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Probing the Byzantine/Early Islamic Transition in the Negev: The Renewed Shivta Excavations, 2015–2016

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The study presents preliminary results of the renewed excavations at Shivta in the Negev Highlands, Israel. Several trenches were excavated in public buildings, domestic structures, open areas and middens. The goal of the excavations was to fine-tune the history of the site and document changes versus continuity in the Byzantine/Early Islamic transition. Most of the excavated contexts produced material from the Byzantine period (4th–7th centuries CE). Evidence from earlier periods, primarily the Early Roman (1st century CE; ‘Nabataean’) and from the Middle Roman period (2nd–early 3rd centuries CE) is scarce and was encountered only in middens on the outskirts of the site. Several public and domestic structures were abandoned prior to the Early Islamic period; some collapsed as a result of earthquakes after their abandonment. Remains of the Early Islamic period were found only in isolated contexts, indicating that Shivta declined in the Late Byzantine period after having reached its zenith during the 5th–6th centuries CE.

KEYWORDS Shivta, Negev, Byzantine period, Early Islamic period, Archaeology of Abandonment, Byzantine/Early Islamic transition, Nabataean

The ruins of the ancient village of Shivta (Arabic: Subeita)¹ are situated on a low limestone ridge 350 m above sea level on the northern bank of Nahal Zeytan in the

¹ The public and private structures at Shivta, the ground plan of the site and the public reservoirs in the centre of the settlement, give the appearance of an urban site. However, the site is located in an intensively cultivated area with a large variety of agricultural installations in close proximity to and within the site. Shivta is spread across approximately 90 dunams, as compared to the estimated size of the nearby polis, Elusa (Halutza; ca. 390 dunams), which was the district capital of the province in the Byzantine period. The Nessana papyri (7th century CE) refer to Shivta as a ‘village’ (see Kraemer 1958: P. Nessana 75, 226–233; 79, 212–214), forming the basis for identifying the site as such (see Shereshevski 1991: 61–62, 82–85; Hirschfeld 2003; for a different approach, see Segal 1983).

Negev Highlands, in an arid region ca. 40 km southwest of Beer-sheba (Fig. 1a). At the centre of the settlement are two public reservoirs (pools), a church (the South Church) and a mosque. Two additional churches (the Central Church and the North Church) are located farther north. The churches were excavated extensively by the Colt Expedition between 1934 and 1938 (Baly 1935; Crowfoot 1936). Subsequent excavations and surveys documented dozens of densely-packed domestic structures, public buildings and streets, enabling the village plan to be reconstructed in detail; most of the village is still well-preserved (Segal 1983; Negev 1993: 1404–1410; Hirschfeld 2003).

The site is identified with *Σόβατα*, mentioned in the Nessana papyri (5th–7th centuries CE); the documents which refer to this place date to the 7th century CE (see n. 1). The settlement was apparently first established by the Nabataeans in the 1st century CE, prior to the Roman annexation of the region (105/106 CE). Shivta reached its zenith during the Byzantine period (5th–6th centuries CE), and was abandoned following a significant decline during the Early Islamic period (after the 7th century CE; see Rubin 1990; Shereshevski 1991: 61–82; Negev 1993; Tsafir, Di Segni and Green 1994: 234; Magness 2003: 185–187; Avni 2014: 263, 265–267; Ben-Yosef 2016: 163–182; Tepper, Weissbord and Bar-Oz 2015; Tchekhanovets, Tepper and Bar-Oz 2017).

Shivta represents a major achievement in establishing prosperous farming communities in an arid environment.² Even though there are no natural water sources in its immediate vicinity (including aquifers that would allow the digging of wells), the areas surrounding the village were extensively cultivated. The remains of this endeavour include widespread terraces, dams and water channels, cisterns and a dense network of farms with multiple agricultural installations (Kedar 1957; Evenari, Shanan and Tadmor 1989; Segal 1983; Hirschfeld 2003; Tsuk 2003; Baumgarten 2004; Hirschfeld and Tepper 2006; Erikson-Gini 2013; Ramsay *et al.* 2016).

Shivta is the focal point in our ongoing project to explore the forces and processes which enabled a burgeoning urban and agricultural society to flourish during the Byzantine period in the arid region of the Negev, as well as to understand the factors that led to its decline.³

Our excavations focused on characterizing the transition between the Byzantine and the Early Islamic periods. Towards this end, we dug under public buildings (beneath the floors of the South Church and the mosque adjacent to it), and test trenches in domestic structures, public reservoirs, sewage channels, agricultural installations and dumping deposits, including a large midden on the outskirts of the site and deposits in abandoned

² Shivta was listed by UNESCO as a World Heritage Site in 2005.

³ Different hypotheses have been raised to explain the abandonment of the region in general and the site of Shivta in particular. Scholars have debated the impact of the Islamic conquest in the mid-7th century CE (reviewed in Avni 2008: 1–26; see also Avni 2014: 344–348). Other causes, such as natural disasters and pandemics that may have occurred in the 6th–11th centuries CE have also been suggested (Hirschfeld 2006: 19–32; Avni 2014: 325–331).

houses inside the village (Fig. 1b; Table 1). The excavations were intended to clarify the stratigraphy of the site and to date its various archaeological contexts. Botanical and zoological materials were collected to elucidate Shivta's economy during various periods of occupation. Here we outline the main results of our fieldwork, related to the history of the settlement.

We focused on documenting the village's main phases: (1) initial settlement during the 1st–3rd centuries CE; (2) peak during Byzantine times (5th–6th centuries CE); (3) cultural transformation in the Early Islamic period (mid-7th–mid-8th centuries CE); and (4) abandonment soon thereafter.

The areas investigated by us during the two seasons covered here (2015–2016) are located in the central and southern parts of the site. In general, our excavations were carried out on a small scale, with a total of 27 trial probes and trenches opened in 20 distinct areas. We examined domestic structures along with streets, drainage channels, cisterns and middens in and around the residential area, including: Areas A–C and S in the mosque and near the South Church; Areas D–G and I west of the public reservoirs; Area H in the public reservoirs; and Areas J–K and T to its north and northwest; Area L along the street extending from the public reservoirs towards the southwest; Areas M–Q among the heaps of sediment/refuse on the fringes of Shivta and in the opening of a sewage channel on its eastern side. We also examined Area R, on a ridge southwest of the site, where a dovecote (*columbaria*) was situated. The following section presents the findings from the work in Areas A–T.

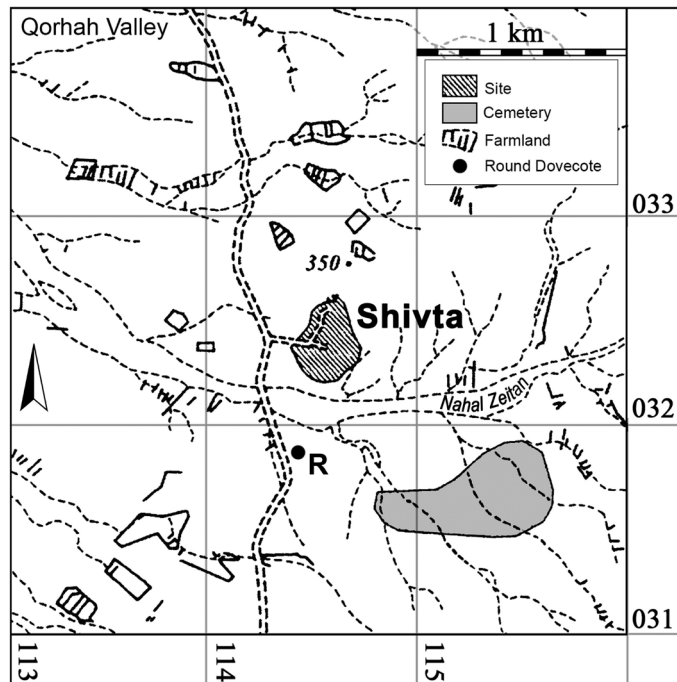


FIGURE 1 (a) Shivta and its environs.



FIGURE 1 (b) Plan of Shvita (based on Hirschfeld 2003), with current excavation areas.

TABLE 1
2015–2016 excavation areas at Shivta

Area	Trench/Probe dimension (in metres)	Description	Neighbouring Area	Figures
A	1.2 × 1.4	Mosque	B, C, H	1b; 2; 3.2
B	B1 2.0 × 2.0 B2 3.0 × 1.0	Blocked alleyway and entrance to domestic complex	A, C	1b
C	5.0 × 5.0	House with sealed door	A, B	1b
D	1.5 × 3.0	House with sealed door	H	1b; 3.4; 4
E	2.0 × 4.5	Midden within abandoned house	I, F	1b; 3.1; 5; 6
F	1.5 × 2.6	Alleyway, entrance to 'Pool House'	G; E	1b; 7
G	1.4 × 2.8	Domestic complex - the 'Pool House'	F	1b; 7; 8
H	H1 6.0 × 7.0 H2 2.0 × 2.0 H3 2.0 × 2.0 H4 6.0 × 6.0	Reservoirs	D, I, A	1b; 3.7; 9
I	2.0 × 4.1	Abandoned house	E, F, H	1b; 3.3; 3.5; 10
J	2.5 × 4.0	House with sealed door	T	1b; 11
K	K1 1.5 × 4.0 K2 1.5 × 3.0	Midden within abandoned house		1b; 12; 13
L	2.0 × 2.0	Drainage channel under street level		1b; 14
M	M1 5.0 × 5.0 M2 5.0 × 5.0	Midden	N, P	1b; 15; 16
N	3.0 × 7.0	Modern midden	M, P	1b;
O	3.0 × 6.0	Midden		1b
P	2.0 × 3.0	Midden	M, N	1b; 3.6; 17; 18
Q	2.0 × 2.0	Drains channel		1b
R	5.0 × 5.0	Dovecote		1a
S	S1 1.5 × 0.5 S2 1.0 × 0.5	South Church		1b
T	1.5 × 0.5	Alleyway, near sealed door of a domestic house	J	1b; 19

Excavation, documentation and sampling methods⁴

All of the finds, including ceramic sherds, glass, shells, bones, metal objects, coins and other small items were collected manually during excavation and the sediments were sifted (see below).

⁴ Daily documentation of the excavations was carried out by Y. Tepper (photography) assisted by A. Asad. Pottery was identified and counted for statistical analysis per basket by T. Erickson-Gini, assisted by A. Levy. Coins were identified and studied by Y. Farhi. Glass analysis was done by Y. Gorin-Rosen and A. Filatova; botany by D. Fuks and E. Weiss; archaeozoology by N. Marom; epigraphy by L. Di Segni. Samples were extracted by Z. Dunseth and R. Shahack-Gross (geoarchaeology investigation), E. Boaretto and Y. Xin (radiocarbon-dating); N. Porat (OSL dating) and D. Langgut (pollen analysis). The authors are grateful to all these colleagues for sharing their tentative and preliminary field observations and for stimulating discussions about the archaeological evidence.

