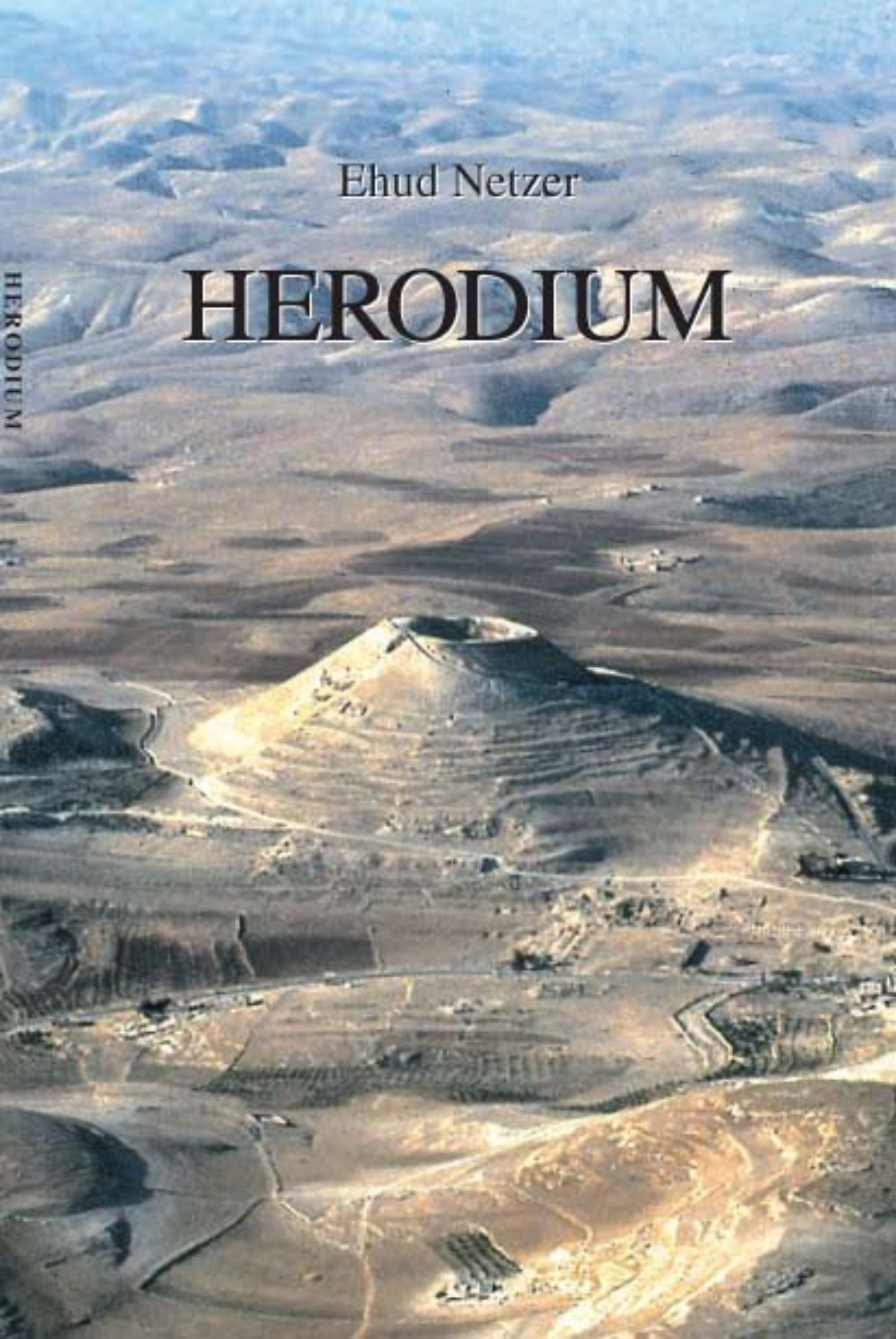


Ehud Netzer

HERODIUM

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An Archaeological Guide

Published by
The Herodium Expedition

When the wedding-ceremonies were concluded, Herod constructed another fortress in the region where he had defeated the Jews after his expulsion from the realm, when Antigonus was in power. This fortress, which is some sixty stades distant from Jerusalem, is naturally strong and very suitable for such a structure, for reasonably near by is a hill, raised to a (greater) height by the hand of man and rounded off in the shape of a breast. At intervals it has round towers, and it has a steep ascent formed by two hundred steps of hewn stone. Within it are costly royal apartments made for security and for ornament at the same time. At the base of the hill there are pleasure grounds built in such a way as to be worth seeing, among other things because of the way in which water, which is lacking in that place, is brought in from a distance and at great expense. The surrounding plain was built up as a city second to none, with the hill serving as an acropolis for the other dwellings.

Antiquities XV, 323-325

The king's funeral next occupied attention. Archelaus, omitting nothing that could contribute to its magnificence, brought forth all the royal ornaments to accompany the procession in honour of the deceased. The bier was of solid gold, studded with precious stones, and had a covering of purple, embroidered with various colours; on this lay the body enveloped in a purple robe, a diadem encircling the head and surmounted by a crown of gold, the sceptre beside his right hand. Around the bier were Herod's sons and a large group of his relations; these were followed by the guards, the Thracian contingent, Germans and Gauls, all equipped as for war. The remainder of the troops marched in front, armed and in orderly array, led by their commanders and subordinate officers; behind these came five hundred of Herod's servants and freedmen, carrying spices. The body was thus conveyed for a distance of two hundred furlongs to Herodium, where, in accordance with the directions of the deceased, it was interred. So ended Herod's reign.

The Jewish War I, 670-673

Josephus Flavius (Yosef Ben-Mattityahu), the famous Jewish historian, is our best source for the Second Temple period in Jerusalem. Josephus personally participated in the early stages of the First Jewish Revolt against the Romans (66-73 C.E.), but later sided with the

Romans and was able to document this crucial war in his monumental book, *The Jewish War*. Herod the Great's days and deeds are well documented by him in the above-mentioned book, as well as in his second monumental work, *Jewish Antiquities*.



Aerial view of Herodium's Mountain Palace-Fortress. Note the remains of the main stairway in the center and the openings leading to two cisterns to its right.

Preface

Herodium, the burial place of Herod the Great and the only site which bore his name, is situated 15 kilometers south of Jerusalem, and 5 kilometers southeast of Bethlehem. It was built on the border between the Judean Hills and the Judean Desert in a partially arid area, populated today mainly by Bedouin of the Ta'amra tribe. In the past Herodium lay close to the desert routes leading to 'En Gedi, Masada and the Dead Sea. Today, the main access from Jerusalem to Herodium is via the monastery of Mar Elias and the new neighborhood of Har

Homma. It passes close to Bethlehem, Beit Sahur (the Shepherds' Fields), and the Bedouin village of Za'tara. The same road continues on to Teqoa (birthplace of the prophet Amos) and the new town of Efrat, and the "Etzion Block," where it links up with the Jerusalem-Be'er Sheva road.

Herodium's most striking feature is the volcano-shaped artificial mound constructed by Herod, which masks the ruins of a unique round structure -- the "Mountain Palace-Fortress." This prominent landmark can be clearly seen



- | | |
|-------------------------------------|--------------------------|
| The borders of Herod's realm | ★ Capitals of toparchies |
| ----- The borders of the toparchies | ⊗ Capitals of districts |
| ----- The borders of the districts | ■ Royal fortresses |
| | ● Foreign cities |

from many parts of Judea as well as from several points within Jerusalem. Josephus compared the mountain's rounded shape to a woman's breast.

Herodium, however, was much larger and extended beyond the mountain itself. Below, and to the north, lie the ruins of substantial palace wings, "Lower Herodium." "Greater Herodium," which includes the Mountain Palace-Fortress and the Lower Palace, was one of the most important of Herod's famous building projects which included the Temple Mount in Jerusalem, the port-city of Caesarea Maritima, his winter palaces in Jericho, and Masada.

Herod reigned over Judea and extensive parts of the Holy Land from 37 to 4 B.C.E. He was the son of Antipater, a Jewish nobleman of Idumean origin who was both a friend and a political advisor to one of the last Hasmonean kings, Hyrcanus II. It was during the latter's reign in 63 B.C.E. that the Jews lost their independence, gained close to 100 years earlier, and came under Roman sovereignty.

From 47 B.C.E. Herod served for several years as governor of the Galilee while his older brother, Phasael, governed Judea. In the year 40 B.C.E. Syria was seized from the Romans and occupied by their determined rivals, the Parthians. This event was exploited by the Hasmonean prince Mattathias Antigonus, who collaborated with the Parthians to replace his uncle, Hyrcanus II. While Hyrcanus and Phasael supported Antigonus and the Parthians, Herod escaped from Jerusalem under cover of darkness with his close family, but was soon pursued by Antigonus and his followers; the two forces confronted one another at the very site where Herodium was later built. Herod won the battle, enabling him to escape to Rome, via Alexandria, where he was appointed king of Judea and the Galilee by the Roman Senate.

During the above flight from Jerusalem, Herod's mother's chariot overturned and she was caught under its wheels. Herod was so shocked by the event that, in panic, he attempted to commit suicide; however, he was soon



Herodium, with Bethlehem's olive groves in the foreground.

pacified. This episode and the battle which took place on the same day no doubt left such an impression on Herod that he was determined to be buried at the site of the battle and not in the capital, Jerusalem, as were his predecessors. Close to twenty years passed before he returned to the site together with his architects and many

laborers. He built here not only a memorial to the battle and a future burial place for himself, but also a huge palace for his summer residence, into which he integrated a fortress and the headquarters of the district which until now had existed in Bet Zur, on the highway between Jerusalem and Hebron.

Herodium, within the Context of Herod the Great's Building Projects

Grandiose building activities in the Holy Land continued throughout Herod's long reign. One of his first building projects was Masada. This famous stronghold was one of a series of desert fortresses first built by the Hasmoneans, which included Cyprus, Hyrcania, and Machaerus. During his reign Herod rebuilt and embellished these fortresses, the most renowned of which is Masada with its impressive Northern Palace, constructed on three natural rock terraces.

Over the years Herod built several towns, among them Samaria-Sebaste and Caesarea Maritima, both named after Emperor Augustus, his patron. In both these cities he erected pagan temples, theaters, hippodromes and stadia. At Caesarea he constructed a large harbor, perhaps his greatest engineering feat as there is no natural inlet along this part of the coastline.

He also constructed several buildings at Jericho which was a famous winter resort and an agricultural center; among



A reconstruction of Herod's main palace in Jerusalem (photograph of model of Jerusalem in the Second Temple period at the Holyland Hotel).

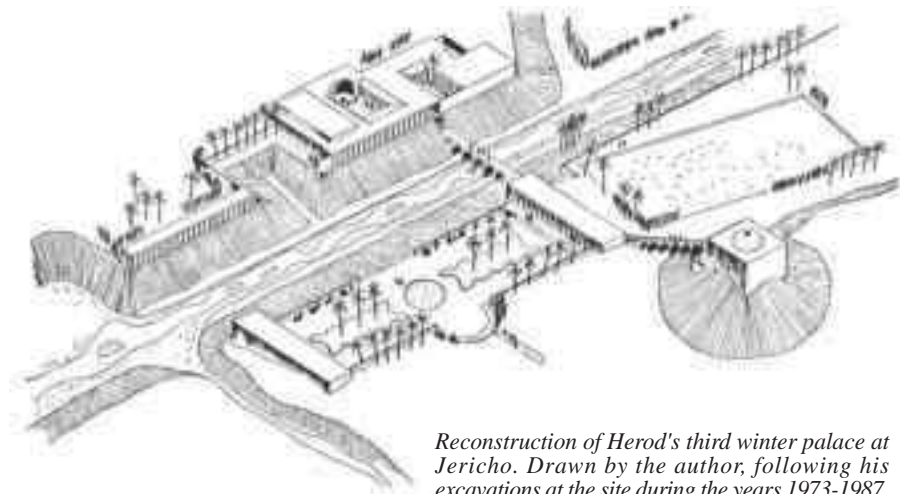


A reconstruction of the Temple Mount in Jerusalem (photograph of model of Jerusalem in the Second Temple period at the Holyland Hotel).

them were three palaces which ultimately served as a single complex. Elsewhere in Jericho he built a unique structure which combined a hippodrome, a theater, and possibly a gymnasium.

