

# RESCUE EXCAVATIONS AT THE EARLY BRONZE AGE SITE OF QIRYAT ATA—AREA S

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The excavation in Area S is another of the numerous rescue excavations undertaken between 1990 and 2012 within the Early Bronze Age site of Qiryat Ata (see Golani, this volume). The present excavation<sup>1</sup> was located in the southwestern peripheral zone of the site, to the north of Ha-Te'enim Street and immediately

west of Area H (NIG 21034/74491; OIG 16034/24491), within the confines of a building lot destined for development (Fig. 1). A modern structure was positioned upon this lot, so the excavation was conducted to the north and northeast of this building.

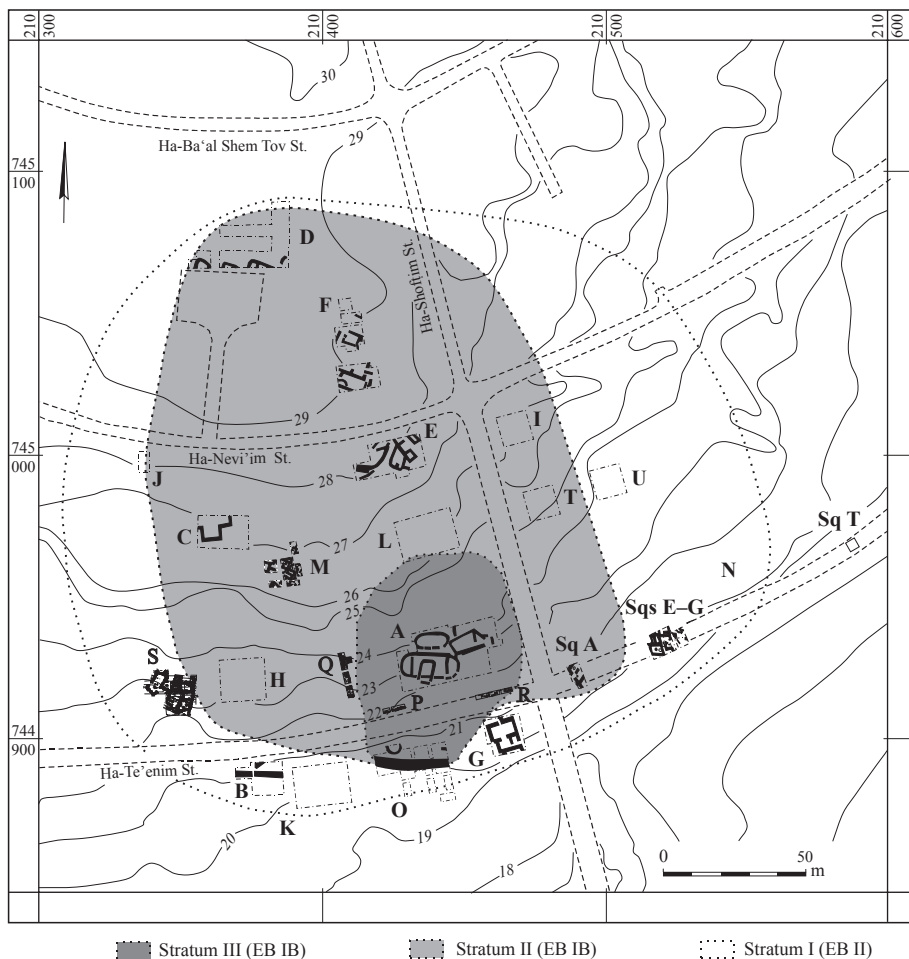


Fig. 1. Location map of all excavation areas within the Early Bronze Age site, and an updated assessment of the site boundaries in the various periods.



Plan 1. Area S: plan and sections.



Fig. 2. General view of the excavated area, looking west.

Table 1. Qiryat Ata General Stratigraphic Correlation of Phasing, Areas A–U

Area	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	General Site Stratum
Phase 1	1	1	1–3	1	1–2	1–3	1	1a–1b	?	1	?	1	1–3	1–3	1	–	1	1	1–4	1–3	1–2	I (EB II)
Phase 2	–	–	4	2	3	4	–	2?	?	?	?	2	4	4	2	1?	2?	2?	?	?	?	II (EB IB)
Phase 3	–	–	–	–	–	–	–	?	–	–	–	–	–	–	3	1?	–	2?	–	?	–	III (EB IB)
Phase 4	–	–	–	–	–	–	–	–	–	–	–	3?	–	–	–	–	–	–	–	–	–	Pottery Neolithic

#### STRATIGRAPHY AND ARCHITECTURE

The archaeological remains in Area S were founded on a moderate gradient that sloped down to the south and were covered by dark alluvial topsoil, 0.2–0.5 m thick, most of which was removed by mechanical means prior to manual excavation.

An area of approximately 354 sq m was investigated in Area S (Plan 1; Fig. 2), revealing four settlement phases that are all associated with EB II, designated as Stratum I within the general site stratigraphy (Table 1). Budgetary and time restraints did not enable a

full investigation of the entire excavated area down to virgin soil; therefore, the results reflect mainly the uppermost habitational phases (Phases 1–3), while the lowermost phase (Phase 4) was only revealed in limited portions of the excavated area.

While EB IB ceramic material was recovered in nearly all the excavated loci, no stratified remains of this period were exposed. Virgin soil was only reached in the western portion of the excavated area (Sq D1), overlaid by remains of EB II Phase 3 (see below). On the eastern edge of Area S, remains of EB II Phase 4 were the earliest identified, at a depth of nearly 2 m,

although virgin soil was not reached. A large amount of EB IB ceramics, found at the eastern edge of the excavated area, may derive from an earlier EB IB occupation below this phase that was not reached during excavation; alternately, it may indicate close proximity to the western edge of the EB IB settlement. Excavations in Area H, located a few meters to the east of Area S, exposed stratified EB IB remains below those of EB II, and in some places, a fill of up to 2 m in depth containing mainly EB IB ceramics was revealed beneath the EB IB levels down to the virgin soil (Baruch, Inbar and Uziel 2007:8\*). These observations enable a more exact positioning of the site's southwestern boundary during EB IB and EB II.

#### *Phase 4 (Plan 2)*

The earliest phase was identified in only a few locales, directly underneath the stratified remains of Phase 3. The very limited exposure of Phase 4 consists of several beaten-earth surfaces, and a few architectural remains. There does not appear to have been any continuation of Phase 4 elements into Phase 3. Two Phase 4 surfaces were identified in Sq F3 (L66, L68), and a similar surface was also apparently reached in a small exposure in Sq F2 (L55). A few large stones of unclear function were associated with the L66 surface (Fig. 3). Below the Phase 3 surface in the western portion of Sq E3, the tops of W27 and W33 were exposed, though the surface relating to these two walls was not reached due to lack of time. In all places where Phase 4 remains were identified, time constraints did not permit further descent below them, so it is uncertain whether they represent the earliest stratified remains in this part of the Early Bronze Age site at Qiryat Ata.

#### *Phase 3 (Plan 2)*

A larger exposure of the Phase 3 remains was obtained in Area S. Two adjacent and nearly complete structures (Structures 1 and 2) appear to have been part of a much larger building complex, perhaps composed of several rooms around an open courtyard.

*Structure 1.* This structure is outlined by three walls, W32 in the west, W19 in the south and W21 in the east, delineating a rectilinear structure (Fig. 4). These three walls were all revealed immediately upon dismantlement of the Phase 2 floors and walls that were founded upon them (Fig. 5). The position of W34 in the north is conjectured, as the northern end of W32 did not reveal this wall to continue any further north, thus a corner with W34 is suggested. The position of an entrance into this structure is unclear. Walls 19 and 21 were built of small- to medium-sized stones and preserved to a maximum of three courses; W32 was exposed in its upper portion only and appears to have been built of larger stones. A beaten-earth floor (L46) was reached on the eastern side of this structure (Fig. 5); the western side was not excavated down to floor level.

To the east of Structure 1 was a beaten-earth surface (L52) overlaid by debris (L22). To the west of Structure 1, the line of W19 was continued by W10, a different wall preserved to a maximum of three courses (Fig. 6). To the south of W10 was another beaten-earth surface (L18) that incorporated several flat paving stones, while the very end of another wall or installation was exposed in the adjacent southern balk.

*Structure 2.* The remains of another, almost complete, structure were revealed to the south of Structure 1, comprising a broadroom of parallelogram shape. Structure 2 is bounded by W23 and W28 in the west, W35 in the south and W13 in the east. These walls were constructed of large- to medium-sized stones and preserved to a maximum of three courses. Although no physical connection was observed between Structures 1 and 2, W19 of Structure 1 could have provided the northern closing wall for Structure 2. Entrance into Structure 2 was from the west, between W23 and W28 (Fig. 7), though another entrance may have existed in W23, as only a portion of it was excavated. Within Structure 2 was a beaten-earth floor (L62) overlaid by debris (L43). The floor had



several paving stones embedded in it, one of which may have functioned as a pillar base (see Fig. 3). Another beaten-earth surface (L48) was revealed in the corner between W28 and W35.

To the west of Structure 2, remnants of a beaten-earth surface (L67) were revealed,

overlaid by debris (L65). This floor overlay W33 and W27 of Phase 4. To the east of Structure 2 and adjacent to the base of W13, was another beaten-earth surface (L63) overlaid by debris (L59).





Fig. 3. Square F3 and the Phase 3 surface of L43/L62, looking east; the Phase 4 surface (L66) is seen below the base of W13 and W35.



Fig. 4. The remains of Structure 1 of Phase 3, looking south; W19 is seen at top and W21 at left; W22 and W6 of Phases 2 and 1 are at lower center.



Fig. 5. Wall 7 of Phase 2 positioned upon W21 of Phase 3, looking south; W19 is at upper right and the floor in L46, at center.



Fig. 6. Wall 10 of Phase 3, looking east; note the two large paving stones from Phase 2 at upper left, set atop W10.

In the western portion of the excavation, additional remains of Phase 3 were identified in Sqs C–D2. These include the meager remnants of a dismantled wall (W24), to the south of which was a beaten-earth surface (L39) resting

on a thick fill of small stones and pebbles. This same surface was identified in the northern part of Sq C2 as L29 (see Plan 1: Section 1–1), where it was founded directly upon virgin soil (L35).





Fig. 7. Structure 2 of Phase 3, looking northeast; note W28 and W23 and the entranceway between them; W35 is at lower right, W13 is at upper right, and W11 of Stratum 1 is seen at upper left.

### *Phase 2 (Plan 3)*

The largest exposure of stratified architectural remains in Area S is that of Phase 2, which represents a large, complex architectural unit that may be interpreted as a compound or *insula*. It was composed of several buildings of irregular plan around an open courtyard, which was apparently accessed from all directions. The nature of this compound may indicate a public rather than a private function.