A selection of diagnostic sherds from each of the excavation areas was drawn, some of which appear in this paper. The drawn sherds were analyzed for ware descriptions, using the Munsell colour system. Metal objects and coins were collected using a metal detector. A selection of diagnostic coins are presented in this paper.

Sediments were sifted and floated to achieve maximal retrieval of faunal and floral remains. In order to achieve maximal retrieval with greatest resolution, we collected archaeological material on several levels:

All of the excavated sediments went through dry sifting in 5-mm mesh for hand sorting and 'rough' picking. This procedure took place during excavation and involved separating all artefacts, including pottery, glass fragments, coins, faunal remains (bone, teeth, eggshells, mollusk shells and corals) and large botanical remains consisting of charcoal and other vegetal matter (e.g., seeds and fruit parts) that did not come to the surface during the flotation process but which were found in the sediment during picking. Other artefacts (e.g., fragments of textile, metal objects and beads) were also separated and handed back to the area-recorder to be listed and labeled. Each of the various sorted materials was packed, tagged and kept for further detailed study.

For each layer, two buckets (approximately 20 litres) of sediments were wet-sifted through 1-mm mesh. Subsequently, all the sifted material was sorted in the field and laboratory to collect small archaeozoological and botanical materials, as well as other small artefacts. This allowed maximal retrieval of small animal and plant particles, including small mammal remains (mainly rodents), fish bones (including fish scales) and numerous plant seeds.

Excavation areas and main finds

Area A (Fig. 2)

The mosque at Shivta, which was excavated by the Colt Expedition (not published), was previously dated to the 9th century (Baly 1935: 173), and more recently to the 8th century CE (Avni 2007: 127; Moor 2013: 104). Architectural considerations led researchers to theorize that the mosque stood next to the adjacent South Church (see the *mihrab*, Fig. 2b; for the church, see the discussion of Area S, below). This promoted the idea that believers of different faiths coexisted at Shivta during this late phase of its occupation (Baly 1935: 173; Hirschfeld 2003: 395–396; Moor 2013: 73–76, 109–111; Avni 2014: 265–267). However, our examination of the architectural details of the mosque revealed a sealed entrance to a Byzantine house (Area C; Tepper, Weissbrod and Bar-Oz 2015: Fig. 6) and a blocked street (Area A) along its eastern wall (see Fig. 2c–d). The mosque also exhibits extensive secondary use of spolia, including columns, column bases, arch stones and lintels decorated with crosses and rosettes (Fig. 2e). These items, which were most likely taken from the nearby church or other collapsed structures, tentatively argue for a different scenario and dating the mosque to a later period than the nearby church.

A probe was opened under the pavement of the mosque (Fig. 2a) between the two rows of columns, to a depth of 0.45 m (bedrock). Here, three layers belonging to its foundations were documented. In the upper layer, just beneath the pavement, a Roman period cut silver coin (3rd century CE) was revealed (Fig. 3: 2; Table 2: 2). In addition, a few

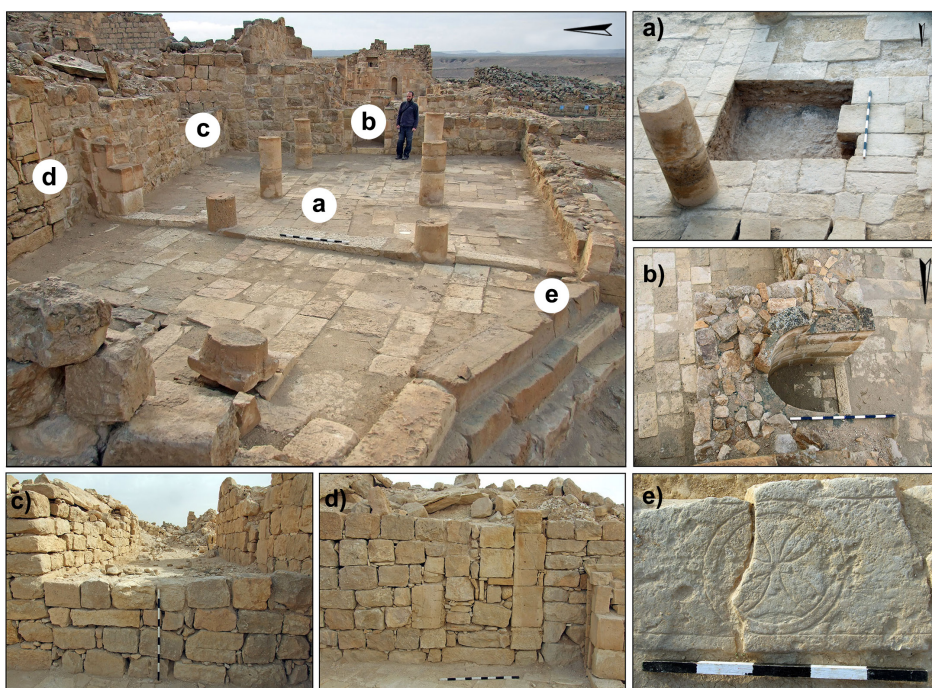


FIGURE 2 Area A, general view of the mosque, looking east. (a) Excavated trench in the mosque floor; (b) the Mihrab; (c) blocked street; (d) blocked entrance; (e) cross inscribed on lintel reused in the mosque steps (except where otherwise indicated, all photos in the article by Yotam Tepper).

pottery sherds dated no later than the Late Byzantine period (6th–mid-7th centuries CE) were uncovered. No diagnostic finds were revealed in the other two layers. Following the excavation the pavement stones were reinstalled and restored.

Area B

Two test trenches were excavated in the street east of the mosque. Starting in the Byzantine period, this area served as a main thoroughfare in the village. Based on relative chronology, the street apparently went out of use and was blocked and thus eliminated by the construction of the eastern wall of the mosque (Area A).

B1

A trench was dug abutting the outer eastern wall of the mosque that blocks the street. On the southeastern side of the street, a layer of collapsed material was documented together with layers of accumulated loess, indicating a stratum of abandonment. All the material found here dates to the Byzantine period (5th–6th centuries CE).

B2

A trench was opened at the entrance of a complex of rooms abutting the South Church from the north. The material in its foundations dates to the Byzantine period (5th–6th centuries CE).

The excavation of Trenches B1 and B2 indicates that the street went out of use during the late Byzantine period, that is, before the 7th century CE, and that the wall of the mosque which blocks the street was constructed at the beginning of the Early Islamic period. The latter wall cancelled the street and the entrance to the complexes abutting it, complexes which were architecturally associated with the South Church.

Area C

A trial trench was excavated in the upper part of a large domestic structure facing the northeastern side of the mosque. The entrance to the structure had been sealed by stone construction. For technical reasons, the excavation of this structure was discontinued. The finds discovered on the surface, where the upper layer of a ceiling collapsed, included stones, fragments of a roof, mud and sediments from the collapsed structure. The scant archaeological finds collected here date to the Byzantine period.

Area D

A trial trench was dug in the corner of a room of a domestic structure, the main entrance to which was blocked using finely dressed masonry stones (see Tepper, Weissbord and Bar-Oz 2015: Fig. 6q). The excavation was conducted from the surface down to bedrock at a depth of 3.1 m. A large number of building stones were documented in the upper layer (1.5 m) of the trench, including elements of an arch and large stone roof slabs. Between these finds, thick layers (10–20 cm) of loess were uncovered, attesting to accumulation after the collapse of the building. Two oil lamps, including one with a molded Greek inscription, dated to the 6th–7th centuries CE, were found on the floor of the room (Fig. 4). The lower part of the trench revealed a foundation layer beneath the floor. The finds in this layer included Byzantine pottery and a coin dated to the late 4th century CE (Fig. 3: 4; Table 2: 4). These findings indicate that the building was constructed in the late 4th–beginning of the 5th century CE. Its final phase, before the main entrance was sealed and the house was abandoned, can safely be dated to the Late Byzantine period, the mid-6th–mid-7th century CE.

Area E

A trial trench was excavated in a midden located in a room of a domestic structure southwest of the northern public reservoir. During the first stage of excavation, a trench was dug from the top of the heap to the floor of the structure, then an adjacent 1.0 × 1.0 m trench was excavated with higher resolution methods. In the third stage, a probe was dug from the floor of the structure until bedrock was reached at a depth of 1.25 m.

The excavation of the midden revealed an accumulation rich in gray ash of a single hue. Findings from this layer included animal bones, animal droppings (particularly goat or sheep dung, Fig. 5.1a), small pieces of textile (Fig. 5.1b), potsherds, glass fragments and rich botanical finds, mainly dates (Fig. 5.1c), olives, barley and wheat.

A number of collapsed stones exclusively from voussoirs (i.e., springers, without the roof beams and/or arches) were found on the floor of the structure, which contained a great deal of compacted light brown soil. On and below the floor, layers containing numerous

animal bones were revealed. Among the species identified were goat/sheep, pig and fish. Other material finds included plant seeds such as grape, olive, wheat and barley.

A Roman coin (3rd century CE), reused as a pendant on a chain (Fig. 3: 1; Table 2: 1), was found under the floor. Ceramic finds from these levels include bowls, jars and cooking-pots, all of which date to the Byzantine period (5th–mid-7th centuries CE; Table 3; Fig. 6: 1–5). In addition, fragments of oil lamps of the 6th–7th centuries CE (Fig. 5.2) were uncovered. On the other hand, a cooking-pot, jars and a casserole from the midden layer were dated to the Umayyad period (mid-7th–mid-8th century CE; Table 3; Fig. 6: 6–10).

The excavation in this area indicates that this space was used for garbage disposal following two phases, the first of abandonment and the latter of a destruction/collapse of the house, both of them occurred after the end of the Byzantine period.



FIGURE 3 Selected coins from Shivta: (1) Roman provincial coin of Herrenius Etruscus (251 CE); (2) Roman imperial coin (3rd century CE); (3–4) Byzantine coins, second half of the 4th century CE; (5–6) Byzantine coins, 5th–6th centuries CE; (7) Byzantine coin of Justin I, 518–527 CE; (8) Byzantine coin of Heraclius, 632–641 CE (photos: Dror Maayan).