Naturally, the major building effort was concentrated in the capital, Jerusalem. Here Herod built a fortress

that also served as a palace. He named it "Antonia" after Mark Anthony. Later, in another part of the city, he erected his main and, no doubt, most elaborate palace and next to it a group of three, remarkable, high towers (see below). A theater and a hippodrome were also built by him in Jerusalem; however, their location is yet unknown.



Reconstruction of Herod's third winter palace at Jericho. Drawn by the author, following his excavations at the site during the years 1973-1987.

The largest of the Jerusalem projects was the reconstruction of the Temple Mount, which included the rebuilding of the Temple and the construction of a huge temenos to support the Temple complex. The temenos was surrounded on three sides by colonnades. The fourth, southern one, built in the form of a basilica (the stoa basilea), was the most ornate and innovative.

Aside from the structures which Herod erected in other parts of his kingdom, he also undertook building projects in cities and countries outside his realm, such as Antioch (today in northern Syria), Rhodes and Nikopolis (in western Greece).

Herodium was probably built between the years 23 and 20 B.C.E. In 15 B.C.E.



Sculptured face of Selinus found in the Main Bathhouse at Lower Herodium.



Mosaic floor exposed in the Main Bathhouse at Lower Herodium



Sculptured floor medallion found in the Main Bathhouse at Lower Herodium.

Herod was able to entertain his friend and most honored guest, Marcus Agrippa, at the site. Its proximity to Jerusalem and its size and facilities made it the favored place for the entertainment of Herod and his many friends and relatives during the hot summers. One can imagine the many hundreds of guests, officials, maintenance crew and servants residing here during the season, as well as a permanent staff stationed here all year round.

As there are no water sources in the vicinity of the site, an aqueduct, ca. 6 kilometers long, was built to bring water from the area of Solomon's Pools, to the south of Bethlehem. Security at the site was provided by the fortress which was integrated into the mountain structure.

Herod died at his beloved winter palace in Jericho, but was brought for burial, with pomp and ceremony, to Herodium (see above, quotation), to a tomb probably prepared during his lifetime. After Herod's death, his son, Archelaus, presumably also enjoyed his vacations at this oasis. He was exiled ten years later.

Herodium in the Days of the Roman Procurators and the First Jewish Revolt against the Romans

For close to 60 years Herodium was controlled and probably also maintained by the Roman procurators who ruled over Judea after the exile of Herod's son, Archelaus, in 6 B.C.E. For a short interval between 42 and 45 C.E. Herod's grandson, Agrippa I, ruled as king.

Although very little is known about this period, it seems that as a result of an earthquake which occurred in the mid-first century C.E., Herodium, and particularly Lower Herodium, was partially destroyed.

During the First Jewish Revolt against the Romans, Herodium was occupied by Jewish rebels in 66 C.E. As they had done at Masada, the rebels and their families crowded into the available quarters, often using columns,



Coin minted during the First Jewish Revolt against the Romans.

capitals and other architectural elements as building materials. They converted the triclinium of the Mountain Palace-Fortress into a synagogue and installed ritual baths nearby. From Josephus's account we learn that Herodium, together with Machaerus and Masada, remained in rebel hands for a short while after the destruction of Jerusalem in 70 C.E. However, at Herodium, for unknown reasons, the rebels surrendered without a battle.



Jewish ritual bath (mikveh), from the days of the First Jewish Revolt against Rome, exposed in the peristyle courtyard of the Mountain Palace-Fortress.

Herodium in the Days of the Second Jewish Revolt against the Romans

For close to 60 years the site probably lay neglected. However, during the Second Jewish Revolt (132-135 C.E.), under the leadership of the legendary Bar-Kokhba, Jewish rebels once again took advantage of the Mountain Palace-Fortress, although it was probably partially in ruins. Unfortunately, there are no contemporary records, such as those provided by Josephus for the earlier period, but from the Bar-Kokhba letters found in Judean Desert caves we learn of certain features of contemporary everyday life -- such as land transactions at Herodium, then known as Herodis.

Archaeological evidence has revealed not only the occupation of the fortress ruins during this period but also an elaborate system of tunnels dug into the mountain (see below). With the bitter lessons of the First Revolt in mind, the rebels created an intricate underground system in an attempt to withstand the mighty Roman army by fighting



Tunnel from the time of Bar-Kokhba exposed below the Mountain Palace-Fortress.



Lamp from the time of Bar-Kokhba found inside the tunnel system at Herodium.

an unconventional war. Various underground systems from the same period have been explored in Judea, south and west of Herodium. The revolt, however, was crushed fiercely and Herodium was abandoned for another four hundred years.



Coin from the time of the Bar-Kokhba Revolt.

Herodium in the Byzantine Period

During the Byzantine period, which lasted from the end of the fourth century C.E. to the Arab conquest in the mid-seventh century C.E., the Holy Land flourished, and many large and small monasteries such as Mar Saba sprang up in the Judean Desert. The ruins of the Mountain Palace-Fortress, as well as Lower Herodium, proved to be a perfect location for settlement. Ruins were cleared and rebuilt, and new buildings were erected. Three medium-sized churches were built at that time, testifying to a sizeable local community. The mountain itself was occupied by a small monastic community who built a small chapel there.

A short while after the Muslim invasion Herodium was abandoned, and only an echo of its former name, Herodis, is preserved in its present

Arabic name "Jabel Fureidis." In the mid-twentieth century Bedouin nomads of the Ta'amra tribe took up residence around Herodium.



Medallion bearing a lion, found in the Eastern Church at Lower Herodium.



The Northern Church from the Byzantine period exposed at Lower Herodium.

Description of the Site

Our description begins with the Mountain Palace-Fortress which, although only partially excavated, is a unique monument to the past. The mountain also offers a splendid view of the surroundings. Lower Herodium spreads out below; further to the north is Jerusalem with its three towers marking Mount Scopus and the Mount of Olives; to the northwest Bethlehem and its satellite towns, Beit Sahur and Beit Jala, are clearly visible; to the south

lie old and new Teqoa; and to the east is the panoramic expanse of the Judean Desert and the Dead Sea, and, beyond them, the mountains of Moab and Edom.

The mountain was declared a National Park in 1968 and has since been visited by many tourists. Lower Herodium was proclaimed as a National Park in 1985 and is at present under the auspices of the Nature and National Parks Protection Authority.

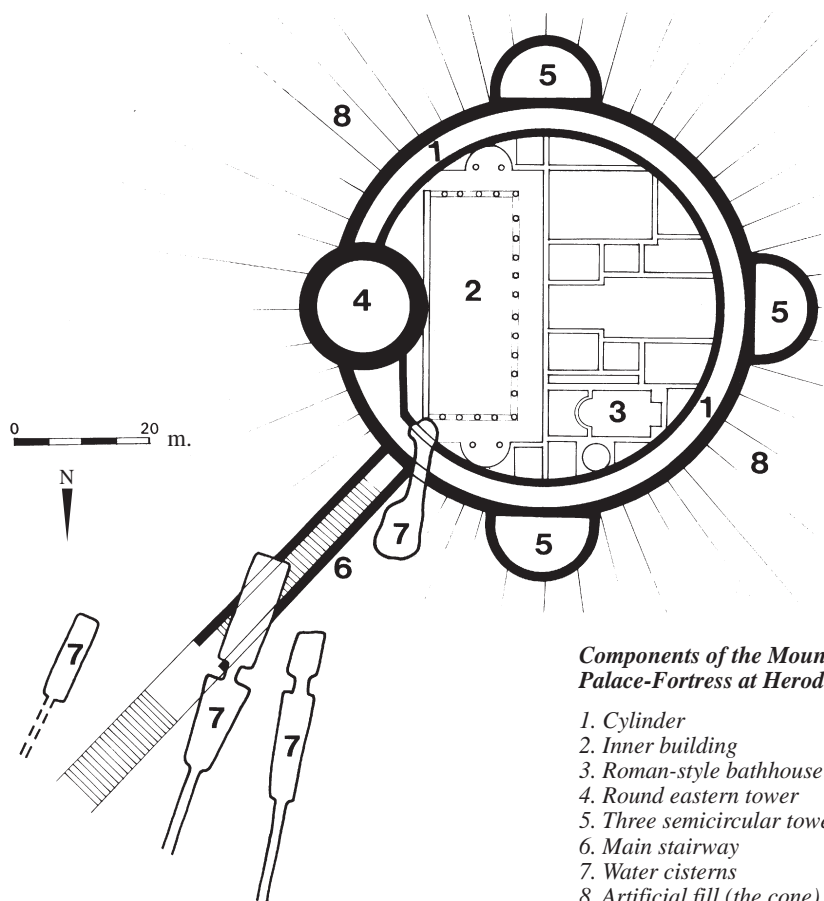


The Mountain Palace-Fortress as viewed from Lower Herodium.

The Mountain Palace-Fortress

The Mountain Palace-Fortress is unique. Part of its structure is the artificial mound which was raised up around the circular building, covering not only part of it but also the slopes of the hill on which it stood. We shall first describe

the eight components of the structure and then try to visualize the appearance of the building, which was undoubtedly intended not only as a palace and a fortress but also as a monument in Herod's day.



View of Mountain Palace-Fortress from the northeast. (Note the artificially levelled hill to its left.)



On the left - the excavated part of the Cylinder; on the right -- the round eastern tower and below it part of the peristyle courtyard.

1. The Cylinder

The round building is bounded by two concentric walls forming a "hollow cylinder." The thicker, outer wall is 63 meters in diameter. The inner wall was built 3.5 meters from it.

These walls today attain a height of 10 to 15 meters above the floor level of the inner building, the equivalent of two or three stories, each 5 meters in height. The space between the two walls, filled today by debris, was originally divided into galleries -- one on top of the other -- by means of floors laid upon wooden beams. These circular galleries (each about 155 meters long) were used as corridors as well as for storage. They provided virtually the only access to the three semicircular towers and the upper levels of the round eastern tower (see below).

The lowermost two galleries, situated below the floor level of the inner building, were slightly different (the bottom one being actually built on bedrock). These two galleries were covered with barrel-vaulted ceilings which are still intact. Most of the Cylinder has not yet been excavated. Only one section, on its northern side, is partially exposed, providing one with some idea of this structure's original appearance. In other parts of it one can see blocked entrances into the unexcavated galleries.

The main entrance into this unique round building was integrated into the Cylinder. A staircase leading to the upper and lower levels has not yet been found. It was probably located north of the round eastern tower, close to the entrance room.

2. The Inner Building

Inside the Cylinder, well protected by the surrounding towers and the artificial steep slopes, was a luxurious villa, probably for the use of the king, his family and close friends.

Of all the palatial buildings here, including those in Lower Herodium, this one, on the mountain, was probably the most exotic of all. (From this point of view, the inner building resembles the terraced Northern Palace at Masada.)

The round space was divided into two equal parts. The western half was occupied by living quarters and the eastern half contained a large peristyle courtyard. Most of the inner building consisted of a single relatively high story; only in some parts was it divided into two low stories.

