining any particular building at the site as a typical domestic structure; however, as many of them contain one or more broadrooms, we suggest labeling them 'composite broadroom structures'. In Area 200, they can be termed 'composite broadroom structures with an open courtyard'.

The main problem in attempting to compare the architecture of Sha'ar Ha-Golan to that of contemporaneous sites, is the small number of complete buildings that have been uncovered to date in other excavations. The lack of comparative architectural material results not only from the relatively small number of excavations conducted at EB IV sites, but mainly due to their limited size. This fact stands in contrast to the amount of data that has accumulated in recent years from surveys of settlement sites of this period on both sides of the Jordan Valley (see, for example, the catalogue of sites in Palumbo 1991:163–226). Furthermore, the sparse evidence of architectural remains stands in stark contrast to the large amount of data on the burial customs in the southern Levant at the end of the third millennium BCE (Fig. 54).

The site of Murḥan in the eastern Jezreel Valley was the first sedentary EB IV settlement

to be uncovered in northern Israel that was not situated on a tell (Tsori 1971:6–11). Excavations at the site in 1954 exposed the western part of an isolated dwelling facing onto a wide courtyard (16 × 20 m). In the opinion of the excavator, this building (7.5 × 9.5 m) included seven rooms, although the plan was incomplete. The building was characterized by narrow, stone foundations of one or two rows, 0.2–0.4 m wide and one course high, appropriate for walls of mudbrick. The excavator notes that most of the floors were made of beaten earth, although there was also a floor foundation comprised of stones and sherds. In our opinion, the central room (2) of the building was a broadroom containing a stone column base surrounded by small stones (Tsori 1971:7, Fig. 4), corresponding to our 'composite broadroom with an open courtyard', the typical style of building in Area 200 of Sha'ar Ha-Golan, where an open courtyard was an integral component of the dwellings. Tsori understood that the finds at Murḥan represented an important breakthrough in our understanding of the EB IV culture and that "the lack of urban or partially urban fortifications, is evidence that this was a very large rural settlement". However, since Tsori was influenced by the 'nomadic' theories of Albright and Kenyon—the leading scholars of the time—he concluded that the settlement was temporary in nature and the inhabitants were shepherd-farmers who had migrated from the north (Tsori 1971:10).

'En Helu in the western Jezreel Valley is a stratified site of c. 5 dunams, located on a slope near the bottom of a streambed. In the lowest stratum (Stratum VII), remains of five dwelling units were uncovered (Covello-Paran 1999:21–39). As the site was situated on rocky terrain, construction was of stone and the walls were built mainly of one row measuring 0.4–0.6 m. The excavator defined them as multi-roomed structures, comprising mainly small square rooms. Unit C was unusual in that the main room was a broadroom, thus resembling the building plans at Sha'ar Ha-Golan. Other common features between the two sites include architectural elements such



Fig. 54. Map of selected EB IV sites.

as partial stone paving that did not cover the entire room, as well as stone mortars sunk into earthen floors.

Another recently excavated settlement from this period is Ḥorbat Qishron in the Lower Galilee. The importance of this site lies in the discovery of building remains revealing a number of phases representing a long duration (Smithline 2002:20\*–25\*). The excavations exposed a closely built-up area, apparently of buildings with narrow walls that leaned against each other. Although the excavations were of limited scope and no complete buildings were uncovered, the excavator believes that the settlement was comprised of rectangular structures such as the room in Square A/B12 (a broadroom?), “accompanied by adjacent, poorly constructed appendages, stone fences and terraces” (Smithline 2002:25\*). As at Sha‘ar Ha-Golan, this site was characterized by partial pavements and stone mortars sunk into floors.

The distribution of composite broadrooms is not limited to northern sites, as buildings based on the same principle were discovered in Stratum III at Naḥal Refa‘im in the Judean Hills near Jerusalem, as well as at a site to the northwest of Tel Lakhish. At Naḥal Refa‘im, broadrooms in buildings on the eastern side of the settlement were equipped with column bases and stone mortars sunk into floors, as well as corner installations (Eisenberg 1993:38–85). At other places in the settlement, where architectural solutions were necessary to adapt construction to the terraced topography, the buildings were not built according to a set plan and their size also conformed to the needs of the inhabitants. As at Sha‘ar Ha-Golan, these buildings were defined as multi-roomed structures, as, for example, the building in Area 1000.

