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Deutsches Archäologisches Institut, Zentrale, Podbielskiallee 69–71, 14195 Berlin, Tel: +49 30 187711-0 Email: info@dainst.de / Web: dainst.org

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Oren Tal

A Late Fourth/Early Third Century B.C. Farmstead at Ḥolot Rishon Le-Zion (South), Israel: Evidence for an Unrecorded Military Clash in the Southern Levant?

Stratigraphy and Architecture

Holot Rishon Le-Zion (South), the site discussed in this article (Old Israeli Grid Map Ref. 1275 1525), was discovered by inspectors from the Israel Antiquities Authority (IAA) after having been exposed by heavy mechanical equipment during preparations for the construction of homes in the area. In November 1998, following the removal of a 2.5 m thick layer of sand by mechanical equipment, a small trial excavation was carried out on behalf of the IAA (license no. A-2808/1998)¹. In May of the following year, yet another trial excavation (license no. A-3062/1999) was conducted under the direction of Martin Peilstöcker, also for the IAA. During this latter effort, seven $5 \text{ m} \times 5 \text{ m}$ squares were opened. The four furthest to the northwest revealed walls, segmented floors with pottery, animal bones, and metal objects. Except for collapsed mud-bricks, the three remaining squares furthest to the northeast yielded no significant archaeological finds and are, therefore, not illustrated on the site plan (below). According to Peilstöcker, the archaeological remains represent two phases, probably dating to the Persian and Hellenistic periods. As a result of the discoveries made at this site, a more extensive salvage excavation was executed by Tel Aviv University (TAU) in September 1999, in which three occupation strata dating to the fifth to third centuries B.C. were revealed. The earliest stratum (Stratum III) is characterized by round and square pits of varying size hewn in the local rock (fossilized dune sandstone – kurkar). This is part of the bedrock which typically forms what is referred to as the Tel Aviv Kurkar Bed. The character of Stratum III is one of storage, the pits having most likely been connected to the storing of grain. The middle stratum (Stratum II) is defined by walls built of sun-dried mud bricks, red loam (hamra) soil mixed with grits, and organic matter. The walls were built without stone foundations, having simply been constructed after Stratum III was leveled, at some points down to the bedrock. The remnants of Stratum II seem to belong to a farmstead, the nature of which remains to be determined. The limited extent of the excavations and the chronological range of the finds in both Strata III and II makes it possible to date these to either the fifth or fourth century B.C. While the finds from the earlier Strata III and II have already been published², the upper, latest Stratum I forms the subject of the present article.

The site is geologically located upon the Gaza Formation, which is of the Quaternary Period. Prior to the excavations, the site was covered by a thick layer of migrating sand dunes, stabilized in part by plants, and contained terrestrial snails, plant remains, a few animal bones, and pottery, all deposited during the last three to four thousand years. Due to this thick cover, the site was never mentioned by the surveyors of ancient Palestine. This layer of sand

¹ Peilstöcker 2000.

² Tal 2005.

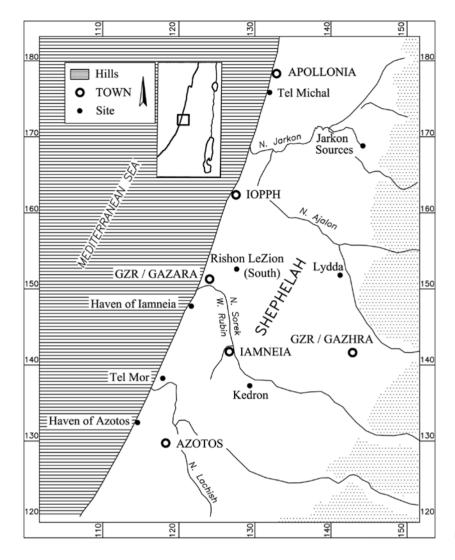


Fig. 1 Location map (scale 1:500 000)

dunes makes up part of the geological unit of the Hadera Dune Bed (Rishon Le-Zion Deposit) dominated by dunal morphology with typical cross bedding. This unit apparently overlies most of the archaeological sites along the southern Sharon plain and northern Philistia, and is usually characterized by shrubs. Erosion sometimes removes this upper unit, thereby exposing the Tel Aviv Kurkar Bed or the Ta'arukha Hamra Bed underneath, and revealing archaeological sites (fig. 1).

When the rescue excavation was commenced by TAU, a new excavation grid was laid out in accordance with the puncture line of the planned residential area. It covered eighteen 5 m \times 5 m squares, six 3 m \times 5 m squares and two $2.5 \text{ m} \times 2.5 \text{ m}$ squares. All in all, some twenty-six squares were opened in addition to those squares previously excavated. Once virgin soil was reached, baulks and all exposed architecture were removed³. For the sake of closer super-

The salvage excavation (license no. G-117/1999) was conducted on behalf of the Sonia and Marco Nadler Institute of Archaeology at Tel Aviv University. Dankner Investments Ltd. financed the project. The excavations were directed by Jennifer Peersman, to

whom I am indebted for entrusting me with the excavation records and finds. The excavation proceeded intermittently for a total of about five weeks, running from the 19th of September to the 4th of October 1999, and then continuing on the 19th of October until its conclusion

at the end of October. The field supervisors were Andrei Tass, Ronen Eran, and Yael Gamrasni; Susan Brannon served as registrar. I am grateful to Ada Perry who drew the pottery; to Andrei Tass who drew the site plans, and to Yura Smertenko and Ami Brauner who

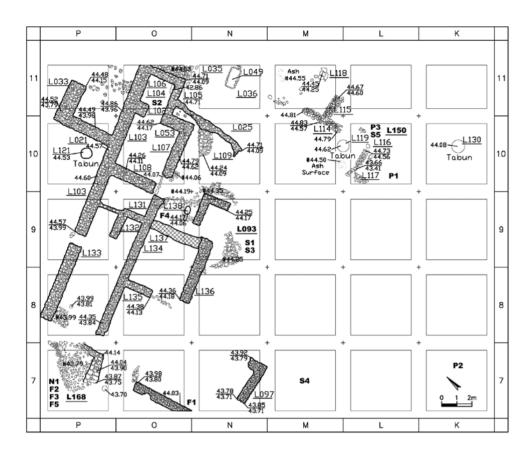


Fig. 2 Rishon Le-Zion, site plan with selective indications for the appearance of metal objects (scale 1:250)

vision, the entire site was divided to two excavation areas, Area A (Sq. K-L-M-N-O-P/7, M-N-P/8-9 and O8) and Area B (Sq. K-L-M-N-O-P/10-11, K-L/8-9 and O9). In addition, the architectural remains unearthed during the earlier IAA trial excavation were documented anew (fig. 2)⁴.