The courtyard was flanked by colonnades on three sides. On the fourth,

eastern side half-columns were integrated into the surrounding wall. The Corinthian columns and the many capitals now exhibited west of the courtyard are similar to those found at Masada and Jericho.

On the narrow sides of the courtyard, on its north and south, are located semicircular exedras. Another exedra was built east of the courtyard, next to the round tower. The open part of the courtyard probably contained a garden in typical Roman style, similar to the peristyle gardens in Herod's palaces at Jerusalem and Jericho. The entrance to the inner building is located in the northeastern corner of the courtyard - an unusual phenomenon.

The villa's reception and dinning room, or triclinium, is located at the southern end of the building's western section. It is 15 by 10.5 meters in size and opened onto the courtyard via a



The peristyle courtyard.



The round eastern tower with the peristyle courtyard in the foreground.

wide doorway flanked by two large windows. Originally the triclinium had no columns and its floor was decorated with colored stone tiles in the style known as *opus sectile*.

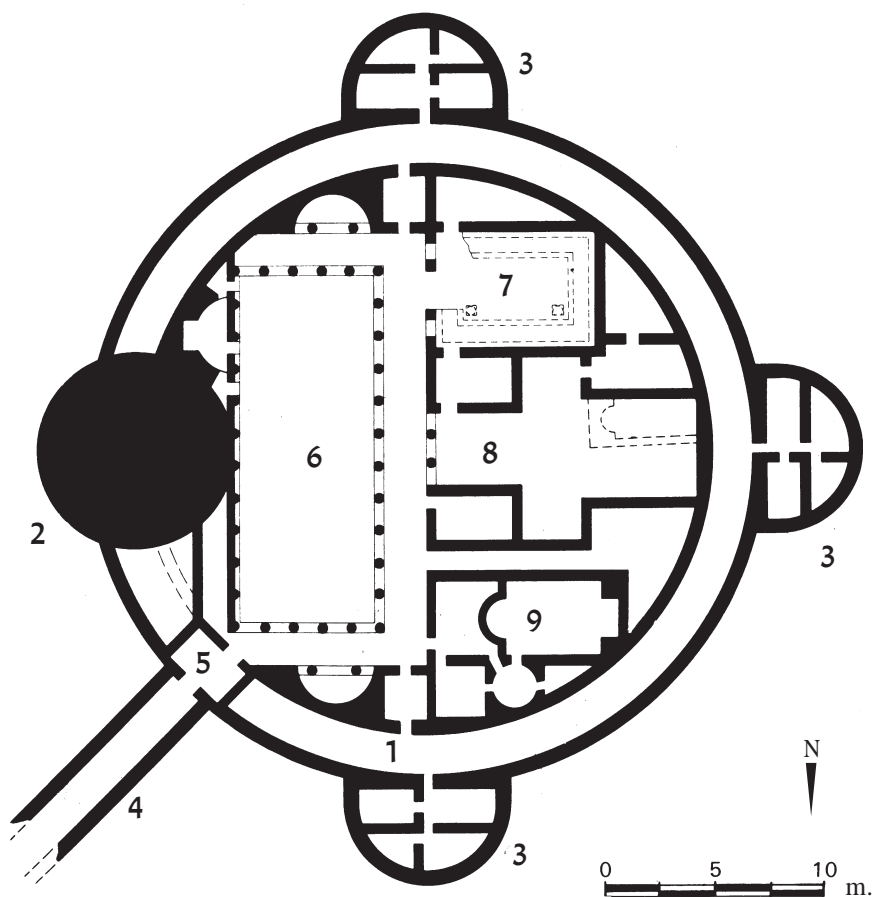
The columns and benches running

along three sides were added during the First Jewish Revolt against the Romans, when the rebels renovated this room, converting it into their synagogue. A similar development took place at Masada.

North of the triclinium were apparently bedrooms on all sides of a cross-shaped central corridor. Here, in the Byzantine period, a chapel was placed as part of a small monastery which was probably built inside the

ruins of the Mountain Palace-Fortress.

Most of these rooms, as well as the courtyard, were decorated with frescoes featuring geometric patterns, common in Herod's palaces and other building projects.



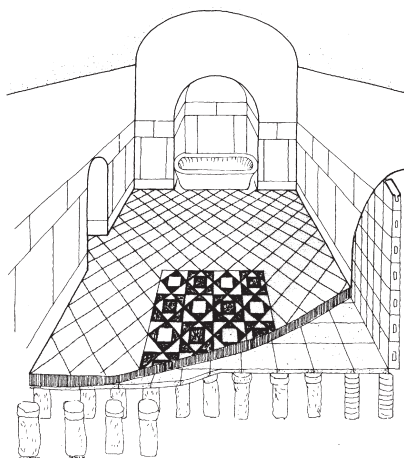
Ground plan of the Mountain Palace-Fortress:

- | | |
|------------------------------|-----------------------------------|
| 1. Cylinder | 6. Peristyle courtyard |
| 2. Round eastern tower | 7. Triclinium (later a synagogue) |
| 3. Three semicircular towers | 8. Bedroom wing |
| 4. Main stairway | 9. Roman-style bathhouse |
| 5. Entrance room | 10. Byzantine chapel |

3. The Roman Bathhouse

The Roman bathhouse is located northeast of the courtyard, next to the bedrooms. Baths in the Roman style were a common feature in all of Herod's palaces, and were actually introduced into the Holy Land by him. The largest room of the Roman bathhouse was the hot room (caldarium) which originally had a barrel-vaulted ceiling. The room contained many niches, typical of such caldaria. The floor of the caldarium is missing and the hypocaust below it contained small stone columns, some of which can still be seen here. Chimney vents are visible in the walls.

The almost completely preserved warm room (tepidarium) is round and covered by a beautiful cupola of carved stones with a round window (oculus) at its center. This is perhaps the oldest such architectural feature in the Holy Land. West of the tepidarium, behind a modern iron gate, is a small cold bath



Reconstructed cross section of a typical Herodian caldarium.

(frigidarium) with steps descending into it. Two adjacent rooms, to the east, served as an entrance chamber and dressing room (apodyterium). The bathhouse had mosaic floors and the walls were covered with frescoes, most of which, however, are missing.



The caldarium of the Roman bathhouse during the excavations.



The tepidarium of the Roman bathhouse (above -- domed ceiling; below -- remains of wall decorations and the mosaic floor during the excavations).

4. The Round Eastern Tower

All that remains today of this tower is a massive stone-built structure, 18.3 meters in diameter, rising 16 meters above the ground floor level, i.e., 20 meters above bedrock. Apart from a water cistern and two small storerooms at the top of this tower, it appears to have been completely solid. The quantity of debris that had accumulated at the base of the tower indicates that several stories were built on top of the solid foundation.

A similar solid structure -- also built by Herod -- has remained intact in the Citadel, commonly known as David's Tower, in the Old City of Jerusalem. It formed the lower part of one of the three famous towers named after Phasael (Herod's brother), Hippicus (his friend) and Mariamne (his Hasmonean second wife). The ruins in Jerusalem, measuring 20 X 22 meters and attaining a height of 20 meters, can probably be attributed to the Tower of Phasael which,



Remains of Phasael Tower, one of the three multi-storied towers built by Herod in Jerusalem.

according to Josephus, was about 45 meters high!



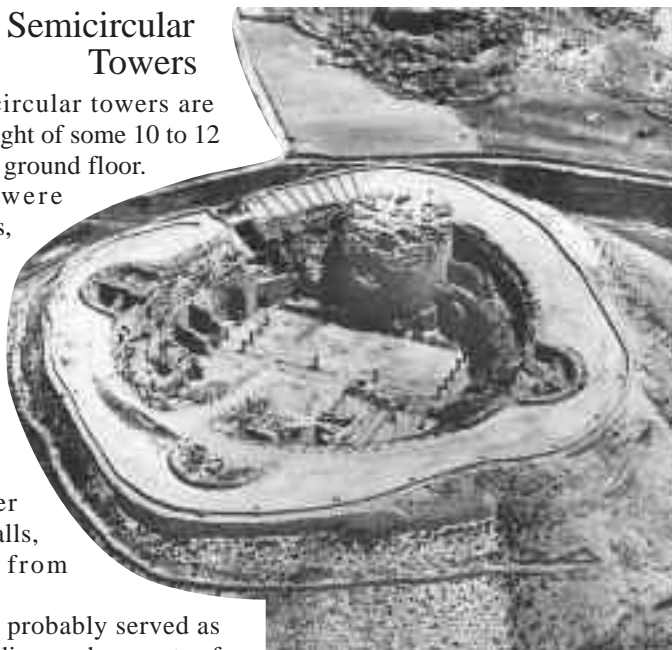
The round eastern tower with the inner building in the foreground.

5. The Three Semicircular Towers

The three semicircular towers are preserved to a height of some 10 to 12 meters above the ground floor.

These towers were divided into floors, similar to those in the Cylinder. Each floor was divided into four rooms by inner walls. Although these partition walls were added later than the outer walls, they still date from Herod's time.

These towers probably served as dwellings for soldiers and servants of Herod's entourage. Only the northern tower has been partially exposed. A few windows are visible inside it and in the Cylinder nearby, but these would have been blocked by the artificial fill piled up around the building.



The Mountain Palace-Fortress, flanked by semicircular towers on the north, west and south (aerial view).

6. The Main Stairway

The main and only stairway at the site ascends the slope of the hill. It was originally 6.5 meters wide and about 120 meters long, and according to Josephus there were 200 steps. The steps themselves have long since disappeared, but the massive foundation wall on top of which they were built has survived, and in some places it is 3 meters high. The structure of the stairway in its upper part, closest to the circular building, was different. On both sides walls were built to contain the artificial fill. In order to withstand the pressure of this fill, arches were built spanning these walls so that the staircase itself was almost sunk in a tunnel.



Upper part of the main stairway, built as a corridor with arches to reinforce its walls.

7. The Water Cisterns

Only a few small cisterns were found at the top of the mountain. These would have been completely inadequate in times of siege, or throughout the hot, dry summers of the Judean Desert. Three large cisterns were cut into bedrock, about 25 meters below the inner palace, with a total capacity of about 2,500 cubic meters of water. Rainwater which fell on the slopes of the mountain was collected in these lower cisterns. In dry years water could be supplied via the aqueduct built by Herod, and mentioned by Josephus, which led water from springs south of Bethlehem. These cisterns were dug near the main stairway to facilitate the conveyance of water to the palace. Approximately 10 meters below the inner building, another cistern (here termed the intermediate cistern) was hewn out of the mountain for storage of the water brought up from the lower cisterns. The water could be drawn from it by means of a bucket and rope via a shaft that descended from the courtyard.



The largest cistern on the northeastern slope of the Mountain Palace-Fortress.



Entrance to one of the cisterns at the bottom of the artificial fill. The side wall reflects the fill's slope.

