

# Ein Gedi: A Large Jewish Village<sup>1</sup>

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## **I**ntr o d u c t i o n

“A large Jewish village.” This was how Bishop Eusebius described Ein Gedi at the beginning of the 4th century CE (*Onomasticon* 86), a description that was impressively confirmed by the excavations recently conducted at the site by the author on behalf of the Archaeological Institute of the Hebrew University of Jerusalem.<sup>2</sup> Sections of streets, dwellings, shops, courtyards, storehouses, agricultural installations, water systems, and more were exposed in the course of seven consecutive seasons of excavation (1996-2002) (Figs. 1, 2). The irrigation system and the agricultural terraces in the area of the oasis were also investigated. At its edge, the enigmatic site is usually assumed to be the settlement of the Essenes from the end of the Second Temple period. The rich and varied finds uncovered represent the everyday life of the inhabitants of Ein Gedi during the Roman and Byzantine periods, and they complement the evidence from previous excavations at the site, in particular those of the ancient synagogue (Barag 1992) and the Roman bathhouse (Mazar 1992: 1195). The following article summarizes the major finds revealed during these seven seasons of excavation in the oasis of Ein Gedi.

## **T**he Oasis of Ein Gedi

The oasis of Ein Gedi, the largest desert oasis in the State of Israel, is located on the western shore of the Dead Sea, about 50 km southeast of Jerusalem and some 16 km north of Masada. The area of the oasis, which extends over some 1,000 dunams (about 250 acres), is watered by four

copious springs: Ein David, Ein ‘Arugot, Ein Gedi, and ‘Ein Shulamit (Fig. \*3). These water sources sustain the rich vegetation and the agricultural fields, where date palms and such other crops as citrus and mango are cultivated. The geographical location of Ein Gedi, the hot desert climate, and the plentiful water sources create an exceptional ecological niche sustaining rare tropical plants and many mammals, mainly herds of ibex and colonies of hyrax, which can be viewed from up close (Porath 1986: 133-135).

The fastest, most convenient land route to Ein Gedi was, and still is, the route that passes along the western shore of the Dead Sea, connecting Ein Gedi with the important sites of the area: Masada, Zo‘ar, and Qumran, as well as Jericho and the capital city of Jerusalem (Hirschfeld 2004: 61-63) (Fig. \*4). During periods when the sea level rose and flooded this road, the inhabitants of Ein Gedi could take the steep routes up the cliffs of the valley to the desert highlands, and from there reach settlements in the hill country or along the coast. In addition, anchors of various types (both wood and stone) have been found in the Dead Sea near Ein Gedi, evidence of the existence of a harbor (Hadas 1992).

## **T**he Village of Ein Gedi

The village of Ein Gedi is situated on a ridge that separates the two important streams flowing through the oasis – Nahal ‘Arugot to the south and Nahal David to the north. This ridge is essentially a local watershed, and here most of the remains of ancient settlements in the oasis are found

