



NEWSLETTER

The Institute of
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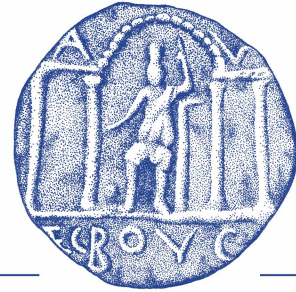


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Khirbat Safra 2023

Andrews University conducted the fifth season of excavations at Khirbat Safra from June 7-26, 2023. The excavations on the site were directed by Paul Z. Gregor of the Institute of Archaeology at Andrews University, with co-director Paul Ray, Constance Gane, Robert Bates, Trisha Broy and Talmage Gerald functioning as Field Supervisors. Yasser Hashem Salem and Dr. Shadi Ali Ibrahim Al-Hraut served as representatives for the Department of Antiquities of Jordan.

Khirbat Safra, as the name suggests, has exposed ruins consisting of a casemate-type wall system, surrounding the perimeter. These fortification walls were built directly on bedrock, and leveled by the original builders, with a red-bricky material with gravel inclusions. The outer casemate wall consists of two rows, up to five surviving courses, where it was completely excavated in Field C. The wall is approximately 90 cm wide and is composed of unworked field stones. The inner casemate wall consists of a single row composed of field stones 40 – 60 cm in width. The space between these walls is subdivided into rear broad rooms by the addition of one and two-rowed walls varying from 0.60-0.80 m wide, some preserved up to six or more courses in height, forming long rooms that extend into the settlement. The rear rooms are usually connected to the rest of the building by doorways.

The site was occupied beginning in Iron Age I and was continuously inhabited into early Iron Age II, after which it was abandoned until the Byzantine period, at which time it was lightly occupied. Excavations, this season, place in all five fields (A, B, C, D and E) on the site.

Field A lies on the western edge of the site, and as in the 2018 and 2022 seasons, it was supervised by Constance Gane. Excavations this season focused on parts of two squares (A3 and A5), which were re-opened and a new square (A7), opened in another segment of the casemate wall.

(cont'd on p. 2)

**INSTITUTE OF ARCHAEOLOGY
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| | |
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The Newsletter is published four times a year by the Institute of Archaeology, Andrews University. Annual subscription price is \$7.50. Museum membership, subscription, and editorial correspondence should be addressed to the Horn Archaeological Museum, Institute of Archaeology, Andrews University, 9047 US 31, Berrien Springs, MI 49104-0990, Telephone 269-471-3273, Fax 269-471-3619, e-mail hornmusm@andrews.edu.

**Volume 44.3
 Summer 2023
 ISSN 1095-2837**



Khirbat Safra Field A.



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Bedrock was reached in Squares A3 and A5.

The excavation of Field A began in 2018, focusing on Squares A1 and part of A3 but left untouched until the 2022 season, at which time part of Square A5 and all of A6 were excavated, with the results confirming that the initial occupation of this part of the site began in Early Iron Age I and continued through the period, being followed by a long period of abandonment, and then reoccupied in the Early Byzantine period.

In 2023 parts of Squares A3 and A5, previously unexcavated, were completed, and provided further evidence of a Byzantine period presence, with a remnant of the early Iron Age I occupation. The earliest phase of occupation dates to early Iron Age I and is located within an area bounded by the inner casemate wall of the broad room, to the west, and the northern and southern walls that formed a long room that extended into the settlement. Here, early Iron Age I pottery was found on top of the sloping bedrock surface.

In the next phase, when this part of the site was reoccupied during the Byzantine period, the new occupants removed earlier Iron Age structures and likewise founded their own on bedrock. Here, little was found besides some Byzantine period pottery on bedrock and inside the pits and cavities within it. Whatever else might have been there, this occupation ended with a large conflagration, which left a thick ashy layer that covered the entire area. This material correlates with the thick (up to 50 cm) ash layer found above the plaster floor in the portion of Square 3, excavated in 2018.

During the subsequent occupational phase, a tabun was built into and above the ash layer, on a foundation created with a few stones and large pieces of pottery. Its opening at the top measures 70 cm. Several large fragments of cooking pots were found in the debris next to the tabun.

The final occupational phase presents an unusual use of space. Presumably to make the area as flat as possible, a thick plaster layer of various thicknesses was

laid down, overlaying the tabun, the ash layer, and the bedrock, with its pits containing earlier material cultural remains. The highest level of the plaster was against the southeastern corner of the southern wall of the room, and sloped to the north, but did not reach the northern wall. At this time, a new room was created by the addition of a wall on the east. A second row of stones was also added on the north side of the Iron Age I southern wall.

Above this layer of plaster, were post-occupational debris consisting of massive boulders and rock tumble, probably the result of additional tectonic activity from one of several earthquakes that occurred during the late Byzantine or early Islamic period.

