Cultural and Religious Studies, September 2021, Vol. 9, No. 9, 397-419
doi: 10.17265/2328-2177/2021.09.001

Herod's Desert Fortresses, Palaces or Prisons?

Barbara Mary Denise Bergin
Independent Researcher, Dublin, Ireland

Herod the Great inherited the desert fortresses which had been destroyed by the Romans when he became king of Judaea. He extended and remodelled them creating luxurious palace fortresses. They were provided with abundant water supplies and well stocked with food, but were these citadels palaces or prisons?

Keywords: fortresses, innovation, architecture, water schemes

Introduction

I am continuing the series of articles about the innovative building accomplishments of Herod the Great which were written for this publication over the last four years (Bergin, 2017; 2018; 2019; 2020). Keeping the continuity of the sources of information about King Herod was essential to maintain the integrity of this series. As Flavius Josephus is the most factual in this regard, the content has been garnered from his two most important works—*The Jewish Antiquities* (JA) and *The Jewish Wars* (JW) (Whiston, 1999). These represent the standard reference points which can then be evaluated against the excavations carried out by archaeologists among the desert fortresses.

Herod the Great was a skilful (skillful), pioneering builder and Client King of the Roman Empire between 37 B.C.E. and circa 4 B.C.E.[1] How he attained this privilege has already been recorded (Bergin, 2018), but to carry out a cohesive narrative in this article, it will be necessary to revisit the historical account from time to time.

The fortresses that are under discussion in this article are Masada, Alexandrium, Hyrcania, Cypros, Machaerus, and Herodium. The fortress of Doq will be included briefly. They could best be described as desert fortresses as they were all surrounded by wilderness and lacking any permanent supply of water. The citadels were all built on mountain tops and their visibility to each other was thought to been crucial during the Hasmonean Dynasty for the protection of the realm.

Herod received these desert fortresses in ruins (except for Herodium which he designed and had constructed during his reign). They had all been previously destroyed by the Romans.

In Judaea, water was always scarce. Rain falls here only in winter and there are no large rivers. The collection and storage of water was essential to provide year-round water to the fortresses. The means of bringing this water to the desert fortresses were as sophisticated as any urban system in use at that time. Two methods were used for collecting water. The first was to utilise run-off from the hillsides. The second was to dam up flash floods from stream beds and divert water to the cisterns. The idea was to "catch" the flood waters in the winter downpours, then direct and store the water in reservoirs for the rest of the year.

Barbara Mary Denise Bergin, Independent Researcher, Dublin, Ireland.

[1] The date of the death of Herod the Great has been debated by many scholars.

While external threats to Herod's early reign were identified (Rocca, 2008), namely—

- A possible Parthian invasion;
- Cleopatra from the south (until after the battle of Actium);
- The Nabateans.

relative peace and prosperity existed within Judaea once he was securely on the throne. The palace fortresses were built to provide luxury accommodation and security for Herod and his court when he travelled around his kingdom (Rocca, 2008). Nevertheless, the use of these fortresses as prisons for rebellious family members, for opponents and as treasuries probably grew under Herod's rule (Netzer, 2006).

The history of each of the fortresses will be handled separately, although their construction had characteristic features in common born out of Herod's innovative approach to architecture including:

- Improved water gathering and supply;
- Luxury royal apartments;
- Roman style bathhouses;
- Peristyle courtyards.

Masada

Masada was built during the Maccabean era. It was fortified to protect the Hasmonean Kings who were ruling a country rife with political and religious tensions (Kassher, 1988). The fortress needed to be impregnable, able to withstand a siege, and provide secure refuge for the royal family in times of crisis. Within the citadel, there was ample living accommodation together with supplies of water, food, and arms (Garbrecht & Peleg, 1994).

Figure 1. Masada.[2]

This fortress was hugely significant for Herod during his lifetime (Roller, 1998). It housed his family for their protection when he fled to Rome during the civil war with Matthias Antigonus in 40 B.C.E. Herod again left his mother Cypros and his sister Salome at Masada, when he raced to meet Octavian on the island of Rhodes after the triumvir's triumphant success at the battle of Actium. As Masada has been discussed in detail as an archaeological site in an earlier article (Bergin, 2020), only a summary will follow.

[2] See https://en.wikipedia.org/wiki/Masada.

Masada was a diamond-shaped plateau rising steeply from the surrounding wilderness. When he was firmly established as king, Herod had a casemate wall built which surrounded the entire top of the mountain. He created a magnificent hanging palace (JW 7.8.289) despite the topographical disadvantages on the site. Situated on three terraces, it demonstrated the king's innovative approach to architecture providing luxurious accommodation for Herod's family and friends throughout the magnificent structure. Extensive storehouses were created which contained everything that was needed for a long stay by the royal family.

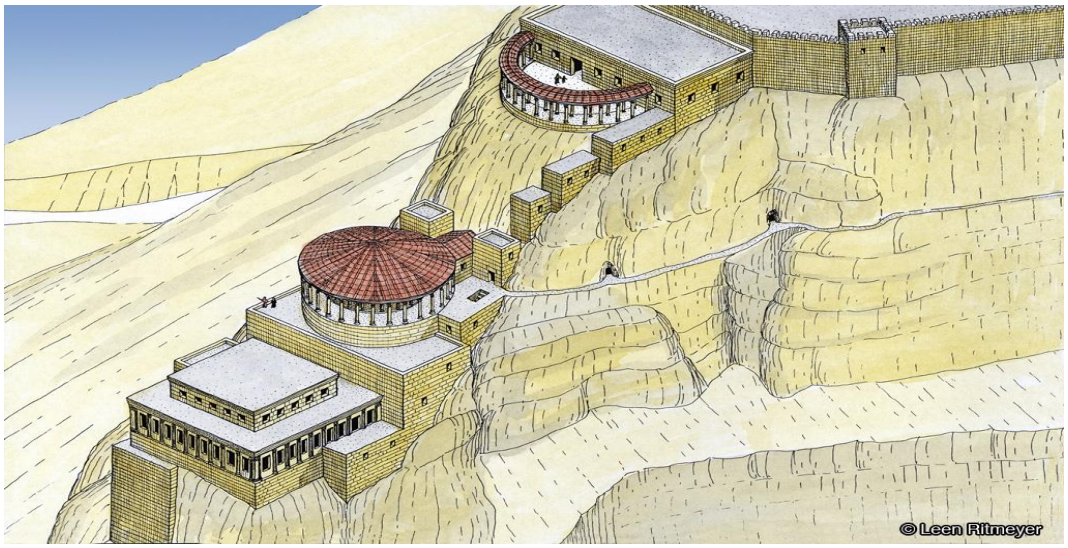


Figure 2. Northern Palace at Masada drawing courtesy of Leen Ritmeyer Archaeology.[3]

Like all the other desert fortresses, a water supply was a necessity for Masada. A series of water cisterns were constructed in the north-western slope. But how did Herod and his engineers plan to fill the reservoirs as the only natural water available was rainwater? Their solution was innovative. They based their strategy on the existence of two small wadis (rivers) which pass to the north and south of Masada. They built dams to trap the winter floods in two places and constructed open channels to direct the water into the cisterns. The rainwater was held behind the dams, sluices could be opened, and this released the flow of water down the aqueducts into the cisterns, filling them up one after the other. There is still evidence of greenery in these channels today! The water storage facilities on Masada harvested 40,000 m^3.

Many bathhouses were built on Masada. The most spectacular was the large bathhouse which was constructed parallel to the *acropolis* (hanging palace). The bathhouse measured 20.4 m × 11.7 m and it was well planned with a simple layout (Netzer, 1991). It consisted of four rooms, a roofed courtyard with colonnades on three sides and the walls were decorated with frescoes. The floor area was decorated with beautiful mosaics (Netzer, 1991).

An elegant house on the summit of Masada was designated for the district commander responsible for the maintenance and protection of the site. There must also have been a permanent garrison at the site because guards were always on duty supervising access to the *acropolis.* The southern fort protected a weak point on the south side of the plateau. As most of the buildings were concentrated in the northern area, this southern area was vulnerable and also manned continuously. A bathhouse was built for the use of the garrison (Bergin, 2020).

[3] Copy of drawing of Masada North Palace purchased from http://www.ritmyer.com, Order No. 4866 dated 18.6.2021.

