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The Good Life: Evidence for the Production of Wine and Garum in an Early Roman Estate and Byzantine Monastery South of Ashkelon

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Abstract

Excavations conducted at the site of Er Rasm south of Ashkelon in 2019 revealed evidence of robust viticulture during the Roman and Byzantine periods. Moreover, installations for the production of fish sauce (garum) dated to the first century CE were also uncovered, complementing what appears to have been a Roman agricultural estate. This estate was abandoned in the second half of the first century CE, probably in the wake of two recorded attacks on Ashkelon by Jewish forces in the first year of the Jewish Revolt against the Romans in 66 CE. Thereafter, the area was turned into a burial ground in the Middle and Late Roman periods (2nd–4th centuries CE). In the Middle Byzantine period (5th–6th centuries CE), a monastic community built wine presses and a church on the site. Towards the end of the Byzantine period, the community constructed a kiln complex and pottery workshop that produced the latest form of “Gaza” wine jar, used to export local wine abroad. Finds discovered in the abandoned kilns and wine vats point to the dismantlement of the church and stones from the rest of the site in the Abbasid period.

Introduction

In 2019, excavations were carried out south of Agamim neighborhood in Ashkelon (Fig. 1; map ref. 158948/617145) in a previously undeveloped agricultural area

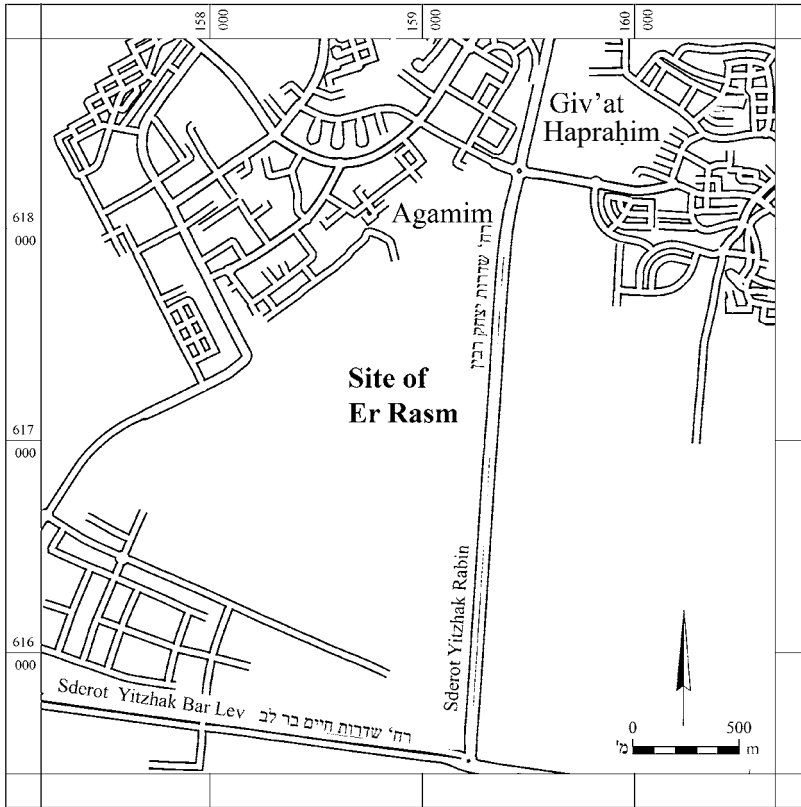


Fig. 1. Location map (Ilanit Aзуolay).

slated to become the site of the Ashkelon Eco-Sport complex and lake.¹ The excavated area is located ca. 2 km southeast of Tel Ashkelon in a site labeled Er-