The Phase 2 builders reused some of the earlier, Phase 3 walls, yet, for the most part, a new building was erected during Phase 2. The remains consist of an open courtyard bounded by walls built of medium-sized to large stones, preserved from one to a maximum of three courses. Within the courtyard and adjacent to its northern wall was a small structure (Structure 3, see below) built upon Structure 1 of Phase 3.

The courtyard was of irregular shape, bounded by W14 and W35 in the south, W13 and W7 in the east, W29 in the north, and W3,

W16 and W18 in the west (see Fig. 2). Of these walls, W35 and W13 were originally founded in Phase 3 and continued into Phase 2 with minor alterations, while all the other walls were new constructions in Phase 2. Wall 14 abutted W35 of Phase 3 from the south. To the south of these two walls were beaten-earth surfaces (L40, L47).

The courtyard area was accessed by four entrances. From the west, one entrance appears to have been located between the southern end of W18 and W14. This entrance was 1.8 m wide and led into a broad open courtyard, in which several paving stones were embedded within a beaten-earth surface (L61). The top of W23, originally founded in Phase 3, was incorporated in this courtyard surface as a partial pavement. Another entrance was identified in the east, between W7 and W13, and was 0.6 m wide. It had been purposefully blocked up, probably at a later stage. The length of W7 and W13, which run in a north–south line for nearly 12 m,





Plan 3. Area S: Phases 2 and 1.

suggests that they were built on one side of a north–south alley that may have separated this compound from another one immediately to its east. Adjacent to W7 and W13, and within the area of the supposed alley, several beaten-earth surfaces were identified: L19 overlaid by debris (L16) to the east of W7, and L31B

to the east of W13. The entrance led directly into the courtyard, where a beaten-earth surface (L44) overlaid by debris (L38) was discerned in Sq F2, as was a similar surface (L57) in Sq F3. This latter surface incorporated a large flat stone that may have functioned as a pillar base or work platform.

A third entrance, and apparently the main one, gave access from the north, between W31 and W3. This entrance, 2.5 m wide, led into a foyer that was partially divided by W25, built of small to medium-sized stones and preserved to a maximum of three courses. A small segment of a beaten-earth surface was revealed here (L53). This was an indirect entrance, as the main passage into the courtyard was eastward, where the partial remains of a rough flagstone pavement were revealed. Further to the east was a beaten-earth surface (L26) and several large, rounded stones positioned directly upon W10 of Phase 3, which may have functioned as pillar bases or work tables. To the south was another beaten-earth surface (L17).

The fourth entrance was from the southwest, through W16. Outside and to the south of the entrance was a beaten-earth surface (L21) overlaid by debris (L34). The entrance was 0.8 m wide and led into the foyer of the entrance to the north, where another beaten-earth surface (L30) was identified.

*Structure 3.* In the northern portion of the courtyard was a small structure. Although not fully excavated, it appears to have measured  $2.5 \times 5.5$  m (outer measurements), with an inner floor area of about 5.5 sq m. This structure is bounded by W22 in the south, W7 in the east, W29 in the north and W30 in the west, all of which were only partially exposed. The floor within the structure was not reached, and its entrance was not determined. Adjacent and to the west of the structure was a small storage area bounded by W30, W29 and W31. To the south of the structure, two concentrations of stones may have served as pillar bases or work platforms.

The very small size of Structure 3, with just over 5 sq m of floor space, virtually precludes its use for habitation and it is more likely to have functioned as a storage space.

#### *Phase 1 (Plan 3)*

Phase 1 included architectural additions and modifications to the pre-existing Phase 2

compound. However, as this was the uppermost architectural phase, much of the remains had been exposed to erosion and stone-clearance activities that post-dated the EB II occupation until the twentieth century. As a result, the Phase 1 remains are disjointed and some may only be conjectured. In this phase, the compound appears to have been replaced by at least three buildings situated around an open area. The major modifications to the Phase 2 constructions were the addition of Structure 4 on the west, and the reorganization of the compound space, with Structure 3 altered, Structure 5 added in the southeast, and the cancellation of the courtyard walls.

*Structure 4.* Immediately to the west of the main Phase 2 compound, a complete building was erected. This structure, a rectilinear broadroom, was delineated by W1 and W8 in the west, W2 in the south, W3 and W9 in the east and W17 in the north (Figs. 8, 9). Only W3 was in reuse from Phase 2, all the other walls were founded in Phase 1 and appear to have been built of slightly smaller stones, all preserved to a maximum of two courses. The structure measures  $3.5 \times 8.0$  m (outer measurements), with an inner floor space of just over 20 sq m. In the western wall of the structure, an entrance, 0.9 m wide, was identified between W1 and W8, which had been blocked with stones. In the eastern wall of the structure, across from the western entrance, another passageway, 1.5 m wide, was revealed between W9 and W3. This passage appears to have been the main entrance into Structure 4 and, as it is positioned in proximity to two of the entrances of the Phase 2 compound, it may be that all three entrances co-existed.

Within Structure 4 was a beaten-earth floor overlaid by debris (L28). The floor included a few paving stones that may have also served as pillar bases. Outside the structure, to its south and west, associated beaten-earth surfaces were identified (L20, L32). To the north, two walls emanated from W17 (W26 and W20), at the very edge of the excavation area, and appear to



Fig. 8. Structure 4 of Phase 1, looking west.



Fig. 9. Structure 4 of Phase 1, looking south; two basalt grinding slabs were incorporated into the floor of this structure, while another was incorporated into its wall, at far left.





Fig. 10. Wall 6 and the L6 surface, looking east; note the top of a store jar at the surface level, at right, and two store jars sunken into the floor in L6 alongside W6.



Fig. 11. The exposed store jar sunken into the surface, at upper left, looking north; W6 is seen at top.

indicate a continuation of this structure to the north.

*Structure 3.* During Phase 1, Structure 3 was enlarged by the cancellation of W30 and W22, while W29 and a portion of W7 continued to function. A new wall, W4, built of small to medium-sized stones and preserved to a

maximum of two courses, adjoined W31 at a right angle. To the north of this wall a beaten-earth floor (L8) was identified at its base. While most of W22 was cancelled, a line of stones (W6) was added onto the southern face of its upper eastern end to form a new wall abutting W7. These modifications created a larger broadroom, c. 3 × 7 m, with an inner floor space of c. 9 sq m and an entrance 3 m wide. The southern continuation of W7 from this corner was also cancelled, and this location was covered by a new beaten-earth floor (L6) overlaid by debris (L5). Excavation of the floor make-up (L11) below L6 revealed two store jars sunken into the earth adjacent to one another, their rims protruding just above the surface (Fig. 10). The westernmost jar (Fig. 11) was complete. During restoration, this jar was found to have had a rounded base that was set into the lower half of another store jar in secondary use, acting as a support (see Fig. 20). The easternmost jar was missing its rim and neck. Excavation of this latter jar revealed a large chunk of bitumen at its bottom (Fig. 12).

*Structure 5.* In Sq F3, Structure 5 was erected, making reuse of W13, originally constructed in Phase 2, along with W12, W11, W35 and W37. This structure appears to have had an entrance from the north, and another from the west. Between the eastern end of W12 and the northern end of W13 was revealed an entrance, 1.5 m wide, and the southern end of W11 appears to have been squared off (see Fig. 7), indicating another possible entranceway. The entire southern portion of Structure 5 was apparently eroded away, so the reuse of W35, as well as the southern part of W13, is conjectural, as is the existence of W37. In the northern portion of Structure 5 was a beaten-earth floor (L24), which included a large, circular, plaster and stone installation in the center (Fig. 13). Outside the structure, to the east, a beaten-earth surface (L31A) was identified adjacent to the northern end of W13. Another surface (L9) was identified to the west of W12, containing a shallow pit ringed with small stones.



Fig. 12. The two store jars, looking north; note the large chunk of bitumen at the bottom of the eastern jar.



Fig. 13. The surface in L24 and W13, looking south.

Immediately to the west of the main excavated area, Sqs B1, B2 and B3 were excavated down to the Phase 2 levels. They produced only numerous ceramic remains, which cannot be

definitely associated with any of the stratified phases in the rest of the excavation area. As no architectural remains were revealed, this may be interpreted as an open area.

THE FINDS

Pottery (Figs. 14–20)

Only diagnostic sherds from loci that can be attributed with certainty to one of the

stratigraphic phases described above were considered for the quantitative analysis (see Table 5), thus creating a distinct representative ceramic assemblage of each phase. These assemblages were processed according to

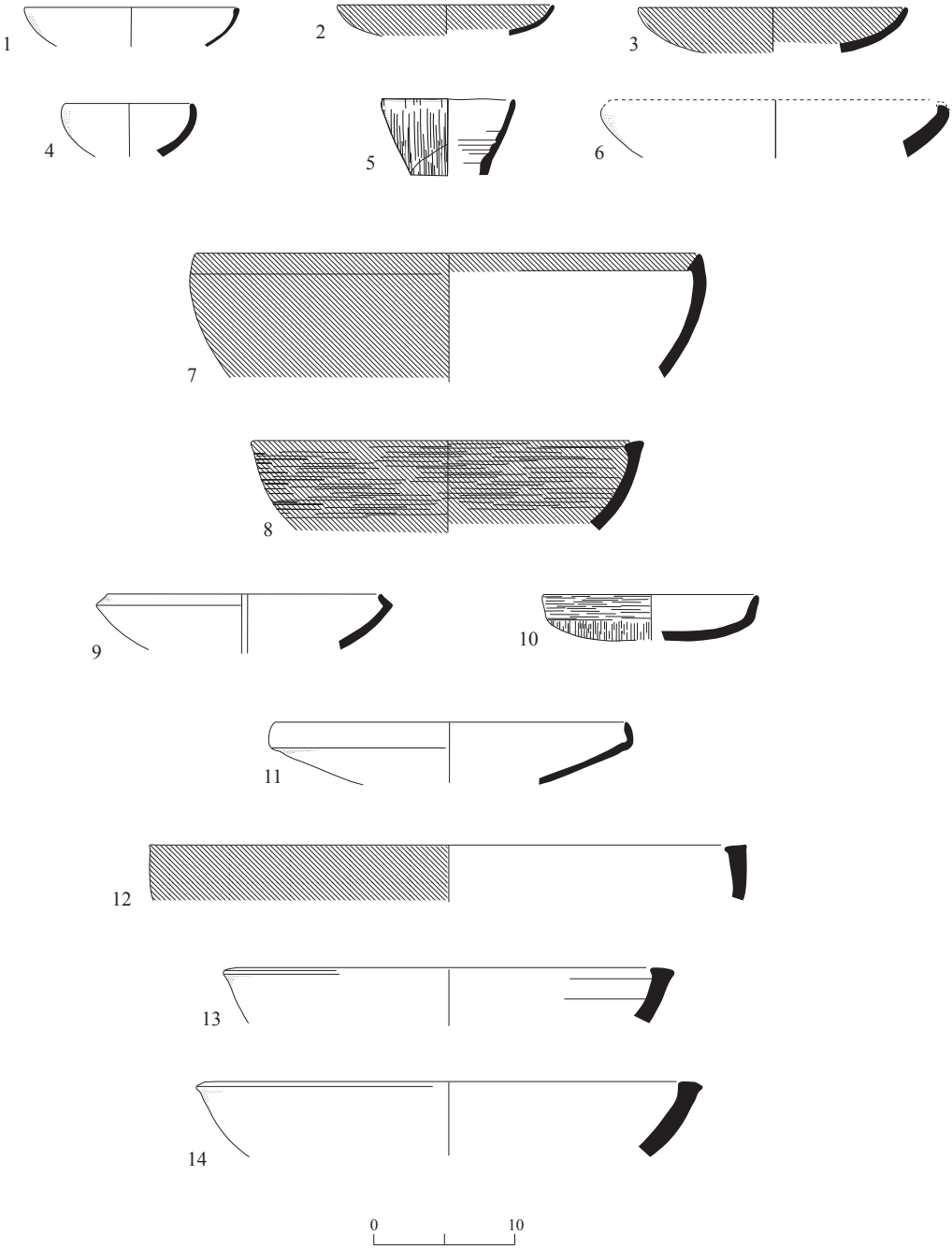


Fig. 14. EB II ceramics from Phases 1–3: bowls.



the morphological and technological criteria employed in the publication of previous excavations at Qiryat Ata (Golani 2003:81–83). No significant typological or quantitative differences were discerned between the ceramic assemblages of Phases 1–3 (Tables 2–5). Phase 4 was not included in the analysis due to the very small number of diagnostic ceramics available from secure loci; nonetheless, they are identical to the types associated with Phases 1–3. Ceramics of EB IB, associated with general Strata II and III, are not presented here, as they were not recovered *in situ*.