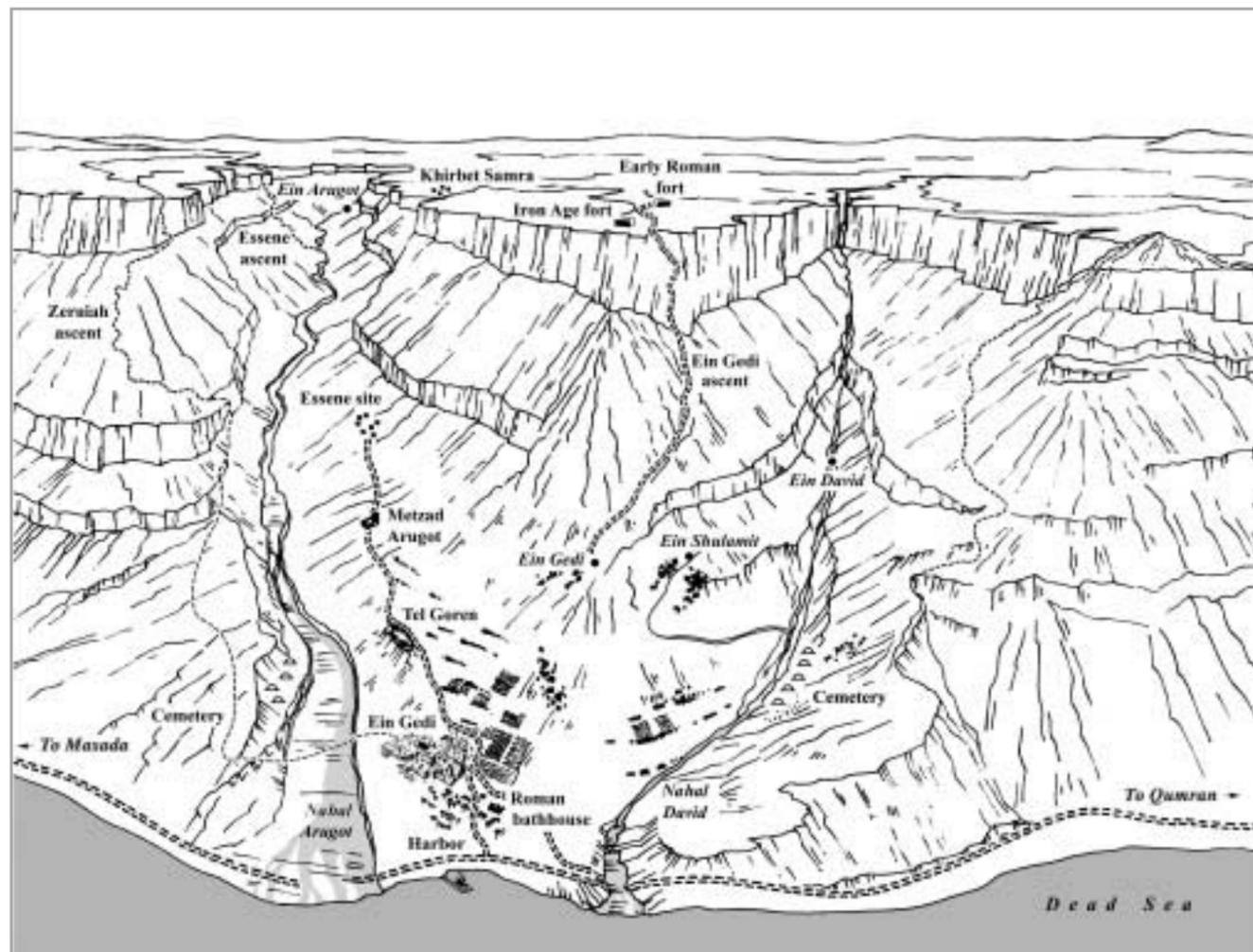


Fig. 3\*: Ein Gedi Oasis, view to the west

איור 3\*: נווה עין גדי, מבט למערב

(Fig. \*5). During the excavations, an area of 4 dunams was uncovered, comprising approximately one tenth of the overall area of the village of Ein Gedi. The village was densely built, with house against house, and every area that was excavated revealed remains of buildings (Fig. 6). The area of an average village in the Land of Israel ranges between 10 and 15 dunams – one third of the area of the village of Ein Gedi. However, the description of Ein Gedi as a large village referred not only to its land area but also to the size of its population. Based on the density of the buildings as exposed in the excavation, a relatively high population-

density coefficient of 25 persons per dunam must be used in the calculation. Thus, Ein Gedi at the apex of its development must have had a population of 875 or even more. The economy of the village depended on the unique products of the Dead Sea area – the fruit of the date palm and the perfume of the balsam plant. Expensive medicines were also produced from the balsam plant (Fig. 7). In addition, the inhabitants of the region collected lumps of bitumen (asphalt) that floated on the Dead Sea and sold them as sealing and caulking material, as well as for medicinal purposes (Fig. 8).

Four strata, representing the main phases of occupation at the village, were discerned in the excavations:

Stratum IV	Early Roman Period (1st c. BCE-1st c. CE)	Remains of walls and a ritual bath
Stratum III	Late Roman Period (2nd-4th c. CE)	The first buildings in the village
Stratum II	Byzantine Period (5th-6th c. CE)	The apex of construction in the village
Stratum I	Mamluke Period (13th-14th c.)	Temporary settlement, re-use of walls from the Byzantine period

### Stratum IV: The Early Roman Period/Second Temple Period

Josephus Flavius concisely described Ein Gedi thus:

“A polis (village) situated on the shores of the Dead Sea at a distance of 300 ris [about 55 km] from Jerusalem. In this village grows the most beautiful date palm and the balsam plant” (*Antiquities* 9: 7).

