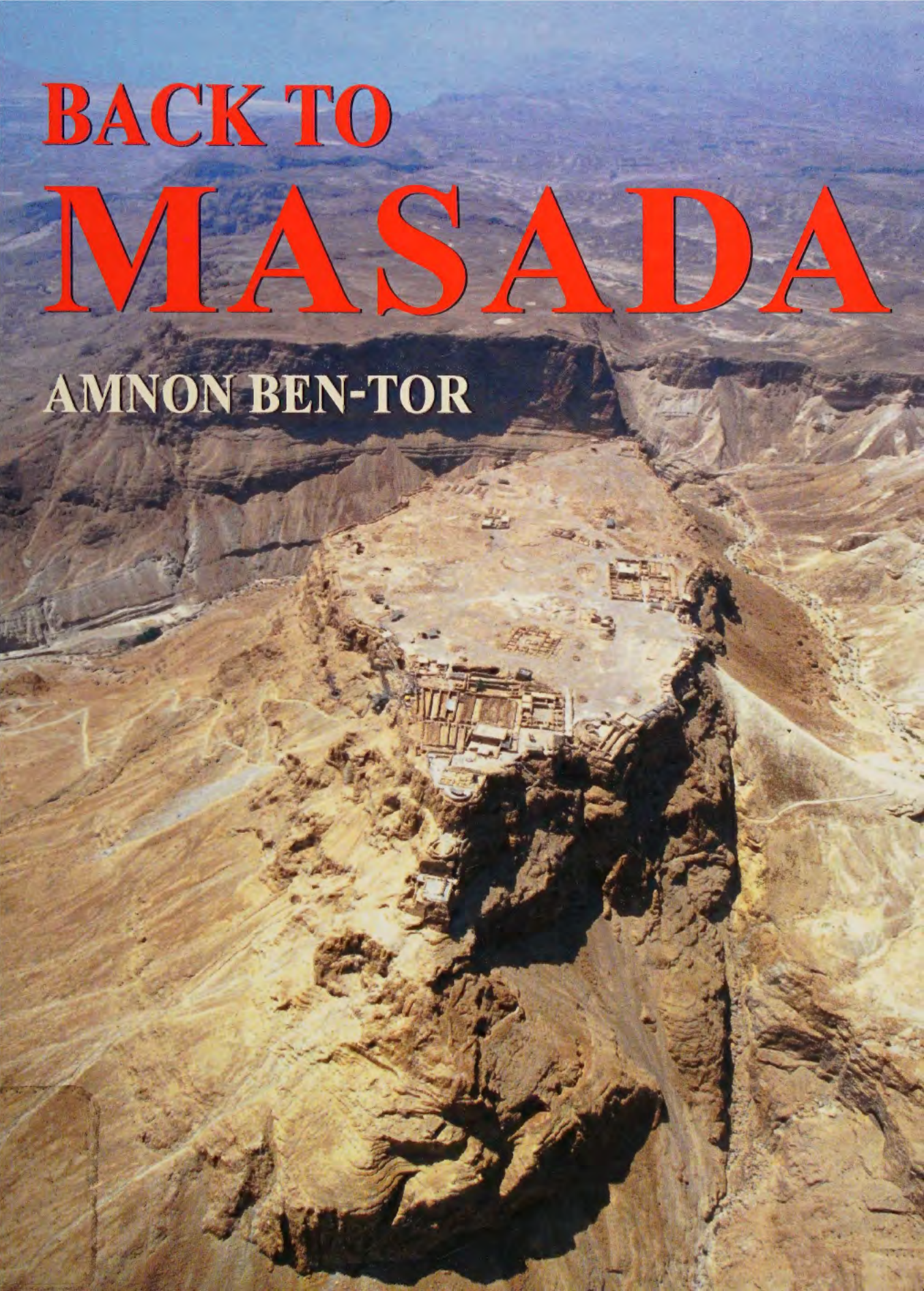
BACK TO MASADA

AMNON BEN-TOR



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Foreword

The best years of my life were without doubt from 1963 to 1965, when I was a member of the archaeological expedition to Masada directed by Yigael Yadin. These were the early years of the State of Israel, a time of innocence, before the Six Day War created radical changes in so many areas. It was a time when the words "Masada shall not fall again" spoke to us directly. Conditions were difficult for everybody, volunteers and staff alike: exhausting physical work, living in tents, cold showers and army rations. And yet, despite the conditions, or perhaps to some extent because of them, we were in seventh heaven. We were young, healthy, and innocent, and both the future and the past were ours. We thrilled at the remains of an oven or a cooking stove, at every fragment of mosaic, every arrowhead and piece of textile; we were moved by every sherd bearing an inscription and more so by the fact that almost 2,000 years after they were written, we could still read them. Today, especially for the generation born after the establishment of the state, a more sober and cynical generation, these things probably look rather different.

In addition to the permanent excavation team numbering about 20 — archaeologists, technicians and support staff — hundreds of volunteers from Israel and abroad also took part in the dig. It may be said with certainty that for everyone, volunteers and staff members alike, the time they spent at Masada was the experience of a lifetime. To this day, 40 years after the end of the excavations, every chance meeting with a participant anywhere in the world evokes the memories of those days, producing smiles and a warm sense of belonging. The permanent staff members still feel like one family after all these years — the 'Masada family.'

It is to that Masada family that I dedicate this book. For us, along with everything else, Masada is vistas — of the desert landscape, of sunrise and sunset; scents — from Masada in the rain to the smell of the fuel oil they used to try to heat washing water; and voices — Yoske Yefet, the camp commander, over the loudspeaker, waking us before dawn, urging us to hurry to the dining room to 'enjoy' our delicious porridge. Our reveille

consisted of songs by the popular Israeli musical group the Tarnegolim and the French Compagnons de la Chanson that blasted loudly each morning from that same loudspeaker, songs that to this day pull at our heartstrings.

Yadin believed that he had a responsibility to present the results of his excavations, among them the ones at Masada, to the public at large. He did so in dozens of lectures he gave throughout Israel to thousands of thrilled and knowledge-thirsty listeners, contributing the income from these lectures to the Masada research fund. A year after the excavations ended, Yadin published his popular book, which showcased the excavation's main discoveries. Every page reveals the spirit of enthusiasm that touched all who took part in this unique endeavor. Over the years following the excavations, and more so since Yadin's untimely passing, his assistants, students and experts in various fields have continued to study the finds and to publish them scientifically.

Masada's history, known in detail thanks to the dramatic descriptions of Josephus Flavius, its clear chronological framework, the extraordinary preservation of the remains due to the special climate and isolation of the site, all came together to make it a site of prime scientific importance. Scientific reports of the excavation results began to be published at the end of the 1980s. A total of eight volumes has been published to date, devoted to various aspects of the finds, both architecture and artifacts. The material presented in them is mainly intended for experts — archaeologists, historians, philologists and others.

But what of the broader public? That is where this book comes in, presenting the educated and inquisitive layperson the main elements of the wealth of material from Masada included in the eight volumes so far published. However, the last word has not yet been said about Masada. Some of the finds revealed by Yadin's excavations (among them textiles, glass utensils, metal and leather objects and food remains) are still being examined and prepared for publication. The excavations at Masada are ongoing, albeit on a much smaller scale than those of the Yadin expedition. It is hoped that when the work is done and the rest of the finds are published scientifically, the material will be presented in its entirety in a manner also suitable to the lay public.

Joseph Aviram, the indefatigable director of the Israel Exploration Society, originally proposed the idea of a large-scale excavation at Masada to Yadin, and stood by him throughout, in word and deed. The moving spirit behind the eight volumes of the Masada Final Reports so far published, Aviram also conceived the idea that the time had come to release a book

that would encapsulate for the wider public material already published scientifically.

Except for its foreword and the final chapter (Archaeology and the Masada Myth), which I wrote, this book presents a summary of the eight volumes of the Masada final reports by the scholars listed below. The choice of what to present is my responsibility; the views are their own. Y. Yadin and J. Naveh — The Aramaic and Hebrew Ostraca and Jar Inscriptions (*Masada I*); Y. Meshorer — "The Coins of Masada" (*Masada I*); H. Cotton and J. Geiger — The Latin and Greek Documents (*Masada II*); E. Netzer — The Buildings: Stratigraphy and Architecture (*Masada III*); D. Barag and M. Hershkovitz — "Lamps" (*Masada IV*); A. Shefer and H. Granger-Taylor — "Textiles" (*Masada IV*); K. Bernick — "Basketry, Cordage and Related Artifacts" (*Masada IV*); N. Liphschitz — "Wood Remains" (*Masada IV*); A. Holley — "Ballista Balls" (*Masada IV*); J. Zias, D. Segal and I. Carmi — "Human Skeletal Remains" (*Masada IV*); G. Foerster — *Art and Architecture* (*Masada V*); S. Talmon — "Hebrew Fragments from Masada" (*Masada VI*); Y. Yadin — "The Ben-Sira Scroll from Masada" (*Masada VI*); R. Bar-Natan — *The Pottery of Masada* (*Masada VII*); G. Stiebel and J. Magness — "The Military Equipment from Masada" (*Masada VIII*); M. Kislev and O. Simchoni — "Hygiene and Insect Damage of Crops and Foods at Masada" (*Masada VIII*); R. Reich — "Spindles and Spinning at Masada"; "The Stone Cups at Masada"; "Stone Weights at Masada" (*Masada VIII*); M. Hershkovitz and S. Amorai-Stark — "The Gems from Masada" (*Masada VIII*).

This is the place to raise a matter that has been a topic of debate on more than one occasion: the question of the name of the group that lived at Masada during the Great Revolt. Josephus, the only contemporary historical source, consistently referred to its members as Sicarii, while Yadin always used the term Zealots. The various publications, including the Masada Final Reports, used both names: In the introduction to *Masada I*, Naveh discussed the question but chose not to take a firm stand, while Cotton and Geiger, the authors of *Masada II*, generally referred to the inhabitants of Masada as Sicarii. Netzer, the author of *Masada III*, returned to the term Zealots, as did most of the authors of the subsequent volumes.

The excavators, during and after the dig, called Masada's inhabitants Zealots. I do not recall anyone questioning why Yadin chose to use a different name than the one used by Josephus. Did Yadin agree with those who saw the Sicarii as a segment of the Zealots? This idea is based, among other things, on Josephus' description (*War* II, 444), although there, the Hebrew

word *kana'im*, usually rendered Zealots, apparently means extremists. Several scholars have debated the distinction between the Zealots and the Sicarii. The historian M. Stern believed that both groups belonged to Josephus' "Fourth Philosophy" (the other groups being the Pharisees, the Sadducees and the Essenes), agreeing with each other at least in their total opposition to Roman rule and the need to fight against it (Stern 1982:387-397). The difficulty in distinguishing between these groups can also be seen in other historical sources, Jewish and non-Jewish. One version of the aggadic work Avot de-Rabbi Nathan, for example, mentions a group called Zealots, while in another version the same group is called Sicarii. The Church father Hypolitus specifically notes that "those who are called Zealots by certain people are called Sicarii by others" (Stern 1982:397; for further bibliography on those two sources see *ibid.* notes 159-160).

Yadin's preference for the term Zealots may have stemmed from his aversion to a political group known as Brit Habiryonim, which was established in the 1930s and was still active in the 1940s. The members of this group saw themselves as the successors of the Sicarii, as indicated by the name of one of their essays, "The Scroll of the Sicarii." Brit Habiryonim held, among other things, that the killing of Jews who collaborated with the British was justified, a view diametrically opposed to the stand of the mainstream Jewish community in Palestine with which Yadin firmly identified both as an individual and a prominent figure in the Haganah. Thus the political reality in the country during his formative years may have led him to recoil from the use of the term Sicarii for the people of Masada. Was this the reason he eschewed the term? "We will never know," as Yadin himself often said about other issues concerning Masada.

Be that as it may, the archaeological evidence shows that although the Sicarii were apparently the most important group living at Masada during the Great Revolt, they were not the only ones; refugees from Judea who were not of their number also joined them. I have therefore chosen an intermediate path, calling the people who lived at Masada during the Great Revolt "rebels" and reserving the term Sicarii for quotes by Josephus.

Not being an expert in many of the topics covered by this book, I sought the assistance of scholars who are specialists in their fields. They have read the chapters in their areas of expertise, clarified where necessary and made corrections where I had misunderstood. I owe a debt of gratitude to the following scholars: H. Cotton (The Hebrew University); A. Danin (The Hebrew University); L. di Segni (The Hebrew University); H. Eshel (Bar-

Ilan University); H. Gitler (The Israel Museum); M. Livneh (Kibbutz Ma'ayan Baruch); R. Reich (The University of Haifa); S. Rosenberg (The Israel Museum); A. Segal (The University of Haifa); G. Stiebel (The Hebrew University) and Z. Weiss (The Hebrew University). Thanks are due also to G. Hurvitz, curator of the collections of the Institute of Archaeology of the Hebrew University who placed at my disposal a number of illustrations that appear in this book and to Miriam Feinberg Vamosh who invested great effort in its translation. Helpful and important editorial comments were provided by Alan Paris of the Israel Exploration Society. The book was designed by A. Pladot, Old City Press and typeset by Marzel A.S. — Jerusalem.

Finally, my gratitude goes to Joseph Aviram, who initiated the writing of this book and accompanied the process. From the moment he conceived the idea it captivated me and I worked on it frenetically for over a year and a half, devoting every possible moment to it. For me, it was a return to Masada, and for this I owe Joseph Aviram a special thank-you.



Phases in the Settlement of Masada

Except for a few remains from the Chalcolithic period and the Iron Age found mainly in the caves on the southern cliff, the history of Masada is divided into six chapters:

- **The Hasmonean Period:** The historical sources reveal human activity at the site, although so far no building remains have emerged that can be securely attributed to this period.
- **The Herodian Period:** Most of the structures on Masada were built during this period, which can be divided into three parts:
  - The early period (approximately 37–30 BCE)
  - The main period (approximately 30–20 BCE)
  - The late period (approximately 20 BCE–6 CE): This period also includes the rule of Archelaus (4 BCE–6 CE).
- **The period of the Roman procurators** (6–66 CE): From the end of Archelaus' rule to the conquest of Masada by the rebels, including the period of Agrippa I (41–44 CE).
- **The period of the rebels** (66–73/74 CE): As to whether the fortress fell in 73 or 74 CE, see below.
- **The period of the Roman garrison** (73/74–112/113 [?] CE): From the conquest of Masada to the departure of the Roman garrison.
- **The Byzantine period** (approximately the mid-fifth to the mid-seventh centuries CE): At this time a small community of Christian monks took up residence on the plateau.

Masada in the Hasmonean Period

After Herod fled to Masada from the Hasmoneans who sought his life, he was forced to leave his family behind there, including his fiancée Mariamne. At that time, Masada may not have been a barren rock lacking

in everything, but rather may have boasted a few structures, albeit modest ones, that allowed life to go on. Moreover, although Antigonus besieged Masada to capture Herod's family, they held out and even fought back, which indicates that they had food, water and some means of defense at their disposal.

Indeed, in Josephus' description of the fortifications of Herodian Masada, he states: "On this plateau, the high priest Jonathan first erected a fortress, and called it Masada" (*War* VII, 285). If we interpret Josephus' words literally, he is ostensibly referring to Jonathan the brother of Judah the Maccabee. However, this interpretation is very difficult, since no known connection exists between Jonathan and Masada; neither is Masada mentioned in the story of his flight from the Syrians after his brother's death. It is more likely that the builder in question is Alexander Jannaeus, whose Hebrew name was Jonathan. The latter's extensive military activities included the construction of fortresses along the borders of his kingdom, especially the eastern border facing the Nabateans. Among these fortresses are Alexandrion, Hyrcania, Machaerus and Masada. A garrison was apparently stationed at Masada, near the southern border of Judea. Additional testimony to the fact that these sites, or at least some of them, were fortified prior to the rule of Herod emerges from references to them in the clashes between Aristobulus' son Alexander and the Roman procurator Gabinius: Josephus relates that Gabinius destroyed Alexandrion, Hyrcania and Machaerus. Masada is mentioned again as a fortress conquered by Helix after the murder of his brother Malichus (*War* I, 237).

This series of events reveals why Herod chose Masada as a place of refuge for his family. Its fortifications — if indeed there were any — may have lain in ruin, but it still afforded protection during Antigonus' siege. However, according to Josephus' description the besieged at Masada "though well supplied with all other necessaries, were in want of water..." and therefore they began to plan their escape. But "on that very night fixed for their departure, rain fell in abundance; the reservoirs were replenished and they saw no further need for flight" (*War* I, 286-287).

It is unclear to what reservoirs the historian was referring, since the excavations at Masada revealed not one pool that could be dated with certainty to the period before Herod's construction of the sophisticated water system. However, sudden rainfalls of the type Josephus describes certainly do occur. The members of Yadin's expedition experienced them; on one winter night in the midst of the excavations, a sudden rainstorm filled every depression and cleft in the rocks to the brim.



A puddle of rainwater on the summit of Masada

Only three sites on Masada may perhaps be attributed to the time before Herod: two installations near the wall in the east and a cave near the synagogue in the west.

The first installation, known as the Abandoned Bathhouse, is near the northeastern edge of the plateau, northeast of the Large Bathhouse and the northern storeroom unit, and east of the Northern Square (Fig. 1). This bathhouse predates the Northern Palace and the storerooms, and went out of use when they were built. Its dating gave rise to difficulties even during the excavations, but as work progressed toward publication of the material, and the various stages of Herodian construction became clearer, it was realized that the Abandoned Bathhouse should be attributed to the earliest period of Herodian construction, prior to the building of the Large Bathhouse and the storerooms, which belong to the main period.

