

In Centro

Collected Papers
Volume I

Motion, Movement and Mobility

Editors:
Guy D. Stiebel
Doron Ben-Ami
Amir Gorzalczany
Yotam Tepper
Ido Koch





Central Region



TEL AVIV UNIVERSITY

The Sonia and Marco Nadler Institute of Archaeology

The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures

The Chaim Rosenberg School of Jewish Studies and Archaeology

The Lester and Sally Entin Faculty of Humanities

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***Glycymeris* Shell-Paved Floors from Meşad Ḥashavyahu: A Continued Local Architectural Tradition?**

Daniel Ein-Mor, Michal Mermelstein and Federico Kobrin
Israel Antiquities Authority

Introduction

Floor levels composed out of the empty valves of the genus *Glycymeris* and installations paved with such shells are known from a relatively limited number of sites throughout the southern Levant, appearing as early as the Middle Bronze Age, but found mostly in strata that were assigned to the Late Bronze Age III and Early Iron Age I (13th–12th centuries BCE).¹ The remains of a floor paved with *Glycymeris* shells were discovered in 1960 during the excavation of a courtyard in the gate complex at of Meşad Ḥashavyahu, a massive late Iron Age III (7th–early 6th century BCE) fortress located on the southern coastal

* The authors would like to thank Yana Tchekhanovets and Daniella Bar-Yosef Mayer for reading the draft of this paper and providing us with useful comments. We would also like to thank Alexander Fantalkin and Yiftah Shalev for assisting with the initial identification of some of the pottery types that were found on top of the shell floor during the excavation (see below) and Michal Birkenfeld for preparing the location maps.

1 The use of shells as construction material, either crushed and mixed with mortar or as the bedding for floors, is attested in various sites in Israel that were dated, for the most part, to the Late Bronze and Iron Ages (Bar-Yosef Mayer 2005; 2008: 198; Bar-Yosef Mayer and Vitalkov 2018: 335 and references therein). The occurrence of shell floors and installations postdating the 6th century BCE is beyond the scope of the present paper.



Fig. 1: Location map of sites in the southern Levant mentioned in the text



Fig. 2: Location map of sites in the southern Iberian Peninsula mentioned in the text

plain of Israel, ca. 1.7 km from Yavneh-Yam (Naveh 1962a) (Fig. 1). During a recent excavation at the fortress, a room whose floor was found entirely paved with shells was unearthed adjacent to the previously known shell floor (Ein-Mor and Mermelstein 2020). To the best of our knowledge, the shell floors at the gate complex in Meşad Ḥashavyahu constitute a unique occurrence of this architectural phenomenon at sites dating to the Iron Age III in the region of Israel. Similar shell-paved floors are attested at a number of sites scattered along the southern coasts of the Iberian Peninsula (Fig. 2). These are generally accepted as Phoenician colonies and date between the late 9th–6th centuries BCE (Escacena and Vázquez 2009, and see below). In this paper we will provide a brief review of several shell floors and shell paved installations that were documented at various sites in the southern Levant dating to the Bronze and

Iron Ages. This review will set the background for discussing the question at the center of this paper:

Do the shell-paved floors in Meşad Ḥashavyahu represent a continued local architectural tradition? Or should they be viewed in the context of cross-cultural connections during the late 7th century BCE, specifically with contemporary sites in the Iberian Peninsula?

The Site

The remains of one of the largest fortresses in Israel during the Iron Age were discovered in the late 1950s–early 1960s at Meşad Ḥashavyahu (map ref. NIG 170890/646294),² a coastal site located on a weathered calcarenite hilltop ca. 15 km north of Ashdod and 1.7 km south of Yavneh-Yam (Naveh 1962a).

Four excavation campaigns at the site unearthed an L-shaped fortress (ca. 1.5 acre, Fig. 3), enclosed within massive mudbrick fortifications, resting on kurkar ashlar (ca. 3.2– 4.2 m. wide).³ The general plan of the fortress derives, to a certain extent, from the topography of the hill on which it was built, yet it maintains a rigid orthogonal plan which distinguishes it from other contemporary fortresses, known mainly from the Negev region.⁴ The fortress is divided into two perpendicular rectangles: within the larger (western) rectangle there is a gate and several rooms abutting the fortress wall, while in the smaller (eastern) rectangle, which is identified with the

2 “Meşad” is the Hebrew word for “fort” or “fortress.” The name of the site derives from the name on one of the ostraca found at the site, which Naveh initially read as “Hashavyahu ben Ya...” (in Hebrew: חשבִיָהוּ בֶן יֵא...) (Naveh 2005: 107–108).