In the unfortified settlement in Area 1500 near Tel Lakhish, labeled by the British expedition ‘the northwestern settlement’, a block of rooms was uncovered in Grid XII.G/19–20 that clearly contained a composite broadroom (Tufnell 1958: Pl. 95). While the plan of Area 1500,

which included stratified dwelling caves, refuse pits and buildings, is evidence of a sedentary settlement, it was referred to in the publication as a temporary settlement, “an early attempt at settlement by the people of the Caliciform Culture” (Tufnell 1958:271).

The square buildings uncovered in Stratum II at Har Yeruḥam are unique in the semi-arid region of the Negev Plateau, where EB IV settlements usually comprise rounded structures. Their building technique is similar to that of the sedentary settlements mentioned above and they reveal architectural elements characteristic of the buildings at Sha‘ar Ha-Golan, such as narrow walls, broadrooms, column bases and mortars sunk in floors. The dwelling units of this settlement are multi-roomed, and in one case in Area D a composite broadroom structure is evident (Kochavi 1967: Fig. 7).

At Tell Iktanu in the southern Jordan Valley, two phases of buildings from this period were uncovered. According to the excavator, “the houses of both phases had large courtyards with living rooms off one side” (Prag 1974:97). One of these buildings, partially uncovered in Phase 2 in Sqs A14–15, included three rooms, two of them broadrooms with column bases and querns and mortars sunk into the floor (Prag 1991:56). A nearby building in Sqs A10–12, measuring c.  $7 \times 12$  m, was also, in our opinion, a composite broadroom, and the ‘courtyard’ that occupies most of the area was actually a broadroom around which the other rooms were arranged (Prag 1989:36–37).

At Tel Jericho, the EB IV settlement was founded upon the ruins of the EB III city throughout the excavation areas (Nigro 2003). Despite Kenyon’s reservations (Kenyon 1960:180–185), this was a sedentary settlement and based on the evidence from the three trenches (Trenches I, II, III), it is clear that this settlement extended over the entire area of the tell and its slopes. In Trench II, three rooms of a building made of mudbricks were revealed in Stage XXI, containing four stone mortars sunk into the floors (Kenyon 1981:166–167, Pls. 107,

255a). Despite the incomplete excavation of the rectangular room in the east of the building, the preserved opening indicates that this was a broadroom, or, according to our definition, a composite broadroom.

*The Settlement Layout and the Relationship between Areas 100 and 200*

In the probe trench excavated by Garfinkel in Area G to clarify the stratigraphy of the site, no EB IV architecture was discerned, only a disturbance (probably a refuse pit) containing sherds and flint tools of the period that had penetrated into the Neolithic strata (Garfinkel and Miller 2002:23). In this probe, as in the extensive excavations in Areas E and F, it was evident that the surface had been damaged by agricultural activities and therefore, it was impossible to rely on these excavations for any stratigraphy later than the Neolithic period. In our 1979–1980 excavations as well, we were unable to clarify the stratigraphy due to the damp soil. Thus, the probes and excavations of Stekelis remain the only evidence that the EB IV settlement at Sha'ar Ha-Golan was comprised of a single stratum (Stekelis 1972:2–7).

Integrating the data from Stekelis' excavation with the analysis of the ceramic finds from our excavation enabled us to establish that Areas 100 and 200 were two parts of the same settlement. Therefore, it was possible to incorporate the findings from both in order to analyze the settlement layout (Plans 1, 2, 9, 10).

In the plans of the two areas, the outstanding common feature is the orientation of the structures on a north–south, east–west axis with only slight deviations, despite the great distance between them (250 m). The strict observance of this orientation was not accidental, as the site extends over moderate terrain that did not demand any particular architectural orientation.<sup>18</sup> This may, perhaps, be explained as adaptation to the climatic conditions and the direction of the winds in the Jordan Valley, mainly during the hot summer months, although it could, of course, be due to other reasons that cannot be determined without additional data.

Apart from this feature, the plans indicate a lack of organization in the development of the settlement, with unlimited land available to build upon. All the findings attest to the domestic nature of the buildings uncovered in the two areas, and there is no evidence of any structures that can be interpreted as having a public function. The only public considerations can be seen in the alleyways and open passages between the buildings and large building blocks, a feature also observed at Tell Umm Hammad (Helms 1986:30) and Tell Iktanu (Prag 1974:97).