On the basis of the ceramic finds, the four ceramic assemblages of the stratigraphic phases identified in Area S are identical to those

recovered from General Stratum I occupational phases in other excavated areas at the site, and represent an homogenous assemblage. The pottery repertoire is typical of EB II in northern Israel and is closely paralleled by similar assemblages in the north, such as Rosh Ha-Niqra Stratum I (Tadmor and Prausnitz 1959), Tel Kabri Strata 7–8 (Kempinski and Niemeier 1990), Me'ona Stratum I (Braun 1996), Tel Dan Stratum XV (Greenberg 1996), Bet Ha-'Emeq Stratum II (Givon 1993) and Tel Qashish Stratum XII B–C (Zuckerman 2003), all of which have been dated to EB II. Figures 14–20 provide a representative selection of EB II pottery from Phases 1–3 of the present excavations.

◀ Fig. 14

No.	Type	Locus	Basket	Phase	Description
1	Bowl B1	26	278	2	Red-brown clay, brown-gray core, small white and gray grits, very well-fired
2	Bowl B1	10	126	1	Red-brown clay, brown-gray core, small white and gray grits, red slip on ext. and int., well-fired
3	Bowl B1	30	341	2	Light brown clay, gray core, small white and gray grits, red slip on ext. and int., well-fired
4	Bowl B III	30	179	2	Light brown clay, gray-black core, small white and gray grits, red slip on ext., well-fired
5	Bowl B III	13	117	1	Light brown clay, gray core, small white and gray grits, vertical burnish on ext., well-fired
6	Bowl B IV	10	112	1	Light brown clay, gray core, small white and gray grits, well-fired
7	Bowl B Va	30	162	2	Light brown clay, gray core, small white and gray grits, red slip on ext., very well-fired
8	Bowl B Va	30	190	2	Light brown-orange clay, gray-brown core, small white and gray grits, red slip and burnish on ext. and int., very well-fired
9	Bowl B Vd	23	215	2	Light brown clay, gray core, small white and gray grits, very well-fired
10	Bowl B VI	23	201	2	Light brown clay, gray core, small white and gray grits, red slip and burnish on ext. and int., very well-fired
11	Bowl BVIIIb	11	214	1	Light brown-orange clay, brown-orange core, small white and gray grits, very well-fired
12	Bowl B Xa	17	260	2	Light brown clay, gray core, small white and gray grits, red slip on ext., very well-fired
13	Bowl B Xa	6	106	1	Brown-gray clay, gray core, small white and gray grits, very well-fired
14	Bowl B Xa	39	226	3	Brown-gray clay, gray core, small white and gray grits, very well-fired

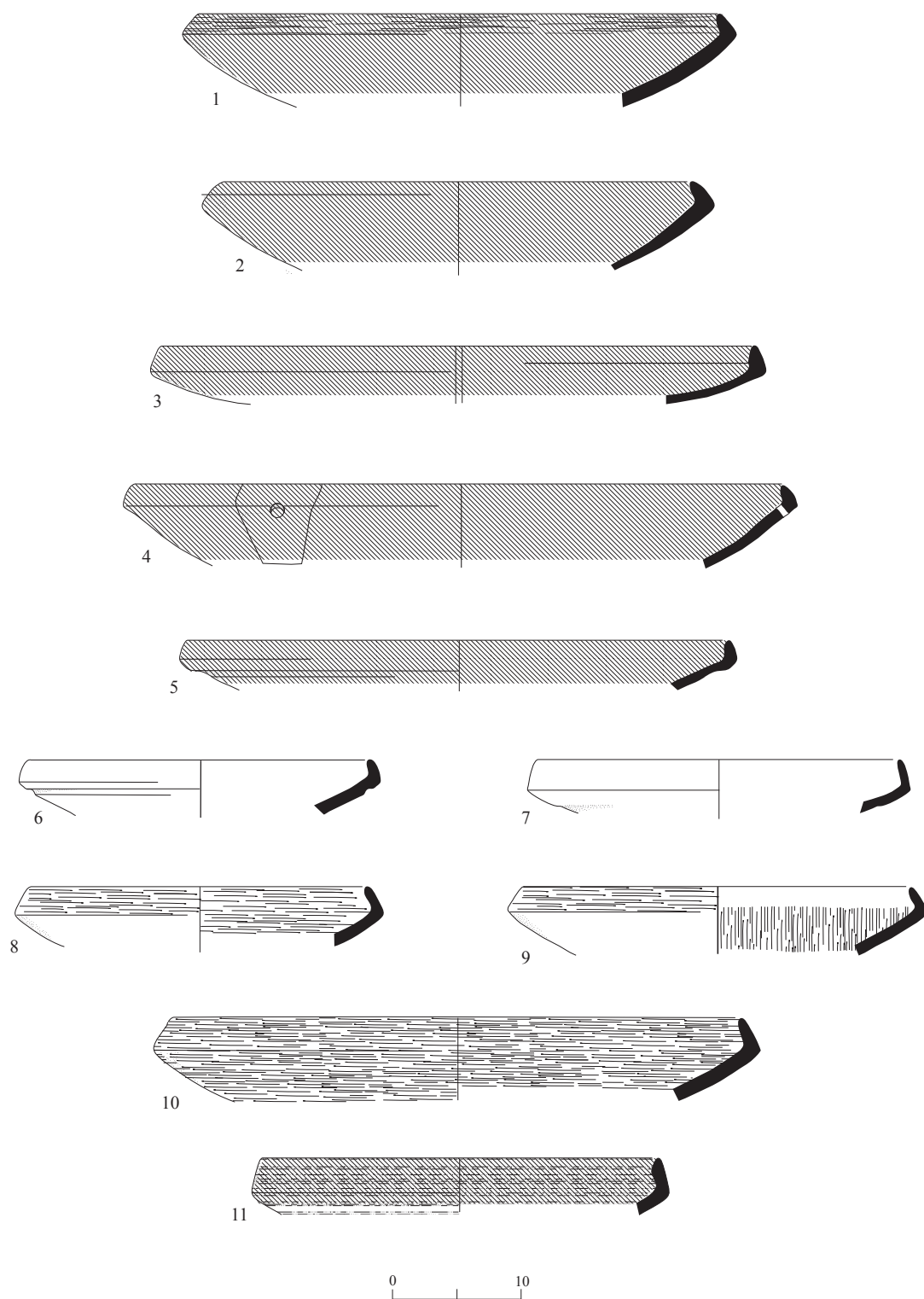


Fig. 15. EB II ceramics from Phases 1–3: platters.

◀ Fig. 15

No.	Type	Locus	Basket	Phase	Description
1	Platter PL Ia	6	106	1	Red-orange clay, light brown-orange core, small white and gray grits, red slip on ext. and int., very well-fired
2	Platter PL Ia	48	233	3	Red-orange clay, brown-orange core, small white and gray grits, red slip on ext. and int., very well-fired
3	Platter PL Ia	6	172	1	Red-orange clay, light brown-orange core, small white and gray grits, red slip on ext. and int., very well-fired
4	Platter PL Ib	9	258	1	Red-brown clay, light brown-gray core, small white and gray grits, red slip on ext. and int., very well-fired
5	Platter PL Id	31a	255	1	Light brown clay, light brown-gray core, small white and gray grits, red slip on ext. and int., very well-fired
6	Platter PL Id	18	128	3	Brown clay, brown-gray core, small white and gray grits, very well-fired
7	Platter PL IIa	42	212	2	Light brown clay, light brown core, small white and gray grits, smooth burnish on ext. and int., very well-fired
8	Platter PL IIa	23	215	2	Light brown-red clay, light brown core, small white and gray grits, red slip and burnish on ext. and int., very well-fired
9	Platter PL IIa	48	245	3	Light brown clay, light brown core, small white and gray grits, burnish on ext. and int., very well-fired
10	Platter PL IIa	20	139	1	Light brown-orange clay, light brown-orange core, small white and gray grits, burnish on ext. and int., very well-fired
11	PL IIb	30	224	2	Light brown-red clay, light brown core, small white and gray grits, red slip and burnish on ext. and int., very well-fired

Fig. 16 ▶

No.	Type	Locus	Basket	Phase	Description
1	Platter PL IIIA	13	141	1	Light brown clay, gray core, small white and gray grits, very well-fired
2	Platter PL IIIB	9	118	1	Brown clay, gray core, small white and gray grits, burnish on ext. and int., very well-fired
3	Platter PL IIIB	44	286	2	Light brown clay, gray core, small white and gray grits, smooth burnish on ext. and int., very well-fired
4	Platter PL VA	42	212	2	Light brown clay, light brown core, small white and gray grits, burnish on ext., very well-fired
5	Platter PL VA	48	253	3	Light brown-orange clay, light brown-orange core, small white and gray grits, smooth burnish on ext. and int., very well-fired
6	Platter PL VB	34	188	2	Brown clay, gray core, small white and gray grits, well-fired
7	Platter PL VB	11	182	1	Brown clay, gray core, small white and gray grits, red slip on ext. and int., well-fired
8	Platter PL VB	39	240	3	Brown-orange clay, brown-orange core, small white and gray grits, red slip and burnish on ext. and int., very well-fired



