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Tell Qasile (North): Remains of a Pre-Ghassulian Structure on Fichmann Street, Tel Aviv

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Introduction

During December 2009–January 2010, a salvage excavation was conducted at 9 Fichmann St. in Tel Aviv (Dayan and Lupu 2011). The site, located about 300 m north of Tell Qasile, within the borders of the site of Tell Qasile (North), is approximately one kilometer north of Naḥal Yarqon and Naḥal Ayyalon and c. 10 m above sea level (Fig. 1; map ref. NIG 180639–64/668437–79).[1] Inspection trenches preceding a building project exposed a structure comprising at least three rooms. The remains within an excavated area of c. 125 sq m—including remnants of walls, living surfaces, pottery sherds, flint artifacts, stone vessels and animal bones—can be attributed mainly to Pre-Ghassulian entities dating within the first half of the fifth millennium BCE. These cultures are variously termed Late Neolithic by some authors (e.g., Gilead 1990) and Early Chalcolithic by others (e.g., Getzov 2009).

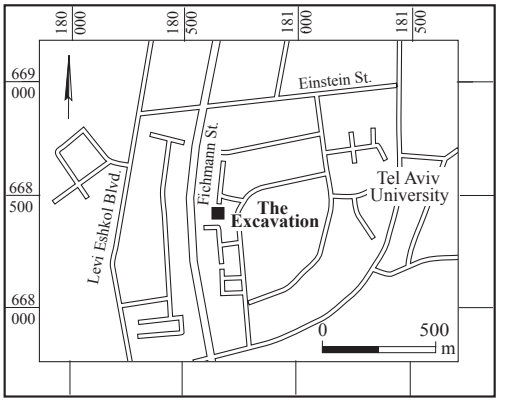


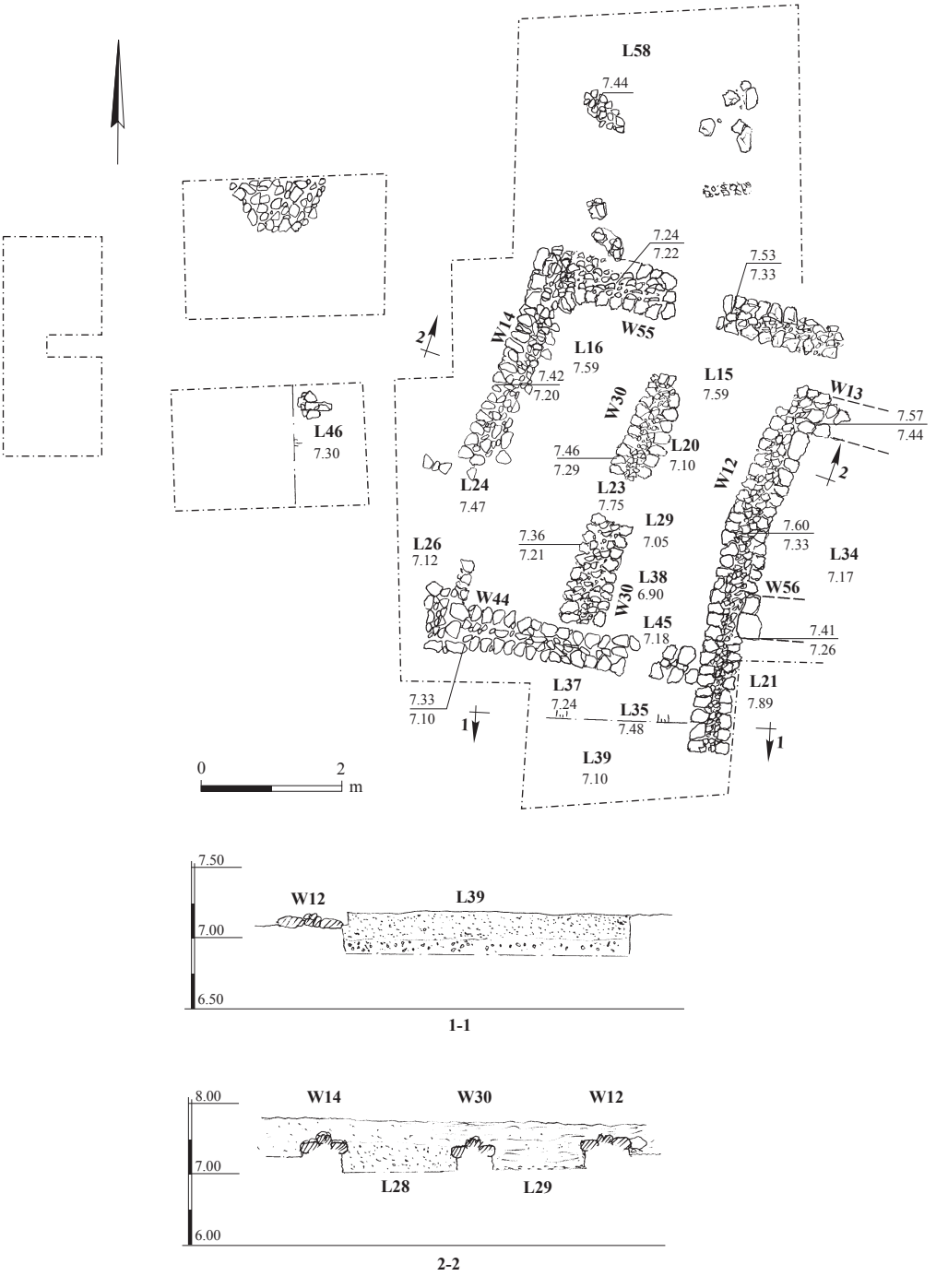
Fig. 1. Location map.