Area 100 exposed the final stage of a residential neighborhood that had developed from a few adjacent buildings; by the end of the process, the buildings had been combined into a single block. The closely built-up complex thus created more than 20 adjoining rooms or spaces comprising 9 dwelling units. Our criteria for division into units was based mainly on entrances, in some cases with the socket stones still preserved *in situ* (Buildings 111, 116).<sup>19</sup> It appears that the settlement in Area 100 began with the construction of three buildings: Building 111 in the south, Building 133 in the north and Building 104 between them. We do not know the function of the open areas between the buildings, or if there were unroofed courtyards as in Area 200. It is possible that the section of W66 to the south of Building 133 was an enclosure wall, and therefore, L124, situated between this building and the block that developed to the south, was left open to serve as a passage or street.

During the process of expansion, probably due to the growth of the population, Building 116 was attached to the western side of Building 104. The block was formed in the final expansion stage, when Building 101 was erected, blocking the passage between Buildings 104 and 116 and Building 111. The truncated walls of Building 127 uncovered in the southern part of the area, and Buildings 120 and 129, which were not completely exposed on the west, attest that the block extended over an even wider area in these directions. In addition, an accumulation of large



stones extending over c. 2 dunams near Area 100 on the east is of significance, as it enabled us to estimate, at the time of excavation, that the complex we uncovered comprised only a small part of the crowded residential quarter that stood here.<sup>20</sup> It is clear that closely built-up areas or blocks of buildings were not a phenomenon unique to Sha'ar Ha-Golan, but were characteristic of other EB IV villages, mentioned above. The closest parallel is found at Nahal Refa'im, where a crowded complex extending over two dunams on the eastern side of the settlement contained some 30 rooms in terraced levels (Eisenberg 1993:83–84). It is unclear why the inhabitants chose to live in such a closely confined space, when there was actually no limit to the space over which the settlement could expand. Perhaps the answer lies in the process of the natural expansion of the settlement, within the framework of the extended family. It is possible that the crowded conditions lent a feeling of security from other inhabitants of the same village or from external threats, or that the close construction provided some protection from natural disasters, such as storms or earthquakes. An alternative explanation could be simply habit or traditions that were remembered from the days when their ancestors lived in the cities of the preceding EB III urban era, presuming that the inhabitants of the site belonged to the same autochthonic population of the earlier cities.

In contrast to the construction in Area 100, with its crowded conditions reminiscent of an urban 'residential quarter', in Area 200, the construction was more spacious, with a definite rural character. Area 200 was slightly larger than Area 100, comprising six individual domestic structures, which we have termed 'Composite Broadroom Structures with Open Courtyards'. Here also, the dwelling units were built in stages that were not only technical, but also chronological, representing modifications to meet the needs of the extended family over the years. Expansion of the buildings was perhaps the main reason for the lack of regularity in the plans of these courtyard houses.

Village architecture of courtyard houses, as reflected in Area 200 and in particular Building 225, can also be seen in the EB IV settlement plan of Al-Marjim. This settlement, located 18 km to the east of Jerash in Transjordan, has not yet been excavated, but surveys have succeeded in documenting about a quarter of its area due to the excellent preservation of the foundation walls (Nicolle, Steimer and Humbert 1999). In the plan that was published, 20 one-room broadroom houses with adjoining square courtyards can be discerned; in some cases the courtyard is common to several buildings. In the opinion of the surveyors, this settlement at the edge of the desert was built by a semi-nomadic population that subsisted on pastoralism.

Another group of broadroom houses was uncovered in Area IX at Bab edh-Dhra', which represents the EB IV unfortified village built mainly outside the city area. From the excavation report it is clear that the inhabitants of the one-room houses of EB IV Bab edh-Dhra' continued the building and burial traditions (charnel houses) of the EB III urban culture that preceded this settlement (Rast and Schaub 1978:21–22). It is possible that the one-room houses at Bab edh-Dhra', as at Al-Marjim, were courtyard houses, although the connection between the houses and their immediate surroundings was not described in the report.