Alexandrium

Figure 3. Alexandrium today.[4]

Alexandrium, also known as *Sartaba*, was located near Jericho. It rose to a height of 700 m above the Jordan Valley with a commanding view of the area. It was found in a strategic position based between Beth Shean (Schytopolis) and Jericho protecting the main road from Judaea to Galilee (Netzer, 1999). It was noted for its beauty, "where he came to a most beautiful fortress that was built on the top of a mountain called Alexandrium" (AJ 14.3.49; JW 1.6.134). It had been destroyed by Gabinius in the fifties (JA 14.5.90; JW 1.8.168) (Roller, 1998; Netzer, 2006; 1999).

Alexandrium was the first of the desert fortresses to be restored by Herod and he sent his brother to oversee the rebuilding of the fortress while he was engaged in his fight with Mattathias Antigonus for control of Judaea, "But Herod committed the care of that matter to Pheroras, his youngest brother, and ordered him to repair Alexandrium also. Accordingly, he quickly made the soldiers abound with plenty of provisions, and rebuilt Alexandrium, which had been before desolate" (AJ 14.15.419; JW 1.16.308). This was Herod's first building project as king (Netzer, 2006).

There are no details from Josephus about the rebuilding of Alexandrium, but some information has emerged from the excavations carried out at the site by archaeologists in the 1920s and between 1981 and 1984. The digs have unearthed a monumental building measuring 17.2 m by 17.2 m which was surrounded on three sides by Corinthian columns with heart-shaped corner columns (Netzer, 2006).

[4] See https://www.google.com/search?q=Alexandrium+Fortress+on+youtube&client=firefox-b-d&sxsrf=ALeKk03ZXi5xRWgXafZy-JexZsZVBkxNUw:1624715906544&tbm=isch&source=iu&ictx=1&fir=2G5U8lu7WM6O6M%252CFva6YnD4pMZ5qM%252C_&vet=1&usg=AI4_-kQxy1XwTs5ABteLH33zt0967m6tDw&sa=X&ved=2ahUKEwi_nOGzurXxAhVToVwKHdxgCooQ9QF6BAgSEAE#imgrc=2G5U8lu7WM6O6M, accessed on 26.6.2021.

Figure 4. Heart-shaped corner drum.[5]

The columns were painted in three colours, the floor was paved with white mosaic, and remnants of plaster and stucco were discovered scattered around the floor. The columns were slender (circa 51-55 cm in diameter), which could indicate that they may have enclosed a peristyle courtyard which was quintessentially Herodian. Traces of the remains of rooms off the courtyard have been unearthed but subsidence due to earthquake activity meant that part of the rooms had been displaced and had fallen downhill (Netzer, 2006). Above the courtyard on the western slope of the hill, a vaulted structure was uncovered which could have formed the base for a higher terrace. Could this structure have been an early attempt at a terraced palace? (Netzer, 1999). It is believed that this citadel was used by Herod as a treasury (AJ 16.10.316) (Roller, 1998).

A sophisticated water system was discovered, which gathered rain as runoff from the slopes into cisterns. Although there were water springs nearby, the topography made it impossible to collect water because of the elevation of the fortress. Fifteen cisterns were identified, of which 14 are extant, along with three aqueducts of varying lengths. There were four reservoirs on the northern and eastern slopes that looked like caves (Amit, Patrich, & Hirshfeld, 2002).

Figure 5. A cave like cistern at Alexandrium.[6]

[5] See https://www.youtube.com/watch?v=3-oOfcC7yZQ, accessed on 22.6.2021.
[6] Ibid.

Six cisterns on the southern slopes were exposed at varying levels. They were all rectangular in shape, cut out of the limestone rock and their walls were plastered. An interesting feature discovered was an inverted siphon (Garbrecht & Peleg, 1994; Amit et al., 2002). The remains of an open-air pool/reservoir were uncovered which may have been used for irrigation or to supply water to the gardens which inevitably would have formed part of any Herodian palace fortress. The total water capacity available at Alexandrium was 5,000 m^3.

Alexandrium must have been a beautiful and luxurious palace fortress as Herod took Marcus Agrippa there when he visited Judaea in 15 B.C.E. at the king's invitation (JA 16.1.13). Nonetheless, Alexandrium had a less attractive side; it operated as a royal prison. Mariamme (Herod's second wife), her mother Alexandra, his sons Alexander and Aristobulus and two unnamed daughters were sequestered in the fortress while Herod went to meet Octavian at Rhodes (Knoblet, 2005)—

> But he placed his wife Mariamme at Alexandreion, with Alexandra her mother, because of the quarrel between her and his sister and the sister's mother, which made it impossible for them to live together. In charge of the fortress, he left his treasurer, Joseph, and Soemus of Iturea who were most faithful to him from the beginning and were now left as bodyguards to the women. They had instructions to kill both of them, if they heard that any harm had happened to him, and, as far as they could, to preserve the kingdom for his sons and for his brother Pheroras. (JA 15.6.183-186)

Herod left instructions with their protectors that should he not return the two women were to be executed but the commands were disclosed to Mariamme and Alexandra (JA 15.7.207). Herod returned home, restored to power (AJ 15.6.187-201) to a cold reception, "They judged, quite reasonably, that they had not been placed in that place for their own safety but imprisoned in a fortress, with no power over others or over themselves, and took it very badly" (JA 15.7.203).

The fraught situation within the Herodian family quickly spun out of control (JA 15.7.209-212). The king's sister Salome, intent on revenge, created suspicion and anger in Herod's mind against Mariamme to induce him to depose her. She contrived a plot to implicate Mariamme in a scheme to poison Herod (JA 15.7.223-228). The plan worked. Mariamme was put on trial (JA 15.7.229-230) and she was convicted. The court was moved to leniency, but Salome deliberately encouraged Herod to have Mariamme put to death (JA 15.7.231), and she prevailed. The queen was executed (circa 29 B.C.E.) and went to her death with great dignity, "she went to her death with an unshaken firmness of mind, and without changing the colour of her face, and thereby evidently revealed the nobility of her descent to the spectators, even in the last moments of her life" (JA 15.7. 236). Mariamme's sons Alexander and Aristobulus would suffer the same fate at the hands of Salome and, after their execution, their bodies were interred in Alexandrium (JA 16.11.394; JW 1.27.551).

Alexandrium, although a beautiful palace fortress, hid some of Herod's darkest family secrets as confirmed by Josephus.

Doq (Quarantal)

The fortress of Doq/Dok, is known today as *Quarantal* and was situated west of Jericho. The walls that are currently visible do not date to the time of Herod. Doq was referred to in two documents, *1 Maccabees* (Macc. 16:11-17) and *Jewish Antiquities* (AJ 13.7.230). Both sources refer to the Hasmonean period. Ehud Netzer (1999; 2006) explored the site in 1982 (for one week). He found many architectural elements strewn around the site which suggested to him that magnificent buildings might once have stood there.

A primitive water supply system, built during the Hasmonean period, was also discovered. One group of nine cisterns was supplied from a wadi to the west and served by an aqueduct measuring 0.5 km. Most of the cisterns were located on the same level but one was found higher up the slope. The capacity of the nine cisterns was about 2,090 m^3. The drawing of the cisterns below is by David Amit (2002).

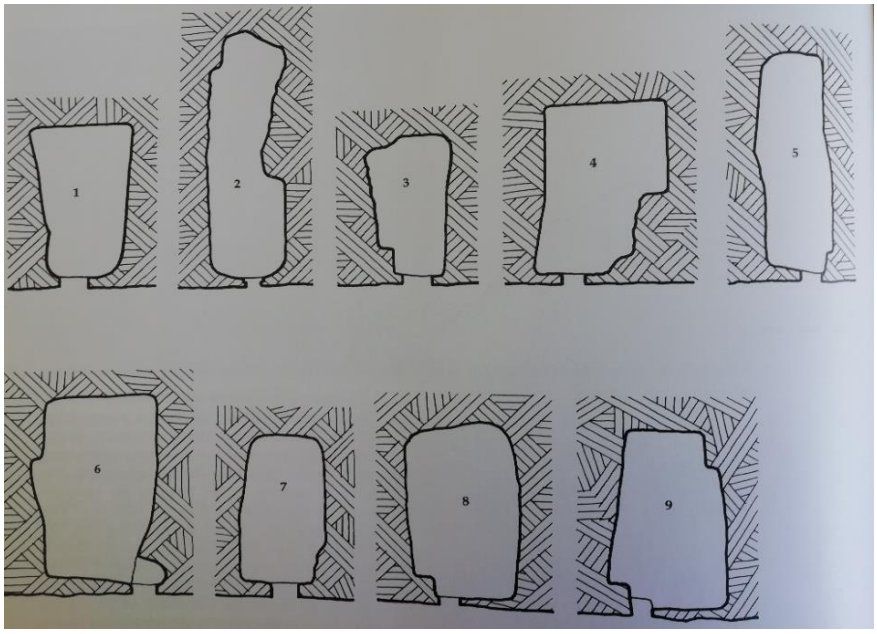


Figure 6. Drawings of the Cisterns (Source: Amit et al., 2002).