TABLE 2
Selected coins from Shivta

No.	Dig. Ref. (area/locus/ basket)	Weight (g)	Diam. (mm)	Axis	Obverse	Reverse	Date CE	Mint	References	Notes
1	E/508/5052	17.26 (including chain)	28	12	[---] Bust r. *, draped, radiate (?)	[COLAELKAPCOMPF] Boar running r; on his back, legionary eagle with <i>vexillum</i> topped by star; in it, letters: LXF.	251	Aelia Capitolina	Meshorer, Bijovsky and Fischer-Bossert 2013: 88, No. 153	Herrenius Etruscus. Coin pierced and attached to bronze chain.
2	A/101/1000/1	0.54	11	-	[---]FI[---] Traces of head (?). Dotted border	[---]CGI (?)[---] Dotted border	3rd cent			Silver Antoninianus. Cut, ca. 1/4 of coin
3	I/909/9064/1	1.27	11.5	12	[---] Bust r. *, pearl-diademed	VOT / X / MVL / XX In wreath; illegible mintmark	378–383			Part of assemblage
4	D/415/4115	0.52	12	12	[---]VSAVG Bust r. *, pearl-diademed	[---] Victory advancing l., dragging captive.	383–392			Partly broken
5	I/909/9064/3	0.22	10–11	-	Illegible	[---] Figure stg. l. (?)	450–550		Bijovsky 2012: 119–122	Cast flan. Part of assemblage
6	P/Surface /8532	0.72	9.5– 10	-	Blank	Blank	450–550		Bijovsky 2012: 128–129	Lead coin
7	H/802/8005	11.62	30	12	[---]STI-NVSPF[---] Bust r. *, laureate	M, to l. star; above: +, below: B; in ex. [---]	518–527		Bellinger 1966: 39, No. 8b	Justin I. <i>Follis</i>
8	Surface	7.99	19–20	3	Three figures (Heraclius, Heraclius Constantine and Heraclonas) stg. ** to front, wearing chlamys and crown with cross and holding gl. cr. *** in r. * hand.	I+B Between them, cross above letter M with line above it. In ex., ΔΔΔEX	632–641	Alexandria	Bijovsky 2012: 392, Grierson 1968: 340, No. 197	Heraclius. <i>Dodecanummia</i>

*r. = right, **stg. = standing, ***gl. cr. = globus cruciger

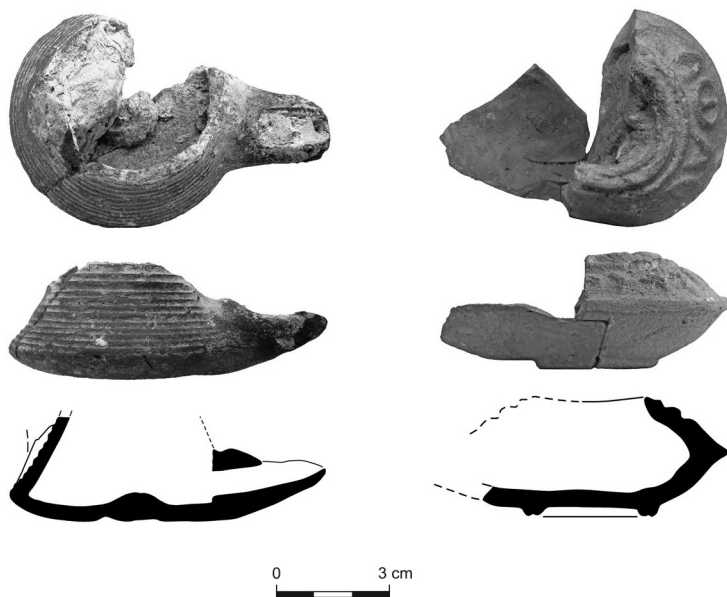


FIGURE 4 Area D, floor of the abandoned house and oil lamps found on it.

Area F

In Area F, another trial trench was excavated in the street next to the entrance of a large domestic structure (also known as the 'Pool House'; Fig. 7; Segal 1983: 51–62). The excavation uncovered a decorated lintel (156 × 36 × 25 cm) that was partially exposed and installed in secondary use as an entrance step. The upper part of the lintel displayed remnants of three rosettes (?), ostensibly eroded as a result of the treading of people passing through the entrance; above the rosettes, in a recessed area protected from physical erosion was an incised Greek inscription, painted red and flanked by crosses. The inscription (read and deciphered by L. Di Segni) mentions the 'Holy Church' (Tepper, Di Segni and Bar-Oz forthcoming), probably originated from the South Church. Alongside the lintel, two more flat stones were found, apparently installed as an additional step above the level of the street. Beneath the lintel-step and the paving stones, a foundation layer containing relatively meagre finds was uncovered. This layer was excavated to bedrock (ca. 0.4 m below the top of the lintel), and was dated to the Late Byzantine period, 6th–mid-7th century CE.

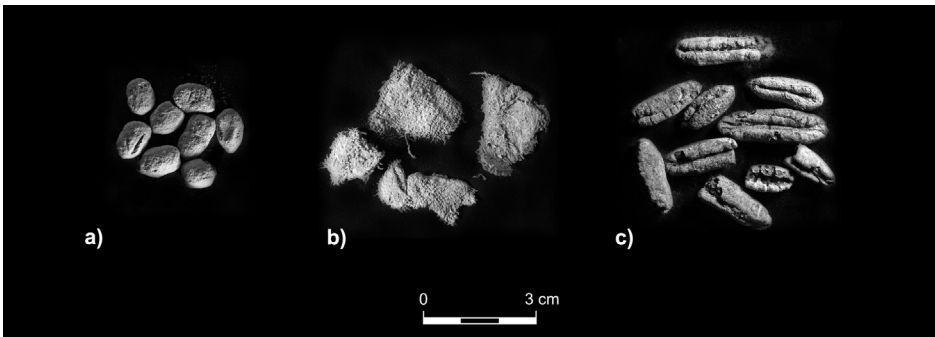


FIGURE 5.1 Findings from the refuse layer in Area E: (a) sheep/goat dung; (b) bits of textile; (c) dates.



FIGURE 5.2 Oil lamp fragment found on floor in house in Area E.

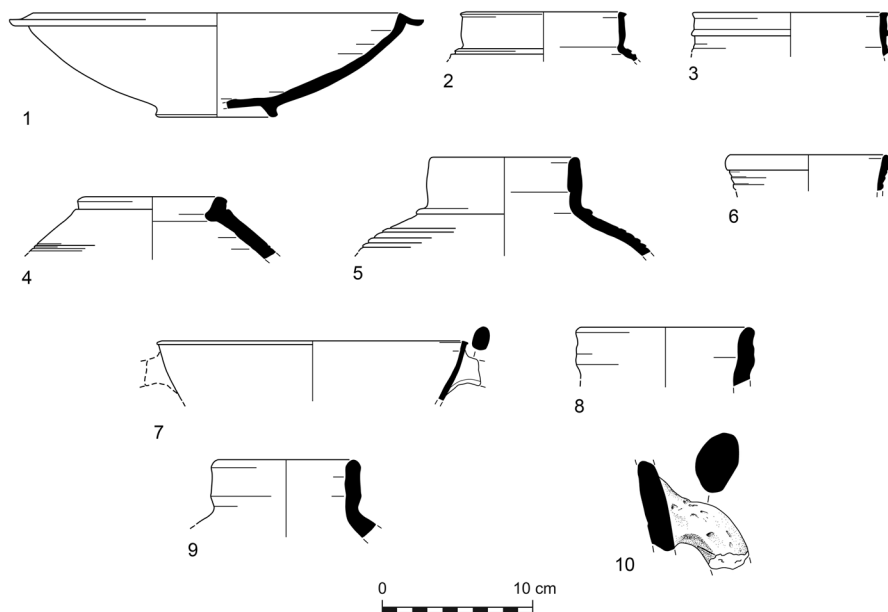


FIGURE 6 Pottery from Area E. Byzantine (450–650 CE): (1) bowl; (2–3) cooking-pots; (4–5) jars; Early Islamic (650–750 CE): (6) cooking-pot; (7) casserole; (8–9) jar; (10) handmade ware handle.

TABLE 3

Selected pottery assemblage from Shivta: Areas E, G, K, M and P

No.	Area	Fig. No.	Vessel	Locus	Basket	Context
1	E	Fig. 6.1	Fine ware bowl	503	5040/1	Byzantine building
2	E	Fig. 6.2	Cooking-pot	514	5086/2	Byzantine building
3	E	Fig. 6.3	Cooking-pot	514	5086/3	Byzantine building
4	E	Fig. 6.4	Gaza wine jar	514	5086/1	Byzantine building
5	E	Fig. 6.5	Bag-shaped jar	511	5083/3	Byzantine building
6	E	Fig. 6.6	Cooking-pot	501	5094/8	Early Islamic midden
7	E	Fig. 6.7	Casserole	501	5094/2	Early Islamic midden
8	E	Fig. 6.8	Bag-shaped jar	501	5094/3	Early Islamic midden
9	E	Fig. 6.9	Bag-shaped jar	505	5034/1	Early Islamic midden
10	E	Fig. 6.10	Handmade ware handle	501	5094	Early Islamic midden
11	G	Fig. 8.1	Flask	700	7000	Surface finds above debris; Early Islamic
12	G	Fig. 8.2	Molded buff-ware jug	706	7011/1	Early Islamic layer
13	K	Fig. 13.1	Imported fine ware bowl	175	1709/1	Below the floor of a Byzantine building
14	K	Fig. 13.2	Deep bowl / basin with wavy decoration	174	1705/1	Below the floor of a Byzantine building
15	K	Fig. 13.3	Basin	173	1693/1	On the floor of a Byzantine building
16	K	Fig. 13.4	Cooking-pot	169	1676/2	On the floor of a Byzantine building

No.	Area	Fig. No.	Vessel	Locus	Basket	Context
17	K	Fig. 13.5	Casserole lid	169	1676/1	On the floor of a Byzantine building
18	K	Fig. 13.6	Casserole	169	1676/1	On the floor of a Byzantine building
19	K	Fig. 13.7	Frying pan handle	173	1693/3	On the floor of a Byzantine building
20	K	Fig. 13.8	Bag-shaped jar	157	1605/1	On the floor of a Byzantine building
21	K	Fig. 13.9	Cooking-pot	153	1555/2	Early Islamic midden
22	K	Fig. 13.10	Cooking-pot	152	1508/1	Surface find above the Early Islamic midden
23	K	Fig. 13.11	Bag-shaped jar	156	1582/3	Early Islamic midden
24	K	Fig. 13.12	Bag-shaped jar	153	1524/8	Early Islamic midden
25	M	Fig. 16.1	Imported fine ware bowl	559	5508/13	Byzantine midden
26	M	Fig. 16.2	Imported fine ware bowl	550	5504/3	Byzantine midden
27	M	Fig. 16.3	Halutza ware bowl	550	5547/5	Byzantine midden
28	M	Fig. 16.4	Bowl with pie-crust rim	556	5552/2	Byzantine midden
29	M	Fig. 16.5	Cooking-pot	550	5504	Byzantine midden
30	M	Fig. 16.6	Casserole	554	5531/1	Byzantine midden
31	M	Fig. 16.7	Vessel with incised decoration	550	5508/11	Byzantine midden
32	M	Fig. 16.8	Gaza wine jar	557	5553	Byzantine midden
33	M	Fig. 16.9	Bag-shaped jar	563	5588/6	Byzantine midden
34	M	Fig. 16.10	Imported jar	550	5547/3	Byzantine midden
35	P	Fig. 18.1	Nabataean painted fine ware bowl	850	8509/2	Roman midden
36	P	Fig. 18.2	Nabataean plain fine ware bowl	850	8501/4	Roman midden
37	P	Fig. 18.3	Nabataean fine ware bowl with carinated rim	850	8505/5	Roman midden
38	P	Fig. 18.4	Eastern Sigillata ware bowl	853	8521/5	Roman midden
39	P	Fig. 18.5	Eastern Sigillata ware bowl	850	8505/6	Roman midden
40	P	Fig. 18.6	Nabataean fine ware small jar	850	8500/4	Roman midden
41	P	Fig. 18.7	Nabataean unguentarium	850	8508/6	Roman midden

Area G

A trial trench was opened in a room in the southern part of the 'Pool House' (Fig. 7; Segal 1983: 51–62, Fig. 5, Room 108). The presence of two troughs in the back wall of the room enabled identifying it as a two-horse stable. The trench was dug beneath the length of the southern trough.

