

NEW EXCAVATIONS AT TEL ERANI: A PRELIMINARY REPORT OF THE 1985–1988 SEASONS

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INTRODUCTION

The Site and History of Research

Tel Erani (Tell esh-Sheikh Ahmed el-⁵Areini) is located at the edge of the southern Shephelah, about 125 m. above sea level. The surrounding area is drained by Nahal Lachish, which flows along the northern edge of the tell. The climate of the region is Mediterranean, with an average annual rainfall of ca. 400 mm.

The site consists of an elevated tell (acropolis) in the northeastern corner of the site, which covers about 15 dunams. The tell dominates two terraces located mainly to the south and west. The upper terrace is about 20 m. below the summit of the tell and covers about 150 dunams. The lower terrace is about 5–10 m. below the upper terrace and its southern edge terminates along the Kiryath Gath-Beit Guvrin road.

Tel Erani was first mentioned by Conder and Kitchner in the Western Palestine Survey who identified it as Libnah (*SWP III:259*). Later, Albright (1921–1922:11) proposed to identify it as the Philistine town of Gath.

In 1956–1961 S. Yeivin carried out large-scale excavations on behalf of the Department of Antiquities (1961; 1975). In addition to refuting Albright's identification, the major contribution of this excavation was the discovery of an extensive early settlement on the surrounding terraces, where the richest area of occupation was found in Area D on the southeastern edge of the lower terrace. Here ca. 750 sq. m. were opened and a test trench (Square A10) was excavated to a depth of ca. 7 m. (Fig. 1) (Yeivin 1961: Figs. 7–8). Twelve occupational phases (Strata I–XII) were discerned here, covering the time span from the Late Chalcolithic (Yeivin's terminology) to the Early Bronze Age III. The earliest settlement was also reached in Areas M and N on the upper terrace. Yeivin (1961:8) concluded that the first settlement (Strata XI–V, Area D) was associated with the Chalcolithic "Ghassulian" culture. The following strata (IV–II) were attributed to the Early Bronze Age I–II. A *serekh* of Narmer was found in Stratum V, establishing a synchronism with Egyptian chronology, and Egyptian vessels and artefacts were found mainly in Strata VI–IV. The finds and their interpretation were discussed by Yeivin in a number of preliminary reports, and summed up in an encyclopaedia article (Yeivin 1975), but not fully published. B. Brandl is currently preparing the

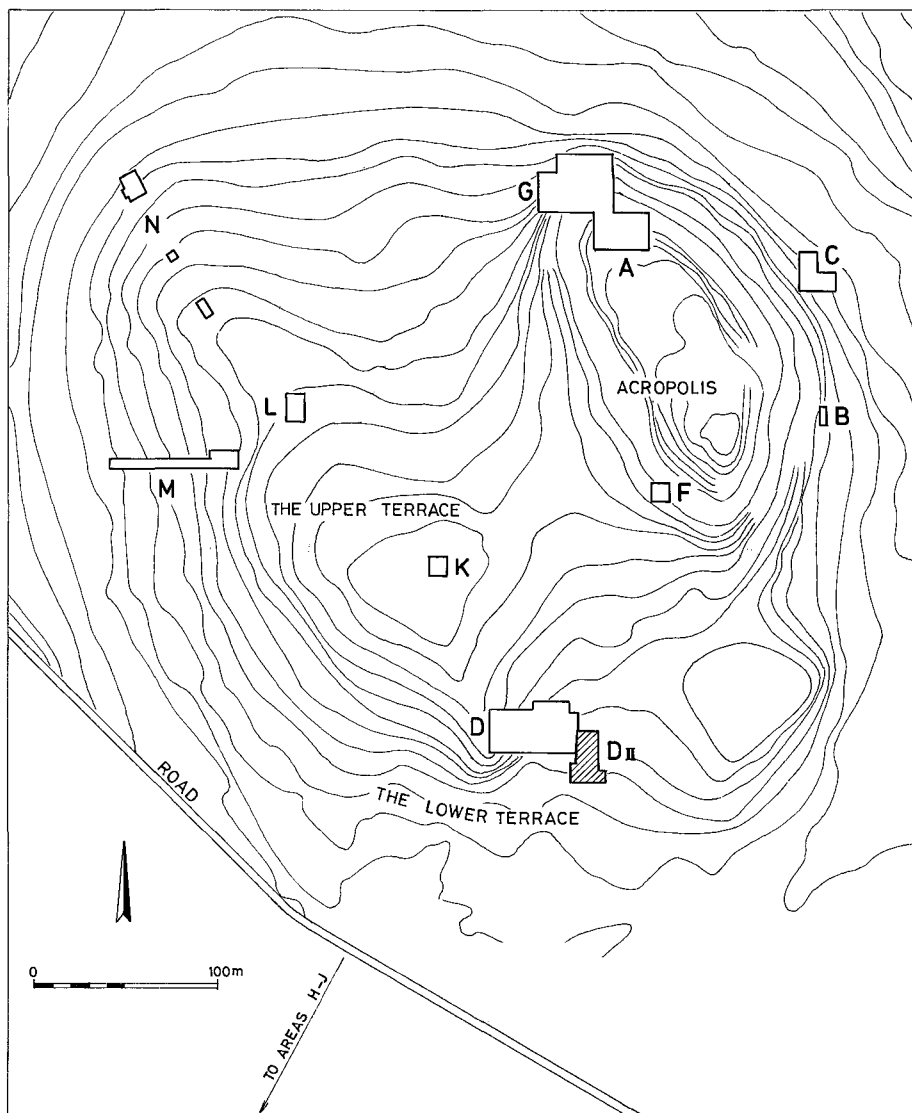


Fig. 1. Tel Erani and location of the excavated areas.

material for publication, and recently published some of the Early Bronze Age pottery (Brandl 1989).

Yeivin's excavations indicate the importance of Tel Erani in the study of two major aspects of the early history of Canaan: 1) The process of urbanization in the Early Bronze Age (Kempinski 1978:12-13, 15). According to Yeivin, the earliest fortified settlement (city) began in Stratum VI, preceding the reign of Narmer

(Stratum V), thereby establishing Tel Erani as the earliest city in Canaan. This city, he claimed, developed from an earlier settlement with Ghassulian affinities. 2) The extent of Egyptian influence on southern Canaan during the Early Bronze Age.

Environmental and Geographical History

Rosen (1986), in her study of the Quaternary stratigraphy of Nahal Lachish, identified two local depositional episodes: the Chalcolithic/Early Bronze Age terrace and the Byzantine terrace, both indicating the existence of a climate moister than today at the time of their deposition (*ibid.*:32).

The end of the Chalcolithic period in the area of the tell is still unclear. A few small Chalcolithic sites are known in the vicinity, all belonging to the "Ghassul-Beer-sheba" phase. Early Bronze Age settlements have been found at Gath-Guvrin, the North-west Settlement at Lachish and Tel Sheqef. The earliest EB remains, undoubtedly those of Gath-Guvrin, may correspond to the earliest phase of Tel Erani. The long history of the Early Bronze Age I in the area delimited by Tel Lachish in the east, Tel Sheqef in the west, Gath-Guvrin in the north and Tel Nagila in the south is now best recorded at Tel Erani, where the first urban centre was established during that period (see below). This centre continued into the Early Bronze Age II, when the impact of Egyptian culture was stronger in the entire area. Apart from the major centre at Tel Erani, Egyptian stations dating to the First Dynasty were founded at Tel Maahaz and the Northwest Settlement at Lachish to the east.

Urban settlement shifted with the beginning of the Early Bronze Age III, and Lachish in the east, and Tell el-Hesi in the west, became important centres (Fargo 1979). The status of Tel Erani in that period is at present unclear.

It appears that different transportation networks operated during the Early Bronze Age I–II and Early Bronze Age III. During EB I–II a major road ran from south to north, connecting the Egyptian sphere of interest in the south with the northern part of the country. This road had a side branch to the east leading to the area of the copper mines, via Arad to the Arabah and Feinan in Transjordan. During EB III an east-west road, running into the Judean hills, connected centres like Tell el-Hesi and Tel Lachish with the important towns of the central hilly region which flourished at that time (de Miroschedji 1988:91–94).

THE PRESENT EXCAVATIONS

Aims and Methods

The major issues concerning the early settlement at Tel Erani were left unclear at the end of Yeivin's excavations, hence our decision to renew excavation at this important site.



Fig. 2. Area D_{II}; a general view after the 1987 season, looking south.