The second remnant ascribed to the pre-Herodian period is the cistern (L.1907) next to the 'bend' where the wall changes direction from northeast to southwest (Fig. 2). This cistern is located at the lowest point on the



Fig. 1: Stairs leading down to the Abandoned Bathhouse (above) and bathhouse (center)



Fig. 3: The cave north of the synagogue

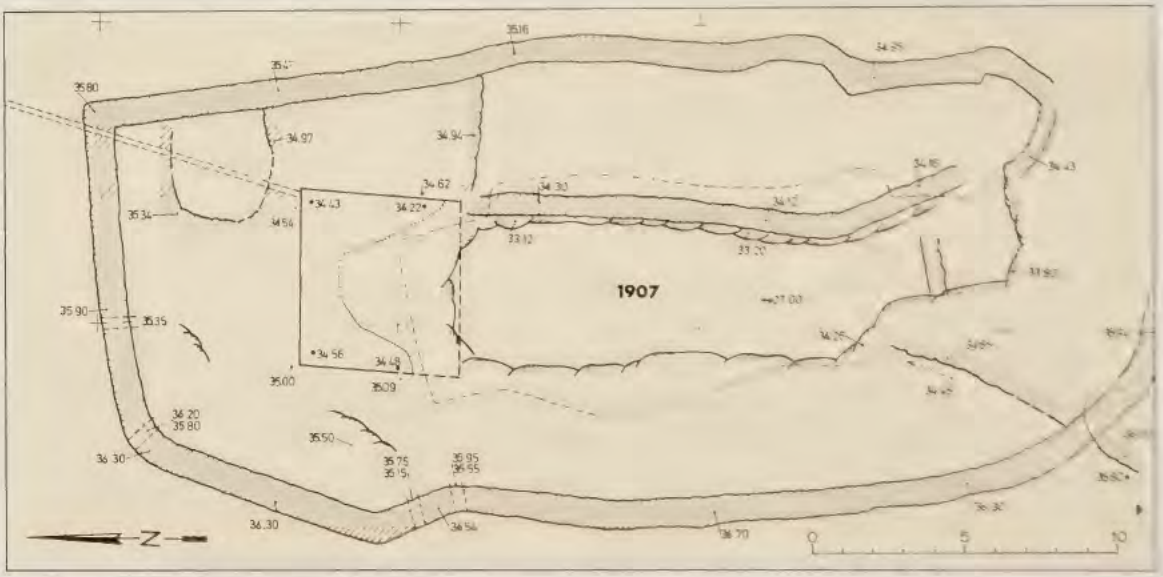


Fig. 2: The pre-Herodian (?) cistern

plateau — an ideal place to collect surface runoff. It is about 20 m long and averages 7 m wide. Since it was not cleared of debris, its depth can only be estimated — at least around 6 m. The capacity of the cistern is therefore approximately 850 sq. m! This cistern clearly differs from the rest of the cisterns on top of Masada in its dimensions, the fact that it is the only one

without a flight of steps leading to the bottom, and the plaster that covers its walls, which differs from that of the other cisterns. Though impossible to prove at this time, it has been proposed that the cistern is pre-Herodian. In any case, this cistern was at least partly visible during the Byzantine period and served as a reservoir at that time: It was surrounded by a low stone wall in which four openings were made, apparently to admit surface runoff.

The third site is a cave (Fig. 3), whose excavation began during the Yadin expedition and ended in the 1990s. This cave, just north of the synagogue, is partially situated beneath one of the rooms of the casemate wall. While one of the jars found in the cave has good parallels to assemblages from the Hasmonean period (among other sites, at Jericho, Machaerus and the Upper City of Jerusalem), it also has parallels in slightly later assemblages. If the earthquake of 31 BCE caused the roof of this cave to collapse (a still-unproven theory) and buried the jars beneath it, this assemblage would date to the pre-Herodian period at Masada.

It should be noted that in addition to a few types of clay vessels (see below), a variety of finds from the pre-Herodian period were uncovered at Masada. However, they do not attest to the existence of a settlement there at that time. Neither do the nearly 100 coins found there from the time of Alexander Jannaeus, John Hyrcanus and Mattathias Antigonus (see below, The Coins) help answer the question of whether such a settlement existed, since these coins were still in circulation at the end of the Second Temple period.

E. Netzer, the expedition's architect, sums up what we know about pre-Herodian construction at Masada as follows: "Unfortunately, the present state of our knowledge does not enable us to identify any pre-Herodian phase in this area" (Netzer 1991:615). This state of affairs is admittedly very surprising in light of everything we know about the history of Masada in the pre-Herodian period, unless we assume that Herod's builders dismantled every structure that preceded their time. However, "only further excavation may possibly settle this intriguing question" (ibid.)

Masada in the Herodian Period

Most of the construction at Masada, as noted, dates to Herod's time. Those who came after him, particularly the rebels and the Roman garrison, built practically nothing, making use of existing structures or making only small changes in some cases. Exceptions to this are the building that was

transformed into a synagogue and the dwellings of the rebels in the Herodian casemate wall or abutting it from within. These dwellings were built of thin walls, sometimes incorporating stones from Herodian buildings. The excavators called these buildings, which served for less than a decade, "transit camps." This term was borrowed from name for the facilities in which new immigrants to Israel were housed upon their arrival in the country in the early years of the state (*ma'abarot* in Hebrew) and highlighted their sparseness. The monks, whose cells are to be found throughout the plateau, also did very little to modify the ruined Herodian buildings. The main structure they built was a church, located in the center of the plateau.

The beginning of Herodian construction at Masada should be dated to the mid-30s BCE, at the beginning of Herod's reign. Less than 30 years earlier the country had been conquered by the Romans, ushering in the historical chapter known as the Roman period. Cultural changes by their nature lag behind political transformations, and thus the inhabitants did not change their habitual construction style into the Roman mode right after the Roman conquest. During the previous two centuries or more, the Hellenistic style of construction prevailed in Palestine, as did its styles of pottery, coins, etc. These were not immediately replaced when the Romans conquered the land, but rather underwent a slow transformation over the years.

However, the acquaintance of the inhabitants of Palestine with Roman culture did not begin with Jerusalem's conquest by Pompeii in 63 BCE; history reveals links with the Roman world decades before this time. Herod himself had personal connections with the Romans, under whose aegis he ruled, taking the title "Friend of Caesar" and calling himself "Ally and Friend of the Roman People." Of particular significance in terms of Masada was his close friendship with Marcus Agrippa, Caesar Augustus' son-in-law and his viceroy in the East.

It is not surprising, therefore, that the style characterizing the Herodian construction at Masada is a mixed one: mainly Hellenistic in character, but with clearly discernable elements of Roman art, architecture and decor.

Building materials

Walls: Most of the walls at Masada are made of dolomite quarried at Masada. These rocks were roughly worked and laid in courses 30-60 cm high. The spaces between them were filled with small stones (Fig. 4a). Only





Fig. 4: Construction using roughly hewn dolomite stones typical to Masada (a) and dressed stones (b)

corner stones and door lintels were worked into straight lines as much as possible.

Ashlars, or dressed stones, were rare at Masada. The Northern Palace and the three *columbaria* (dovecotes) were the only structures built of ashlars (Fig. 4b). These stones were of two types: soft, greenish-gray limestone containing numerous fossils and originating in the vicinity of Masada, and sandstone from the Jericho area or the other side of the Dead Sea, which was apparently brought to Masada by ship (although there are also sandstone deposits at the foot of Masada). Sandstone was used in the building of columns, capitals, stairwells and various architectural decorations. The ashlars were relatively small, averaging 30×40 cm, and lack the margins typical of Herodian masonry elsewhere.

The most common adhesive material at Masada is mud mixed with straw; in ashlar walls, the adhesive material is lime-based. Plaster on inner walls is usually made of soil mixed with water and straw; on outer walls and roofs it is made of lime. In all water installations — cisterns, pools, channels, baths, etc. — hydraulic plaster was used, which is lime mixed with ash, giving it a grayish hue.

Roofs: The roofs were mainly flat and supported by wooden beams (some





Fig. 5: burnt flat roof beams

of which were found burned, for example, in some of the storerooms [Fig. 5]) overlaid with branches of various sizes and plastered above and below with lime plaster about 15 cm thick. In places where humidity was great and organic material like wood could not be used, barrel-arches, usually made of soft limestone blocks, were used to construct the ceilings (Fig. 35). Barrel-vaulted ceilings were found, for example, in the *caldaria* (hot rooms) of the Large Bathhouse, the bathhouse on the lower terrace of the Northern Palace, and in underground spaces such as the two storerooms north of the Large Bathhouse.

Floors: Floors were usually of beaten earth, but quite a few were of lime plaster on a bedding of stone (Fig. 6a). In places where floors were exposed to rain or humidity, they were covered with hydraulic plaster. The vestibules of the gates at the top of the Snake Path and the Water Gate were paved with stone (Fig. 6b), apparently because of the large amount of traffic they saw, including pack animals carrying water, construction materials and supplies. Mosaic floors were uncovered on the upper terrace of the Northern Palace and in some rooms of the Western Palace. The Large Bathhouse and the courtyard leading to it were originally paved with mosaics; however, over time these were replaced with square or triangular red, white and black tiles.

Ornamentation

Plaster decoration: Three types of plaster decoration can be seen at Masada. In the first, the walls are covered by a thick layer of plaster, molded



Fig. 6: Plaster floor (a) and stone flooring (b)

in such a way that it imitates in relief a wall faced with stone (usually marble) slabs, and is therefore called "masonry style" (Fig. 7). This style is a legacy of the Hellenistic period, and can be seen in such places as the Hellenistic site of Tel Anafa, and at Masada itself in the early phase of Herodian construction, for example in the Western Palace core. The stone drums out of which pillars were constructed were also covered by a thick layer of plaster, which was fluted along its entire length while still pliable. This process also gave the columns the appearance of stone.



Fig. 7: "Masonry style" plaster decoration

Another type of plaster decoration was the application of various shades of paint, usually black or red, to the plastered wall-face. In some cases the paint, applied in square or rectangular designs, covered almost the entire face of the plaster, while wavy, vein-like lines were also sometimes painted on the plaster, to more closely resemble marble slabs (Fig. 8).

In the latter case, the result was a mixture of masonry-style ornamentation in the Hellenistic tradition, and painting in clear-cut Western style. A fine example of this is the wall decoration on the lower terrace of the Northern Palace. The southern wall features engaged columns whose drums were covered with a thick layer of fluted plaster (Fig. 9). The space between the columns was decorated with frescoes depicting geometric patterns. The



Fig. 8: Painted plaster decoration

colors of these decorations have clear parallels in Italy in buildings that served the upper classes, at Pompeii among other places. The coating of columns and walls with plaster imitating masonry was designed to create an optical illusion. As can be seen from Josephus' description of the structures, the illusion was successful: "...columns, each formed of a single block supporting the building throughout; and the walls and floors of the apartments being laid with variegated stones" (*War* VII, 290–291).

A third type of plaster decoration, the most common form of decoration in Herodian construction at Masada, is molded plaster (stucco) (Fig. 10). The majority of molded plaster pieces were found in the rubble of the various buildings. Some of the capitals, Corinthian as well as Ionic, were decorated with such molding. This type of decoration is also known from the cornice of the Large Bathhouse. Some of the pillar bases, in particular



Fig. 9: Fluted plastering of a column made of sandstone drums





Fig. 10: Molded plaster decoration

those found in the lower terrace of the Northern Palace were also decorated with molded plaster. These fragments of molded plaster also show great similarity to ornamentation known from Italy from the 30s and the 40s BCE. This close resemblance to Roman styles probably reveals the presence of Roman craftsmen at Masada, working side-by-side with local artisans who preserved Hellenistic construction traditions.

Stone ornamentation: Decoration in stone was rarely preserved *in situ* at Masada. Most, like that in the Northern Palace, collapsed and tumbled down the slope. Some was later used in secondary construction from the time of the rebels to the Byzantine period. Among the few places where stone ornamentation was found *in situ* are the lower terrace of the Northern Palace, the courtyard of the Large Bathhouse, the courtyard of the Western Palace, and a room at the center of the southern wing of the 'Commandant's House' (Building 8).

A few dozen sandstone column drums were found throughout Masada; only a few were found *in situ*. Masons' marks appeared on about 70 of these drums, most featuring Hebrew letters and numbers (Fig. 11). The purpose of these marks was to indicate to the builders which drums belonged to which columns and in what order they should be placed. They are known



Fig. 11: Column drums bearing numbers and Hebrew letters

from other Herodian buildings, in Jericho for example, but also from structures throughout the Nabatean kingdom. The fact that these letters are in Hebrew shows that Jewish builders participated in the construction of the Herodian buildings at Masada and elsewhere.

Capitals were of three types: Corinthian, Corinthian-Nabatean (also known as Nabatean) and Ionic. Corinthian capitals (Fig. 12) were used mainly in the lower terrace of the Northern Palace, where most of these capitals were found. Capitals resembling these from the same time-period were also found at other Herodian sites as well as in many sites in Italy. About a dozen Nabatean capitals were found; apparently from columns in the middle terrace of the Northern Palace and the courtyard of the Large Bathhouse. These capitals were common mainly in the Nabatean kingdom and various sites in Judea, and were found also in Egypt and Cyprus. Traces of plaster painted white, purple and gold were found on some of the Corinthian and Nabatean capital fragments (Fig. 13), in keeping with a custom common in the Hellenistic and early Roman periods. A literary description of the floating palace of Ptolemy IV described gold and off-white painted capitals; the builders at Masada may have sought to imitate this prestigious construction style. The capitals of the third type, Ionic (Fig. 14), apparently came from the upper terrace of the Northern Palace and the 'Commandant's House.' They lack the finer details characteristic of contemporary Hellenistic Ionic capitals. In Herodian construction, capitals of this type are known only from Masada.

Decorated pavements: Decorated pavements found at Masada were of two types: black-and-white mosaics in the Northern and Western palaces and in the Large Bathhouse, and polychrome mosaics in three rooms of the Western Palace, all three in the northeastern wing of the palace core. The largest of these pavements, in what was described as the women's dining room (see below) consists of concentrically arranged rectangular frames (Fig. 15). The inner frame features Jewish symbols — grapevines, figs and pomegranates — in the center of which is a circle adorned with geometric patterns. The two other floors — one at the entrance to the bathroom featuring a rosette in the center, and the other in the bathroom itself — are simpler. Similar floors from the same period are known at various sites in Palestine, Greece and Italy.

In the various rooms of the upper terrace of the Northern Palace and in the courtyard of the Large Bathhouse, mosaic floors were uncovered featuring geometric patterns in black and white (Fig. 16). Parallels for this type of



Fig. 12: Corinthian capital



Fig. 13: Corinthian capital bearing traces of paint



Fig. 14: Ionic capital

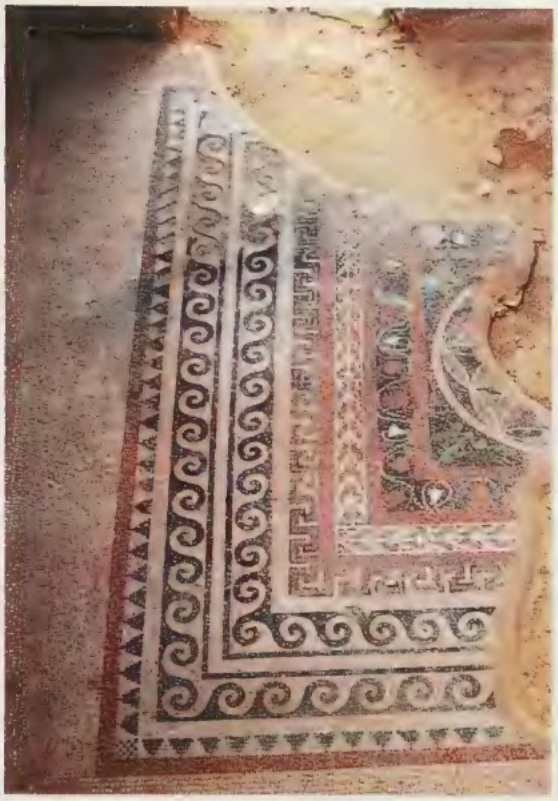


Fig. 15: Colored mosaic floor



Fig. 16: Black and white mosaic floor

pavement are unknown in the Hellenistic period in the East, and they apparently attest to direct influence of artisans from Rome. This is also the case regarding the paving tiles that replaced the mosaics in the rooms of the Large Bathhouse. These tiles were triangular or square and of two colors — yellowish with reddish veins, and black, assembled in various patterns (Fig. 17). Pavements of this type, are known, albeit in patterns different from those at Masada, from other Herodian sites and from contemporary grand Imperial dwellings in Italy.



Fig. 17: Floor made of triangular stone tiles

Construction at the time of the procurators and the Roman garrison

No construction at Masada could be securely attributed to the time between the death of Herod and the fall of the fortress to the rebels (4 BCE-66 CE). Apparently, for this period of approximately 70 years, which began at the time of Herod's successors and spanned mainly the rule of the procurators, a small group of people lived at Masada whose only task was to maintain the buildings. Indeed, according to the condition in which the rebels found the buildings, the maintenance crew seems to have carried out its tasks faithfully.

The Roman garrison stationed at Masada for approximately 30 years after its fall added little to the construction. Some of them lived in the camp west of the fortress (Camp F) and some lived on the summit. It seems that the garrison, too, made do with maintaining the buildings with only minor additions — a few installations, and here and there a partition wall between existing rooms to convert them into dwellings.