An unusual arrangement of chutes was discovered at the base of the conduits which were used to fill the cisterns. The flow of water was controlled by opening and closing the chutes. A small settling pool was located underneath each of the chutes which ensured that the water was filtered before entering the cisterns. The walls were coated with several layers of plaster (Garbrecht & Peleg, 1994; Amit et al., 2002). There was no evidence of any Herodian remains in the water system, but because of its location and views, it is likely that this site could have been rebuilt and refurbished by Herod like other desert fortresses (Netzer, 2006).

As no report from Josephus was recorded about the rebuilding or renovation of this fortress it is only possible to conjecture what purpose this site might have provided during Herod's lifetime. The few remains uncovered do suggest a Herodian link. A full excavation could reveal more details about Herod's involvement with this site.

Cypros

The Cypros fortress is also known as *Tell el'Aqaba.* It had a commanding view of the road between Jerusalem and Jericho. It was located south of the Wadi Qelt and about 3 km southwest of Jericho. Like the desert fortresses which have been discussed above, this citadel was originally a Hasmonean fortress which was destroyed by the Romans.

Figure 7. The Fortress Cypros today.[7]

Herod built a comprehensive new palace fortress and named it in honour of his mother, "He also built a wall about a citadel that lay above Jericho, and was a very strong and very fine building, and dedicated it to his mother, and called it Cypros" (JW 1.21.9). There were two areas of interest discovered here. The palace fortress on the summit and another group of buildings were partially excavated on the shoulder of the hill about 50 m below the crest (Netzer, 1999; 2004; 2006; Roller, 1998).

Herod enlarged the site of the previous fortress and surrounded it with a wall. The palace fortress had magnificent views of the Dead Sea and the Transjordan mountains. The remains currently extend to an area of circa 1,000 m^2, but it is considered likely that the area was twice this size after the Herodian expansion, because there was evidence discovered of retaining walls supported by substantial backfills. Earthquakes and the instability of the bedrock resulted in serious site erosion including the destruction of these retaining walls and parts of the exterior buildings. They slid down the mountain. Consequently, some of the walls of the buildings which remained were slanted (Netzer, 1999; 2004; 2006).

The buildings located on the summit showed evidence of columns to support a second storey like the palace-fortresses already discussed. From the remains discovered on the site (ashlars, frescoes, drums, etc.), it is likely that the upper rooms were ornately decorated. The *in situ* remains were from the interior rooms because the exteriors had fallen away. For the archaeological team, it was a major challenge to map the site due to the deterioration of the palace-fortress. The second site on the shoulder was partly excavated. It stood in a better state of preservation than the summit palace-fortress but, as only parts of the remains were exposed, limited archaeological information was available (Netzer, 1999; 2004; 2006).

There were no wadis in the immediate landscape around Cypros. During Hasmonean times, rainwater runoff was collected and directed into four cisterns, located about 60 m down from the summit, on the slopes facing Jericho. The channel was rock cut and plastered and supplied the fortress with 2,000 m^3 of water but Herod ensured a greater supply of water for the extended palace-fortress.

He did this by harnessing springs that lay kilometres away. Two springs *Ein el Fawwar* on the south side of the Wadi Qelt and the second *Ein Farah* were harnessed to bring water over very challenging terrain. The

[7] See https://www.youtube.com/watch?v=Ak_cMJtEfuI, accessed on 22.6.2021.

output of *Ein el Farwwar was* channelled over 6 km in a conduit to the lower *Ein Farah*. The combined amount produced was carried in an aqueduct 14 km to Cypros over rock terraces, through naturally occurring rock fissures, over ten bridges and through five tunnels to reach the subterranean cisterns at the base of the hill. The aqueduct to the Cypros is the longest known among the desert fortresses (Amit et al., 2002; Garbrecht & Peleg, 1994).

Two Herodian Roman bathhouses were excavated at Cypros; one in the palace-fortress and the second on the lower area 30 m below the summit. The palace-fortress bathhouse contained a *caldarium* (6.5 m × 4.1 m) covered by a vaulted roof and heated by a hypocaust system containing two additional niches; one rectangular and the other semi-circular (Netzer, 1999; 2004; 2006). It was decorated with coloured frescoes of red, yellow, green, and black. An *opus sectile* floor with coloured tiles made of marble in a geometric design was unearthed. Among the Herodian *opus sectile* floors discovered in other palaces, this floor is unique as it was paved of marble and marble-like tiles (Snyder & Avraham, 2013). Other rooms surveyed were the *frigidarium* (3.4 m × 1.5 m), which was entirely taken up with a stepped pool coated in grey hydraulic ash-lime plaster, and the *tepidarium* paved with a monochrome mosaic floor and decorated with coloured frescoes.

The second bathhouse, discovered on the flatter area below the palace-fortress, contained an *apodyterium* (6.3 m × 6.2 m) with a mosaic panel still *in situ* containing a geometric design in black and white with an attached stepped pool. A *tepidarium*, also with a stepped pool, was found along with a hot area which contained another *tepidarium*, as well as a *caldarium*, a *laconium* (hot room), and two *praefurnia* (furnaces) (Netzer, 1999; 2004; 2006).

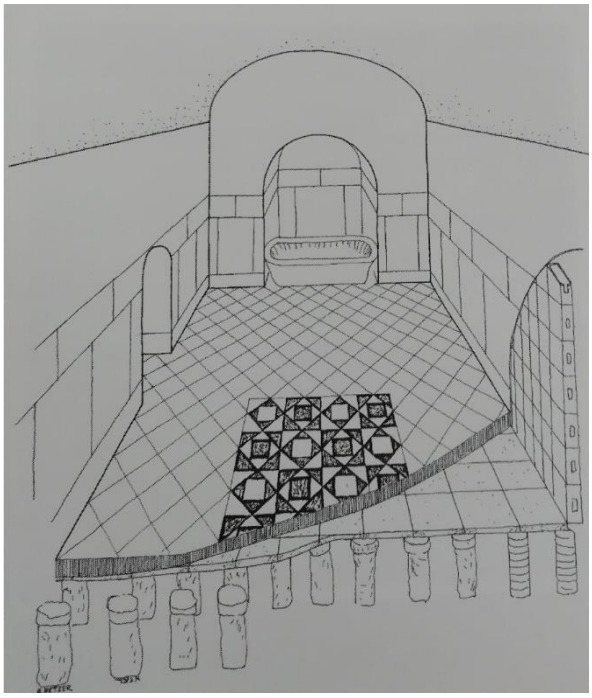


Figure 8. Isometric drawing of the reconstructed *caldarium* (Source: Netzer, 1999; 2004).