Architectural remains of Stratum I formed part of a farmhouse (ca. $21 \text{ m} \times 23 \text{ m}$ for the excavated remains) built with fieldstone walls. Given the dictation of the puncture line of the planned residential area, the uncovered building plan is partial, and it is likely that it formed a wing in a larger cluster of open courtyard houses, which were typical in farmsteads of the Hellenistic Levant. While the average thickness of the internal walls is 0.7 m, that of the external walls (on the north) reaches 0.9 m (figs. 3. 4). The numerous mudbricks scattered in the area suggest that the fieldstone walls served in most cases as foundations for mud-brick walls. The farmstead contained a central courtyard in the south surrounded by rooms on three sides at least, with two rows of rooms on the northern side. In the centre of the northern wall an entrance (width ca. 0.75 m) was situated. A number of rooms had beaten-earth floors, and in a few others the floor was composed of small field stones (e. g., A/168 [Sq. P7], B/035 [Sq. N11]). Tābūns (ovens), varied installations, and grinding tools were found mainly in the eastern rooms, and fire-related installations were discovered in the courtyard. Tābūns and other installations were also found outside the building. Some walls were built on top of the brick walls of Stratum II. Two phases were uncovered in the stone structure (Ia and Ib), in the form of repairs and additions to the walls in some of the rooms.

The excavations yielded no complete rooms, with the exception of two on the east, the layouts of which seem nearly intact: B/103 (ca. $3.6 \text{ m} \times 3.2 \text{ m}$) and B/104 (ca. 1.9 m \times 1.8 m). These rooms were divided by an engaged pier (ca. $0.9 \text{ m} \times 0.8 \text{ m}$), which created an opening (width ca. 0.75 m) between

prepared the drawings and plans for publication.

4 Locus numbers are specified by their area designation »A/« or »B/« followed by a three-digit number. The excavated remains from the 1998-1999 trial and salvage excavations were removed at the request of the IAA, as the site is now located in Ma'agal Ha-Shalom Street, part of the Qiryat Hatanei Prass Nobel neighbourhood of Rishon Le-Zion.



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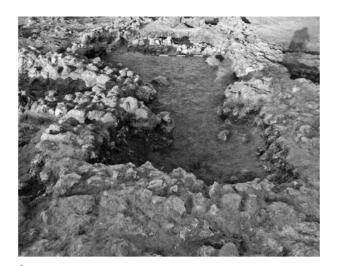


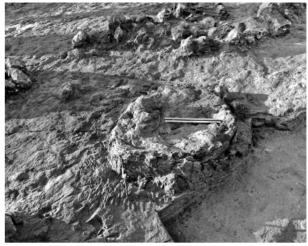
Rishon Le-Zion, general view

Fig. 3 Looking west

Fig. 4 Looking east

Fig. 5 Looking south





Rishon Le-Zion

Fig. 6 Rooms B/104 and B/103, looking west

Fig. 7 Tābūn B/119, looking south

5 For the sake of completeness, we consulted the IAA excavation files and surveyed the finds recovered during their trial excavations. While our analysis does not actually include these finds, it does exhaust most of the object types unearthed. These include: (a) pottery vessels (outturned and droopy-rim type plates, incurved rim bowls, heavy bowls [kraters], base-ring >Persian-period< mortaria, cooking-pots, bag-shaped storage jars, and close wheel-made lamps); (b) stone-made spindle whorls; and (c) metal objects (pins, a needle, spatulas, an arrowhead, a bracelet, and two rings). No coins are said to have been recovered from the trial excavations at the site.

them (figs. 5. 6). The fragmentary nature of the evidence and the relative lack of uniformity in the thickness of the walls hinder any analysis of how the different spaces of the building were accessed, as well as any elaboration of the methods used in its construction. What appears to be certain is that small- and medium-sized fossilized dune sandstones (averaging 0.5-1 kg in weight) were used exclusively in all the walls of the building, and that its northern sector was better preserved than the one excavated on the south side.

The unearthed installations were varied, their function not always being clear. As stressed above, Tābūns (B/121 [Sq. P10], B/138 [Sq. O-P/9], B/119 [Sq. L-M /10] and B/130 [Sq. K10]) are ca. 0.8 m in diameter and are logically located in open areas, outside the building and in the courtyard (figs. 2. 7). The fire-related installations were identified based on the remnants of thick ash and/or occasional slag. These were found in the courtyard (A/168 [Sq. P7], B/118 [Sq. M11], B/114 [Sq. M/10-11]) and they were unfortunately unaccompanied by any stone architectural remains. The sporadic patches of surfaces paved with field stones in the courtyard area (B/109 [Sq. N10], A/093 [Sq. M-N/9], B/118 [Sq. M11] and B/116-B/117 [Sq. L-M/10]) seem to have been used by work areas as most of the courtyard surface was beaten earth. The stone box (B/049 [Sq. N11]) was built of a single row of medium-sized flagstones (ca. 1.2 m \times 0.6 m), but its function is unclear; storage may be one possibility. A complete hard limestone mortar (ca. 0.3 m in diameter) was also found in situ (Sq. P11).

Finds

Most of the finds uncovered in the building consist of pottery vessels (mainly tableware), metal (bronze and iron) artefacts, including work and hunting tools, as well as weaponry. Clothing and cosmetic items (the pins, spatulas, and fibulas described below), jewelry, and metal-working tools (e.g., the needle, also see below) were also found⁵. To these can be added finds of organic matters, such as a group of charred olive pits (B/026; Sq. M11) and additional charred olive pits discovered in disturbed loci. Isolated animal bones and shells also came from disturbed loci. While intact pottery vessels were almost absent from the excavated rooms/spaces, many of the metal objects, spindle whorls, and beads were found intact, either in fills or on floors.

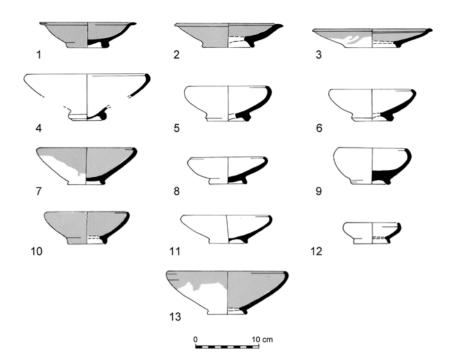
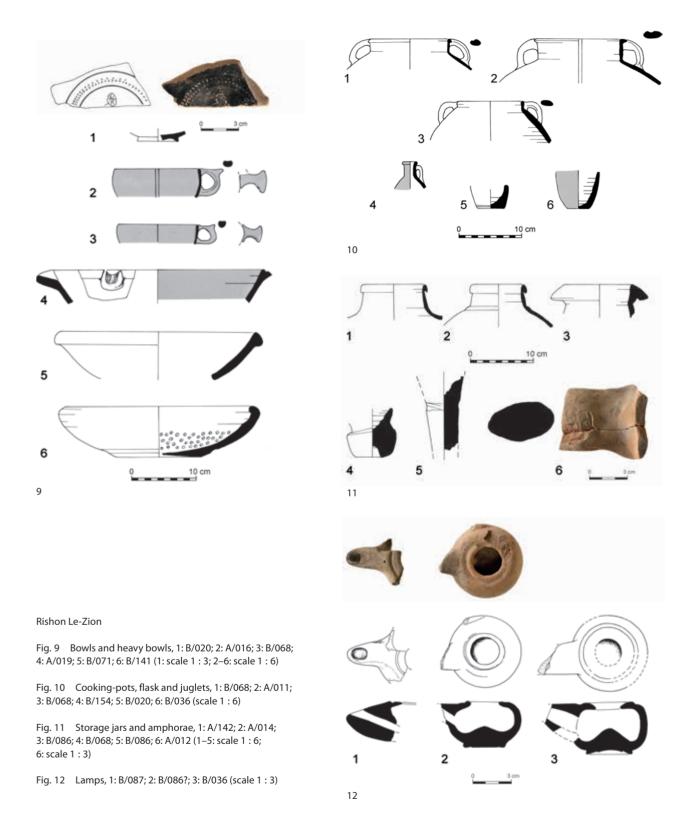