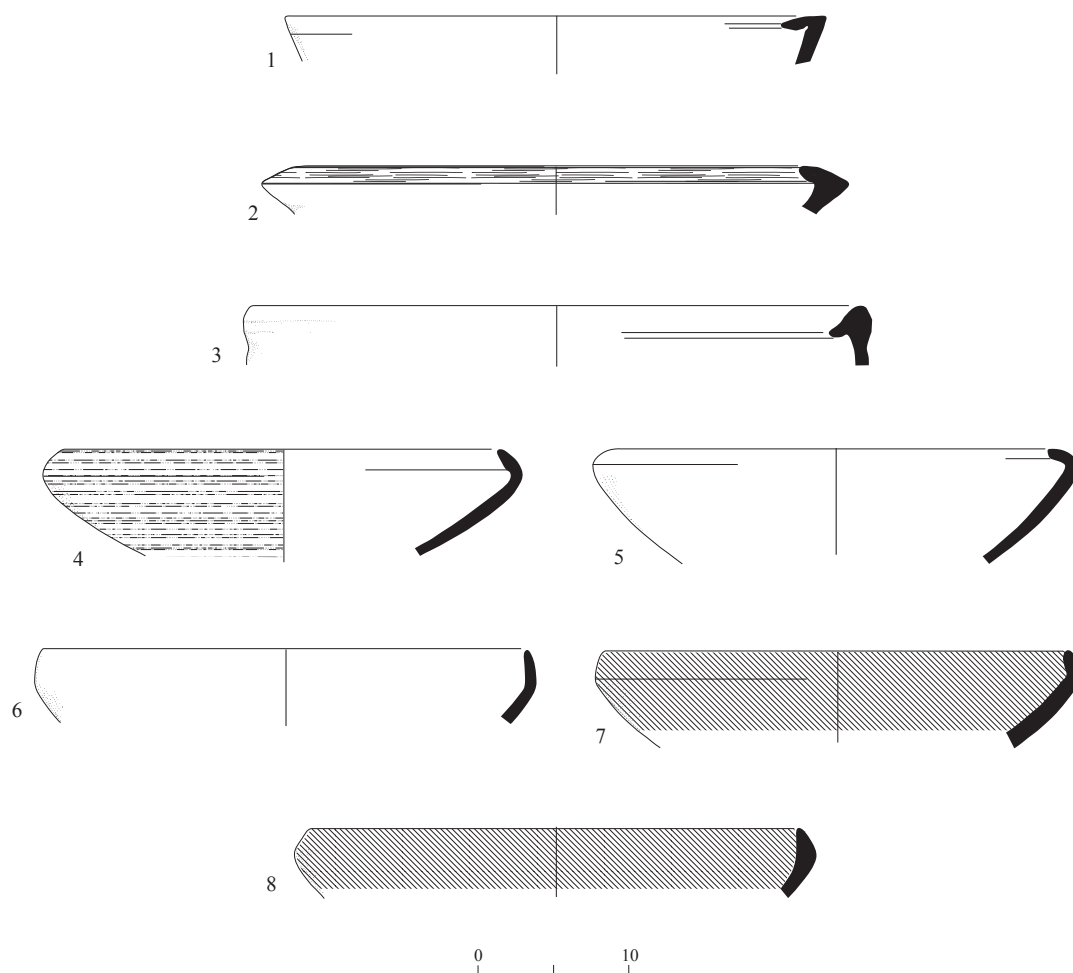


Fig. 16. EB II ceramics from Phases 1–3: platters.

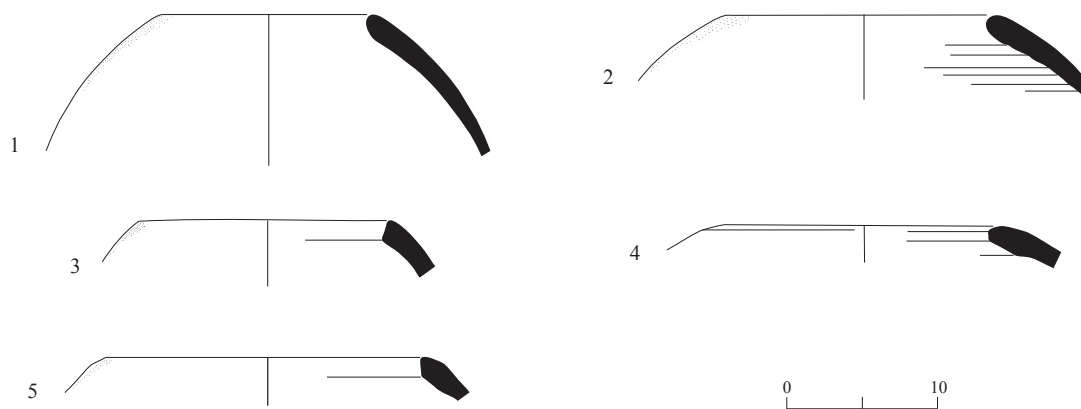


Fig. 17. EB II ceramics from Phases 1–3: holemouth jars.

◀ Fig. 17

No.	Type	Locus	Basket	Phase	Description
1	Holemouth H I	9	267	1	Dark brown-red clay, small gray and white grits, medium fired
2	Holemouth H I	6	106	1	Dark brown-red clay, gray core, small gray and white grits, well-fired
3	Holemouth H II	18	128	3	Dark brown-red clay, small to medium gray and white grits, medium fired
4	Holemouth H III	18	144	3	Brown-gray clay, gray core small gray and white grits, well-fired
5	Holemouth H IV	6	104	1	Light brown clay, gray core small to medium gray and white grits, well-fired

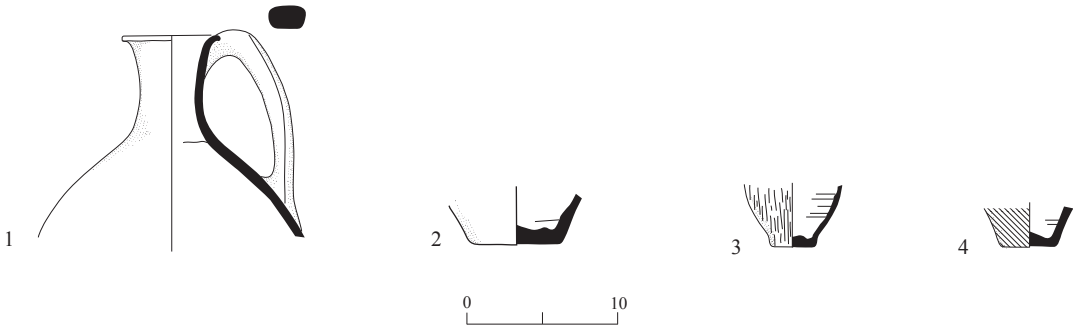


Fig. 18. EB II ceramics from Phases 1–3: jugs/juglets.

No.	Type	Locus	Basket	Phase	Description
1	Jug J	39	240	3	Light brown-red clay, small gray and white grits, very well-fired
2	Jug base J	9	118	1	Light brown-red clay, small gray and white grits, burnish on ext., very well-fired
3	Juglet base JT	9	118	1	Gray-purple clay, small dark grits, vertical burnish on ext., very well-fired
4	Juglet base JT	30	179	2	Light brown-red clay, small gray and white grits, red slip on ext., very well-fired

Statistical analyses of the ceramic type frequencies and technological characteristics (see Tables 2–5) of the EB II pottery from Area S indicate no significant differences with those recovered from previous excavations at the site, exhibiting the same morphology of

types and technological characteristics. Most notable is the predominance of metallic ware (51.7%) and conversely, the limited use of red slip or wash decoration (4.3% on non-metallic ware vessels).

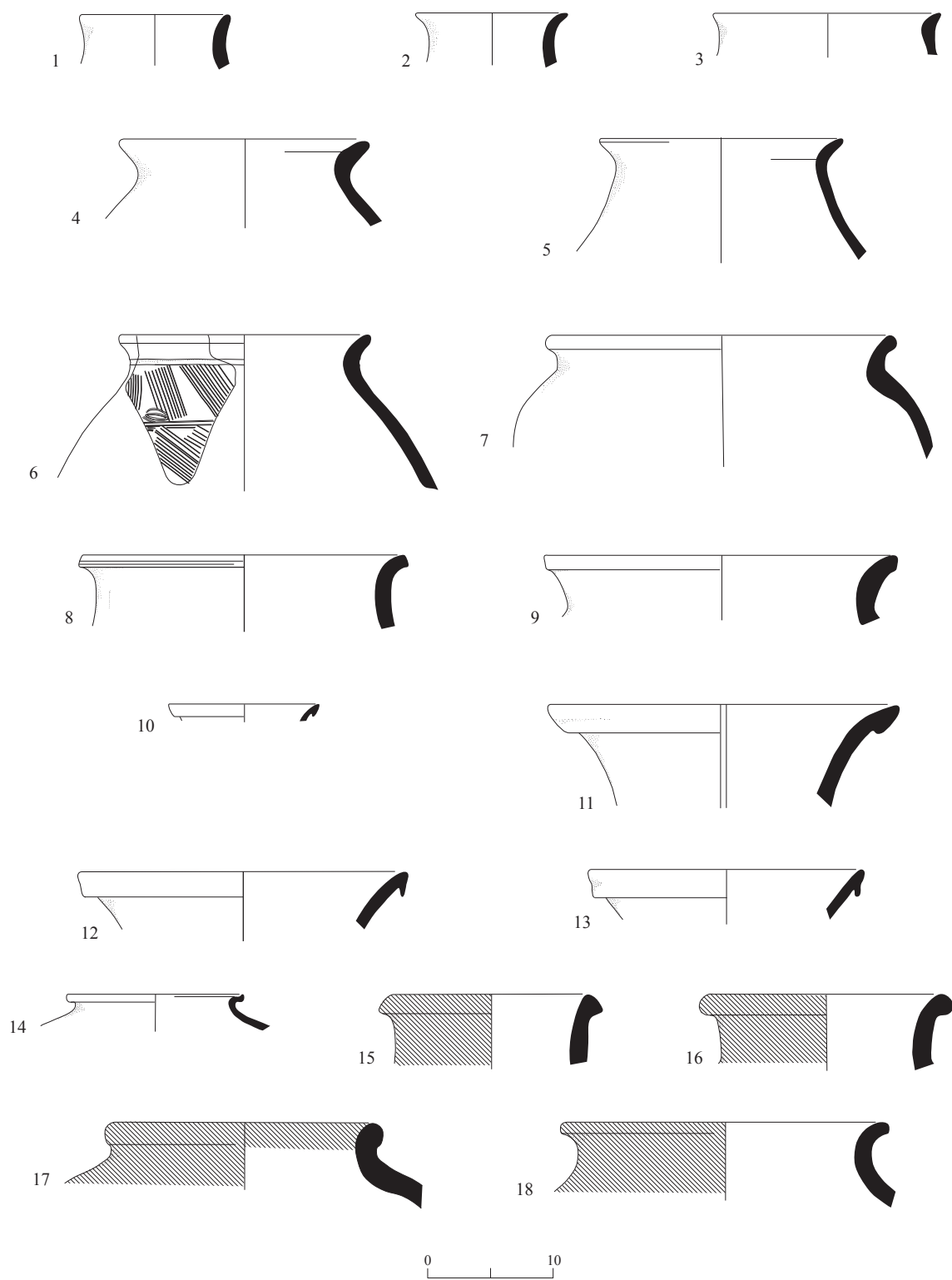


Fig. 19. EB II ceramics from Phases 1–3: store jars.