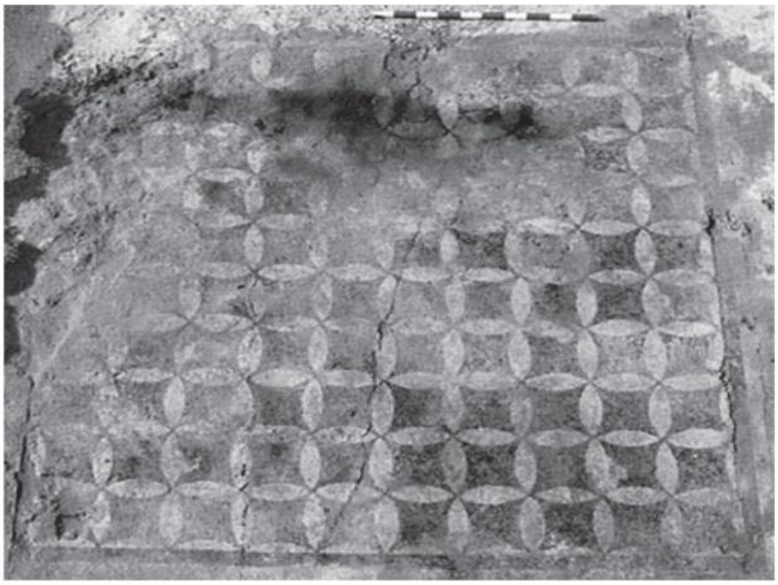


Figure 9. Decorated mosaic pavement in the *apodyderium* (Source: Netzer, 1999; 2004; Hachlili, 2009).

These two Roman bathhouses signified the opulence of the site along with the garden and peristyle courtyards. Josephus emphasised that it was a lovely place to stay, "on another site above Jericho he built a very secure and pleasant place to live, and named it after his mother, Cypros" (JA 16.5.143). The impression received from Josephus was that this magnificent residence accommodated the king and his court in luxury and security when he travelled around his kingdom.

Hyrcania

Hyrcania was an isolated fortress located on a hilltop known locally as *Khirbet el-Mird*. It stood in the northern Judean desert equidistant from both Jerusalem and Jericho, (approximately 15 km from both) and 8 km west of the Dead Sea.

Figure 10. The peak on which Hyrcania was built.[8]

[8] See https://www.Youtube.com/watch?v=p0plWZeDDd8, accessed on 22.6.2021.

It was built by one of the Hasmonean rulers and it was destroyed by the Romans (JW 1.8.167; AJ 14.5.89-90). The fortress was rebuilt by Herod as a prison for his political opponents (Netzer, 2006; Rappé, 2014). Josephus recorded that—

> He was on guard against such critics, forestalling any chance of them disturbing him by having them always at work, and he did not allow the citizens to meet in groups, or to walk or eat together, but watched all that they did and when any were caught, they were severely punished. Many were brought to the citadel of Hyrcania, both openly and secretly, to be executed, and spies were everywhere, both in the city and on the roads, to keep an eye on any who assembled. (JA 15.9.366)

Herod used this fortress to imprison his political opponents and carry out secretive executions. The site has been surveyed but has not been excavated. The data revealed that the top of the hill had been levelled and a platform measuring 40 m x 25 m was exposed. Evidence of a central courtyard surrounded by rooms was discovered. Other structures on the summit were identified as those of a Byzantine monastery. Some of the rooms incorporated into this structure were Herodian (Wright & Milik, 1961, Roller, 1998; Netzer, 2006). A full excavation could provide more detailed evidence of Herodian features.

There is, however, information available about the water supply system to this fortress. Herod extended and improved the system. Two aqueducts brought water to the citadel. Both were coated with white plaster over their entire lengths. The northern conduit measured 1,950 m and the southern aqueduct was 9 km long. The two channels merged before they reached the fortress.

Figure 11. Aqueduct at Hyrcania (Source: Wright & Milik, 1961; Roller, 1998; Netzer, 2006).

There were 20 rock-cut cisterns on Hyrcania, five on the hilltop which received rainwater run-off from the roofs and courtyards with three on the eastern side. On the south side, there were eight reservoirs on the top line and four on the lower slope. These cisterns had a total capacity of 20,000 m^3 (Amit et al., 2002). Three pools at the base of the hill provided additional water storage (Garbrecht & Peleg, 1994).

Figure 12. Vaulted cistern on Hyrcania.[9]

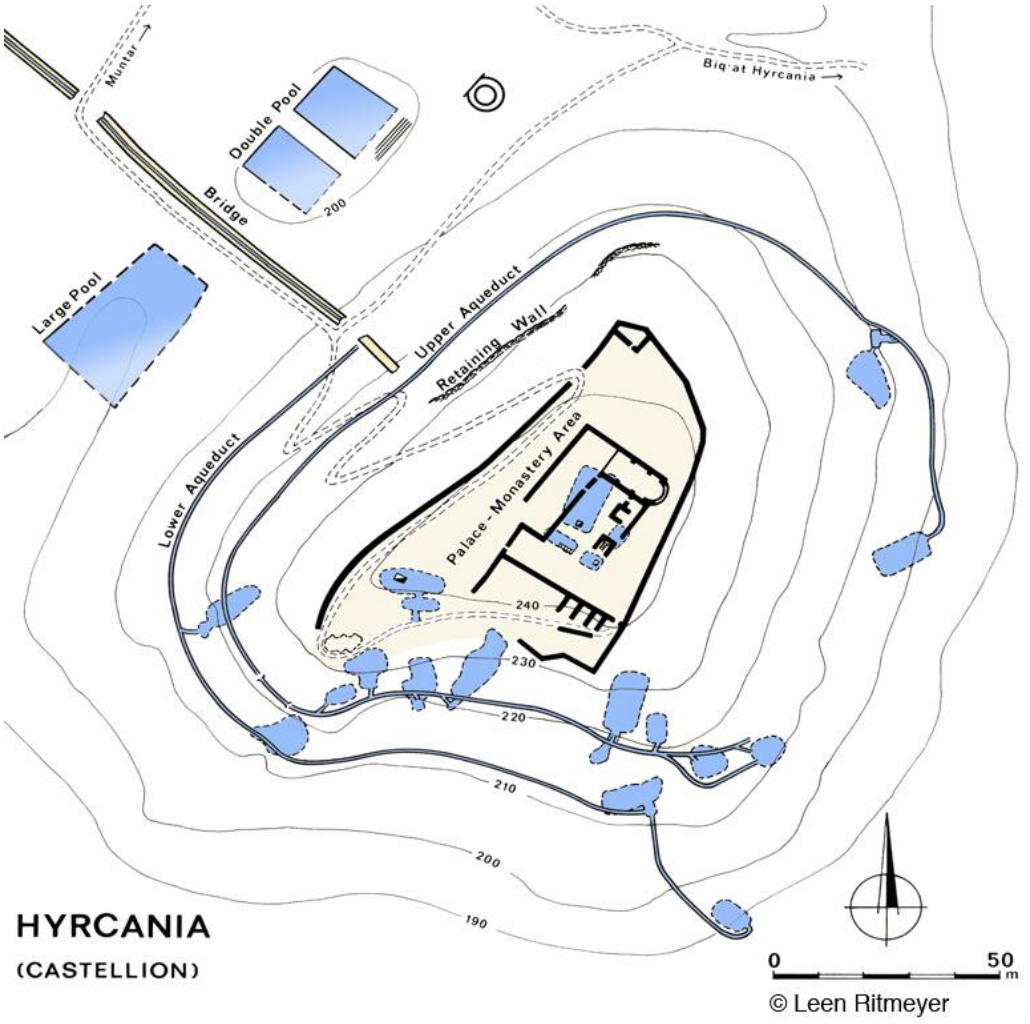


Figure 13. Map of the water cisterns of Hyrcania courtesy of Leen Ritmeyer Archaeology.[10]

[9] See https://www.Youtube.com/watch?v=p0plWZeDDd8, accessed on 22.6.2021.
[10] Copy the map of the Water Cisterns of Hyrcania purchased from www.ritmyer.com Order No. 4984 dated 21.8.2021.

Josephus described Hyrcania accurately but there must have been palatial apartments located on this site because Herod brought Marcus Agrippa there when he visited Judea in 15 B.C.E.—

> Under strong persuasion he agreed and came to Judea, and Herod spared no efforts to please him in his newly founded cities and showing him his building works and entertaining him and his friends with all the best and finest sorts of foods, both in Sebaste and around the port he had built at Caesarea, and in the fortresses of Alexandreion and Herodium and Hyrcania. (JA 16.2.13)

The darker side of this fortress was accentuated by Herod when he had his eldest son Antipater executed and buried there, "…and slew Antipater; he also gave order to have him buried at Hyrcanium and altered his testament again, and therein made Archclaus, his eldest son, and the brother of Antipas, his successor, and made Antipas tetrarch" (JA 15.10.366; JW 1.664).