Fig. 8 Rishon Le-Zion, plates and bowls, 1: B/087; 2: B/086; 3: B/087; 4. 5: B/154; 6: A/043; 7: B/036; 8. 9: A/042; 10: A/034; 11. 12: B/086; 13: A/061 (scale 1 : 6)

Pottery (figs. 8-12)

Most of the vessels and potsherds are of types common to the late Persian/ early Hellenistic periods. Some are familiar to those dating from periods that either preceded and/or followed this time frame. The plates and bowls (fig. 8), which form the most common types of vessels recorded at the site, are normally made of medium- to high-temperature fired semi-fine ware covered with unevenly-dipped red, reddish-brown, brown, brownish-grey, grey and greyish-black slip. While the morphology of the plates is typical of the late Persian and Hellenistic period⁶, that of the ring-based incurved rim bowls has a longer tradition of use⁷. The stamped, decorated Attic ware base (fig. 9, 1) seems to have belonged to a plate or a bowl. The linked (?) palmette enclosed by a circle of rouletting on its floor represents a common trend in the production of Attic ware, especially during the fourth century B.C.⁸. It may, therefore, belong to an earlier occupation of the site (Stratum II). The redslipped skyphoi, with their spurred handles (figs. 9, 2. 3), are typical for early Hellenistic vessels⁹, as are the heavy bowls or the so-called Hellenistic mortaria (figs. 9, 4-6), which belong to well-known types 10. Both types of globular cooking-pots constitute transitional Persian-Hellenistic types, one with the relatively high neck and flange rim (figs. 10, 1. 2), the other one with the relatively short neck and thickened rim; both of which normally have thicker walls (fig. 10, 3)¹¹. The upper body part of the red-slipped juglet (fig. 10, 4) belongs to a late Persian/early Hellenistic piriform-type¹². The lower body parts of the dipper juglets (figs. 10, 5. 6) are related to Stern's Type 2a¹³. The upper body fragments of bag-shaped Palestinian jars (figs. 11, 1. 2) are characterized by splayed rims and straight, upright necks. These can be understood in this context as Hellenistic variants of an earlier Persian period type¹⁴. On the other hand, amphorae (referring to imported storage jars) show more variety with representatives from the Aegean and Eastern Mediterranean. Figure 11, 3 displays an example of a Greco-Italic amphora. Its clay is well-levigated and the jar shape is defined by a triangular rim and cylindrical neck. This type of

- 6 See for the type Guz–Zilberstein
 1995, 291–293 figs. 6, 3 and 6, 4 passim.
 7 See Guz–Zilberstein 1995, 289 f.
 fig. 6, 1 passim.
- 8 See, e. g., Sparkes Talcott 1970, 147. 309 f. no. 1053 pl. 59.
- **9** For the type, see Guz-Zilberstein 1995, 294 figs. 6, 6, 4–9.
- 10 See, e. g., Guz-Zilberstein 1995, 295 f. figs. 6, 9, 11. 12 (large coarse bowls) and 6, 10, 1. 5 (spouted rim with thumbed decoration).
- 11 See, e. g., (for the first type) Singer-Avitz 1989, figs. 9, 8, 6 vs. Guz-Zilberstein 1995, figs. 6, 17, 9. 10 and (for the second type) Singer-Avitz 1989, figs. 9, 5, 11 vs. Guz-Zilberstein 1995, 299 figs. 6, 18, 3.
- **12** Stern 1982, 122 type 3.
- 13 Stern 1982, 119.
- 14 See Guz-Zilberstein 1995, 311 figs. 6, 36, 10–12 (Hellenistic variants) vs. Singer-Avitz 1989, 137 f. fig. 9, 14 (Persian-period variants).



15 Will 1982; Peacock – Williams 1986, 84 f. class 2.

16 Whitbread 1995, 122–133; Cook – Dupont 1998, 164-169.

amphora has a common shape which was adopted over a relatively short period of time (primarily between the fourth and second centuries B.C.) at several production centres in both the eastern and western Mediterranean and in the Aegean¹⁵. The morphology and ware of the amphora toe (fig. 11, 4) suggests a Samian origin¹⁶. The broken cylindrical solid base (fig. 11, 5) may have

Spindle Whorls (fig. 13)

Six spindle whorls were found in six different loci at the site. Two additional spindle whorls came from the previous IAA excavations. These spherically-shaped, basalt objects are rather heavy relative to their size, ranging in weight from between 8.35 g and 17.75 g. They probably attest to (wool?) weaving activities at the site, seeing how the whorls were fitted to a spindle, evidently to increase the speed and steadiness of spinning and thereby maximize the rate of weaving. It is conventionally accepted that weaving was a female duty in ancient households²⁰, and the current evidence does nothing to contradict this understanding.

Beads (fig. 14)

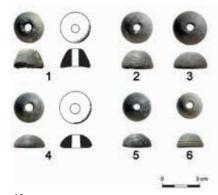
Beads are rarely found outside of burial contexts, and those discovered at the site augment any knowledge on typology and materials used in the early Hellenistic southern Levant. While the stone beads are relatively common, those made of faience or glass are less frequently found in domestic contexts²¹.

Metal Objects (figs. 15-21)

Given the scarcity of securely-dated Hellenistic metal objects, the bronze objects which were found, including needles, pins, spatulas, and fibulas (figs. 15. 16) were subject to archaeometallurgical analysis, and some repetitions from a previous publication are needed in the current context²².

It was aimed at determing the composition, microstructure, and manufacturing process of these bronzes, and at discovering their place of production in order to provide a better understanding of Hellenistic technological abilities and material culture. The examinations included optical microscopy, microhardness, SEM (including EDS), and XRD. The results show that the collection consists of Cu-Sn binary alloys, with evidence for a controlled alloying process and the absence of recycling. The microstructure of the objects indicates that all artefacts were produced by a cold-working process. Moreover, the manufacturing process of the fibulas having a rectangular cross-section included sophisticated joining techniques of copper and iron. The results

- 17 Whitbread 1995,165–184.
- 18 Finkielsztejn 2001, 55; and consult also http://www.amphoralex.org/timbres/ eponymes/accueil_epon/requete.php> (19.01.2015).
- **19** For the type see, e. g., Singer-Avitz 1989, 130. 133 figs. 9, 9, 6–7; 9, 10, 11. 12; 9, 11, 3–10; Rosenthal-Heginbottom 1995, 235 type 6 figs. 5, 13, 9. 10; 5, 14, 1–8.