The trench yielded three distinct layers. A mixture of modern finds was documented in the upper level of the probe (ca. 30–40 cm). Beneath it, a ca. 1.0 m of collapse was excavated, followed by a 10–20 cm layer of rich organic material just above bedrock, that was reached at a depth of 1.45 m below the modern surface.

Pottery sherds found in the most recent layers include a flask and a molded buff-ware jug (Table 3; Fig. 8) of the Abbasid period (mid-8th–10th centuries CE). Despite the paucity of finds we suggest that this part of the 'Pool House' continued to be in use during the Early Islamic period (see above, Area F). The lack of typical glazed pottery types might suggest a 9th century date.

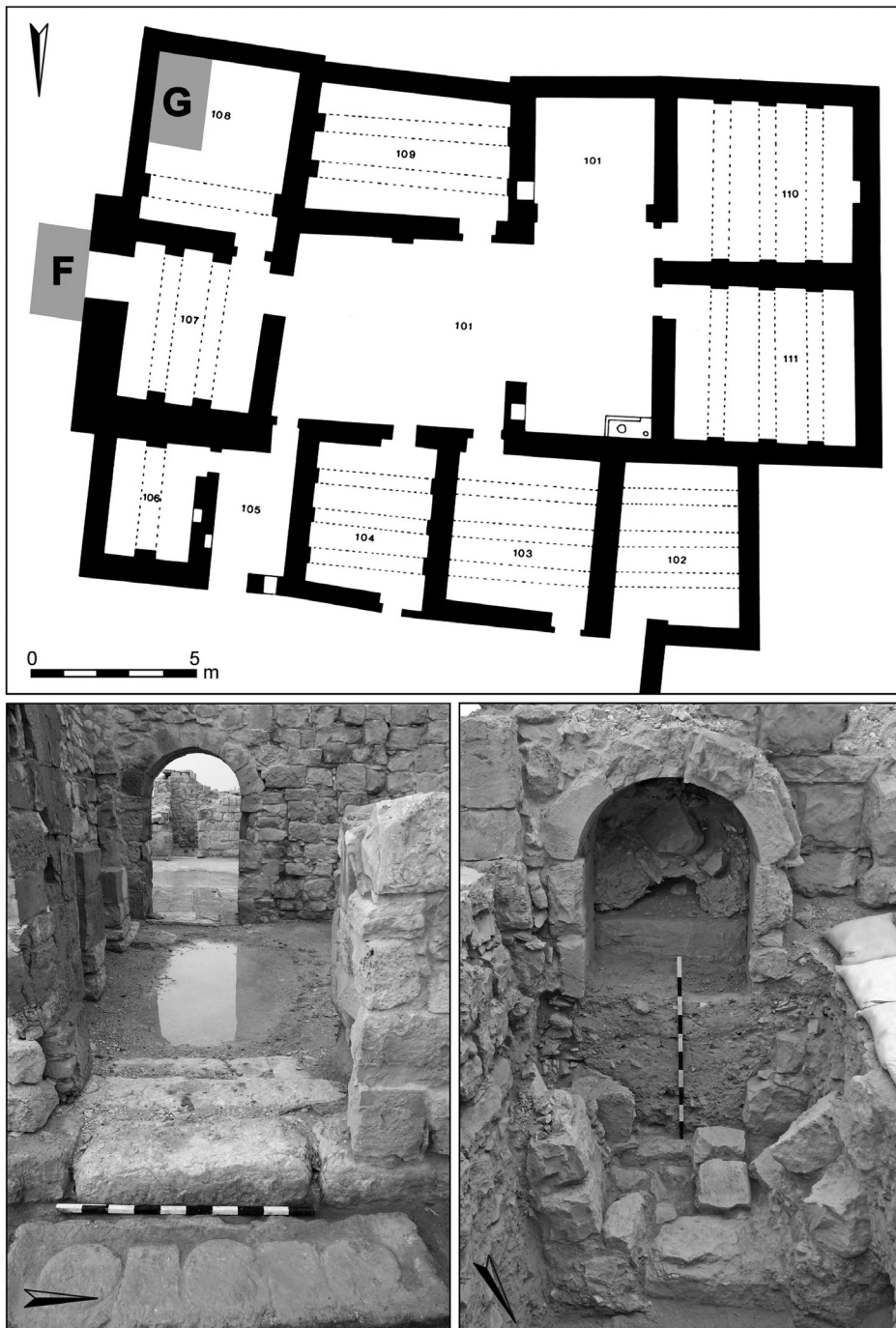


FIGURE 7 The 'Pool House' plan (top, modified from Segal 1983); Area F (bottom left), Christian lintel reused as a step next to the main entrance of the house; Area G (bottom right), excavated northern trough in the stable.

Area H

A trial trench was excavated in each of the two public reservoirs situated in the centre of Shivta (Fig. 9), the northern and southern reservoirs, located next to the South Church and mosque (above, Area B). Tsuk (2003: 22–23) suggests that both reservoirs were filled during the flooding of a drainage basin covering ca. 225 dunams on the northeastern spur of Shivta. The southern reservoir was previously excavated and portions of exposed flooring can still be seen in its northern part, near the staircase. On the other hand, the northern reservoir was filled to the top with silt and sediment. Four trial trenches were excavated here: H1 in the northern reservoir and H2–H4 in the southern reservoir. With the exception of the modern finds uncovered in the upper levels of the northern reservoir, the finds from the probes above and below the floor were dated to the Byzantine period (5th–mid-7th centuries CE).

H1

In the southern corner of the northern reservoir, a 42 sq m area was excavated from the surface to the floor at a depth of ca. 3.0 m. In the upper part of the trench, fills sloping from south to north were opened, revealing mixed modern and Byzantine period finds. These fills probably represent debris from Baly's excavations of the southern reservoir (see Baly 1935: 173). Below, at an elevation of ca. 50 cm above the floor, a series of horizontal, fine-grain silt sediments were uncovered. Stones or pebbles were completely absent, the sediment being solely comprised of thin, light brown laminae of loess (Fig. 9). It is reasonable to assume that these laminae represent the sediments from the last flooding events and should therefore be dated to the latest use of the public reservoir, apparently during the Late Byzantine period.

The floor of the reservoir, which declines northward, is made of gray plaster, resting atop two layers of small stones that were laid out directly on top of the bedrock. The wall of the reservoir is constructed of dressed stones coated with small stones and two layers of light plaster on a gray foundation. On the western side of the trench, 1.6 m above the floor, a single stone was found, protruding like an engaged column from the wall of the reservoir. This may be part of the ceiling that did not survive. Plaster samples were taken from the walls and floor to ascertain their characteristics. Sediment samples were taken from the loess laminae at the bottom of the reservoir for biological and chemical analyses

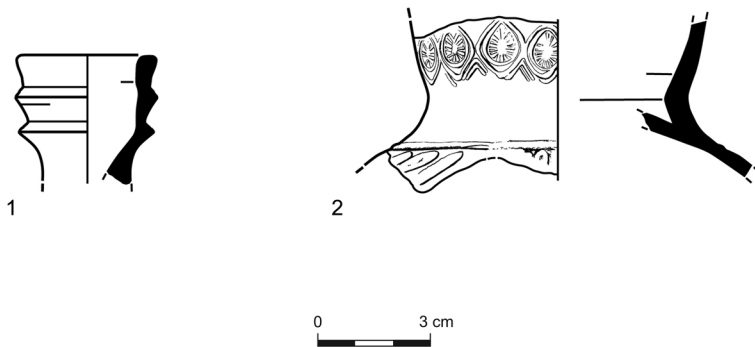


FIGURE 8 Early Islamic (post-750 CE) pottery from Area G: (1) flask; (2) molded buff-ware jug.

to determine the sanitary quality of the water and (based on the composition of algae and diversity of cyanobacteria) to establish whether the reservoir had been covered with a roof.

H2

A trench was dug into the northern corner of the southern reservoir, near a staircase where the floor was exposed (probably by the Colt Expedition). The floor declines slightly to the southwest. On the floor (at a depth of 2.5 m below the top of the wall), a layer of plaster was documented and under it, over bedrock, were two layers of small stones bonded with gray bonding material (Fig. 9).

H3

A trench was dug in the southeastern part of the southern reservoir, near the staircase. The excavation went down to the foundation of the staircase (a depth of 2.15 m below the top of the wall) but was discontinued for technical reasons. The floor was not found in this area; it was apparently destroyed and had eroded away over the years.