The facts available from Josephus point to the conclusion that Hyrcania was a beautiful fortress with an opulent residence; however, it was used as a detention centre, a place of execution and a burial destination. A Herodian graveyard has been discovered here at the foot of the eastern slope (Netzer, 2006).

Machaerus

Machaerus was located on the top of a mountain (known as *el Mashnakeh*) which lies on the eastern side of the Dead Sea and was originally built by the Hasmonean King, Alexander Jannaeus, in about the year 90 B.C.E. The hilltop rose to approximately 1,100 m above the level of the Dead Sea.

Figure 14. Machaerus with the Background of the Dead Sea.[11]

It was surrounded by deep ravines and Josephus describes the fortress and its secure location in detail—

> …for what was walled in was itself a very rocky hill, elevated to a very great height; which circumstance alone made it very hard to be subdued. It was also so contrived by nature, that it could not be easily ascended; for it is, as it were, ditched about with such valleys on all sides, and to such a depth, that the eye cannot reach their bottoms, and such as are not easily to be passed over, and even such as it is impossible to fill up with earth. For that valley which cuts it on the west extends to threescore furlongs and did not end till it came to the lake Asphaltitis; on the same side it was also that

[11] https://commons.wikimedia.org/wiki/File:Machaerus_Panorama.jpg Accessed on 13.8.2021

> Macherus had the tallest top of its hill elevated above the rest. But then for the valleys that lay on the north and south sides, although they be not so large as that already described, yet it is in like manner an impracticable thing to think of getting over them; and for the valley that lies on the east side, its depth is found to be no less than a hundred cubits. It extends as far as a mountain that lies over against Machaerus, with which it is bounded. (JW 7.6.165-170)

The Hasmonean fortress was demolished by Gabbinius in 57 B.C.E. (JW 7.6.171). Herod constructed an impressive city and palace-fortress here—

> But when Herod came to be king, he thought the place to be worthy of the utmost regard, and of being built upon in the firmest manner, and this especially because it lay so near to Arabia; for it is seated in a convenient place on that account, and hath a prospect toward that country; he therefore surrounded a large space of ground with walls and towers, and built a city there, out of which city there was a way that led up to the very citadel itself on the top of the mountain; nay, more than this, he built a wall round that top of the hill, and erected towers at the corners, of a hundred and sixty cubits high; in the middle of which place he built a palace, after a magnificent manner, wherein were large and beautiful edifices. (JW 7.6.172-175)

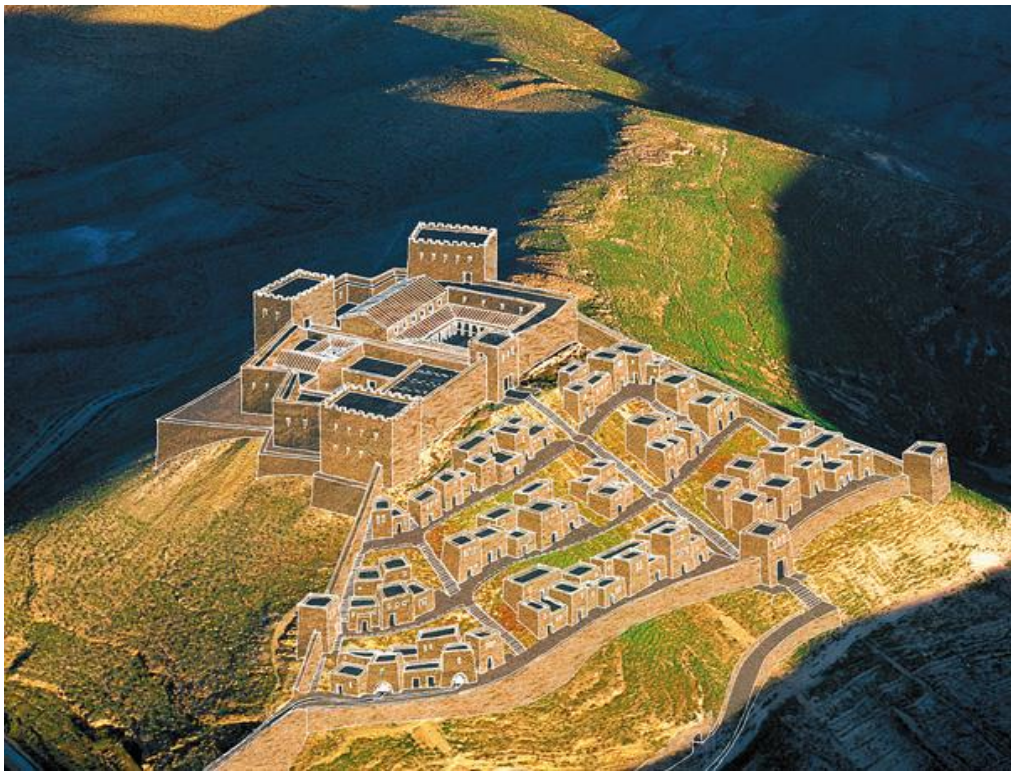


Figure 15. A computerised schematic of Machaerus with the city and palace-fortress.[12]

Herod favoured this location with a city which was connected discretely to the palace-fortress. He constructed it with his usual flair and innovation utilising the remaining Hasmonean foundations. The position was strategically important to the king early in his reign as it served as a border crossing between Nabatea and Judaea. The slopes were artificially increased to make access up the hill more difficult. Double walls were constructed around the entire site with fortified towers. Large stocks of food, water and arms were held here.

[12]BAS Library phototraph, https://www.google.com/search?q=Machaerus&client=firefox-b-d&sxsrf=ALeKk03ee_hcop4iy-na-IbuJSJ0imkl9A:1629299342175&tbm=isch&source=iu&ictx=1&fir=okU5bgs6G7iKqM%252CdEId8x3bPP5JlM%252C_&vet=1&usg=AI4_-kQ_d2oGHHd0hrsDsbcusz2qKw_lMw&sa=X&ved=2ahUKEwi4nZeE7bryAhUrQUEAHbTOCxIQ9QF6BAgZEAE&biw=1920&bih=955#imgrc=okU5bgs6G7iKqM, accessed on 20.8.2021.

Herod constructed a major fortress capable of withstanding a long siege (Kassher, 1998). Pliny the Elder described it, "Machaerus was next to Jerusalem, the most strongly fortified place in Judea" (*Historia Naturalis*, 15, 16).

Herod built a luxurious palace-fortress with a peristyle courtyard, a beautiful garden, a Roman bathhouse and extended the water system which covered an area of 4,500 m^2. The palace-fortress was approximately one third the size of the area of the whole site. It was divided into two sections laid out in a rectangular shape following the original Hasmonean perimeter. The two areas were divided by a central corridor 3 m wide which may have contained an access door to the city at its eastern end (Netzer, 2006).