¹ The excavations (Permit no. A-8583), were carried out on behalf of the Israel Antiquities Authority. They were underwritten by the Ashkelon Economic Co. Ltd. and directed by the author. Fieldwork was aided by Laura Shilov, Shira Bloch, Elad Nevo and Nir-Shimshon Paran (field supervisors). I wish to thank Mendel Kahan (surveyor), Emil Aladjem (photogrammetry and aerial photography), Assaf Peretz (aerial photography), Davida Eisenberg-Degen (field photography), Allegra Savariego (finds archivist and photography), Yoram Haimi (conservation), Yotam Asscher (analytical laboratories), Ya'aqov Huster, Yair Farjun, Elena Kogan-Zehavi, Ilan Peretz, Rachel Bar-Natan, Dima Yegorov, Daniel Varga, Shachar Zur, Amnon Karnieli, Yael Rosen-Gorin, Yossi Nagar, Lee Perry, Na'ama Sukenik, and Orit Shamir (professional advisors) for their valuable input and contributions.

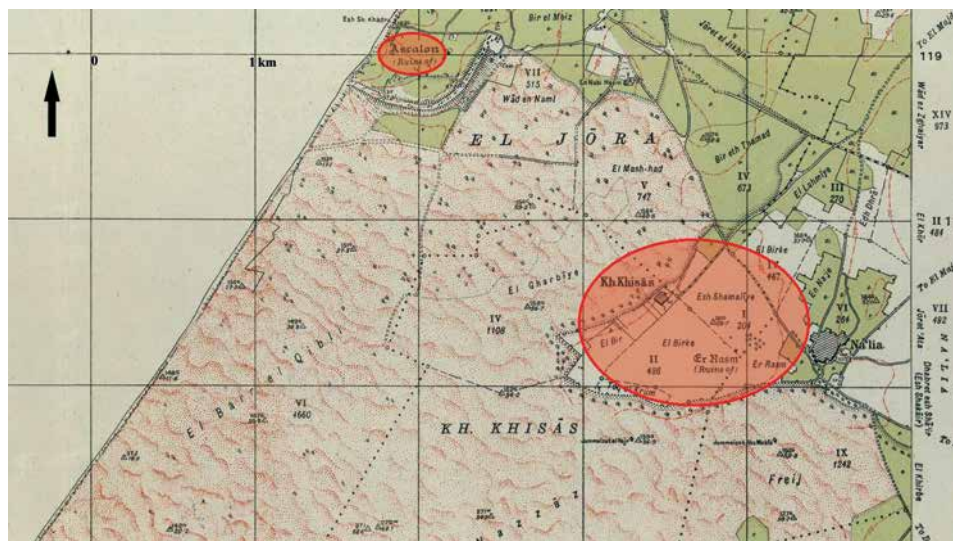


Fig. 2. 1942 map of Er Rasm and Kh. Khisas (Tali Erickson-Gini).

Rasm on the British Mandate maps. It is situated in the vicinity of the remains of Kh. el-Khisas and the former Arab village of Ni'ilya (Fig. 2).²

The excavations revealed agricultural installations of the Early Roman and Byzantine periods, a burial ground of the Late Roman/Early Byzantine periods, and remains of a monastery complex with a church and kilns.

Geographic Context: the Agamim Depression

A detailed description of the site's topography and its access to the coast, 2 km distant, is necessary in order to understand the archaeological remains.

The site of Er Rasm is located on a "low, narrow plain ... flooded in the winter," as described by Conder and Kitchener (1883:244). This is a drainage basin that is oriented east to west, leading toward the Mediterranean coast. The Agamim depression is part of a larger, elongated north-south oriented trough that is situated between two sandstone (*kurkar*) ridges that run parallel to the Mediterranean coastline. These *kurkar* ridges are the remains of consolidated prehistoric dunes created by the deposition of sands from the Nile Delta during the Quaternary (Koucky 2008:13). Erosion along the *kurkar* ridge, west of the

² The site of Er Rasm is included in the site declaration of Kh. el-Khisas (Site no. 877/0).