One of the reasons for the major differences in the plans of the two excavation areas at Sha'ar Ha-Golan was proximity to the water source. The importance of proximity to the Yarmuk River was convenience and quality of life that few other early settlements enjoyed. A nearby water source was of utmost importance in an era when water was stored in pottery vessels or leather containers, before the advent of more sophisticated methods. It can be assumed, therefore, that in the process of development of the settlement, the strip closest to the river was occupied first. In the following stage, expansion continued in this area to form the 'quarters' or blocks, and at the same time the settlement

began to expand northward. Construction in Area 200 remained sparse, and by the time of its abandonment, had not yet reached the level of development observed in Area 100.

Other factors related to the differences between the two areas are perhaps connected to the social structure of the settlement and its economy. Studies of the faunal and botanical remains could, of course, aid us in investigating these questions; however, such analyses were not possible due to the excavation conditions. Furthermore, the small finds provided no indications of occupational differences among the population. Despite these difficulties, the plan of Area 100 does reveal social organization, natural growth of the familial cells and some evidence of the society's economic conditions and prosperity: the modular buildings of Area 100 hint that at the beginning, the inhabitants enjoyed a mixed economy, the abundant water sources in this geographical region enabling the raising of pigs and cattle.<sup>21</sup> However, with the expansion of the buildings and the resultant crowded

conditions, the space in which it was possible to keep animals became more and more restricted, so that finally, in Area 100 there remained mainly farmers who subsisted from agriculture. Part of the original population of Area 100 expanded the settlement into the empty areas, such as that uncovered in Area 200. The large courtyard houses in Area 200 were suitable for the raising of animals such as pigs, and could even be used as pens for herds of sheep or cattle. It is possible, therefore, that the inhabitants of Area 200 managed households in which animal husbandry comprised a larger part of the subsistence strategy.

### *The Pottery*

The most common pottery types at Sha‘ar Ha-Golan were storage jars, cooking pots, kraters and bowls, which together comprise 86% of the assemblage (see Table 1; Fig. 55). The ratio between these types and the remainder of the assemblage is completely different than the ratio from contemporaneous burial assemblages in the same geographical

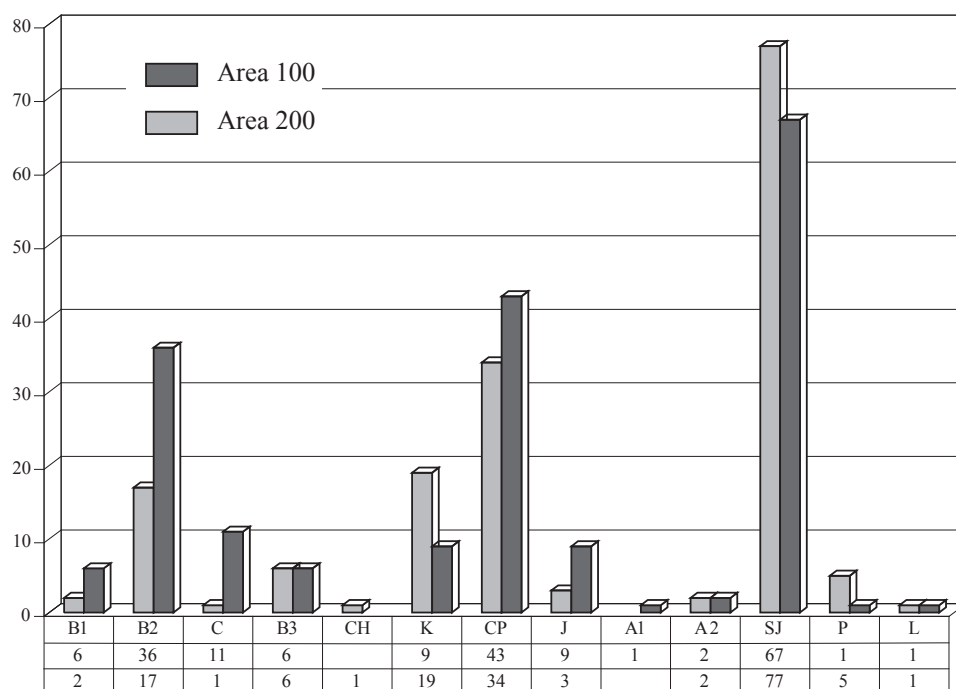


Fig. 55. Distribution of vessel types in Areas 100 and 200 (for type codes, see Table 1).