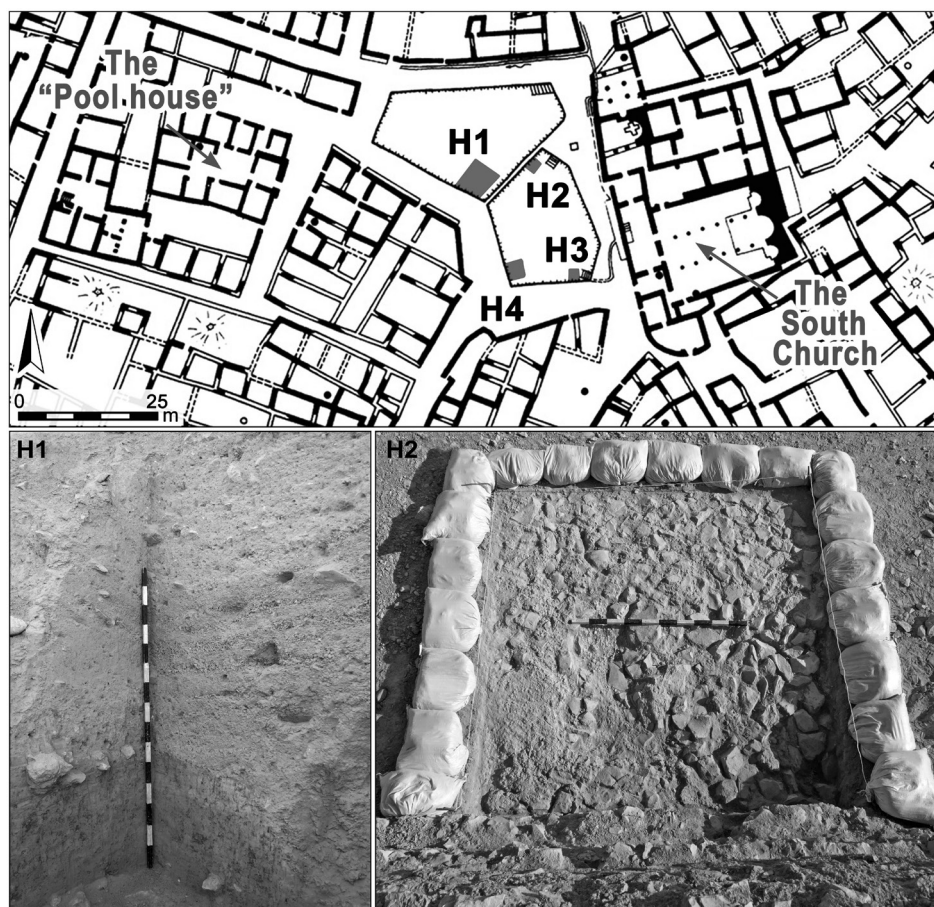


FIGURE 9 Area H, the public reservoirs in the village centre: Area H1: section of the northern reservoir; Area H2: plaster floor of the southern reservoir.

H4

In the southwestern part of the southern reservoir, a 36 sq m area was excavated, exposing oblique layers of sediment. The floor of the reservoir was not detected as far down as 3.5 m under the top of the wall. The excavation was discontinued for technical reasons.

The excavations of the accumulations above the floors of both reservoirs (Areas H1–H4) produced only a handful of pottery sherds of the Byzantine period and a single coin dated to the beginning of the 6th century CE (Fig. 3: 7; Table 2: 7).⁵

Area I (Fig. 10)

A trial trench was opened in a room northeast of Area E. This room was chosen for excavation following an evaluation by Claudio Modena of the University of Padova, Italy, that the house was destroyed in an earthquake (C. Modena, personal communication, February 2016). This conclusion was based on his interpretation of fallen voussoirs in parallel walls, a trapezoidal gap (Fig. 10.1a) breached in the wall perpendicular to them, a heap of collapsed building stones (Fig. 10.1b) and sediment in the centre of the room. According to Modena, all of the above elements constitute evidence for the toppling of the building in an earthquake.

In a trench excavated from the surface of the collapsed building stones down to the floor of the room, we discovered a complete arch (Fig. 10.1c) that had collapsed together with stone roof slabs (Fig. 10.1d). A thick layer of loess accumulation (ca. 1.2 m) was documented between the stones, evidence that the abandonment and collapse were gradual. Another 10–20 cm loess layer was also found above the light gray floor of compacted earth.

No datable finds were discovered on the floor. We believe that this attests to the orderly abandonment of the structure. During the excavation of a probe beneath the floor, down to bedrock at a depth of 1.5–2.0 m, a thick foundation layer (0.5 m) was revealed. This layer was rich with pottery and included objects of metal and coral, oil lamps and several coins, all of which were accumulated during the Byzantine period (Fig. 10.2). The coin assemblage included a single coin of the late 4th century CE (Fig. 3: 3; Table 2: 3), while all the other coins dated no later than the mid-6th century CE (Fig. 3: 5; Table 2: 5). According to the numismatic finds, we suggest dating the foundation layer and the floor above it to the 6th–mid-7th century CE.

⁵ The following observations concern the construction of the reservoirs: the floors inclined slightly from south to north. Our study found that the depth of the northern reservoir is at least 2.9 m and its area is at least 493 sq m. The floor of the southern reservoir is also inclined with an estimated maximum depth similar to that of the northern reservoir, covering an area of at least 354 sq m. From this it can safely be estimated that the combined volume of the two reservoirs is approximately 2,500 cu m. A precise examination of the inner drainage basin of the public reservoirs (inside the site) and the surface runoff channel (outside the site, if indeed such a channel served only the public reservoirs), may reveal whether the reservoirs could have been completely filled during a single episode of flooding. This issue will be explored in greater depth with more precise and advanced methodologies. Following the excavations in Area H, and after samples were collected for geological research, all the trial trenches were refilled using mechanical equipment, returning the area to its previous state.

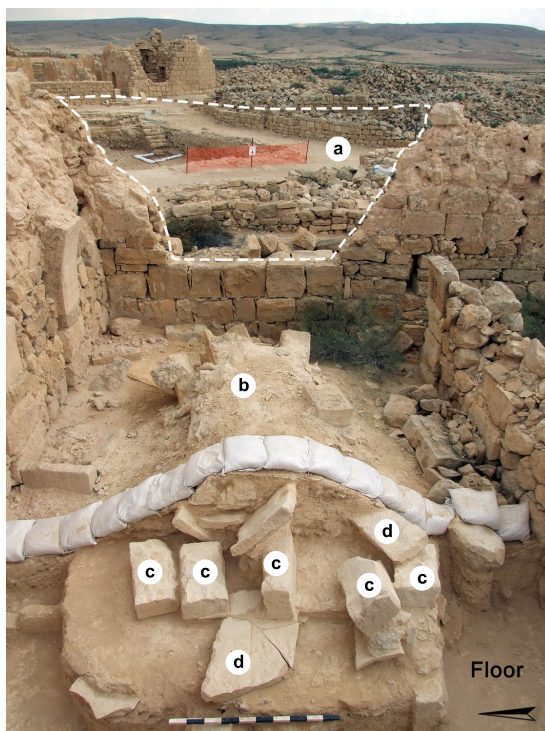


FIGURE 10.1 Area I, the abandoned room: (a) trapezoidal gap in the eastern wall; (b) heap of collapsed building stones in the centre of the room; (c) arch stones in the section; (d) roof slabs.

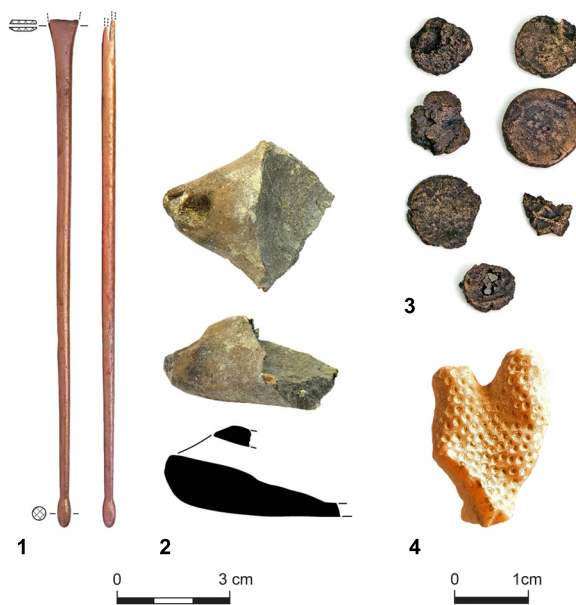


FIGURE 10.2 Area I remains found under the Byzantine floor include: (1) fibula; (2) fragment of an oil lamp; (3) coins; (4) fragment of coral (photos of coins by Dror Maayan).

Area J

A trial trench was excavated in another domestic structure, the doorway of which was blocked by masonry stones. This building is located northwest of the public reservoirs described above (Tepper, Weissbord and Bar-Oz 2015: Fig. 6: 1). While digging the trench from the surface down to the building's floor (2.0–2.5 m), numerous collapsed stones and large roof slabs were revealed, including a collapsed stone arch (Fig. 11a–b). In the northern side of the trench an engaged voussoir (springer) of a fallen arch was found (Fig. 11c). The voussoir survived to a height of four courses above the collapsed stones.

Cracks and signs of mechanical movement of the stones were observed on the voussoir (Fig. 11c: 1–2), providing additional support (similar to that from the building in Area I) that this house too collapsed in an earthquake. Accumulations of loess were found in the upper layers above the floor (Fig. 10d). Finds on the floor included a few potsherds dated to the Byzantine period.

Near the northern side of the trial trench, we found a *tabun* (clay-lined cooking pit) and a layer of ash. Beneath the floor, a compact foundation (0.25–0.30 m) was revealed, extending down to bedrock. The finds from this layer are meagre and date the construction of the building to the Byzantine period.

Area K

Two trial trenches perpendicular to one another were excavated in a midden situated between two adjacent rooms in a domestic structure located in the northern neighbourhood of the site, northeast of the mosque and the South Church (Fig. 12).

K1

A trial trench was dug in the eastern part of the structure, from the surface to below the compacted earth floor. The trench in the midden above the floor was filled with matter of a uniform gray colour, which was rich in botanical finds, including the remains of fruit such as pomegranates (Fig. 12c), almonds, olives and dates (Fuks *et al.* 2016), and a large

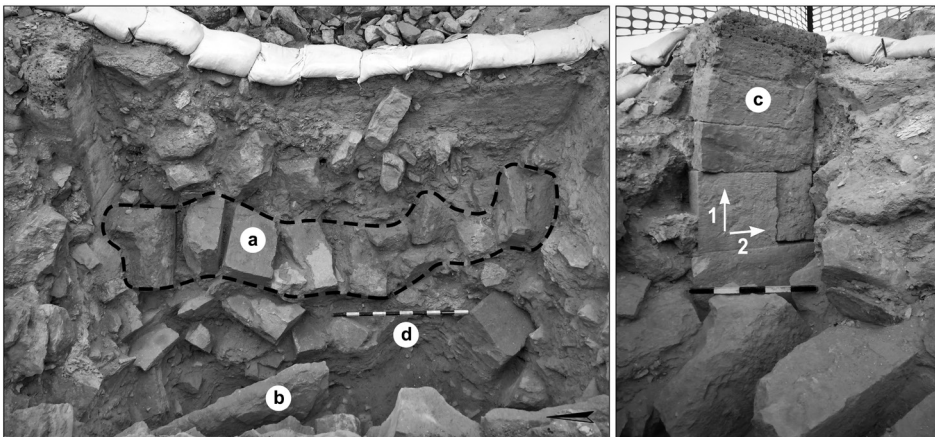


FIGURE 11 Area J, the sealed house: (a) collapsed arch stones; (b) roof slab; (c) cracked and shifted stones in the voussoir (sign with arrows); (d) floor of the house.

number of bones of sheep/goats and fish. Just beneath the refuse and down to the floor, a layer of collapsed building stones and mortar was revealed. In the western wall, between the two rooms, a blocked doorway was documented (Fig. 12a).