The present project had three aims. First, to investigate the process of development from a “Late Chalcolithic”, pre-urban settlement, to a fortified Early Bronze Age city. Second, to understand the nature of Egyptian involvement at Tel Erani and its possible impact on the process of urbanization. Third, to re-examine Yeivin’s results using modern methods of field archaeology.

Three short excavation seasons were carried out in March 1985 (15 days), April 1987 (12 days) and April 1988 (10 days). A narrow trench (labelled Area D_{II}) was opened east of Yeivin’s Area D during the first season (Figs. 2; 4) to re-examine his stratigraphy (Yeivin 1975). The results indicated that the lower levels of this terrace were composed almost entirely of EB I deposits, whereas the upper levels contained EB II and EB III deposits. It was therefore decided to concentrate on digging the lower levels in the following seasons. In 1987 a major building (Building 232) was excavated and earlier deposits below the building were reached.

The 1988 season had two aims: first, to retrieve additional material from the earliest phase of the settlement; second, to establish the extension of Building 232 towards the west. The plan of Building 232 has been partially clarified, but its relation to the nearby structures excavated by Yeivin, imperative for understanding

certain aspects of town-planning at the site, will have to be examined in the future (Kempinski and Gilead 1988).

The grid of Area D_{II} (Fig. 3) was opened 2.5 m. from Yeivin's Area D and is, in fact, an eastward extension of Yeivin's grid. An area of ca. 200 sq. m. was excavated and virgin soil was reached in a few places at a depth of 3 m. below the surface. The area was divided into 5x5 metre squares, leaving a baulk of one metre between the squares (Figs. 2, 5). Sections were carefully studied and recorded, as opposed to Yeivin's method of excavating large areas with little stratigraphical control. All artefacts and bones were recorded and counted, sediments associated with living floors were sifted, flotation was performed to recover botanical remains, and pottery samples were subjected to petrographic analysis.

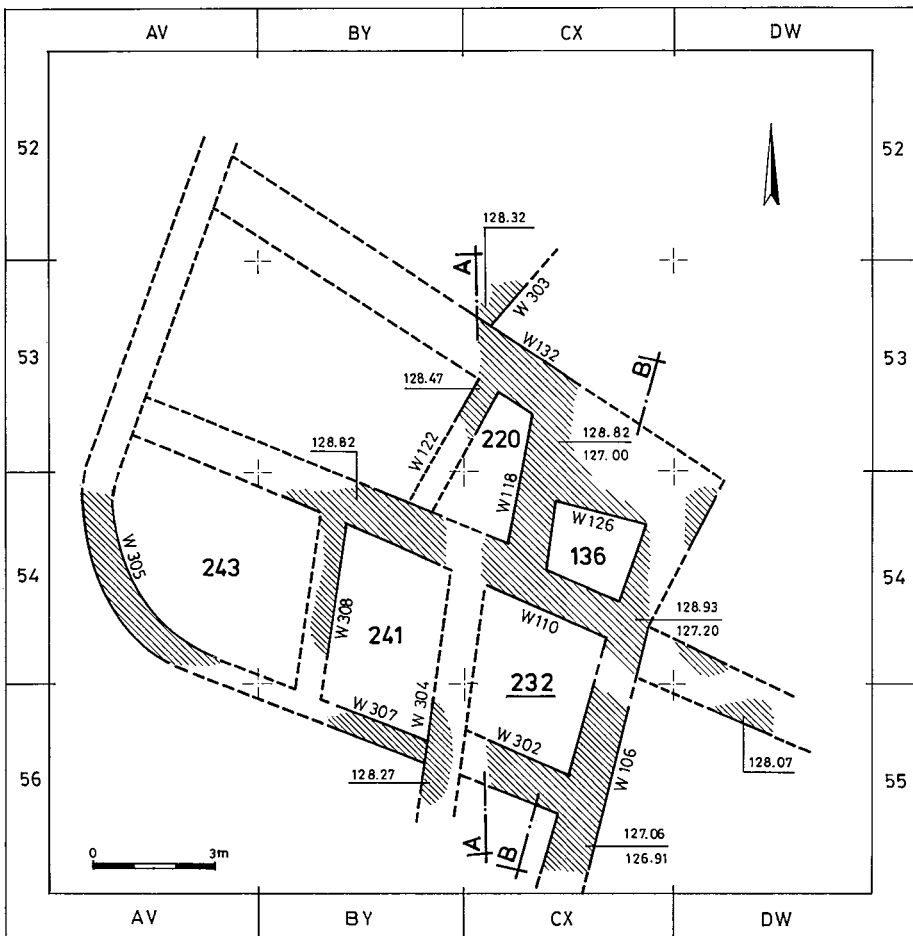


Fig. 3. Plan of Building 232.

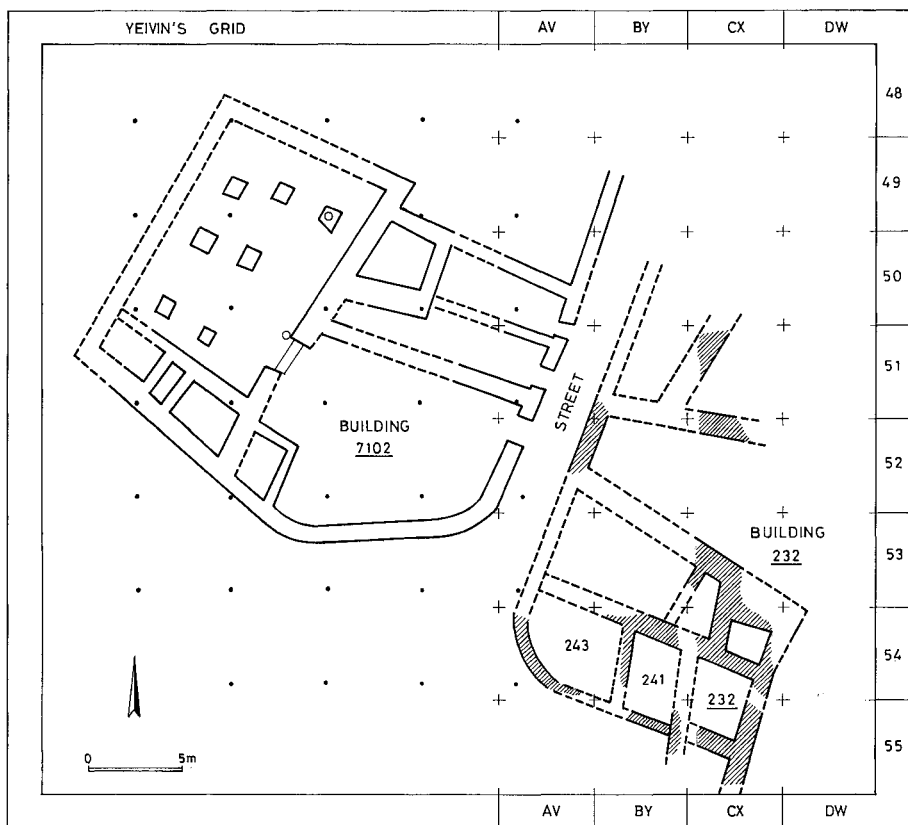


Fig. 4. Building 7102 in relation to Building 232.

A.M. Rosen studied the geomorphology and the sedimentary history of the site and its environment (see below, pp. 192–204). C. Grigson is analyzing the archaeozoological remains and N. Liphshitz is studying the botanical remains.

The Stratigraphy

A. Description

The stratigraphical information is derived from the 25 m. long section along the western edge of Squares CX51–CX54. The cumulative depth of the deposits is 3.5 m., with the deepest part in the section in Square CX54. Figs. 5–6, and 7 present the southern half of the section. The sequence of deposits can be divided into five major layers:

Layer A: Late Bronze Age to recent times.

Layer B: Early Bronze Age II–III.

Layer C: Early Bronze Age I.



Fig. 5. Area D_{II}; stratigraphy of the lower level of Room 220, looking towards Wall 110. Note the floor under the brick wall.

Layer D: Pre-building deposits.

Layer E: Virgin Soil.

Layer A consists of surface and sub-surface deposits, mainly fills, and is made up of two sub-layers. Sub-layer A1, which includes mainly Byzantine and later remains, is a light grey to yellow colour and filled with rodent holes. In Squares CX54 (Fig. 7) and CX52 two Byzantine burials were sunk into the deposits and caused a disturbance ca. 1.20 m. deep. Above the burials are small channels filled with pebbles that suggest slope-wash activity. Most of the finds from this layer are not in their original context.