region, such as Menaḥemiya (Bahat 1976), Yavne'el (Liebowitz and Porat 1992) and Tiberias (Tzaferis 1968), where jugs, teapots and amphoriskoi are the dominant types. On the other hand, these frequencies are similar to the data reported from the site of 'En Helu, where this same group of vessels comprised 94% of the total assemblage (Covello-Paran 1999:77–79). At Sha'ar Ha-Golan, storage jars were the most common vessel (40%), as at 'En Helu (45%), indicating that the storage of food was a major priority and clearly expresses the sedentary nature of the settlement. Although statistical analyses have not yet been published from other sites such as Ḥ. Qishron (Smithline 2002:26\*), Tel Bira (Peilstöcker 2003:206), Er-Rujum (Sha'alabim East; Milevski 2000; this volume) or Naḥal Refa'im (Eisenberg 1993:85), the excavators of these sites describe a similar picture of storage jars comprising the dominant vessel type, as would be expected in domestic settlements.

From a typological point of view, the pottery from Sha'ar Ha-Golan can be attributed to Dever's Family NC, which is distributed throughout the Middle Jordan Valley, the Jezreel Valley and Lower Galilee (Dever 1980:45–49). This family is distinguished from the other four regional families of the EB IV in the southern Levant by the shape of the diagnostic vessels and mainly, in the red slip and painted decoration. As opposed to the slipped vessels, decoration in the Trickle-Painted style at Sha'ar Ha-Golan appears only on jars and amphoriskoi, and was not discerned on any of the small vessels or bowls. The absence of small vessels painted with short, thin brush strokes, which characterize this style in the area of Bet She'an, can be interpreted as simply accidental, connected to the limited number of sherds from such vessels recovered in the excavations (this is also reflected in the vessel frequencies, see Table 1), the poor state of preservation of the ceramics due to the damp soil and the encrustation that coated some of the sherds. If this is the case, then the cemetery at nearby

Menaḥemiya, which contained completely slipped vessels alongside small vessels of Trickle-Painted Ware (Bahat 1976: Figs. 2, 3), can aid us in completing the ceramic picture of Sha'ar Ha-Golan.

Another explanation for the absence of these vessels is to view the decorated pottery at Sha'ar Ha-Golan as a local variant of the Trickle-Painted Ware, applied with thick brush strokes only on large vessels. It should be noted that all the vessels in the tomb assemblages at Yavne'el and Tiberias, to the north of Sha'ar Ha-Golan, are variants of this style and even the small vessels there are decorated with thick brush strokes (Tzaferis 1968; Liebowitz and Porat 1992).

#### CONCLUSIONS AND SUMMARY

The contribution of the excavations at Sha'ar Ha-Golan to our knowledge of the material culture of the northern Land of Israel during EB IV is mainly in the field of architecture. In excavations undertaken in two separate areas, domestic structures were uncovered that were only partially preserved due to their close proximity to the surface. These represent the remains of a single-stratum, rural settlement that extended over some 200 dunams, one of the largest that have been exposed so far in the Land of Israel. The dwelling units were built of a combination of broadrooms and other quadrilinear rooms, although their plans were irregular.

Architectural differences between the two areas represent the dynamics of the development process of the settlement and also the subsistence strategies of the inhabitants, which were based on a mixed economy of agriculture and pastoralism. An understanding of this mixed economic model that prevailed in the rural settlements of this period began to solidify as evidence accumulated from studies of the faunal and paleobotanical remains recovered in various excavations (Long 1988:230–231). In fertile areas such as Sha'ar Ha-Golan, where agriculture was possible, a mixed economy was

the optimal solution to ensure against natural disasters, such as drought. In addition, the area enjoyed an abundance of wildlife and between agricultural seasons, farmers could be occupied with hunting, as well as fishing, in the Yarmuk and Jordan Rivers or in the Sea of Galilee.

In the absence of any imported finds, we presume that the settlement at Sha'ar Ha-Golan was a closed, self-supporting economic system that provided for most of its own needs, as there was no evidence of trade, apart from perhaps the flint blades (see Rosen, above). Among the specialized crafts, pottery was the most important, as it is difficult to imagine life in such a large settlement without a constant production line of pottery vessels. Furthermore, the needs of this large settlement would also have demanded the manufacture of products made of organic materials that have not survived, such as wooden vessels, basketry and fabrics.