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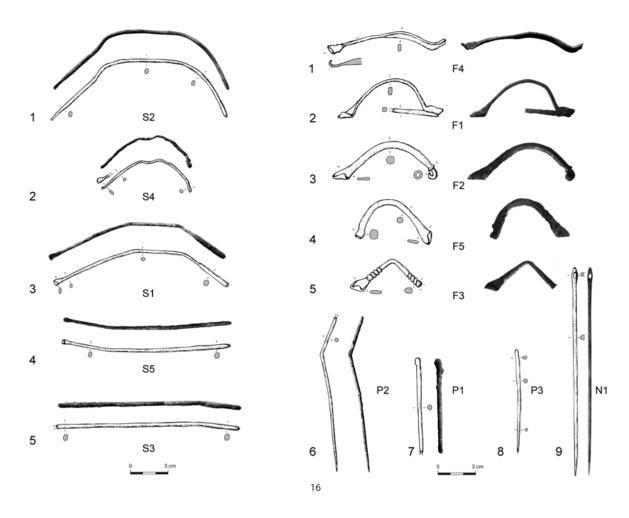


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Fig. 13 Spindle whorls, 1: A/001, basalt, 2.65 cm wide, 1.6 cm high, 0.65 cm hole diameter, 14.7 g, breaks on concave bottom; 2: B/047, basalt, 2.7 cm wide, 1.6 cm high, 0.5 cm hole diameter, 15.65 g, concave bottom; 3: A/034, basalt, 2.9 cm wide, 1.4 cm high, 0.6 cm hole diameter, 17.75 g, concave bottom; 4: B/08, basalt, 2.65 cm wide, 1.1 cm high, 0.65 cm hole diameter, 10.65 g, flat bottom; 5: B/103, basalt, 2.5 cm wide, 1.2 cm high, 0.5 cm hole diameter, 11.05 g, flat bottom; 6: B/126, basalt, 2.25 cm wide, 1.2 cm high, 0.56 cm hole diameter, 8.35 g, horizontal incisions on lower walls, concave bottom (scale 1 : 3)

Fig. 14 Beads, 1: B/144, basalt; 2: A/040, translucent colourless glass; 3: A/177, faience; 4: B/071, group of beads: translucent cobalt blue glass, three rounded in shape; clay, two disk-like in shape and one rounded in shape; stone, varied, five rounded in shape (scale 1: 1)

- **20** Reich 2001, 149 f., basing his arguments on Jewish sources; see in this respect Magness 2002, 176–185.
- 21 See Spaer 2001, for the glass beads.
- 22 Ashkenazi et al. 2012.



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Fig. 15 Bronze spatulas, 1 (S2): B/007; 2 (S4): A/022; 3 (S1): A/093; 4 (S5): B/150 and B/156; 5 (S3): A/093 (scale 1:3)

Fig. 16 Bronze fibulas, pins and needle, 1 (F4): B/084; 2 (F1): A/059; 3 (F2): A/168; 4 (F5): A/168; 5 (F3): A/168; 6 (P2): A/142; 7 (P1): B/083; 8 (P3): B/150; 9 (N1): A/168 (scale 1:3)

also showed that the analyzed assemblage was made of good-quality, melted, binary tin bronzes, composed of copper with a tin composition of between 2.4-11.8 wt% Sn and slight amounts of impurities. These copper alloys were probably selected according to the artefact's functionality (mechanical properties), since functional working tools require ductility as well as great strength. Higher Sn concentrations (above ~14 wt%) would make the alloy more brittle and difficult to work with²³. The ancient metalworker was probably taking into account sets of other criteria, such as fashion and status²⁴.

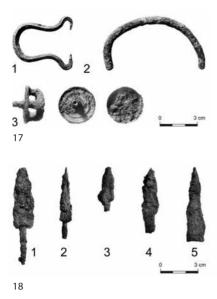
Casting defects, such as pores, were observed on some of the artefacts. Thermomechanical processes of hammering and annealing were applied in the manufacturing of the artefacts; all the objects underwent extensive plastic deformation, resulting in strain-hardening (discernable by dislocation lines, propagation of some cracks, and a high degree of hardness). A few of the artefacts (the area around the eye of needle N1, three of the spatulas, and some areas of the fibulas) underwent annealing cycles as well, resulting in annealing twins. Annealing restores ductility lost during hammering, and thereby enables further deformation of the object²⁵. The pins, spatulas, and needle were manufactured according to the same production technique, using a similar Cu-Sn bronze alloy and shaping the objects by the process of cold-working. Metallurgical knowledge and skills in the forging and annealing processes could compensate for casting problems²⁶.

Although the fibulas were manufactured by a somewhat similar method, their production was more complicated, since joining techniques were used

- Valério et al. 2010. 23
- Ponting 2002a; Ponting 2002b. 24
- 25 Valério et al. 2010.
- Sarabia-Herrero et al. 1996.

to bond the body and pin of the fibulas. These results may also assist in defining the original function of the metal objects. The dimensions of the needle (129 mm long), as well as its relatively high degree of hardness (254.0 1 28.0 HV at the centre of the needle), may suggest that it was used for leather work. The dimensions of the pins (P2 and P3 originally measured more than 124 mm in length), as well as the wear marks on their tips, and the relatively high degree of hardness (e. g., 189.4 1 19.7 HV at the tip of P2), may suggest that they were also used for leather work (the possibility that the pins were surgical instruments, a function often suggested for these objects in archaeological literature, cannot be entirely ruled out). All spatulas examined show a long stem (e. g., S1 was originally more than 150 mm in length) and they were probably used for the mixing and applying of various materials, among them pharmaco-cosmetic products, pigment powders, adhesives, and the like. The annealing processes seen in some of the spatulas (S2, S4, and S5) may have been related to their use. The fibulas are the most interesting objects analyzed in the assemblage. Two types of fibulas were differentiated according to morphology and material: the first (RCS) with a Cu/Fe joint (F1 and F4), and the second (CCS) with a Cu/Cu joint (F2, F3, and F5). One cannot reject the idea that different materials served different (practical) functions, e. g., fastening clothes, as opposed to usage as a safety pin. Moreover, the fact that all the fibulas with the Cu/Cu joints (F2, F3, and F5) came from the same room (A/168; fig. 2) lends support to such a conclusion. The analyzed microhardness of the iron oxide zone of fibula F1 matches the composition of FeO and Fe3O4²⁷. Such iron oxides are the result of a high-temperature fire environment²⁸.