The character of Sub-layer A2 (Figs. 6–7) is similar to that of A1; it includes finds of earlier periods, mainly Persian to Late Bronze Age. The only *in situ* elements are two intact burials in Square CX51 containing typical Late Bronze Age juglets and an Egyptian scarab dated by Brandl to the period of Rameses II.

Layer B is composed of dark ashy silts. No structures were found, except fragments of pebble floors. The extension of this layer is limited to the northern half of the trench. In the northern half of Square CX53 the termination of Layer B and its lateral contact with Layer C is clearly apparent (Fig. 7).

Layer C (Figs. 6–7) is the major layer here, occupying the greater part of the southern half of the trench, where it appears immediately below Layer A. Sub-layer C1 consists of a profusion of ca. 2.5 m. of floors, installations and debris associated with walls of a massive Early Bronze Age I structure. In Square CX54, one of the walls of the structure was encountered ca. 15 cm. below the surface. Immediately below the structure is a thin, white, compact layer of silt and chopped straw (Sub-layer C2). Although it clearly underlies the walls, the pottery from here is identical to the EB I pottery of Sub-layer C1.

The Layer D deposits (Figs. 6–7) are darker than the yellow and white sediments of Layer C due to greater quantity of ashes. Although the pottery assemblage is similar to the EB I assemblage from Layer C, it contains a higher proportion of Egyptian and Egyptian-like sherds, including local imitations of burnished and black-topped vessels. In addition, lumps of clay with seal impressions similar to those from 'En Besor (Gophna 1976) were recovered from this layer (Fig. 14).

Below Layer D (or C in some cases) the sediment becomes sterile and compact, and in some cases thin water-deposited lamina are found. This is our Layer E, which resembles the marshy deposits of Yeivin's virgin soil — Stratum XII.

A charcoal sample from the bottom of Layer C produced the radiocarbon date of 4520 ± 60 B.P. (Pta. 4579), which is calibrated to a one sigma range of 3352–3098 B.C.E. and the best approximation is 3331 B.C.E. (Stuiver and Reimer 1986).

B. Discussion

In the section through Squares CX51–CX54 the Early Bronze Age is represented by Layers B through D. Layer B of the EB II–III is thin, limited in size, and heavily disturbed by later occupation. Layers C and D indicate that the EB I occupation here was extensive.

The complex stratigraphy of Layer C, created by the various functions of the rooms and courtyards together with a variety of post-occupational agencies, cannot be correlated on either side of the highest wall fragment (W110) in Square CX54 (Figs. 6; 8).

Layer D, the earliest occupation phase, produced artefact assemblages almost identical to the main EB I occupation, indicating that the first inhabitants of the site possessed a fully-fledged EB I material culture. There is no local Chalcolithic-EB I development visible in Area D_{II}. The few Chalcolithic sherds (cornets and V-shaped bowl fragments) found in the excavation were out of context, probably washed down from the upper terrace.

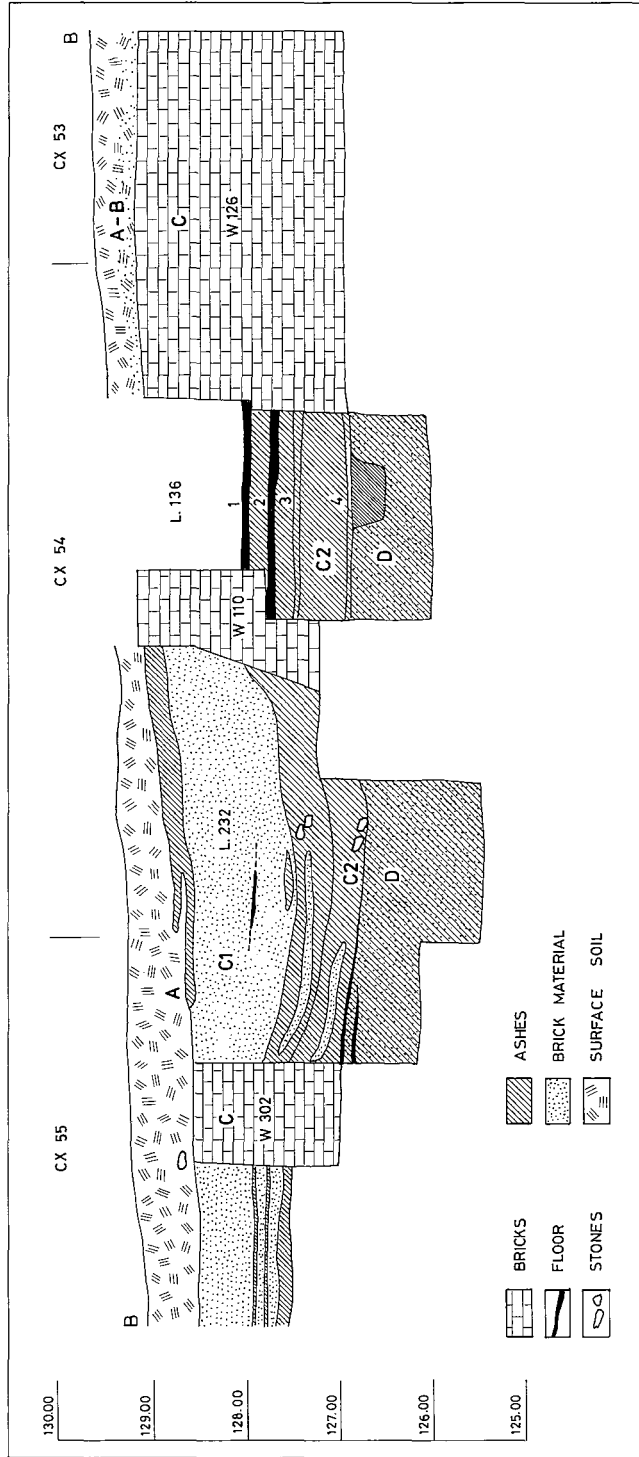


Fig. 6. Section B-B through Building 232.

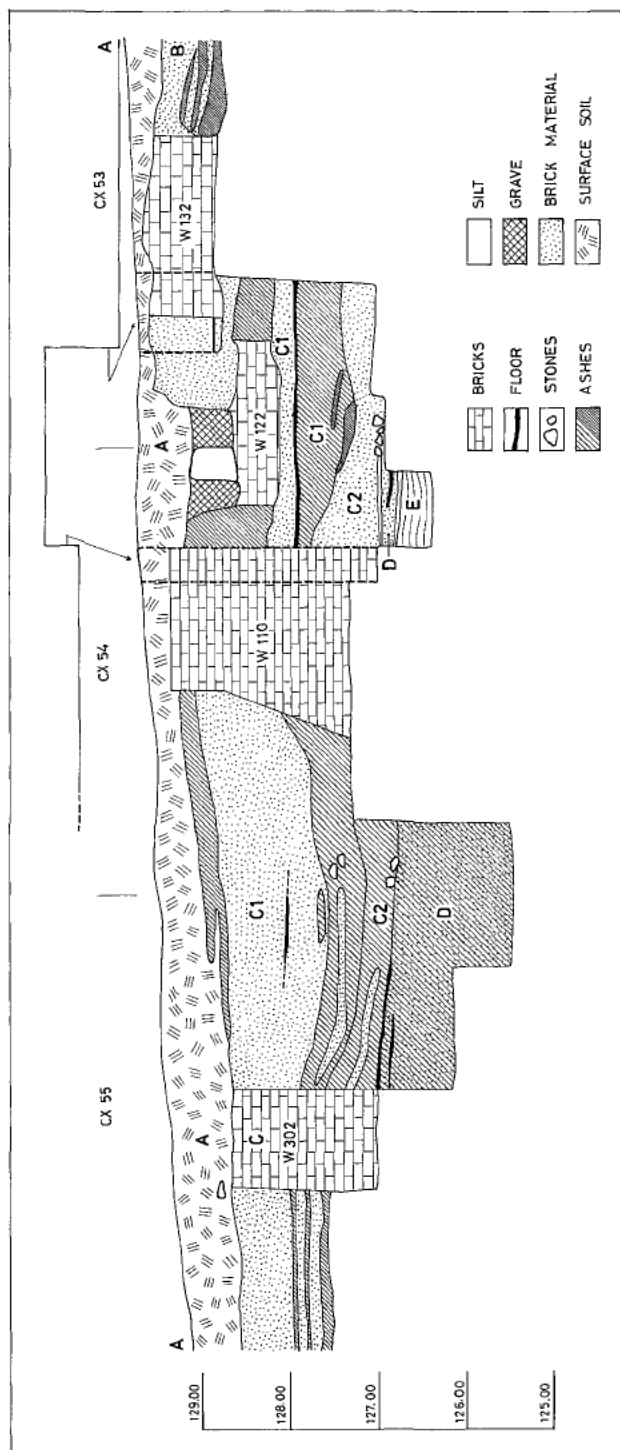


Fig. 7. Section A-A through Building 232.