Parallels to the existence of different organization patterns in one settlement, as revealed in the excavations of Sha'ar Ha-Golan Areas 100 and 200, can be found at two other large sites of this period: Murhan and Nahal Refa'im. In the extensive site at Murhan, covering some 1000 dunams, Tsori referred to the isolated domestic structure he uncovered as a 'farmstead'. He viewed this village as a temporary settlement of farmer-shepherds that was sparsely built of similar structures (Tsori 1971:8–10; pers. comm.). In our opinion, this 'farmstead' was an isolated courtyard house built in the style of the buildings uncovered in Area 200 at Sha'ar Ha-Golan, although only expansion of the excavation area would confirm this hypothesis. Furthermore, we presume that the settlement in the western and highest part of the site at Murhan was closely built-up, resembling Area 100 at Sha'ar Ha-Golan, based on examination of the 60 m trench resulting from the quarrying of basalt.<sup>22</sup> The second large settlement, where a close resemblance was observed in the plan and organization of spaces, is Nahal Refa'im. The picture from this site is more tangible, as almost 20% of its 50 dunam

area was excavated. The crowded complex that was revealed on the eastern side of the site extended continuously, in our estimation, for 150 m and was without doubt the preferred residential area (Eisenberg 1993:83–84). In the other excavation areas at Nahal Refa'im, remains of isolated buildings were uncovered, and between them open areas that were used, among other things, for burial in shaft tombs.

Tel Bet Yerah, located c. 4 km to the northeast of Sha'ar Ha-Golan, was the most important urban center in the northern part of the Land of Israel that existed continuously from EB I until the end of EB III. In Stratum 6 of the Bar Adon excavations, attributed to the final phase of the EB III settlement (the phase following the appearance of Khirbet Kerak Ware), a residential quarter was uncovered whose plan closely resembles that of Area 100 at Sha'ar Ha-Golan (Greenberg and Eisenberg 2006:151–157). As Tel Bet Yerah was not settled in EB IV (contrary to earlier publications, no evidence was found for the existence of a settlement from this period on the tell), it can be proposed that the inhabitants of Sha'ar Ha-Golan were the descendants of the population of Bet Yerah, who were forced to abandon the city for a village lifestyle because of radical changes in society. It is clear that Sha'ar Ha-Golan was not the only such settlement in the surrounding geographic region. Indeed, similar remains were discovered in surveys at 'Ubadiya near Bet Zera' and within Kibbutz Gesher, comprising concentrations of finds, mainly pottery, which indicate the existence of large sedentary settlements dating to EB IV (surveys conducted with Pinchas Porat). It is also possible that the burials uncovered at Menaḥemiya and Deganya (Kochavi 1973; Seligman and Yogev 1993) are evidence of additional, still-undiscovered settlements of this type that existed in the northern Jordan Valley. Although the finds from this part of the Jordan Valley seemingly reveal a picture of dense settlement in EB IV, we cannot know if they existed contemporaneously or in different phases of the same period.



Numerous scholars have attempted to design a chrono-stratigraphic sequence, based on ceramic typology, which divides this long period into phases (Oren 1973; Dever 1980; Richard 1980). However, even today, after a generation of research, all these suggestions to chronologically divide the EB IV of the southern Levant based on typological and stratigraphic considerations remain problematic and do not stand up to close scrutiny. The reason for this is the regional diversity that is the hallmark of the pottery of this period (Falconer and Magness-Gardiner 1984:57–58; Helms 1986:43, 46). Palumbo claims correctly that the decline of the central urban production centers and inter-regional trade in pottery vessels that characterized the preceding urban period was the source of the development of the diverse and isolated ceramic traditions in EB IV (Palumbo 1991:81).

In the face of these difficulties, it is doubtful if the internal chronological problems of the Land of Israel and Transjordan will be solved in the near future as long as a solution is dependent solely on ceramic typology (Gophna 1992:128). We presume that since EB IV Sha'ar Ha-Golan was a single-stratum site, the lifespan of the settlement was relatively short in relation to the long period, although in the absence of stratified comparative ceramic material within the geographical region of Family NC, we cannot even assign it a relative position within the chronological framework of the period. We prefer, therefore, to leave the date of the EB IV settlement of Sha'ar Ha-Golan within the well-accepted absolute chronology of this period, that is, in the last third of the third millennium BCE.