◀ Fig. 19

No.	Type	Locus	Basket	Phase	Description
1	Small store jar SSJ	6	104	1	Light brown-gray clay, light gray core, small white and gray grits, well-fired
2	Small store jar SSJ	6	104	1	Light brown clay, light gray core, small white and gray grits, well-fired
3	Store jar SJ Ib1	39	226	3	Dark brown-red clay, gray-black core, small white and gray grits, medium fired
4	Store jar SJ Ib1	38	203	2	Light brown-gray clay, light gray core, small white and gray grits, well-fired
5	Store jar SJ Ib1	8	180	1	Brown-gray clay, brown-gray core, small white and gray grits, medium fired
6	Store jar SJ Ib1	9	118	1	Light brown clay, gray core, small white and gray grits, combed decoration on ext., well-fired
7	Store jar SJ Ib1	21	196	2	Light brown-red clay, gray core, small white and gray grits, well-fired
8	Store jar SJ Ib1	29	154	3	Brown-gray clay, brown-gray core, small white and gray grits, well-fired
9	Store jar SJ Ib2	42	212	1	Dark brown-red clay, gray-black core, small to medium white and gray grits, medium fired
10	Store jar SJ Ib2	29	175	3	Brown-red clay, gray core, small white grits, very well-fired
11	Store jar SJ Ib2	20	152	1	Brown-gray clay, gray core, small white grits, very well-fired
12	Store jar SJ Ib2	31b	255	2	Brown-red clay, gray core, small white grits, very well-fired
13	Store jar SJ Ib2	10	126	1	Light brown clay, gray core, small to medium white grits, very well-fired
14	Store jar SJ Ib2	9	258	1	Brown-orange clay, brown-orange core, small white grits, very well-fired
15	Store jar SJ IIIa	20	134	1	Light brown clay, gray core, small to medium white and gray grits, red wash on ext., well-fired
16	Store jar SJ IIIa	29	168	3	Light brown clay, gray core, small to medium white and gray grits, red wash on ext., well-fired
17	Store jar SJ IIIa	62	264	3	Light brown clay, gray core, small to medium white and gray grits, red wash on ext., well-fired
18	Store jar SJ IIIb	30	224	2	Light brown clay, gray core, small to medium white and gray grits, red wash on ext., well-fired



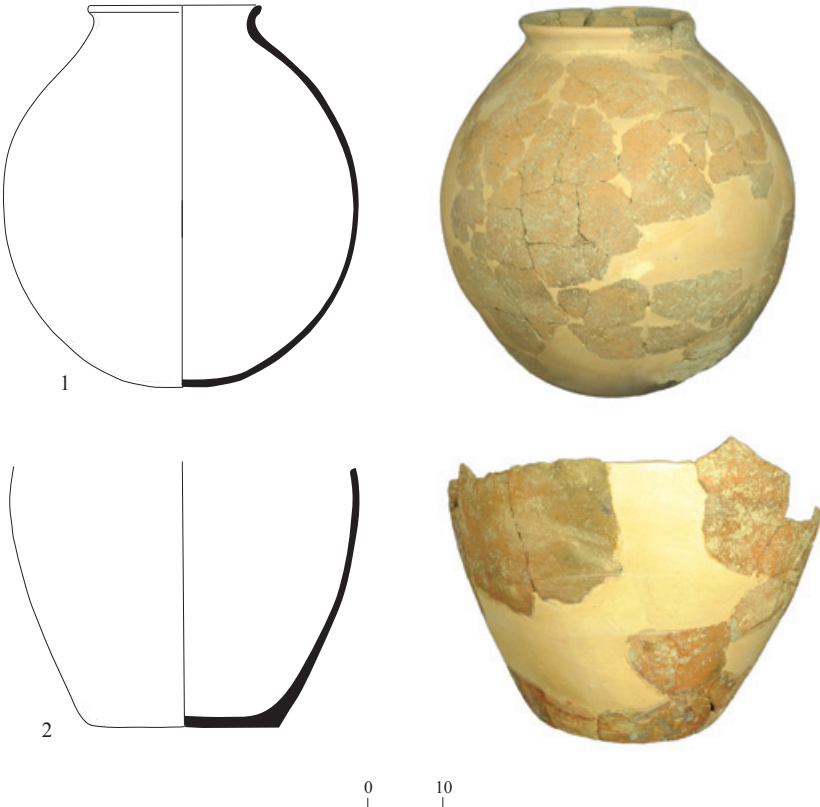


Fig. 20. EB II Store jars from Phase 1.

No.	Type	Locus	Basket	Phase	Description
1	Store jar	11	211	1	Brown clay, brown-gray core, small to medium white and gray grits, well-fired
2	Store jar base	11	212	1	Light brown clay, dark gray core, small to medium white and gray grits, medium fired

Table 2. Area S, Phase 1: Ceramic-Type Frequencies and Characteristics (Loci 6, 8, 9, 10, 11, 13, 15, 20, 24, 28, 42)

	Bowls				Platters							Holemouth Jars				Jugs, Juglets		Store Jars					
Types	I	III	Va	Xa	Ia	Ib	Ila	Ilb	IIla	IIlb	Vb	I	II	III	IV	JT	J	SJ Ib1	SJ Ib2	SJ Ila	SJ Ilb	SJ Ilc	SJ IIIa
Plain		1										2	2	1	1			26	1				
RS	2			1							3												
M					1	1	1													3	2	2	1
M, B	3	1	1		2	3	10	3	7	1						3	3						
M, RB					1																		
Type Total	5	2	1	1	4	4	11	3	7	1	3	2	2	1	1	3	3	26	1	3	2	2	1
Total (89)	9 (10.1%)				33 (37.1%)							6 (6.7%)				6 (6.7%)		35 (39.3%)					

RS = red-slipped; M = ‘metallic’ firing; B = burnished; RB = red-burnished

**Table 3. Area S, Phase 2: Ceramic-Type Frequencies and Characteristics**  
(Loci 16, 17, 19, 21, 23, 26, 30, 31b, 34, 38, 41, 44, 47)

	Bowls				Platters								Holemouth Jars		Jugs, Juglets		Store Jars			
Types	I	Vd	Xa	Xb	Ia	Ib	Id	IIa	IIb	IIIa	IIIb	Vb	I	II	JT	J	SJ Ib1	SJ IIa	SJ IIb	SJ IIIb
Plain	1							1				1	3	1			27			
RS	1		1																	1
RB			1																	
M	1	1			1			2										3	1	
M, B	1				1	2	1	6		2	1				1	3				
M, RB			1	2					1											
M, RS								3												
<i>Type Total</i>	4	1	3	2	2	2	1	12	1	2	1	1	3	1	1	3	27	3	1	1
<i>Total (72)</i>	10 (13.9%)				22 (30.6%)								4 (5.6%)		4 (5.6%)		32 (44.4%)			

RS = red-slipped; RB = red-burnished; M = 'metallic' firing; B = burnished

**Table 4. Area S, Phase 3: Ceramic-Type Frequencies and Characteristics**  
(Loci 18, 22, 29, 39, 43, 48, 59, 62, 63)

	Bowls			Platters				Holemouth Jars		Jugs, Juglets	Store Jars			
Types	I	III	Va	Ia	Id	IIa	Vb	I	II	J	SJ Ib1	SJ IIa	SJ IIb	SJ IIIa
Plain	1						1	1	1		17			4
RS														
M		1	1	2			1					6	1	
M, B	1			1	1	3	1			4				
M, RS							2							
M, RB			1											
M, B, PB														
<i>Type Total</i>	2	1	2	3	1	3	5	1	1	4	17	6	1	4
<i>Total (51)</i>	5 (9.8%)			12 (23.5%)				2 (3.9%)		4 (7.8%)	28 (54.9%)			

RS = red-slipped; M = 'metallic' firing; B = burnished; RB = red-burnished; PB = pattern burnish

Table 5. Area S, Phases I-3: Total of Ceramic-Type Frequencies and Characteristics

Types	Bowls					Platters					Holemouth Jars					Juglets		Store Jars							SJ IIIB				
	I	III	Va	Vd	Xa	Xb	Ia	Ib	Id	IIa	IIb	IIIa	IIIb	Vb	I	II	III	IV	JT	J	SJ Ib1	SJ Ib2	SJ IIa	SJ IIb		SJ IIc	SJ IIIa	SJ IIIB	
Plain	2	1								1				2	6	4	1	1			70	1				4			
RS	3				2									3													1		
RB					1																								
M	1	1	1	1			4	1		3				1															
M, B	5	1	1				4	5	2	1	3	9	2	1					4	10									
M, RB			1		1	2	1				1			2															
M, RS										3																			
Type Total	I	3	3	I	4	2	9	6	2	2	4	9	2	9	6	4	I	I			70	I	12	4	2	5	I		
Total (212)	24 (11.3%)					67 (31.6%)										12 (5.7%)					14 (6.6%)		95 (44.8%)						

RS = red-slipped; RB = red-burnished; M = 'metallic' firing; B = burnished

*Various Small Finds* (Fig. 21)

*Ceramic Disc* (Fig. 21:1).— A partially perforated ceramic disc originated in L53, associated with Phase 2. This item was made by reworking a pottery sherd into a rough circle by chipping its edges, and the beginning of a drilled hole is found on one side. Nodet (1980:320) has claimed that such discs served as pivots for drills. The upper end of a drill would be lodged into a conical cavity hollowed out in a disc, which would provide a base for the application of vertical pressure for drilling a hole. When such a pivot eventually became pierced due to use, it may have been used as a whorl.

*A Cylinder-Seal Impression* (Fig. 21:2).— A fragment of a cylinder-seal impression was recovered in debris (L48, B233) upon a surface east of W23, associated with Phase 3. The impression was executed on a closed vessel, probably a store jar, of light orange-brown fabric that appears to belong to the family of North Canaanite Metallic Ware (NCMW), common in the region during EB II. These vessels often exhibit cylinder-seal impressions (Greenberg 2001).

Cylinder-seal impressions of the Early Bronze Age are of special interest as they are one of the few expressions of cult practices from this period. The present impression is only a fragment, rendering a reconstruction of the complete scene problematic. This seal impression does not appear to represent any of the well-known geometric motifs that

are common on NCMW store jars, several examples of which have already been found at Qiryat Ata (Greenberg 2003; 2013).