Construction during the period of the rebels

The number of people living at Masada in the few years between its conquest by the rebels and its fall cannot be ascertained. It is reasonable to assume that the number was not constant, but rather grew during the revolt as the Roman army advanced. According to Josephus, nearly 1,000 people lived on Masada on the eve of its fall (*War* VII, 400). Based on the information gleaned by the excavations, one cannot determine how accurate this figure might be, but the quantity and distribution of the archaeological remains show that they numbered at least a few hundred.

When the rebels came to Masada they found its palaces, various bathhouses and fortifications intact and suited to all their needs. The excavations clearly demonstrated that the rebels settled in all the buildings, from the lower terrace of the Northern Palace to the southern perimeter wall. No building remained unused.

Testimony was found everywhere to their adaptation of the buildings — some of which were royal mansions — as dwellings for entire families whose numbers would have increased as time passed. As could be expected, construction at this time was neither sumptuous nor sophisticated, since its purpose was to foster the conduct of ordinary daily life. Secondary use was made everywhere of materials taken from Herodian buildings, especially architectural elements made of soft limestone, such as column drums and even fragments of capitals. The rebels rarely used large stones, the mainstay of Herodian buildings, but rather built their walls out of relatively small stones, using them to partition larger spaces (particularly the casemate walls) into smaller ones to accommodate as many families as possible. Dwelling units near the perimeter wall were built in this manner, as were those that abutted the perimeter wall and made use of its inner face. These "transit camp" structures were typically poorly built, with walls ranging from 20 to 40 cm thick. These walls could thus not be very high, and were apparently roofed with perishable materials such as branches, textiles, etc.

In cases where the structures were plastered, the plaster was made of mud mixed with straw. The floors were usually made of beaten earth. More than 230 cooking stoves and ovens were found in these structures.

Clusters of rebel dwellings were found in the rooms all along the wall and in "transit camps" abutting the inner face of the casemate wall mainly in the southern and eastern parts of the plateau. Additional concentrations were found around the smaller palaces, particularly around Palace 13 and Building 9. It is possible, although it cannot be proven, that the rebel leaders lived in Building 8, the Northern and the Western Palace, and in palaces 11 and 12.

The rebels paid a great deal of attention to meeting community needs. First and foremost in this respect was the synagogue, doubtless the most impressive structure of the rebel period. It had mainly been constructed in the Herodian period, but the rebels made marked changes to turn it into a synagogue. (One opinion has it that the building served as a synagogue in Herod's day as well.) Other important installations the rebels built for the community included *miqva'ot* (ritual baths), the most impressive of which is in one of the rooms of the southern wall (1197). In addition, one tower in the wall was turned into a bakery; another into a tannery.

The period of the rebels' presence at Masada was the briefest of all the periods in which it was inhabited. However, the evidence of their presence, especially the artifacts, is much more extensive than that left by other, much longer periods of habitation.

Access paths

One glance is enough to understand the choice of this plateau, rising above its surroundings, with cliffs on all sides, as a royal fortress. Masada's natural attributes — steep slopes topped by vertical escarpments — isolate it from its surroundings and make it virtually inaccessible.

Four footpaths led to the top of Masada, wending their way across the slopes and the cliffs and supported by retaining walls. The two main paths are the Snake Path and the Western Path. The first ascends from the east, overcoming a height differential of some 350 m (Fig. 18). Josephus called this "the snake," "seeing a resemblance to that reptile in its narrowness and continual windings... and returning frequently upon itself, and gradually lengthening out again, it makes painful headway" (*War* VII, 282). Nevertheless, this was the way supplies were brought to Masada, and apparently



Fig. 18: The path up Masada from the east (the Snake Path)

some construction materials as well, which came from the En-Gedi area and a small quantity via the Dead Sea. The path ascending Masada today from the east and ending at the entrance known as the Snake Path Gate quite faithfully follows the original route, whose revetments can still be seen here and there.

The second path, from the west, provides the easiest access to Masada; due to a height differential from bottom to top of only about 100 m it was



Fig. 19: The path up Masada from the west

apparently the main path up the mountain (Fig. 19). The lower portion of the path cannot be seen today because the Roman siege ramp was built on top of it. However, the upper portion, which can be clearly discerned at the Western Gate (on top of which the Byzantine gate was later built), to this

day serves those climbing to Masada from the west. The lower part of the present-day western ascent was built on the western slope of the siege ramp, and apparently dates to the Byzantine period.

Another path, known as the 'water path,' up which water was brought to the summit of Masada, is actually divided into two parts: One leads to the upper series of cisterns and ends at the Water Gate, and the other leads to the lower series of cisterns and ends at the Snake Path Gate.

The last of the access paths is the Southern Path. Its starting point, which cannot be seen today, was apparently next to the Naḥal Masada waterfall, from which point it climbed to the top of the plateau. This path was probably the reason for the construction of the Southern Fort (see below) and was certainly intentionally demolished when the casemate wall was built during the third period of Herodian construction. Before that wall was constructed, a wall was built a few meters below the top of the plateau to block attempts to scale Masada from that direction.

The Buildings*

The Eastern Gate (Fig. 20)

This gate serves as the main entrance to Masada today, and so the description will begin here. The gate has a standard plan, which it shares with many of the entrance gates to Masada's most important buildings: It consists mainly of a room with benches abutting the walls, plastered in masonry style to imitate stone slabs, mainly marble. Gates of this type were common at that time in both the West, (in Pompeii, for example) and the East. Entranceways with benches are known from various ancient sites such as Olynthos, Delos and Dura Europos. Ancient literary sources describe the social significance of these vestibules.

Sometimes guards stationed here, and those with business at the palace waiting to be admitted, would scratch various designs and even inscriptions on the walls. Graffiti of this type were found on the wall above a bench at the entrance to the Northern Palace (see below).

A pool, the only one quarried into the eastern cliff face of Masada, is located at the upper end of the Snake Path before one reaches the gate itself. A plastered conduit channeled water from the gate and its vicinity into the pool.



Fig. 20: The eastern entrance to Masada (the Snake Path Gate)

* For a plan indicating the location of the various structures see p. 76

Building 8 (the Commandant's Residence?) (Fig. 21)

Located about 50 m north of the Eastern Gate, Building 8 belongs to a group of structures similar in design, which were planned as palaces (buildings 10, 11, 12 and 13; see below). In some aspects Building 8 differs from the other palaces: its entrance is not from the north, as in the others, but rather from the west; the building is not freestanding, but connected integrally to the structures to its north; its southern portion stands on an artificial fill, created to level a space that naturally slopes steeply southward.

The walls of Building 8's three southern rooms, probably reception rooms, are decorated with multicolored frescoes (Fig. 22). Two columns between two antae, or slightly projecting piers (*distyle in antis*), flank the doorways of these rooms, as in the other palaces.

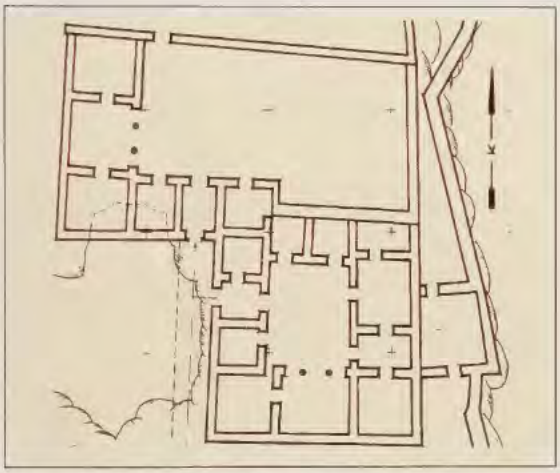


Fig. 21: Plan of Building 8



Fig. 22: Building 8, the corner of a room decorated with colored plaster

To the north, another unit abuts Building 8, consisting of a large courtyard surrounded by rooms on the west and south. The three rooms west of the courtyard are similar in their plan and dimensions to the three rooms on its south; the grandest of these is the middle room, whose entrance was via a doorway, again, a *distyle in antis* like the entrance to the reception rooms. Its walls, too, were decorated with polychrome frescoes.

The location of Building 8 near the storerooms and with direct access to them, the grandeur of the rooms on the south, and the courtyard in the north reveal that Building 8 was home to an important individual, perhaps Masada's commandant or the official responsible for its stores of food and weapons.

The Storerooms (Fig. 23)

Most of the built-up area of the northern part of the plateau is occupied by storerooms, built as one unit during the main period of Herodian construction. The storerooms are divided into two blocks: a block of shorter rooms in the north and a block of longer rooms in the south. A corridor ran between the two blocks and afforded entrance to both. Another corridor surrounded the entire unit on the east, south and west. The main entrance to the unit is via a long, narrow corridor from the south, protected on the east by Building 8 and on the west by Tower 223. The storerooms could also be entered from the north via the Northern Square near the entrance to the Northern Palace.

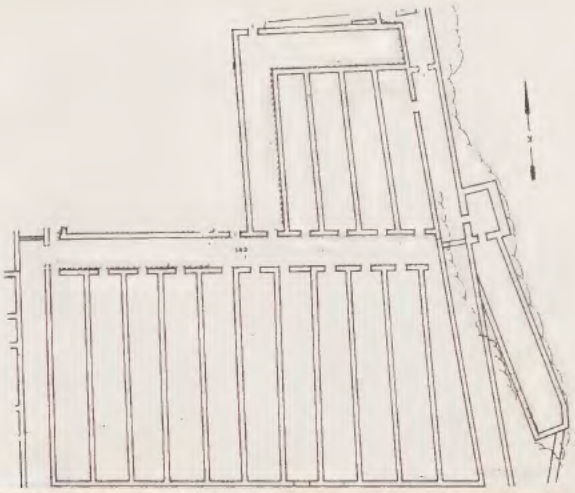
Tower 223 is located southeast of Building 7 (see below) (Fig. 24), at a point that controls most of the plateau. At a fairly late stage a small bathhouse was built abutting the tower, apparently for the use of the guards. Around that same time, five storerooms were added, two west of Building 8 and three on the south and east of Building 7. The storeroom unit covers an area of about 5,500 sq. m. Subtracting about 25% of this area for the thickness of the walls and the corridors leaves a storage area of some 4000 sq. m!

Masada is located in a region where earthquakes occur about once a century. Signs of one of these quakes, which destroyed most of the buildings, can be clearly seen in the area of the storerooms. Exactly which of the earthquakes documented in the sources did this damage cannot be determined, but it took place between the second and the fourth centuries CE before the Byzantine monks came to live here. Four of the western storerooms in the longer block were not excavated (except for a few test probes), so visitors could see the way they were found and in fact, the way all of Masada looked before the site was excavated. In the unexcavated storerooms, six or seven courses of the walls felled by the earthquake can be counted, lying prone above the still-standing foundation. The height of each course was about 45 cm, making the original walls about four meters high (Fig. 25).

A network of channels that passed beneath the corridor separating the two blocks of storerooms was designed to drain water from the storeroom roofs to two cisterns dug near the cliff northeast of the short block of storerooms. A branch of this system led water to a small pool near the eastern wall of the Large Bathhouse.

The storeroom floors were made mostly of beaten earth over a stone bedding, and their walls were covered with mud plaster. Exceptions to this

Fig. 23: Storerooms, plan and aerial view







◀ **Fig. 24:** The observation tower

▼ **Fig. 25:** One of the storerooms

were a number of storerooms whose floors were covered with hydraulic plaster. Among these is the fifth storeroom from the west, almost in the center of the long storerooms, whose walls were covered with white plaster. In the middle of its floor were three round pits, which were also plastered. Their edges were grooved, apparently to support a lid (Fig. 26). The floor of this storeroom is slightly inclined on each side, with the pits at the lowest point. There is no doubt that this storeroom was intended from the outset to house liquids stored in clay jars, and the pits were designed to collect spillage. Twenty-three such jars were discovered *in situ* in the southern part of this room, lying against the eastern, western and southern walls. Many of them bore names, apparently of their owners. Some were in Hebrew (Bar Jason for example), some in Greek (Zenon), and some in both languages (on the inscriptions, see below, Written Finds).

Liquids were apparently also stored in other storerooms, among them the seventh storeroom from the west in the long block, and two storerooms southeast of the square fronting the Northern Palace, whose ceilings were barrel-vaulted and whose floors were also plastered; in the northernmost of these two storerooms a small depression for the collection of liquid was found (on these two storerooms, see below).

Evidence for the way dry goods were stored can be seen most clearly in the second storeroom from the east in the long block. Beneath the debris of burnt beams and parts of the ceiling were dozens of clay vessels that must have originally stood along the walls both on the floor and on shelves (Fig. 27).

Storerooms built as blocks of long, narrow chambers are known in our region from as far back as the second millennium BCE (Mari, Boğazköy and Crete); to this day storerooms are built in this manner. Still, it seems unnecessary to seek the source of the storerooms' design beyond the borders of Palestine, since their layouts are similar wherever they have been found.

It is interesting to note that in his detailed description of Masada, Josephus does not mention the storerooms at all, perhaps because they seemed obvious to him. With regard to the supplies stored there, he writes: "for here had been stored a mass of corn, amply sufficient to last for years, abundance of wine and oil, besides every variety of pulse and piles of dates... there was also here a mass of arms of every description, hoarded up by the king, and sufficient for ten thousand men; besides unwrought iron, brass, and lead" (*War* VII, 299). The large quantities of weapons Josephus writes about were not found in Masada's storerooms; they may have been looted after the fall of the fortress. However, numerous remains of food



Fig. 26: A storeroom whose plastered floor features pits for the collection of spillage



Fig. 27: Smashed storage vessels on the floor of one of the storerooms

were found, some of which he cites in his description, such as barley and dates as well as jars for oil and wine, labeled with their contents. Other food items not mentioned by Josephus were also found, such as nuts, pomegranates, olives, cakes of dried figs and salt (Fig. 28).

In addition to these food items, the inhabitants of Masada could add



Fig. 28: Remains of food found in the storerooms

fresh food to their diet, including meat from goats, sheep and poultry and various vegetables, since conditions on the site were suitable for raising them. Such conditions were vital during a siege, as Josephus specifically notes: "for the actual top, being of rich soil, and softer than any plain was given up by the king for cultivation; in order that, should there ever be a dearth of provisions from the outside, those who had committed their lives to the protection of the fortress might not suffer from it" (*War* VII, 288).

At least some of the food the rebels consumed, remnants of which were uncovered in the storerooms, did come from elsewhere while they were living at Masada: "Thus, during the feast of unleavened bread [....] these assassins, eluding the cover of night [....] made a raiding descent upon a small town called Engaddi [...] then they rifled the houses, seized the ripest of the crops, and carried off their spoils to Masada. They made similar raids on all the villages around the fortress, and laid waste to the whole district..." (*War* IV, 398).

In Josephus' description of the food the rebels found at Masada, he notes that it was brought there many years before, that is, at the time of Herod: "...all which Eleazar found there, when he and his Sicarii got possession of the fortress by treachery. These fruits were also fresh and full ripe, and no way inferior to such fruits newly laid in, although they were little short of a hundred years from the laying in these provisions [by Herod], till the place was taken by the Romans..." (*War* VII, 297). But is this possible?

The survival of organic materials, including food, depends on a number of environmental factors, especially heat and humidity. A combination of high heat and humidity fosters the proliferation of various pests that destroy food. At Masada, these two elements would seem to contradict each other: On the one hand it is very hot, but on the other, very dry. Nonetheless, the study of the remains of food found in various locations at Masada revealed that more than 300 food items of different kinds (wheat, barley, dates and nuts) were damaged by 25 different kinds of pests. Most of the food (more than 85%) was hit by four kinds of pests and the rest by minor pests.

Because of the difficulty in differentiating between the remains of food brought to the site before the arrival of the rebels and that brought by the rebels, there is no unequivocal answer to the question of whether food stored for many decades at Masada could have survived, as only circumstantial evidence remains. Roman literary sources (Varro, Pliny and others) note that the protection of food, particularly grain, was of great concern to the Romans, especially the supply and storage of the seeds needed as

provisions for the legions. The two main recommendations arising from these discussions were to ensure ventilation (cooling) and water-tightness. They called for as much air as possible to circulate around the storeroom, even raising the floor slightly off the ground to allow air to flow below it, as well as the sealing of storeroom walls against moisture, and sealing of vessels containing seeds.

The floors of Masada's storerooms are at ground level. There is no evidence of windows and they were constructed in blocks with common walls. The floors, except those in storerooms intended for liquids, were not particularly well insulated. Thus the food held in the storerooms was not protected against heat. However, the conditions of extreme dryness at the site, much drier than most areas described by contemporary writers, greatly contributed to the protection of the food in the storerooms. Moreover, the many jars found in these rooms indicate that food was not stored in bulk, but was packed in various kinds of utensils, especially jars, which were the largest group of finds at Masada, comprising about 40% of the total. The large number of lids of various types that were found also shows great concern for sealing the food. Well-sealed jars keep out the oxygen pests need to live and attack the food they hold.

Finally, it should be noted that among the various types of food remains uncovered, some were apparently only available to those with means, such as almonds, apricots, pine nuts and pistachios. These, like wine, pickled fish sauce and other delicacies, were probably brought to Masada at the time of Herod, and the fact that such remnants were found in assemblages dating to the rebel period indicates that at least some of the food the rebels found at the fortress had been there since Herod's day.

Josephus' description of the products stored at Masada is very similar to that recorded by Philo of Byzantium in his treatise *About Siege* (*Poliorketika*), which deals with the preparations necessary to withstand siege. In this work, the author recommends raising vegetables and fruit trees in private dwellings on the acropolis of a city and even within the boundaries of temples in order to feed the inhabitants in case of siege. He also recommends storing long-lasting foods, such as wheat, barley, various kinds of legumes and date bread. The foods in both lists therefore contain wheat, legumes, dates and oil, in addition to weapons and raw metals such as iron, brass and tin. The great similarity between the lists has given rise to the theory that Josephus' description of the food stored at Masada is not based on real first-hand knowledge, but was copied or influenced by the work of Philo of Byzantium.