While the resemblance of the finds from Sha'ar Ha-Golan and Bet Yerah Stratum 6 suggests that the EB IV culture originated in that of the preceding EB III, the difference between the settlement models as represented by the city of Bet Yerah (Esse 1991:174) and Sha'ar Ha-Golan, is perhaps the clearest expression of the upheaval that overtook the northern Jordan Valley, and the entire Land of

Israel and Transjordan, in the last third of the third millennium BCE.

This conclusion corresponds with the theory of Ram Gophna that the rural EB IV settlement system was completely disconnected from the urban system of EB II–III (Gophna 1992:136). Palumbo, who relied mainly on the finds from the excavations of sedentary settlements in Transjordan (Palumbo 1991:124), defined these changes as the “contrast between urban and rural societies, and not between nomads and sedentary people”. In the opinion of Dever, the discovery of ‘true’ settlement sites in the Land of Israel, among them Sha'ar Ha-Golan, does not change the overall picture of a “dispersed pattern of settlement and strongly non-urban character of most EB IV Palestine”, although it did warrant expansion of his pastoral-nomadic model presented in 1980. This model had not stood up to scrutiny, and his new model “embraced a socio-economic structure of mixed agro-pastoralism and ruralism”, and was explained as an ‘outgrowth of tribal society’ (Dever 1995:293–295; 2003:44–45). According to Dever, the sedentary settlements appeared relatively late in EB IV and represent a phase in which pastoral nomads had become sedentary.

The *in situ* finds from Sha'ar Ha-Golan attest to a settlement that was destroyed and abandoned without prior warning, although there is no evidence as to the reason for this. As there are no signs of violence of a human nature, or of conflagration, it is possible that the end of the settlement was brought about by a sudden flood of the Yarmuk delta following the sinking of deposits and blockage in the drainage system of the river, or a local flood following a downpour, as perhaps took place in the days of the previous Neolithic settlement. Another possibility is to attribute the abandonment to a strong earthquake, a frequent occurrence in the Jordan Valley.

The model of an unfortified rural settlement dispersed over a wide area attests to the drastic changes that took place in the fabric of society following the disappearance of the

urban culture. Settlements such as Sha'ar Ha-Golan have been interpreted in the past as temporary nomadic stations; however, as we have learned from our excavations, this mistaken interpretation resulted from the damage caused to the architectural remains by their proximity to the surface (Dever

2003:46). In most cases, these sites were built in open places previously unsettled and in modern times have fallen victim to deep plowing and the accelerated development of the land. It is our hope that further excavations and discoveries will shed new light on this enigmatic, non-urban period.

#### NOTES

<sup>1</sup> Due to financial considerations, the kibbutz had decided to reduce the size of some of their fish ponds and convert them into orchards. This work was undertaken without a permit or coordination with the Department of Antiquities (the Israel Antiquities Authority today).

<sup>2</sup> According to Stekelis (1978:1058), the Neolithic settlement "situated on an ancient river terrace was brought to an end by an overflow of the Yarmuk that forced its inhabitants to abandon the site".

<sup>3</sup> My attempts to locate Stekelis' excavation file were unsuccessful. Prof. Ofer Bar Yosef, who inherited the archaeological material of the late Prof. Stekelis, informed me that most of this material had been lost. I would like to thank him for the two pictures of this excavation that are published here for the first time (Figs. 2, 3) and which show the EB IV building described below.

<sup>4</sup> This layer was composed mainly of clay mixed with the excretions of fish, the remains of fish food and organisms that lived in the water. When the fish ponds dried out, this material cracked into lumps (see Figs. 7, 27) that were easily separated from the sandy 'tell material' below it.

<sup>5</sup> Yehuda Roth was the founder of the Museum of Prehistory and Yarmukian Culture in Kibbutz Sha'ar Ha-Golan and its manager for many years. Most of the exhibit in the museum is devoted to the Yarmukian Culture, which was collected by him and his colleagues from the surface ever since the site was first discovered. The EB IV finds from the present excavation are also exhibited in this museum.

<sup>6</sup> Two seasons of salvage excavations (Permit No. A-885) were conducted in the area of the fish ponds of Kibbutz Sha'ar Ha-Golan, under the auspices of the Department of Antiquities and Museums, directed by the author. In the first season, 15 Druse workers from Kafr Maghar participated. The second season took place with the assistance of 18 foreign

volunteers. We express our gratitude to the members of Kibbutz Sha'ar Ha-Golan for their assistance and hospitality, without which the second season could not have taken place.