The casemate room in Square A7 was only partially excavated. Nevertheless, the initial results yielded evidence of two possible plaster surfaces that may correspond to the plaster layers of the final occupational phase in Squares A3 and A5, dating to the Byzantine period. However, further excavation is necessary to confirm such a relationship.

On the southwestern edge of the site, in Field B, supervised by Paul Ray, two new squares (B 9 and 10) were opened and partly excavated, as well as the completion, to bedrock, of another (B8), begun in 2021. In addition, the East Balk of Square 8, between Squares 6 and 8 was removed, to help clarify the relationship between Buildings 1 and 3.

During the first three seasons (2018, 2019, and 2021) two structures (Buildings 1 and 2), built over three bedrock terraces, have been almost completely excavated, both being incorporated into the casemate wall system which functions as the broad rooms of the structures. The remaining parts of these buildings consist of two long rooms, one on the eastern side of the building, functioning as a "courtyard," into which are entrances from the broad room casemates. The second long room, on the western side of the buildings, is further subdivided into smaller spaces. Their entrances to the buildings are on the north side, opposite

the casemate broad rooms. Both buildings thus form traditional three-room house structures

A third building, to the west of the others, was partly excavated in the 2021 season, and continued this year. The outline of this building includes the eastern wall, which is shared with Building 1. The unexcavated western wall can be seen just above the current surface, outside of Squares B8 and 9, to its west, and awaits future excavation. This wall runs on a slightly oblique angle, due it would seem, to the topography of the site, which spreads in a semi-circular direction, to the west, at this point. Hence, this building is somewhat narrower than the other structures excavated in this field so far. Along these lines, the long room courtyard of the building is on the west side, unlike those of Buildings 1 and 2. Its width is not yet known, as it extends into future squares still awaiting excavation. The eastern side of Building 3 is subdivided into two narrow rooms on its northern and southern ends. The central, 1.70 m wide, space is lined by three pillars, with a tabun on its southern end. At the southern end of Square 10 is the inner casemate wall. The northern wall of the building is narrow, 3.84 m wide, and is cut by a 1.20 m entrance on the east end, like that of Building 2, entering the smaller subdivided long room of the building. Bedrock was reached in Square B8.

Field C is located on the northeastern corner of the site and is supervised by Trisha Broy. Here, one new square (C9) was opened this season. Square C7, opened in 2022, was also completely excavated. Bedrock was reached in Square C7, with the early floor exposed and left intact. In Square C9, excavation was completed to the depth of the later floor, leaving it to be removed in a future season.

The excavation in Field C during the previous seasons has focused on portions of four buildings incorporated into the fortification system. These buildings each have a rear room, formed by the casemate fortification walls. The space between the inner and outer fortification walls are

divided by one and two-rowed walls into rear rooms of buildings that extend into the settlement. In the 2023 season, operations in Field C concentrated on exposing the main entrances of Buildings 1 and 2, first opened during the 2018 season, as well as further illuminating the buildings' direct relationship to the adjacent attached structures.

The shared exterior wall of Buildings 1 and 4 runs from the south-east to the north-west. It is a single-rowed wall with four surviving courses. No doorways, openings, or connections between the two buildings were found along the excavated length of this wall. Building 1 is on the north-east face of this wall, while Building 4 utilizes the space to the south-west. Perpendicular to this wall is a two-row north wall that serves as the front wall for Buildings 1 and 4. While excavation this season did not fully elucidate its relationship to Building 4, it did bring greater clarity to the nature of the main entrance to Building 1. This north wall forms a right angle with the shared wall between Buildings 1 and 4 on the south-west side of the entry and the wall that subdivides Building 1 into two long rooms, forming the north-east side of the entry. However, this doorway has yet to be cleared and fully excavated. A small enclosure, perhaps an animal pen, was unearthed on the exterior of the north wall. While it has not yet been fully excavated, it currently appears to have openings on both its south-east and south-west sides, perhaps indicating that it was used by the inhabitants of both buildings.

In Square C7, further work was conducted this season to explore the presumed location and nature of the main entrance into Building 2 as well as the occupational surfaces associated with this entrance. Excavations confirmed that the doorway to Building 2 is formed by a north wall perpendicular to the wall shared between Buildings 2 and 3.

Field D, supervised by Talmadge Gerald, is located on the northernmost edge of the site. In 2023, two partially excavated squares (D9 and D10) were reopened and completely excavated, and

two new squares (D13 and D14) were opened and partially excavated. The goals for the 2023 summer excavation were to reach a better understanding of the gate complex in relationship with the outside approaches to the gate complex, the casemate defenses, and the adjacent town planning.

Two squares (D9 and D10) were located outside gate house to investigate the stone architecture which was visible on the surface. The earth matrix in Field D is extremely shallow with bedrock emerging within 10 cm below the surface in some places. Squares D9 and D10, were excavated to bedrock, revealing two walls which allowed for an eastern access into the site. Square D9 yielded only a small amount of pottery and no occupational surfaces. On the other hand, a surface was discovered in Square D10 just above the bedrock, with flat-lying pottery dating to the Iron Age I.