The fact that all artefacts are securely dated to within half a century, the 320s to 280s/270s B.C. (at most), suggests that these different manufacturing technologies coexisted. The idea that all were made from a similar ore may also suggest a workshop, possibly local, which practiced these techniques together. Additional investigation is recommended in the future, including quantified minor and trace elements, as well as non-destructive radiographic testing and subsequent study of the joining part between the iron pin and the bronze fibula bow. The metallographic, chemical, and microhardness examinations of the Hellenistic bronze objects retrieved from Rishon Le-Zion enabled the identification of the microstructure and composition of the alloys. The artefacts were manufactured from a binary copper bronze alloy with appropriately 4.9–11.8 wt% Sn, which means that the alloy composition was carefully controlled and the metals were not recycled. Thermomechanical operations were applied during the manufacturing process of the objects, according to the artefact's functionality. Task-oriented tools such as needles, pins, and spatulas were produced by work-hardening and annealing cycles, using smiths' tools. The results of these examinations provide a better understanding of the characterization of early Hellenistic metal objects in Palestine and reveal the metallurgical manufacturing processes of those artefacts. The fact that all of the analyzed artefacts were manufactured from a similar bronze alloy and shaped by cold-working (table 1) may indicate that they were all manufactured at the same workshop. Given the availability of the bronze, the workshop may have been local. Furthermore, it can be determined that the manufacturing process of the fibulas included sophisticated Fe/Cu joining techniques (figs. 12. 14), since the XRD results for iron oxide in fibula F1 yield the presence of wüstite (FeO), which is not stable below 570° C. All of these technological characteristics point towards an advanced metallurgical knowledge and expertise. The presence of fibulas at the site enhances the knowledge of their use among the



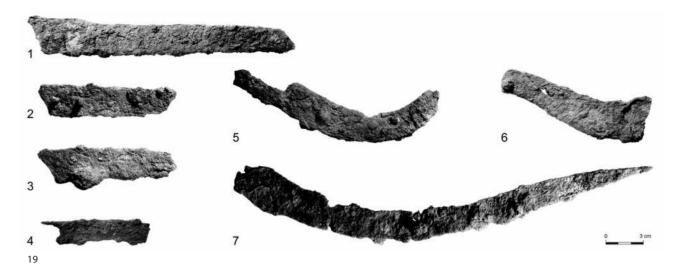
Rishon Le-Zion

Fig. 17 Bronze handles (?), 1: B/069; 2: A/050; 3: A/168 (scale 1 : 3)

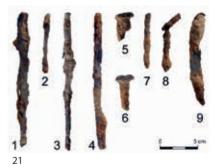
Fig. 18 Iron arrow and spear heads, 1: A/060; 2. 3: A/050; 4: A/063; 5: A/082 (scale 1 : 3)

²⁷ Balos et al. 2009.

²⁸ Fontana 1987; Balos et al. 2009.







Rishon Le-Zion

Fig. 19 Iron blades, 1-3: A/076; 4-6: A/168; 7: B/030 (scale 1:3)

Fig. 20 Fragmented iron working implements, 1 (hoe?): B150 and B/156; 2 (pickaxe?): B150 and B/156; 3 (pick-axe?): B/021 (scale 1:3)

Fig. 21 Iron nails, 1: A/022; 2: B/048; 3: A/168; 4: A/059; 5. 6: A/082; 7. 8: B/072; 9 (clasp?): A/096 (scale 1:3)

- 29 See Ponting 2002a, 561 (for the early Roman period).
- 30 Gitler Tal 2006, 43-46 and discussion below.
- 31 Hartal 2002, 108–110 figs. 34, 4. 5 (with many references therein).
- 32 e. g. Alexandre 2006, 175 fig. 55.

non-Jewish populations of Classical periods in Palestine²⁹. Clear historical and epigraphic evidence is available that the site's geographical and ethnic setting during the Persian and Early Hellenistic periods was predominantly Phoenician, probably under Sidonian hegemony³⁰. Combining the archaeological evidence and the results of the metallurgical testing, it may be deduced that the copper ore originated from an Eastern Mediterranean (probably Near Eastern) region. This may provide additional information regarding the Hellenistic economy and trade trends. Only further examination of slag, crucibles, and ore materials, which still have not been found at this Rishon Le-Zion site, may unearthen more definitive conclusions.

Not all bronze objects discovered at the site underwent archaeometallurgical analysis, as preference was given to finds of more recurrent appearances. Among these are handles (of cauldrons? Figs. 17, 1–3). Among the finds not illustrated in this article are a few fragmented bronze pins and a bracelet, as well as bronze sheets of relatively small size, either plain or folded, occasionally with holes for nailing.

Of no less importance are the few iron arrow, spear heads, and blades (fig. 18), which in many cases were discovered fully or partially charred. Arrowheads can be divided between tanged, pyramid-shaped, and triangular in section types (figs. 18, 1–3), which are of Greek or Greek-inspired origin, and leaf-shaped arrowheads (fig. 18, 4), the latter of which represent a more traditional Levantine type. The spear head belongs to a hollow, round in section type with a cone-shaped pointed edge (fig. 18, 5). Blades are divided between straight and curved types; the former (figs. 19, 1-4) are normally attributed to knives and swords and the latter can either be used for cultivating grapevine crops (the vine-dresser's knife; see fig. 19, 5) or as sickles (figs. 19, 6. 7). While the vine-dresser's knife is similar to those recovered from late Hellenistic Khirbet Zemel (northern Golan)³¹, the sickles show close resemblance to those recovered from the fortified complex of early Hellenistic Naḥal Tut (Plain of Manasseh) the destruction of which has been dated to 331 B.C.³². There were also a few other fragmented iron working tools that can probably be identified as a hoe and pick-axes (fig. 20), as well as iron nails and clasps of various lengths and thicknesses (fig. 21). Also noteworthy are lumps of iron, which originally belonged to other metal implements that underwent severe deterioration. No evidence of significant concentrations of iron implements could be found in either space of the building, nor any signs indicating the production of iron at the site.

Table 1 Rishon Le-Zion, list of loci (mentioned in the text)

44.83

44.45

M/10-11

B/071

Baulk (removal)

Locus	Square	Opening height	Closing height	Loci below/Associated	Description
				loci	
B/072	K11	44.39	44.18	-	Topsoil
B/083	L/9-10	44.53	43.97	-	Baulk (removal)
B/084	O9	44.32	44.15	B/134	Fill (collapse)
B/086	M/9-10	44.37	43.99	-	Baulk (removal)
B/087	M-N/10	44.76	44.02	-	Baulk (removal)
B/103	O11	44.60	43.96	B/147	Room (wall)
B/104	O10	44.72	44.03	B/147	Room (wall)
B/109	N10	44.35	43.90	-	Paved surface
B/114	M/10-11	44.83	44.57	B/115	Installation
B/116	L-M/10	44.79	44.56	B/117	Wall
B/117	L10	44.65	44.58	B/117	Paved surface
B/118	M10	44.45	44.23	-	Paved surface, installation
B/119	M-L/10	44.62	44.30	-	<i>Ṭābūn</i>
B/121	P10	44.53	44.00	B/047	<i>Ṭābūn</i>
B/126	M11	44.31	43.98	-	Fill (occupation)
B/130	K10	44.08	43.92	B/129	<i>Ṭābūn</i>
B/138	P-O/9	44.06	_	-	Installation (tābūn?)
B/141	L10	44.52	_	-	Fill (ash)
B/144	P/8-9	43.86	43.67	B/145, B/146	Floor (accumulation)
B/150	L-M/10-11	44.31	43.85	B/156	Fill (collapse)
B/154	O/9-10	43.69	43.56	B/153	Fill (collapse)
B/156	L-M/10-11	43.99	43.73	-	Floor (accumulation)
B/161	M-N/9-10	43.99	43.73	B/151, B/162, B/164	Wall (brick)

Table 1 Rishon Le-Zion, list of loci (mentioned in the text)

While the varied pottery vessels recovered from the site suggest domestic activities, the metal finds enhance the rural and agricultural nature of the site. Needles and pins are postulated to have been used for leather work, spatulas probably for the mixing and spreading of various materials, arrow and spear heads for hunting. Straight blades were used for cutting, whereas curved blades were probably more oriented towards agricultural uses. The discovery of the numerous metallic finds and coins (see below) may attest to a sudden abandonment of the site which, in turn, might be connected to an approaching threat. If so, these artefacts forming a de-facto refuse³³ may be attributable to a military campaign (see discussion, below).