8. The Artificial Fill (the Cone)

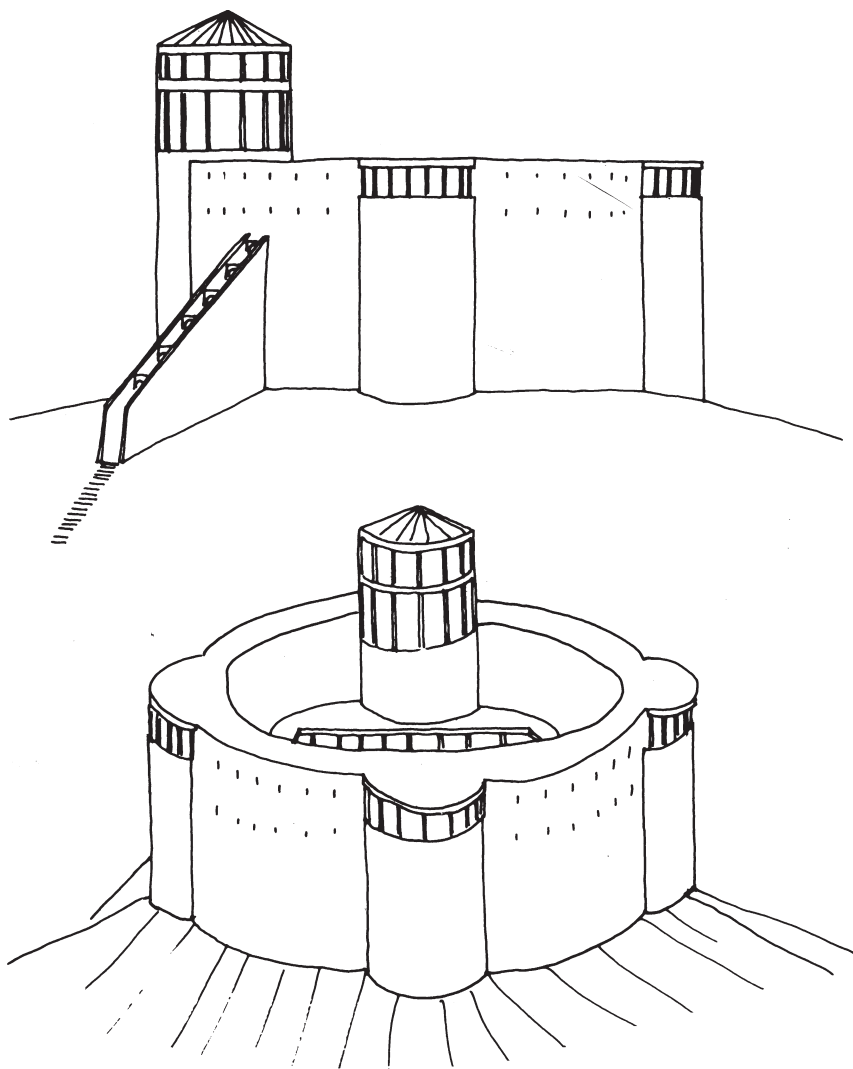
Huge quantities of soil and gravel were hauled up the mountain and dumped around the circular structure when it was completed. By doing so, Herod's architects created the cone-shaped hill whose silhouette is so prominent to this day. This fill rises 15 to 20 meters above the original top of the hill and continues down the slopes for another 20 meters or so, to the entrances of the lower cisterns. Barrel-vaulted passages were built in front of these cisterns to prevent the fill from blocking their entrances.

The fill not only served as a support, but also contributed in making Herod's mountain more dominating and impressive. Although the circular structure was in itself architecturally impressive, the desire for a well-protected fortress and a monumental feature in the landscape was probably the reason for undertaking such an ambitious project. Some of the fill was probably taken from a small hill immediately to the east of Herodium, which appears to have been artificially truncated.

Reconstruction of the Mountain Palace-Fortress

The circular walls of the Cylinder, presently attaining a height of 10 - 15 meters above the ground floor, are still filled with the debris of the upper stories of the structure. The highest preserved point, originally at the top of the third story, is located directly south of the

round eastern tower. An architectural analysis indicated that two more stories once stood above the three that can be traced today. The Cylinder reached an overall height of 25 meters above the ground floor, or some 30 meters above bedrock! If one takes into account the



Reconstructed sketch of the Mountain Palace-Fortress before the fill was dumped around its lower part. Above - view from the north; below - view from the west.

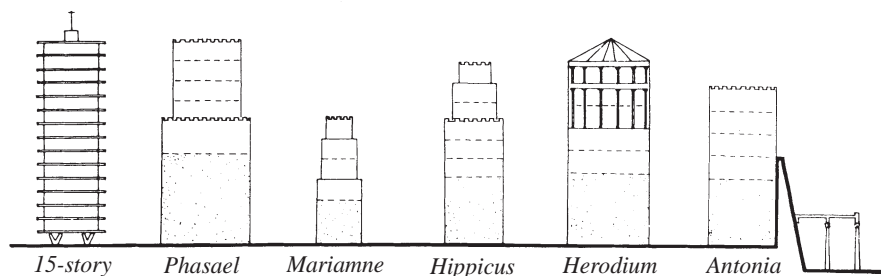


A reconstruction of the three multi-storied towers in Jerusalem (photograph of model of Jerusalem in the Second Temple period at the Holyland Hotel).

two barrel-vaulted substructural cellars, this structure had seven stories. Only the lower two-thirds were covered by fill, while the remaining 10 meters or so were free-standing and probably served as defense walls.

The round eastern tower was even more impressive in size. It probably rose

25 meters above the solid foundation that remains today, thus soaring to a height of 45 meters. This was one of the many multi-storied towers that Herod built, the most famous of which were the three towers in Jerusalem, Phasael, Hippicus and Mariamne, described in detail by Josephus. According to his

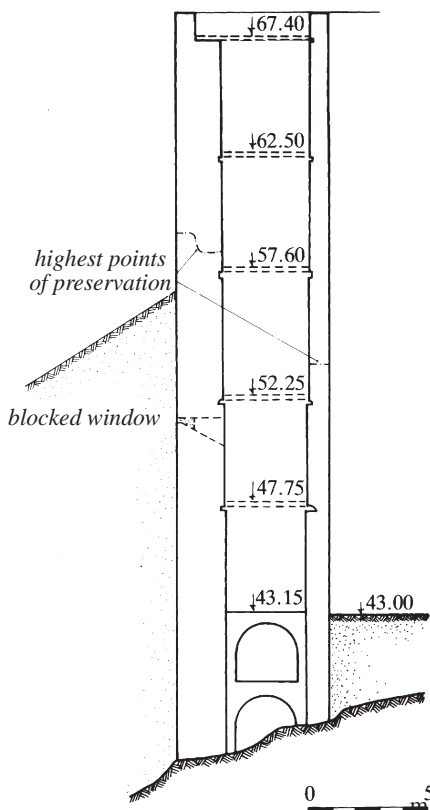


The multi-storied towers built by Herod; reconstructed elevations as compared to a twentieth-century 15-Story building. From right to left: the southeastern tower of the Antonia; the round eastern tower at Herodium; Hippicus Tower; Mariamne Tower; Phasael Tower; a 15-story modern building.

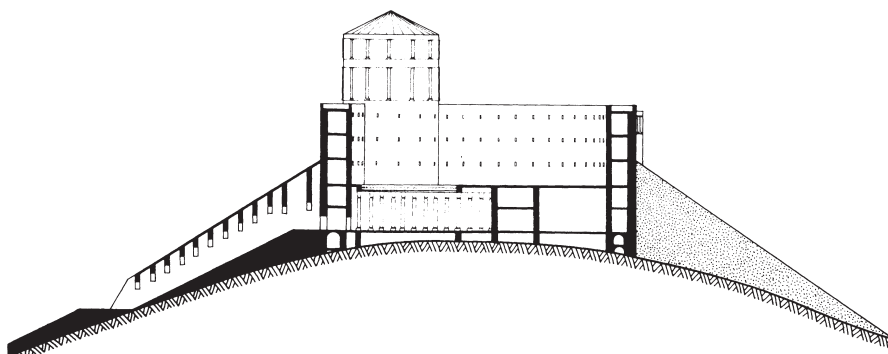
account, these towers had palatial rooms and baths. They were, no doubt, inspired by the ancient lighthouse, Pharos, in Alexandria -- one of the Seven Wonders of the ancient world. The solid foundations were probably built to withstand earthquake damage.

The eastern tower at Herodium could have served as a strategic observation point, but more probably was intended as a private retreat where Herod could enjoy the magnificent panorama, not visible from the inner building, and the occasional breeze on a hot day. As to the three semicircular towers, it is not clear whether they projected above the outer walls. Their roofs were most likely bedecked with ornamental terraces.

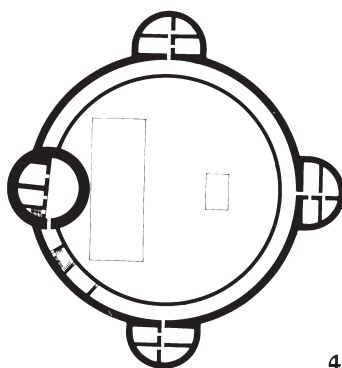
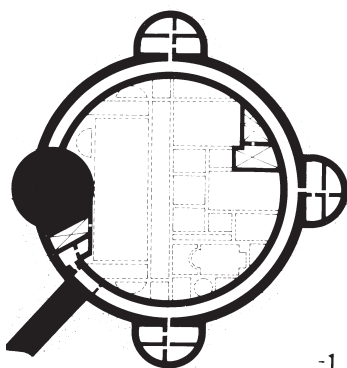
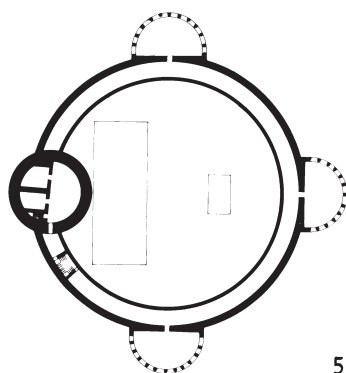
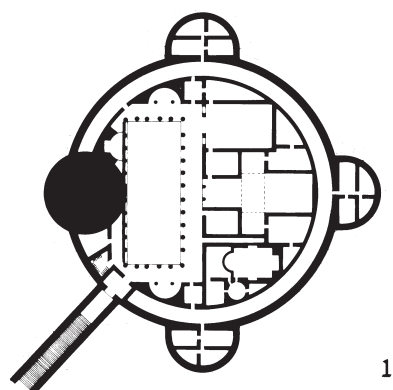
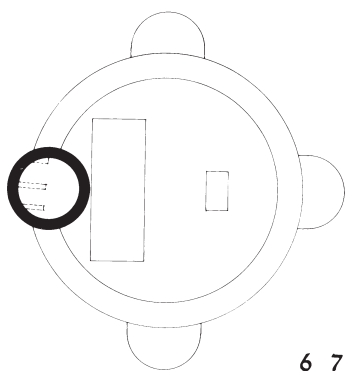
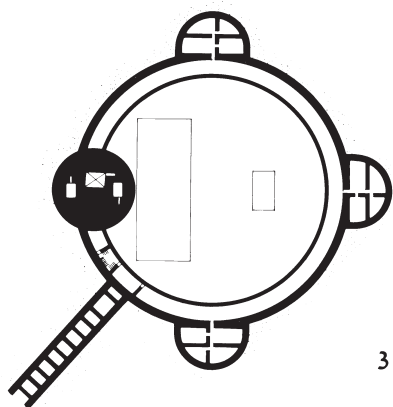
All of the building's stone walls were probably coated with white lime plaster typical of many of the Herodian structures. The commonly held view that the ashlar in Herodian buildings were generally unplastered is erroneous.