Agamim depression, formed a discontinuous cliff along the coastline that reaches up to 40 m high (Barzilay 2008:23). The coastline west of this region afforded no natural anchorages (Gophna and Liphshitz 1996:148).

The Agamim depression was probably a streambed that was blocked by the *kurkar* ridge nearest to the coast or by wind-blown dunes drifting from the south, a process that appears to have accelerated from the Byzantine period onwards.³ The blockage of the basin created a seasonal lake situated west of the excavated area. Heavy rains in December 2019 and the early months of 2020 filled the basin nearly to the edge of the main area of excavation. The alluvial depositional context displayed in the basin reaches back to the Chalcolithic period, when, according to Miller-Rosen (2008:103), the landscape around Ashkelon consisted of “wide, slow-moving streams and muddy backswamps.” This early phase undoubtedly contributed to the soil fertility in the Agamim depression and throughout Tel Ashkelon’s hinterland in general. As noted by Conder, this was one of the “most fertile spots in Palestine” (Conder and Kitchener 1875:155). In recent history, the excavated area was farmland cultivated for decades by members of Moshav Berehkiyah (Yair Farjun, pers. comm.).

Due to the recurrent formation of seasonal bodies of water, settlement activity tended towards higher ground. This was the case from the Chalcolithic period onwards (Miller-Rosen 2008:103) and it is repeatedly demonstrated by archaeological excavations in the area. In pre-modern eras, the depression provided groundwater at a relatively high level in the immediate area and across Ashkelon’s hinterland (Gophna and Liphshitz 1996:145).

The Track to Ashkelon

In addition to Er Rasm’s proximity to Tel Ashkelon, the site was also situated next to an important east-west track that stretched along a line of trees on the basin’s southern edge. According to the British Mandate maps, this track connected Tel Ashkelon and the later Arab village of Jurah with the main Gaza-Ashdod road (today’s Highway 4). According to the western traveler, J.L. Porter, it took a mere ten minutes to ride across the basin and another twenty minutes up and over a broad ridge of sand to reach the gate of Ashkelon by using this track (Porter 1868:255; Conder and Kitchener 1883:244). A second track, also flanked by a row

³ Byzantine and Early Islamic sites and artifacts in the area around Ashkelon have been discovered under nearly eight meters of sand (Koucky 2008:13; Barzilay 2008:23).

of trees, branched off near the present-day street of Sderot Rabin and continued northwards past the Arab village of Ni'ilya and towards Majdal.

Previous Investigations in the Vicinity of Er Rasm

The site of Er Rasm and the general vicinity have been occasional objects of discussion and investigation for close to a century and a half. Nineteenth-century surveyors noted the presence of Kh. el-Khisas (*Khurbat el Khasas*), which they described as a heap of stones with a nearby well, but they did not mention Er Rasm (Conder and Kitchener 1883:252). The multi-period site of Kh. el-Khisas is located ca. 250 m to the north and is designated as Site 32 (Berman, Stark and Barda 2004). However, Er Rasm appears on maps of the early 20th century and is included in Berman, Stark, and Barda's Map of Ziqim (91) as Site 33, which they dated to the Roman period.

Below is a brief description of the chronological periods excavated in and nearby Er Rasm (Fig. 3).

Chalcolithic Remains. Scattered sherds of the Chalcolithic period were revealed throughout the area of Er Rasm. They seem to derive from the site of East Agamim, located ca. 600 m further upstream (Abadi-Reiss and Varga 2019), and possibly from settlement activity along the basin's southern perimeter.