Coins (fig. 22)

Twenty-two coins from the excavation at Rishon Le-Zion (South) are described below. The coins appear to be dividable into two groups: two posthumous (post-323 B.C.) coins commemorating Alexander the Great, nos. 1. 2; and twenty coins, nos. 3-22, minted during the reign of Ptolemy I (the latest coins may be dated to 283 B.C.). Based on the recurrent vertical die axes and the legible control marks (where they exist) the ones with the marks were probably minted in Alexandria with one exception. This exception is given by coin no. 10, attributed to an uncertain mint, based on the unidentified control mark and the (mint?) legend below it.

³³ Using Schiffer's 1985 terminology, as reference to the finds left when the site is abandoned.

- 1★ A/014 (Sq. M8); IAA 143898
 Posthumous Alexander the Great,
 post-323 B.C.
 Obv. Head of Heracles r. wearing a lion
 skin headdress; dotted border
 Rev. Quiver and bow with club below
 Relatively worn
 Æ, →, 4.95 g, 18 mm
 See for the type Price 1991, Sidon
 no. 3493
- 2* A/034 (Sq. K7); IAA 143899
 Posthumous Alexander the Great,
 post-323 B.C.
 Obv. Shield with Gorgoneon in its centre
 Rev. Helmet; traces of double-axe
 Relatively worn
 Æ, ↑, 3.07 g, 15 mm
 See for the type Price 1991, Miletus/
 Mylasa no. 2065 or Salamis no. 3160
- **3*** A/017 (Sq. O7); IAA 143900 Ptolemy I, Alexandria, ca. 304–283 B.C. Obv. Laureate head of Zeus r. Rev. Eagle l. on thunderbolt; wings open; monogram on r. field;] BΑΣΙΛΕΩΣ Æ, ↑, 15.31 g, 27 mm SNG Copenhagen 80
- **4*** B/126 (Sq. M11); IAA 143901 Ptolemy I, Alexandria, ca. 304–283 B.C. Obv. Laureate head of Zeus r; dotted border Rev. Eagle l. on thunderbolt; wings open; dotted border;] BAΣΙΛΕΩΣ Æ, \uparrow , 14.22 g, 29 mm SNG Copenhagen 83. 84
- 5 A/040 (Sq. O7); IAA 143902 Ptolemy I, Alexandria, ca. 304–283 B.C. Obv. Laureate head of Zeus r. Rev. Eagle l. on thunderbolt; wings open Relatively worn Æ, ↑, 12.18 g, 25 mm SNG Copenhagen 76–86
- **6**★ A/168 (Sq. P7); IAA 143903 Same as above Æ, ↑, 12.05 g, 28 mm
- **7*** A/040 (Sq. O7); IAA 143904 Ptolemy I, Alexandria, ca. 305–283 B.C. Obv. Diademed head of Alexander the Great r. with horns of Zeus Ammon Rev. Eagle l. on thunderbolt; wings open; monogram on r. field;] BAΣΙΛΕΩΣ Æ, ↑, 7.91 g, 20 mm SNG Copenhagen 52

8* A/059 (Sq. N-O/7)
Ptolemy I, Alexandria, ca. 305–283 B.C.
Obv. Diademed head of Alexander the
Great r. with horns of Zeus Ammon
Rev. Eagle l. on thunderbolt; wings open;
monogram on r. field; ΠΤΟΛΕΜΑΙΟΥ
ΒΑΣΙΛΕΩΣ
Æ, ↑, 21 mm. Lost after excavations

SNG Copenhagen 53

- 9 B/015 (Sq. N11); IAA 143905 Ptolemy I, Alexandria, ca. 305–283 B.C. Obv. Diademed head of Alexander the Great r. with horns of Zeus Ammon Rev. Eagle l. on thunderbolt; wings open Relatively worn Æ, ↑, 7.21 g, 19 mm SNG Copenhagen 50–56
- 10* A/171 (Sq. O8); IAA 143906 Ptolemy I, uncertain mint, ca. 305–283 B.C. Obv. Diademed head of Alexander the Great r. with horns of Zeus Ammon Rev. Eagle l. on thunderbolt; wings open; monogram and ΘE below it on l. field Æ, ↑, 8.04 g, 19 mm See for the type SNG Copenhagen 50–56
- 11* A/177 (Sq. O8); IAA 143907 Ptolemy I, Alexandria, ca. 310–305 B.C. Obv. Diademed head of Alexander the Great r. Rev. Eagle I. on thunderbolt; wings open Æ, ↑, 3.93 g, 16 mm SNG Copenhagen 42
- 12 A/040 (Sq. O7); IAA 143908 Ptolemy I, Alexandria, ca. 310–305 B.C. Obv. Diademed head of Alexander the Great r. Rev. Eagle l. on thunderbolt; wings open Relatively worn Æ, ↑, 3.17 g, 17 mm SNG Copenhagen 36–43
- **13*** B/161 (Sq. M-N/9–10); IAA 143909 Same as above Æ, ↑, 4.30 g, 20 mm
- **14*** A/059 (Sq. N-O/7); IAA 143910 Same as above Æ, \uparrow , 4.10 g, 18 mm

- **15*** A/034 (Sq. K7); IAA 143911 Same as above Æ, ↑, 4.23 g, 18 mm
- **16** A/016 (Sq. N7); IAA 143912 Same as above Æ, ↑, 3.92 g, 16 mm
- **17*** A/059 (Sq. N-O/7); IAA 143913 Same as above Æ, ↑, 5.16 g, 16 mm
- **18** A/182 (Sq. M10) Same as above Æ, ↑, 4.64 g, 17 mm Lost after excavations
- **19** A/168 (Sq. P7); IAA 143914 Same as above Æ, ↓, 5.28 g, 20 mm
- 20 A/168 (Sq. P7); IAA 143915
 Ptolemy I, Alexandria, ca. 305–283 B.C.
 Obv. Diademed head of Alexander the
 Great r.
 Rev. Eagle l. on thunderbolt; wings open
 IITOAEMAIOY [
 Relatively worn
 Æ, ↑, 3.27 g, 18 mm
 SNG Copenhagen 58(?)
- 21 A/019 (Sq. L7); IAA 143916 Ptolemy I, Alexandria, ca. 305–283 B.C. Obv. Diademed head of Alexander the Great r. Rev. Eagle l. on thunderbolt Relatively worn Æ, †, 2.08 g, 14 mm SNG Copenhagen 59–62
- **22*** B/022 (Sq. M7); IAA 143917 Same as above Æ, ↑, 1.30 g, 14 mm