3 The first two seasons of excavations at the site were directed by J. Naveh, on behalf of the Department of Antiquities and the Israel Exploration Society (January and September 1960; Naveh 1962a); the third season was directed by R. Reich on behalf of the Department of Antiquities and Museums (April–May 1986; Reich 1989); and the fourth season was directed by D. Ein-Mor, on behalf of the Israel Antiquities Authority (April–September 2017, Ein-Mor and Mermelstein 2020).

4 Tel Arad (Aharoni 1993; Herzog 2002); Ḥorvat ‘Uza and Ḥorvat Radum (Beit-Arieh 2007); Ḥorvat ‘Anim (Amit, Cohen-Amin and Cohen 2008: 135–138); Ḥorvat Tov (Cohen 1995: 115–116).



Fig. 3: Site plan, showing location of shell floors

residential quarters, there are three rows of buildings abutting the wall, with passageways between them (Fig. 3). Two main factors promoted significant scientific interest among various scholars in the finds from Meşad Ḥashavyahu: first, the Hebrew ostraca, among them the appeal by a field worker to the fortress's governor regarding the appropriation of his cloak (Naveh 1960); and second, the discovery of large amounts of East Greek pottery and pottery of local origin (Fantalkin 2001: 3). The majority of the East Greek material from Meşad Ḥashavyahu belongs to the South Ionian Ic–d chronological horizon,

with a clear preference for the later Id phase. This puts the construction and operation of the fortress in the very late 7th century BCE (Fantalkin 2001: 128–136) or the very early 6th century BCE. The East Greek and local pottery found at the site together with the ostraca bearing Yahwistic and, according to Naveh (1962b: 30), also Phoenician names led to a lively scholarly debate concerning the identity and ethnic origin of the site's inhabitants and the ownership over the fortress.

Both Naveh (1962a) and Reich (1989) suggested that the fortress was occupied by Greek mercenaries. Naveh initially suggested that these were in the service of Psamtik I (664–610 BCE), ruler of Egypt from the 26th Dynasty, and that the fortress was conquered shortly before 609 BCE by Josiah king of Judah (640/39–609 BCE; Naveh 1962a: 98–99). In later publications Naveh changed his opinion and suggested that the mercenaries were in the service of Josiah and that the fortress was abandoned during the reign of Pharaoh Necho II (610–595 BCE), who killed Josiah in Megiddo in 609 BCE (Naveh 1993: 557). Other scholars (Mazar 1997: 9; Waldbaum 1994: 60–61) have suggested that the site served as a trading post (emporium) or that there may have been two different stages of settlement at the site (Eshel 1986–87).⁵ Na'aman (1991: 47) proposed that the fortress was built as an Egyptian initiative and that its inhabitants were of diverse ethnic origins—Greek, Phoenician and Judean, perhaps similarly to other Egyptian fortresses (Dafana and Migdol) which were built in the wake of the rise of the 26th Dynasty in Egypt (Na'aman 1991: 47). Fantalkin also suggested that the fortress was constructed by Egyptian initiative and that it served in securing the trade and military route along the coastal plain (Fantalkin 2001: 147).⁶

5 Eshel's proposal was rejected by Fantalkin (2001: 11–13). The results of the fourth season of excavation at the site, support the existence of two phases of activity in parts of the fortress. Both phases are attributed to a short time span (Ein-Mor and Mermelstein 2020).

6 For a more comprehensive review of the various theories raised by scholars who dealt with the site, see Fantalkin 2001: 3–8, 137–146, with references therein.