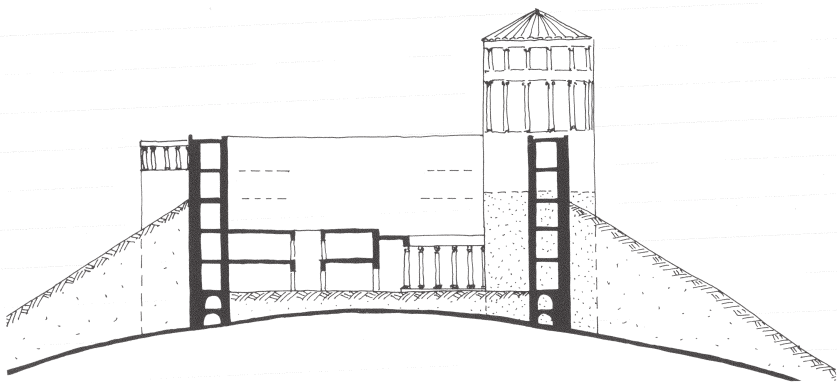
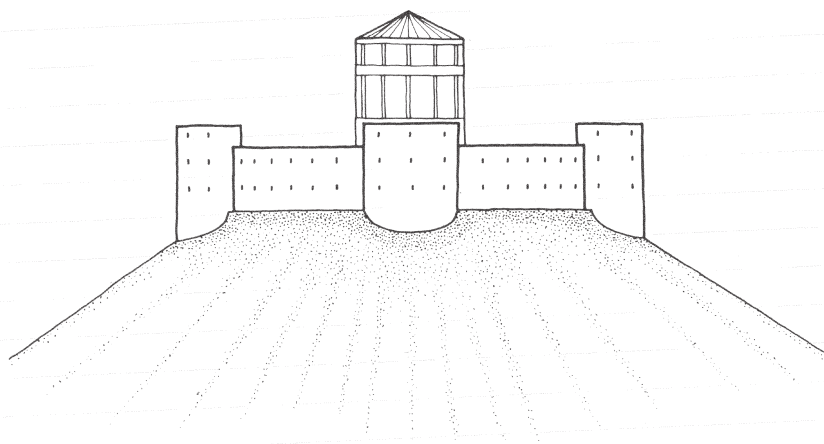
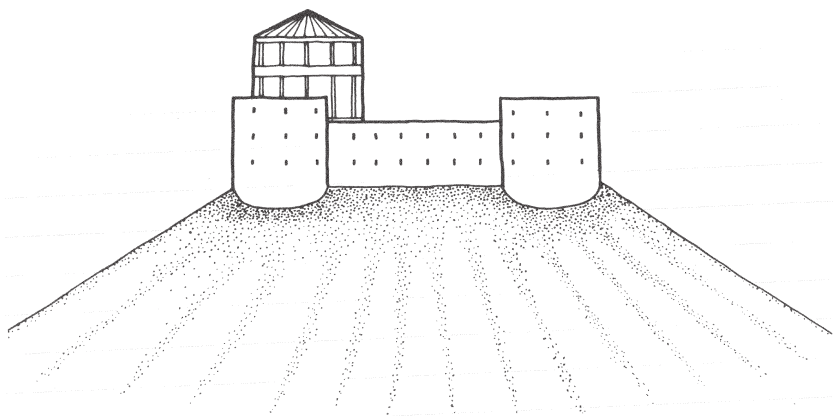
Reconstructed cross section of the Cylinder at Herodium.



A reconstructed section through the Mountain Palace-Fortress, view from the northwest. To the left the section cuts through the upper part of the main stairway, which was built inside the artificial fill. The stairs were bounded here by sidewalls reinforced by arches.



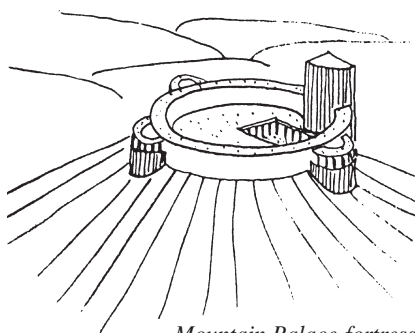
Reconstructed plans of various floors of the Mountain Palace-Fortress. (The numbers indicate the different floors; no. 1 is the groundfloor.)



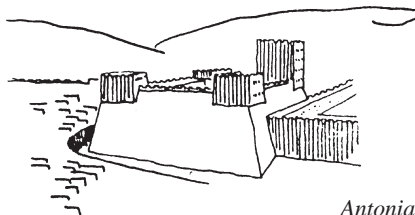
Reconstructed facades and section of the Mountain Palace-Fortress (above -- view from the northwest; middle -- view from the west; bottom -- section viewed from the south). The two facades represent an alternative version in which the three semicircular towers are higher than the Cylinder, whereas in the section these towers are lower.

The Source of Inspiration for the Mountain Palace-Fortress

Undoubtedly, the architecture of the Mountain Palace-Fortress was unique in the Hellenistic and Roman world. Some scholars believe the mausoleum built by Augustus on the banks of the Tiber in Rome was the inspiration for Herodium. This mausoleum was a round structure measuring about 90 meters in diameter, covered with an earth mound in the form of a cone-shaped slope similar to the tumuli of the ancient world. However, it seems unlikely that Herod would have imitated Augustus' future burial place, in a palace built for entertainment, especially while the Roman emperor, his patron, was still alive. (Augustus outlived Herod and died in 14 C.E.) On the other hand, the incorporation of a tomb within a palace would be totally contrary to Jewish law.

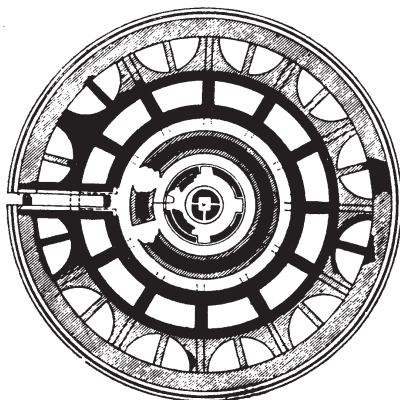
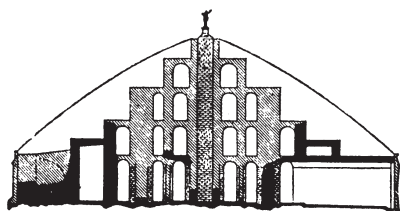


Mountain Palace-fortress



Antonia

Sketches comparing the reconstructed Mountain Palace-fortress with the Antonia Fortress in Jerusalem, both built by Herod.



Reconstructed plan and section of Augustus's mausoleum in Rome.

The source of inspiration, to the author's mind, was more likely one of Herod's own earlier building projects, the Antonia Fortress, north of the Temple Mount in Jerusalem, built a few years earlier than Herodium. Although the Antonia is presently mostly in ruins or covered by buildings, Josephus has left us a most detailed description of this important structure which was one of the first built by Herod. Like Herodium, the Antonia served both as a palace and a fortress. It, too, had four towers, one in each of its four corners, one of them higher than the other three. The only basic difference is that the Antonia Fortress was rectangular whereas Herodium's Mountain Palace-Fortress was circular. It seems that the gently rounded hills around Herodium inspired Herod and his architects to employ a circular shape.

LOWER HERODIUM

Unlike the Mountain Palace-Fortress, which was constructed as a compact unit, Lower Herodium was built as a complex of buildings spread over an area of about 15 hectares (35 acres). This complex was well planned, following a grid system based on the cardinal points. The Mountain Palace-Fortress, although about 100 meters higher than Lower Herodium, follows the same directional layout.

Large-scale earth-moving operations preceded the construction of Lower Herodium. The buildings were erected along both sides of the lower part of a small valley descending from west to east, while the upper part of this valley was filled artificially and leveled to create the Pool Complex, an extensive garden around a huge pool. The Pool Complex is the central feature of Lower Herodium.

Lower Herodium consists of three major built-up areas:

(1) the Large Palace below the

mountain; (2) rows of buildings south and west of the Pool Complex; and (3) the northern area which lies north of the Pool Complex and the present-day Bethlehem-Teqoa road. The last section is the largest of the three.

Lower Herodium was composed of palatial wings, service units and living quarters for the officers of the local district (toparchy). The site was neither a village nor a town, but a royal compound in which the palace was the main component. It was supplied with water by the 6-kilometer-long Herodian aqueduct, many parts of which are still visible today.

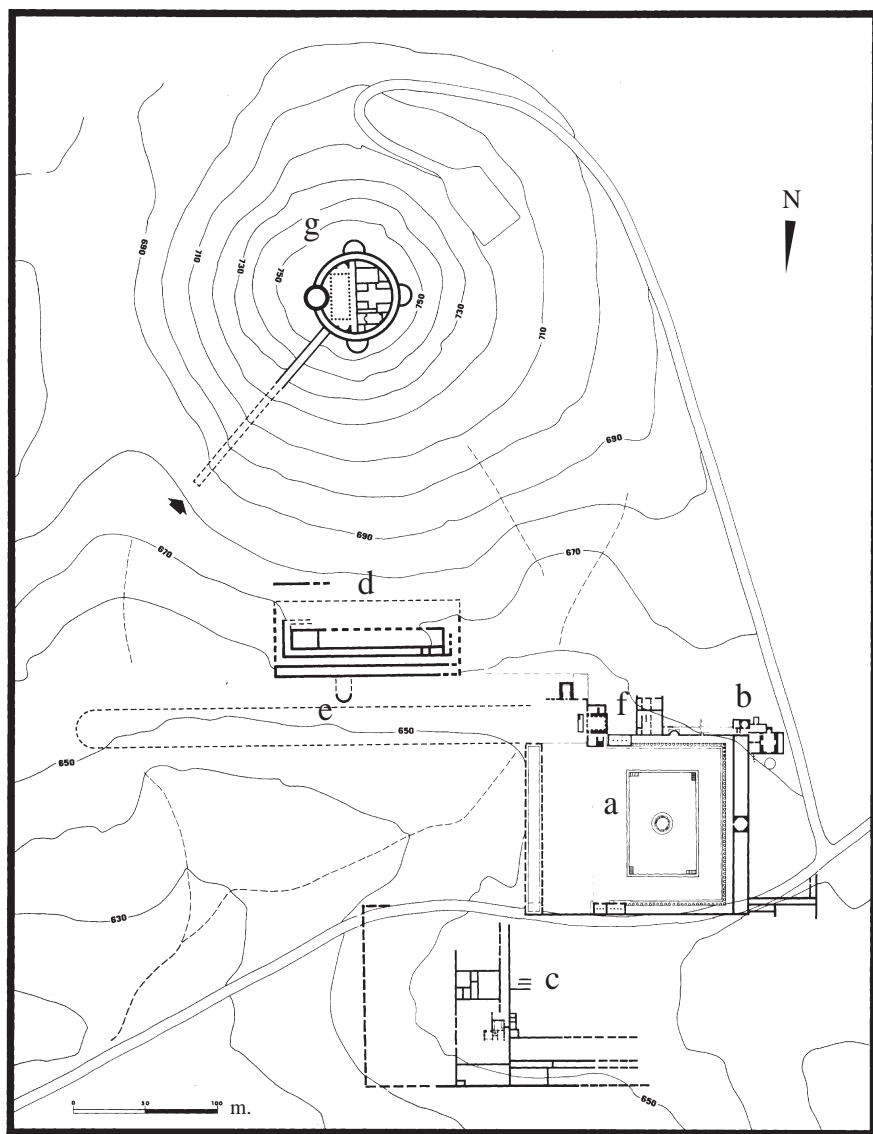
Aside from the Large Palace, Lower Herodium did not consist of individual buildings, but rather of various interlinked structures surrounding courtyards. Similar layouts are common in modern architecture. We shall now describe six complexes which together comprise Lower Herodium.



The Pool Complex at the center of Lower Herodium, with the Mountain Palace-Fortress in the background.



Aerial photograph of Greater Herodium and its surroundings taken before the excavation of Lower Herodium.



Plan of Greater Herodium:

a. Pool Complex

b. Main bathhouse

c. Northern area

d. Large Palace

e. Course

f. Monumental Building

g. Mountain Palace-Fortress

a. The Pool Complex

At the center of the Pool Complex lies a large rectangular pool with an area of 70 by 46 meters and a depth of ca. 3 meters. It could thus hold about 10,000 cubic meters of water. The pool was surrounded by a garden 125 meters long and 105 meters wide. At the center of the pool are foundations of a round structure which evidently had the form of a classical Greek tholos. The pool was used for several purposes (swimming, boating, the storage of water for irrigation) and also served as the key element in the landscape of Lower Herodium.