In the vicinity of Tell Qasile (North), various sites of later periods have been excavated (e.g., Maisler 1951; Mazar 1980; 1985; Kletter and Ayash 2000; Gorzalczany 2002), and approximately 2 km south of Tell Qasile lies the site of 'Bashan St.', where Pottery Neolithic, Chalcolithic and Early Bronze Age remains were revealed (Kaplan 1958:9–17).

The site of Fichmann Street was embedded 3 m below the surface in a layer of compacted, dark clay grumusol soil containing lime inclusions and manganese nodules that indicate a watery environment. The site lies 130 m west of the Aḥiyya streambed—an elongated trough between two sub-ridges of the second *kurkar* ridge of the coastal plain (Netzer 1995:44). This environment is the source of the accumulation of clayish alluvial soil on top of the site.

Architectural Remains

The archeological remains, comprising a structure containing at least three rooms and associated living surfaces (Plan 1; Fig. 2), were unearthed within a reddish soil matrix mixed with lime below the dark grumusol. The excavated soil was dry sieved through a 10 mm mesh. One large unit (c. 3.5 × 4.5 m), delimited by W14, W55, W12 and W44, was divided into two rooms (L28, L29) by W30, which was not fully preserved. The northern part of another, partially preserved room (L39) can be discerned to the south, defined by W44 and the continuation of W12. An additional room was delineated by two fragmentary walls, W13 and W56, which continued eastward from W12. This eastern



Plan 1. The site, plan and sections.

room may have been a later addition to the main structure (see below). Living surfaces of tamped earth in Rooms L29 and L39 contained a small amount of pottery sherds, flint artifacts and animal bones. Gaps in the northern and eastern walls of the structure may indicate openings. Other spaces in the walls appear to be the result of poor preservation.

Fig. 2. The site, general view to the south.

The walls (c. 0.8 m wide) were made of *kurkar* fieldstones and preserved one course high. Most of the walls (apart from W13 and W56) were constructed of two parallel rows of medium-sized stones (c. 0.3 m), with a 0.2 m core that rises up to 0.2 m higher than the walls. The core was constructed of small fieldstones, gravel, pottery fragments and lime. The walls were apparently foundations for superstructures made of perishable materials, such as wood, reeds or mud. Walls 13 and 56, which abut W12 from the east, were built of two rows of *kurkar* fieldstones without a core (width c. 0.35–0.40 m, preserved length c. 0.6–0.7 m). Their different construction and orientation suggest that they were a later addition to the building.

THE FINDS

The finds are meager but significant, consisting primarily of chipped flint artifacts, a few ceramic fragments, two stone vessels, and a small number of animal bones and shells. The nature of the finds enables us to establish a time frame for the structure within the first half of the fifth millennium BCE.