The Shell Floors at the Site

The interest generated by the epigraphic and ceramic finds from the site, together with the various interpretations of the possible role it played during the late 7th century BCE, diverted, to some extent, attention from the study of its architectural characteristics. One such example is that of a particularly intriguing architectural feature: a section of a shell pavement, that has received little attention since its discovery more than 60 years ago. The pavement was discovered during the second season of excavation at the site, in a courtyard located southeast of the guard room integrated into the gate's tower (Area A, Fig. 3). Naveh designated the courtyard as Locus 17 (6.25 × 4 m) but states that he was unable to identify a clear leveled floor. In the initial excavation report he briefly describes the courtyard as “partly paved with shells” and further notes that in general the locus slopes from east to west (Naveh 1962a: 94). There is some contradiction in Naveh's report, since he refers to the shells in Locus 17 as a “pavement” and at the same time notes that there is difficulty in identifying the level of the courtyard's floor. The significant differences in height between the eastern and western ends of Locus 17 (0.7 m; Naveh 1962a: Fig. 3, section 3-3) clarifies that part of the courtyard floor was removed in post-depositional erosion processes prior to Naveh's excavation. The location of the shell pavement was not marked on the plan (or the sections) of the gate's complex published by Naveh (1962a: 92, Fig. 3), but it appears on a plan drafted during the excavation, which is preserved in the archives of the Israel Antiquities Authority (IAA). In one of the photos in the IAA's Photograph Archive, a section from this pavement can be seen adjacent to the courtyard's eastern wall;⁷ a second photo from the archive shows a close-up of a shell pavement (Fig. 4). In the absence of any reference made by Naveh to another (second) shell pavement at the site, Fantalkin inferred that this second photo represents the same pavement

7 We would like to thank Assaf Peretz and Yael Barshak, who helped to locate and scan the negatives from Naveh's excavation.



Fig. 4: Close-up of a shell floor from the gate complex (courtesy of the Photograph Archive of the Israel Antiquities Authority)

mentioned by Naveh and that it was taken at a time when the pavement was still partially covered with mud debris and plaster fragments (Fantalkin 2001: 30, Fig. 13).⁸

During the recent (fourth) season at the site, excavation was carried out in the southern part of the courtyard, as well as in two units located south of it: a room that was defined by Naveh as Locus 16 (2.6 × 3.4 m) and a building defined as Locus 18 (3.4 × 7m) (Naveh 1962a: Fig. 3). Access to Building 18 was gained through Courtyard 17 from the north: the partial remains of two pillars unearthed at the southern side of this courtyard indicate that a portico decorated the façade of Room 16, and probably also that of Building 18 (Naveh 1962a: 95). The entrance to Building 18 itself is aligned with its longitudinal axis and flanked by two piers protruding from the end of its long sides. A flat stone slab placed between the piers served as its threshold. Several *Glycymeris* shells were found embedded into a layer of mudbrick material in front of the building's entrance. Collapses composed of mudbrick material (ca. 1 m thick) were excavated above the entire area of the building revealing two rooms separated by a partition wall (0.55 m wide). The northern room (3.0 × 3.4 m) was found paved with *Glycymeris* shells (Fig. 5). The abraded valves (averaging 16 per decimeter) are embedded into a thin layer of grayish plaster resting on a sandy fill (0.1 m thick). All were placed with their convex side facing upward, thus making them more resistant to damage from surface pressure. Most of the valves are complete and some are perforated at the umbo.

8 This in fact does not necessarily seem to be the case. Two additional plans found in the IAA's archives mark the limits of two rectangular sections that were excavated inside room 16 and building 18 (Fig. 3), where the shell floor was later found during the 2017 excavation (see below). In his preliminary report, Naveh states that he traced the line of the walls defining the area of room 16 and building 18, but that he did not excavate them (Naveh 1962a: 95). These sections were dug only during 1961 (the year is marked on the plans), after the official date for the end of Naveh's second season of excavation at the site (see n. 5). The close-up photo of the shell floor in the archives (Fig. 4) shows the floor within the boundaries of a rectangular section. A similar rectangular section was unearthed inside building 18 during the 2017 excavation (see below). It is therefore highly likely that the close-up photo of the shell floor published by Fantalkin is either part of the same floor that was exposed in Room 18 during the 2017 excavation season or of an additional floor found during 1961 in room 16.

