

The Institute of ARCHAEOLOGY Siegfried H. Horn Museum



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INSTITUTE OF ARCHAEOLOGY
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NEWSLETTER

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Khirbat Safra 2021

The third season of excavations at Khirbat Safra was conducted between May 30- July 9, 2021. The excavations on the site were directed by Paul Z. Gregor and Paul Ray of the Institute of Archaeology at Andrews University, with Ray, Robert Bates, and PhD archaeology candidates Trisha Broy and Talmadge Gerald functioning as Field Supervisors. Abdullah al Bawareed and Khaloud Aqrabwei served as representatives for the Department of Antiquities of Jordan.

Khirbat Safra, is a ca. 2.6 acre, triangular-shaped site, located SW of Madaba, overlooking the Dead Sea, with a casemate-type wall system, surrounding the perimeter. Excavations took place in four fields (B-E) this season.

Field B, on the SW side of the site, was supervised by Paul Ray. One new square (B8) was opened this season, and another (B7), partly excavated in 2019, was completed. In addition, some balks were removed; one each in Squares 4 and 6, and two in Square 5. Bedrock was reached in part of the new square.

Excavation in Field B was begun in 2018, focusing on two rooms of the fortification system. At that time, it was discovered that in terms of preparation for the initial occupation in Early Iron Age I, first a two-row outer wall was built directly upon the exposed bedrock, at the edge of the site. Crevices in the bedrock were filled with a hard, red-bricky, material, upon which a one-row inner wall and cross walls were added. In 2019, operations in the field concentrated on tracing parts of two buildings, consisting of long room-structures connected with the broad-room casemates previously excavated. This season, the removal of balks exposed additional architecture in Building 2, and excavation in a third building, to the west of Building 1, was begun.

(cont'd on p. 2)



Khirbat Safra 2021 Excavation Team.

In 2019, Building 1, which continued north from the broad room casemate structure, in Square B1, on the south, was traced throughout Squares B4 and 6, with the main entrance located on the north side of the building. While the western wall of the building, with its postern entrance, possibly to an alleyway, has only been traced for slightly over half of its distance, the entire eastern wall has been excavated. The structure, as a whole, is uneven, being built over three bedrock terraces. The removal of the north balk of Square B4, this season, helped to clarify both the nature of northernmost of these terraces, as well as the first surface above it.

The outline of Building 2 is clearer than its western neighbor. Sharing the eastern wall of Building 1, it continued north from the broad room casemate structure in Square B3. It was traced throughout parts of the five squares (B3-7), excavated during the 2019 and 2021 seasons. The main entrance to the structure, as in Building 1, is on the north side. The building is subdivided on its south-west side by a small room, with an entrance on the east. Further to the north, located on a bedrock shelf, the building is further subdivided by a pillar, and then another long, narrow room, consisting of bonded walls, with entrances on the south, and east, into the middle and main rooms. The eastern wall of the building is excavated for most of its length and can be traced on the surface for the remainder.

As in Building 1, beaten-earth surfaces, were found in the building. The nature of some of these surfaces were clarified this season, with the removal of the north and west balks, this season. A *tabun* was found on one of them. More evidence of a conflation, above the earliest living surface, was found this season, this time in in Square B7. Although limited in area, within a dip in bedrock of the east side of the building, it is possibly connected with the same fire which destroyed other areas (Fields A, C-D) of the settlement.

Part of a third building was excavated this season, to the west of Building 1. The

outline of this building, as excavated so far, includes a wall on the east, which at least on the basis of the work done so far, does not seem to be shared with the western wall of Building 1, and appears to be somewhat wider than the walls of the other two buildings. The western wall of this building can be seen just above the current surface, outside of the square, to its west, and awaits future excavation. The northern wall is cut by its entrance, which unlike those of Buildings 1 and 2, is in the middle, rather than in the corner of the wall. Like Building 2, it is also subdivided by wall, with a single row of courses, running on a slightly oblique angle, due it would seem, to the topography of the site, which is turning in a semi-circle to the west at this point. Hence, the need to deviate from the pattern of Buildings 1 and 2. Along these lines, the building appears to be slightly narrower than the other buildings excavated so far. As in the other buildings, there is a beaten-earth surface, just above bedrock, with red bricky material filling in the bedrock cavities, between. This building, like the two others, was ultimately destroyed in the Early Iron Age II earthquake, with considerable rock tumble from the walls, in evidence. Preliminarily, it appears that Building 3, like Building 2, is a three-room house (one broad room and two long rooms).

