REPORT OF THE 2011 SURVEY AND 2012 EXCAVATION SEASONS AT SHIKHIN (FULL VERSION)
by
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[SLIDES 1 – 4] [SLIDE 5] For 500 years the village of Shikhin sat on a low hill at the southwestern end of the Bet Netofa Valley in the “Tuscany of Israel”: the Lower Galilee.

[SLIDE 6] Both it and its neighbor a mere mile to the south—Sepphoris—sat at the juncture of the Megiddo–Sepphoris highway and what would become the Acco/Ptolemais–Tiberias highway. Anyone traveling to Sepphoris from the west would pass by the north and eastern foot of Shikhin before climbing the hill to Sepphoris. Given its situation, and taking into account when the various cities were built, good roads gave Shikhin’s residents unimpeded access to Sepphoris, Acco, Tiberias, Legio, Caesarea, and Scythopolis, not to mention the many other villages that peppered the Lower Galilee.

[SLIDE 7] Findings based on two survey seasons and one excavation season suggest that there was a presence as early as the Iron 1 period. There certainly was a Persian and Early Hellenistic presence on the hill, [SLIDE 8] and the population of Shikhin grew in the Late Hellenistic period. It flourished in the Early Roman period and was probably abandoned by the end of the Byzantine or early in the Early Islamic period.

[SLIDE 9] The site was identified in 1988 by a survey team from the USF Excavations at Sepphoris.¹ The majority of the residents were probably Jewish. Josephus tells us that Ptolemy Lathyrus captured Shikhin, which Josephus called “Asochis,” on a Sabbath (Ant. 13.337; War

¹ Strange, Groh, and Longstaff, Israel Exploration Journal 44 and 45.
1.86) and that Josephus himself bivouacked there for a time (*Life* 207, 384).² For their part, the rabbis remembered the quality of Shikhin’s pottery (*b. Shabbat* 121a), which, like the pottery of Kefar Ḫananya, was made from black clay. They also used a storage jar from Shikhin as a liquid measure (one or two *se’oth*). Apparently, the rabbis mention only Kefar Ḫananya and Shikhin as pottery manufacturing centers in the Roman period. David Adan-Baywitz and his team have been analyzing the pottery of Shikhin and Kefar Ḫananya since the 1980s.

This report will briefly summarize the 2011 survey findings and focus on excavations in two fields in the summer of 2012. Interested people should keep alert for the publication of the 2011 survey season in the IAA’s on-line journal, *Excavations and Surveys*.

[SLIDE 10] A Survey team from Samford University revisited Shikhin and its environs in May and June of 2011. They expanded the survey area to include the southernmost hill of Shikhin, the hill of Mitzpeh Reish Laqish to the southwest, the northern slope of Sepphoris to the south, and the hill Jebel Qat to the east. (Very little of Mitzpeh Reish Laqish and none of Sepphoris was surveyed, except to locate Israeli trig points. In addition to Shikhin, only the western slope of Jebel Qat was surveyed.) The team developed a mapping and recording system in which each hill was designated with an upper-case English letter, followed by an Arabic numeral to designate more than one peak, if more were present. The enumeration proceeded north to south. [SLIDE 11] Hence, Shikhin’s three hilltops are A1 in the north, A2, and A3 in the south. This report will focus on A1, which became the site of our two archaeological fields.

[SLIDE 12] A1 sits at 188 m above sea level and is located 1.39 km north of the ‘Tomb of Jehudah Nasiy’ah’ below St. Ann’s on the northwestern slope of Sepphoris (286 m at the acropolis). The middle hill (204.5 m) lies 0.62 km south and west of the northern hill, and the

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² The acropolis of Sepphoris rose to 286 m above sea level, almost 100 meters higher than Shikhin’s northern hill. Hence, Sepphoris was naturally more defensible.
southern hill (212.4 m) lies a further 0.4 km south of the middle hill. [SLIDE 13] Jebel Qat, which appears on many maps, sits at 196 m above sea level and 0.553 km west of the northern hilltop of Shikhin (note that Map 2 of the *Tabula Imperii Romani* incorrectly identifies Shikhin/Asochis with Tell Bedeiwiyeh/Tel Hannaton).