If the positioning of the seal impression as depicted in Fig. 21:2 is correct, on the right is a seated figure facing right with long, curved, swept-back horns. This figure is often seen in a well-known cultic motif of EB II–III in northern Canaan, which also includes a standing human figure between the seated horned figure and a schematic depiction of what appears to be a multi-storied building with many windows, possibly a temple (Ben-Tor 1992). A possible affirmation of this reconstruction is found in the suggestion of a row of several rectangular impressions behind the ‘seated figure’, which may represent the building or temple. However, directly above these rectangular impressions is what may be a horned quadruped, facing right. Somewhat similar depictions of quadrupeds are also common on cylinder-seal impressions of this period (Greenberg 2013: Fig. 11:2). In this case, the rectangular impressions would depict the quadruped’s legs.

If the latter reconstruction is correct, the present seal impression is problematic, as the composition of these elements, each of which is known separately from other examples, is so far unknown (Raphael Greenberg, pers. comm.). The juxtaposition of both a seated, horned figure, possibly a human masquerading as an animal, and another animal behind it, highlights the fact that these seal impressions were not merely decorative, but had cultic significance as well.

Fig. 21 ►

No.	Object	Locus	Basket	Phase	Description
1	Ceramic disc	53	247	2	Brown-gray clay, gray core, well-fired
2	Cylinder seal impression	48	233	3	Orange-brown clay, orange-brown core, very well-fired
3	Spindle whorl	6	106	1	Gray-brown clay, small gray grits
4	Spindle whorl	24	209	1	Non-vesicular basalt
5	Grinding stone	37	257	1–2	Pumice
6	Mortar	6	157	1	Non-vesicular basalt
7	Grinding stone	36	291	–	Vesicular basalt



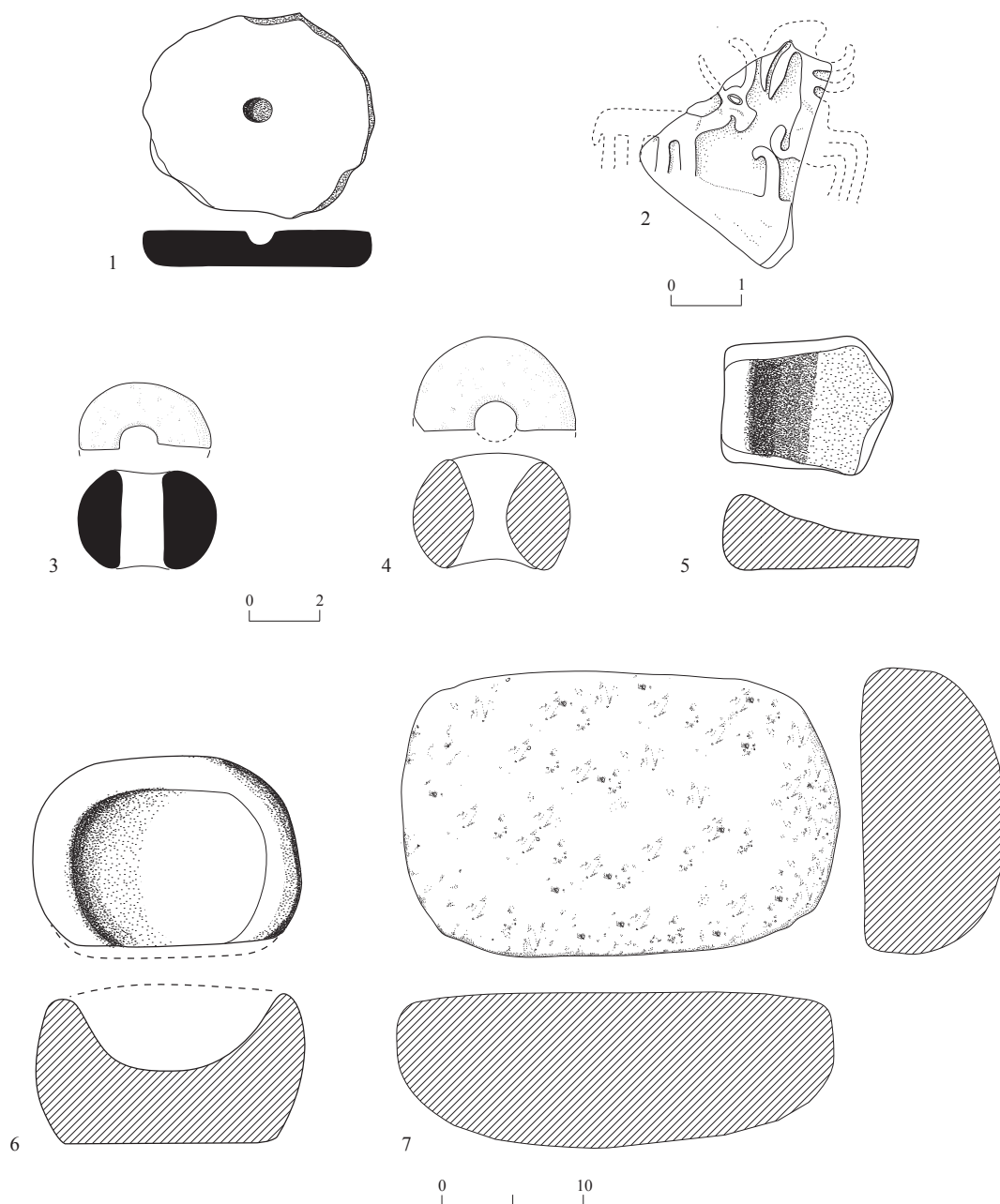


Fig. 21. Various ceramic and stone finds.

*Spindle Whorls* (Fig. 21:3, 4). Two spindle-whorl fragments were recovered during the course of excavation. The first one, originating in debris upon a surface (L5) associated with

Phase 1, is made of light gray-brown clay and is very well fired. According to the weight of the fragment (30.2 g), the total weight can be estimated at just over 60 g. The whorl was

made by shaping clay, perforating it with a stick while the clay was still leather-hard, and then firing it. Such whorls are relatively common throughout the Early Bronze Age. Numerous examples have been recovered in previous excavations at Qiryat Ata, where they were classified as Type 2 Doughnut-Shaped, Fired Clay Whorls (Shamir 2003), and also at Azor (Shamir 1999).

The second whorl, made of non-vesicular basalt, was recovered from an unclear context (L24), possibly to be attributed to Phase 1. According to the weight of the fragment (54.47 g), the total weight of the whorl may be estimated at about 109 g. It is similar in shape to the previous whorl, but of different material and weight, and is classified as Type 3 Doughnut-Shaped Basalt Whorl (Shamir 2003).

Whorls hafted on suspended spindles provided continuous rotary motion on the flywheel principle, enabling the twisting of fibers to fashion thread (Barber 1991:70–78; Shamir 1996). The basalt whorl from Area S is relatively heavy; a collection of 24 Type 3 basalt whorls found in other excavated areas at Qiryat Ata average 56 g (Shamir 2003), thus the present basalt example is nearly twice the average weight. Whorls of lighter weight were generally used for spinning wool (short fibers), while heavier whorls were used for linen (long fibers; Forbes 1956:152; Ryder 1983:747). Another possibility is that such a heavy whorl caused tight spinning, suitable for the warp (Ryder 1983:747).

In the Early Bronze Age, weavers showed a preference for basalt whorls, and such whorls were exported from Canaan and have been found at Maadi in Egypt, from the beginning of the Early Bronze Age (Rizkana and Seeher 1989:53; Yekutieli 1992:56).

*Groundstone Objects* (Fig. 21:5–7).— A number of groundstone artifacts were recovered during the course of excavation in Area S, throughout the phases. The majority of these were fragments, presumably of basalt mortars, grinding slabs/querns and handstones.

An exceptional object, presumably a fragment of a mortar or a small grinding stone, is made of pumice (Fig. 21:5). A small, complete mortar is made of non-vesicular basalt (Fig. 21:6). Such mortars, often no more than a shallow, smoothed concavity on a flat, oval stone, are common in Early Bronze Age domestic contexts (Rowan 2003:189). Two complete examples of basalt grinding slabs with plano-convex cross-sections were found upon the floor of Structure 4, associated with Phase 1 (see Fig. 9), and another was found in an overturned position, incorporated within W3 (Figs. 9; 21:7). Such grinding slabs are ubiquitous in domestic contexts at Early Bronze Age sites (Rowan 2003:186).

#### *The Flint Artifacts* (Figs. 22–25)

Hamoudi Khalaily

A total of 123 flint artifacts were recovered from Area S. The absence of several waste categories such as chips and chunks (Table 6) indicates that some artifact selection was carried out, in particular of Canaanian products, a hallmark of the Early Bronze Age.

#### *Raw Materials*

The vast majority of the artifacts were made of fine-grained Eocene flint, probably originating from Har Ḥaruvim in the Jezreel Valley, where numerous Canaanian cores have been found (Rosen 1983; Shimelmitz, Barkai and Gopher 2000; Khalaily 2013). The Canaanian products are generally grayish-beige in color and are comparable to most Canaanian blades found in the region of the Jezreel Valley. Another type of flint, light brown in color, was restricted to ad-hoc tool production. This is evidenced by the presence of 14 amorphous cores and the flakes in the collection. This material probably derived from flint outcrops in the vicinity of the site.

#### *Tools*

The tool assemblage consists of 28 artifacts: 26 were shaped on Canaanian products and