Our conclusion, based on the stratigraphy of Area D_{II}, that there was no development into the EB I from earlier (Chalcolithic) phases contrasts Yeivin's reconstruction. Brandl's analysis of Yeivin's excavation confirms that Chalcolithic pottery in Area D was rare (Brandl 1989:365–368).

Yeivin's division of the EB I occupation in Area D into seven phases (Strata XI–V) was not confirmed by us. His section and plans (1961: Figs. 8.1–8.3) indicate that some of the EB I walls were left unchanged, and minor alterations are therefore of a limited spatial validity, and cannot be regarded as phases.

In the southern half of Area D_{II}, EB I walls were preserved to just below the surface (Fig. 7). The upper courses had been subjected to later activities and slope-wash which had deposited artefacts of later periods in adjacent sediments. Thus, caution must be exercised when dating the uppermost layers, as walls that were associated with EB II pottery, for example, could originally have been elements of the EB I structure.

The combined stratigraphy of our excavation and that of Yeivin suggests that the Early Bronze Age I at Tel Erani may be divided into three major phases. The earliest, Layer D, in which no structures have yet been uncovered, contains a typical EB I ceramic assemblage with a clear Egyptian component. This phase is followed by Layer C, consisting mainly of a large, massive structure and courtyards. The Egyptian component seems to be less pronounced. The later EB I phase was not encountered in our area, but is well known from Yeivin's dig (1960). Its pottery assemblage is characterized by the Narmer *serekh* and Egyptian vases typical of Dynasty 0 and the First Dynasty periods. As to the flint artefacts, the typical bi-truncated blades which form an important element of the Tel Erani collection studied by Rosen (1988) are also missing from our collection. Thus it is evident that the stratum related to Narmer is absent from our sequence. This may be due to the fact that our excavation was carried out in the lower part of the terrace, not excavated by Yeivin.

Structures

A. *The Plan*

Only part of the massive building of Layer C, Building 232, has been excavated. Its northern wall — W132 (Fig. 3), is ca. 1.10 m. thick and continues to the northwest. From the corner in Square DW54 it runs in a southwesterly direction, almost parallel to the front wall of Yeivin's Building 7102 (Fig. 4) (see below). This eastern wall, W106, is about 1 m. thick and seems to be the façade of the building facing the eastern courtyard. A smaller wall, whose function is still unclear, branches off this façade into the courtyard.

The exposed part of the building shows a central room (No. 232), north of which two rooms (Nos. 136, 220) (Fig. 5) constitute part of a series of smaller rooms.

Room 241 to the west of Room 232 comprised an enclosed courtyard in the earliest phase, delimited to the west by semi-circular Wall 305. This wall apparently runs northeastward and joins Wall 132 in Square AV52. In a later phase the large courtyard was divided into Rooms 241 and 243 by Wall 308, uncovered in Square BY54.

The southern extent of Building 232 is unclear. It seems that its southern end is located about 4 m. south of Wall 302, probably in Square CX56, and therefore the building is ca. 13 m. long; its width is ca. 14 m.

A later building phase discerned in Building 232 comprised Wall 122 which closed Room 220, and two pillar bases in Squares BY45 and AV45.

Another building was excavated to the north of Building 232 (Fig. 4), but its remains are too fragmentary to discern any architectural features.

B. Building Techniques

1. *Foundations*: Building 232 lacks stone foundations, its brickwork set directly into a foundation trench. This type of foundation is typical to the Chalcolithic period in southwestern Israel (Gilead 1988). The same tradition is known in the Nile Delta.

The foundations were originally set into a foundation trench 40 cm. deep. In the later stage of the building the floors were raised ca. one metre and as a result the building rested on a socle of approximately the same height.

2. *Floors*: most floors were made of pressed earth. Floors were clearly observed when numerous vessels and sherds were exposed on their surfaces. In other cases, lines of ashes or pressed earth were recognized in the sections (Fig. 8). In Square AV54 remains of a pebble floor were discovered, probably belonging to the later stage of Building 232, which can be correlated with similar floors found by Yeivin (1961:7).

3. *Walls*: the walls were preserved up to 2.20 m., their width ranging between 80 cm. to 1.10 m. The southern wall of Room 136 had originally been 50 cm. thick, and its thickness was later doubled.

4. *The brickwork*: the size of the standard brick is relatively large, 50x30x15 cm., although half bricks and bricks of different sizes were also used. The bricks were made of reddish clay mixed with straw, sometimes also mixed with grey ashy material.

A section was cut through Wall 106 (Fig. 9a) in order to study the brick-laying techniques. The bricks were laid in alternating courses. In each course 4-5 bricks were placed with their long sides facing the wall surface, while the next 4-5 bricks were laid with their narrow sides facing the wall surface (Fig. 9c; Yeivin 1961: P. IX).

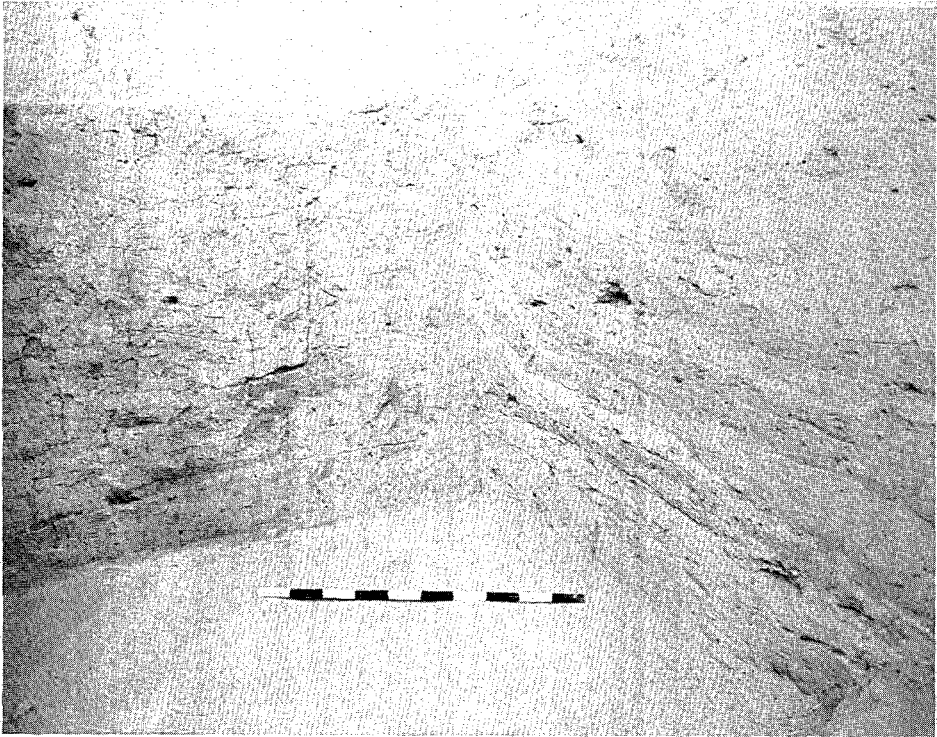


Fig. 8. Area D_{II}; the southwestern corner of Room 232. Note the ash layer associated with Wall 302.

The same technique was also used in Yeivin's Building 7102 (Yeivin 1961: Fig. 8; Pl. IXa), a fact that helps to correlate the two buildings culturally and chronologically. The brick-laying is similar to the "Egyptian" technique recorded by Gophna and Gazit (1985:9) at 'En Besor. The size of the bricks and the width of the walls, however, are larger at Tel Erani. No layer of reed matting between the courses, as known from Egypt (Emery 1961:182–183), has been recorded from Tel Erani.

THE ASSEMBLAGES

The pottery assemblage

The stratigraphy of Tel Erani covers a long history of occupation including the Byzantine, Persian, Iron and Late and Early Bronze Ages. However, as EB I pottery constitutes the bulk of the sherds recovered, we will limit our ceramic description to this assemblage. The summary below is based on *in situ* deposits, mainly from Rooms 132, 220, and 232.