The Large Bathhouse (Fig. 29)

This bathhouse was built as a single unit together with the Northern Palace, although it is not actually attached to it. The long axis of the bathhouse is identical to that of the Northern Palace, but differs from that of the storerooms, as can be clearly seen at the point where it meets the northern block of storerooms. The fact that the bathhouse was built close to the Northern Palace shows that it was probably intended for Herod's use (although he could also have used the bathhouse on the lower terrace of the Northern Palace). However, since the smaller palaces (buildings 11, 12 and 13) do not have bathhouses, it may be assumed that this bathhouse also served those living in these palaces. (For bathing arrangements in the Western Palace, Building 10, see below.)

The building, with its five units — a colonnaded courtyard (*palaestra*), dressing room (*apodyterium*), tepid water room (*tepidarium*), cold room (*frigidarium*) and hot room (*caldarium*) — displays careful planning: It is almost square (21×20 m) and its quality of construction is better than the average at Masada.

The entrance to the bathhouse is on the north, from the square between it and the Northern Palace. The bathhouse courtyard was originally paved with a geometric, black and white mosaic (Fig. 30). An identical floor was uncovered in the upper terrace of the Northern Palace (see below). At some stage, still at the time of Herod, the mosaic in the *palaestra* was replaced by a grayish plaster pavement. Remains of the mosaic floors can also be seen in the other rooms of the bathhouse (except for the pool that comprises the *frigidarium*); these were also replaced, apparently at the time when the mosaics in the *palaestra* were replaced; however, here the mosaic was supplanted by red, white and black square and triangular tiles (Fig. 31). At a later stage the columns in the *palaestra* were dismantled (apparently by the rebels) and some were used to build a bench in the *apodyterium*. The floor tiles in the *apodyterium* and the *tepidarium* were also dismantled over the years, leaving only a few *in situ* All that remains from most of these are the tile imprints they left in the plaster foundation in which they were laid (Fig. 32). The bench and the small pool the rebels added in the *apodyterium* are built over the tiles. Thus the tiles must have been dismantled after the rebel period by the Roman garrison or even by the Byzantine monks.

The walls of the *palaestra* and the rest of the rooms of the bathhouse (except for the *frigidarium*) were adorned with polychrome frescoes in geometric patterns of alternating squares and rectangles (Fig. 33). These

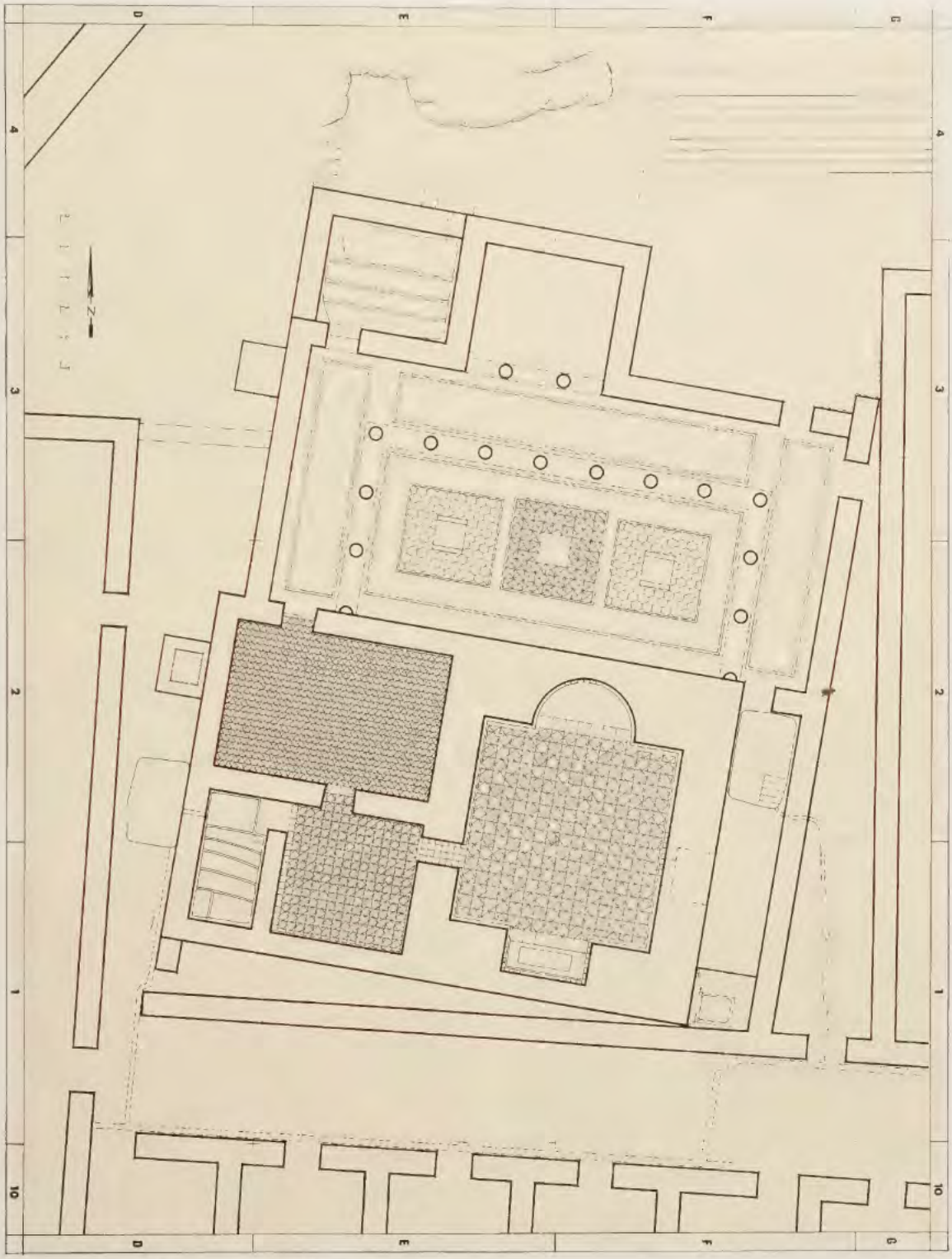


Fig. 29: Plan of the Large Bathhouse



Fig. 30: The entrance courtyard to the Large Bathhouse



Fig. 31: Floor in a room of the Large Bathhouse, made of colored stone tiles



Fig. 32: Impressions left by paving tiles in the foundation of the floor



Fig. 33: One of the bathhouse rooms, decorated with colored plaster

survived mainly in the *apodyterium* and the *tepidarium*. Small pieces of the frescoes from the *caldarium* also survived in its rubble, along with pieces of stucco (Fig. 34). In places where the walls survived to a sufficient height, the frescoes can be seen to have adorned only their lower parts, while the upper parts were covered with white plaster. The ceilings of the *apodyterium* and the *tepidarium* were adorned with painted stucco.

The most important room in the bathhouse was the *caldarium*, which was as big as all the other rooms together. The barrel-vaulted ceiling of this room apparently collapsed in the earthquake that destroyed many of Masada's buildings, but it can be reconstructed based on the dressing of the stones that made up its arch, and the way they lay in the debris. This ceiling, with a maximum height above the floor of 2.5 m, spans the largest space on Masada, about 6.5 m wide. The floor is supported by short, closely spaced

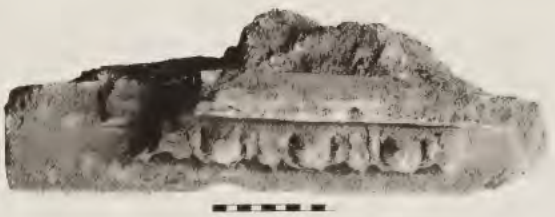


Fig. 34: Remains of stucco that decorated the rooms of the bathhouse

pillars or colonettes, which created a space between it and the surface below, known as the *hypocaust* (Fig. 35). Some of these pillars were made of fired clay bricks and others of stone. The floor was made of square clay tiles, a small number of which survived; the rest left impressions in the plaster that served as its bedding.

Not only was the floor of the bathhouse 'double' — so were the walls. Between the visible wall plaster and the wall were clay pipes composed of rectangular segments connected to each other through small openings (Fig. 36). Only a few of the pipes survived *in situ*; most were destroyed when the walls collapsed, however, their shape remained impressed in the plaster (Fig. 37). From these impressions, it can be calculated that the segments numbered close to 1,700, covering an area of some 100 sq. m! The *caldarium* was therefore a 'room within a room,' built to allow the flow of hot air from beneath the floor and through the pipes in the wall.

Present-day visitors to the *caldarium* can see almost nothing of what the ancient bathers saw, due to the collapse of the ceiling, the floor and the plaster that covered the walls. However, visitors do see what the ancients



Fig. 35: The *caldarium* of the bathhouse



Fig. 36: Clay pipes for conducting hot air



Fig. 37: Impressions left by clay pipes in the plastered wall of the *caldarium*

could not — the 'forest' of short colonettes, the space under the floor (the *hypocaust*), and the pipes behind the wall plaster.

The hot air, which warmed the entire chamber, came from a furnace situated in a vaulted niche in the courtyard east of the *caldarium* (Fig. 38). This system underwent a fundamental change at the time of the rebels. They did not use the *hypocaust*, but rather built a channel out of decorated stones in secondary use (Fig. 39), which led water to a round furnace they constructed in the niche where the original furnace had once stood. From there, the water flowed by means of a conduit to a bathtub abutting the eastern wall of the *caldarium*.

A rectangular niche is built into the southern wall of the *caldarium* in which the impression of a bathtub-like receptacle can still be seen. Opposite it, in the northern wall, was a semicircular niche. Dozens of pieces of yellowish quartz were found in the rubble, remains of a round vat that apparently stood in this niche. The two vats, one round and the other bathtub-shaped, would have contained hot water and cold water respectively. A



Fig. 38: Place of the furnace that heated the bathhouse





Fig. 39: Change in the heating installation made by the rebels (note the secondary use of decorated stones)

similar vat and tub were discovered in the Herodian bathhouse at Cypros where the vat was made of marble and the bathtub, discovered *in situ*, was made of alabaster and weighed 1.5 tons. Such vats were discovered in contemporary Roman dwellings in Italy, such as in Pompeii and Herculaneum. Literary descriptions of these receptacles can also be found in Vitruvius' treatise *On Architecture*.

The walls of the *caldarium* did not survive to sufficient height to reveal how the chamber was lit and ventilated. However, the walls would doubtless have contained windows, like the rectangular one that survived in the bathroom of the Western Palace (see below), or square or round windows like those in the walls and even the ceiling of the bathhouses of Pompeii and Herculaneum. The restorers of Masada marked round windows in the *caldarium* in the positions they can be assumed to have been — in the walls of the niches in the north and south, and perhaps even in the ceiling.

Water was supplied to the bathhouse from a number of directions: The *frigidarium* was supplied from a small pool abutting the western wall on the outside; the water flowed in from a hole in the wall. The stepped cold-water pool in the northwest part of the bathhouse *palaestra* was similarly fed: Surface runoff from the square south of the Northern Palace flowed toward a receptacle (which did not survive) and entered it via a hole in the wall. The water for the *caldarium* flowed into it via a channel beneath the corridor between the large block of storehouses and the bathhouse, where it collected in a pool abutting the eastern wall of the bathhouse from the outside. From the pool, the water flowed through two pipes probably made of lead. (They were apparently dismantled by the rebels, but left their imprint in the wall.) The southern pipe brought cold water into the bathtub-shaped vat in the southern niche of the *caldarium*, while the northern pipe channeled hot water — apparently heated in a metal cauldron that stood near the furnace — to the round vat in the northern niche of the chamber.

The bathhouse with its many components has fine contemporary parallels in villas uncovered in Italy — as well as in the Herodian palaces in Jericho, Cypros and Herodium. Although the *hypocaust* heating system was also known in the Hellenistic world, both in Greece itself and in the East, the bathhouse at Masada clearly derived its inspiration from the Roman world. This can be seen, for example, in the way the *hypocaust* was built, following Vitruvius' instructions: The floor was to be constructed on a slight incline toward the furnace and covered with tiles measuring 45×45 cm; it should stand on pillars 20×20 cm wide and 60 cm tall. These are

almost the exact measurements of the pillars of the Masada *hypocaust*, and they repeat themselves in Jericho and Herodium. The mixing of monolithic pillars with those made of clay column drums is a clear example of the imitation of Roman construction methods, and perhaps even of the presence of foreign craftsmen, who either carried out the work themselves or supervised it, with meticulousness unknown either before or apparently after this time in any Roman province. The same is true for other Herodian bathhouses, for example the one in the Third Palace in Jericho.

The Approach Area to the Northern Palace

The area north of the Large Bathhouse and the storerooms is divided into two main spaces, an eastern and a western square. The square on the west borders on the western cliff. The square on the east provides access to the bathhouse, the southern storerooms, the pair of storerooms on an east-west axis and the entrance square to the Northern Palace.

The Northern Square (West)

This large square was the main junction of daily life in this part of the fortress, including the Northern Palace, the storerooms and the Large Bathhouse, which were the main buildings on the plateau.

Seven openings led to and from the Northern Square: one to the Northern Palace entrance square; one to the storeroom in the east; another to two storerooms in the northern block of storerooms; the fourth to the main entrance to the bathhouse; the fifth to the entrance to the area west of the bathhouse and its installations; the sixth to the entrance to the courtyard north of Building 7 (below); and last, the early Water Gate, leading to the upper row of eight cisterns hewn into the western cliff This gate was blocked already in the Herodian period, and was replaced by a gate 30 m southwest of it. The blockage and portions of the gate that had collapsed down the slope left little of the original. However, still visible are the remains of its stone pavement (Fig. 40) and portions of its entrances, one of which led to the cisterns, and the other to the interior of Masada, as well as remains of benches along its walls.

The most outstanding architectural element here is the massive wall on the north side of the square that divides the Northern Palace from the rest of Masada (Fig. 41). In its early stage, the wall demarcated the southern end





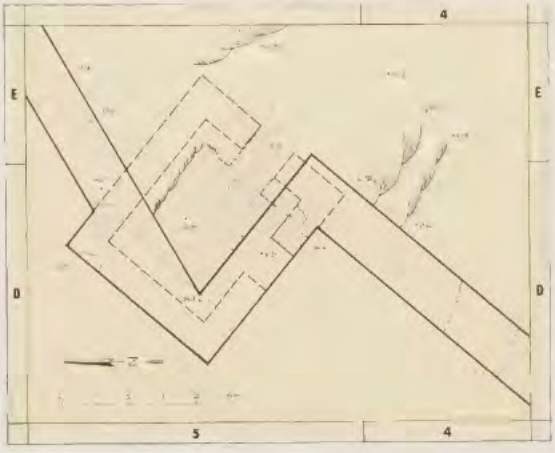


Fig. 40: The Water Gate, photos and plan

▼ **Fig. 41:** The wall separating the Northern Square and the Northern Palace.



of Northern Palace's upper terrace. At a later stage the wall was doubled in thickness to three meters by additional construction inclining it northward.

The Northern Square was found entirely covered with earthen fill (Fig. 42), from the top of the sloping wall on the north to the base of the northern outer wall of the bathhouse *palaestra*. In this huge fill, with a volume of some 700 cu. m, numerous complete and broken pottery vessels were found, among them sherds of fine Terra Sigillata Ware, ostraca inscribed in Hebrew, Greek and Latin, a fragment of a Greek papyrus, coins, column drums, painted plaster, pieces of wood and iron nails. All of these finds apparently originated in a structure or a number of structures that stood on the upper terrace of the Northern Palace. It is not possible to say with certainty who placed this enormous fill here and why. Clearly, it cannot be ascribed to the Herodian period, since at that time the square was a central concourse for the inhabitants of the fortress. Neither can the fill be associated with the Byzantine period, since the monks built their cells on the upper terrace after it had been cleared of earlier structures. There are, therefore, two remaining possibilities: Those responsible for the fill were either the rebels, who for some reason saw this area as a weak point in their defense and created it as a foundation for an observation tower, or — and this seems more likely — the fill was created by the Roman garrison in their search for spoils after the fall of Masada.

The Northern Square (East)

The eastern part of the Northern Square provided access to the Large Bathhouse, to one of the storerooms on an east-west axis, and to the northern block of storerooms. The entrance courtyard to the Northern Palace was also in this area. To its south were the two east-west storerooms; east of these was a corridor with a staircase, and to the east of this staircase were two long rooms built right on the edge of the cliff, and beneath these rooms were two cisterns. This entire area may be interpreted as a service unit for the Northern Palace. Also found here were remnants of the Abandoned Bathhouse, which went out of use at an uncertain date before the construction of the elements mentioned above.

A bench, apparently for the use of a guard, was found in the northwestern corner of the entrance courtyard to the palace. A scene depicting palm trees within a garden surrounded by a fence and protected by a tower was incised here (Fig. 43). Unfortunately, since the discovery of this engraving some 50 years ago, the plaster has crumbled and all that is left is a



Fig. 42: The earthen fill leaning against the wall separating the Northern Square from the Northern Palace



Fig. 43: Etching on a wall of the entrance room to the Northern Palace

photograph and drawing. Depictions of ships were also incised into the plaster of the southernmost of the two east-west storerooms. Particularly interesting is another engraving on this wall of the Greek and Latin alphabets (see below, Written Finds).