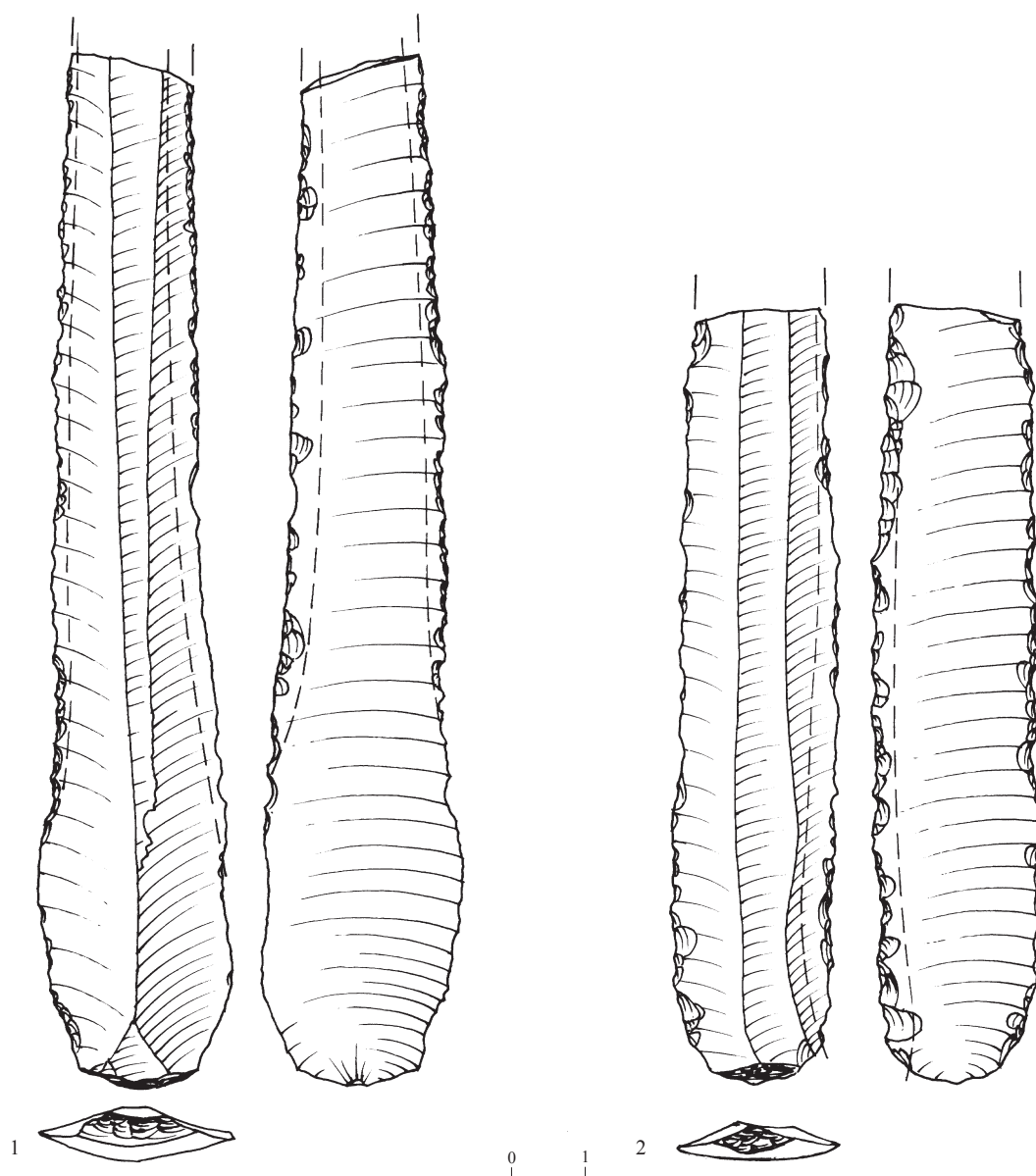


Fig. 22. Caneanean sickle blades.

the remainder on local flint. One of the two non-Caneanean tools is a backed and truncated sickle blade typical of Chalcolithic flint industries (Fig. 23:4). The Caneanean tools comprise three types:

*Caneanean Sickle Blades* (n = 19).— All the sickle blades in this collection are broken,

missing one or both ends; 14 are medial pieces and the other 5 still bear striking platforms and percussion bulbs, with the distal end missing (Fig. 22:1). Ten sickle blades bear sickle gloss on one edge (e.g., Fig. 22:2), while nine of them exhibit two working edges (Figs. 22:1; 23:1–3). The working edges are nibbled on the ventral side.

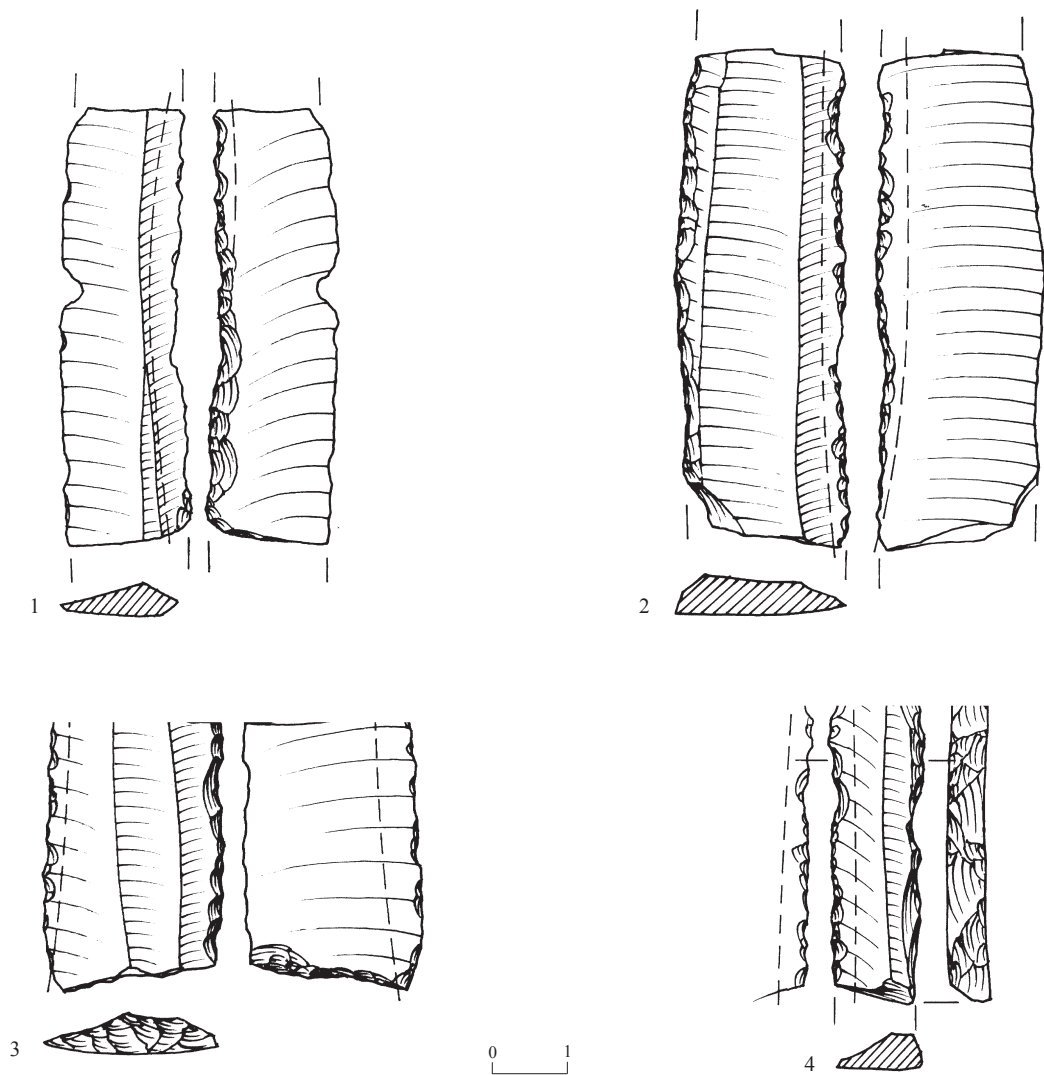


Fig. 23. Canaanian sickle blades (1–3) and a Chalcolithic sickle blade (4).

Table 6. Flint Breakdown

	No.	%
Primary Elements	14	11.40
Flakes	48	39.02
Blades	15	12.20
Cores	14	11.38
CTEs	1	0.81
Spalls	0	0.00
Chips	0	0.00
Chunks	3	2.44
Tools	28	22.76
Total	123	100.00

*Canaanian Retouched Blades* (n = 5).— These items are similar to the sickle blades, but exhibit no visible sickle sheen. All items are broken and display continuous fine retouch on one edge; only two are retouched on both edges.

*Fan Scrapers* (n = 3).— Two of the fan scrapers (Fig. 24) have a wide fan shape, obtained by semi-abrupt retouch. The third one, although a fragment, retains the striking platform and bulb of percussion that enables evaluation of its original shape as elliptical (Fig. 25). The bulb of percussion of one of the items (Fig. 24:1)



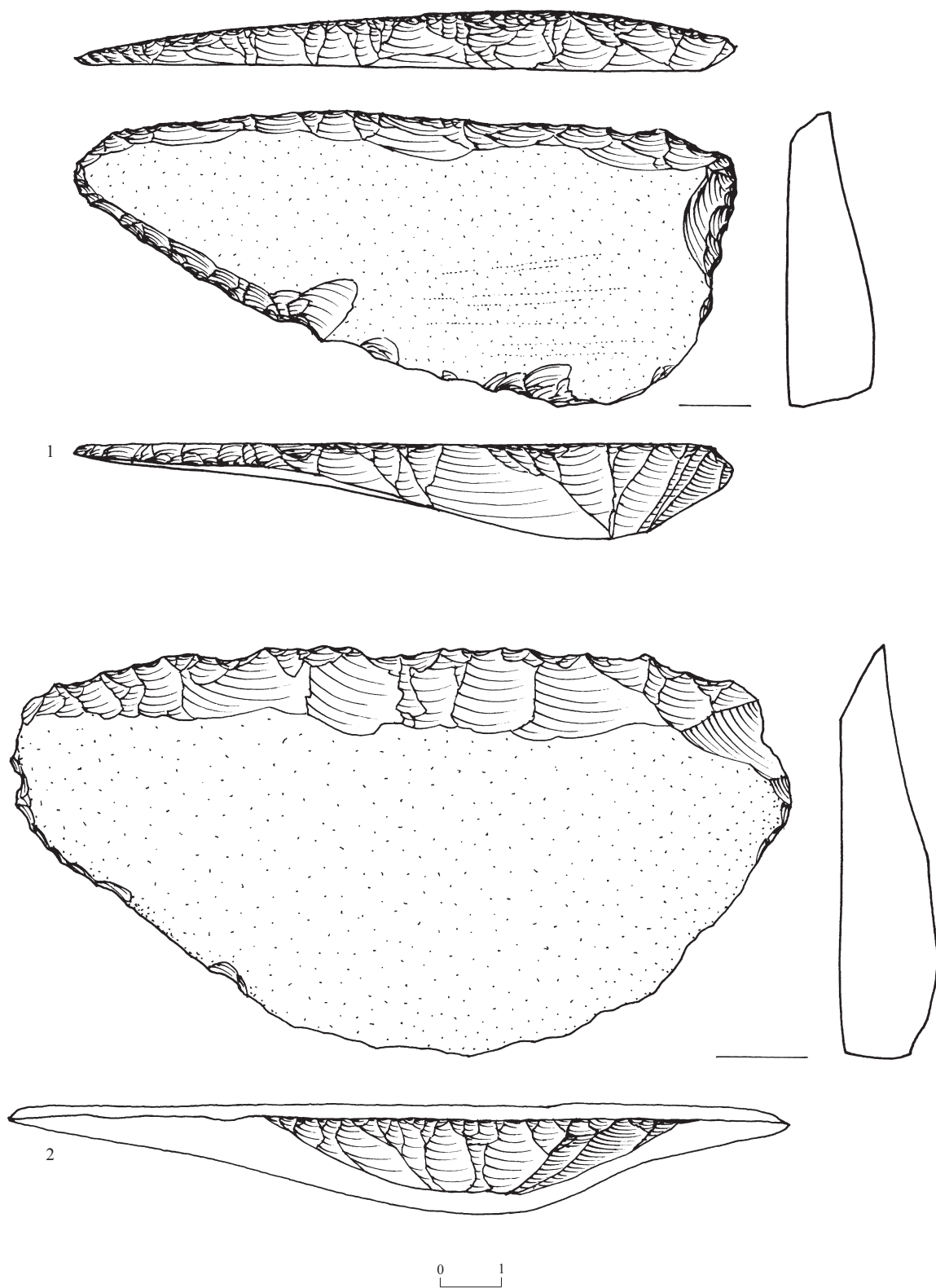


Fig. 24. Fan scrapers.