In the days of King Herod (37-4 BCE), Ein Gedi became the center of the southern district of the Dead Sea, parallel to Jericho, which was the capital of the northern district. During this period, and perhaps even earlier, in the days of the Hasmoneans, Ein Gedi became an important center of the Essene cult. At the time of the Great Revolt, the *sicarii*, who occupied Masada, raided Ein Gedi, drove out the men, and slaughtered 700 women and children (*The Jewish War* 4:103). Pliny the Elder described the destruction of Ein Gedi after the revolt (ca. 75 CE):

“Below the settlement of the Essenes was once the village of Ein Gedi, second only to Jerusalem (Carei Jericho) in fertility of soil and groves of palm trees. But now it, like Jerusalem (Jericho), is but a heap of ashes” (*Naturalis Historia* 5: 73).

Remains of walls from the Early Roman period were revealed in most of the southern excavation areas, near the synagogue (Fig. \*9). Among them was a well-preserved ritual bath (*miqveh*) (Fig. 10). Water was supplied to the *miqveh* by a constructed, plastered channel entering from the west, apparently from the spring of Ein Gedi. The sides of the *miqveh*, the steps, and the floor were coated with gray plaster, typical of water installations of the Herodian period. Steps built against the northern wall and an additional step turning southward descended to the bottom of the *miqveh*. The rectangular mouth of the water channel was revealed at the top of the western wall. Excavation of the *miqveh* uncovered a large concentration of pottery sherds and stone tools on the floor, which had been covered by a layer of collapsed debris showing evidence of a heavy conflagration. It is possible that this represents the destruction inflicted by the Sicarii during the Great Revolt. The prosperity of the oasis village during the Second Temple period is evidenced by 35 Hasmonean coins retrieved in the excavations. Only a few coins (five in all) were recovered from the time of Herod, although this is not surprising. In general, Herodian coins are few in number in relation to the wide-ranging commercial activities of King Herod.

The varied, rich pottery assemblage from the Second Temple period constitutes 24% of the overall assemblage of shards uncovered at the site. The pottery from this period has a local village character. A large number of vessels were deformed during the production process. Since the inhabitants of Ein Gedi presumably did not buy defective vessels, it can be assumed that the vessels were produced in a local workshop. Indirect evidence for the existence of a local pottery workshop is indeed found in later periods of the village.

Notable among the vessels is a large group of jugs and juglets that can be associated with the local perfume industry. A similar phenomenon was discerned at other sites in the region of the Dead Sea, such as Qumran, Ein Fashkha, Ein Boqeq, and, on the eastern side of the sea, Callirhoe (Ein