Strips of garden, ca. 18 meters in width, flanked the pool on three sides, while on the east was located a broad stretch 60 meters wide. The leveling of the last-mentioned section called for dumping of large quantities of earth in order to fill the valley beneath it, and massive retaining walls were built along its southern and eastern sides (the latter in particular). The garden itself, which covered an area of about one hectare

(2.2 acres), was probably laid out as a formal garden in the Roman style.

Colonnades with an overall length of 350 meters were built along the edges of the garden on the north, west and south! Originally, these colonnades were ornamented with numerous murals and stucco decorations. The columns were in the Ionic style. It is important to mention that the floors of the colonnades were ca. 1.2 meters higher than the garden, thus offering those strolling along the elevated walkway a good view of the garden.

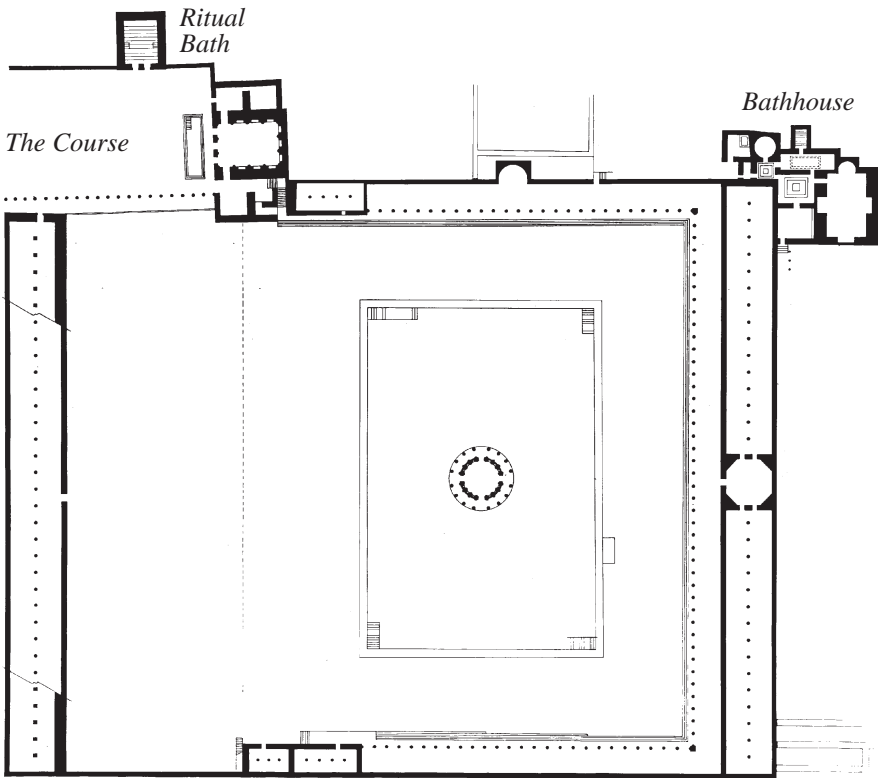
Halls, each ca. 110 meters long and ca. 10 meters wide, were built beyond the garden and the colonnades, on the west and east. The eastern hall has been entirely destroyed but its basement has survived along its entire length. In the western hall there is evidence of its subdivision into secondary halls. At its center was an octagonal hall located directly opposite the tholos in the middle of the pool. This hall, which was surrounded by pilasters and decorated with murals, could have served as the "throne room." The size of these halls,



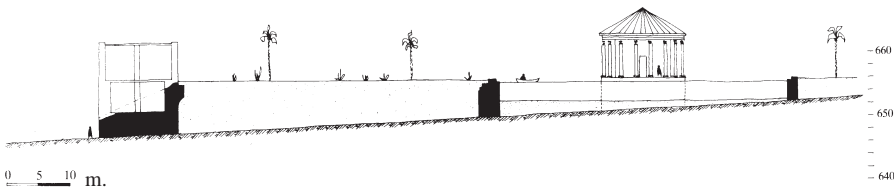
General view of the Pool Complex viewed from the southeast.

all of which evidently were used for reception purposes, emphasizes the intensive activity that took place here each summer. To date, only parts of a

few buildings have been exposed to the south and west of the Pool Complex. The most prominent among them is the Main Bathhouse.



Reconstructed plan of the Pool Complex, with the adjacent structures (the Monumental Building -- top left; the Main Bathhouse -- top right).



Reconstructed section of the Pool Complex, view from the north (on the left, "the earth dam").

b. The Main Bathhouse

The Roman-style Main Bath house is situated to the southwest of the large Pool Complex. As in most Herodian palaces, the bathhouse is not a separate building but a structure incorporated into the adjacent buildings.

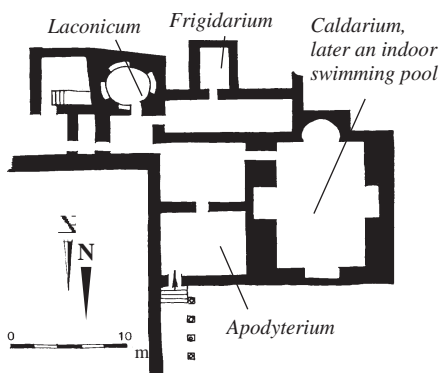
Entry into the bathhouse was through a peristyle courtyard, apparently a palaestra (an open court used for physical training). On its south was a large



Circular laconicum.

entrance and dressing room (apodyterium), beyond which was located a central room which apparently served as the warm room (tepidarium). To the east of these two rooms was a large hot room (caldarium) measuring 13 X 8 meters -- the largest in any Herodian palace bathhouse, and double the size of those at Masada and in the Mountain Palace-Fortress; at first this room had a hypocaust, which due to its size was heated by two furnaces. To the south of the tepidarium were located two rooms. The larger one, the cold room (frigidarium), contained a stepped pool. The function of the smaller, eastern one, in its initial phase is unclear.

In the course of time this bathhouse underwent significant changes. The hypocaust of the large caldarium was dismantled and a fairly large bathing and swimming pool (ca. 5 X 10 in size) was installed. The two original furnaces went out of use at that stage, and the pool's water was heated in two large cauldrons



Plan of the Main Bathhouse (in its last stage).

by two new furnaces in the middle of the room, built specially for this purpose. The above-mentioned stepped pool was filled in and an alternative frigidarium was carved into the bedrock, to the south. At the same time a small, round hot room, surrounded by niches was built further to the east. It had a hypocaust and its own furnace, and served either as an additional caldarium or as a sweat room (laconicum).

North of the building, apparently at the expense of the palaestra, a round,



Mosaic pattern exposed in the main tepidarium.



Mosaic pattern exposed in the laconicum.

open-air swimming pool (7 meters in diameter) was built together with a small ramp which led to the adjacent, new indoor swimming pool. It seems that the main motivation for these changes was the wish to be able to enjoy swimming even in late afternoons and early evenings, when cool winds blow even on normal summer days.

This bathhouse, like the one on the mountain, was decorated with mosaic floors and painted walls. Some of the mosaics are well preserved and give us an idea of the quality and style of the floors of Herodium. It seems that all the walls of bathhouse were originally painted with frescoes, only some of which remain. A particularly exciting find here was fragments of a large imported marble water basin (labrum), which featured sculptured reliefs, including at least two faces of Selinus - a Greek mythological deity



Part of long storage hall exposed in the service building (subdivided after partial destruction).

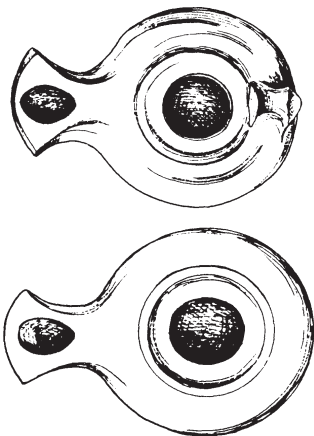
c. The Northern Area

The area to the north of the Pool Complex was, no doubt, the largest wing in the complex of Greater Herodium. Apparently it was not noticed at all by early explorers of Herodium. During recent excavations only small sections of this large area have been exposed. It

seems that it was densely built. (Also exposed here was a Byzantine church; see below.)

Two adjacent domestic Roman-style bath installations, which were uncovered, in addition to several rooms, may indicate the presence of some luxurious villas. If so, these may have been used by the local officials stationed here.

Besides these dwellings the northern area also included several service and storage wings. One such wing was partially excavated in the southwestern corner of this area, close to the crossroads from which the modern road leads to the mountain. Here a long storage hall full of storage jars was excavated. Another excavated hall, next to it, was probably a stable. Although the main entrance to the complex has not yet been found, it could have been close to this service wing..



Drawings of Herodian oil lamps found in the northern area.



Storage jars exposed in the long storage hall.



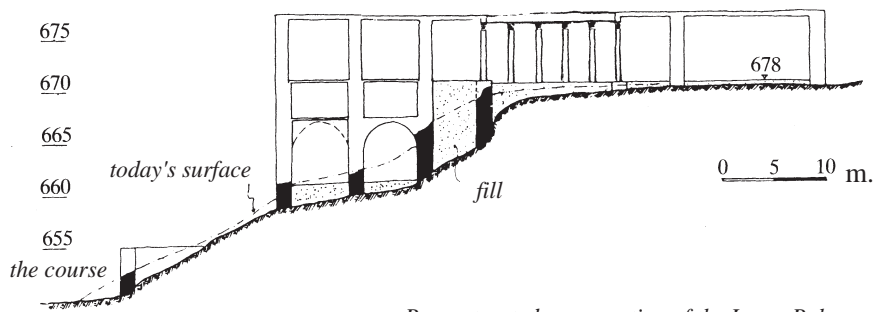
Remains of the large palace viewed from northeast.

d. The Large Palace

The next largest and most prominent feature of Lower Herodium, after the Pool Complex, was the substantial palace wing built on the lower slope of the mountain. This rectangular building, which had a symmetrical axis similar to the round building on top of the mountain, was 130 meters long and between 50 and 60 meters wide. It is in a poor state of preservation, and in effect

not much more than the substructure has remained. It seems that most of the masonry was taken either for secondary use or for the lime industry here during the Byzantine period.

The substructure of this large building was divided into two parts: the southern, upper half, which was mainly leveled ground; and the northern half, which consisted of two huge halls, each



Reconstructed cross section of the Large Palace.

about 5 meters wide and extending along the full length of the building, probably used as storage areas. At least one of these two long halls was covered with a barrel-vaulted ceiling. (The capacity of these two halls alone is equal to two-thirds of the core group of storerooms at Masada!)

A minor substructural hall, with a barrel-vaulted ceiling intact, remains in the southeastern corner of the building. This was used recently by local Beduin as a shed for their animals. It probably accounts for the name "stables" given to this building by some of the former explorers of the site.

The function of this building can only be assumed. Its size and dominant position -- with a good view of the rest of Lower Herodium -- seem to suggest it accommodated the main palace wing of the complex, as it was more suitable for entertaining large numbers of guests than the more intimate and secluded palace on top of the mountain.

e. The Course

North of the Large Palace and parallel to it is a long artificial terrace, distinctly visible in the aerial photograph on page 30. It is nearly 350 meters long and approximately 25 meters wide. Its construction involved massive earth-moving operations and the erection of retaining walls on both sides. It has been suggested it was a hippodrome for chariot and horse racing, but it would have had to be nearly twice as wide to provide a comfortable turning radius. On the other hand, this terrace is nearly twice as long as necessary for an athletic track, which in any event (like a hippodrome) would be expected in a city rather than in a palace.