K2

A trial trench was excavated in the western part of the midden to a depth of ca. 30 cm. At the top of the heap, near the northwestern part of the trial trench, an installation was excavated (Fig. 12e). It was constructed using potsherds and local stones, which were charred by heat.

This trial trench, which was almost entirely devoid of building stones, revealed rich botanical finds similar to those in Trench K1. On the floor in the corner of the room, an

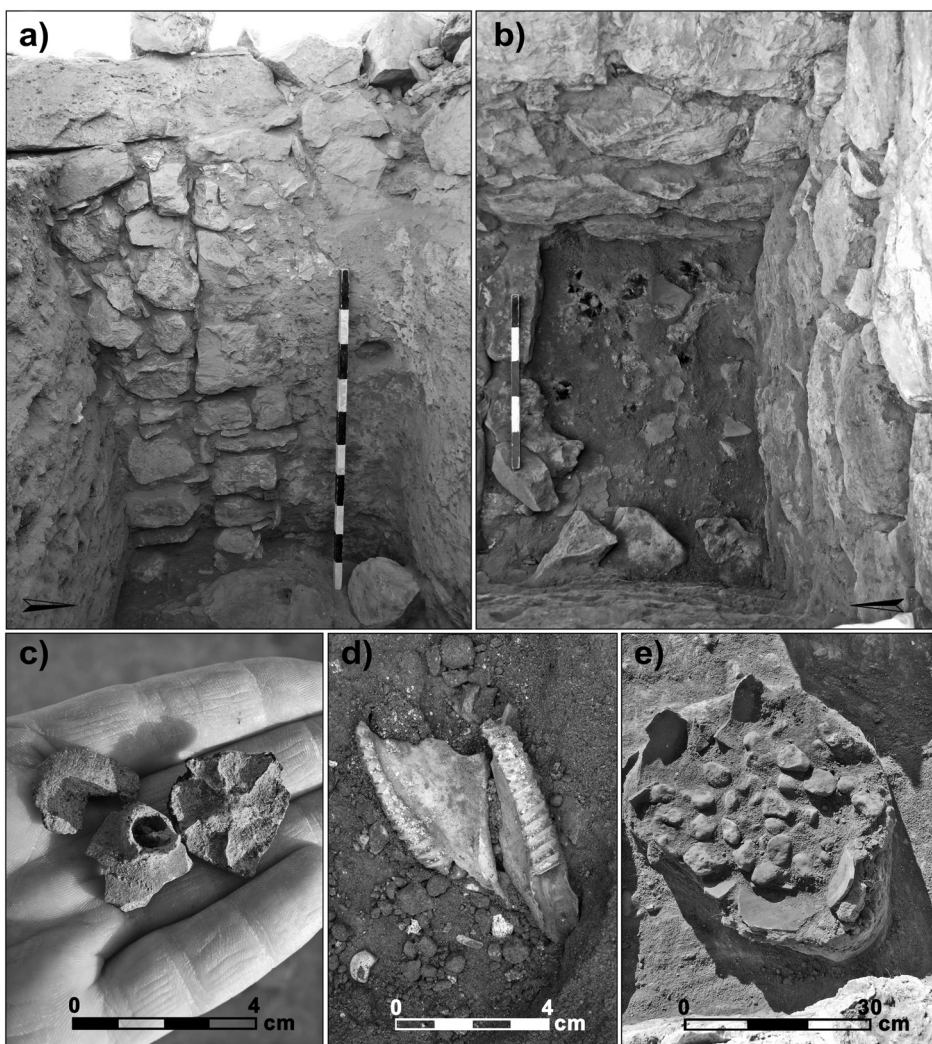


FIGURE 12 Area K, details of two middens in abandonment rooms: (a) eastern section: a blocked entrance; (b) western section: note installation in corner of room; (c) pomegranate remains; (d) parrotfish bones *in situ* on floor; (e) installation for heating stones.

installation constructed of medium-sized stones and mortar was found (Fig. 12b). When uncovered, remnants of charcoal were revealed. The floor of the room yielded various finds, including pottery and rich concentrations of fish bones and scales (Fig. 12d).

Pottery found on the floors of the two rooms (K1 and K2) and in the underlying foundation layer—including parts of a bowl, a basin, a cooking-pot, a casserole, a lid, a frying pan and a jar—were dated to the Late Byzantine period (Table 3; Fig. 13: 1–8). In contrast, the refuse accumulation above the floors included cooking-pots and jars dated to the Umayyad period as late as the mid-8th century CE (Table 3; Fig. 13: 9–12). The doorway, blocked by construction between the two parts of the structure, attests to modifications in the house at some later, undetermined point in time.

Area L

Along a street extending southwest from the southern public reservoir, a trial trench was excavated above a covered drainage channel (Fig. 14). The channel, which leads from a structure south of the street and continues for a few metres along its length, apparently extended as far as the cultivated areas outside the site. Next to the channel, a stone pavement was revealed on a foundation of compacted earth. Excavations beneath the pavement uncovered layers of ash, stones and earth containing pottery from the Early to Middle Byzantine period, no earlier than the 5th century CE. Material discovered in the excavation of the channel included accumulations of bones, fish scales and fragments of eggshells (Fig. 14a–b). We assume that the channel drained the sewage from the courtyard of a nearby domestic structure located to the southeast. A small bronze figurine was found on the surface of the structure south of the street and north of Area L.

Area M

Two large excavation squares (50 sq m each) were opened in a large midden on the outskirts of the site (Fig. 15). In the northern square (M1), only the upper surface was excavated, revealing pottery from the Byzantine and modern periods.

The trial trench in the southern square, on the edge of the midden (M2), was excavated from the surface down to bedrock (2.2 m below the top of the heap). Here oblique fills containing earth, ash, quarry debris, stone-working debris and other construction material were documented. The finds within the layers of ash included domestic refuse that contained animal bones and botanical finds, small pieces of textile, pottery sherds and glass fragments, a plaster stopper, broken coins, stone inlays and architectural fragments (Fig. 15a–e). The other layers, composed in large part of construction debris, included only scant botanical and zoological remains.

The pottery sherds discovered in the midden included bowls, cooking-pots, casseroles and jars dated to the Byzantine period (mid-5th century CE to mid-7th century CE). (Table 3; Fig. 16: 1–10). The layer directly above the base of the heap, over bedrock, revealed Byzantine period pottery and small number of sherds dated to the Roman period, 1st–3rd centuries CE (see area P below).

The stratification and deposition in the midden suggest that it was probably organized as a public landfill facility. The preliminary identification of its layers and components

indicate the possibility that some of the sediment and construction debris originated from the cleaning of streets, reservoirs and cisterns in the village.

Area N

Northeast of Area M, close to the outer limits of the site, an excavation square was opened in another midden. The midden measured 17.0 × 25.0 m, with a height of ca. 1.75 m. The unified appearance of the debris—sediment colour, paucity of archaeological finds and presence of modern finds—revealed this to be a midden created over the last one hundred years or so, almost certainly debris from Colt's excavation. Additional heaps with similar

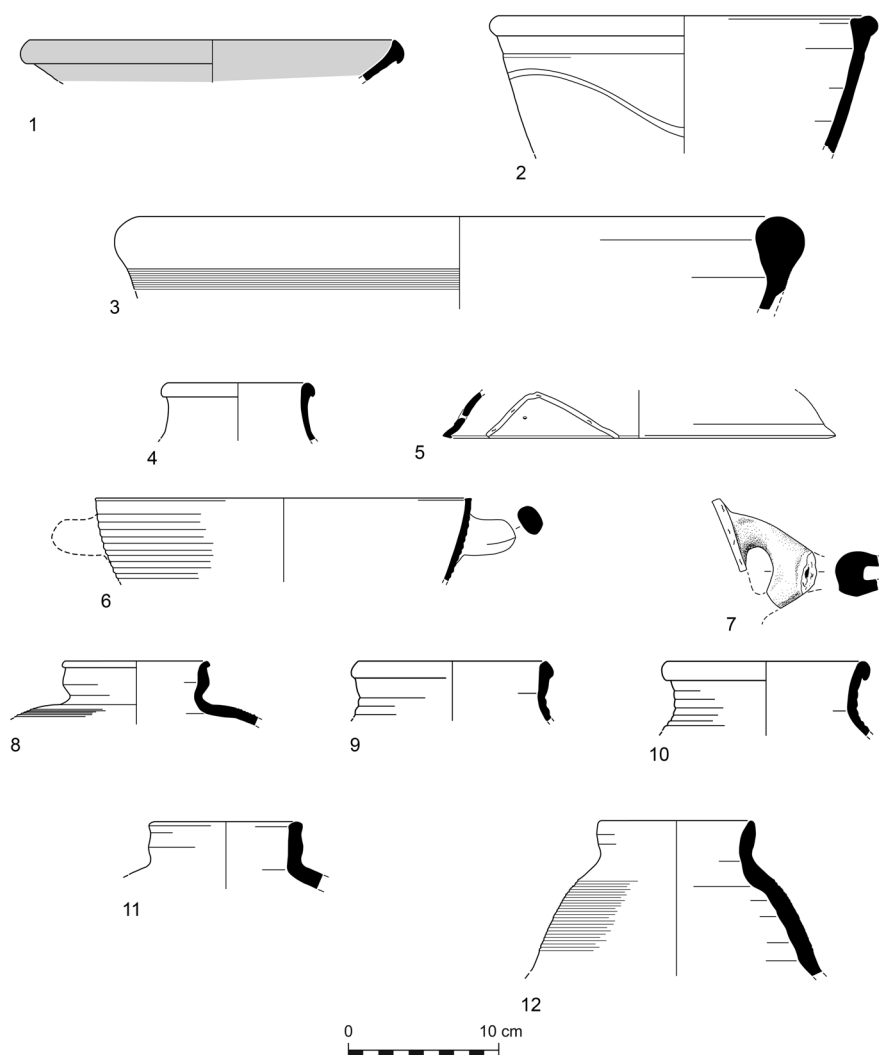


FIGURE 13 Shivta pottery from Area K. Late Byzantine (550–650 CE): (1–2) bowls; (3) basin; (4) cooking-pot; (5) casserole lid; (6) casserole; (7) frying pan handle; (8) jar. Umayyad: (9–10) cooking-pots; (11–12) jars.

characteristics are scattered throughout the site. The excavation of this specific heap provided us with the means to distinguish precisely between modern heaps of debris and ancient ones.

Area O

This trial square was excavated in another large midden on the southeast outskirts of Shivta, near the banks of Nahal Zeytan. It measured 15.0×30.0 m, with a height of 2.75 m. In the west, it consisted of two peaks, a feature that apparently attests to gaps in the accumulation of sediments. The trench was dug from the surface between the two peaks down to the base of the midden. Here, too, the mound revealed mainly layers of construction material and debris, with only thin layers of ash (as in Area M). The scant archaeological finds date the midden to the 6th–mid-7th centuries CE. It is likely that the shape of the heap and the manner in which the debris was discarded attest to greater quantities of sediment having been brought from Shivta over a relatively long time-span toward the end of the Byzantine period.