A rectangular section dug into the floor's bedding (0.95 × 0.5 m; 0.6 m deep) was found roughly at its center (and slightly deviating towards the west). It seems that this section was excavated during 1961, as it is marked on a plan dating to that year which is preserved in the IAA's archive (see below, n. 11).

The shell floor approaches the northern, western and southern sides of the room; and on the eastern side it maintains a fixed gap of ca. 0.4 m between its edge and the wall. This gap was found filled in with compressed mudbrick material. A probe excavated at the northeastern corner of the room negated the possibility that the foundation trench of the room's eastern wall "cut" the shell floor; it is therefore more likely that this "gap" represents a badly preserved mudbrick bench built along the eastern side of this room.

Fragments from several pottery vessels dating to the late 7th or early 6th century BCE were found on top of the shell floor. These consist mostly of local ware: predominantly storage vessels, but also cooking pots and an oil lamp, along with a few imported wares, among them "Ionian cups." A complete base of a large vessel (stand) made of coarse clay was also found here.

These vessels (some of which were almost completely restored) found on top of the floor help to establish unequivocally that it was indeed used as the floor level itself and not as the sub-floor (see below).

A few patches from a mudbrick floor were found in the southern room (3.2 × 3.4 m), where a relatively small amount of ceramic find was retrieved. There was no evidence that this room might also have been paved with shells.

Shell-paved Floors and Installations in the Southern Levant during the Bronze and Iron Ages

Shell pavements are a relatively rare occurrence in the archaeological milieu of the southern Levant. In fact, to the best of our knowledge, pavements that were clearly defined by their excavators as floor levels (as opposed to the sub-floor or floor bedding) are known from only two sites—Tell Kazel and



Fig. 5: The shell floor in the northern room of Building 18, looking north

Megiddo. Tell Kazel is situated along the southern coast of Syria in the Akkar Plain (Badre 2006: 66) (Fig. 1). Excavations in Area II, the residential section of the city, brought to light an occupational sequence from the Late Bronze to the Hellenistic period (Chiti and Pedrazzi 2014: 205, with references therein). The main phase of the Late Bronze II (Level 6, 13th century BCE; Chiti and Pedrazzi 2014: 211; Table 1) is dominated by Building II: a large complex consisting of a rectangular hall, bordered on the east and south sides by square rooms. The building's mudbrick walls were coated with plaster, and the surface was entirely encrusted with shells. Its floor is paved with the same type of shells, as attested in several rooms. Within one of the rooms a large biconical krater was installed into the floor (Badre 2006: 80, Fig. 11). The shell decorations on the walls of Building II at Tell Kazel are unique in this period in the Levant. At

Megiddo, a shell pavement was discovered in Room 3091 (Strata VIII–VIIB, Area AA, 13th century BCE), a relatively small room with four entrances located near the palace’s courtyard (Courtyard 2041). The room’s floor was paved with shells set closely together in lime (Loud 1948: 25, Figs. 50, 52). At its center a shallow basalt basin was set, draining into a sump beneath. The shell floor extended into the doorway between Room 3091 and the adjacent courtyard (Courtyard 2041) serving, according to Loud, as the room’s threshold. Loud suggested that this room served as an “ablution chamber” (Loud 1948: 25).

The use of shells for the coating of installations and/or their immediate environs, and possibly as the floor’s bedding (or as an insulation layer?), is known from several additional coastal sites in Israel, dating to the Middle and Late Bronze age and to the Early Iron Age.¹ At Tell el-’Ajjul, two shell-paved installations were assigned by Petrie to the Middle Bronze Age (Petrie 1931: 6).² The first was found at the entrance to Petrie’s Building AF. This installation slopes towards a pit lined with stones (Petrie 1931:6). A second installation found south of building AF was described as an “elaborate shell bench” and was found to have a central drain (Petrie 1931: Pl. XII:6). Petrie initially suggested that the buildings in which the facilities were located were used as shrines (Petrie 1931: 6). In later publications these installations were referred to as “washing stands” and were described as “shell paved, built open to the street and adjoining whitewashed rooms” (Petrie, Mackay and Murray 1952: 30). In Area GG, several shell pavements, which were designated as floors, and additional architectural elements were found, all dating to the LB I: In room GGD, a recess (2.7 × 0.72 m) was found, ornamented with small bivalve shells stuck closely together in white plaster (Petrie, Mackay and Murray 1952, Pl. XXXVIII:21). 0.45 m above the recess was a small niche (76 × 71 cm) plastered with gypsum. Mackay suggested that