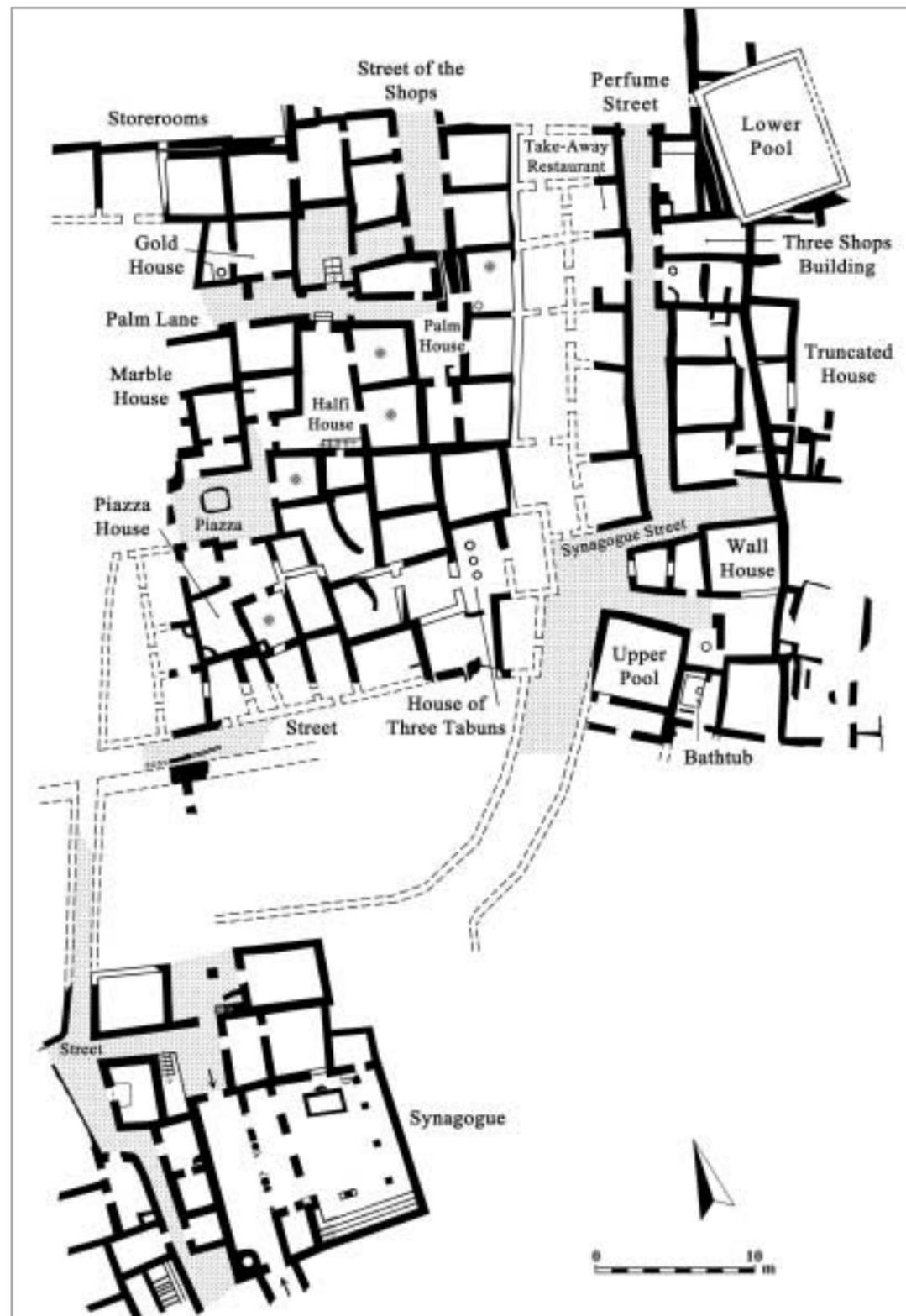


Fig. 9\*: Plan of the synagogue and residential building

איור 9\*: תכנית בית הכנסת ומבני מגורים

ez-Zara). The Nabatean influence is evident in the painted bowls and the light-colored vessels, mainly jugs, of the type called “cream ware.” Among the lamps, the Herodian type with a shaved nozzle, manufactured in Jerusalem, is the most common. Only a small amount of imported Terra Sigillata tableware was found, including a single sherd of an Eastern Terra Sigillata bowl with a relief decoration of Heracles, a common type in the ancient world (Fig. 11). However, its presence at Ein Gedi is unusual. Also found was a sherd of an amphora from the 1st century CE that was produced in Brindizi in southern Italy. The small number of imported vessels further emphasizes the local character of the community at Ein Gedi.

Among the glass vessels from the Second Temple period, cosmetic tubes and various types of perfume bottles are the most common. A fragment of a yellowish-colored glass beaker with an inscription is attributed to the group of mold-made jars decorated with inscriptions that date to the second half of the 1st century CE. The Greek inscription, “rejoice and enjoy yourself,” indicates that it was used for drinking wine. Since this beaker was imported from the Phoenician coast or from Cyprus, it is indicative of the relatively high quality of life enjoyed by some of the inhabitants of Ein Gedi at the end of the Second Temple period.

Prominent among the many stone objects found in the excavation is the relatively large group of 35 vessels from Jerusalem – bowls, cups, and large basins of the type called *qalal*, dating to the end of the Second Temple period. Some of the stone vessels were turned on a lathe, others were hand-carved. These stone vessels, produced in the area of Jerusalem, illustrate the close relationship that existed between the inhabitants of Ein Gedi and the capital city of Jerusalem.

The inhabitants of Ein Gedi in the Second Temple period apparently ground their flour by means of “frame mills,” a set of millstones usually consisting of a lower, square-shaped grinding stone and, upon it, a similarly shaped upper grinding stone with an incision for pouring in the grains of

wheat. At Ein Gedi, 16 fragments of frame millstones were found, some of them in stratigraphic contexts of the Second Temple period.

### Ein Gedi Between the Two Revolts

The settlement at Ein Gedi revived quickly during the period between the two revolts; that is, between 70 and 132 CE (Shar-Abi 2003 [Hebrew]). From the archive of letters of Babatha uncovered by Yigal Yadin in the Cave of Letters in Nahal Hever, we learn that a Roman legion was encamped on the fringes of the village (Yadin 1971: 49). It can be assumed that the Roman legion was stationed at Ein Gedi to secure the balsam crop and the date palm groves that had passed into the possession of the emperor. Additional documents refer to the village of Ein Gedi as “the village of our Lord the Emperor” (Cotton 2001: 139). By the time of the outbreak of the Second Revolt, the legion was no longer there. It is clear from the Bar Kokhba letters discovered in the Cave of Letters that the royal lands at Ein Gedi passed into the hands of the rebels and were considered “the property of the House of Israel.” In one of the letters, Bar Kokhba rebukes the leaders of Ein Gedi, Yahonatan, and Masbela for enjoying the “property of the House of Israel” and not caring for their fighting brothers, whose base was in the hill country (Yardeni 2000: 165).