[SLIDES 14 - 16] Features of archaeological interest are readily visible on Shikhin and other nearby hills. [SLIDE 17] The first thing one notices when climbing A1’s northeastern slope, following the tractor track that leads southwest, is the thousands of sherds that are washing down to the foot of the hill. Indeed, it was this sight that led the USF team to survey the site in 1988. [SLIDE 18] Like Sepphoris, Shikhin has no natural water source. The 2011 survey team located 29 cisterns on A1 and A2 and one on D. [SLIDE 19] The residents of Shikhin also made use of underground chambers, probably for storage. These were also located on A1, A2, and D (not pictured). [SLIDE 20] Often one cistern or two lay within a few meters of an underground chamber. [SLIDE 21] Evidence of olive pressing and possibly grape pressing are found on the same three hills. The close proximity of caves, cisterns, and presses suggest that these installations are associated with one another. Another explanation is that sometimes residents simply took advantage of the soft limestone for three different purposes.

The survey team also found tombs on A2, A3, and Jebel Qat. Motti Aviam will publish a sarcophagus that our team located on Jebel Qat. A survey of the tombs of Shikhin will be published at a later date.

[SLIDE 22] I should like to mention briefly three important features of archaeological interest found in 2011. First, the only clear building foundation we found was on the southeastern slope of A1 (A1.48 on the image). The foundations consisted of medium-sized ashlars (the largest were 75 by 50 by 50 cm). Based on the four corners we located, the building
was an irregular rhomboid (13.5 m on the west, 11.8 m on the north, 14.29 m on the east, c. 8.5 m on the south sides). The ashlar construction at first suggested to the surveyors that a public building of some sort sat here. Upon further consideration, it seems more likely that these are the ruins of an enclosed olive press, or more likely still, of a mausoleum similar to the nearby tomb of Jehudah Nasiy’ah.

Second, whatever it was, the building probably sat just to the west of the road that connected Sepphoris to the Acco-Tiberias highway. [SLIDE 23] The team found two uninscribed milestones, most likely not in situ. [SLIDE 24] At the northern base of the hill, a line of curbstones is visible just south of the present dirt road (A1.49). A portion of a road mirroring this one and passing northeast from Sepphoris to the highway ran just west of Hosha’aya to the east of Jebel Qat. The excavators of that road dated its earlier phase no later than, and the later phase no earlier than, the mid-third century CE (HA-ESI 123 A-5752).

Waypoint A1.69 marks the discovery of large architectural fragments in a field wall that borders the western side of an olive grove planted on the crown of the northern hill. [SLIDES 25, 26] Five column drums (estimated diam. 0.7 m) sat in this wall; two of them are probably column bases and at least one is upside down (the one pictured: estimated diam. 0.9 m). Two pieces of carved molding also came from this wall, along with two fragments of Ionic capital. [SLIDE 27] Several fragments of a thick floor were in a second field wall marking the eastern extent of this grove; some are 8 cm thick and others clearly show two layers. The architectural remains most likely come from a public building that occupied the crown of the hill to the east of A1.69. I will return to these features momentarily.

[SLIDE 28] On the southwestern slope of A1 our team discovered a low wall. It is just visible in the satellite photograph provided. [SLIDE 29] The wall is built of two rows of stones
with a rubble core. Constructed openings in the wall mark clear entrances into the enclosure in
the northwest (width 3.5 m) and southwest (width 3 m), but curiously the enclosure is entirely
open to the east. The wall stands uniformly around 1 m high and runs 47 m east to west, 96 m
north to south, but curving toward the east, and finally 15 m southwest to northeast. The distance
between the northeastern and southeastern ends of the wall is c. 60 m. The space delineated by
the wall (roughly 3 sq km) shows little of the other signs of human activity visible elsewhere on
the hill. Because the wall does not enclose the eastern side of the area, unless a wooden fence
stood here, it is reasonable to assume that it marked a boundary rather than serving to keep
anything in or out of the enclosed space. The constructed openings suggest that loaded carts
exited to the northwest and southwest.