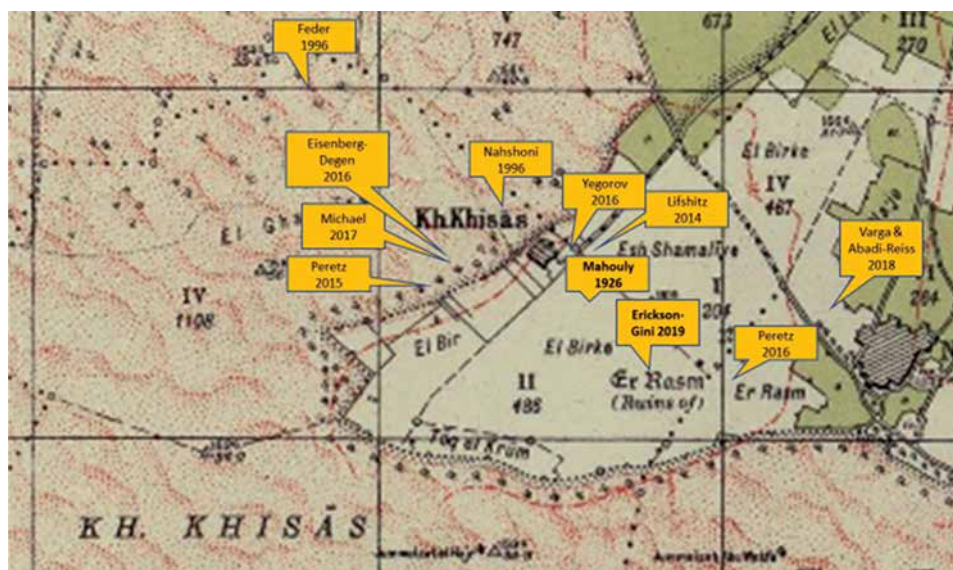


Fig. 3. Location of previous excavations in the area around Er Rasm according to excavator and year of excavation (Tali Erickson-Gini).

Winepresses. Salvage excavations in the vicinity of Er Rasm have revealed a number of winepresses dated to the Hellenistic, Roman and Byzantine periods. These include Hellenistic-Early Roman winepresses, excavated ca. 100 m north-northwest of Er Rasm by Lifshitz (2015) and Yegorov (A-4829; pers. comm.). In 2016, Peretz excavated a Hellenistic winepress ca. 100 m west of Er Rasm (Peretz 2019).

The Roman Necropolis. The first indications for a Roman Necropolis were found in 1926 by Mahouly who excavated on behalf of the Palestine Department of Antiquities. He recorded three robbed-out lead coffins and one complete coffin decorated with a vine and knots pattern (Rahmani 1999:96–97, Cat. No. 36). This coffin was dated to the 4th century CE and published by Avi-Yonah (1930) and Richmond (1932). In 1996, a salvage excavation conducted by Nahshoni ca. 200 m northwest of Er Rasm revealed the burial of infants in Roman Gaza wine jars. These jars were of the same type produced by a nearby workshop discovered in the Shimshon neighborhood of Ashkelon (Nahshoni 2007; Feder and Erickson-Gini 2012).

Byzantine Remains. Fragmentary remains of a Byzantine courtyard structure were discovered by Nahshoni in the 1996 excavation of Kh. el-Khisas (2007), while the presence of a Byzantine church in Er Rasm (Church no. 25) was inferred on account of the number of marble fragments and tesserae on the site's surface (Huster 2015:50).

Modern Remains. Scant remains of Late Ottoman and British Mandate structures have been recorded by Peretz (2015) and Eisenberg-Degen (2016) and attributed to settlement in Kh. el-Khisas. However, it should be noted that while 19th-century investigators and travelers mention the "poor village of Nalieh" (Ni'ilya) (Conder and Kitchener 1883:244), there is no indication of any occupation at Kh. el-Khisas before the British Mandate period (Palestine Dept. of Antiquities Archive file, dated Jan. 25, 1929).

A Brief Description of the 2019 Excavation in Er Rasm

Although the processing of the finds is still in its early stages, the site's main phases are readily discernable, ranging between the Early Roman and Abbasid periods. The main phases and observations are briefly described below.

An Early Roman Agricultural Estate

The excavations revealed the remains of an Early Roman agricultural estate that consisted of a wine press and facilities that appear to have been used to produce garum.