1 *Glycymeris* shells were found in the context of mudbrick walls in a few loci in the Early Bronze I age site at Lod. Though the manner in which these were used remains uncertain, one suggestion is that they might constitute part of a foundation deposit (Bar-Yosef Mayer 2005: 46).

2 The duration and chronology of each of “City III–I” and “Palace/Fortress I–V” represent a long debated and yet unsolved problem (Fischer 2003: 263).

the room served as a shrine (Petrie, Mackay and Murray 1952: 28); remains from a shell-paved surface (0.94 × 0.76 cm), which was laid into mudbrick material, was found in unit GGM; in Area GJ a shell floor (?) set in mud plaster was unearthed (Petrie, Mackay and Murray 1952, Pl. XXXIX:27–28).

The sole architectural feature in Phase G/11 at Tel Dor (Late Bronze IIB, 13th century BCE; Gilboa, Sharon and Boaretto 2008: 122) was an isolated installation defined by the excavators as: “enigmatic” (Sharon *et al.* 2009). Constructed late within this phase, the exposed part of this installation had a shell bedding under the floor and consisted of two stone-lined basins: a higher basin with a channel, leading down into the lower basin. Further patches of shell bedding suggested additional basins or platforms. Other than the shell bedding, which the excavators suggest was laid for drainage or insulation purposes, no indication of the installation’s function was discerned (Sharon *et al.* 2009). Excavations of the overlying occupation phase within the “Bastion” at Area D2 revealed several rooms that were dated to the late Iron Age 1 (Gilboa, Sharon and Shalev 2014). One of the rooms had a layer of *Glycymeris* shells, which, according to the excavators, may have been the bedding for a floor (Gilboa, Sharon and Shalev 2014).

Three sunken storage jars were found in Room 1033 in Grid 38 at Ashkelon (Phase 19, dated from the middle to the end of the 12th century BCE) each was cut off above the handles and surrounded at the level of their cut-off rims by a paved basin or curb composed of *Glycymeris* shells (Stager *et al.* 2008: 266). Similar installations were found in Rooms 667 and 910 from Phase 18 (Stager *et al.* 2008: 266: 266, 271, Fig. 15.37) and in Room 519 in Grid 50 (Phase 10, Iron I; Stager *et al.* 2008: 306). The researchers included the shell-paved installations in a list of distinctive features of Phases 20 and 19 that are unknown from earlier or contemporary “Canaanite” sites and reflect Aegean origin or inspiration (Stager *et al.* 2008: 266).³ A shell floor (?) has also been identified (but not

3 An additional shell-paved surface was found at Ashkelon in the final sub-phase of the late Persian period in Room 264 in Grid 57 (Stager *et al.* 2008: 321).

described) in the gate complex of the fortress at Tell Qudadi during Phase IV, which, according to Fantalkin and Tal (2009: 196–201), should be dated between the late 8th century and the first half of the 7th century BCE.

Large assemblages of shells containing mostly *Glycymeris* were also found in inland sites, such as Lachish, Megiddo and Beth Shean. At Lachish (Level VIIa, 13th century BCE) many of the shells were imbedded in a lime floor, and at Tel Batash a few bivalves were found with lime plaster stuck onto them (Bar-Yosef Mayer 2005: 48).

Though their use is attested at Tell el-‘Ajjul as early as the Middle Bronze Age, the first well-documented use of shells as a “floor covering” appears during the 13th century BCE at Tell Kazel and Megiddo. At the same time, shell-paved installations appear at Tel Dor and later, during the 12th century BCE, at Ashkelon too. To the best of our knowledge, well-defined shell floors or paved installations are not reported at additional sites from the southern Levant, until their appearance at Meşad Ḥashavyahu during the 7th century BCE.