Naturally, our primary question after the survey was where to begin digging. Several
fields suggested themselves: the building on the southeastern slope, the Roman road, the
enclosure wall, one of many underground chambers, and the building with large columns. The
role Shikhin played in the Galilean economy through its pottery production has driven interest in
the village. (When he visited the site, Tsvika Gal confessed to me, “We are saying, ‘Shikhin,
finally!’” Maybe that will be the title of our final report.) Naturally we were anxious to find,
excavate, and publish Shikhin’s kilns, but we did not know where the kilns were.

[SLIDE 30] People have known Shikhin’s old clay pit for many years. The farmers of
Kibbutz Ha-Solelim, who cultivate the fields around the hill, confessed to the 1988 survey team
that they filled it in to ease the passage of their tractors, but its outline is still visible in satellite
photos. It makes sense for pottery production to have happened near the pit, since wet clay is
heavier to transport than fired vessels, and indeed, the 1988 and 2011 survey teams both located
evidence of pottery manufacturing east of the pit. We decided that we would do our best to locate the kilns during the 2012 season.

Accordingly, in 2012 we opened up two fields of excavation: Field I on the uppermost terrace of A1 and Field II on the next terrace to the north and around four meters lower in elevation. We located Field I to catch the building associated with the column fragments. We located Field II using a gradiometer. More on that presently.

I mention here that we do not yet have publication-quality photographs for much of what you will see in the rest of the slide show.

[SLIDES 31, 32, 33, 34] Field I initially consisted of four probes and half-probes laid out over the western terrace wall and extending east. We hypothesized that the terrace wall itself could be built on ancient foundations. That turned out not to be the case. Eventually we opened seven probes and half-probes. I will give an overview of Field V, then present more details where they are warranted and as time permits.

[SLIDE 35] Square 1 sat over two of the most prominent column fragments visible in the terrace wall. They were also the northernmost two. [SLIDE 36] The team excavated a northern half probe to a depth several centimeters below the top of the upside-down column base and learned that it was founded on dirt. The latest pottery found under the column base was a single sherd dating to the late Byzantine period. I am not confident that we know the founding date of the wall.

[SLIDE 37] The team of Square 2 to the east of 1 uncovered quarried bedrock. [SLIDE 38] Some time in the Byzantine period—probably Byz 1—the area in the eastern part of the square had been leveled with rough blocks of stone and earth to form an outdoor courtyard or work surface.
Squares 3, 4, and 5, and 6 and 7 uncovered the remains of a building with plastered floors and walls. The building had several rooms and was probably founded in the third or fourth century CE. The builders made use of an earlier building in the east, the southwestern corner of which was located in square 7, by laying a plaster floor up to its western wall. That square was not completely excavated, so we can only hypothesize that the eastern building dates to the first century. In any case, it is the earliest structure we found in Field I.

In I.3, Wall 3007 was the lowest course of a single row of stones laid over three to five centimeters of soil, to the north of and following a trough cut by quarrying. The trough is a continuation of the cut bedrock in I.2. [SLIDE 41] The wall contained spoils, including one section of a door jamb. The northern edge of the trough and the southern edge of the wall formed the foundation trench, which yielded four Late Roman sherds and one lamp fragment of the “Northern Stamped” type of the 3rd–4th centuries. This is the only foundation trench excavated in the entire field, so it allows us to give a relative and tentative date for every other contiguous feature in the field.

Laid up to and onto the northern face of Wall 3007 were two sections of plaster floor laid over bedrock, which itself contained both circular holes and a single carved square hole, indicating that some sort of apparatus once stood there. [SLIDE 44] The two sections of floor might have been contiguous at one time but are now separated by a section of un-plastered bedrock around a meter wide at its narrowest and a meter thirty at its widest. In the eastern section of the square, we uncovered a second plaster floor above this earlier floor over about 30 cm of cobbles and earth, which placed it at the same height as the top of the single course of stones (the Middle Roman [second the third centuries] date of this floor makes its dating inconclusive). There was a slight upturning at the western edge of this upper floor, which
suggested that it was once made up to stones that formed a wall or bench perpendicular to Wall 3007. This interpretation is helpful because W3007 struck the excavators as too insubstantial to support much structure, and that was incongruent with the rather well-laid plaster floors.

Score marks from plowing are visible on one stone in the northwest corner.