The entrance to the northern of the two east-west storerooms was on the east, through a stepped corridor that connected it to the palace. Based on the way its long walls were built and the type of stones from the ceiling that had collapsed into the building, it can clearly be seen that the ceiling was barrel-vaulted. The floor was made of hydraulic plaster and was slightly inclined to the southwest toward a pit designed to collect spillage, apparently wine from jars that were stored here. A narrow ledge around the upper edge of the pit was created for a lid (with holes?), which was apparently made of wood. This arrangement is identical to that found in one of the long storerooms described above, south of the Large Bathhouse, which was also apparently used to store liquids.

The adjacent storeroom on the south also had a barrel-arched ceiling and a hydraulic plaster floor, but no collection pit for spillage. The original entrance to this storeroom was also from the stepped corridor; however, at a later stage it was blocked and an entrance was created to the square on the west.

A number of changes were made during the Herodian period in the stepped corridor and the adjacent storerooms. A flight of steps, leading to an immersion pool with a vaulted ceiling, and remains of a bathtub, attest to a small bathhouse in this area (Fig. 44). Of all the components of the

Northern Palace, this area is the most likely to have been set aside for the storage of food and drink and it has been suggested that this was the palace kitchen. However, no indication of a kitchen was found here as is the case for other Herodian palaces in the region (Jericho, Herodium).

This area also saw various changes after the Herodian period, mainly the addition of installations by the rebels (Fig. 45). Their presence in this area is also attested by an ostracon bearing the name Yehoḥanan, and a few coins found in the stepped corridor. At a later stage, apparently after the fall of Masada, debris piled up in and around the corridor, similar to the fill against the wall at the northern edge of the Northern Square. This debris contained earth, architectural elements, potsherds, wood fragments, pieces of textiles, etc. Similar heaps of debris were also found in nearby areas, attesting to clearing and destruction apparently wrought by the Roman conquerors as they searched for plunder.



Fig. 44: Remains of a bath in the entrance area to the Northern Palace



Fig. 45: Installations added by the rebels to the entrance area to the Northern Palace

The Northern Palace (Figs. 46-47)

> "There, too, he built a palace on the western slope, beneath the ramparts on the crest and inclining toward the north. The palace wall was strong and of great height, and four towers sixty cubits high at the corners. The fittings of the interior — colonnades and baths — were of manifold variety, and sumptuous; columns, each forming a single block, supported the buildings throughout and the walls and floors of the apartments being laid with variegated stones."
>
> (*War* VII, 288-291)

This description of the Northern Palace by Josephus Flavius was found to be quite accurate, except for the four corner towers he says surrounded it; no evidence of these was uncovered. The Northern Palace is without a doubt the crowning glory of Herodian construction on Masada. The structure takes advantage of the natural topography of the northern cliff, which has three levels. It is built on a protrusion that at some points was too narrow to support it, thereby necessitating the construction of retaining walls on the cliff, and the filling of the space between them and the cliff-face in order to extend the space that could be built on. In contrast to the other buildings on Masada, the palace is mainly made of ashlars laid in carefully aligned courses. This stemmed not only from the desire to build this important structure in a superior manner, but also from the need to be precise in the creation of a particularly stable foundation for walls built over a chasm.

The palace is built on three tiers or terraces; the height differential between the upper and the middle terrace is about 20 m, and between the middle and the lower terrace is about 13 m. The height of the entire palace is therefore about 33 m, approximately equivalent to an 11-story building. The height differentials between the terraces required construction of about 120 steps, but because of their location on the edge of the cliff, most collapsed down the slope. From their few surviving sections we can glean that they were concealed on the west by a wall, so that anyone looking at the cliff from the outside, on the west, could see people going up or down the stairs only when they entered or exited the stairwell on the lower or the upper terrace. It would have seemed to the observer as if the people using the stairs were entering the rock itself. This created the impression that passage between the terraces was by means of a shaft hewn in the rock, leading Josephus to describe "a sunk road...imperceptible from without" (*War* VII, 292).

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Fig. 46: The Northern Palace, looking south

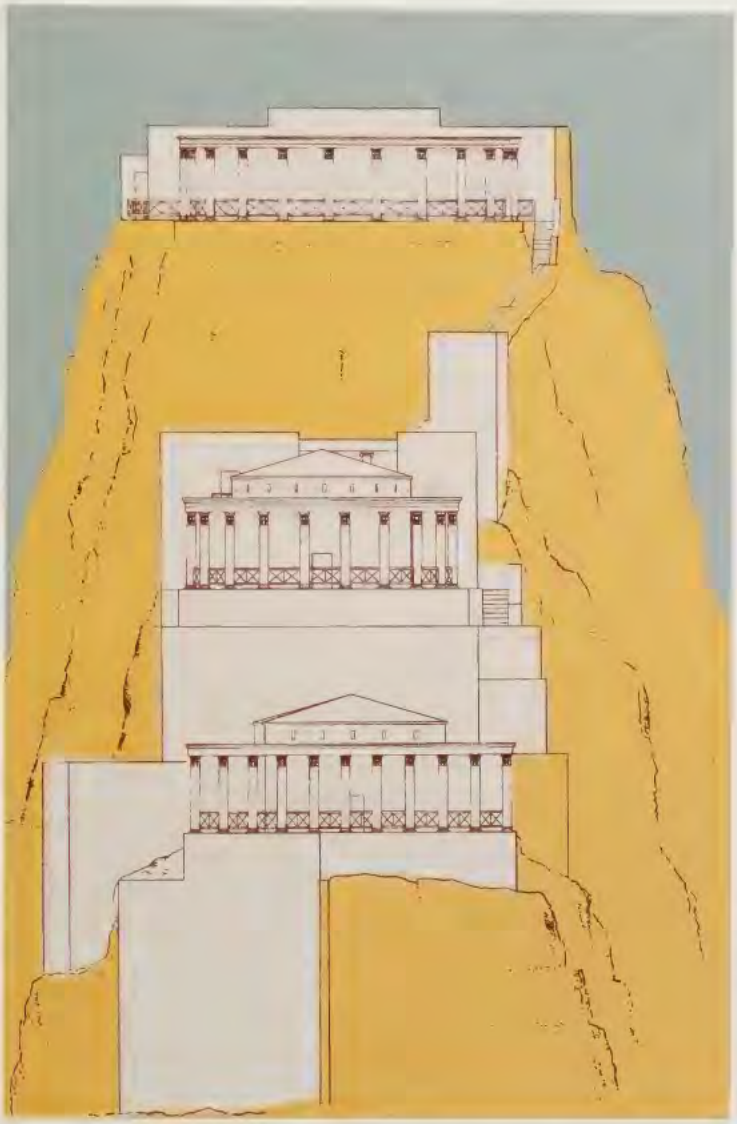


Fig. 47: Section of the Northern Palace (view from the north)

Over the years, the palace underwent a number of periods of destruction: The rebels occupied only a small part of it (mainly the lower terrace), using the rest as a source of building materials. The palace was further ravaged by a great fire at the time of the destruction of the fortress, and then by the Roman soldiers as they plundered it. The palace was also damaged later, albeit to a lesser extent, by the monks who lived on the upper terrace during the Byzantine period. However, recurring earthquakes extracted the most severe toll on the complex, due to its location on the edge of the cliff. The columns and retaining walls were particularly hard-hit, as was the staircase linking the various parts of the palace.

The upper terrace (Fig. 48)

The upper terrace of the Northern Palace was its 'private' wing, as opposed to the two lower terraces, used mainly for recreation and feasts. It included a number of rooms that served as apartments, and featured a semicircular balcony that, like the other palace terraces, boasted a spectacular view on the north, east and west. South of the balcony were two dwelling units flanking a chamber that was apparently roofed and open to the balcony (Fig. 49). The roof of this central chamber was certainly slightly higher than the roofs of the dwelling units on either side. This would have allowed air and light to penetrate the units, as apparently did windows (which did not survive). Each of the dwelling units consisted of two rooms (bedrooms?); the floor of the larger of the two consisted of a black and white mosaic (Fig. 50). Very fragmentary remains show that the walls of all the rooms were adorned with red, green and black frescoes.

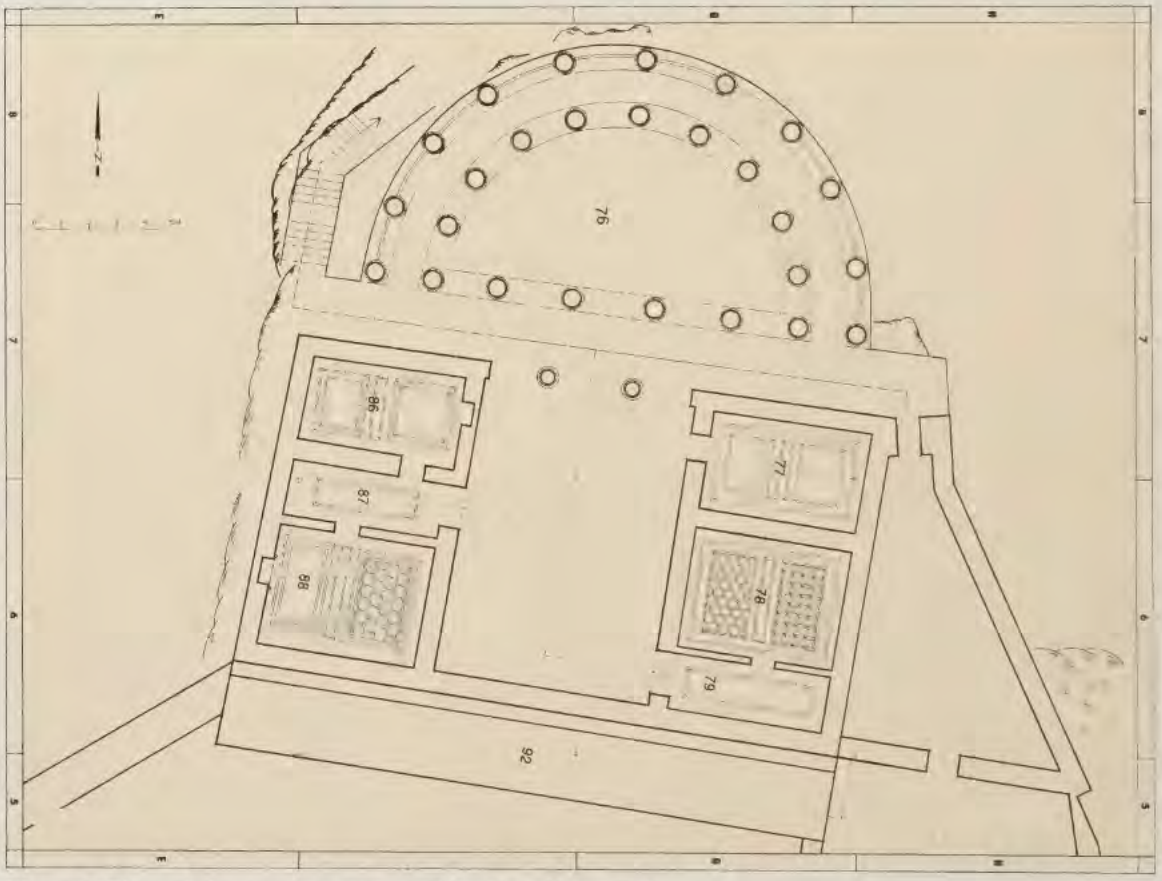


Fig. 48: Plan of the upper terrace of the Northern Palace



Fig. 49: Dwelling units on the upper terrace of the Northern Palace



Fig. 50: Mosaic floor in one of the rooms of the upper terrace of the Northern Palace

The general plan of the upper terrace is typical of Hellenistic architecture, although early Roman influences can also be seen in the planning and ornamentation. A very close contemporary parallel can be seen in Rome in a villa that probably belonged to Herod's close friend Marcus Agrippa, which is beneath the Villa della Farnesina in Rome. If Marcus Agrippa was indeed the owner of this villa, a direct influence by its architects might be seen on the decorative style of the walls and floors at Masada.

The middle terrace (Figs. 51-52)

The foundation of this building consisted of two concentric retaining walls, in the north, east and west, encircling a square platform (measuring about 17×17) built on the cliff itself. The space between the inside faces of the retaining walls and the cliff was filled with earth. Only the foundation has



Fig. 51: The Northern Palace, middle terrace

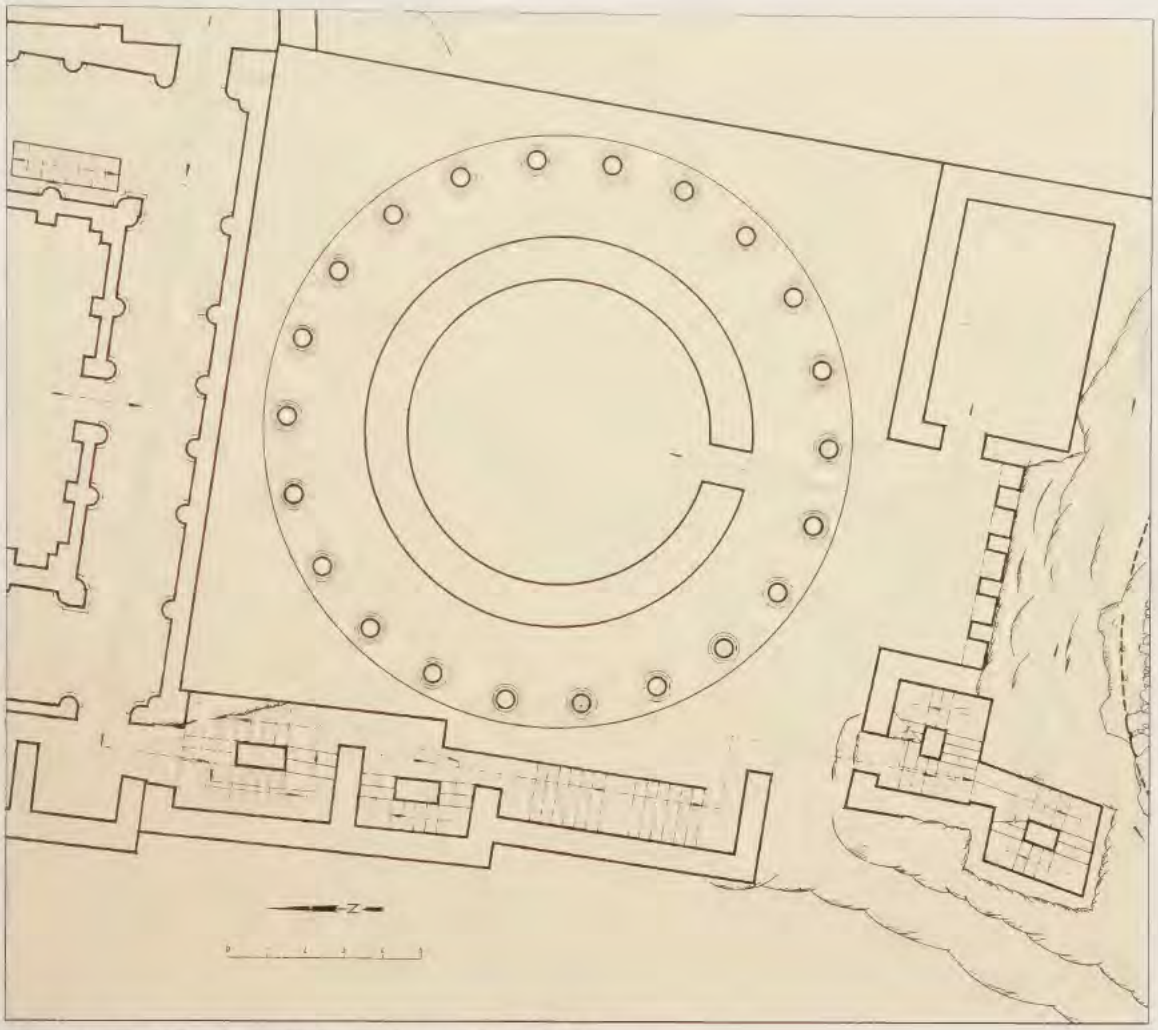


Fig. 52: The Northern Palace, plan of the middle terrace

survived of the round structure which once stood in the center of the middle terrace. A cistern and a small stepped pool next to it apparently served the middle terrace. In the southwestern part of the terrace, the lower part of the stairwell that connected this terrace to the upper one was found.

The middle terrace is bounded on the south by the cliff wall, at the top of which was the upper terrace. Four engaged pillars are attached to the wall, interspersed with five niches whose floors were made of square clay (or stone?) tiles of the type found in the Large Bathhouse. As in the bathhouse, here too, all that is left is their imprint in the plaster foundation.

What was this building in the center of the middle terrace, in whose construction so much effort was invested? Nothing is left of the original

structure; much was destroyed by the rebels, who removed its stones and dismantled wooden portions to make secondary use of them. Earthquakes and the resulting collapse down the slope caused additional destruction. The most reasonable assumption is that the plan of the building that stood here was round, as attested by the concentric foundations taking up most of the space. However, its details have raised various questions: Did it take up the entire area delimited by the concentric retaining walls, or only the inside of the inner circle, while the outer circle marked an exedra supported by columns? What form did the roof take? Was it flat or conical? Was the roof of the inner circle higher than that of the outer one, to allow light and air to filter into the interior? Were the rooms in the southern part of the circular structure of one story or — more likely — two?

These and other questions remain unsolved and various excavators have proposed different theories. However, there is widespread consensus that the building's plan was round, of the type known as a *tholos*.