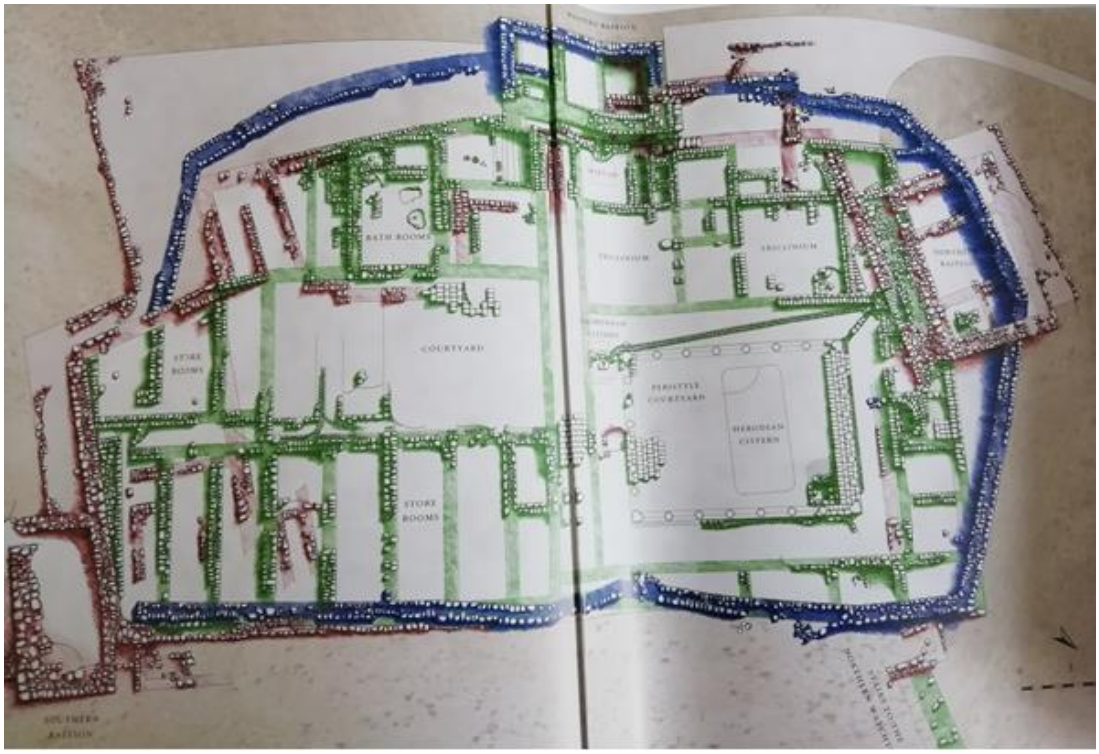


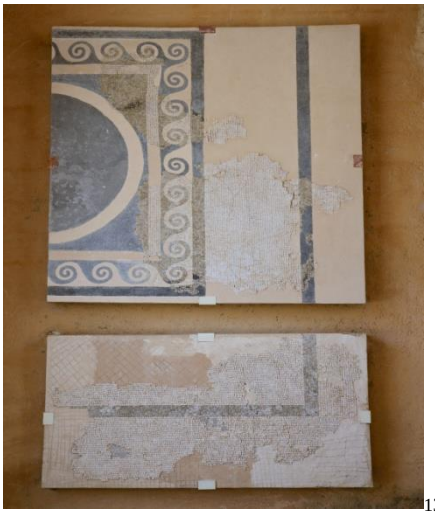
Figure 16. Architectural layout of the Herodian palace-fortress of Machaerus (Source: Vörös, 2013).

On the northern side, there was a peristyle courtyard measuring 28.3 m × 23 m, with eight Doric columns arranged in four porticos (Vörös, 2013). A large *tricilinium* (25.6 m long and 9.5 m wide) was divided into three halls of differing sizes separated by pillars. Nine steps were discovered west of the *tricilinium* which confirmed that a second storey had been built above, which may have held the royal apartments. This floor would have had breath-taking views of the Dead Sea. A lone *mikveh* was discovered near the *tricilinium* (Netzer, 2006).

On the southern side of the fortress-palace another large rectangular area was uncovered (24 m × 13.5 m). Further excavation produced a stone platform which was covered by one meter of ancient topsoil. This suggested to archaeologists that a palace garden could have been located in this space (Vörös, 2013). To the west of the garden, five storerooms were revealed (each measuring 12 m × 4 m) (Netzer, 2006) like the storerooms erected on Masada (Vörös, 2013).

A spacious royal bathhouse was entered from the garden. It contained an *apodyterium* (8.70 m × 8.90 m) with a mosaic floor, a *caldarium* (8.10 m × 6.35 m) heated by an underfloor hypocaust system, and a

praefurnium (boiler room) which heated the bathhouse (12.00 m × 2.70 m). Additionally, a *frigidarium* (4.90 m × 4.35 m) and a *tepidarium* (4.30 m × 3.50 m) were uncovered which revealed a beautiful black and white mosaic. The bathhouse also contained a *laconicum* (meaning dry sweating area) with two rooms (the larger measuring 2.35 m × 3.42 m and the smaller being 1.55 m × 2.10 m) which were decorated with *opus sectile* floors (Vörös, 2013; 2015).

 [13]

 [14]

Figure 17. Mosaics from the Bathhouse at Machaerus.

Such magnificent bathhouses demonstrated the luxuriousness of the palace-fortress enjoyed by Herod and his household. The computerised reconstruction below gives an idealised view of the palace fortress—

Figure 18. Cut away reconstruction by Gyozo Voros in the *Biblical Archaeological Review*, September/October 2020.

[13] See https://commons.wikimedia.org/wiki/File:A_mosaic_from_the_baths_of_the_fortress_of_Machaerus_which_was_built_by_Herod_the_Great,_1st_century_BC,_this_is_the_most_ancient_mosaic_found_in_Jordan_(34901363711).jpg, accessed on 16.8.2021. This mosaic can be viewed at the Madaba Museum in Jordan.

[14] The source is from Vörös (2015).

The lower city was located on the north-eastern side of the mountain and has been partially excavated. The remains of two towers and parts of the city walls have been unearthed. Sections of buildings were also exposed and the ruins of a *mikveh* uncovered.

Herod extended the water scheme on Machaerus to augment the Hasmonean water system, "He also made a great many reservoirs, for reception of water; that there might be plenty of it ready for all uses; and those in the properest places that were afforded him there" (JW 7.6.2).

Cisterns existed on the north, west and south slopes of the mountain (Wright & Milik, 1961). Archaeologists discovered the remains of two aqueducts bringing water to the site. The upper conduit delivered water to the palace-fortress along a saddle (part rockface and part-built conduit) that entered the palace-fortress at the east tower and filled a huge cistern approximately 25 m long. It was the largest reservoir found on Machaerus and was similar in shape and design to cisterns excavated at Masada which could store 380,000 litres of water (Vörös, 2013). An unusual conical-shaped Hasmonean cistern was also revealed under the peristyle courtyard with a capacity of 110,000 litres (Vörös, 2013). See below, with Herodian cistern for comparison—


[15]


[16]

Figure 19. The total capacity of water held in the cisterns for the fortress was 3,000 m^3 (Source: Clantelli, Sardella, Peccioni, Favoni, & Bonazza, 2019).

Herodium

Herodium (also known as *el-Fureidis, Har Hordos, Herodeion, Herodion, Jebel Fureidis*) was one of Herod's most imaginative structures. It comprised a palace-fortress built on the breast of the hill overlooking the Judean wilderness with a vast complex at the base including at least two other palaces. He defied nature and literally moved a hill to achieve his dream. The top of the mountain was levelled to provide a firm base for a cylinder like structure. Two concentric circular walls with twelve meters between them were erected with an overall diameter of about 61 m. The volcano-shaped effect was produced by banking earth and rubble (taken from a neighbouring hill) against the outside walls, which gained strength from the circular design. It reached a height about two-thirds up the cylinder. The conical shape was visually attractive, and the citadel was more

[15] The source is from Vörös (2013).
[16] See https://www.youtube.com/watch?v=lnOyZnzUe0I&t=2368s, accessed on 24.8.2021.

effective with the steep and uniform slopes. It made Herodium virtually impregnable. It would have been almost impossible to get a siege engine up the hill (Bergin, 2017). Josephus described Herodium thus—

> When this wedding was over, he built a citadel in that place where he had conquered the Jews when he was driven from the kingship and Antigonus held it. This citadel is about sixty furlongs from Jerusalem in a naturally strong place suited to such a building, on a medium-sized hill, raised up higher by man's handiwork, until shaped like a woman's breast. It is surrounded with circular towers and has a narrow ascent to it, composed of steps of polished stones, two hundred in number. Within are very rich royal apartments, that provide both for security and beauty. About the bottom of the hill there are dwellings of a structure well worth seeing, among other things for the water which is brought there from a long way off at a great cost, for the place itself has no water. The plain around this citadel is full of buildings, no less than a city in size and with the hill above it like a castle. (JA 15.9. 323-325)

Figure 20. A view of Herodium from Bethlehem.[17]

Four towers marked the points of the compass. Three of these were substantially the same with windows in the upper stories only and none in the lower floors where the fill covered the outside walls. The eastern tower was the largest by three stories. It held Herod's private palace of modest dimensions which was splendidly appointed with floors of coloured tiles, mosaics and wall paintings and included every imaginable luxury and comfort. This tower was unique. It extended through both the inner and outer walls and into the courtyard.

The palace itself was defined by a circular wall and was separated into two equal parts by a central dividing wall. On the eastern side of the wall, Herod created an enormous courtyard, open to the sky and planted with a beautiful garden (Netzer, 1991). The walls would have been covered with frescoes and it is still possible today to see some of the decorative stucco which imitated blocks of marble. The western half of the palace contained bedrooms and living areas surrounding a cross-shaped room which may have been open to the sky. South of the sleeping areas was the reception room—*triclinium* (12 m long by 9 m wide) the official reception and dining room of the fortress-palace (Shanks & Cole, 1992).