I would like to thank all the people who contributed to the final publication of this article. The surveying and field plans were carried out by Israel Vatkin, the plans were drawn by Elizabeth Belashov, the pottery was restored by the late Moshe Hoffman and was drawn by Michal Ben Gal. Field photographs were taken by the author and the studio photographs were taken by Tsila Sagiv and Clara Amit. The article was translated and edited by Shelley Sadeh.

<sup>7</sup> According to Yehuda Roth, most of the Neolithic objects on exhibit in the museum were collected from the surface, despite the impression given in Stekelis' report that they were found in his excavations (1972:3). This reinforces our theory that the source of these finds is the decomposed EB IV mudbricks.

<sup>8</sup> The count was carried out after restoration and also includes partial vessels.

<sup>9</sup> The southern part of the complex, which included Loci 127, 128, 129, 112, 113 and 138, had been uncovered by the water in the fish pond and its excavation was very limited due to the damp soil. It was clear that the floors lay at surface level, as evidenced by the flat bases of the pottery vessels that remained *in situ*. It was also clear that some of the missing walls had been damaged during construction of the fish ponds.

<sup>10</sup> As the room and its contents were well preserved on one side, as opposed to the missing part on the southeast, it is evident that the destruction occurred at the time of the construction of the fish ponds. It is actually possible to follow the line of destruction that the bulldozer cut through the building.

<sup>11</sup> The pithos was removed in 1980 by kibbutz members and taken to the museum in the kibbutz.

It was possible to discern its exact position by the round depression that it left in the floor.

<sup>12</sup>The lamp was discovered by a kibbutz member, the late Eitan Ivri, inside Building 200 in Area 200 about a year before the excavations. As no complete lamps of this type were retrieved in the excavations, it was deemed important to include this example in the assemblage.

<sup>13</sup>Three spindle whorls of similar size were found in a single room at 'En Helu, and in the opinion of the excavator, such a concentration in one domestic building emphasizes the importance of threads for weaving and suggests that the occupants specialized in textile production (Covello-Paran 1999).

<sup>14</sup>This object was found in the EB IV settlement at 'En Ziq, where two strata were discerned. In our opinion, it is possible that it originated in the first settlement, characterized by red-slipped pottery (Cohen 1999:165–166), which preceded the wave of settlement in the Negev during EB IV.

<sup>15</sup>At H. Qishron, a basalt 'pestle' was found inside a deep mortar (Smithline 2002:41\*); however, in our opinion, it is too short and was used for a different purpose.

<sup>16</sup>The lithic assemblage from the EB IV stratum at Sha'ar Ha-Golan was examined in the course of doctoral research conducted by the author in 1979–1981 (Rosen 1983b), and a report was submitted at that time. The study published here comprises an update of that original report written about a decade later, with additional, but minor, addenda and editing for this final version, more than a decade after that.

The collection of flint tools was transferred, together with the pottery vessels, to the Museum of Prehistory in Kibbutz Sha'ar Ha-Golan.

<sup>17</sup>While Groman-Yeroslavski (2008) has noted wear patterns on a few Canaanite blades that suggest use as pot burnishers, the clay adhering to the edges here conforms to use as an adhesive for maintaining the blade tight in the haft.

<sup>18</sup>A similar consideration of orientation is evident at H. Qishron, an EB IV settlement that was also built on level ground. The excavator notes that except for the orientation of the construction, it was not possible to determine the plan or the organization of the village (Smithline 2002:22\*–23\*).

<sup>19</sup>It is difficult to analyze building plans when all the foundations were located at the same elevation. The sequence of construction of the rooms, the division into dwelling units and their development are, therefore, open to alternative interpretations other than those presented by us.

<sup>20</sup>It was originally planned to continue the excavation project at the EB IV site of Sha'ar Ha-Golan in this area; however, this was not realized due to technical reasons. Toward the end of the 1980s, this land was converted to fields and the ramps around the fish ponds were destroyed. Thus, the remains of the EB IV settlement that were still visible on the surface were destroyed.

<sup>21</sup>The raising of pigs is an indicator of sedentary settlement; see, for example, the fauna from Kabr el-Faras (Meyer 1975:9, 16) and the site of Nahal Refa'im (Kolska Horwitz 1989).

<sup>22</sup>This information is based on a visit by the author to Murhan in 1981 with the regional inspector of antiquities Pinchas Porat.

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