This type of building, functioning as a temple, is known mainly from the Hellenistic period, at such sites as Delphi, Epidaurus and Olympia. At the same time, small *tholoi* of about 2-7 m in diameter are known from Delos, Magnesia and other sites, while the diameter of those of the later Hellenistic period and Early Roman period is much larger — reaching 13-17 m. The latter type was found in the center of the large pool situated at the foot of Herodium, and another one was found on the southern hill of the Herodian palace at Jericho.

Tholoi were also depicted on walls on a number of Roman villas in Italy. They are also found carved in the facades of several tombs at Petra. Some of the *tholoi* depicted on the wall paintings and at Petra may have functioned as temples for the worship of Aphrodite. Did the Masada *tholos* serve the same purpose? In this context, Herod's non-Jewish origin, and his strong family ties with the city of Ascalon, which was a center for the worship of Aphrodite — should be taken into consideration. On the other hand, it is also possible that the middle terrace and the *tholos* built in its center served as a place for meetings, festivities and a belvedere. At the present stage of research the question remains open.

The lower terrace (Fig. 53)

The plan of the lower and most sumptuous terrace of the Northern Palace is almost the opposite of the plan of the middle terrace, with its retaining walls built on the cliff, supporting a structure consisting of two concentric

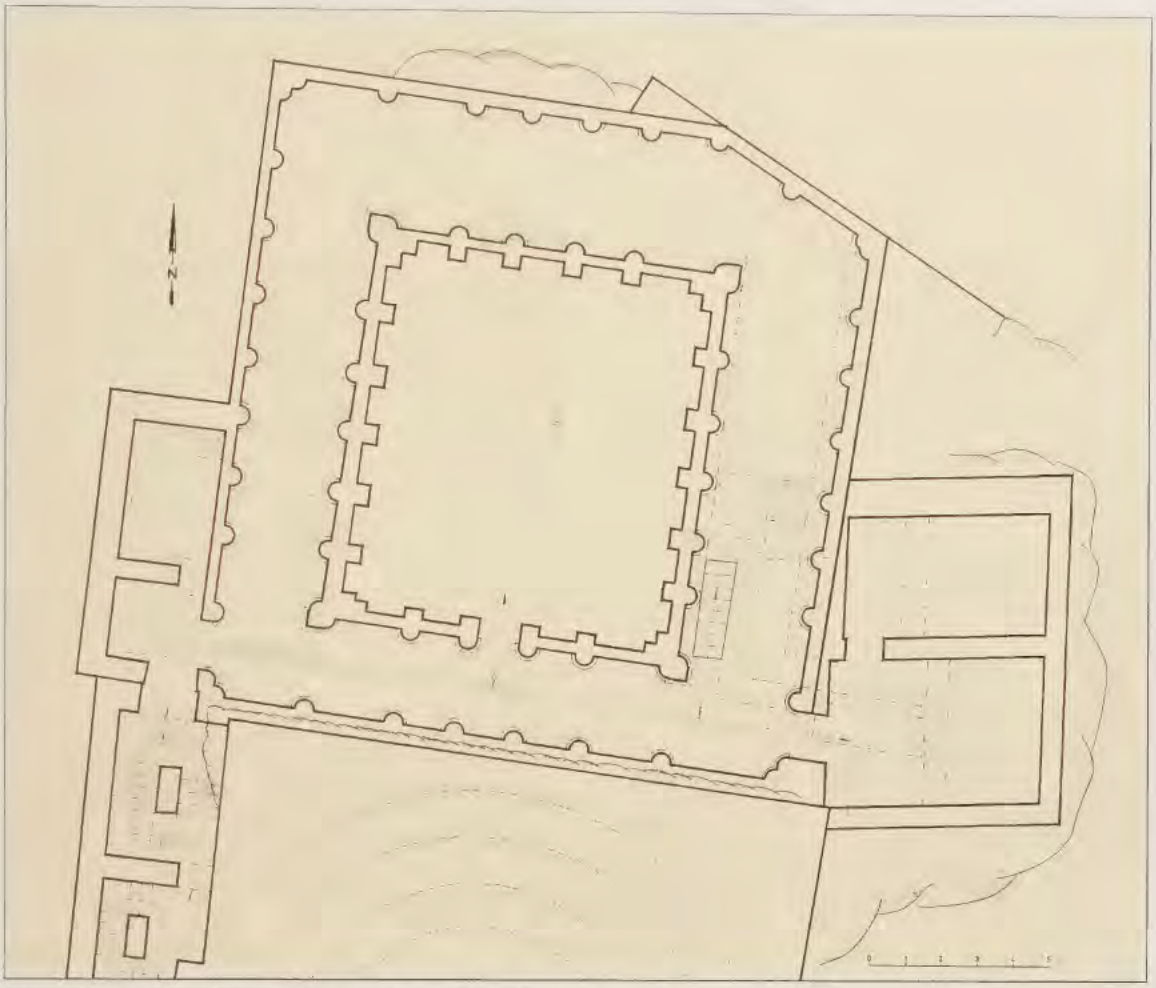


Fig. 53: The Northern Palace, plan of the lower terrace

squares. The topography necessitated ending the northeastern corner on a diagonal, and thus the width of the colonnaded porticoes flanking the central hall on the east and west is not equal. The entrance to the lower terrace is from the southwest, from the bottom of the stairwell connecting it to the middle terrace (Fig. 54). The staircase, of which only the lower portion survives, was made of two 'stories,' each of which consisted of steps surrounding a central pillar. Like the remains of the stairwell in the middle terrace, here, too, a wall was built to conceal the steps from the west.

The central hall, measuring approximately 100 sq. m, is the largest and grandest room at Masada. It is surrounded on all sides by columns on a one-meter-high pedestal. Nothing of these columns survived except the lower part of the southwestern corner column. The pedestal had square



Fig. 54: Stairwell connecting the middle terrace and the lower terrace of the Northern Palace



Fig. 55: Walls of the lower terrace of the Northern Palace, decorated with colored plaster

protrusions toward the interior of the hall, and semicircular protrusions outward. This arrangement reveals where the columns once stood: six columns, facing each other, in the northern and the southern walls, and seven columns facing each other in the western and the eastern walls. The pedestal itself is decorated with frescoes on the side facing the interior, (Fig. 55) some geometric (red and black squares) like those uncovered in Building 8 and the Large Bathhouse, and some with thin lines imitating marble veins. This ornamentation, which creates the optical illusion that the walls were covered with marble, repeats itself in various places on Masada. The floor of the hall is made of plaster on a bedding of crushed stone.

The hall is flanked on all sides by porticos whose flooring was the same as that of the main hall. The southern portico, from which the hall was entered, is the only one whose outer colonnade was found intact. The



Fig. 56: Lower terrace of the Northern Palace, view of the landscape to the west

columns here were semicircular and did not stand on a raised pedestal but rather on the floor. The columns are attached to the rock wall that constitutes the southern boundary of the lower terrace. They are placed at unequal intervals, apparently because of the shape of the rock face, which was completely plastered. The columns consist of drums concealed by a layer of white fluted plaster, which creates the illusion of monolithic marble columns. The capitals were Corinthian, and were originally covered with plaster painted in various colors. White, purple and gold paint survived on fragments found in the debris.

The upper part of the wall bounding the central hall, and the outside walls of the porticos surrounding it on the north, east and west, did not survive, giving rise to various reconstructions. Because of the location and the spectacular scenery (Fig. 56), it is reasonable to assume that there were windows, at least in the outer walls, which would have framed the view.

Such windows are known from contemporary Hellenistic and early Roman buildings in Italy, both in remains and artistic representations. However, it is also possible that instead of constructed walls, there might have been screens that could be moved as needed. Nothing is left of the roof, yet the central hall, as well as the porticos surrounding it, was probably roofed. If the central hall was not open on its sides, but was at least partly surrounded by walls, as one reconstruction has it, the roof of the central hall would certainly have been higher than that of the porticos, clerestory-style, to admit air and light.

The central hall apparently served as a festive meeting place and banquet hall. Its décor and plan recall palaces portrayed on frescoes in Roman villas and in Hellenistic-period literary sources, such as those describing the palaces built by Ptolemy II and Ptolemy IV, both on land and on pontoons, as well as the floating palace built by Hieron II of Syracuse.

North of the stairwell were two rooms that were four meters lower than the floor level of the lower terrace. Access to them was probably by means of a ladder from the lower level through an opening in their ceiling. The function of these rooms is unclear, and they may have served as storerooms.

In the corner between the southern and eastern porticos was a doorway that led to a service unit consisting mainly of a bathhouse (Fig. 57). This wing had two stories; however, because of its proximity to the cliff edge, most of the upper floor collapsed and slid down the slope, with only the southwestern corner of the southwestern room surviving. This room was built of ashlars and covered with white plaster decorated with frescoes

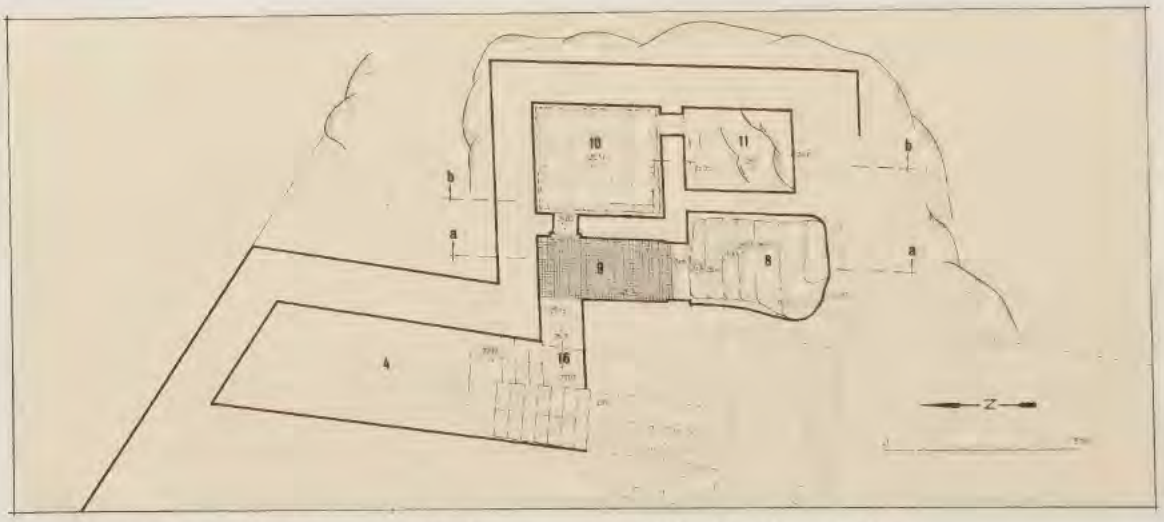


Fig. 57: Plan of the bathhouse on the lower terrace of the Northern Palace

featuring square black frames with a design resembling a stylized date palm beneath each frame. This motif is unique at Masada.

Remains of a hewn channel found in the southern wall attest to the existence of a drain for surface runoff from the lower terrace into a small reservoir in an intermediate floor below. From the doorway in the corner between the southern and the eastern porticos a stairwell (Fig. 58) led to the main part of a bathhouse consisting of four units: A rectangular room at the bottom of the stairwell led south to a stepped pool with a partially preserved barrel-arched ceiling, the *frigidarium*. From the rectangular room, a doorway led east to the *caldarium*, of which only the short pillars of the *hypocaust* survived (Fig. 59). The floor of the *caldarium* itself did not survive, nor did the eastern part of the *caldarium* and the room to its south, including the furnace it once housed. The remains preserved do not clearly reveal how water was brought from the pool on the intermediate level to the *frigidarium* and the *caldarium* — whether via a pipe or carried in vessels.



Fig. 58: Stairs leading to the bathhouse on the lower terrace of the Northern Palace



Fig. 59: Remains of pillars supporting the floor of the *caldarium* of the bath on the lower level of the Northern Palace

Two units are missing to make this a 'standard' bathhouse (see above, the description of the Large Bathhouse): the *tepidarium* and the *apodyterium*.

The northern, lower part of the stairwell may have served as the dressing room, while the rectangular room before the entrance to both the *frigidarium* and the *caldarium* may have served as the *tepidarium*. However, it should be recalled that this bathhouse was not for public use, which might explain the lack of a dressing room.

A good portion of the bathhouse, built on the edge of the cliff, collapsed down the slope. Parts of the upper story also collapsed and some came to rest upon the floor of the bath below, especially on the floor of the *frigidarium*. The rubble consisted in large part of building stones (among them fragments of Corinthian capitals bearing gold paint), earth, ash and wood fragments. This mound of debris served as a layer of insulation, thanks to which, together with the dry air at Masada, organic material trapped beneath was extraordinarily preserved. Noteworthy are the remains of food and of arrows, some of which were completely preserved,

with their shafts. A very special group of finds was discovered on the steps of the pool: the remains of three skeletons, locks of hair, sandals, arrows and scales belonging to a suit of scale armor. These items clearly belonged to rebels, and we shall return to them later.

The general plan of the Northern Palace shows a close link to the architecture of the late Hellenistic period along with the influence of Roman Imperial architectural style. This conclusion derives from the great affinity of the upper terrace of the Northern Palace to the villa of Marcus Agrippa Rome, on the one hand, and the similarity of the *tholos* on the middle terrace and the plan of the lower terrace to the description of buildings from the Hellenistic period, on the other. This mixture of two sources of influence has also been discerned in other buildings on Masada. It is in keeping with the date of Masada's construction in the second half of the first century BCE, a short time after Rome took over the region, which was still to a great extent under the sway of the Hellenistic style in construction and other cultural elements, such as pottery, coins, etc.

Building 7 (Dwelling?) (Fig. 60)

This building is apparently the earliest of the Herodian buildings on Masada, except perhaps for the Abandoned Bathhouse, as can be seen by the fact that none of the walls of the buildings abutting it are bonded to it. (see also below, The Phases of Construction of Herodian Masada: the Early Phase).

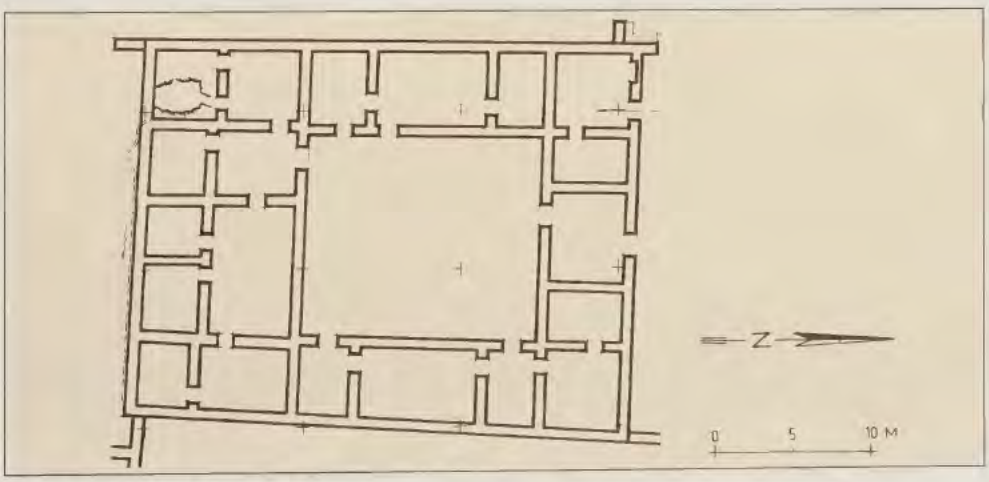


Fig. 60: Plan of Building 7

The main entrance to Building 7 is from the north. It features a central courtyard surrounded by rooms on all four sides. The single row of rooms on the north, east and west open directly onto the courtyard, while on the south, two rows of rooms communicate with it through a doorway in the northern wall of one of the rooms.

The function of the building is not entirely clear, but it seems to have served mainly as a dwelling from the Herodian period through the time of the rebels and the Roman garrison. The fact that throughout its existence it was not connected by even a single doorway to the nearby unit of storerooms to the east is noteworthy, and clearly demonstrates that it played no role in the administration of the stores. The building was built as a closed unit, linked by one doorway only to the area north of it. However, over time it underwent many changes, some as early as the Herodian period. Three storerooms were added to the building at that time, two in the south and one on the west. The main entrance to these storerooms was through a guard room in the southwestern corner of the large square north of Building 7. This guard room, with benches running along its walls (Fig. 61),



Fig. 61: Benches in the guardroom at the entrance to the storerooms south and west of Building 7



Fig. 62: The *miqveh* in the corner of the courtyard of Building 7

afforded access to the building's western storeroom and from there to the two southern ones. The paucity of finds in the storerooms makes it difficult to determine what was kept there. The fact that they were so closely guarded might mean that a more precious commodity than food was stored in them — weapons for example.

Additional changes were made to the building during the period the rebels used it: Doorways were breached and blocked, floors were laid, cooking and storage installations were made and a *miqveh* was added in the northeastern corner of the courtyard (Fig. 62). The construction of a low podium in the northwestern corner of the courtyard and the blocking of some of the openings can probably be attributed to the Roman garrison that occupied the site after the conquest of the fortress.