The winepress, with the interlocked, ceramic hydra-shaped substructure of its treading floor and collection vat (Fig. 4), was easily discerned. The collection vat was filled with debris, pottery and glass sherds, all dated to the first century CE, including two rims of a Nabataean bowl dated from the late first century BCE to the early first century CE. Three objects, possibly of Egyptian origin, discovered in or near the winepress, include a scarab, a figurine (possibly of the god *Bes*), and a lead-filled bronze pendant in the shape of a bull's head, which may have been used as a weight for weighing precious metals. A marble object of unusual shape and workmanship may have been a dial for measuring seasons, similar to a specimen from Qumran also dated to the first century CE. The largest sherds derive from the earliest type of Gaza wine jars, workshops of which have been discovered less than a kilometer northwest, in the Shimshon Neighborhood (Feder and Erickson-Gini 2012).

A few meters southwest of the Early Roman winepress, a complex of a different kind came to light: a vat complex comparable to garum production facilities



Fig 4. Early Roman winepress, looking southwest (photography: Assaf Peretz).

discovered in Malaga (Corrales 2017). Its principal remains included three intact plastered vats (Figs. 5-6), the remains of other plastered vats, and vessels that point to fish sauce or fish paste production, possibly *garum*, *muria*, or *allex*. The complex appears to have been open with no signs of roofing. The two smaller plastered vats that shared a common wall contained the broken remains of an imported amphora. Each of the smaller vats has a depression in the floor and a drain in the back wall. One drain was found to contain the heavy rim of a *dolium* (a large pithos used in the production of *garum*). A round, raised platform, 2 m in diameter with remains of plaster, was found next to the vats and may have supported a *dolium*. In an adjoining room, a large, heavy basin was discovered sunk in the dirt floor. The basin has a brown burnished exterior and a heavily pocked interior. The handles have thumb-impressions like those found on *dolia* at Masada (R. Bar-Natan, pers. comm.). Heavy sherds of the earliest type of Gaza wine jar were found throughout the complex, even in the vats' hydraulic plaster where the sherds were used to bind the plaster to the walls built from *kurkar* stones.

The thick walls of the square pool, 4×4 m in size, located in the southwest corner of the complex, had been stripped of building stone, including the foundation course. However, the floor covered with thick hydraulic plaster remained, as did



Fig. 5. Fish processing facility, looking west (photography: Assaf Peretz).

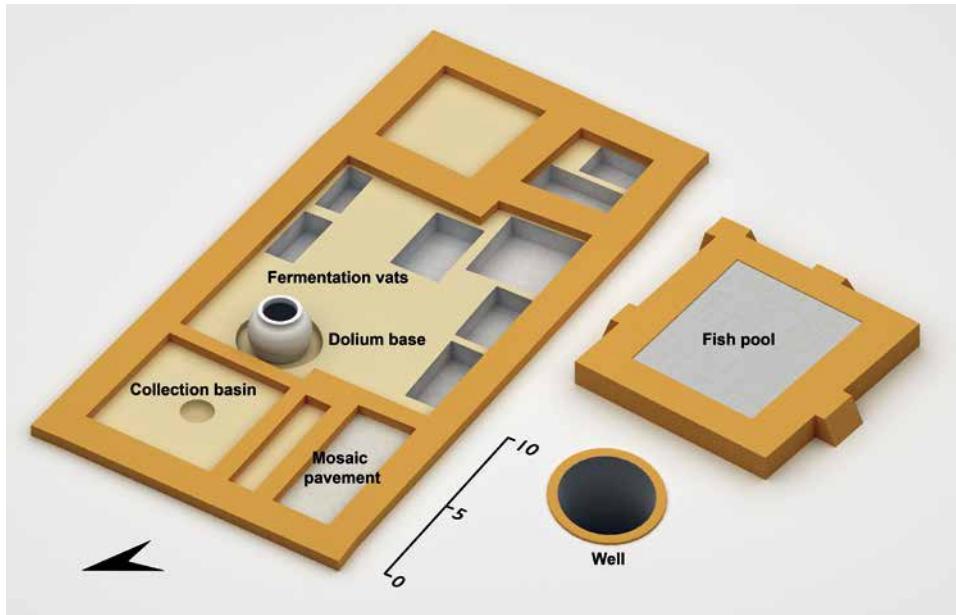


Fig. 6. 3-D model of the fish processing facility (Shahaf Shaked).