[SLIDE 45] One feature of the bedrock in this square invites the hypothesis that W3007 was not a wall but a low bench just inside and against the north face of a wall that is now completely robbed out. Immediately south of W3007 there is a narrow threshold carved into bedrock, measuring around 66 cm wide, which comes out to 2.2 Roman feet, right at half the width of some of the thresholds in the Field V basilical building at Sepphoris, excavated by the USF team.³ It accommodated a single-leaf door with the hinge in the east and that opened to the north. The wall that it pierced must have been laid along the uppermost portion of the quarried bedrock. The narrow width of the door suggests that it was not a main entrance. One entered the building and stepped onto a narrow bench (W3007). Originally, one then stepped from the bench about 30 cm down to a plaster floor. Later, the bench was incorporated into a higher floor laid over the original floor.

[SLIDE 46] I.4 was quite disturbed and not completely excavated. No foundation trenches were excavated.

[SLIDE 47] One stone of a wall that appears to be the continuation of Wall 3007 extends from the west balk. A floor that appears to be a continuation of the lower plaster floor of I.3 also emerges from the west balk and is made up to the southern face of stones of Wall 4013. Wall 4013, therefore, probably also dates to the Late Roman period. This hypothesis is strengthened by the LR date of the soil excavated north of Wall 13, which probably originally lay under a

³ The southern thresholds of the Field V peristyle at Sepphoris measure 1.20m/4 Roman feet. E-mail correspondence with James F. (“Abuna”) Strange, 7 November 2012.
plaster floor that was made up to the wall’s northern face. The threshold in W4013 appears to be made of two pieces from two different thresholds. Its interior width is 83.14 cm or 2.8 Roman feet, which strikes me as unusual; if it operated as a threshold in W4013, it held a single-leaf door that opened to the south and probably served as an interior door in the building.

The team discovered stones of a large wall in the southeast of the square during cleaning for final photos. The date of the material taken out of SE corner is Late Roman (third to fourth centuries).

[SLIDE 48] I.5 contained an extension of Wall 4013 and the extension of the plaster floor in the northeastern corner of I.4, badly damaged in I.5 as it was in the eastern part of I.4. I.4 had contained some pottery-rich soil, and the excavation of I.5 showed why. The plaster floor in I.5 probably was originally made up to the western face of the upper course of Wall 5004. The gap between the floor and the wall encouraged the excavators to assume they had found a foundation trench, but as they began digging it became clear that they were excavating fill that brought the floor up to its existing level. The team excavated this fill to a depth of over 1.10 m, and it turned out to be one of the most important finds of the season, for it was simply filled with waste from pottery production. More on that below. The date of most of the pottery buckets from this fill, which was excavated in three loci, was Late Roman, with one Byz 1 sherd in the highest soil locus, which is not a sealed locus because of the missing plaster floor.

[SLIDE 49] As noted, Wall 5004 turned out to be the western wall of an earlier building, which we tentatively identify as a house. The team also uncovered the southern wall (5005), so we have the southwestern corner of the building/house. The top course of the southern wall/5005 did not lie directly above the lower courses, and it abutted Wall 5004. The lower courses of the two walls, by contrast, formed a bond joint (viewed from the north, the upper
course of W5005 appears to sit on dirt; viewed from the south, it is clear that it sits on lower courses of the wall). [SLIDE 50] We did not reach a foundation trench for either wall, but we did discover that Wall 5004 was founded on cut bedrock. A large stone with chinkers sat at the western, vertically-cut face of the bedrock, which suggested that it blocked the entrance to an underground chamber. The material from the interior of the house dated to the Late Roman period, and that may date when the putative house went out of use and the building with plaster floors was constructed to its west and south.

[SLIDE 51] I.6 was also greatly disturbed, perhaps by plowing, and certainly by a tree that had been burnt out—probably an olive tree of the grove in which we were digging. The team opened the southern ½ probe and did not completely excavate it. They uncovered the remains of a plaster floor that is probably a continuation of the floors in I.4 and I.5. The floor sat over more than 60 cm of fill. [SLIDE 52] Like I.5, this square yielded much pottery waste, particularly in the NE. Two lamp molds were also recovered, as was one piece of a potter’s wheel, the latter from the fill beneath the floor.