Pottery

Most of the ceramic finds are small, poorly preserved, unidentified body sherds made of coarse, orange fabric with crushed limestone grits. Only two diagnostic sherds were discovered. The holemouth-jar rim in Fig. 3:1 is a well-known form within Pre-Ghassulian and Ghassulian assemblages, although it is not distinctive enough to establish a more precise ascription (Garfinkel 1999: Figs. 104:7; 144:1). The strap handle with widened attachments in Fig. 3:2 is characteristic of Pre-Ghassulian cultures (Gopher and Gophna 1993; Garfinkel 1999: Fig. 111), as found at various sites throughout the country: in the north

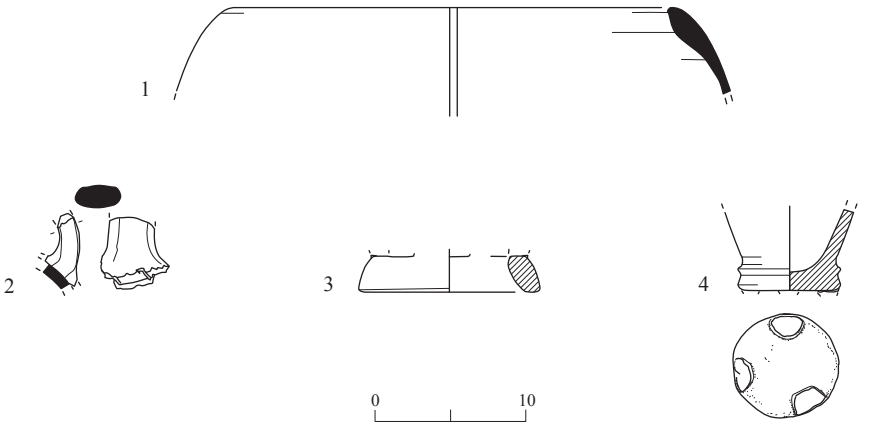


Fig. 3. Pottery and stone vessels.

No.	Item	Locus	Basket
1	Rim	33	140
2	Handle	24	118
3	Base	15	107
4	Base	58	219

(e.g., Getzov 2009: Figs. 2.24:4; 2.28:24), the center (e.g., Milevski et al. 2010:12*, Fig. 5, Nos. 1043, 1020) and the south (the Qatifian and Besorian cultures; Gilead 1990; Goren 1990). This handle is a thrust-through handle, resembling handles from the site of Tel Qaṭif (Epstein 1984: Figs. 2:7; 3:13).

Stone Vessels

The two stone vessels recovered from the site corroborate the dating of the site. One is a fragment of a ring base of a fenestrated stand made of basalt (Fig. 3:3), about 8 cm in diameter, which is a well-known type at Ghassulian sites (Rowan 1998: Type 4Ci). The other is a round base of a high, narrow stone bowl (Fig. 3:4), with the abraded remains of three legs on its base, indicating that it was a bowl on a fenestrated stand. Near the lower part of the base is a thin ridge. This type appears at Pre-Ghassulian sites (Rowan 1998: Type 4Cii; 2005: Fig. 9.10:2; Rowan et al. 2006: Fig. 12.33:1, 2, 7, 9).

Table 1. The Flint Assemblage

	N	%
Debitage	38	34.5
Debris	56	51.0
Cores	5	4.5
Tools	10	10.0
Total	*109*	*100.0*

Flint Artifacts

The flint collection recovered from the site consists of 109 items, about half of them debris (Table 1). The chips and chunks indicate that modifying activity took place. The raw material is not homogenous and its origin is unknown. The cores are all small flake cores, thoroughly utilized, and most of them have one striking platform (Fig. 4:1–3). Several cores, as well as numerous other flint artifacts in the assemblage, were burnt (31%).