Fig. 7. Early Roman bowl from the well (Tali Erickson-Gini).

the heavy protrusions emanating from the base of the pool constructed in order to support the walls of a pool of water. The remains of a shallow well, revealed next to the northwest corner of the pool, contained a complete Eastern Sigilatta bowl that dates between 70 and 120 CE (Fig. 7).

A Necropolis of the Middle and Late Roman Periods

The 2019 excavations also revealed the presence of a Roman necropolis north of the monastic complex. A large piece of a carved marble sarcophagus and two marble fragments of a carved depiction of Persephone's abduction were discovered in this area. The carved elements include the legs and winged foot of Hermes, a horse's hoof belonging to Pluto/Hades's chariot steeds, and the folded garment of a third figure. A complete depiction of this famous scene is found on a complete marble sarcophagus on display inside the Ashkelon National Park.

Further excavation in the immediate area revealed an intact Late Roman burial directly below one of the Byzantine winepresses. It contained a lead coffin decorated with a vine-and-amphora motif and two well-preserved glass vases. One of the vases provides a date in the first half of the fourth century CE (Rosen-Gorin, pers. comm.). High groundwater appears to have rotted out the coffin's bottom and part of the skeleton. An analysis of the skeletal remains indicated that they belonged to a 40–50-year-old woman who apparently suffered from bunions (Nagar, Borgel and Erickson-Gini forthcoming). Of special note was an abundance of gold thread belonging to a shroud; it was found distributed in various parts around the skeleton of the woman.

Another lead coffin matches the coffin that was found in 1926 in the immediate vicinity and documented by Rahmani (1999:96–97, Cat. No. 36). A coin of Valentinian dated to 364 CE securely dates the burial to the later part of the fourth century. It was decorated with a knots-and-vine motif, suggesting that it was Christian (Avi-Yonah 1930:312; Richmond 1932). Interestingly, both coffins contained an abundance of gold thread embroidered into a shroud with expensive cloth, possibly imported from Palmyra or Dura Europos (Rahmani 1999:11).⁴ According to Pliny the Elder (first century CE), gold could be spun into thread and woven into fabrics like wool, even without the addition of wool. He also relates that

⁴ Gold threads and gold-leaf ornaments that were used to cover the mouth and eyes of the dead, as well as gold-leaf knot-shaped objects that were sewn on to the burial shrouds are on display in the Rockefeller Museum. They derive from the Frances E. Newton collection, a British missionary that lived in Haifa in the early 20th century. She described buying gold jewellery that originated in looted tombs: "Sometimes there were lovely little golden leaves, beautifully embossed, which had been sewn on to the garments covering the corpse," (Newton 1948:159). Newton eventually donated her collection to the British Mandate Department of Antiquities, and they remain on display until today (Savariago, pers. comm.).

there was a long tradition of weaving gold into a fabric called "cloth of Attalus," an invention of the kings of Asia (Pliny, *Nat. Hist.* Book 33).

A Monastic Site in the Byzantine period (fifth–seventh centuries CE)

The 2019 excavations revealed evidence of a Byzantine monastic settlement that included a kiln complex for producing the latest form of Gaza wine jars, the remains of a storeroom with dried jars ready for firing, three winepresses, and the scant remains of a church situated between the storeroom and the winepresses. The structures associated with this phase of occupation, like other Byzantine remains in the vicinity (Nahshoni 2007), were robbed out in search of building stones.