34 Serial numbers of coins followed by an asterisk relate to coins that appear on fig. 22.

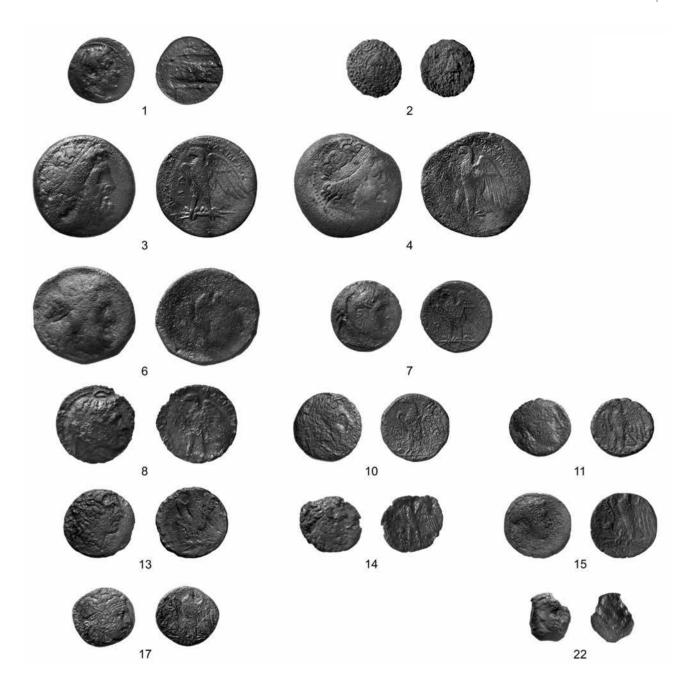


Fig. 22 Rishon Le-Zion, coins (scale 1:1)

Discussion

The epigraphic material, that is the coins and the stamped Rhodian amphora handle, suggest an occupation of a few decades during the last quarter of the fourth century and/or the first quarter of the third century B.C. This date is consistent with all the finds recovered from the site, making it unique from the perspective of firm dating, probably within the early stages of continuous Ptolemaic rule in Palestine. The settlement archaeology and geographical history of the primary site of the region (north of the River Soreq), Tel Ya'oz (GZR/GAZHARA of fig. 1) in Persian and Hellenistic times, has been discussed at some length elsewhere³⁵. Nevertheless, the site's occupation and abandonment warrant an attempt to understand its existence in the actual political-historical contexts of the times. The date of its establishment is

35 See Fischer et al. 2008; Tal 2009a.

unclear, being the upper stratum of a three-strata site having a site plan which differs significantly from those of the previous occupations. Therefore, it is likely to have been established only after a certain hiatus following in the end of the occupation period of the preceding stratum, Stratum II, which dates from either the fifth or fourth century B.C. Based on the latest numismatic and epigraphic finds, the date of of abandonment in Hellenistic times can be

determined to have taken place in the 280s/270s B.C.

The earliest coins recovered from the site are the two posthumous coins (post-323 B.C.), nos. 1 and 2, commemorating Alexander the Great. From this it can be discerned that our political-historical reconstruction of the site may have begun under Ptolemy I, who took advantage of the struggles of Alexander's successors throughout the empire and had one of his commanders, Nicanor, conquer Phoenicia, station garrisons in its towns, and take Laomedon prisoner (in 319 B.C.)³⁶. Ptolemy I's campaign strengthened his rule over Palestine until 315 B.C., when Antigonos Monophthalmos advanced to northern Syria and took it over on his way to Palestine. During the next two years, the wars Antigonos waged against his Greek adversaries meant that responsibility for events in Syria and Palestine were delegated to his son, Demetrios Poliorcetes. After Ptolemy suppressed a revolt in Cyrene, he mounted an all-out attack on Antigonos' strongholds in Palestine. He was supported by Seleucos, who had fled Egypt after Antigonos exiled him from Babylon. In late 312 B.C., the struggle for control of Palestine was decided at the battle of Gaza in which Demetrios was defeated and fled north. After the defeat, Ptolemy and his commanders took the coastal cities of Palestine and Phoenicia and made plans to rid all of Syria of the rule of Antigonos. The task was given to one of Ptolemy's lieutenants, Cilles. However Demetrios managed to capture a large part of the latter's army when it was stationed in Syria. At that time, Antigonos' army joined that of Demetrios. In the face of the numerical advantage of the Antigonian army, Ptolemy withdrew to Egypt. During his retreat he destroyed Akko, Joppa, Samaria, and Gaza, in order to prevent their takeover by Antigonos³⁷.

Being in the hinterland of Joppa (less than 10 km to its south), the site of Rishon Le-Zion (South) may, on the one hand, have been affected by Joppa's destruction in 312 B.C. and by the retreat of Ptolemy I's army to Egypt (although one would imagine that the coastal trunk route was located further to the west). On the other hand, it would be logical to assume that Stratum I was established only *after* this calamitous event, seeing how, for the next decade, it was Antigonos who ruled Palestine. Alternatively, the site may have been established in the early days of Ptolemy I's continuous rule over Palestine, namely after Antigonos' death in the battle of Ipsos (301 B.C.)³⁸.

Phoenicia and Palestine played a very significant role in the struggle between the Seleucids and the Ptolemies during the third century B.C. These lands served as both Ptolemaic ports to the west and a source of supplies for their forces. Little is known about the outcomes of the First and Second Syrian wars, which took place in the 70s and the 50s of the third century B.C. It is unlikely that the outset of the First Syrian War had any effect on the abandonment our site, as the hostilities were centred to the north. In his initial offensive in 274 B.C. Antiochus I took the Ptolemaic controlled areas in coastal Syria and southern Anatolia, whereas Ptolemy II extended his own territories as far as Caria and Cilicia by 271 B.C. The events and results of the Second Syrian War, while not necessarily too late chronologically, are definitely too remote geographically to have figured in the occupation and abandonment of the site discussed in this article.

³⁶ Diod. Sic. 18, 43.

³⁷ Diod. Sic. 19, 93.

³⁸ Diod. Sic. 20, 113.

As many of the farmsteads in Hellenistic Palestine were established on gifted lands ($\delta\omega\rho\epsilon\dot{\alpha}$), it can be speculated that the owner of the site may have been either a high official in the Ptolemaic court, who employed a tenant farmer, as cases are attested by the Zenon papyri³⁹, or it belonged to a veteran, who received the land in recognition of military service performed for Ptolemy I⁴⁰.

No recorded historical events may explain the site's abandonment in the 280s/270s B.C. Neither does the regional evidence in the central Palestinian Coastal Plain (northern Philistia) shed any light on the circumstances of the abandonment. While some historical sources attest to the stormy nature of the twenty-two-year-long series of four Diadoch wars, the archaeological record reveals no evidence of them, that is to say that the respective destructions of Akko, Joppa, Samaria, and Gaza in 312/11 B.C. have not been identified archaeologically up to now⁴¹. On the other hand, the destruction/abandonment of a few other sites of military and/or rural nature can be securely dated within the last third of the fourth century B.C., among them coastal fortresses like Shigmona Stratum V and Tel Mikhal Stratum VI, and the so-called fortified storage depot of Naḥal Tut⁴².