A relatively large number of coins were found that belong to the period between the two revolts: 33 Roman provincial coins and 26 imperial coins. These coins are further evidence of the prosperity of the village, as expressed in the documents of Nahal Hever.

The Roman legionnaires repressed the Second Revolt with an iron hand, as is chillingly documented in the Cave of Letters. The skulls of eight women, six children and three men, were found in the cave (Yadin 1971: 64-65). Among the other finds here were various keys, including six or seven excellently preserved, long keys, almost certainly the house keys of the inhabitants

of Ein Gedi who had hoped in vain to return to their homes. After their death, the skulls had apparently been carefully collected, put into baskets, and placed in a crack in the rock wall deep in the cave, presumably by relatives from Ein Gedi.

The time of the destruction of Ein Gedi during the Second Revolt is represented by only a few coins. The excavation of the village revealed a single coin from the period of the Bar Kokhba Revolt and another coin from the days of the Roman Emperor Lucius Verus (161-169). It is clear that the village was largely abandoned at this time.

### **Strata III-II: The Period of Prosperity in the Late Roman and Byzantine Periods**

The consequences of the Second Revolt were infinitely more catastrophic for the Jewish population than were those of the First Revolt. The chilling evidence found in the caves of Nahal Hever illustrates the scale of the killing and suffering. However, the Jewish settlement at Ein Gedi survived. As suggested above, relatives of refugees who had fled to the caves traveled to those sites at some point after the revolt to give the deceased a proper burial. The results of the excavations at Ein Gedi indicate a continuity of settlement during the transition from the Late Roman (Stratum III) to the Byzantine (II) period. The depth of these two strata ranges from 1 to 1.5 m, depending on the height of the preserved walls.

A synagogue, surrounded by the houses of the inhabitants of Ein Gedi, was erected in the center of the village at the beginning of the 3rd century CE. In addition to the dwellings, streets, and alleyways, shops, a bathhouse(?) (Figs. 12, 13), and a series of storehouses were uncovered. The storehouses and shops were located in the northern part of the excavation, away from the synagogue, while the dwellings and the bathhouse were found in the southern sector, in closer proximity to the synagogue. Based on the assumption that the

remains unearthed in the excavation area are representative of the general organization of the village, an internal division into three circles is evident: an inner circle around the synagogue for religious and social functions, a middle residential belt, and the outer circumference for commerce, light industry, and storage. Ein Gedi needed to import large quantities of the three important food staples of the ancient world – wheat, oil, and wine – that could not be produced in any significant quantities in the oasis. This need necessitated strict codes of behavior as expressed in an inscription in the synagogue that details the rules of the community. The inscription forbids community members to reveal the “secret of the village.” Some archeologists believe that this secret was connected with the method of growing balsam and manufacturing its perfume (Naveh 1978: 107).

The village of Ein Gedi was destroyed by a heavy conflagration, traces of which are evident throughout the village, including the synagogue. The excavators of the synagogue ascribe the destruction to the first half of the 6th century CE, based on the latest finds uncovered below the collapsed debris (Barag 1992: 1200). In their estimation, the destruction was part of the persecution campaign against the Jewish religion that began at the beginning of the reign of the Emperor Justinian (527-565). On the other hand, the finds from our excavation indicate that the village was destroyed at the end of the 6th century or beginning of the 7th century CE. The latest coins found under the destruction debris date to 580–600, and among the pottery finds were wheel-made “sandal lamps,” whose first appearance is usually dated to the end of the 6th or the beginning of the 7th century (Rosenthal and Sivan 1978: 122). It is possible that the village of Ein Gedi was destroyed by a Beduin raid in the period prior to the Persian conquest of the Land of Israel.