[17] See http://www.bibleplaces.com/herodium.htm, accessed on 6.5.2010.

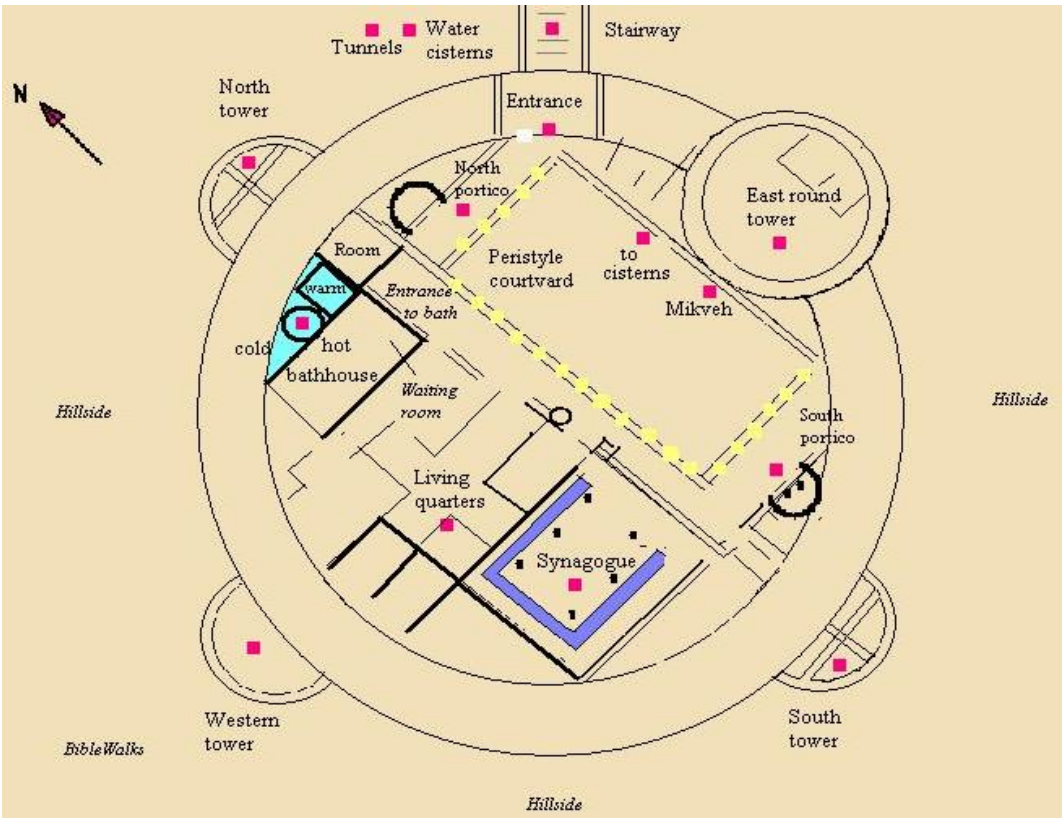


Figure 21. Plan of the palace-fortress.[18]

On the northern side of the sleeping quarters was a complete Roman bathhouse which contained an entrance room and a dressing room (*apodyterium*), a large *caldarium*, a *tepidarium* (covered by a *cupula*), and a small *frigidarium.* The domed roof in the *tepidarium* had an *oculus* (the round opening at the top of a dome to let in light). This is the oldest one of its kind known in the Holy land.

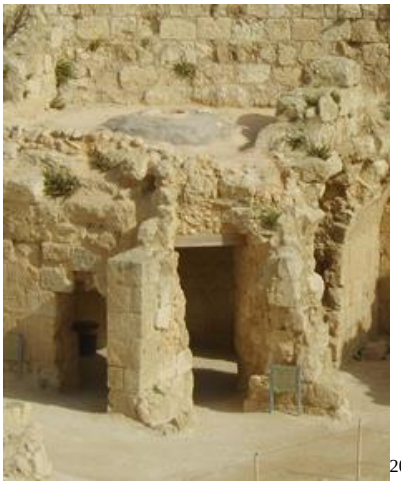
 [19]
 [20]

Figure 22. The dome with *oculus* at Herodium.

[18] See http://www.biblewalks.com/Sites/Herodion.html, accessed on 9.5.2010.
[19] Author's own photographs taken in Herodium in 2011.
[20] Ibid.

There was a lack of regular and stable water supplies in the immediate vicinity of Herodium. Beneath the palace-fortress large cisterns were constructed which when filled with rainwater, assured its water supply. In addition, three very large cisterns were dug into the slope outside the fortress and rainwater was directed into them from the hillside at a level of 9 m below the top of the mountain. These cisterns were excavated before the dumping of the massive fill that formed the cone. Special vaulted corridors were built in front of the cisterns to prevent the earth and rubble from penetrating them (Netzer, 1991).

 [21]

 [22]

Figure 23. Water cisterns for the palace fortress at Herodium.

At the base of the mountain, there was fifteen hectares of barren wilderness which Herod turned into a separate pleasure palace with sumptuous gardens. A colossal pool filled by its own aqueduct formed the centrepiece. Made of rough-cut stone, it was artificially fed from a spring near Solomon's pools at a place now known as *Artas* (Stern, Leṿinzon-Gilboʿa, & Aviram, 1993). Almost as large as two Olympic swimming pools, it measured 65 m long by 41 m wide with a depth of nearly 3 m. Dug into the bedrock on the south-western side its entire surface would have been painted with hydraulic lime mortar (Stern et al., 1993). The structure was like the pools built at Masada and Jericho. Since the pool was larger than others constructed by Herod, it needed four flights of stairs which led down to the bottom in each corner (Netzer, 1991). It served as a reservoir for Lower Herodium, a swimming pool and as a place for washing and for boating.

Figure 24. Herodium view from the pool complex. [23]

Figure 25. Herodium view from palace-fortress.[24]

[21] Image from *the Accordance Bible Lands Photoguide.*
[22] See http://www.bible-architecture.info/Herodium.htm, accessed on 10.5.2010.
[23] Author's own photograph from visit to Herodium May 2011.
[24] Ibid.

This area was known as the pool complex. It was surrounded by buildings with various functions. A warehouse was constructed to the north-west. To the east, it was planted with gardens and orchards which were watered from an outlet close to the bottom of the pool (Netzer, 1991). Between the west and the south, a Roman bathhouse was built comprising several rooms and pools. There was also a *caldarium* (hot room) heated by the hypocaust system. The bathhouse walls were decorated in painted square patterns and imitation marble. The floors were paved with coloured mosaics in geometric and floral patterns, as well as with pomegranates, grapevines and grape clusters.

Figure 26. Mosaic from bathhouse floor. [25]

Figure 27. A mosaic of pomegranates and apricots.[26]

At the foot of the mountain, a huge building was constructed which was the central palace for Herodium. Called the large palace, possibly because it was more than twice the size of the palace-fortress, it is also known as the lower palace (Shanks & Cole, 1992). It was built on a slope which necessitated the erection of a substructure. Other buildings with living quarters, storage areas and stables were included to provide accommodation for the topography office which was relocated to Herodium. Thus, the site had permanent residents who could maintain and protect the location throughout the year.

Herodium was the only site in Judaea to bear his name and here Herod built his tomb complex which was discovered by archaeologists in 2007.[27] Josephus recorded that, "The body was carried for two hundred furlongs, to Herodium, where he had wanted to be buried. That is how the Herod saga came to an end" (JW 1.33.673).

[25] See http://www.bible-lands.net/fortresses/herodium/332-herodium-resources-mosaic-floor-1st-century-ad, accessed on 13.5.2010.
[26] Ibid.
[27] The Israel Ministry of Foreign Affairs announced the discovery on 8.5.2007. See https://www.mfa.gov.il/mfa/israelexperience/history/pages/tomb%20of%20king%20herod%20discovered%2008-may-2007.aspx, accessed on 20.8.2021.