It could possibly have been constructed for use in Herod's burial procession. Josephus's vivid description (see above, page 2) lends credence to this theory. However, until further verification, this unique terrace is referred to as the Course.



The Course, viewed from west.

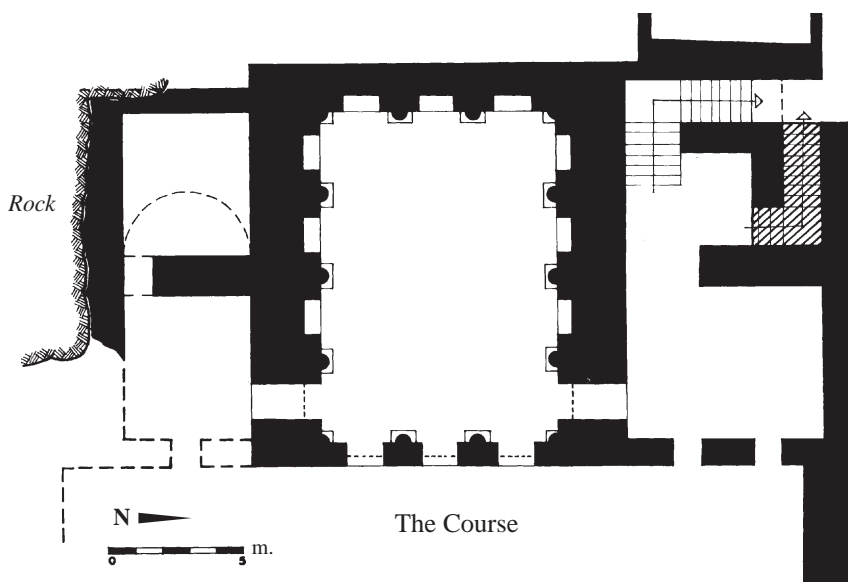
f. The Monumental Building

Initial interest in the long Course led to the excavation of an unusual structure at its western, narrow end, south of the Pool Complex. The Monumental Building is rectangular in shape and measures 15 by 14 meters. It consists of an elaborate hall 8 by 10 meters in size. Both faces of its walls are built of large ashlars. The outer faces were left plain but the interior of the hall was decorated: each wall had a series of niches separated by half-columns supported on pedestals. The building's northern and southern walls are extremely thick -- about 3 meters each. There is no doubt that these two walls supported the hall's barrel-vaulted ceiling. However, such walls could have also borne the weight of another element, a sort of a pyramidal roof, similar to Zechariah's monument to the east of the Temple Mount.

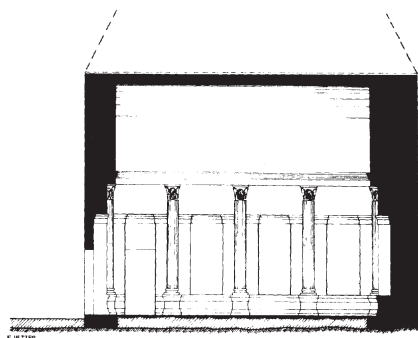
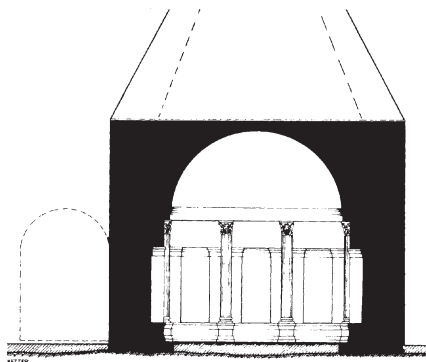
Two entrances to the building have been revealed, one from the north and the other, opposite it, from the south. These entrances were integrated into the

pattern of the niches as though two of the niches were extended downward to the floor. Although the eastern wall is almost totally missing, there is evidence of three more possible entrances. The ceiling of the hall is believed to have been barrel-vaulted. Though no patches of wall plaster were found in situ, it seems that all the walls were plastered. Nothing remains of the original floor, as the Byzantine inhabitants lowered the floor down to bedrock and subdivided the hall into four rooms.

Present-day visitors are always puzzled by a series of grooves cut into all of the half-columns. These grooves were apparently carved to accommodate a piping system which was probably added later during the period of the Roman procurators, who may have converted the hall into a nymphaeum. Only 2.3 meters to the east of the Monumental Building is a narrow pool, 3 meters wide and about 12 meters long, running nearly the full width of the building. Its function is as yet unclear. One suggestion is that it may have been a reflection pool.



Reconstructed plan of the Monumental Building and adjacent rooms.



Reconstructed cross sections of the Monumental Building.

North of the building is a courtyard with a flight of steps leading up from the Monumental Building and its surroundings to the Pool Complex. To the south is a small courtyard and a well-preserved room, partially cut out of bedrock, which originally had a barrel-vaulted ceiling.

Many questions concerning the Monumental Building remain unanswered. When first revealed, it was thought to have been Herod's mausoleum; this, however, proved improbable. Other possible functions, such as a nymphaeum, library or temple, were considered but rejected. A possibility, though this depends on locating Herod's tomb nearby, is that the Monumental Building was originally a triclinium forming part of a burial complex. Similar triclinia were carved into the rock in the vicinity of the famous tombs at Petra. This similarity is particularly notable in the triclinium adjacent to the Tomb of the Roman Soldier.



The Monumental Building, viewed from the east.

Where Is Herod's Tomb?

Immediately after excavating the Monumental Building, our attention was drawn to a group of well-carved stones, differing from all the other masonry exposed at Herodium. They are harder, heavier and larger, and have carved margins and a smooth boss. They are similar to Herodian ashlar on the Temple Mount in Jerusalem and in the monument above the Tomb of the Patriarchs at Hebron, which was probably built by Herod. Some of the stones found here are decorated with floral patterns, while others contain parts of a frieze which included triglyphs and decorated metopes in the Doric style. When the dig was extended southward, a Byzantine church (the "Central Church") was uncovered. Most of it was built of similar stones, all of them in secondary use. However, only in this church and the rooms adjacent to it on the north were these heavy and elaborately hewn stones found. It seems, therefore, that they were originally part of another Herodian monumental building which must have been located nearby, and the features of which are characteristic of tomb monuments from the Second Temple period, found chiefly in the vicinity of Jerusalem. These

heavy, ornate stones could well have come from an entrance facade to Herod's burial cave, similar to the facade of the tomb at Umm el-'Amed near Jerusalem (but on a much larger scale). Unfortunately, even if this important tomb is found, the chances of its being intact are slim.

Because of the unique features of the Mountain Palace-Fortress, some scholars regard it as the right place to seek for Herod's tomb, particularly since they have noted its resemblance to the Tomb of Augustus. However, from the author's point of view, it is particularly difficult to envisage a Jewish tomb within a palace or any other domicile. So far, no real evidence in support of the theory that Herod was buried there has come to light. On the other hand, the group of structures located near the Monumental Building (including the Course and a large mikveh) could well have been part of a burial complex.

* * *

Up to this point the site has been described as it was in the days of Herod. We shall now turn to the later activities there, after the destruction of the Second Temple in Jerusalem.

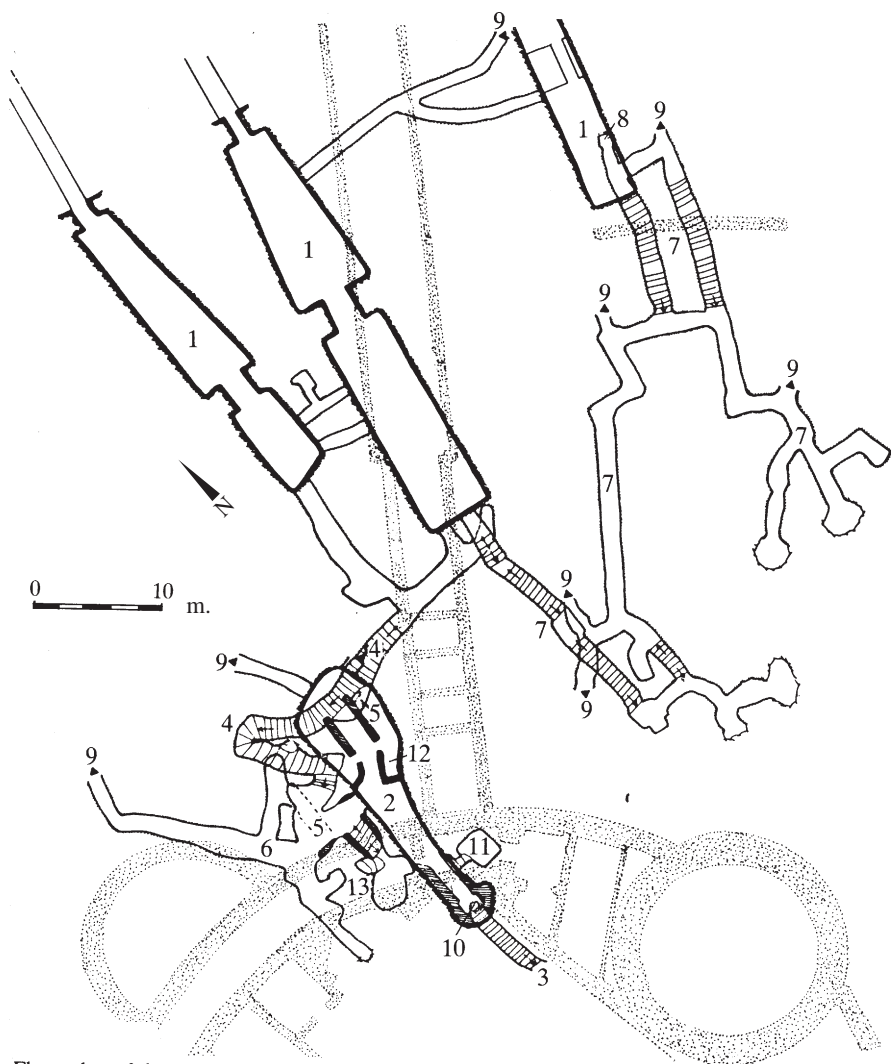


Decorated ashlar in secondary use in the Central Church, Lower Herodium.



A reconstructed facade of the Umm el-'Amed tomb monument, north of Jerusalem (drawn by N. Avigad).

The "Underground System" from the Days of Bar-Kokhba



Plan of the tunnel network below the mountain (the Underground System).

- | | |
|--|--|
| 1. Three lower cisterns at the foot of the cone. | 8. Original camouflaged outlet from the tunnels, exposed during the excavations |
| 2. Intermediate cistern | 9. Tunnels leading to as yet unexposed camouflaged outlet |
| 3. Entrance to the Underground System from the courtyard of the Mountain Palace-Fortress | 10. Shaft descending from the mountaintop, through which water was drawn from the intermediate cistern (in Herod's days) |
| 4. The main tunnel leading to the lower cisterns | 11. Guardroom at the entrance to the tunnel system |
| 5. Remains of a narrow steep tunnel | 12. Revetments built by the tunnelers |
| 6. Tunnel system spreading below the mountain's northern slope | 13. Entrance to the tunnel system from the subsurface bottom floor of the Cylinder |
| 7. Tunnel system below the mountain's northeastern slope | |

Following the excavation of the Mountain Palace-Fortress, an elaborate system of tunnels inside the hill, close to the northeastern slope, was explored, surveyed, and partially excavated. The tunnels linked the large lower water cisterns, the intermediate cistern and the barrel-vaulted cellars at the bottom of the Cylinder to form one unit -- the "Underground System." It seems that the tunnelers did their best to camouflage their activities from the Roman army against whom they rebelled. Therefore, all the debris dug from the tunnels was dumped into the water cisterns. Most of the tunnels were cut into the soft bedrock, but some



Main entrance to the tunnel system from the peristyle courtyard.