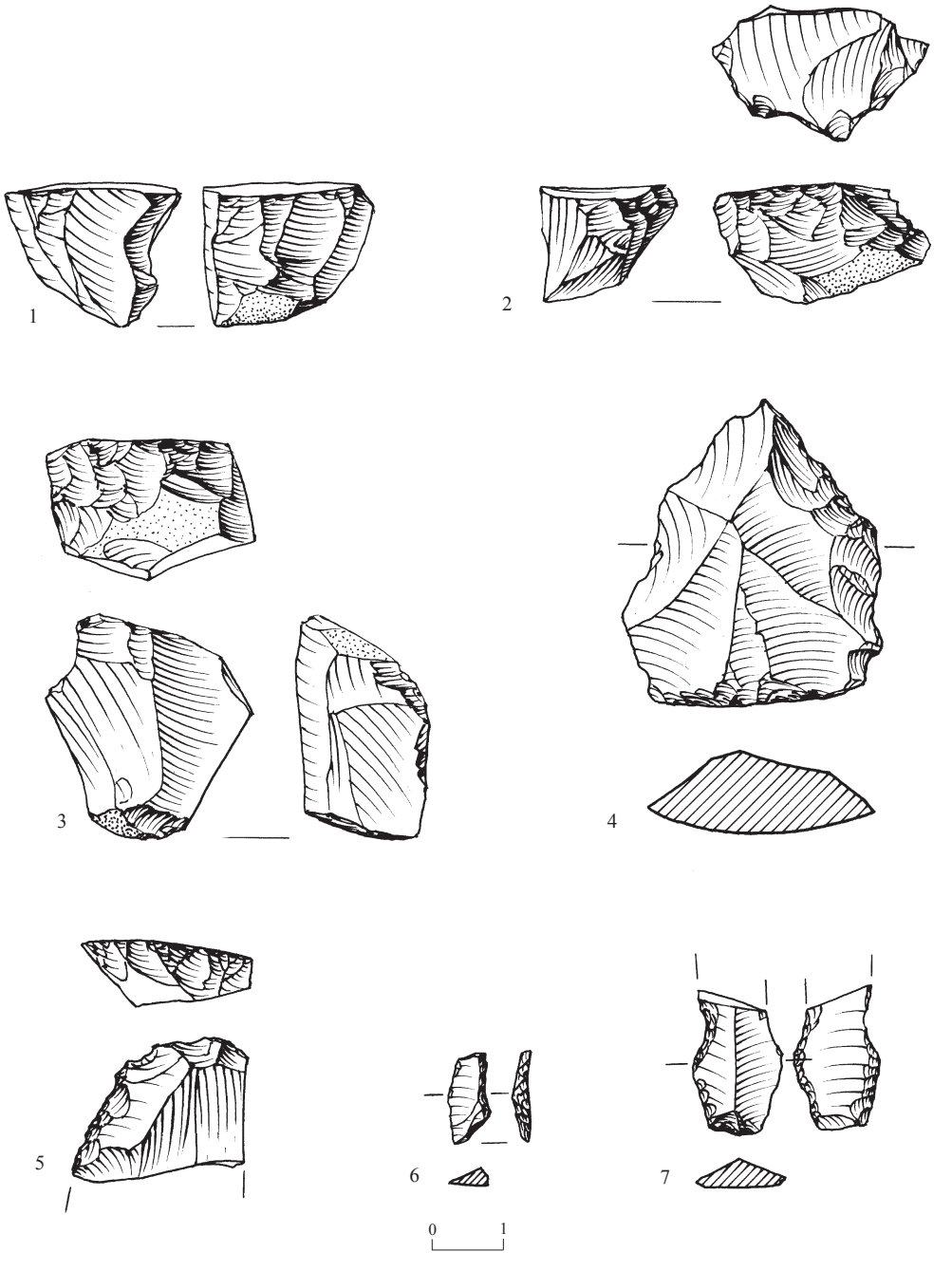


Fig. 4. Flint artifacts.

The tool assemblage comprises ten items (Table 2) that represent a relatively wide timespan. These include an atypical, retouched Levallois point, possibly of Middle Paleolithic date (Fig. 4:4), a broken scraper (Fig. 4:5), an obliquely truncated, backed bladelet (Fig. 4:6), probably Epipaleolithic (Bar-Yosef 1970), and a retouched bladelet with regular retouch on both the ventral and dorsal sides made of pinkish raw material, possibly of Pre-Pottery Neolithic date (Fig. 4:7).