[SLIDE 53, 54] Finally, like I.3 and I.4, I.7 revealed the lowest course of a wall built over bedrock. Wall 7003 does not line up well with Wall 4013, but one stone emerging from the western end of the southern balk is probably the continuation of Wall 4013. Like the walls of Squares 3 and 4, however, Wall 7003 is preserved in one course of a single row of stones founded on a few centimeters of soil over worked bedrock. There is no foundation trench for the wall, and we did not excavate under any of its stones. The date of both soil loci excavated in the square dated to the Late Roman period. That date and the presence of many fragments of floor plaster in the square suggest that this area also contained a plaster floor (remains of plaster emerge from the east balk; this is probably the continuation of the plaster floor in I.6). One
Persian sherd and one silver Persian drachma came from the square, which indicates a presence on top of the hill during the Persian period. A cavity partially obscured by the south balk may be a cistern opening, which indicates that the area was an outdoor space or a courtyard that may have been covered over by the building.

[SLIDE 55] **Summary of Field I:** It is not clear that we uncovered ruins of the large building from which the column fragments in the terrace wall came. Because of the amount of disturbance, due in part to how close to the surface much of the remains lie, we do not yet understand the building’s purpose. In future seasons we will need to remove some balks and continue excavating I.5, as well as open new squares to the north, east, and south.

[SLIDE 56] We designated **Field II** as the result of a gradiometer survey conducted during the dig season. In the interest of time I summarize it here. The hypothesis behind the survey was that the extreme heat of the kiln(s) would allow iron atoms in the soil to align themselves with the Earth’s magnetic field, resulting in a magnetic field in the soil under the kilns higher than the Earth’s magnetic field, particularly if the kilns operated in the same area over the course of many years.\(^4\) We began the survey near the base of the northern slope of A1 and east of the clay pit, in the area in which surveyors found clinkers and burnt stones in 1988 and 2011. We hypothesized that the kilns probably sat a bit further south and up slope from this spot, on the theory that these clinkers had been washing downhill over the intervening centuries. A cistern located a few meters to the south and around six meters higher in elevation strengthened the hypothesis.

The gradiometer, however, detected no higher magnetic field until we reached the terrace immediately north of and one terrace lower than the olive grove of Field I. We noted that this

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\(^4\) A gradiometer allows our team to cancel out the slow fluctuations in magnetic field readings that result from scattered pottery sherds, slight changes in the orientation of the sensor, or—most importantly—the large magnetic field of the Earth (100–1000 times larger than the kiln signal we are trying to detect).
lower terrace was devoid of trees except at its edges and a single, stunted terebinth oak near a bare patch of soil close to the center. Based on the reading and the theory that burning inhibits plant growth, late in the season a probe was opened over the spot at which the highest reading was detected. [SLIDE 57] The team opened a 1 x 2 meter half probe was opened in the south of II.1, and the results were inconclusive. They found no evidence of burning or pottery waste. [SLIDE 58] They did uncover part of a plaster floor similar to the floors found in Field I, as well as a corner of a structure formed by standing plaster. The soil over these installations dated to the Late Roman period with a significant number of Persian sherds (12 total).

We found three fragments of stone vessels, two in Field I (Square 4) and one in Field II. We did not, however, find other elements of the group of artifacts and installations that many consider to be markers of Jewish identity: miqvaot and a very low percentage of pig bones. We found very few bones at all. I suspect that as we begin to uncover industrial and domestic quarters we will find these things.

[SLIDE 59] In I.7 we found what appeared at first to be a sherd inscribed with Hebrew or Aramaic characters, but now we are less sure about that identification.

[SLIDE 60] The coin profile at Shikhin brings up some questions, but one has to bear in mind that any conclusions must be in the form of testable hypotheses. This is because of the few and small excavation fields, the shallow deposition, and the fact that people have mined Shikhin for coins for decades. According to one oral report, robbers have taken simply thousands of coins from the hilltop. This slide shows the types of coins. [SLIDES 61–67] If we compare coins to pottery by date, we get the following profile.