A typical view of the tunnels cut into bedrock.



One of the barrel-vaulted cellars of the Cylinder, integrated into the Underground System.

penetrated into the artificial fill surrounding the mountain. Inverted U-shaped wooden frames were used to reinforce the tunnels cut into the fill.

The system begins in the courtyard of the Mountain Palace-Fortress with a main stepped tunnel leading down through the intermediate cistern into the largest of the lower cisterns. (This tunnel follows an earlier narrow, steep tunnel, probably dating from the First Revolt, carved to enable internal access to the cisterns). Like the rest of the tunnels, it was built in such a way as to facilitate quick and easy movement through it; one could move erect with no need of ladders or ropes. From the central and largest of the lower cisterns another tunnel, built initially as a stairway, ascended to a certain point from where it then continues horizontally, changing directions frequently. From this tunnel many extensions either ascend or descend within the hill. These extensions probably ended in camouflaged outlets, which would have proved particularly useful for surprise attacks against a besieging Roman army.

Such an intricate underground system bears witness to an extraordinary strategy for so small a group of spirited warriors, enabling them to withstand the mighty Roman army for a short span of time.

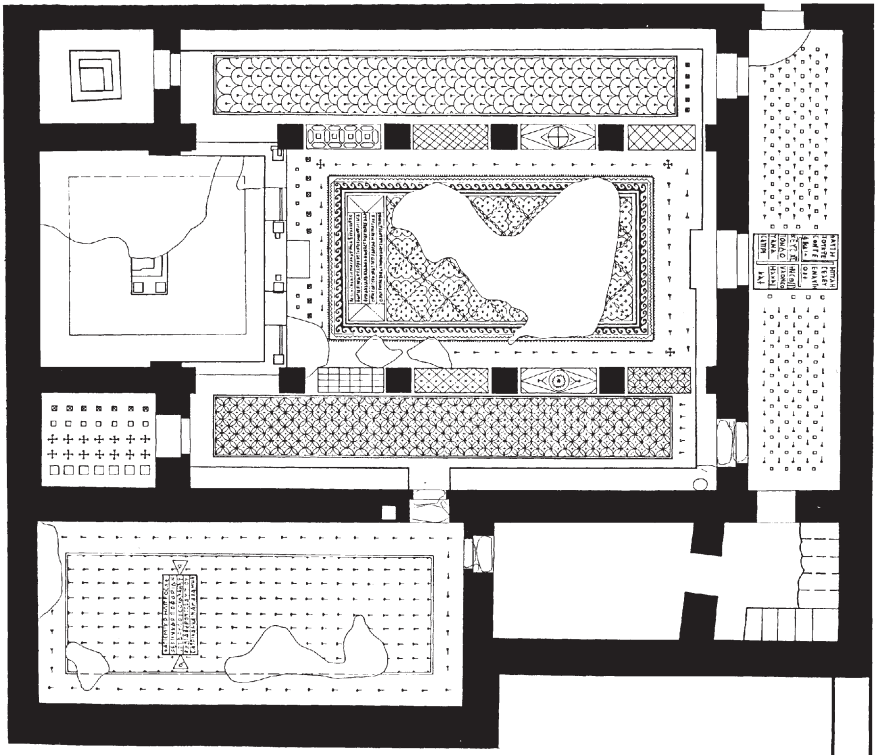
The Byzantine Churches

Among the numerous structures that existed in Lower Herodium during the Byzantine period are three churches built on Herodian ruins. All the churches are similar in size and plan. They are of the basilica type with double-storied aisles on either side. All have mosaic floors and a baptisterium either in a small room adjoining the altar, or in a side room of the church. The churches were all built between the second half of the fifth century and the second half of the sixth century C.E.

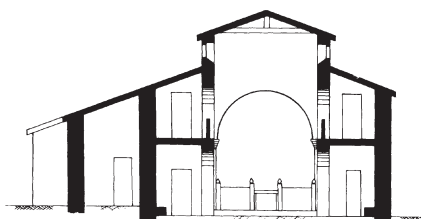
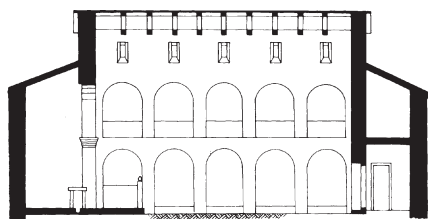
The Northern Church lies in the northern area (north of the road from Bethlehem). It is dedicated to Saint Michael as indicated by two of its three inscriptions. It also has a bench running along its walls -- an uncommon feature



Inscription exposed on the floor of the entrance room of the Northern Church.



Floor plan of the Byzantine Northern Church in Lower Herodium.



Reconstructed sections of the Northern Church.

in churches of those days -- and a square apse behind the altar instead of the customary semicircular one.

The Central Church, located south of the Monumental Building and mentioned above in connection with the decorated Herodian stones which were used in its construction, was partially hewn out of the rock. Thus the main entrance is on the southern side of the building and not on the west. A unique feature of this church is its baptismal font, carved out of a monolithic round stone.

The Eastern Church was built atop

the ruins of the Large Palace, at its eastern end. Although the church itself is very poorly preserved, it has the most elaborate mosaic floor of the three churches. The main mosaic carpet consists of medallions encircled by vine scrolls containing birds and animals. The best preserved mosaic animal is a lion.

Only further excavation can clarify the character of the Byzantine settlement here. Presently we find it difficult to determine whether it was a village, a small town or a large monastic establishment.



General view of the Byzantine Central Church from the northwest.

The Exploration of the Site

Herodium was first mentioned in the book written by the Dominican monk Felix Fabri, who visited the Holy Land in 1480 and 1483. He believed the ruins to be those of a Crusader fortress -- "the Franks Mountain." The first detailed description and sketches of the mountain were made by R. Pococke in 1738. He also mentioned a large pool at the foot of the mountain and a large building (a church in his view) between the pool and the mountain.

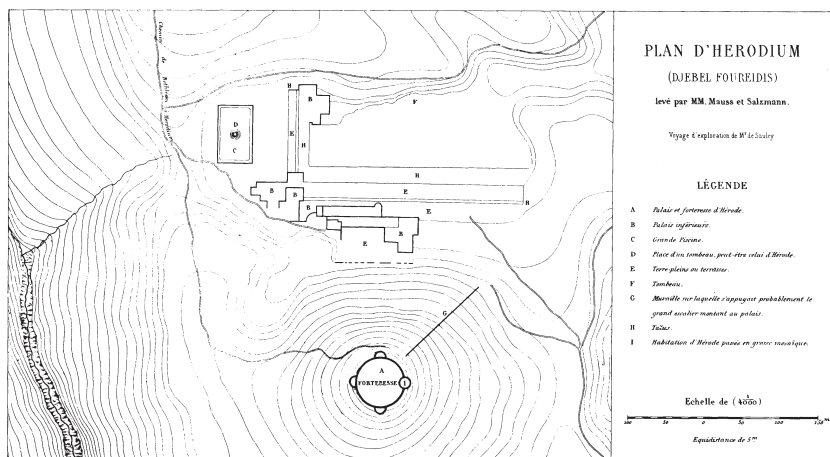
Credit for the positive identification of the site as Herodium belongs to the famous American scholar, E. Robinson, who in 1838 paid a visit to the site and wrote a short description of it, although as early as 1767 the Italian, G. Mariti, had mentioned this possibility.

Amongst the most prominent of the explorers of Herodium was F. de Saulcy, one of the early explorers of Palestine. He visited Herodium twice, in 1850 and again 13 years later. During his second visit he excavated the round structure in the center of the large pool in Lower Herodium, assuming it to be Herod's

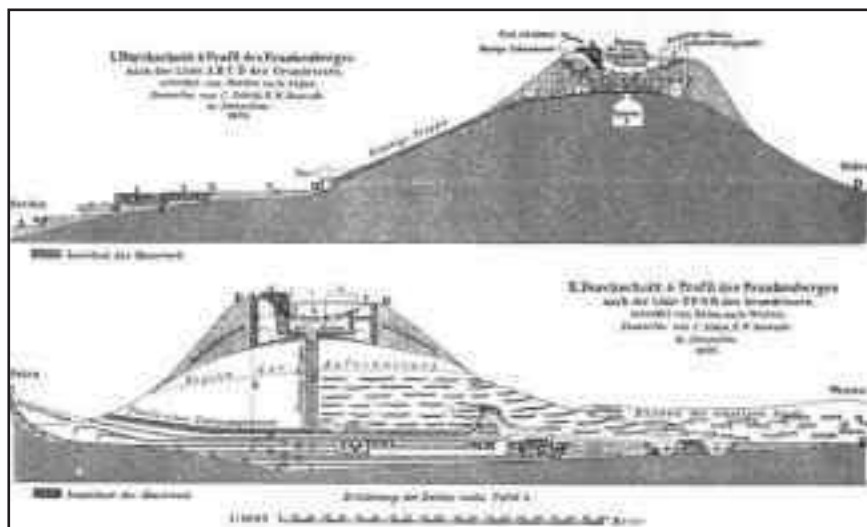


Herodium mountain, as drawn by Pococke.

burial place. However, he found nothing to confirm this. De Saulcy and his architects produced a fairly detailed and accurate plan of both the mountain and Lower Herodium. The well-known French scholar, V. Guérin, who visited the site soon after de Saulcy, assumed that the royal tomb should be sought in the mountain itself.



The plan of Greater Herodium drawn by de Saulcy's team.



Cross sections of the Mountain Palace-Fortress, as drawn by Schick.

C.R. Condor and H.H. Kitchener, on behalf of the Palestine Exploration Fund, were next to survey the site, the mountain and the structures below (1873, 1881, 1883). They drew a number of plans, including one of the Large Palace.

The last major explorer of Herodium before the recent excavations was the Swiss architect-archaeologist, C. Schick, who lived in Jerusalem for many years. He drew several detailed plans and sections of Herodium in 1879. From his sectional diagrams it is clear that he was the first scholar to understand the relationship between the natural hill, the building built on it, and the fill piled up around.

Herodium then remained largely unexplored for at least half a century, until 1962, when Father V. Corbo began excavations on behalf of the Studium Biblicum Franciscanum, Jerusalem. Corbo excavated for four consecutive seasons and concentrated mainly on the palace in the middle of the mountaintop. Other excavations on the mountain were

carried out by G. Foerster in 1968, when preparing the site for tourism, on behalf of the National Parks Authority.

The excavation of Lower Herodium began in 1972, initiated and directed by E. Netzer, the author (archaeologist and architect), on behalf of the Institute of Archaeology of the Hebrew University of Jerusalem, in collaboration with the Staff Officer in Judea and Samaria and the Israel Exploration Society. The archaeological staff included R. Bar-Nathan, R. Birger, E. Lass and D. Stacey. The study of the "Underground System" was carried out with the aid of S. Arzi and the Kfar Etzion Field School. The excavations continued, in fact, every year until 1987. After a break of 10 years they were resumed in 1997, under the same direction and with the collaboration of Y. Kalman.

Preservation and reconstruction works are currently being carried out at Lower Herodium under the auspices of Nature and National Parks Protection Authority.

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Front cover: Aerial view of Herodium against the background of the Judean Desert.

Back cover: Sculpted face of Selinus found in the Main Bathhouse at Lower Herodium.

All the plans in this book (unless otherwise stated) were produced by the author following his own surveying.

Z. Radovan took all the photographs in this book except for the following: The front cover, 5, 6, 7, 12, 21 (bottom), 24, 29 and 32 by the author; 18 and 19 (bottom) by V. Corvo; 3, 21 (top) and 30 by "Phantomap", Jerusalem; 8 (top) and back cover by G. Laron.

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