The Kiln Complex

Prior to the excavation, surface finds such as marble pieces led researchers to suggest that a Byzantine church was located in a particular part of Er Rasm. However, the excavation in this location revealed a Late Byzantine kiln complex with three firing chambers connected by a central tunnel, in which the heat was generated (Fig. 8). Thick layers of sherds, mainly belonging to the latest form of Gaza wine jars (sixth-seventh centuries CE), were discovered throughout the area. Firing operations appear to have been partially suspended in the Late Byzantine



Fig. 8. Late Byzantine kiln complex, looking northeast (photography: Assaf Peretz).

period, and the complex went out of use sometime in the seventh century CE. In the Abbasid period (late eighth–tenth century CE), the upper level on one of the firing chambers was used to dump debris (when the monastic complex was stripped of building stones).

Storeroom

Poorly preserved plastered floor surfaces located south of the church included a section over which a concentration of Gaza wine jars had been stacked upside-down (Fig. 9). The jars are of the latest Gaza wine jar form, the same type produced in the nearby kiln complex. They were prepared for firing and apparently placed on the surface to dry after their initial production. Parts of a marble altar table were found on top of the jar remains. A part of a marble potters' wheel was found in one of the Byzantine collection vats.

Winepresses

The remains of three Byzantine winepresses were uncovered approximately 50 m northwest of the kiln complex. These installations were situated side by side (Fig. 10).



Fig. 9. Late Byzantine jars dried before firing and marble features robbed out of the church, looking northeast (photography: Shira Bloch).



Fig. 10. Byzantine winepresses, looking north (photography: Davida Eisenberg-Degen).

The stone features, including the treading floors, were robbed, leaving only traces of plaster lining and the collection vats. The surface east of the central vat appears to have been paved with ceramic tesserae, of which only a small section remained. The collection vats were built from grayish-white cement, and their floors were paved with stone. An oval settling pool was discovered between each set of vats. The central installation had octagonally-shaped vats, while the rest were square. The settling pool of the middle winepress was apparently lined with marble slabs that were subsequently robbed out. Plaster remains of the screw-press wells and

channels leading to settling pools were uncovered in the middle and the northern-most presses. In the southern-most press, only the heavy stone-carved screw-well was found moved out of its original position in the center of the floor. It rested on a stone capital that was re-worked to serve as the screw-well's floor.

The Church

A fairly large quantity of fragments of imported stone, like porphyry and marble, were found in various parts of the site but mainly in the area of a rectangular structure south of the winepresses. Only a bare outline remains of the building, which is oriented east-west. Parts of mosaic floors were also discovered, as were fragments of a glass mosaic that probably decorated the apse's wall. A fragment of a carved marble stone that may have decorated an arch over the apse was discovered in the building's northeastern part. These finds, as well as parts of marble altar tables, marble *patens*—trays used for the mass—and glass lamps, attest to the structure's identification as a church. The church was systematically stripped down to below the level of the ceramic tiles used as floor makeup, and no portion of the apse or the altar was found, although a number of pilaster bases in the nave were still in place.

Dismantlement of the Byzantine Site in the Abbasid Period

The site of Er Rasm appears to have been abandoned sometime in the course of the Umayyad period. Abbasid ceramic sherds and glass vessel fragments were uncovered together with Byzantine items in the wine vats and kiln pits. These finds point to the site's total dismantlement sometime after 750 CE. No architecture attributable to the Early Islamic period was discovered at the site.

Discussion

The 2019 excavation at Er Rasm has revealed evidence of robust viticulture during the Hellenistic, Roman, and Byzantine periods as well as an unexpected feature: Early Roman installations for the production of fish sauce (*garum*).