[SLIDE 68] Note that the pottery percentages match well with the findings of the two survey seasons, with the exception that now we have enough Iron Age (Iron II and one Iron I
sherd) and Persian pottery that we have to admit that there is a presence on the hill during the Iron and Persian periods, even if it was a transient presence. We still see a significant increase in the Late Hellenistic period, with a sharp surge in the Early Roman period, and thereafter a decline through the Roman periods and a sharp decline in the Early Byzantine period. The excavation unearthed the first Islamic pottery found at the site, but there were very few pieces, and we found no indication of activity after the Early Islamic period. With the preliminary identification of an Islamic coin (it has not yet been cleaned and identified), we may also now speak of a presence on the hill in Early Islamic period, perhaps also transient.

Note also that the preponderance of pottery (57%) dates to the ER period. Indeed, the Roman periods account for 94% of the pottery collected. By contrast, only three coins date to the Roman periods, whereas ten (57%) coins date to the Late Hellenistic period. If this pattern continues in future seasons, we will need to develop a hypothesis to account for what we see. A question currently being formulated by some Galilean excavators is, do we see some avoidance of or resistance to Sepphoris reflected in the coin profiles at some village sites?5 What does it indicate, for example, that we found Hasmonean and second- to first-century Tyrian coins at Shikhin, and one of the three ER coins is a “Jewish” coin (a coin of Agrippa II), but none is a city coin of Sepphoris? In answering this question it must be noted that the USF Excavations at Sepphoris also found no Sepphoris city coins in its five excavation fields; the Hebrew University apparently has found some.6 Part of our problem is that 11 of our 18 coins came from the dump with the aid of a metal detector used on a single day of the excavation. Accordingly, I propose a testable hypothesis that in future seasons we will find the bulk of our Hasmonean coins in

6 Gmail “chat” conversation with James F. Strange, 31 October 2012.
Roman loci. It should also be pointed out that we had no clean Early Roman loci this season: most dated to the Late Roman period, and most were either fill or erosion layers. In future seasons we will need to locate coins in their contexts to increase the accuracy of our coin profile and to be able to pose answers to this question about economy.

The most important find of the 2012 season was the evidence for pottery production in squares I.4, 5, and 6. Here is why it is important, in this preliminary analysis. [SLIDE 69] First, we now can say with certainty that Shikhin’s residents made pottery. In addition to the pottery production waste, we found part of a potter’s wheel. [SLIDE 70] Second, Shikhin’s potters were producing very many of the known common Galilean forms, including cooking pots.\(^7\) [SLIDES 71–74] We found wasters and clinkers of several different forms, including lamps. I use “wasters” to refer to pots ruined by cracks formed during the drying process, and by bubbles and blow-outs during firing, and “clinkers” to refer to pots that slumped and vitrified in over-heated kilns. [SLIDE 75] We also found fragments of lamps that had not been used before being broken, and parts of lamp molds (the one pictured here is from Sepphoris), [SLIDE 76] and part of the floor of a kiln. We will need to begin cataloging wasters and clinkers in future seasons.

[SLIDE 77] Third, we found a preponderance of storage jars (52% of the saved pottery). This comports with the rabbis’ familiarity with Shikhin’s storage jars as a standard measure, and Findings by Adan-Bayewitz and others that storage jars from Shikhin make up the bulk of storage jars found at some other Galilean sites.

Fourth, the pottery was being produced at a volume that we estimate to be greater than the village residents could use, which suggests that they sold or traded a surplus. We will also need to verify this hypothesis in future seasons. Fourth, it has been suggested that Shikhin was a

major pottery production center in the second century. The preponderance of ER pottery at Shikhin in both surveys and in one excavation season suggests that Shikhin became a pottery producer for the Galilee in the first century.

Fifth, it is reasonable to suggest that one way for Shikhin to distribute its storage jars was to sell things in them, such as wine and oil. Accordingly, in future seasons we will need to investigate the many pressing installations surveyed and attempt to estimate Shikhin’s annual production of wine and oil. A starting point for estimating oil production is to ask the family who tends the old groves on Shikhin how much they can produce in a year.

[SLIDE 78] After a single excavation season, Shikhin is yielding some important information. We are confirming some things already known, but also gaining a view of what the site has in store for us. The excavators are confident that this site will help sharpen our understanding of Galilean village life in the Roman period, the categories of Judaism and Hellenism, and ultimately the world in which earliest Christianity and the Judaism of the Talmuds emerged.