From Christian sources, we learn of the raids of the Sarkans (the Beduins) that took place prior to the Islamic period, their plundering, and the murders they committed. For example, the monk

John Moschos, who lived in the Judean Desert at the end of the 6th century, tells of another monk who was murdered by the Sarkans while strolling along the shore of the Dead Sea (John Moschos, *The Spiritual Meadow [Limonarion]*: 21). Other sources tell of the damage to the monasteries of Mar Saba on Nahal Kidron and Huzeiba on Nahal Prat (Wadi Kelt) as a result of raids by local Sarkans, who exploited the unstable conditions at the end of the Byzantine period (Hirschfeld 2002: 82-84).

In any case, Ein Gedi was utterly ruined. The houses were demolished, the water systems and the irrigated fields were destroyed, the village was abandoned, and the inhabitants became refugees. It can be assumed that the residents of Ein Gedi fled to Zo‘ar, where evidence of a large Jewish community has been revealed, or elsewhere in the Land of Israel or even outside it. It is interesting to note that from this time on, evidence of balsam cultivation in the Dead Sea area also ceases. It would appear that this was not circumstantial, as the Jewish inhabitants of Ein Gedi took the secret of balsam cultivation with them, and knowledge of growing the plant and exploiting its qualities was lost forever.

### **Characteristics of the Buildings of the Village**

The village of Ein Gedi in the Late Roman and Byzantine periods was notable for its density. The dwellings, shops, and storehouses were built next to one another, with the wall of one house often constituting the wall of its neighbor (Fig. 14). The thickness of the house walls ranged from 0.7–0.8 m. Studies have shown that architectural spaces whose walls are more than 0.7 m. thick are excellently insulated against heat and cold. It is probable that during the burning days of summer heat, the inhabitants of Ein Gedi hid in their houses, as did the residents of Jericho. Josephus tells us a bout this in detail: “In the heat of the day when the area around them was so dry, it was difficult for a man to leave his house” (*Jewish Wars* 4:

473). On the other hand, the region is noted for its moderate winters as Josephus also describes: “The climate [in the winter] is so pleasant that the residents [in the region of Jericho] wear linen while snow falls in the rest of Judea” (*Jewish Wars* 4: 474). The construction method for the buildings in the village, apart from the synagogue, was characteristic of that in the valleys in the rest of the country; that is, a mud-brick superstructure on stone foundations. The foundations were built of stones collected on the slopes of the hills and along the banks of nearby streambeds. Worked stones in secondary use were often incorporated into the walls as were fragments of grinding stones no longer in use. The stone foundations, which ranged in height from 1-1.5 m., protected the houses against water seepage from the ground and the sudden downpours, while the mud-brick superstructure significantly reduced the cost of construction.

For the roofing and the doors and windows, the builders used wooden beams. Many remains of palm beams, the most available wood in the region and apparently also the cheapest, were found in the excavations. In one place, a carbonized palm beam, 0.75 m. in diameter and preserved to a length of 0.8 m., was found lying directly on a floor. In addition to palm wood, remains of jujube, acacia, tamarisk, balanite, and Euphrates poplar were also found – all of which still grow in the oasis today. The roofs of the houses were all flat. The excavation uncovered only a few fragments of roof tiles, such as a concentration of 7-8 pieces discovered in the street opposite the door of a shop. It can be assumed that the tiles were used as an awning above the entrance to the shop. A layer of hard-packed mud roofing was applied over the roof beams, and renewed each year before the rains. The thickness of the roofing could reach 0.5 m.

Some of the houses had two stories, such as the house that we call “Half House” (Figs. 15, 16); however, most of the houses in the village apparently had only a single story. The floors of

the houses were usually composed of a layer of packed earth averaging 0.2 m. in thickness. The foundations of the floors often included a bedding of fist-sized pebbles (Fig. 17). Rooms in four of the residences were paved with white mosaic, but the workmanship was relatively crude (56 tesserae per dm.). The corner of one of the mosaic rooms contained a shallow depression for a water jug or for the rubbish after a floor washing (Fig. 18). The mosaic floors in the houses of Ein Gedi are indicative of the high status of some of the residents of the village. This method of paving was also functional. A mosaic floor was water-resistant because of the lime-plaster foundation; and thus, it was possible during the hot summer days to flood the floor with water to cool off the room.

### Small Finds—Evidence of Wealth

In the excavations at Ein Gedi, 1,247 coins were found, most of them (about 80%) from the area of the village, thereby indicating intensive commercial activity. Most surprising were two hoards of gold coins: one contained 15 coins from the days of Justinian (527-565), and the other five gold coins from the days of Anastasius (498-518). Until now, gold coins had been found only in urban contexts. Certainly the exceptional commercial activity at Ein Gedi was connected to the trade in perfume and other by-products of the Dead Sea (salt and bitumen).