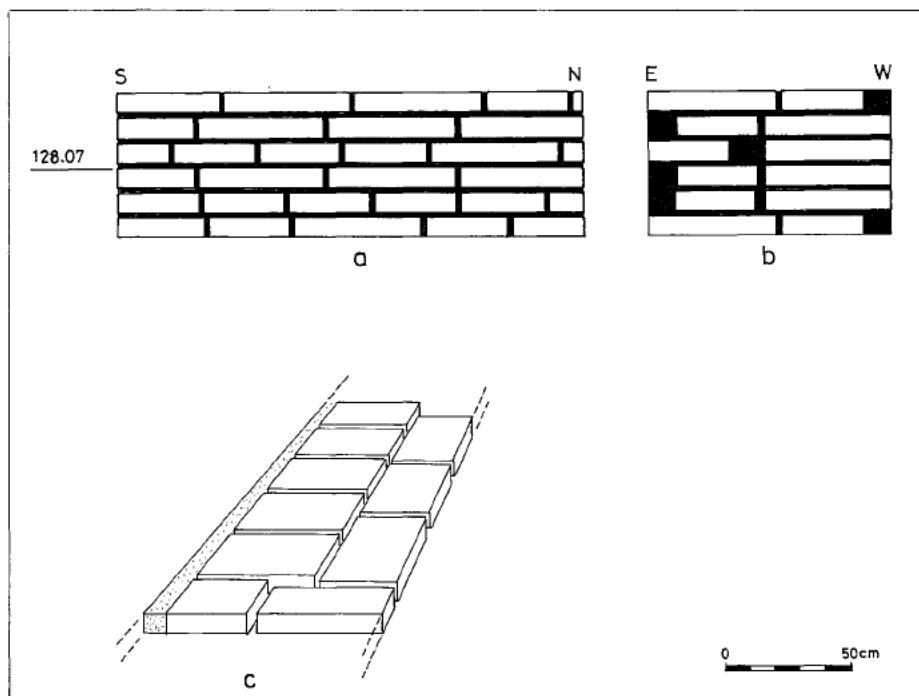


Fig. 9. Example of brick-laying technique in Wall 106 of Building 232. a) segment of the eastern face of the wall; b) a cross-section of the wall as seen from the north; c) an isometric view of a course.

The EB I pottery may be divided into two main groups, labelled A and B. Most of the vessels belong to Group A, the typical EB I repertoire of shapes known in southern Canaan. Group B includes vessels which may be defined as “Egyptian”.¹

Group A

Storage vessels are the most common vessel type in Group A (40%–52%), including large pithoi with plastic decorations (Fig. 11:1–2) and jars characterized by ledge handles (Fig. 11:3–4) and white wash, sometimes with bands of red colour (Fig. 12:16–17). Holemouth jars are less common (7%–20%), most of them with a narrow rim. Decorations are not common on these vessels, consisting mostly of knobs or bands of clay (Fig. 10:1–4). An important group of jars, with incised decoration below the rim, is typical of southern Israel during the Early Bronze Age IA (Fig. 12:15–18).

¹ Y. Yekutieli is currently analysing the pottery assemblages from Tel Erani for his M.A. dissertation. The following preliminary description is partially based on his results.

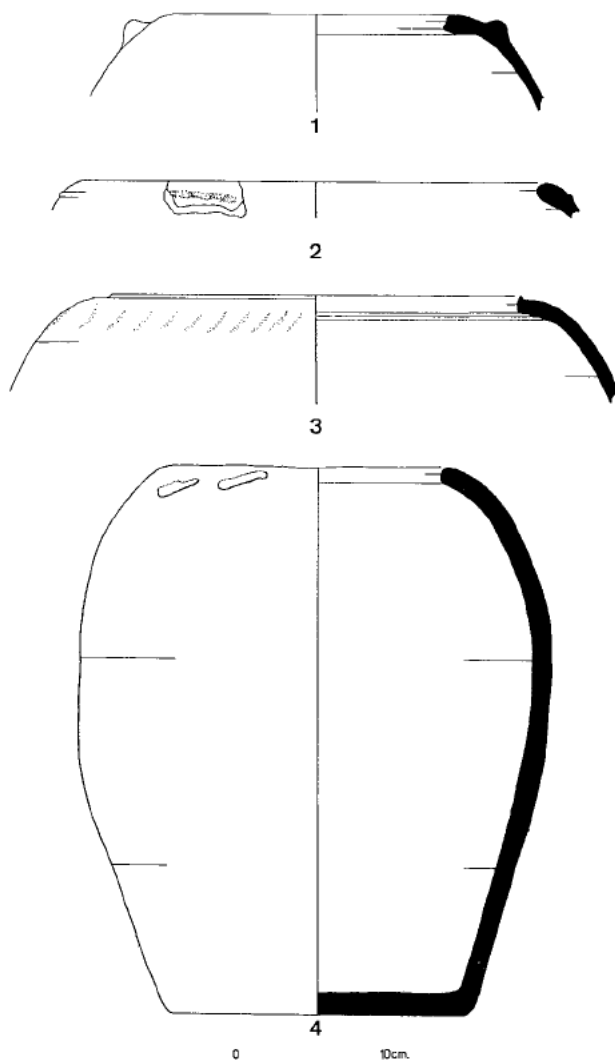


Fig. 10. Holemouth jars.

<i>No.</i>	<i>Reg.No.</i>	<i>Locus</i>	<i>Type</i>	<i>Description</i>
1	1131-1	131	Holemouth jar	Brown silt, well-fired, medium black and white inclusions, attached knob.
2	1227-1	203	Holemouth jar	Brown silt, medium-firing, medium-sized inclusions, attached plastic decoration.
3	1287-3	227	Holemouth jar	Brown silt, medium-firing, medium-sized inclusions, incised decoration.
4	1224-1	207	Holemouth jar	Brown silt, medium-firing, large white inclusions, attached plastic band.

Bowls constitute the second most common vessel type (17%–25%). There are two main bowl types: conical (Fig. 12:1–4) and globular (Fig. 12:5–6). Conical bowls have a flat base and flaring walls, and in a few cases the rim features a strip of red colour, resembling the Chalcolithic V-shaped bowls. Globular bowls feature a rounded base and a less regular wall. Some are decorated by red bands on the rim and the inner surface (Fig. 12:6).

There are a few other vessels in Group A that are worth mentioning. Among the juglets is the well-known type with a spout, either red-slipped or red-burnished (Fig. 12:14). These vessels are known in the local EB I repertoire and are considered to have originated from the Uruk cultural sphere (Kantor 1965:8). A small bowl with knobs (Fig. 12:5), found on the floor of Building 232 in Layer C, has a parallel in the grey-burnished pottery of northern Israel (see Brandl 1989: Fig. 5:1). Such a synchronization accords well with the suggested early EB I dating of the Layer C structures.

Group B

The “Egyptian” vessels of Group B comprise about 21% of the assemblage. These vessels are made of fine yellow-brown silt, rich in organic remains, and red slip and burnish are common. Although many examples were made of local raw materials, as indicated by the petrographic analysis conducted by Y. Goren, the shapes suggest an Egyptian influence.

Bowls are common in Group B, featuring thick flat bases, and striations caused by the wheel are sometimes visible. As on the other vessels of Group B, red slip is common (Fig. 12:8), as are small knobs. Spouted juglets of the Uruk style were also included in Group B (Fig. 12:20). The Egyptian jars lack the ledge handles common in Group A (Fig. 12:19) and in some vessels there are small lug handles or knobs on the shoulder. Other important types are the drop-shaped juglets (Fig. 12:11–13) and the Egyptian bread mould (Fig. 12:10). Such vessels are also known from Yeivin’s excavations (Brandl 1989: Fig. 14:1–3 and 13:2 respectively).

Quantitative analyses were conducted by counting the minimum number of individuals, and only pottery from levels within the main building of Layer C was included. The preliminary observations suggest that Group B pottery is most common in the middle of the chronological sequence. Also worth noting is that the larger storage vessels are more common in the lower levels while the smaller “serving” vessels are more common later.

The pottery assemblage of Layer D is small and only partially studied. As in Layer C, there are Egyptian vessels made of similar silt. Of interest are fragments of vessels that are imitations of the Egyptian black-topped vessels. There is no notable change between the local ceramic types in Layers D and C, suggesting cultural continuity.

The assemblages from Layers D and C are both earlier than that of Arad IV (Amiran a.o. 1978) and Yeivin's Tel Erani Strata VI–V. Some types, such as the jars in Fig. 12:15–18 and the bowl in Fig. 12:9, are related to the mid-EB I of southern Israel, suggesting that the earliest phase of the southern EB I has still not been found at Tel Erani. The Egyptian and Egyptian-like vessels of Area D_{II} point to a date earlier than Dynasty I and belong most probably to the very beginning of Dynasty 0; the lack of cylindrical vessels (Yeivin 1960:200; Pl. 23; Brandl 1989: Figs. 9–10) in the assemblages of Layers D and C is significant.