Shortly after the construction of Building 7, the open area to its north was surrounded by buildings. However, space was left between them that afforded passage between the main built-up area in the northern part of the plateau and the area to the south. This square was bounded on the east by the corridor that surrounded the unit of long storerooms (the southern unit) and the western wall of the Large Bathhouse. In the northern part of this corridor a high heap of debris was found to contain earth, building stones, plaster fragments, ash and more than 250 ostraca bearing Hebrew letters or names. (Among them a group of 12, one of which is inscribed with the name Ben-Yair, are the "lots"; see below.) Various signs clearly

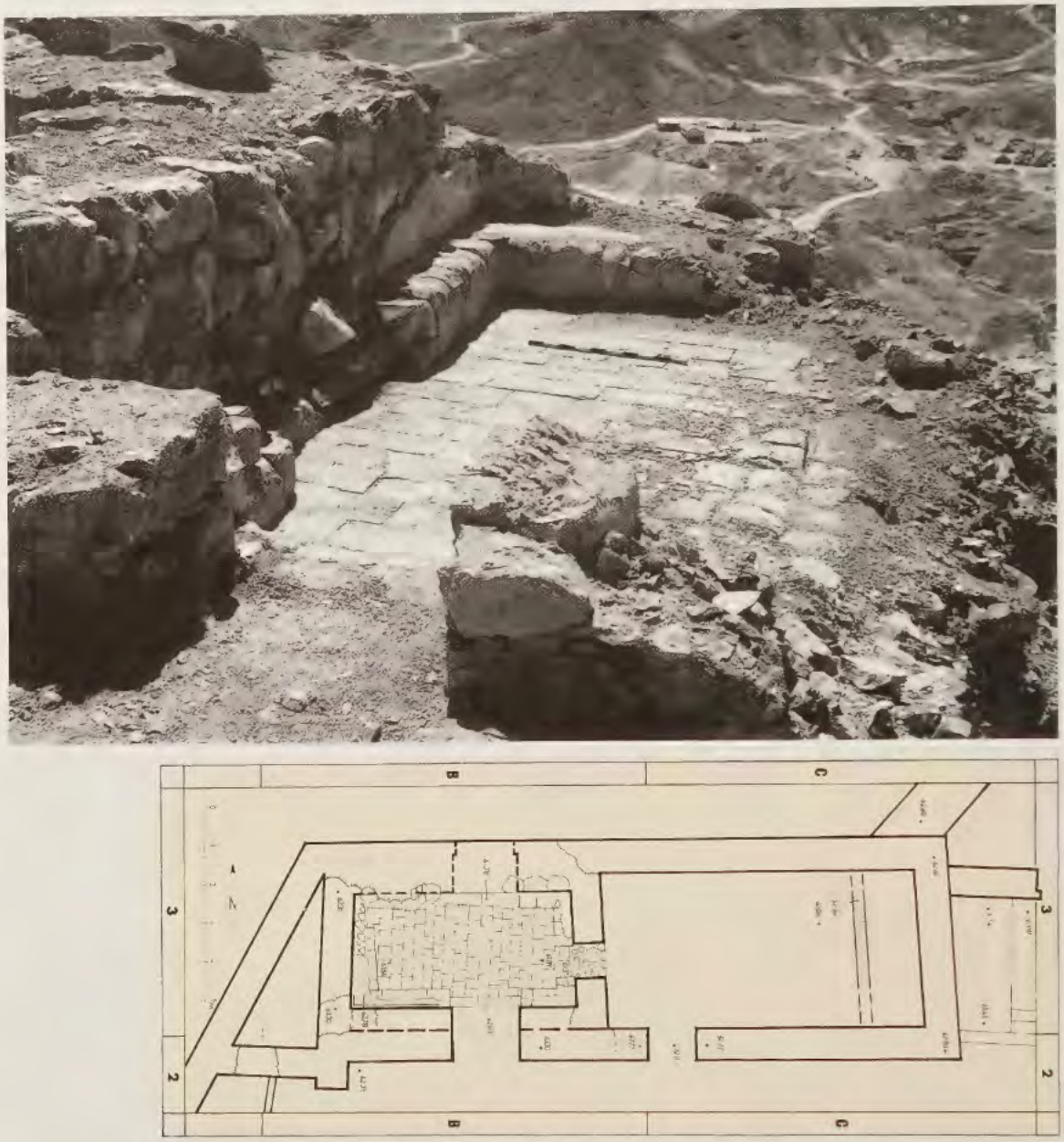


Fig. 63: The Water Gate, plan and photo

show that the rubble was brought to this point and the direction in which it was dumped indicates that it most probably came from the Water Gate and its vicinity.

The square is bounded on the north by two rooms. The western of these has been dubbed the Water Gate, since its leads to the cisterns in the western cliff (Fig. 63). This gate, with the remains of its stone pavement slabs

and two of its walls lined with benches, replaced the earlier Water Gate that was located in the square north of the Large Bathhouse (see above).

This is the appropriate place to survey Masada's water system, one of the most sophisticated and impressive water supply systems discovered in the country.

The Water Supply System

There is no stable water source at or in the immediate vicinity of Masada, making the fortress entirely dependent on rainfall for its water. However, the annual average precipitation at Masada is less than 150 mm, barely enough to fill some of the depressions and cisterns on top of the mountain. A fortress such as Masada cannot depend on the vagaries of the weather and hope for a miracle of the kind Josephus describes — a huge rainstorm that filled up the cisterns and saved Herod's family during the siege by Antigonus (*War* I, 286–287 and see above).

While the extensive construction at Masada was underway, Herod's architects came up with an amazing solution to the problem of water supply. The main source of water is not at the top of the plateau, but rather in the floods that flow almost every winter through two canyons descending toward Masada from the west: Naḥal Masada and Naḥal Ben-Yair (also known as Naḥal Ha'armon, or the Palace Stream) (Fig. 64). Two diversion dams (of which almost nothing has survived) channeled the flood water from these two streambeds to two aqueducts, which were wide enough to accommodate the enormous flow of water during the short flood seasons (Fig. 65). To impound this water, two cistern systems were hewn into the western cliff of Masada: The upper system (about 80 m below the top of the plateau), containing eight cisterns with a total capacity of approximately 21,500 cu. m took in the floods from Naḥal Masada, and the lower system (about 130 m below the top of the plateau) of four cisterns with a total capacity of about 14,500 cu. m took in the water from Naḥal Ben-Yair (Fig. 66). The cisterns were rectangular in their plan and cross-section. Each of them had two openings: one for the water to enter and the other, with a staircase, for those drawing the water, repairing the plaster (hydraulic plaster only), clearing silt and performing other maintenance.

The water that collected in these two systems (a total of about 36,000 cu. m) was brought to the top of Masada — apparently by beasts of burden (Fig. 67) — on two paths. From the upper system a path wound along the



Fig. 64: Flood in Naḥal Masada, following a rainstorm.



Fig. 65: The aqueduct that channeled floodwater toward the cisterns located on Masada's western cliff



Fig. 66: The cisterns on the western cliff and the paths leading from them to the top of Masada



western cliff and ended at the Water Gate, and from the lower system, another path followed the western cliff around the Northern Palace, and ascended along the eastern cliff to the Snake Path Gate. These paths were protected by "...a large tower at its narrowest place, at no less a distance from the top of the hill than a thousand cubits; which tower could not possibly be passed by, nor could it be easily taken; nor indeed could those that walked along it without any fear (such was its contrivance) easily get to the end of it" (*War* VII, 293). The fact that each of these systems had a separate path to the top allowed two convoys of water-bearers to operate at the same time, a great advantage considering the large amount of water that had to be moved. A network of channels began at both gates at the end of the paths — the Water Gate and the Snake Path Gate; some can still be seen close to the surface. These led the water to the various cisterns on top of Masada.

Some of the cisterns on the plateau are known to us. The large cistern in the south (1911), with a capacity of 2,500 cu. m and the cistern near the Eastern Gate (1908), whose capacity was about 1,600 cu. m, have been preserved in their entirety. But many others, whose roofs partially or

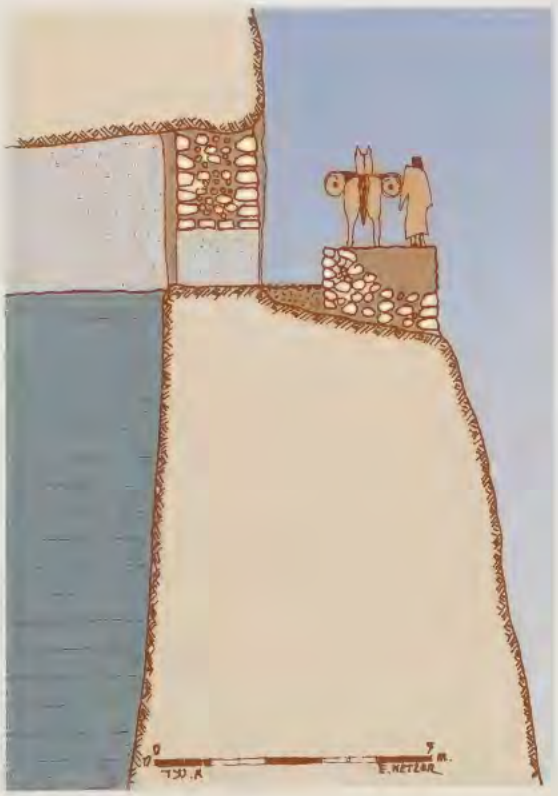


Fig. 67: Bringing water from the cistern (at left) to the top of Masada

completely collapsed, are less well known. A cautious calculation shows that as much as 10,000 to 15,000 cu. m of water could be stored on the plateau. Such a quantity readily available to the inhabitants of Masada could have supplied the needs of both people and animals, with enough left over to irrigate gardens on the plateau (*War* VII, 288).

Now back to the square in the north onto which the Water Gate opened: Two additional rooms enclosed the square on the west, and two gates, one on the northeast and the other on the southwest, allowed passage through this central junction to be monitored. With the enclosing of the square north of Building 7, all of northern Masada — the main built-up area, including the Northern Palace, the storerooms and the Large Bathhouse — was 'off-limits' and any movement to or from it could be closely monitored.

From the Water Gate a channel headed southwest to cisterns hewn into the large square west of Building 7 near the synagogue. The largest of these, most of whose rock ceiling had collapsed, is in the center of the square. This cistern saw some use in the Byzantine period, as can be seen from a wall built inside it at that time.

A small pool at the bottom of seven steps abuts the cistern. This pool was built during the Herodian period and during the period of the rebels was surrounded by a low barrier and connected by an opening to the long casemate room to its west.

The Synagogue (Fig. 68)

The synagogue building is an integral part of the casemate wall surrounding the top of plateau: Its back, western wall is part of Masada's perimeter wall, but the main part of the building protrudes about eight meters inside the line of that wall.

Two major periods of construction can be discerned in the building. In the original phase, during the Herodian period, the building was square, with a main hall in the west fronted by an anteroom. Five columns in a U-shaped formation open to the east stood in the center of the hall on ashlar pediments below floor level. These columns, made of individual drums like the other columns at Masada, probably bore a clerestory to admit light and air into the chamber. The floor of the structure was made of white plaster. Access to the anteroom was through a doorway in the center of the eastern wall of the building (Fig. 69). Entry from there to the main chamber was apparently through a doorway in the center of a wall dividing the two parts

Fig. 68: The synagogue





of the building. This wall was dismantled during the building's later phase and therefore, the location of this doorway can only be surmised.

The rebels changed the design of this building a great deal. They did away with the anteroom and closed off a small room in the northwestern

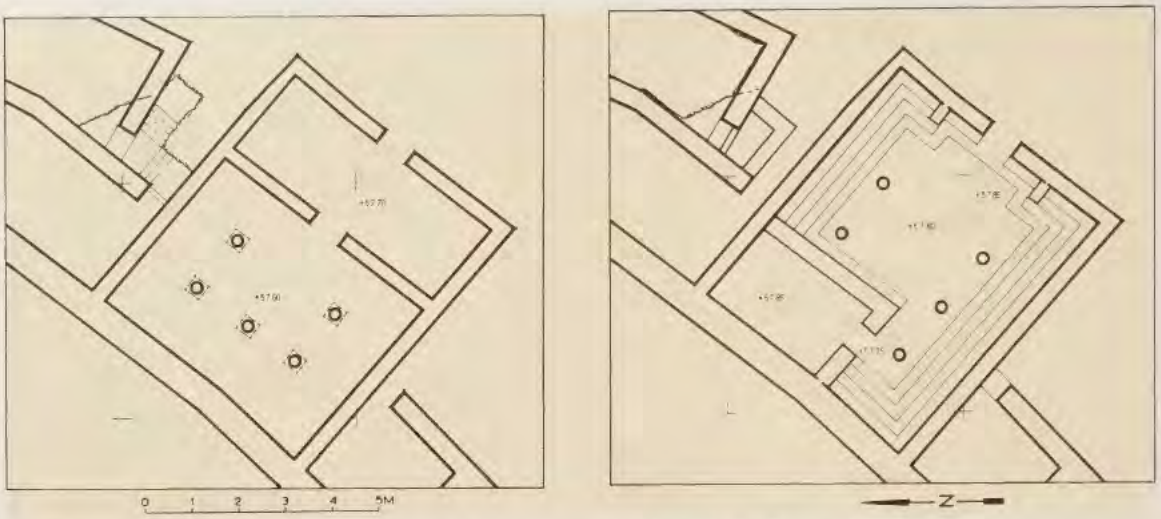


Fig. 69: The synagogue, plan of the earlier phase (left) and the later phase (right)

corner of the hall. The original wall separating the anteroom from the main hall was dismantled, along with two of the five original columns (the northern and the central ones in the western row). The pediments, however, remained in their original location. In place of the dismantled columns, two new columns were built in the eastern part of the hall on the foundation of the original dividing wall, and two pilasters were built flanking the doorway in line with the two rows of columns. This series of changes necessitated the rebuilding of the roof, and although there is no evidence as to its form, it was probably flat.

With the completion of the alterations to the building, benches were added in tiers against all four walls. One tier abutted the wall dividing the small room on the northwest from the central hall; two flanked the doorway in the eastern wall, and four were built abutting the other walls. The benches were covered with mud plaster which also covered the walls of the building. The floor was covered with gray plaster.

What was the function of this structure? All signs indicate that in its last phase it served as the rebels' synagogue: The benches in the hall, the largest at Masada, clearly show it was a place of assembly that could hold some 250 people. In addition to its function as a center of ritual life for the inhabitants of Masada, it may have also served other public needs at this time. At the time of its discovery, it was the first building identified as a synagogue that functioned while the Jerusalem Temple stood, giving rise to debate among the excavators. Two other synagogues from this period that are similar in their plans to the one at Masada have since been excavated at Herodium

and at Gamla. The orientation of the building, facing Jerusalem, and the location of the entrance on the east, like that of the Jerusalem Temple, also allude to the building being a synagogue, although the doorway on the east, facing the interior of the fortress, was also dictated by topography. Additional support for the identification of the building as a synagogue comes from fragments of scrolls (portions of Deuteronomy and Ezekiel, see below) found hidden beneath the floor of the small room added to the building at its later phase.

Views regarding the function of the building in its earlier phase are even more divided. Was it a synagogue in Herod's day? Yadin believed it was — especially because of the need to provide a place of prayer for Herod's family and other Jews who would come to Masada. Others, (like Netzer, the expedition's architect) believed that the original building was a stable for pack animals (donkeys and mules) that brought water up from the cisterns to the fortress. Netzer found support for this theory in the discovery of manure on the early floor of the building. Yadin attributed this level to the period of the Roman garrison stationed at Masada from the time of Herod's death to its capture by the rebels, at which time the building was apparently used as a stable. According to Yadin, the fact that the floor of the original building was made of white plaster made it difficult to identify it as a stable in its early phase. Yet, the theory that the building originally served as a synagogue also raises questions: Where did the congregation sit (considering that the benches were built only later)? And what was the purpose of the anteroom, which greatly reduces space for assembly?

The Casemate Wall

The numbers in parentheses next to the description of various sections of the casemate wall are those assigned to the structure by Masada's excavators, and they are presented here to help orient the reader and the visitor.

> "...the subsequent planning of the place engaged the serious attention of King Herod; For first he enclosed the entire summit, a circuit measuring seven furlongs, with a wall of white stone twelve cubits high and eight broad; on it stood thirty-seven towers, fifty cubits high, from which access was obtained to the apartments constructed round the whole interior of the wall." (*War* VII, 286-287)

This wall enclosed most of Masada's perimeter, but did not include the



Masada: plan of buildings and casemate wall (the numbers in parentheses are those assinged to the structure by Masada's excavators)

built-up area in the north. It is a double wall, built along its entire length close to the edge of the cliff. As a result of its position, portions of it collapsed down the side of the cliff. Casemate fortifications are known in the ancient Near East as early as the second millennium BCE, becoming common in our region in the beginning of the first millennium BCE, when they surrounded cities and fortresses in the kingdoms of both Israel and Judah. Such fortifications are also known in the classical world. Philo of Byzantium, for example, in describing the fortifications of Rhodes in the third century BCE, tells of a double wall that served as military barracks. Another source, chronicling the fortifications of Carthage, tells of a two-story wall whose lower level afforded space for 3,000 elephants (!) and whose second floor housed 20,000 soldiers. These numbers must, of course, be approached with the utmost caution. Although casemate fortifications are also known in the West, they cannot be seen as the source of inspiration for the casemate wall at Masada. Masada's fortifications hark back to a local, tradition, apparently Judean, which persisted into the Hellenistic-Roman period.