Two new Squares (D13 and D14) were opened further east; Square D13 along the casemate wall, with Square D14, just south of it. These squares were opened to hopefully reveal additional structures within this part of the site, close to the gate. In Square D13 a northeast-southwest wall ran throughout the square. Two surfaces with Early Iron Age I pottery on them were excavated, together with parts of two storage jars, possibly forming an installation. Bedrock was reached in part of the square. The wall discovered in Square D13, also ran into the northwest corner Square D14. On the eastern end of that square another as yet-unclearly identifiable structure was also located. Bedrock was reached in part of the square.

In Field E, supervised by Robert Bates, one new square (E2) was opened, with work continued work in Square E4 from the previous season. Square E2 is located north of Square E1, west of Square E3 and southwest of Square E4. Two walls were visible on the surface, one running east-west connecting with the same wall in Square E3, and another running north-south possibly connecting to the north-south wall in Square E1. Much

of the southwestern part of the square consisted of medium to large boulders collapse from these walls, which were removed to a depth of 0.5 m. Preliminary pottery results suggest that there may be two phases with an initial Early Iron Age I phase, and a Late Iron Age I phase following a repair to east-west wall.

Excavations in Square E4 continued to explore three Rooms A-C, found in the 2022 season, and were excavated to bedrock. Room A had one additional hard-packed floor, to the five found last season, was supported by a large number of small cobble stones, laid over a hard packed bricky material and filled with soil. Room B had a single hard packed floor, also supported by small cobble stones. In Room C fewer small cobble stones were used to support the floor than in the other rooms, but an Early Iron Age I paxis vessel was found largely intact. A stone quern and a loaf-shaped grinder were also found in the small space. Botanical samples were collected from all three rooms with a preliminary result of cereal plants and some grape seeds. The pottery suggests the three rooms were built during Early Iron Age I.

Robert Bates has continued to make innovations to the digital field database. The system uses FileMaker Pro Software, the and runs on FileMaker Go App, on iPads. This season the Safra team experimented with 3D Lidar photography. The numerous images are combined to create 3D images using Metashape software.

Thanks to a faculty research grant from Andrews University, the Safra team once again collected botanical samples from the excavation fields for archaeobotanists Annette Hansen and Frits Heinrich, who spent two weeks on site dry sieving these materials, making preliminary analyses and ultimately preparing the samples to be sent to their laboratory in the Netherlands for further analysis, the latter with the help of the staff at the *American Center of Oriental Research*. (Paul Gregor, Paul J. Ray, Jr, Robert Bates, Constance Gane, Trisha Broy, and Talmadge Gerald)





RANDOM SURVEY

Nero's Theater Found?

Archaeologists have recently located what they believe is the private theater of Emperor Nero (r. AD 54-68) on the west bank of the Tiber River, in Rome. Marble columns, and walls with traces of stucco and gold-leaf decoration, along with hundreds of artifacts, including a double-faced Janus head have been found. The theatre and its usage is mentioned by Pliny the Elder. This location, away from the affected area, is possibly the *domestica scaena* where Nero watched 70% of the city burn in AD 64, as mentioned by Tacitus.

Egyptian Ostraca Found:

While excavating the city of Athribis, ca. 200 km north of Luxor, Egypt, archaeologists have found around 18,000 ostraca (inscribed potsherds) with lists of names, food purchases and objects of everyday life. About 80 % are inscribed in Demotic, the rest in Greek, Coptic and Arabic scripts. A few are figurative in nature, showing animals, humans, and gods.

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Source of Delphic Oracle Found?

Geologists have recently surveyed two geological faults near the Delphic Oracle, which was established in the 8th century BC and described by the Greek geographer Strabo and the philosopher Plutarch. It would seem that the fissure of gas in the rock upon which the Pythia sat according to the ancient writers, was a fracture extending up at the intersection of the two faults. They also found that there was bituminous (oil-bearing) limestone under the Sanctuary of Apollo, with a petrochemical content up to 20%, explaining the possible source of the gases.

Mosaics Found:

Excavations in the ancient city of Hadrianopolis, Turkey, have recently uncovered more mosaics featuring birds, along the lines of other previously excavated mosaics depicting various animals. The 1st century BC - 8th century AD Roman and Byzantine period site is connected with Asklepios, the god of medicine and healing, also being used for military purposes. At least 14 buildings, including baths, churches, a theater, and a villa have been found so far.

Ancient DNA Extracted:

Researchers have recently extracted the DNA of more than 30 species of plants from the matrix of a cuneiform brick from the palace of the king Ashurnasirpal, of Assyria, lending insight into the natural environment of place and time where the brick was produced.

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