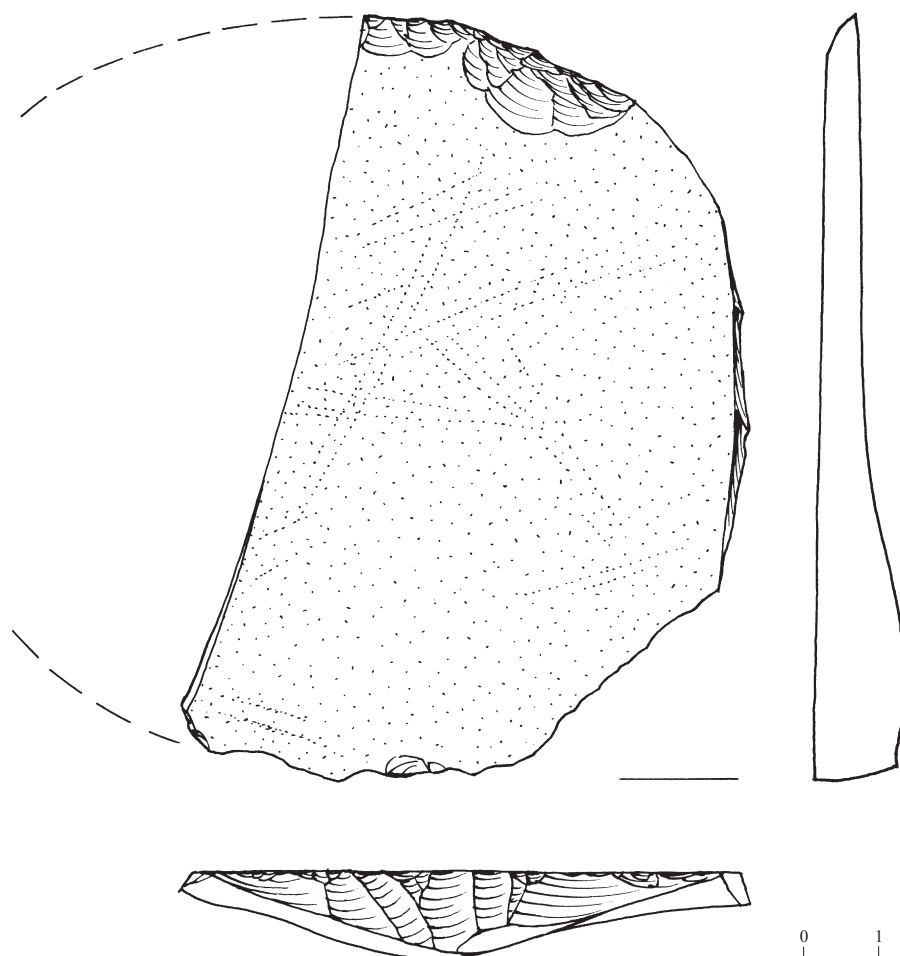


Fig. 25. Fan scraper.

was removed by ventral invasive retouch. The remainder, however, display pronounced bulbs. Striation marks are found on two examples (Figs. 24:1; 25). Items with striations have been assigned a typological differentiation by Rosen (1997), and may serve as another cultural hallmark for Early Bronze Age flint industries.

#### *Discussion*

The flint assemblage from Area S is similar to other assemblages reported from various excavated areas at Qiryat Ata (Fantalkin 2000; Bankirer 2003; Khalaily 2013), which are typical of the material culture of an Early Bronze Age settlement. However, in this collection Canaanite products comprise the

majority, probably a result of selective retrieval. Consequently, the dominant tools were made on Canaanite blade blanks that apparently reached the site as final products. The fan scrapers were also shaped on gray Eocene flint similar to that used for the Canaanite industry, and could also be part of the Canaanite trade system among the northern Early Bronze Age sites (Rosen 1983; Milevski 2011:199).

#### SUMMARY AND CONCLUSIONS

The excavations in Area S are a welcome addition to our accumulating knowledge from years of work at the Early Bronze Age site of Qiryat Ata. The excavations have revealed

remains of crowded EB II buildings, with alterations over time, evidence of an intensive occupation in the southwestern periphery of the site during General Stratum I of EB II. The architectural remains are evidence of social organization, forming a ‘compound’ or *insula*, when the site appears to have been a fully urbanized settlement (see Faust and Golani 2008). The lack of *in situ* remains of General Strata II–III, of EB IB, in the western portion of Area S, indicates that the southeastern border of the site during EB IB should be sought slightly further to the east, in Area H, or possibly at the eastern edge of

Area S, where the present excavations did not reach virgin soil.

The ceramic repertoire from Area S contributes to the growing corpus of EB II pottery from Qiryat Ata. The cylinder-seal impression may be a unique composition and is a welcome addition to the growing corpus of seal impressions from northern Canaan of EB IB–EB II. The flint assemblage represents a typical repertoire of the period, and the faunal assemblage complements previous zooarchaeological research at the site and contributes to the overall picture of primary reliance on domesticated species in the EB II economy of the region.

#### APPENDIX 1. LIST OF LOCI

Locus	Square	Description	Phase
1	B2	Topsoil removal	–
2	B3	Topsoil removal	–
3	D2	Topsoil removal	–
4	E2	Topsoil removal	–
5	F2	Topsoil removal and debris upon surface	–
6	F3	Floor around W6 and overriding a portion of W7	1
7	C2	Topsoil removal	–
8	E2	Below L4; debris upon surface north of W4	1
9	E2	Below L4; debris upon surface east of W12	1
10	D2	Below L3; combined into L28	1
11	F2	Below L6; floor make-up	1
12	B1	Topsoil removal	–
13	C2	Below L3; combined into L28	1
14	C2	Below L3; combined into L20	1
15	C2	Below L3; combined into L20	1
16	F2	Below L11; debris upon surface east of W7	2
17	E2	Below L9; debris upon surface	2
18	E2	Below L17; debris upon surface south of W10	3
19	F2	Below L16; floor make-up	2
20	C2	Below L7; debris upon surface west of Structure 4	1
21	D2	Below L34; surface make-up	2
22	F2	Below L19; debris upon surface east of W21	3
23	D2	Below L21; combined into L34	2
24	F3	Below L6; debris upon surface	1
25	E2	Below L17; debris	4?
26	E2	Below L17; debris upon surface	2
27	B1	Below L12; debris	–
28	C2, D1	Below L3; debris upon floor within Structure 4	1

## APPENDIX 1. (cont.)

Locus	Square	Description	Phase
29	C2	Below L20; gravelly debris upon surface; equals L39	3
30	D2	Below L3; debris upon surface	2
31A	F3	Below L6; debris upon surface east of W7	1
31B	F3	Below L31A; debris upon surface east of W7	2
32	C1	Below L3; debris upon surface west of W8, equals L20	1
33	D1	Below L3; combined into L36	—
34	D2	Below L3; debris upon surface south of W16	2
35	C2	Below L29; probe below floor down to virgin soil	Pre-3
36	D1	Topsoil removal	—
37	E3	Debris above surface after removal of topsoil by tractor	2–1
38	F2	Below L11; debris upon surface	2
39	C2, D2	Below L21, L23, L28; gravelly debris upon surface	3
40	E3	Debris upon surface south of W7	2
41	F2	Below L5; combined into L16	2
42	D1	Below L36; combined into L28	1
43	F3	Below L24; debris upon surface between W7 and W35	3
44	F2	Below L38; floor make-up	2
45	E2	Below L4; dismantlement of W4	1
46	F2	Below L44; debris upon surface between W19 and W21	3
47	F3	Below L24; debris upon surface south of W35	2
48	E3	Below L37; debris upon surface east of W23	3
49	E2	Below L8; combined into L17	2?
50	D2	Below L39; probe in limited area into gravelly matrix	Pre-3
51	D1	Below L36; debris north of W17	2? 1
52	F2	Below L22; surface make-up	3
53	D1	Below L3; debris upon floor within Structure 2	2
54	E1	Topsoil removal	—
55	F2	Below L52; debris upon surface and surface make-up	4
56	C1	Below L36; debris between W17 and W26	2?–1
57	F3	Below L24; debris upon surface west of W7	2
58	F3	Below L57; surface make-up	3–2
59	F3	Below L31b; debris upon surface east of W7	3
60	F3	Below L58; combined into L43	3
61	E3	Below L37; debris upon surface east of W18	2
62	F3	Below L43; floor make-up	3
63	F3	Below L59; surface make-up	3
64	F3	Below L62; debris above surface	4–3
65	E3	Below L61; surface make-up and debris upon surface	3–2
66	F3	Below L64; debris upon surface	4
67	E3	Below L65; surface make-up and debris upon W27	4–3
68	F3	Below L63; debris upon surface	4
69	E3	Below L67; debris south of W27	4?
70	E3	Below L67; debris north of W27	4?



## APPENDIX 2. LIST OF WALLS

Wall	Square	Function	Phase
1	C2	Building wall	1
2	C2	Building wall	1
3	D2/D1	Building wall	2–1
4	E2	Building wall	1
5	Cancelled	–	–
6	F2	Building wall	1
7	F2/F1	Compound and building wall	2–1
8	C2/D1	Building wall	1
9	C2/D2	Building wall	1
10	E2	Building wall	3
11	F3	Building wall	1
12	F2/F3	Building wall	1
13	F3	Building and compound wall	3–1
14	E3	Compound wall	2
15	Cancelled	–	–
16	D2/E2	Compound wall	2–1
17	D1	Building wall	1
18	E2/E3	Compound wall	2–1
19	F2/E2	Building wall	3
20	D1	Building(?) wall	2(?)–1
21	F2	Building wall	3
22	F2/E2	Building wall	2–1
23	E3	Building wall	3
24	C2/D2	Unclear	3
25	E2	Partition wall	2–1
26	D1	Building(?) wall	1
27	E3	Unclear	4
28	E3	Building wall	3
29	F1/E1	Compound and structure wall	2–1
30	E1/E2	Building wall	2–1
31	E1/E2	Building wall	2–1
32	E2	Building wall	3
33	E3	Unclear	4
34	F2/E2	Building wall	3
35	E3/F3	Compound wall	3–2
36	F4	Unclear	3?
37	F3	Building wall (conjectured)	1

## NOTE

<sup>1</sup> The excavation of Area S (Permit No. A-5604) was carried out during February–March 2009. The project was financed by the developing contractor, J. Avivi, and directed by Amir Golani on behalf of the Israel Antiquities Authority, with the assistance of Eli Bachar and Shlomo Ya'aqov-Jam (administration), Rivka Mishayev and

Yelena Nemichnitzer (surveying), Adrian Ganor (ceramic restoration and conservation), Elizabeth Belashov (draughtsmanship), Clara Amit (artifact photography), Carmen Hersch (artifact drawing), Rohi Liphshitz (local antiquities trustee), Karem Sa'id (archaeological inspector) and Kamil Sari (district archaeologist).

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