Shell Floors in Southern Iberia during the 9th–6th Centuries BCE

Shell floors were found at several sites along the southern shores of the Iberian Peninsula that were dated between the 9th–6th centuries BCE. These were studied by Escacena and Vázquez (2009: 69, Fig. 1). The majority of these sites were identified as Phoenician colonies, or local indigenous settlements that came in contact with the Phoenicians (Escacena and Vázquez 2009: 54–55). Escacena and Vázquez pointed to the “oriental origin” of this phenomenon, which they suggest was introduced into the Iberian Peninsula by the Phoenicians (Escacena and Vázquez 2009: 69–70, 73–79). Following is a brief review of some of the sites in which shell floors were reported (Fig. 2).

El Carambolo is located 3 km to the west of the city of Seville, on a promontory dominating the Guadalquivir River. Various construction phases at the site were dated between the 9th–6th centuries BCE. The exact cultural assignation of

the site is a matter of debate, with some scholars viewing it as an important indigenous settlement and economic center, occupied before the arrival of the Phoenicians, and others arguing that it should be viewed as a major ritual complex dedicated to Baal or Astarte, exhibiting eastern influences, originating from the presence of Phoenicians or contact with the Phoenicians (Neville 2007: 126; Fernández and Rodríguez 2005; 2007).⁴ Shell floors decorated the thresholds and stairs of Building A from Stratum V at the site (late 9th or early 8th century BCE), which constitutes the nucleus of the complex (Fernández and Rodríguez 2005: 116–117, Fig. 4). Similar floors were also found in Strata IV–III (8th century BCE), when the complex expanded considerably (Escacena and Vázquez 2009: 57–60, 70).

The Iron Age site of Castro Marim is located in the Portuguese Algarve, at the mouth of the Guadiana River (Arruda, Texeira de Freitas and Oliveira 2007). A shell floor was unearthed at the entrance to one of the buildings from Phase IV (6th century BCE), which was identified by the excavators as a “ritual building.” Additional finds from the building include: an altar, benches and ostrich eggs (Escacena and Vázquez 2009: 55, 70).

Aljaraque is situated 7 km southwest of the regional capital of Huelva. Poorly preserved remains of a shell floor were found at a courtyard in Stratum I, dated to the 6th century BCE (Escacena and Vázquez 2009: 55–56).

Two excavation sites within the modern city of Huelva unearthed the remains of shell floors dating to the 6th century BCE. Their architectural context remains uncertain (Escacena and Vázquez 2009: 56–57).

Cerro Mariana (Las Cabezas de San Juan) is located 45 km south of the regional capital of Seville, at the periphery of the ancient city of Conobaria. The characteristic dwellings at the site during the 8th century BCE are rounded structures (Beltrán and Escacena 2001). In one of these, a line of shells was

4 The site yielded unique structures and objects, such as altars, shell and stone pavements, small clay baetyli, a unique gold treasure (Perea and Hunt-Ortiz 2009) and a bronze statuette of Astarte sitting down semi-naked, with a dedicational inscription at its base (Rodríguez-Díaz 2014: 493, Neville 2007: 126, Fig. 4)

found at the entrance. This type of structures is considered typical to the local (“Tartessian”) population, and it is therefore the only example where shell floors decorating the entrance were attributed to the local indigenous population and not to the Phoenicians (Escacena and Vázquez 2009: 58, 61).

Excavations in Cister Street in Málaga uncovered evidence of a Phoenician temple dating to the 8th century BCE. Several clay altars were found at the site, as was a shell floor which was found in a room separated by an alley from the main temple building (Escacena and Vázquez 2009: 62).

At Cerro de la Era, located near the Mediterranean Sea next to the city of Benalmádena, a shell floor was found in a building dating to the 7th–6th centuries BCE. Like in Aljaraque, the area in which the floor was found was probably used as a courtyard. The building’s plan and some of the finds discovered there may point to a ritual context. The shell floor from Cerro de la Era is unusual for its use of an uncommon type of shell (*Acanthocardia tuberculata*) (Escacena and Vázquez 2009: 62–63).