Area P

The Colt Expedition team dug a trench on the outskirts of Shivta and the finds, published by G.M. Crowfoot (1936), included Nabataean pottery of the Middle Roman period

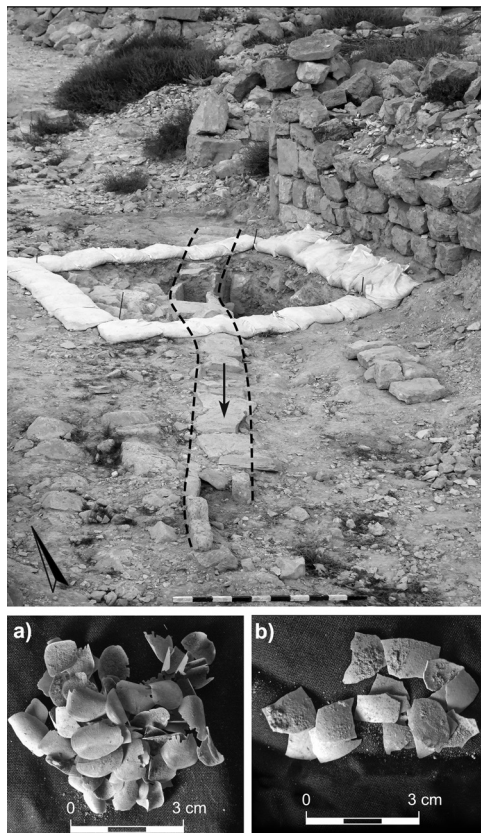


FIGURE 14 Area L, the sewage channel. Finds included: (a) fish scales; (b) eggshells.

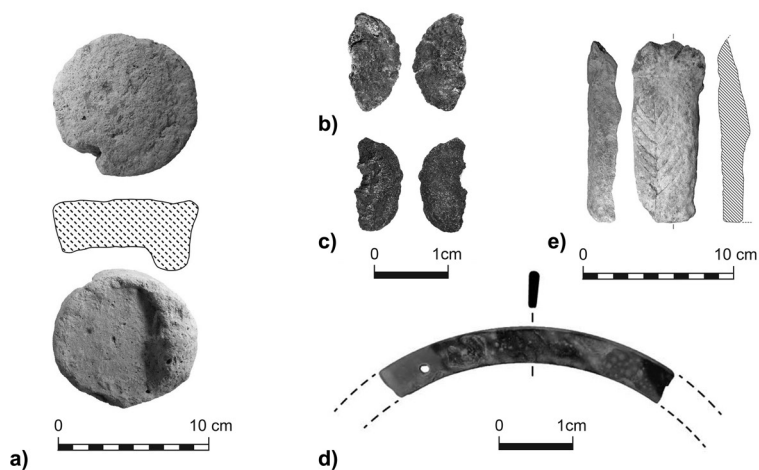


FIGURE 15 Area M, western section of Byzantine midden. Finds include: (a) plaster stopper; (b–c) half coins; (d) stone inlay; (e) stone fragment (photos of coins by Dror Maayan).

(2nd–mid-3rd century CE). At the same location, near Area M (see above), we opened a trial trench in a moderately sloped midden measuring 25.0×30.0 m that had no visibly distinct outline on the surface (Fig. 17). The eastern part of the midden was covered with construction material from the late Byzantine period. The trial trench was excavated from the surface down to bedrock (0.5–0.7 m), exposing grayish-black debris and archaeological finds that included animal bones, botanical remains, fragments of basalt

grinding stones (Fig. 17a) and sherds of pottery vessels. The latter included Nabataean painted fine ware bowls, imported fine wares, jars and a Nabataean Unguentarium (Table 3; Fig. 18: 1–7) dated to the 1st–early 3rd centuries CE (Fig. 17b). A Byzantine lead coin was discovered on the surface (Fig. 3: 6; Table 2: 6). In the past, this heap was probably more prominent on the surface and had eroded over the years due to human activity at the Byzantine period.

Area Q

This trial trench was dug along the exterior wall of Shivta where a built channel drained a nearby domestic structure. The excavation revealed only meagre finds dated to the Byzantine period.

Area R

This excavation was carried out in the eastern (previously unexcavated) part of a dovecote (see Hirschfeld and Tepper 2006: 86–94), situated on a ridge above Nahal Zeytan, a few hundred metres south of Shivta (Fig. 1a). The dig revealed the outer wall of the structure, built of stones on the exterior and mudbrick on the interior. Probes inside the structure unearthed pigeon bones (*Columba livia*). The finds included ceramic pipes and meagre additional pottery items dated to the Byzantine period.

Area S

The South Church of Shivta was excavated by Colt (not published). According to A. Negev, the church was constructed in the mid-4th century CE as a monoapsidal structure. During

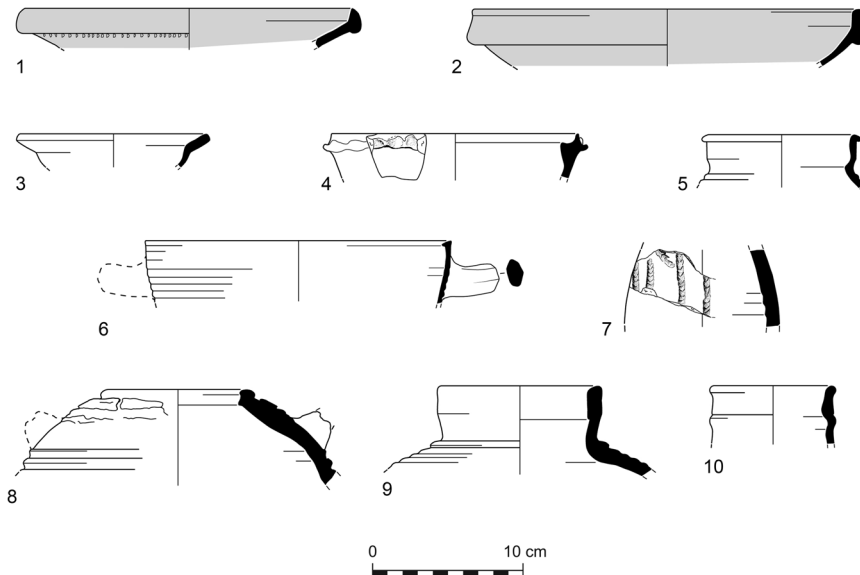


FIGURE 16 Pottery from Area M, Middle and Late Byzantine period (450–650 CE): (1–4) bowls; (5) cooking-pot; (6) casserole; (7) decorated vessel; (8–10) jars.

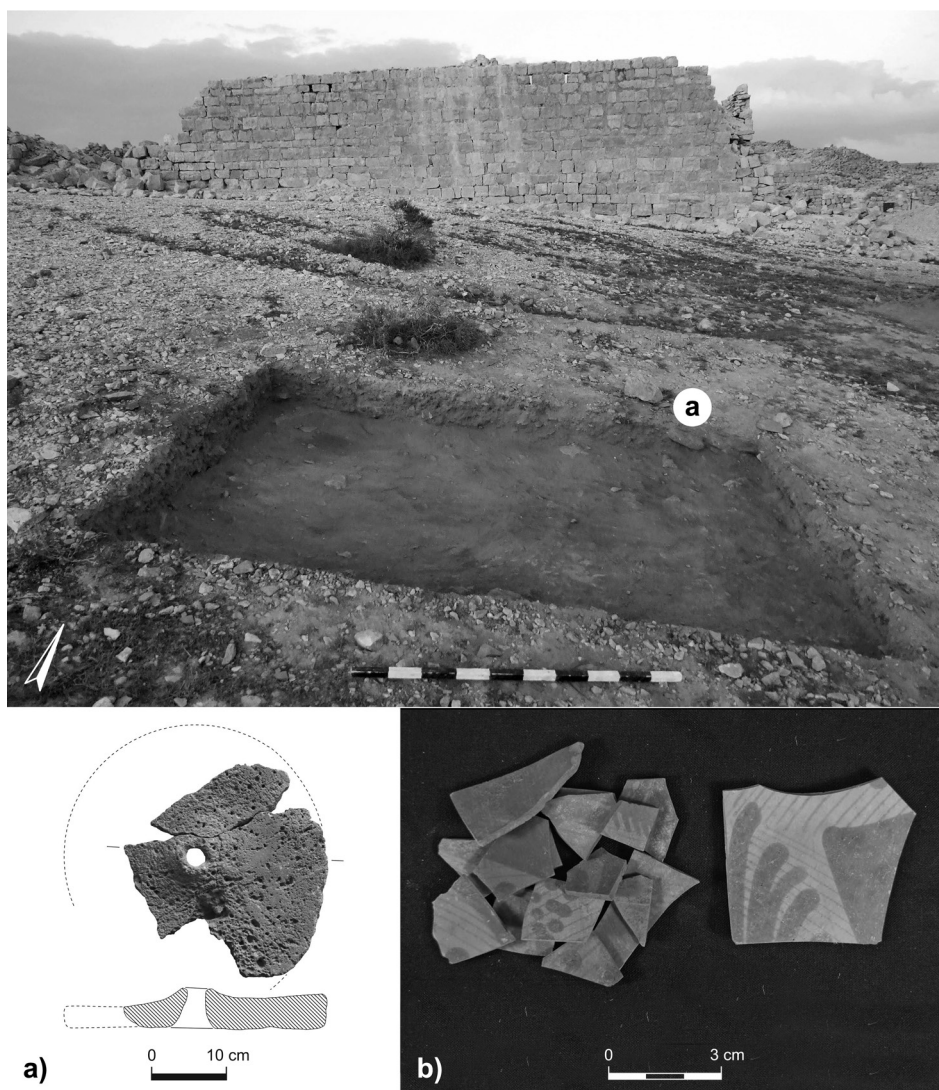


FIGURE 17 Area P, trench excavations in the Nabataean–Roman midden (1st to 3rd centuries CE). Finds included: (a) basalt grinding stones; (b) Nabataean painted fine ware sherds.

the first half of the 5th century CE, a northern wing was added. At the beginning of the 6th century CE, the plan of the church was modified, producing the triapsidal structure seen today. An inscription carved on the floor of the church dates its renovation to 640 CE (Negev 1993: 1406–1407). An Armenian graffito found on the main apse of the church, dates its abandonment not before the 9th century (Tchekhanovets, Tepper and Bar-Oz 2017). Two probes were excavated in the church, one in the southern aisle and one in the nave.