The flint assemblage

The following discussion is based on the collection of artefacts recovered in 1985 and 1987. The number of artefacts from the lower levels is small, while those from the upper levels, especially from Squares CX51–CX52, come from late or disturbed contexts. Since our excavations concentrated mainly on Early Bronze Age I deposits, we have treated the entire flint assemblage as a single unit, although some elements may be earlier or later. The frequencies of the tool types and waste elements are presented in Tables 1 and 2.

In short, the flint assemblage consists of cores and waste, along with retouched flakes, notches and denticulates, and crude scrapers. The primitive flake cores and the lack of standardization is indicative of unprofessional, household production of tools from local flint for domestic use.

Most of the sickle blades, the dominant tool type (Table 2), were formed on long flat blades, indicating a specialist industry operating beyond Area D_{II}. Since cores from which such blades were produced were not found, the possibility that such a "blade atelier" was located outside Tel Erani cannot be excluded. Many such cores were collected from the surface of Gath-Guvrin, ca. 2 km. north of Tel Erani (Perrot 1961) (kindly shown to us by Y. Dagan). Another element of the flint assemblage, the fan scrapers, was probably also produced elsewhere (Rosen 1983).

FIGURE 11. MISCELLANEOUS JARS AND HANDLES

<i>No.</i>	<i>Reg.No.</i>	<i>Locus</i>	<i>Type</i>	<i>Description</i>
1	1131/1141	131	Jar	Brown silt, medium-firing, medium inclusions.
2	1255-1	216	Jar	"Cream" silt, well-fired, minute inclusions, some straw, red slip, colour stains inside.
3	1237-5	209	Basin	Yellow "cream" silt, well-fired, white and grey medium inclusions.
4	1274-1	226	Ledge handle	Brown-orange silt, well-fired, medium inclusions (grog?).

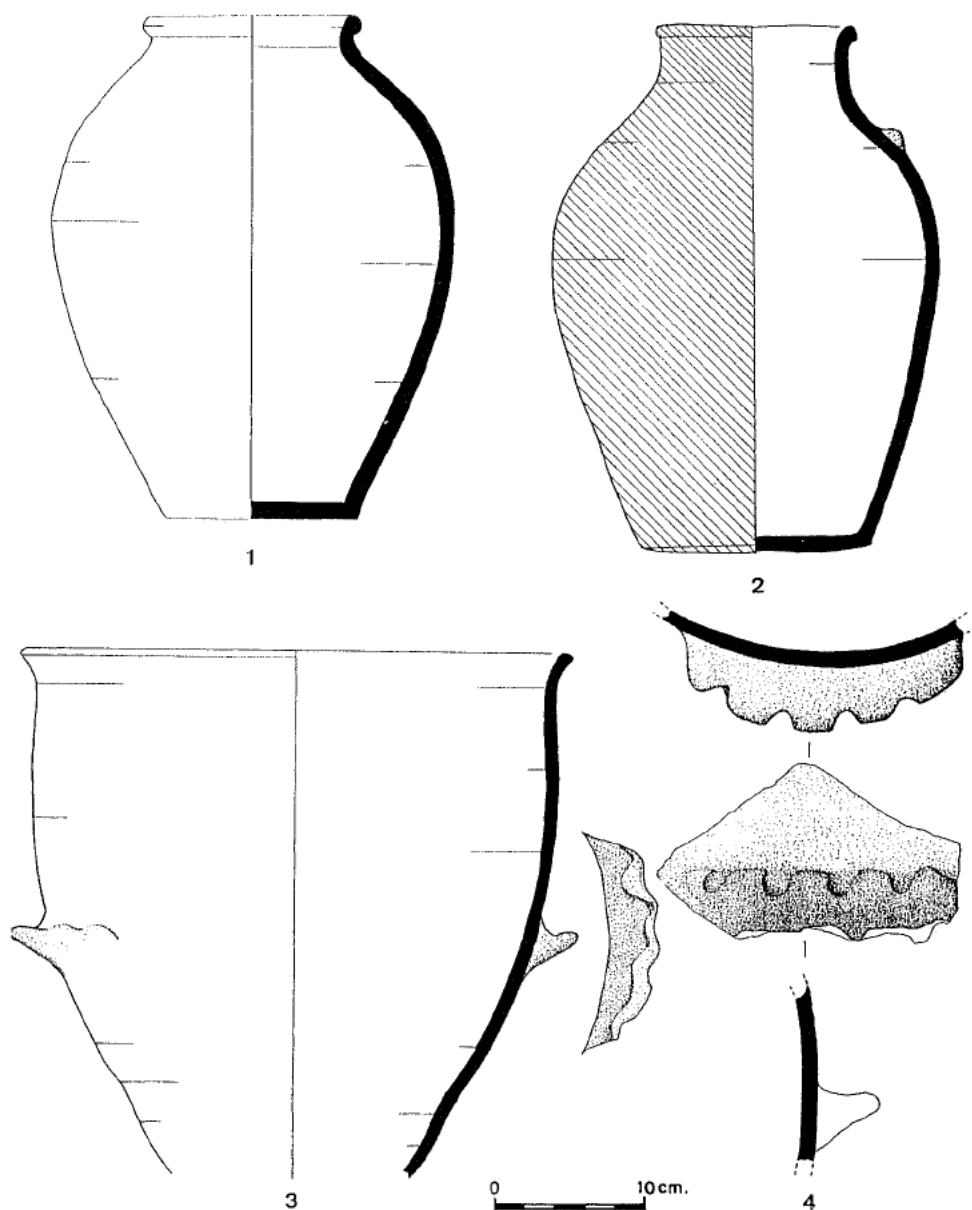


Fig. 11. Miscellaneous jars and handles.

An additional component of the assemblage comprises artefacts best known in Egyptian contexts, in particular the bifacial knife made of exotic yellow flint (Fig. 13:5). The Egyptian influence is a recognized component of the Tel Erani flint

assemblage (Rosen 1988). However, our controlled sample suggests that the artefactual expression is sometimes quantitatively negligible.

FIGURE 12. BOWLS, JUGS AND JARS

<i>No.</i>	<i>Reg.No.</i>	<i>Locus</i>	<i>Type</i>	<i>Description</i>
1	1067-2	113	Bowl	"Cream" silt, grey core, well-fired, some straw, wheel-made (?)
2	1136-3	120	Bowl	Brown silt, grey core, well-fired, white inclusions, red band.
3	1147-1	113	Bowl	Brown silt, well-fired, fine black inclusions, red slip, wheel- or mould-made.
4	1267-3	221	Bowl	Yellow silt, well-fired.
5	1297-1	230	Bowl	Light "cream" silt, well-fired, small inclusions, red bands inside, attached knobs.
6	1290-2	226	Bowl	Yellow "cream" silt, well-fired, medium grey inclusions, red painted.
7	1259-3	206	Beaker	Brown silt, well-fired, small inclusions.
8	1073-1	113	Bowl	Brown silt, grey core, well-fired, some straw, red painted, wheel-made.
9	1131-2	131	Basin	Brown silt, grey core, well-fired, white inclusions, red burnished.
10	1219-1	208	Baking tray	Brown silt, black core, medium-firing, medium-sized inclusions, organic remains.
11	1258	238	Juglet	Brown silt, well-fired, fine inclusions, organic remains, red slip.
12	1230-1	209	Juglet	Brown silt, well-fired, fine inclusions, organic remains.
13	1223-3	207	Juglet	Brown silt, well-fired, small grey inclusions.
14	1270	216	Juglet	Light brown silt, well-fired, small inclusions, red slip.
15	1226-2	208	Jar	Light brown silt, well-fired, medium-sized inclusions, incised decoration.
16	1154-4	131	Jar	Brown silt, grey core, well-fired, a few grey inclusions, lime paint, red bands, rope decoration.
17	1283-3	227	Jar	Light "cream" silt, grey core, well-fired, large grey inclusions, lime paint, rope decoration.
18	1092-2	113	Jar	Brown silt, medium-firing, medium-sized white inclusions, incised decoration.
19	1293-1	228	Jar	Brown silt, medium-firing, large grey inclusions (grog?).
20	1058		Spouted juglet	Brown silt, well-fired, small inclusions, organic remains, red slip (size 1:2).