The estate functioned at a prosperous time for Ashkelon, particularly since until the construction of the harbor at Caesarea, Ashkelon was the Romans' key naval base in the region, guaranteeing its independence while expanding Herod's jurisdiction in Judea (Boehm, Master and Le Blanc 2016:291). Thus, in the mid-first century CE, Ashkelon was described as "huge and very well fortified" (Boehm, Master and Le Blanc. 2016:291, n. 86). In addition, military and naval activity

associated with the city would have facilitated a robust local economy and a demand for commodities such as wine and fish sauce.

The fish processing facility and the winepress of the late first century BCE and first century CE appear to have been part of a Roman agricultural estate. The estate was positioned in a valley with good farmland and near a junction of important local roads that lead to a major port city, all in accordance with Cato the Elder's advice (*De Agricultura* 1.3).

The fish processing, well-known for its accompanying bad odors, was situated ca. 2 km southeast of Roman Ashkelon in a position that ensured the prevailing westerly and north-westerly winds carried the stench way from the urban areas of ancient Ashkelon.

Pools for growing fish have been found in the southern coastal plain from later periods. For instance, at Horbat Neged (Khirbat Najd), north of Sederot, a Late Roman fish pool was uncovered (Varga and Kobrin 2018). A pool complex uncovered in the Third Mile Estate, northeast of Ashkelon, may have been used to breed fish during the Byzantine period (Israel and Erickson-Gini 2013:184-185, Plan 4). Like the Early Roman pool in Er Rasm, the walls of these pools were stripped away, removing the evidence of spawning jars at Horbat Neged and Horbat Sabiya (Ayalon 1979). The existence of a fish pool adjacent to the vat complex at Er Rasm recalls a statement by Pliny the Elder about breeding small fish in "rainwater" for sauce production in different parts of the Empire (Pliny, *Nat. His.* 31.44).

Facilities for the production of fish sauce are rare in the Eastern Mediterranean. Although similar facilities in the Western Mediterranean and Italy are often found directly on the coast, the presence of one located ca. 2 km inland is not out of the question. The coastline in the Ashkelon is lined with the high cliffs of the western *kurkar* ridge, precluding the construction of facilities of any kind. However, the Er Rasm estate was located 2 km from the sea in a fertile valley with a high water table, directly on the main track leading to Ashkelon. These factors made the estate viable not only for the well-established viticulture but also for the production of the popular commodity of fish sauce.

Why the Early Roman estate at Er Rasm was abandoned is unclear. However, this may have occurred due to hostilities in and around the city of Ashkelon at the beginning of the First Jewish Revolt. The massacre of Jews in Caesarea prompted Jewish rebels to launch two major attacks on the Roman city of Ashkelon in the autumn of 66 CE (*Jos. Wars* II.457–460). Following the first assault in September 66 CE, the city retaliated by executing 2500 Jewish residents (*Jos. Wars* II.477). While the city of Ashkelon survived the attacks (Boehm, Master and Le Blanc 2016:290,

n. 71), the hinterland around it was probably devastated. The Agamim depression may have been the “broad plain over which the flying Jews were scattered and 10,000 killed,” as described by Josephus (*Jos. Wars* II.3) and proposed by Conder and Kitchener (1883:244).

Towards the end of the Byzantine period, the community added a third wine press, a kiln complex, and a pottery workshop that produced the latest form of Gaza wine jar, the type used to export local wine. Since after 640 CE, Ashkelon was one of the last cities in the region to fall under Islamic rule, the monastery and its associated winery may have continued further into the seventh century CE (Hartmann and Lewis 1960:710). Finds discovered in the abandoned kilns and wine vats point to the dismantlement of the church and the rest of the site sometime during the Abbasid period. This may have occurred with the construction of a mosque and minaret at Ashkelon in the eighth century CE. According to an inscription discovered by Clermont-Ganneau, Caliph al-Mahdi ordered the construction of the mosque in Early Islamic Ashkelon in 772 CE (Clermont-Ganneau 1887:485–491; La Strange 1890:400–410).

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