The large quantities of ceramic finds throughout the village also reflect a long period of prosperity during the Late Roman and Byzantine periods. Local production of pottery is evidenced by the deformed vessels produced in a village workshop. The continuity in ceramic forms from the Late Roman period to the Byzantine period suggests an impressive demographic and economic stability.

The ceramic assemblage includes a wide variety of tableware – plates and bowls imported from North Africa, some decorated with crosses. Apparently this symbol held no special significance for the inhabitants of Ein Gedi. A typical class of

pottery, manufactured in Jerusalem, was Byzantine fine ware, mainly bowls, jugs, and juglets. Alongside the fine tableware were large bowls or basins with upright sides and flat bases made of a crude gray fabric. These basins, their diameters ranging between 0.3 m. and 0.7 m., were intended for various household and courtyard uses, such as the preparation of dough, water storage, soaking of food, laundry, etc.

Cooking pots were found mainly in the courtyards next to *tabuns* and in rooms in which cooking and food consumption took place (Figs. 19, 20). In the Byzantine period, cooking pots with vertical handles replaced pots with horizontal handles typical of the Roman period. Other types of vessels include frying pans, lids for cooking pots with a button, and cooking jugs; that the last were intended for heating up liquids, such as spiced wine (a kind of punch). Heated wine, called in Greek *abakertion*, is mentioned in the monastic literature of the Judean Desert (Hirschfeld 2002: 202-203). Storage jars in various sizes, among them giant pithoi (with a diameter of 0.4 m. and a height of 1 m.), were also found. The pithoi had upright sides and were made of crude gray ware. Their main purpose was apparently food storage – for grains and legumes, liquids such as oil, wine, etc. The large number of jars is characteristic of agricultural settlements, whose inhabitants had to store food in their homes or in storehouses built especially for this purpose.

In addition to the usual ceramic vessels, a number of unique types were also found, among them lanterns, flasks decorated with geometric patterns, bread stamps, and zoomorphic vessels representing roosters. These decorations testify to an affection for animals. Another example of a unique vessel is a large, ornate lamp that we call the “En Gedi lamp,” made of a high-quality fabric. A local imitation of lamps imported from North Africa, it is decorated with animal figures: a donkey, an ibex and a suckling fawn, the back of a tiger with claws, and another small animal, probably a rabbit. Other ceramics have decorations of birds,

while bronze coins also bear depictions of animals (a leopard and a rooster). These finds suggest a closeness with nature and harmony with the surrounding wildlife of the oasis of Ein Gedi.

Most of the glass vessels uncovered in the village are tableware types, also known at other sites in the area, mainly Jerusalem and its environs. Most of the vessels were blown, and a small number were mold-made. Among the predominant vessels is a large group of glass lamps that were hung from the ceiling. Similar lamps were found in houses in Jerusalem and at other sites in the country. Also found were cosmetic items, such as small perfume bottles and kohl sticks, as well as pilgrim flasks for holy oil.

An unusually rich assemblage of small finds was uncovered in the excavations; these include a large collection of some 30 bronze nails that were used mainly in furniture, such as chairs, benches, clothes chests, and coffins (Fig. 21). In addition, about 180 iron nails were found that were used in the construction of houses, mainly for roofing. Relatively large rings (3-10 cm.) were used to close chests, doors, and similar objects. Among the jewelry and cosmetic items is a group of 37 spatulas and kohl sticks made of bronze. Such objects were also used for medical purposes: to examine wounds, prepare medicines, to use in surgical procedures. The excavations further revealed 27 bracelets made of bronze, glass, and bone and 4 bronze bells, which were hung around the necks of animals or children as amulets or in houses for decoration. Finger rings were retrieved from the residential rooms, along with earrings, necklaces, and two stamp-seal rings, one decorated with a rooster and the other with a panther (or leopard) (Fig. 22). Items of special note are a gold pendant (Fig. 23), a bronze earring, the sheath of a dagger, and a bronze seal used to stamp letters with wax (Fig. 24). In one of the houses, a pole and two small bowls that hung from it were recovered as were parts of a scale for weighing small valuables. The scales, which were possibly those of a goldsmith, were made of bronze just

like many other objects. Metallurgical analysis of the bronze indicates the existence of a local workshop.