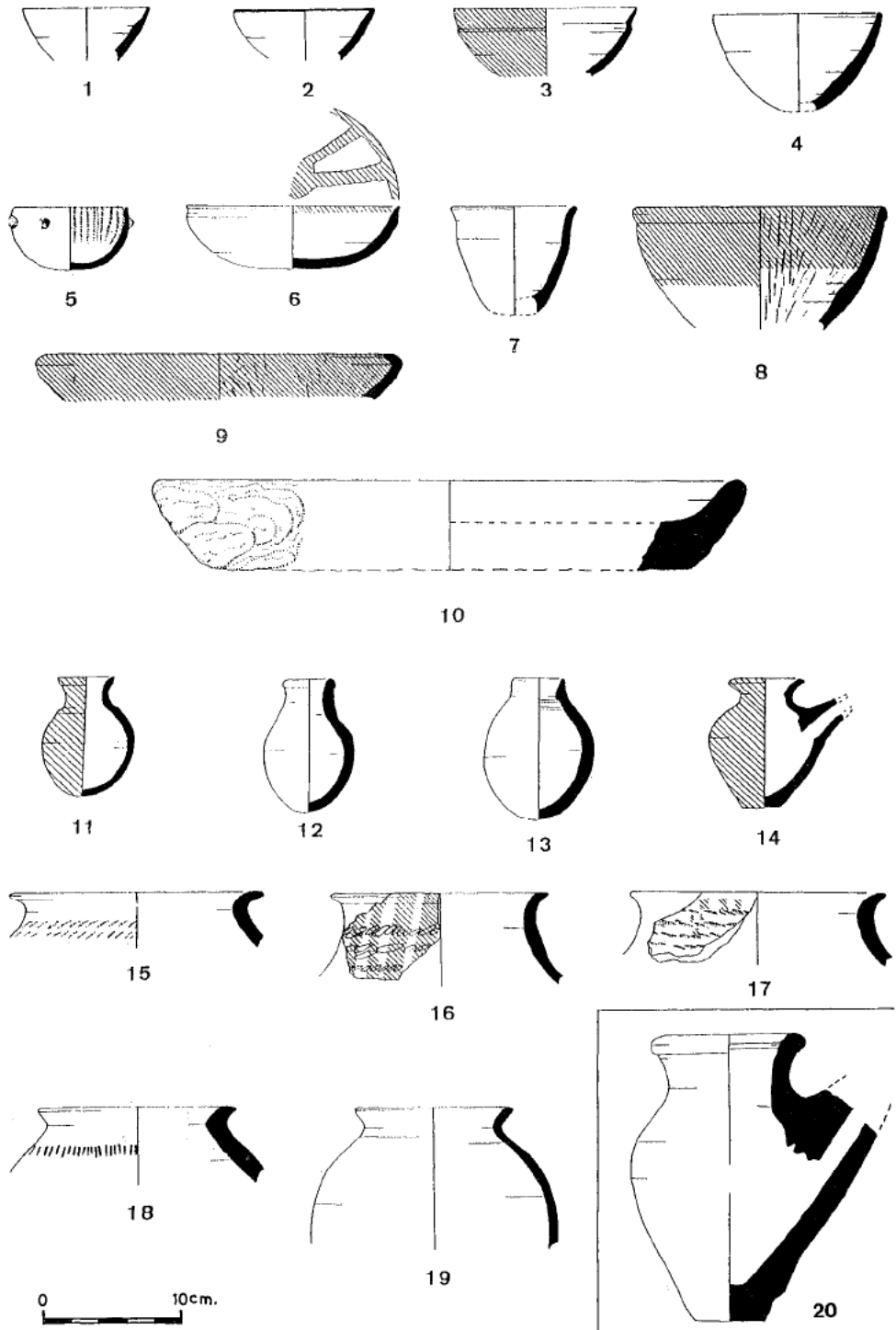


Fig. 12. Bowls, jugs and jars.

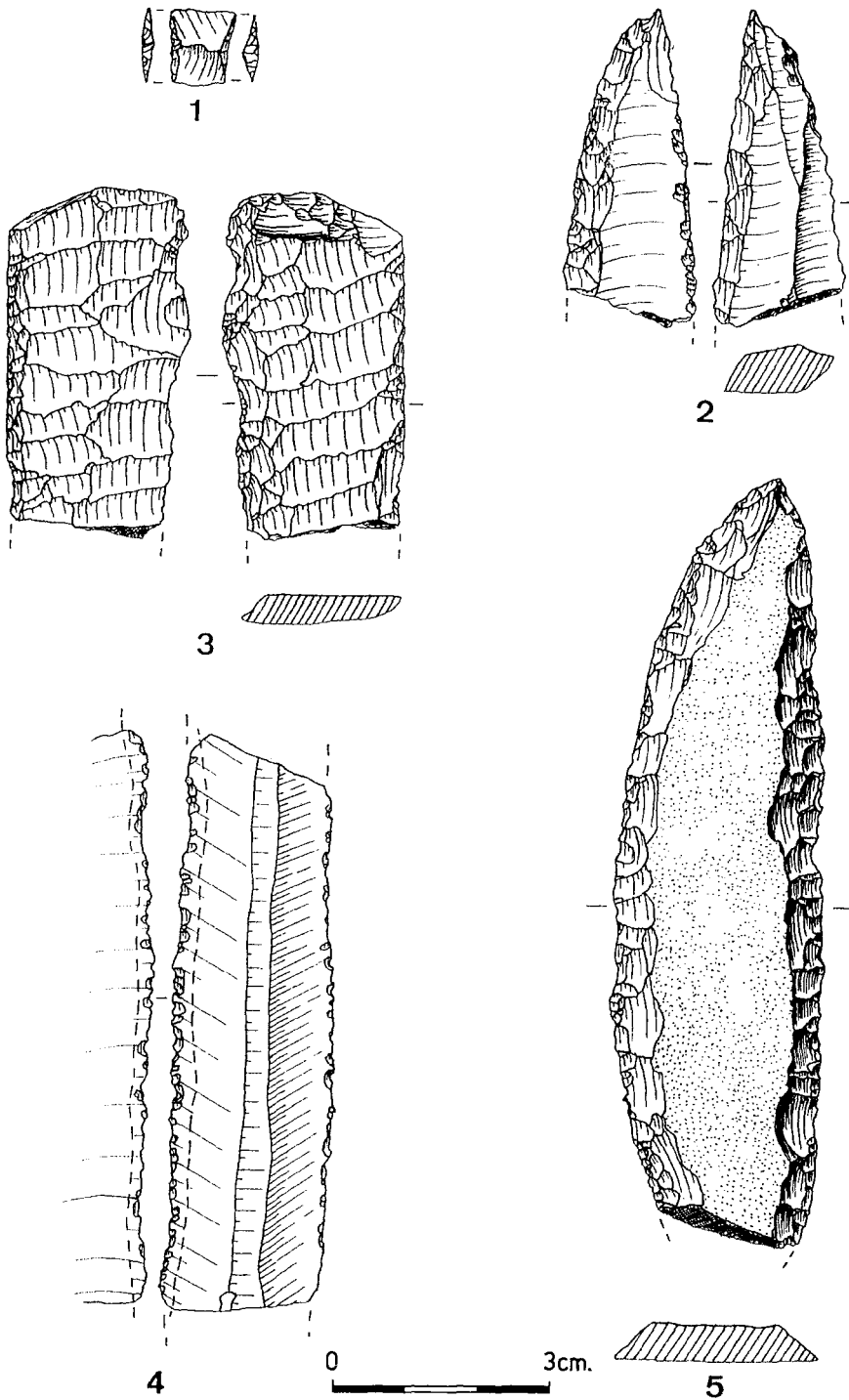


Fig. 13. Flint tools.