Table 2. The Flint Tools

Tool	N	Fig. Nos.
Retouched blades	6	5:1–6
Retouched bladelets	2	4:6, 7
Scraper	1	4:5
Point	1	4:4
Total	*10*	

The retouched blades, including sickle blades, are the most common tool type in the assemblage. These can be divided into two groups:

1) Three retouched blades may be attributed to the Wadi Rabah flint industry (Fig. 5:1–3), two of which bear sickle gloss (Fig. 5:2, 3). These two sickle blades are rectangular in shape, truncated at both ends, and bear deeply denticulated

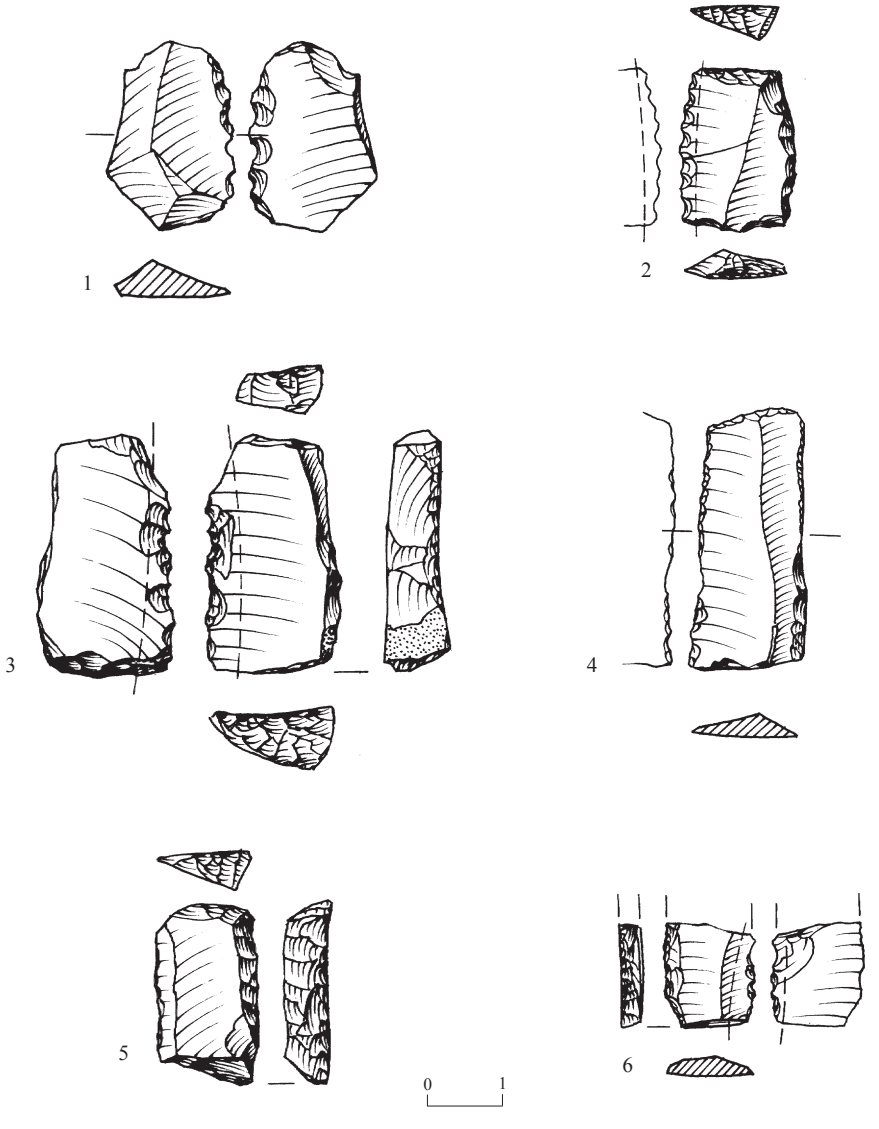


Fig. 5. Flint retouched blades.

retouch, although the denticulation is less deep than that in other Wadi Rabah assemblages. Such blades are defined as a late Wadi Rabah component by Barkai and Gopher (2012).

2) Three blades are backed retouched blades (Fig. 5:4–6) that can be dated to the post-Wadi Rabah–Pre-Ghassulian flint industries; one bears sickle gloss (Fig. 5:6). They are rectangular in shape and truncated at both ends with fine retouch.

Archaeozoological Finds
Moshe Sade

The faunal assemblage comprises 18 bones and shells, most of them (67%) belonging to ovicrapines (*Ovis aries/Capra hircus*): molars, a right astragal, a phalanx and metapods (Table 3).