Cerro del Villar is situated at the mouth of the Guadalhorce River, ca. 8 km southwest of Málaga. The site was identified as a Phoenician settlement following excavations in 1966–1967, in which two main phases of occupation were dated from the second half of the 7th century down to the 5th to 4th centuries BCE (Neville 2007: 112). Several shell floors were found at the site in buildings dating to the 7th century BCE (Escacena and Vázquez 2009: 64).

Another shell floor was found at the entrance to one of the buildings in Los Castillejos de Alcorrín, a fortified coastal site situated 25 km northeast of Gibraltar, which was occupied between the 9th and the 6th centuries BCE. Shell floors were found at the entrance to Building A. Of special interest is another shell floor from the site which covered a step within the site’s fortifications. Escacena and Vázquez (2009: 64–65) suggested that the floor had a symbolic protective meaning.

El Oral is located near the Mediterranean coast, 16 km south of the city of Elche. Excavations at the site unearthed the remains of a fortified city dated to the 6th century BCE. Shell floors were found at two locations within the site: in

Building 19, at the entrance of one of the rooms, and at the sides of a drainage channel. In one of the rooms in Building IVH, shells were used to decorate a bench and a wall near the entrance (Escacena and Vázquez 2009: 66–67).

In sum, shell floors decorated the thresholds, courtyards and various other architectural elements of buildings located along the southern Iberian Peninsula as early as the late 9th or early 8th century BCE. This phenomenon continued during and throughout the 8th–6th centuries BCE and is attributed, in all but one of the sites (Cerro Mariana), to a direct Phoenician influence. In most of the sites the excavators suggested, on the basis of the architecture and small finds, that the shell floor should be associated with a ritual complex.

Discussion

The brief review above of the phenomenon of shell floors in the southern Levant and southern Iberian Peninsula provides the background for the questions at the center of this paper: How should we interpret the presence of the shell floors from the 7th century BCE in Meşad Ғashavyahu? Do they reflect the continuation of a local tradition, or is their appearance at the site the result of an external cultural influence? Though the answer to these questions does not necessarily require an unequivocal answer, we believe that a number of arguments support the latter possibility.

The significant chronological gap between the appearance of the shell floors and shell-paved installations in the southern Levant during the 13th–12th centuries BCE to their appearance at Meşad Ғashavyahu during the 7th century BCE seems to rule out the hypothesis of a continuous local tradition.⁵ On the other hand, the earliest appearance of this phenomenon in the south of the Iberian Peninsula dates to the late 9th century BCE and is found in several sites contemporary with Meşad Ғashavyahu. It is therefore reasonable, in our

5 There is insufficient data regarding the remains of the shell floor reported from Tell Qudadi (see above).

view, to assume that the appearance of the shell floors in Meşad ̤ashavyahu is indeed a result of some form of cultural interaction with the Iberian Peninsula, or with a population that shared a similar architectural tradition with some of the inhabitants of that region. Moreover, based solely on the review presented above, it is tempting to suggest a scenario of a “back and forth” migration of this phenomenon—from the shores of the southern Levant to the shores of the Iberian Peninsula (during the last quarter of the 9th century BCE) and then back again to the southern Mediterranean coast of the Land of Israel to Meşad ̤ashavyahu. In this respect, the appearance of the shell floors in the Iberian Peninsula is consistent with the accepted date for the establishment of the earliest Phoenician settlements along the coastal strip covering the modern provinces of Cádiz, Málaga, Granada and Almería (Neville 2007: 11; Ruíz-Gálvez 2014: 196–214). In any case, it should be acknowledged that the manner in which this cultural influence came to pass is a separate question requiring additional research.

If we accept that the shell floors found in the above-mentioned sites in the Iberian Peninsula reflect an architectural feature that can be assigned to a Phoenician influence via Phoenician settlements, we may ponder what additional evidence exists for a “Phoenician presence” at Meşad ̤ashavyahu. As mentioned earlier, the subject of the ethnic origin or affiliation of the residents of the site was previously debated (see above). The suggestion that Phoenicians were among the site’s inhabitants was based in part on an ostrakon found in the gate’s tower. It contains two lines, which Naveh suggested reading as “... (Netşba’al... Weighed four (shekels of) silver, 4 after the King’s Weight [these words are represented by the mark צר] as a donation.” The theophoric element Ba’al led Naveh to propose that the person who donated the money was of Phoenician origin (Naveh 1962b: 30–31, Pl. 6A C). In addition to the above-mentioned ostrakon, a few ceramic types from the site are typical of the Phoenician sphere, but these do not appear in significant numbers,⁶ and alongside the local and East Greek pottery,