S1

In the probe dug below the pavement of the church's southern aisle, foundation levels were excavated down to the bedrock (ca. 15 cm below the floor) and organic material was

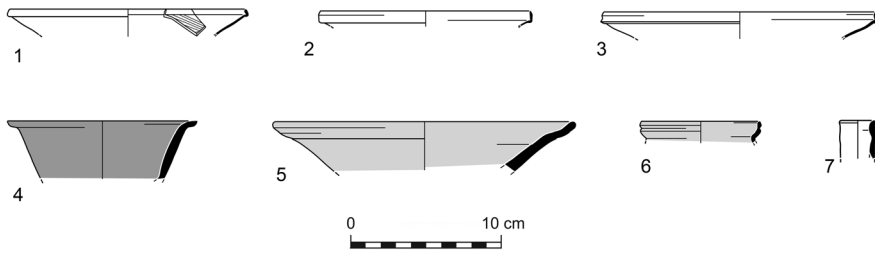


FIGURE 18 Area P, Early and Middle Roman Pottery (1st–3rd century CE): (1) Nabataean painted fine ware bowl; (2–3) Nabataean fine ware bowls; (4–5) Eastern sigillata A bowls; (6) Nabataean small fine ware jar; (7) Nabataean unguentarium.

collected for radiocarbon dating. The scant bits of pottery found in the probe date to the Byzantine period.

S2

This probe was opened in the southwestern part of the main nave. Under a compacted plaster floor, foundation levels were excavated down to bedrock (ca. 15 cm below the floor); here, too, organic material was collected for absolute dating. The scant pottery finds date to the Byzantine period.

Area T

Oblique revetment walls, present in a number of locations at Shivta, particularly around the North Church, were probably constructed to stabilize and support walls that were compromised in the wake of an earthquake. Similar walls were documented in nearby Rehovot (Tsafrir 1988: 77, Ills. 119–121). Such a revetment wall (Figs. 19a: 1, 19b: 1) was also found in the street northwest of the public reservoirs, near the blocked entrance to a domestic structure (Fig. 19a: 2; see also Area J). A trench was opened next to the wall of this structure and the revetment wall (Fig. 19c). Above the layer of the paved street (Fig. 19c: F1) accumulations of loess sediment were revealed abutting the revetment wall, indicating that they postdate its construction. Beneath an occupation layer rich in finds, an additional pavement that abutted the wall was uncovered (Fig. 19c: F2). Below this pavement, another level was unearthed, laid over the bedrock (Fig. 19c: F3). This earliest level predated the revetment wall (Fig. 19, Floors 1–3). The finds from all the layers excavated here date to the Byzantine period.

Discussion

It is commonly held that Shivta was established early in the first millennium CE. The 2015–2016 excavations have confirmed Nabataean presence at the site in the 1st century CE in the midden in Area P. Significantly, no traces of Nabataean presence of this period or the post-Roman annexation period were revealed under or inside of any of the structures excavated in the course of the current project. This observation is also supported by previous excavations at the site (Segal 1983; Shereshevski 1991: 62; Erikson-Gini 2013). This leads us to conclude that today's visible site, characterized by massive construction of public

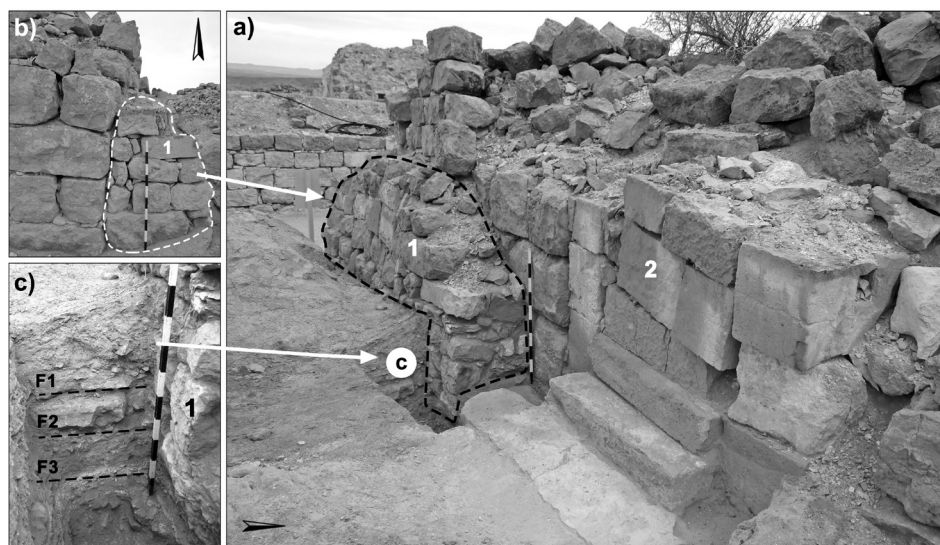


FIGURE 19 (a) Street in Area T that includes: (1) A slanted revetment wall and (2) a blocked entrance to a domestic structure; (b) close-up of the revetment wall; (c) excavated trench near the wall and floor of the street.

monuments and elaborate private houses, can safely be dated to the Byzantine period. The core of Nabataean-Roman Shivta should probably be placed not far from Area P, on the southwestern slope of the site (see Hirschfeld 2003: Fig. 3, Units 91–103; Baumgarten 2004: 65–66). The size of the early site remains unknown at this time.

The site reached its peak activity in the Byzantine period (5th–mid-6th centuries CE), followed by a drastic decline in the Early Islamic period (Segal 1983; Negev 1993; Shereshevski 1991: 61–82; Rubin 1996: 49–60; Hirschfeld 2003; Magness 2003: 185–187; Avni 2014: 262). In a previous study, we proposed that the abandonment of Shivta was a gradual process that began in the 6th century (Tepper, Weissbord and Bar-Oz 2015). The results of our excavations lend further support to this proposition.⁶

All of the excavated probes and trenches yielded material from the Byzantine period. Moreover, all of the domestic structures excavated at the centre of the site, around the public reservoirs (Areas D, E, J, I, and K), were found to date to the Byzantine period, the 5th–mid-7th centuries CE. Some of these structures included entrances that were blocked using dressed or roughly dressed stones (Areas D, J; see *ibid.*). It appears that the Byzantine houses in Shivta remained in use until the Late Byzantine period, and that many had already been abandoned before the Early Islamic period.

The numismatic evidence supports the above findings: more than 100 coins (of which ~90% are datable) were found during our work, including surface finds in and around the

⁶ Such a decline may correlate with some changes in monetary circulation that may have resulted from the waves of plague in the region in the mid-6th century CE (Ariel 2013: 230; Bijovsky 2012: 247–256). Evidence of pandemic waves in the Byzantine period can be found in Greek epitaphs from the Negev (Di Segni 1997: 911–912; Benovitz 2014).

site. Significantly, over 80% of them date to the Byzantine period (ca. 324 CE–632/641 CE.; Fig. 3: 3–8); coins dated earlier than the 4th century comprise less than 5% of the finds; these include two Roman coins: a quarter of a silver coin and a coin that was used as a pendant on a chain (Fig. 3: 1–2). These two coins evince their re-use long after they were issued. Islamic-era coins are even less common, comprising less than 4% of the total number of coins found at the site; all date to the Umayyad period.

Furthermore, we documented only a single domestic structure (the ‘Pool House’ in Area G) which continued to be in use throughout the early Abbasid period. Rubbish dating primarily to the Umayyad period, as late as the mid-8th century CE, appears to have been deposited in middens in two abandoned houses (Areas E, K). The absence of typical glazed pottery types at all excavation areas, in and around the site, can support a 9th century CE date for the final abandonment of Shivta.

A decorated, inscribed lintel found (Area F) outside of the entrance to the ‘Pool House’ (Area G) was installed as a step leading into the house. The lintel originated from a church, possibly the nearby South Church (Area S); it is reasonable to assume that it was removed from the church during the Early Islamic period. A similar use of spolia was observed in the mosque (Area A) next to the Church. The re-use of Christian architectural elements, as found at the mosque and at the ‘Pool House’, indicates the nature of the Byzantine/Early Islamic transition at the site (for further discussion see Tepper, Di Segni and Bar-Oz forthcoming).

Evidence of an earthquake event was discovered in two domestic structures (Areas I and J). The loess layer above and the scant Byzantine remains on the floors of these structures suggest that the earthquake occurred after the buildings were abandoned. This recalls post-Early Islamic collapse in a domestic structure excavated in the western side of Shivta in 2009 (Erickson-Gini 2013: Figs. 7–8).⁷

Yet another dichotomy between the Byzantine and Early Islamic periods at Shivta is the distribution and composition of middens inside and outside the village. Both of the excavated middens in the abandoned houses inside the settlement were dated to the Early Islamic period (mid-7th–mid-8th centuries CE; Areas E, K), while the middens outside of it date to the Byzantine period (5th–mid-7th centuries CE; Areas M, O); a single midden located outside of Shivta was dated to the Roman period (1st–early 3rd centuries CE; Area P).

The two large Byzantine middens outside Shivta (Areas M, O) revealed stratified finds deposited in an orderly manner. This indicates that during the 5th to mid-7th centuries CE, the collection and disposal of the site waste was well-organized, possibly at a municipal level. The location of these middens near agricultural fields may explain why relatively meagre quantities of organic material were uncovered in their excavation. Perhaps the refuse was sorted and the organic matter was used for fertilizing crops in nearby fields. To differ, the middens located in abandoned structures inside Shivta demonstrates that in the Umayyad period, refuse was no longer collected and deposited in an orderly manner outside the village.

⁷ For updated research on archaeological and historical records of earthquakes in the region, see Zohar, Salamon and Rubin 2016.

Renewed scrutiny of the architecture of the South Church and the mosque, including a detailed study of architectural elements in secondary use, does not provide clear evidence for the conventionally accepted hypothesis that the church and mosque at Shivta functioned simultaneously. The mosque was built separately from the church and its construction eliminated entrances to private homes and blocked access to a major street situated along the large ecclesiastical complex at the rear of the church. On the other hand, the baptistry of the church, located across the southern wall of the mosque and its *mihrab*, was not removed. However, we cannot determine if the baptistry, or any other parts of the church, were still in use after the construction of the mosque. On the other hand, the builders of the mosque incorporated Byzantine architectural elements as spolia, some of which may have originated in the South Church, particularly the decorated lintels found in the entrance steps to the mosque. It appears, that this finding may be a testament to the complexity of coexisting at the site, if indeed it took place.

The presence of three large churches indicates that Shivta was a prosperous Christian community. By comparison, the single mosque is significantly smaller than the earlier monuments, pointing to a decline in population at the site. Although the mosque is centrally located adjacent to the South Church and the public reservoirs, the results of our excavation indicate a decrease in occupation in the Early Islamic period, encountered primarily in abandoned and destroyed Byzantine structures.

All in all, the results of the 2015–2016 excavations tentatively support the hypothesis that the decline of Shivta took place at the end of the Byzantine period. This apparently commenced in the second half of the 6th century CE and culminated in the total abandonment of the site before the end of the Abbasid period.

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