Table 3. The Faunal Assemblage

Taxon	N	%
Ovicaprine	12	67.0
Bos	1	5.5
Hippopotamus	1	5.5
Shells	4	22.0
Total	*18*	*100.0*

The ovicaprine bones correspond with our knowledge of the economical base at the end of the Neolithic and the Early Chalcolithic periods (Haber and Dayan 2004; Davis 2012). In addition, a phalanx of Bos sp. was discovered, as well as four shells of *Glycymeris violacescens*, a species common on the Mediterranean shore (Darom and Tsurnamaal 1992:190). The presence of these shells in the assemblage is not surprising, considering that the distance to the sea shore is about 1.5 km.

An unusual find at the site is a long bone, probably of a hippopotamus (*Hippopotamus amphibious*),[2] from L46 in Sq B3 (Fig. 6). The surface of the bone was covered with lime encrustation resembling sheets of paper, and two holes of blood vessels or nerves were discerned. As there were no distal or proximal endings, it was impossible to identify which long bone it was. The presence of hippopotami along the littoral during the Holocene epoch is known from several sites, e.g., the 'Namir Road' site (van den Brink 2006), approximately 3 km south of the present site. Hippopotami lived in the watery habitats of the coastal plain of Israel, mainly in the wadis, and were probably hunted by the inhabitants of the area (Horwitz and Tchernov 1990).

Fig. 6. Hippopotamus bone.

DISCUSSION AND CONCLUSIONS

The results of the archaeological excavations indicate an early human presence at the site during several periods. The flint artifacts from the earlier periods imply occasional visits of hunter-gatherers during the Middle Paleolithic and Epipaleolithic periods.

A distinct settlement, evidenced by structural remains, existed here in the first half of the fifth millennium BCE. The small assemblage of finds from the site suggests a chrono-cultural attribution within the transitional period between the late Wadi Rabah and the beginning of the Ghassulian Chalcolithic cultures, that is, a pre-Ghassulian entity. This conclusion is derived mainly from the pottery handle that is indicative of this timespan, and the blades that dominate the flint assemblage, which resemble those attributed to the late Wadi Rabah assemblages and the stages prior to the Ghassulian Chalcolithic (Milevski et al. 2010; this volume). The presence of chips and chunks at the site indicate that some flint knapping took place on-site, and the large number of items bearing signs of burning or heat marks may attest to activity involving fire, probably also at the site.

The faunal assemblage comprises mainly sheep/goat remains, as well as a single hippopotamus(?) bone that was probably also part of the food chain of the inhabitants of the site. The faunal remains were concentrated in Sqs A3 and B3 outside the structure to the west, and C1 in the southern part of the building (L39). It would appear that activities involving treatment of animals (both dead and alive) took place outside the building.

The site on Fichmann Street represents an important milestone in the research of late prehistory in the Tel Aviv area since the days of Kaplan (1958; 1959), attesting to the presence of a Pre-Ghassulian entity on the central coastal plain. It provides evidence regarding areas of activity (animal treatment, possible flint knapping), construction methods, and the environmental setting in this period. Hopefully, this is only a herald of more significant findings from the same timespan in the Tel Aviv area in the future.

NOTES

[1] The salvage excavation (Permit No. A-5792), on behalf of the IAA, was directed by Ayelet Dayan, with the assistance of Shlomo Ya‘aqov-Jam and Eli Bachar (administration), Avraham Hajian and Mark Kunin (surveying), Assaf Peretz (field photography), Ofer Marder, Ram Gophna, Avi Gopher, Ianir Milevski (prehistory consultation), Marina Shuiskaya (pottery drawing), Michael Smilansky (flint drawing) and Natalia Zak (plans), and Ronit Lupu (analysis of finds and report). Also of assistance were Yossi Levi, Moshe Ajami, Diego Barkan, Felix Wolinski, Dor Golan, Lior Rauchberger, Yoav Arbel, Orit Segal, Chen Ben-Ari and Hagit Askenazi. The excavation was financed by Y. Glass Project Management Ltd.

[2] The hippopotamos amphibious bone was identified based on comparison with the finds from Tel Gerisa (Sade 2001), the work of Schmid (1972) for bone identification, and the work of von den Driesch (1976) for measurements.

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