TABLE 1. THE FLINT ASSEMBLAGE FROM TEL ERANI

	<i>No.</i>	<i>%</i>
Primary elements	68	13.91
Flakes	312	63.80
Blades	69	14.11
Core Trimming elements	16	3.27
Cores	24	4.91
Sub-total	489	100.00
Chips	22	14.86
Chunks	126	85.14
Sub-total	148	100.00
Debitage	489	55.89
Debris	148	16.91
Tools	238	27.20
Total	875	100.00

TABLE 2. TOOL TYPE FREQUENCIES FROM TEL ERANI

	<i>No.</i>	<i>%</i>
Endscrapers on flakes	8	3.36
Endscrapers on blades	4	1.68
Sidescrapers	6	2.52
Fan scrapers	10	4.20
Total scrapers	28	11.76
Burins	3	1.26
Partially-retouched flakes	3	1.26
Flakes retouched on two edges	2	0.84
Total retouched flakes	5	2.10
Truncations	14	5.88
Partially-retouched blades	6	2.52
Retouched blades	5	2.10
Ventrally-retouched blades	2	0.84
Blades retouched on two edges	4	1.68
Backed blades	3	1.26
Total retouched blades	20	8.40
Retouched bladelets	3	1.26
Micro-endscrapers	3	1.26
Total retouched bladelets	6	2.52
Sickle blades	64	26.89
Sickle blades (no gloss)	24	10.08
Total sickle blades	88	36.97

	No.	%
Notched flakes	24	10.08
Notched blades	12	5.04
Denticulated flakes	14	5.88
Denticulated blades	4	1.68
Total notches and denticulates	54	22.69
Awls	15	6.30
Transversal arrowheads	1	0.42
Bifacial knife	1	0.42
Varia	3	1.26
<i>Total</i>	238	100.00

The floral and faunal assemblages

Analysis of the floral evidence is still incomplete. However, observations in the field suggest a subsistence economy based on cultivation of cereals and lentils, grains of which were found in the excavation together with olive stones and sheep/goat bones. This agricultural base is similar to that of the local inhabitants during the Chalcolithic period (Gilead 1988). The preliminary analysis of the faunal assemblage indicates that the percentage of wild mammals is higher than expected.

SUMMARY AND CONCLUSIONS

The Early Bronze Age I structures of Tel Erani were large and complex, constructed of thick brick walls, probably at least two storeys high. The wide courtyards were flanked by numerous rooms of different sizes. Massive fortification walls were uncovered in Yeivin's Area N (1961), ca. 300 m. northwest of Area D, indicating that this is not a spatially restricted phenomenon but characteristic of the entire site. Architecture on such a scale would seem to represent an urban settlement. The Narmer *serekh* from Yeivin's Stratum V, a stratum which overlies the fortifications of Area N, may indicate that Tel Erani is the earliest known urban Early Bronze centre in Israel. However, the stratigraphical results of our excavations warn against a definitive acceptance of the pre-Narmer date for the fortifications. The *serekh* may have originated in Yeivin's Stratum VI and was thus contemporary with the fortifications.

Yeivin suggested (1961; 1975) that there was a development from the Chalcolithic period into the EB I. However, in Area D_{II} the earliest occupation (Layer D) is within the EB I tradition, and the few Chalcolithic finds should be regarded as intrusive. Moreover, there is no clear-cut evidence of developmental phases within the EB I ceramic assemblage and the stratigraphical sequence should be regarded as representing an homogeneous cultural entity.

Although a certain measure of economic continuity from earlier periods can be discerned, the massive EB I brick architecture in Area D_{II} and the city wall of Area N, are of a scale and nature previously unknown. We suggest, therefore, that the EB I settlement represents either the arrival of a new ethnic group, or a fast and dramatic re-orientation by the local population in response to rapidly changing social or economic conditions. The contemporary emergence of the state in Egypt, and the Egyptian elements at Tel Erani, suggest that changing socio-political conditions towards the end of the fourth millennium B.C.E. were behind the shift to the type of settlement uncovered here.

The Egyptian impact

Egyptian pottery types first appeared in our Layer D. The petrographic analysis of Y. Goren indicates only a few authentic Egyptian vessels, whereas most are local imitations of Egyptian forms and techniques. A similar situation exists in the lithic industry (Rosen 1988). The major question which arises is how far these “Egyptian connections” influenced the spatial organization (urban development) at Tel Erani.

It is possible that groups of traders settled among the local Canaanites. The main artefacts of exchange could have been metal from southern Canaan and Dead Sea products such as asphalt (Nissenbaum a.o. 1984) and salt, or the wines and olive oils that later became the traditional goods exchanged for Egyptian agricultural supplies, gold and industrial products. A second possible explanation of the “Egyptian connection” is “colonization”, that is, the settlement of groups engaged in agricultural activity who intermingled with the Canaanite population. Both possibilities were already advocated by Yeivin, Gophna, and Amiran, and recently Rosen (1988) who labelled the Egyptian element at Tel Erani a “colony”, without explicitly defining the term.

Contemporary with Layers D and C at Tel Erani, the eastern delta of Egypt in the Late Pre-Dynastic period was undergoing a major process of colonization (Seeher 1990) that spread into northeastern Sinai (Oren 1973; 1989), and possibly reached southern Palestine. This Egyptian impact is manifested in particular in the development toward urbanization (see below). Yeivin attempted to detect Egyptian influences in the sphere of architecture, but only recently has it been possible to identify such an influence in the brick-laying techniques discussed earlier.

Of major significance are the seal impressions (Figs. 14–16) of the type known from ‘En Besor, found in Building 232 of Layer C, and beneath it in Layer D. These, together with the Egyptian pottery from the site, are additional proof of the involvement of an Egyptian administration at Tel Erani. The early date of such seals was recently discussed by von Quack (1989:21).

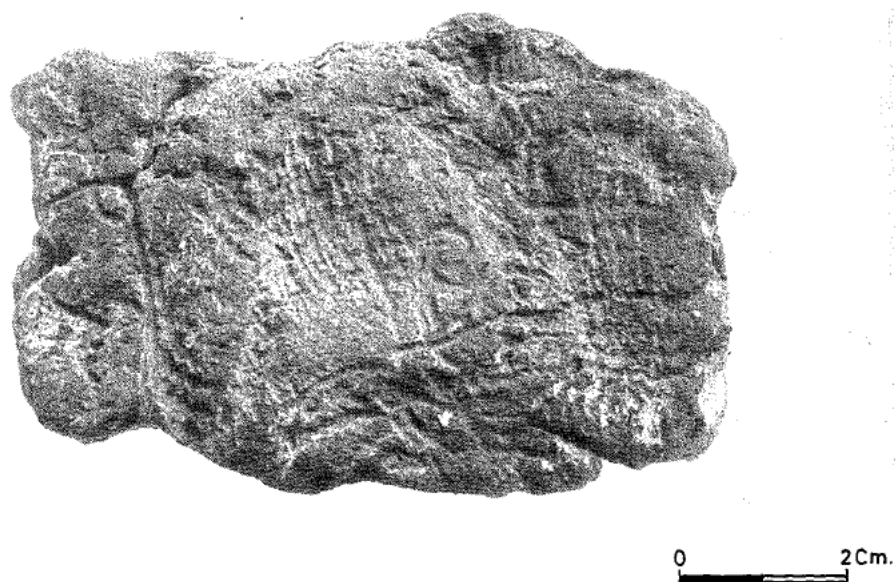


Fig. 14. A seal impression from Area D_{II}.



Figs. 15-16. Sealings from Building 236.

Tel Erani and Urbanization in Canaan

Yeivin's excavation, together with our sounding, have established that Layer D material is found all over the area of the lower terrace, although the nature of this settlement must be clarified in future excavations. Egyptian artefacts recovered within this assemblage indicate that Egyptian involvement already played a role in the earliest EB I(A?) settlement. In the following stage the primeval village became a city (Layer C), but the details of the process are unclear. It seems, however, that the inhabitants had now the means, techniques and "capital" to create an urban settlement. The "capital" must have originated from commercial and industrial activities since the agricultural potential of the site could not have adequately provided such means. If this hypothesis is correct, then Tel Erani represents one of the major commercial and economic centres of the period in southern Palestine.

The major part of the city was apparently fortified during the Early Bronze Age I (Yeivin 1961; Kempinski 1978). Brandl's suggestion (1989:379–382) that the fortification system belongs solely to the EB III lacks adequate stratigraphic and artefactual evidence.

Urbanization at Tel Erani began in an early stage of the EB I, when most of Canaan was characterized by small rural communities or medium-sized villages, and was due to a combination of Egyptian interest, strategic geographic position and commercial activity. It seems that during the initial phase of urbanization the settled area was even larger than in the later phase (Layer B), which corresponds to Late Dynasty 0 and the early part of Dynasty I. During this later phase, urbanization started to spread throughout southern Palestine, and later to the north. Arad was founded as a fortified city at the beginning of the EB II, only after the beginning of Dynasty I. Although correlation of northern and southern Israel in the EB I is problematic since ceramic synchronization between the areas is uncertain, major northern cities such as Tel Beth-shan, Tel Beth-yerah, Tel Dan, Tel Kabri and even Megiddo were definitely established later, at the beginning of the EB II. The fortified (urban?) site of Tel Shalem in the Beth Shean Valley may date to a later phase in the Early Bronze Age I according to the ceramic evidence (Eisenberg 1988:22).

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