6 Fantalkin 2001: 54, Type B5, Fig. 23:5;83, Type eg K2, Fig. 30: 3.

do not permit the characterization of the ceramic assemblage from the site as “Phoenician.” In a broader perspective, Waldbaum pointed out the possible role that Phoenicians might have played in the trade and distribution of certain late 7th-century East Greek pottery types that are found in sites in the southern Levant, including Ashkelon and Meşad Hashavyahu,⁷ although she remains unequivocal concerning the question whether it was Phoenician or Greek merchants who ultimately controlled this Levantine trade (Waldbaum 2011: 138–140). Therefore, the “Phoenician presence” at the site—whether related to the actual presence of Phoenicians themselves or to ceramic types that might have originated from trade relations with the Phoenicians—cannot be clearly defined. In this respect we may benefit from recent studies, based on lead isotope analysis aimed at associating silver items found in Iron Age hoards from the southern Levant with their ore sources (Eshel *et al.* 2018; 2019). Lead isotopic ratios of the ‘Ein Hofez silver hoard found near Tel Yoqne’am (on the border of the Jezreel Valley and the Carmel) significantly reflected a mixture of several Iberian lead sources, demonstrating that at least part of the Iberian silver reached the Levant and that this occurred as early as the 9th century BCE (Eshel *et al.* 2019: 4–5). Although this of course does not constitute evidence for direct commercial or cultural connections, it leaves open the possibility for the movement of goods and ideas between these regions. In general, the silver hoards from Tel Miqne-Ekron (Gitin and Golani 2001) and ‘En Gedi (Mazar 1993) were dated to the 7th–6th centuries BCE⁸ and are of considerable importance in relation to the understanding of the East–West Mediterranean trade (Gitin and Golani 2001). Gitin and Golani (2001: 40) suggested that these trade relations are manifest in the mass and wide geographical distribution of silver hoards in the Levant within the short time span of the 7th century BCE, bearing evidence to the growing fiscal needs of an international community and to unparalleled economic growth in the late

7 Contra Fantalkin, who opines that the East Greek pottery at these sites is evidence of Greek Mercenaries (Fantalkin 2001: 139–140).

8 The ‘En Gedi hoard is securely dated to 630–582 BCE (Mazar 1993),

Iron Age. These relations were stimulated, in their view, by the Assyrian military campaigns in the Levant. The westward Phoenician commercial expansion and the establishment of trade routes across the Mediterranean furthered the development of these processes (Gitin and Golani 2001: 40, see references therein).

In conclusion, shell floors are a distinctive architectural phenomenon that has been identified in a limited number of sites in the southern Levant during the 13th–12th centuries BCE. This phenomenon is also well documented at several sites along the southern shores of the Iberian Peninsula, which were dated to the 9th–6th centuries BCE and interpreted as Phoenician settlements. The existence of shell pavements at Meşad Ḥashavyahu during the 7th century BCE constitutes further (albeit limited) evidence of East–West Mediterranean connections during the late Iron Age. This evidence supplements recent research concerned with the trade and movement of silver between these two regions and may also be considered as evidence for a more direct cultural affinity, which led to the adoption of this unique architectural feature.

The shell pavements that were previously discovered in the southern Levant and the Iberian Peninsula were interpreted, in most cases, as bearing some form of cultic significance, mostly due to the nature of the architectural remains at the various sites, and in some cases also in light of the small finds at these sites (see above).

The architectural context and function of the complex of rooms located south of the fortress's gate at Meşad Ḥashavyahu is not sufficiently clear at this point, and will be treated within the framework of the final publication of the fourth season of excavation at the site. However, in light of the data presented above, it seems reasonable, in our view, to cautiously suggest that the shell floors that decorated the courtyard and room of this complex had a ritual significance and that, as such that they may reflect another aspect of the nature of the connections between the two regions under discussion.

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