In Field C, on the northeastern corner of the site, supervised by Trisha Broy, two new squares (C3, C4) were opened this season. Additionally, in another square (C2), completely excavated in 2018, the east balk was removed. Bedrock was reached in both of the new squares.

In 2018, excavation in Field C focused on two buildings incorporated into the fortification system. These buildings each have a rear broad room, formed by the casemate fortification walls. The outer wall of the casemate was built directly on bedrock, which had been leveled by the original builders, with a red-bricky material. In Field C this wall is a two-row wall with five surviving courses. The inner fortification wall is a single row wall, also built directly on prepared

bedrock. Single-row walls divide the space between the inner and outer fortification walls into long rooms of buildings that extend into the settlement. These rooms are connected to the broad rooms with a doorway.

This season, operations in Field C concentrated on exposing parts of both the long and broad rooms of Building 2, as well as their relationship to the adjacent structures. The outer casemate wall runs northeast/southwest. Connecting with it, on the north-east and running toward the north-west is the eastern wall of the building, with an excavated length of at approximately 10.7 m. Perpendicular to this wall, on its northwest side, is a 1.15 m doorway, which may form part of the north perimeter of Building 2. Finally, the west wall, which is just under 10 m in length, is shared with Building 1.

Building 2 is subdivided into several main areas or rooms, one of which is further subdivided to create two rooms in a second phase. In the south-east portion of the building, the interior casemate wall creates the rear, or broad room of the building, which is generally rectangular in shape, though the walls are slightly concave to accommodate the curving edge of the site. There is an 80 cm doorway on the north-west end of the room, leading into a long room, that was likely an unroofed courtyard. A *tabun* and cooking area, found along the south-western wall of this area, supports this hypothesis.

Three walls and two fieldstone pillars delineate another space from the surrounding areas of the building. This room was excavated during the 2018 season. Those excavations revealed a room flanked on the north-east by a wall and two pillars. During the second occupational phase, this room was sub-divided by a wall, and the space between the two pillars was blocked to form another wall.

Two use layers were discovered, one dating to the Iron Age 1 and the later to the early Iron Age 2. The first occupation layer consists of bedrock with leveling fill to create an even surface. This floor is consistently covered with a thick ash layer that is sealed under the second occu-

pation floor. The ash layer is rich with food preparation tools. A barrel bead, two stone game pieces, and a stone signet ring were also found. Portions of the second occupational surface may have been paved. Above this surface, wall tumble and fill continue to indicate a destruction of the building by an earthquake.

To the northeast of Building 2 are a few surviving walls forming the southwestern line of Building 3. The majority of this building was destroyed during the creation of the modern road leading across the site. The surviving architecture is comprised of three walls and the edge of a door frame.

Field D is located on the northernmost edge of site, and was supervised, this season by Talmadge Gerald. In the 2019 season, part of a gateway complex was found, attached to casemate rooms to the east, in Squares D3-D6. In 2021, four new squares (D7-D10) were opened and completely excavated. The goals for this season were to better understand the gate complex in relationship to the outside approach to the gate complex, and the casemate defenses.

Squares D9 and D10 were located outside of the Gate Structure and outer casemate wall of Squares 3 and 5, in order to investigate potential architectural remnants on bedrock, that might be connected with a hypothesized “outer gate-house.” To the east of the “outer gate-chamber” in Square D10, is a relatively smooth area of bedrock, possibly indicating entry from the northeast, into the site, over a line of flat-lying smooth pavement stones, tentatively interpreted as a “threshold.” In Square D9, two, two-row, one-course walls meet at an angle, connecting, it would seem, with the “threshold” in Square D.10.

Square D8 was opened to expose the southern part of a room of the western gate chamber. Excavation here, provided a mirror image of the eastern gate chamber. In 2019, the excavators hypothesized that the western gate chamber “doorway,” in Square D5, was filled in a later phase. However, the western chamber wall lacked clear evidence of a doorway.

While this hypothesis is still possible, it is not conclusive.

Square D7 was excavated to investigate possible architecture further to the west. Most of this square did not survive the construction of a modern access road. While the remainder was excavated down to bedrock, no occupational surfaces were found, the shallow soil matrix yielding only a small amount of pottery.