Many work tools were found in the excavations, such as a double-edged axe, a hoe with a hole for inserting the wooden handle, and a 27 cm. long chisel (Fig. 25). This is a tool similar to a machete, and was likely used to prune the branches of the palm tree. Also discovered were three iron knives, a pin with a round head, a small chain, a bronze perfume bottle, various spindle whorls (Fig. 26), beads for adornment (Fig. 27), four black whetstones, stone weights, and various bone tools, such as pins, buttons, gaming cubes (Fig. 28), and inlays for furniture. In addition, disc-shaped objects made of clay, one of which was decorated with black and red paint, and that have a small inlaid mirror in its center, were recovered in four dwelling rooms (Fig. 29). Three different rooms offered up pieces of linen cloth decorated with embroidery. The threads were of even thickness, indicating a high-quality weave. Because of their delicate texture, these pieces apparently belonged to items of clothing.

The excavation of the Byzantine village also uncovered a large quantity of animal bones. Analysis of the finds indicates that the majority of the bones (76%) are from sheep and goats; therefore, sheep herding may be assumed to have been the most important branch of the Ein Gedi economy. Cattle and chickens comprised two secondary branches of the village economy, cattle bones making up 13.4% of the assemblage and chicken bones, 6.7%. A relatively large number (5.9%) of mouse bones were found. The bones of other animals were represented by smaller frequencies: camels (1.8%), dogs (1.3%), pigs (0.5%), donkeys (0.2%), and horses (0.2%). Also found were fish bones, likely imported as dried food from the Red Sea, and a small number of ibex bones.

The camels and donkeys were used as beasts of burden or for transporting people. The horse was an expensive animal to own, and its discovery

at Ein Gedi indicates the presence of a representative of the ruling class. Most of the animals, particularly the sheep, chickens, and fish, supplied food. Cattle, which was expensive, probably functioned mainly as draft animals for plowing the fields and providing milk. The pigs most likely provided food for foreigners who lived in the village. Jewish religious laws allow gentiles to work in agriculture on the Sabbath and holidays. The relatively large number of rodent bones is perhaps connected to the absence of cat bones.

The botanical finds include dozens of wood samples from various types of trees that still grow in the oasis today: date palm (53% of these finds), tamarisk (9.3%), jujube (7.5%), Euphrates poplar (6.3%), acacia (4.8%), and balanite (3.3%). Also found were date pits, olive stones, almonds, and nuts and peach pits. These fruits do not grow in the oasis, and were thus part of the foodstuffs imported by the inhabitants of Ein Gedi in the Late Roman and Byzantine periods.

## Summary

The excavations at Ein Gedi have unveiled for us a rich, detailed tapestry of daily life in this Jewish village during the time of the Mishnah and the Talmud. The village was extremely well-organized. The village council, usually consisting of the elders of the community, attended to the daily maintenance

of the public property. The roads were paved and drained by a system of channels. The internal organization of the village is clearly evident in the separation of the residential areas from areas intended for commercial activities, where trade centers and public storehouses were constructed. The high level of village organization is also seen in the establishment of a flour mill and a structure for the production of balsam perfume on an industrial scale.

The inhabitants of Ein Gedi successfully developed a unique and prosperous economy. Their economic success is evident not only in the impressive synagogue erected in the center of the village, but also in the high quality of construction of the houses. In some of the residences, mosaic floors were revealed – a rare find in a village context. Two hoards of gold coins were discovered, also evidence of the wide-ranging trade activities of some of the inhabitants. These activities most certainly revolved around perfumes, medicines, and products of the Dead Sea – bitumen and salt – as well as products of the date palm, specifically a juicy fruit and date honey. The destruction of the village at the end of the 6th century or beginning of the 7th century CE apparently occurred as the result of a local Beduin raid. This phenomenon signaled the beginning of the end of the Byzantine Empire in the East.

## Notes:

1. The present article is based on an article published by the author in *Qadmoniot* 128 (2005): 62-87
2. Gideon Hadas of Kibbutz Ein Gedi was a partner in the excavations of the terraces and the ancient water system, including two flour mills located in the area of the oasis. The Ein Gedi Field School assisted in the storage of finds from the excavation. The drawings are the work of Dov Porotsky, and Gaby Laron and Zeev Radovan supplied the photographs. The ceramic studies were carried out by Anna de Vincenz, the numismatics by Gabi Bijovsky; the glass vessels were studied by Ruth Tal-Jackson, the stone tools by Naomi Sidi, the small finds by Elena Zernov, the textiles by Orit Shamir, the animal bones by Moshe Sade, the botanical finds by Nili Lipshitz, and the metal artifacts by Matthew Ponting.