However, though published in a rather preliminary form, numismatic evidence for the Persian/Hellenistic transition in Ashkelon suggest a destruction level dated to around 290 B.C. This date based on a coin hoard of seventeen tetradrachms of Alexander the Great and a tetradrachm of Phillip III⁴³. The excavators link these to one of the military campaigns in which the Macedonian rulers of Egypt established their supremacy in Palestine⁴⁴. A date after

39 Durand 1997.

40 See, e. g., Iliffe 1932; Tal 2009b, 245-247.

41 For the historical background see, e. g., Wheatley 1998. Rahmani (1964) has attempted to connect the burial date of a hoard of posthumous coins commemorating Alexander the Great, incidentally discovered at Tel Sippor (midway between Joppa and Gaza), to Ptolemy I's retreat to Egypt in 312/311 B.C.; however, Price (1991, 56) has down-dated the latest coins in this hoard to ca. 310-305 B.C. Recently, Ariel has suggested refining the date for the end of the Persian-period strata at Tel Mikhal (north of Joppa) based on a hoard of eleven Athenian tetradrachms, three Sidonian coins, and a posthumous coin commemorating Alexander the Great, minted in Tarsus (Ariel 2006, 80). Elsewhere, based on the context of the coins, we have argued against this attribution (Gitler et al. 2009, 30). Regardless of whether they were deposited in a hoard or not, such a possibility is not precluded. The same holds true for other hoards said to have been buried during the Third Diadoch War, 315-311 B.C., and to have come from Lebanon (Wartenberg et al. 1994, 24 no. 207) or possibly Jericho (Price 1990/1991), as suggested by

Ariel (2006, 80). However, the origin of these coins in the antiquities market precludes our legitimately using them as evidence.

42 For Shiqmona Stratum V, see Elgavish 1968, 47; Elgavish 1994, 87-92 (either 332/331 or 323 B.C.). For Tel Mikhal Stratum VI, see Rainey 1989 (ca. 300 B.C.). For Nahal Tut, see Alexandre 2006 (331 B.C.). Stern's attempt to connect the burial dates of hoards with Tyrian coins as discovered in Megiddo, Tell Abu Hawam, and Akko (Tell el-Fukhar) as evidencing destruction layers of Alexander's military campaigns on sites of Tyrian hegemony is extremely speculative (Stern 1982, 255 n. 79). Indeed Alexander's attempts to conquer Tyre in 332 B.C. were considerable, but no actual destructions were recorded by the excavators of Megiddo, Tell Abu Hawam, or Akko. Moreover hoards do not necessarily attest to the destruction of a location. The two Tyrian coins recorded at Megiddo and dated by Newell to the reigns of Antigonos and Demetrios (Lamon - Shipton 1939, 197 f. nos. 8. 9), because of their suggested Greek weight standard (8.81 g and 8.75 g respectively), do not form part of a hoard and seem to date to 343 B.C. (year 7 of King Ozmilk; see Elayi - Elayi 1993, 351). The hoard

recovered from Tell Abu Hawam has a burial date close to 337 B.C. (although nothing implies it could not have been buried before the arrival of Alexander in 333, Elayi – Elayi 1993, 185), while that of Akko has a burial date in the fourth century, some time prior to 333 B.C. (Elayi - Elayi 1993, 167). Furthermore, while Tell Abu Hawam and Akko were clearly under Tyrian hegemony, the administrative status of Persian-period Megiddo is unclear. Recently, Duyrat (2011) tried to assemble the evidence for such late Persian and early Hellenistic hoards in the Fifth Satrapy. Many of the 15 hoards (out of the 85 hoards dated between ca. 334–280 B.C.), she ascribes to the days of Alexander (333–330 B.C.; Duyrat 2011, 63 f., Annexe, nos. 1–15) have a questionable burial date given their nature (i. e., they originated in the antiquities market and are mostly only preliminarily published). One can only agree with the conclusion that the relatively large number of hoards dated to the early days of the Greco-Macedonian rule in the Levant attests to the stormy nature of the period, as is well known from the historical sources.

Wartenberg et al. 1994, 25 no. 220.

Stager et al. 2008, 287. 322 (Grid 38, Phase 10; Grid 57, Phase 3). 290 B.C. is nevertheless possible, as the excavators of Ashkelon based their argument on the date of the latest coin in the hoard⁴⁵.

If this were indeed the case, the site of Ashkelon may represent a regional phenomenon which has left its traces on the early third-century B.C. destruction of the city and the abandonment of Holot Rishon Le-Zion (South).

This evidence may even be enhanced by two additional sites in the western Judahite foothills. The first is Khirbet Qeiyafa, which has been suggested as identifiable elsewhere as a provincial administrative centre during late Persian times ⁴⁶. Given the continuity of the site between the two periods, it may also be perhaps dated to early Hellenistic times. The recently published numismatic evidence suggests the abandonment of the site sometime in the 270s B.C., i. e., during the early days of Ptolemy II⁴⁷. Another site with relatively similar appearances of coins is nearby Tel Azekah, which was probably abandoned for identical reasons⁴⁸.

As epigraphic and numismatic evidence post-date the struggles of Alexander and the Diadochs in Coele-Syria, it can only be inferred that the site was abandoned some time during the first two to three decades of the third century B.C., either due to an unrecorded military clash or because of environmental conditions which left no detectable physical evidence (at least as recorded) on the areas excavated.

- 45 Interestingly enough, Duyrat (2011, Annexe, nos. 52–58) lists some seven hoards with a burial date of the early third century B.C. Still, one should bear in mind that these hoards also originated in the antiquities market and have only been preliminarily published. Hence, their possible value as evidence to elucidate a specific historical event in the region is tenuous in the extreme.
- **46** Fantalkin Tal 2012, 11 f. **47** Farhi 2014, 389 f.; see also Farhi
- 48 Yoav Farhi, personal communication.

Abstract

Oren Tal, A Late Fourth/Early Third Century B.C. Farmstead at Holot Rishon Le-Zion (South), Israel: Evidence for an Unrecorded Military Clash in the Southern Levant?

Keywords

Palestine • Southern Coastal Plain • Early Hellenistic Period • Ptolemy I • Ptolemy II

An Early Hellenistic-period farmstead excavated under controlled archaeological conditions at Rishon Le-Zion, Israel and dated - based on discovered coins and pottery vessels to the late fourth and early third centuries B.C., is discussed in light of the narrow chronological range of its finds relative to their great variety. The relatively short occupation of this Hellenistic settlement, as well as the fact that it was abandoned, are analyzed against the backdrop of the region's geopolitical history and the archaeology corpus of its settlement. The evidence from the site recorded by the excavators suggests either an environmental or political cause for its abandonment, probably during the late days of Ptolemy I or the early days of Ptolemy II.

Sources of illustrations

Fig. 1: Y. Smertenko • Fig. 2: A. Tass – A. Brauner • Figs. 3–7. 14. 17–22: P. Shrago • Figs. 8. 10: A. Perry • Figs. 9. 11-13. 15. 16: drawing A. Perry, photo P. Shrago

Abbreviations

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Address

Prof. Dr. Oren Tal Department of Archaeology and Ancient **Near Eastern Cultures** Tel Aviv University P.O. Box 39040 Ramat Aviv Tel Aviv 69978 Israel

orental@post.tau.ac.il