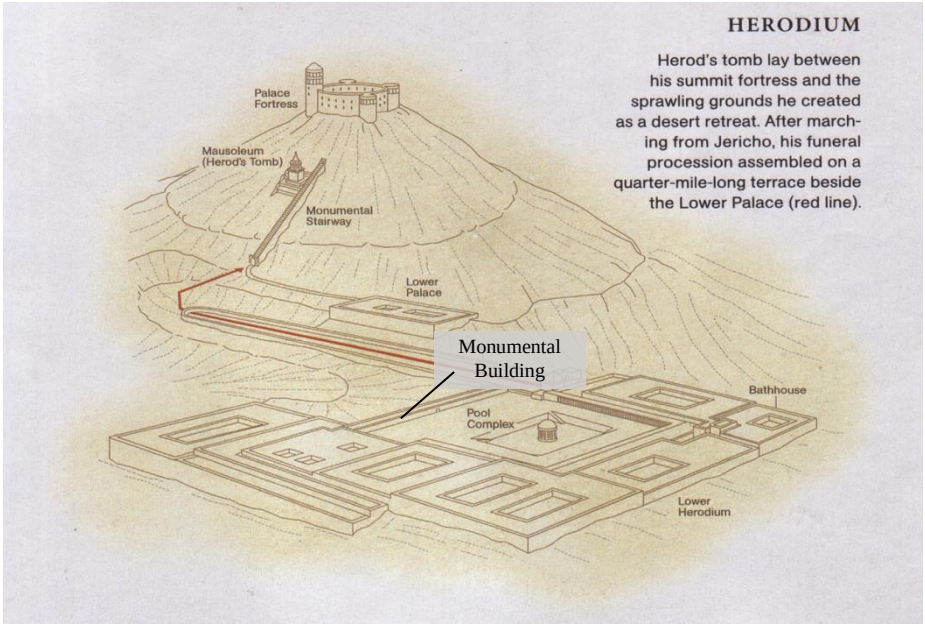


Figure 28. Overall plan of Herodium.[28]

Herodium was one of the largest and most unique palaces in the Greco-Roman world and is still one of the most spacious known to archaeology (Netzer, 1991).

Conclusion

Herod was threatened by remnants of the Hasmonean regime, supported by Parthian armies, and nearly died at the hands of the invaders. His family almost died on Masada from the lack of water when he fled to Rome to look for their support. Once he had defeated his enemies and was appointed by Rome, he took control of Judaea as King taking three years to achieve this aim. Herod's desire was to secure his kingship. Consequently, he rebuilt, extended and refortified the Hasmonean palaces and their desert fortresses.

Masada, Alexandrium, Hyrcania, Cypros, Machaerus, were all remodelled and extended as luxury palace-fortresses. Each citadel was self-sufficient with excellent supplies of water all year round. They were all stocked with food and weapons and prepared to provide a safe and comfortable place for the king and his court as he travelled around his kingdom.

Doq was included in the research because Herodian architectural artifacts were discovered there in 1982 but it has remained unexcavated. How it fitted into the Herodian scheme is unknown.

In the earlier part of his reign, there were external threats from the Parthians and the Nabateans. However, as his kingship became established those threats were downgraded. Herod was always fearful of the danger from within Judaea. He was not considered the "true king" as he had usurped the Jewish Hasmonean King. He remained an outsider to the population despite the peace and prosperity that was maintained throughout his reign. Even his beneficence during times of famine and earthquake did not merit a change of heart!

Herodium had a totally different function from the other desert fortresses. It was a place of personal historic significance to Herod, "in the place where he defeated the Jews he later built a splendid palace surrounded by a city" (JA 14.13.361) and he named it after himself. Despite the topographical challenges he

[28] See http://israeltours.files.wordpress.com/2009/03/herodium.jpg, accessed 4.8.2009.

created an artificial mountain, building a palace-fortress that towered above the desert and, at the base, he turned the area into a separate pleasure palace with a lake. It was an engineering and architectural masterpiece. It was one of Herod's favourite places of retreat near Jerusalem with every service necessary to entertain on a grand scale and it would be his final resting place.

The research laid out in this article indicates that the desert fortresses of Herod the Great did not fall naturally into the category of palaces or prisons. Most were multifunctional with standing garrisons, but Alexandrium and Hyrcania stand out from the others as places of confinement and death.

References

Amit, D., Patrich, J., & Hirchfeld, Y. (2002). The Aquaducts of Israel. *Journal of Roman Archaeology, 46*, 459-464.

Bergin, B. (2017). Herodium: Herod's Innovative Masterpiece. *Cultural and Religious Studies, 5*(6), 360-370.

Bergin, B. (2018). The Innovative Genius of Herod at Caesarea Maritima. *Cultural and Religious Studies, 6*(7), 377-390.

Bergin, B. (2019). Herod the Great's Unique Jerusalem. *Cultural and Religious Studies, 7*(12), 639-659.

Bergin, B. (2020). Masada: Emphasises Herod's Evolving Style. *Cultural and Religious Studies, 8*(8), 429-453.

Clantelli, C., Sardella, A., Peccioni, E., Favoni, O., & Bonazza, A. (2019). Herodian Machaerus Fortress (Jordan): Investigation of Mortars belonging to the Hydraulic Constructions. *International Journal of Architectural Heritage, 14*(3), 1-13.

Garbrecht, G., & Peleg, Y. (1994). The Water Supply of the Desert Fortresses in the Jordan Valley. *The Biblical Archaeologist, 57*(3), 161-170.

Hachlili, R. (2009). *Ancient mosaic pavements.* Boston/Lieden: Brill.

Kassher, A. (1988). *Jews, Idumaeans, and ancient Arabs. Relations of the Jews in Eretz-Israel with the nations of the frontier and the desert during the Hellenistic Roman Era (332 BCE-70 BE).* Tubingen: Mohr Siebeck.

Knoblet, G. (2005). *Herod the Great.* Maryland: University Press of America.

Netzer, E. (1991). *Masada III: The Yigael Yadin Excavations 1963-1965: Final Reports: The Buildings, Stratigraphy, and Architecture.* Jerusalem: Israel Exploration Society.

Netzer, E. (1999). *The Palaces of the Hasmonean and Herod the Great*. Jerusalem: Old City Press.

Netzer, E. (2004). *Hasmonean and Herodian Palaces at Jericho II*. Jerusalem: Israel Exploration Society.

Netzer, E. (2006). *The Architecture of Herod the Great Builder*. Tubingen: Mohr Siebeck.

Rappé, D. (2014). Hyrcania in Darkness and Light. *Bible Today, 52*, 221-225.

Rocca, S. (2008). *Herod's Judaea: A Mediterranean State in the Classical World*. Tubingen: Mohr Siebeck.

Roller, D. (1998). *The Building Program of Herod the Great.* Berkeley/Los Angelos: University of California Press.

Shanks, H., & Cole, D. P. (Eds.). (1992). *Archaeology and the Bible, Vol. 2: Archaeology in the World of Herod, Jesus and Paul*. Washington D.C: Biblical Archaeology Society.

Snyder, F., & Avraham, A. (2013). The *opus sectile floor* in a Caldarium of the Palatial Fortress at Cypros. In Rachel Bar-Nathan, Judit Gartner (Eds.), *Hasmonean and Herodian Palaces at Jericho, Vol. 5* (pp.178-202). Jerusalem: Israel Exploration Society.

Stern, E., Leṿinzon-Gilboʿa, A., & Aviram, J. (1993). *The New Encylopedia of Archaeological Excavations in the Holy Land.* Jerusalem: Israel Exploration Society & Carta & New York: Simon & Schuster.

Vörös, G. (2013). *Machaerus I: History, Archaeology and Architecture of the Fortified Herodian Royal Palace and City overlooking the Dead Sea in Transjordan*. Milan: Studium Bilicum Franciscanum.

Vörös, G. (2015). *Machaerus II: The Hungarian Archaeological Mission in the Light of the American-Baptist and Italian-Franciscan Excavations and Surveys.* Milan: Studium Bilicum Franciscanum.

Whiston, W. (Trans.). (1999). *The New Complete Works of Josephus.* P. L. Maier, (Com.). Grand Rapids: Kregel Publications.

Wright, G. R. H., & Milik, J. T. (1961). Archaeological Remains at El Mird in the Wilderness of Judaea. *Biblica, 42*, 1-27.