In general, the earth matrix in Field D is extremely shallow, with bedrock emerging, in most cases, within 10 cm below the current ground surface. The balks were removed to expose a fully excavated gate complex. A cave was located approximately 17 m east of the gate, possibly representing a large cistern for community water collection. Surfaces were discovered in D8 and D10, just above the bedrock. These surfaces filled and leveled cavities in the bedrock and consisted of hard-packed bricky material and small pebbles. On some of these soil surfaces, flat-lined pottery dating to the Iron Age I was retrieved.

This season a new excavation area (Field E) was opened, being supervised by Robert Bates. This location was chosen because it is at the highest point on the site, and where several walls could be seen above the surface. Such places are often reserved for important buildings and elite living quarters.

Excavation here, revealed three architectural phases, dating to Iron Age I. The earliest phase consisted of a long room, its three excavated walls yielding nine extant courses on the south, six on the east, and five on the north. Hard packed clay and small cobblestones sealed against the walls, filling in the cavities of the bedrock to create much of the earliest floor. Additional occupation fill was used to level the remaining section of the floor, in the southeast corner. A semi-oblong installation, possibly a bin, made of small boulders, was found at the northwest end of the room. A plastered installation, that also contained an ash-filled pit, was located against the north wall. Several artifacts were found on the floor, including three pounders, a bronze ring and a



Paul Ray Floating Soil Sample.

bronze mace/scepter. A bronze spear point with a bent tip was also found, on the north side of the bin.

This room was subdivided by a wall into two separate rooms during a second phase, following a wall collapse. On the east side of the dividing wall a floor, with flat-lying body sherds, was laid, covering the plastered installation, on top of which, a semi-oblong shaped installation, made of small boulders, was added. In the last phase, a doorway, with a threshold, was built on top of the dividing wall, with the floors, on both sides raised to the height of the doorway. The new western floor completely covered the earlier “bin.” These rooms were later abandoned following a wall collapse, leaving behind large boulders in the abandonment debris.

Thanks to a faculty research grant from Andrews University, the team was able to collect botanical samples from three of the excavation fields, run them through a flotation tank, and send them to the laboratory of Annette Hansen, in the Netherlands, for analysis and species identification. Due to the pandemic, Annette was not able to be present on site, but provided logistical support via email. (Paul Gregor, Paul Ray, Robert Bates, Trisha Broy and Talmadge Gerald).



RANDOM SURVEY

Ancient Kungas Identified:

Third millennium BC documents from Mesopotamia used the term *ANŠE*, to refer to equids, one of which was a kunga. These animals were used to pull the vehicles of gods and the nobility, and in agriculture, to pull ploughs. In 2006 an elite burial was excavated at Tell el-Marra (ancient Tuba), in Syria, that yielded 25 complete non-horse equid skeletons. The genomes of one of these skeletons has recently been sequenced with the conclusion that kungas were F₁ hybrids of male hemipenes and female domestic donkeys.

Ceremonial Chariot Found:

An almost complete ceremonial chariot has recently been found in the suburban villa of Civita Giuliana, at Pompeii. Embellishing the rear of the chariot are medallions, with scenes that depict *Eros*, satyrs and nymphs, suggesting it might be the *Pilentum* mentioned in some sources.

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New Egyptian Site Found:

A new site has recently been found near Luxor/Thebes, apparently built by Pharaoh Amenhotep III, not long before his son, Akhenaten, moved the capital to Amarna. Some of the walls of the site are extant, as well as parts of administrative and residential areas. An industrial sector, with a production area for mud bricks, some of which bear the king's seal, has been located. Evidence has been found for casting molds in amulet production, as well as ceramic and textile production. Rock-cut tombs have also been discovered nearby.

Ostrakon Found at Lachish:

Excavators at Lachish, in Israel, have recently found a sherd of an imported bowl from Cyprus, with a short text in a very early form of the Canaanite language, dating to the mid-15th century BC. Measuring 4 x 3.5 cm, this two-line fragment contains only a few letters. Although this configuration of the language appears earlier in Egypt, Sinai, and even the Levant, in pictographic form, this artifact is the earliest example of the language in alphabetic script.

Theater Excavated:

Overlooking the plain of Messinina near Kalamata, Greece, archaeologists have recently unearthed part of the 4th century BC theater of the ancient city of Thouria. The perimeter of the orchestra and several rows of stone seating have been excavated so far.

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