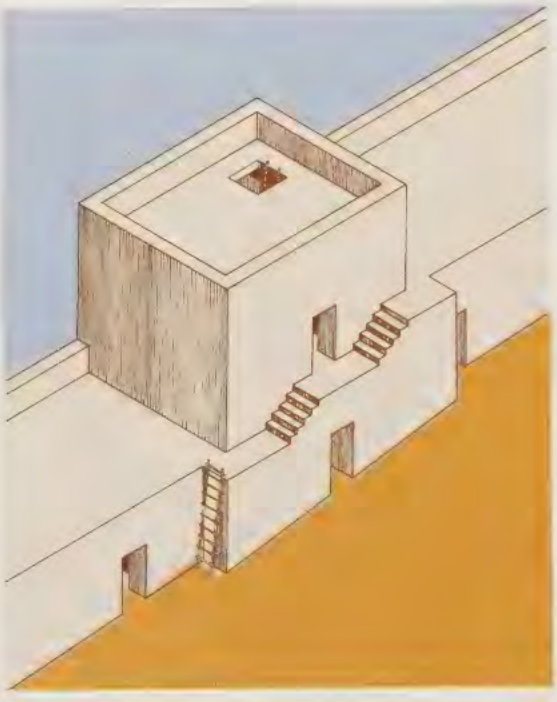
Masada's wall was uncovered along its entire length of some 1,300 m. Its dimensions were found to have been fairly standard: The outer wall was 1.4 m thick, the perpendicular partition walls were 0.95 m thick, and the space between the outer and inner walls was about 4 m wide. The perpendicular walls formed about 70 rooms of varying lengths: Some were more than 20 m long, while the smallest were no greater than 5 m long. The wooden thresholds of some of the doorways to the casemate rooms survived, as did some of the doorjambs, both elements revealing that the rooms had doors. The floors were almost completely unworked; most were set onto the bedrock. They were slightly leveled when necessary and sometimes, when the incline was great, small walls were built on the floors to support earthen fill to level the ground. Twenty-seven towers were built along the wall at an average distance of 45 m apart (on the lack of correlation between the number of towers in Josephus' account and the number actually uncovered, see below). The towers can be identified by their wall, which faces the inside of the fortress and is double the thickness of the rest of the inner perimeter wall. This thicker wall supported stairs to the roof of the casemate rooms, and from there to the second story of the tower (Figs. 70–71).

It is interesting that Masada was not initially surrounded by a wall at all; the wall was built only after most of the rest of the buildings were constructed. In fact, there was no need for a defensive wall. It sufficed to build a wall only along a relatively short section on the west, where an



Fig. 70: Stairs leading to the top of the towers





◀ **Fig. 71:** Reconstruction of one of the towers

attack on the fortress could be mounted, and indeed, it was from the west that the Romans finally did breach the fortifications. The main use of the wall was therefore not military, but rather civilian and administrative: The rooms in the wall, whose total area was almost 9,500 sq. m, served mainly as dwellings for Masada's ordinary inhabitants — soldiers, builders and other service providers. This use is in keeping with the simple, spartan style typical of these rooms. Herod himself, his close associates and other dignitaries would have obviously occupied the various palaces across the plateau.

During the period of the procurators, after the time of Herod and before Masada's conquest by the rebels, practically no signs of use can be discerned

in the casemate wall. In contrast, it reveals much evidence of activity by the rebels. In fact, most of the finds that can be attributed to the rebel period of the fortress, both architectural and artifacts, originate in the casemates and the rooms near them on the inside of the wall. Such evidence of rebel presence was found in all the casemates and towers, with most of the casemates serving as dwellings, and a minority as storerooms. In some cases, the towers were converted into installations for use by the community — tannery, bakery, etc. A few of the larger casemates were subdivided, to better suit the needs of more than one family (Fig. 72). All in all, some 90 dwelling units were found in the casemate walls. Cooking stoves and ovens were found in many of them, along with silos, shelves and other elements of daily life (Figs. 73-74). As noted, some 230 cooking and baking installations (about 145 ovens and 85 stoves) were discovered at Masada, the largest group of installations of this type found anywhere in the country. Most of these cooking and baking installations (about 60%) were found in the casemate rooms (Figs. 75-76).

Not all of the approximately 1,000 people who lived at Masada according to Josephus would have arrived there at the same time. During the years of the rebellion's gradual suppression more and more refugees apparently



Fig. 72: Casemate room divided by partitions into dwelling units — an addition from the period of the rebels



Fig. 73: Silo in the corner of a dwelling unit — an addition from the period of the rebels



Fig. 74: Plastered 'cupboard' in the wall of a dwelling unit — an addition from the period of the rebels



Fig. 75: Cooking stove in a dwelling unit — an addition from the period of the rebels

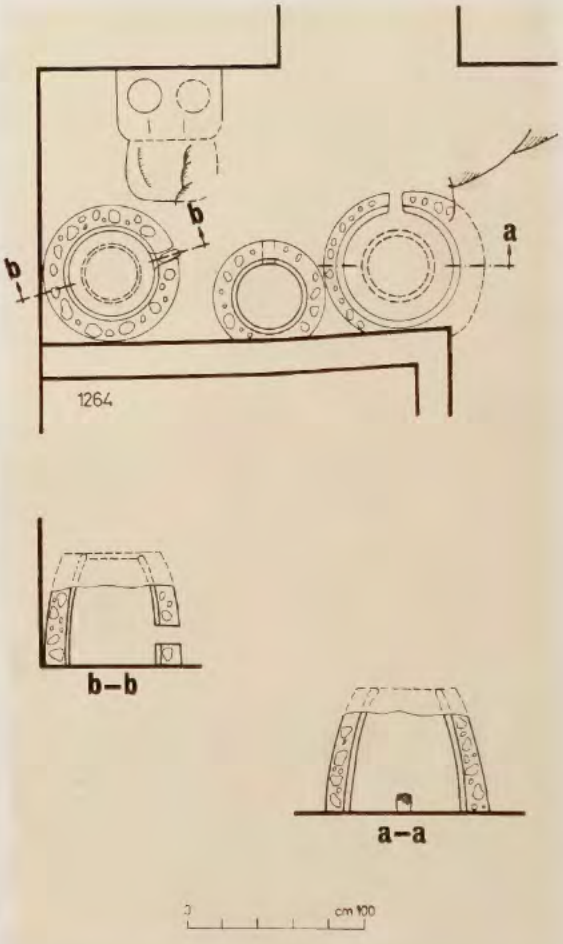


Fig. 76: Oven in a dwelling unit — an addition from the period of the rebels

arrived at the fortress. It is reasonable to assume that living quarters were allocated as they were in Herod's day: The distinguished members of the group — its spiritual and military leaders — would have occupied the palaces and the other buildings throughout the plateau (except perhaps Building 13; see below), while the ordinary people would have lived in the casemate rooms. When those rooms were full and no more space remained for new arrivals, they would have created the temporary quarters in the poorly built dwellings the excavators called "transit camps," near the inside walls of the casemates (Fig. 77).



Fig. 77: Rebel dwellings abutting the inside of the casemate wall (the "transit camp")

Below is a survey of some of the casemate rooms, "transit camp" structures and towers, among them some that were converted into installations for public use by the rebels. The survey begins south of the synagogue and proceeds counterclockwise along the wall.

The Casemate of the Scrolls (L. 1039)

This room was found near the synagogue. Its floor was made of beaten earth and its walls were coated with earth plaster. The rebels built two cells on its northern end, with thin stone walls as partitions, a silo in its southern wall, and near the western wall, an installation for liquid storage (water?). Findings in this casemate were extremely rich. They included 19 silver shekels from the period of the revolt, 7 fragments of biblical and extra-biblical scrolls, 18 Latin papyri, 4 Greek papyri and several hundred rolling stones and ballista stones (Fig. 78). These rolling and ballista stones apparently came from the tower south of this casemate, where they had been stockpiled by the rebels. Items found piled in a corner of the room may have been placed there by rebels preparing to burn them; however, they might also have been the remains of plunder by the Roman conquerors.



Fig. 78: Ballista stones and rolling stones in the Casemate of the Scrolls

The Columbaria *towers* (L. 1033-1034; L. 1028-1029)

Two towers dating from the first Herodian construction phase apparently served as *columbaria*, or dovecotes, and when the casemate wall was built, were incorporated into it. The original form of the northern of the two was preserved almost in its entirety, while significant changes were made in the southern tower during the Byzantine period. The two towers could also have served as lookouts (Fig. 79).

The northern tower (L.1033-1034) was square and divided by a wall into two rooms of equal size, connected by a doorway (Fig. 80). The entrance to the tower was apparently from the roof, since its walls do not seem to have had doors. The walls are built of two layers: an outer face of greenish ashlars, and an inner face of sandstone, apparently for greater ease in carving the niches for the doves (Fig. 81). The floor was bedrock, on top of which a thin layer of straw was found.

In the southern tower (L. 1028-1029), mainly the southern and western walls remain. They clearly reveal its manner of construction — the combination of two types of stone in the walls is identical to that in the northern tower. On alterations made to this tower during the Byzantine period, see below.

In the southern part of Masada, not far from Building 13, another tower was found into whose walls niches were also carved (L. 725). This tower may also have served as a dovecote. Its plan — circular, with a dividing wall in the center — differs from that of the two towers described above, but it

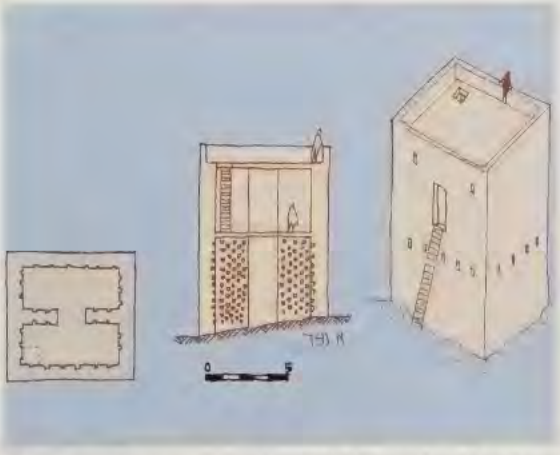


Fig. 79: Reconstruction of the *columbarium* tower

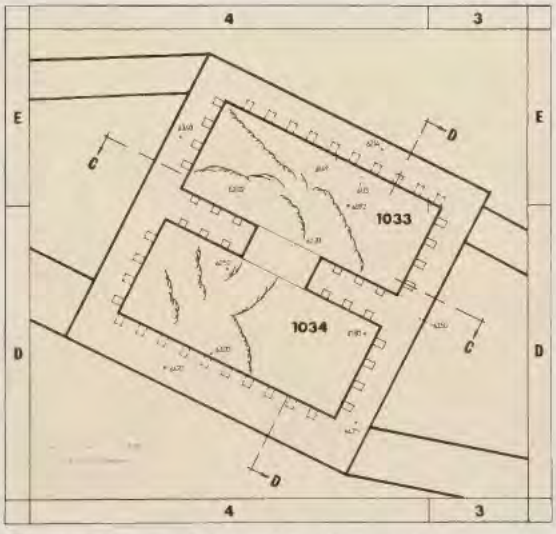


Fig. 80: Plan of the *columbarium* tower





Fig. 81: Niches in the walls of the *columbarium* tower

does share common traits with them: a division into rooms of equal size; lack of doors; walls of two layers, the outside of greenish ashlars and the inside of sandstone carved with square niches (Fig. 82). The close proximity of the niches to each other in the remaining walls, and the reconstructed height of the structure based on the rubble found at the site, show that the tower would have originally had approximately 800 niches (Fig. 83).

In contrast to scholars who saw the three towers as *columbaria*, Yadin believed they were used to inter the ashes of the non-Jewish dead at Masada. Indeed, structures with similar niches found in Rome did serve this purpose, although they are later than those at Masada and their niches are larger. The niches at Masada are too small to hold the ashes of the dead and were not found to contain any stone or clay containers for such ashes. Therefore, they should in fact be seen as dovecotes. The raising of doves was common in antiquity, as carrier pigeons, for their meat and the use of their droppings as fertilizer — all of which would have been very important in a fortress like Masada. Doves also served in the Jerusalem Temple as sacrifices involving the laws of purity (Lev. 5:7) and ancient rabbinic sources mention "Herodian doves" — (Tosefta, Shabbat 12, 4). When Josephus describes Herod's palace in Jerusalem, he notes that the pools were surrounded by dovecotes (*War* V, 181). The sacrificing of doves was also common in pagan temples during this period, and *columbaria* are known from the area of Beth Guvrin, mainly in caves with space for thousands of doves. The doves at that site, which was part of the region of Idumea, were apparently sacrificed to Aphrodite.

Fig. 82: The round *columbarium*

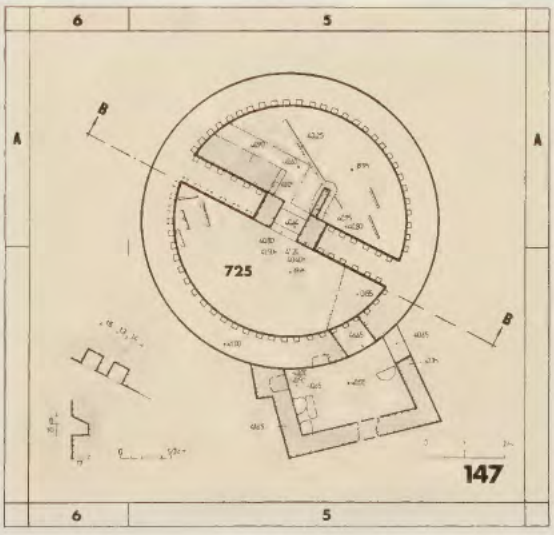


Fig. 83: Plan of the round *columbarium*

The Western Gate (L 1000–1001) (Fig. 84)

The Western Gate, near the northwestern corner of the Western Palace (Building 10), was one of the two main gates to Herodian Masada. Its remains are difficult to see, since a Byzantine gate was built over it, but nonetheless, its plan and that of the guard room next to it can clearly be discerned.

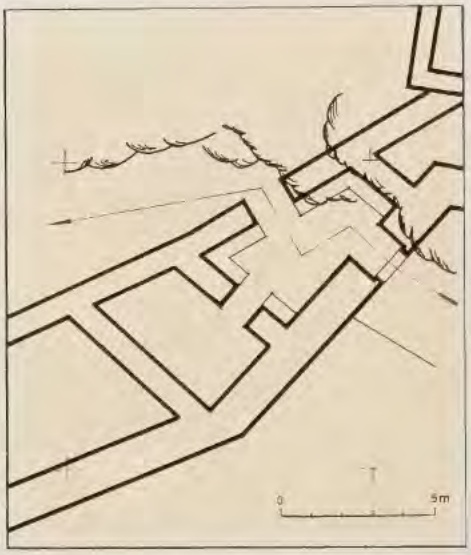


Fig. 84: Plan of the Western Gate

The Tannery (L. 1276)

About 20 m south of the Western Gate is a tower containing various installations, mostly for liquids. Much of the plaster covering the installations was of the gray waterproof type. This installation featured walls dividing the tower into five cells between which was a corridor, and two connected vats draining into a third, smaller vat. They were all made of sandstone and included architectural elements originating in Herodian structures. Based on these elements and the artifacts unearthed here, this Herodian tower was converted into a tanner's workshop by the rebels (Figs. 85–86).

The tower and its installations were well preserved, especially because after the fall of Masada to the Romans the structure was filled to the top with debris (four to five meters!). The debris included earth, straw, fragments of painted plaster, a fragment of papyrus inscribed with Greek and Latin names and 34 coins. This fill, like the heap found in the corner of the Casemate of the Scrolls, was apparently dumped into the tower by Roman soldiers plundering the plateau.



Fig. 85: Cells in the tannery



Fig. 86: Vats in the tannery

Rebel dwellings in the casemate wall (L. 1250)

A casemate room found in the southwestern portion of the wall opposite Building 13 is one of the best examples of the way the rebels converted a room in the wall into a dwelling (Figs. 87-88). Thin walls divided this room into several smaller cells in which a baking oven, cooking stove, three small silos, and a column drum with ashlars arranged around it resembling a table and chairs were found. Similar installations can also be seen in the casemate adjacent to this one on the south.

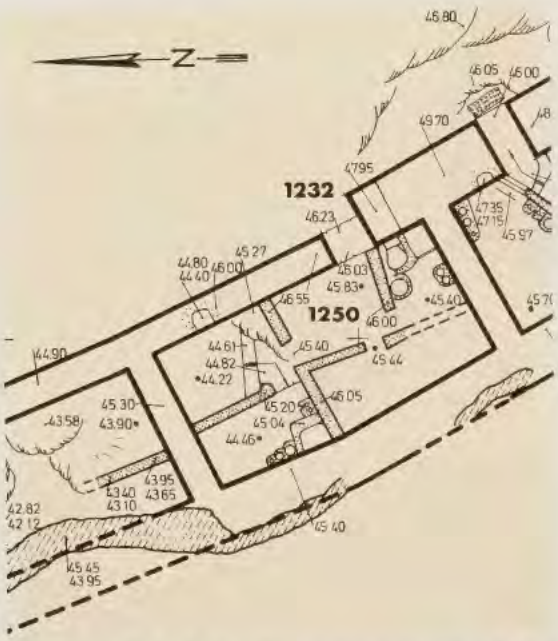


Fig. 87: Rebel dwellings in a room of the Casemate Wall

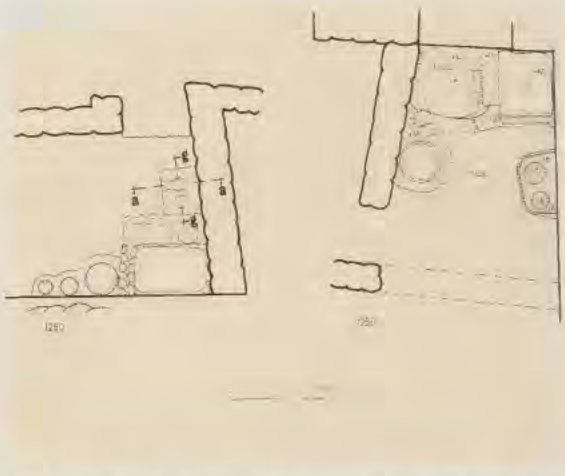


Fig. 88: Cooking and baking installations in a dwelling unit in the Casemate Wall

Tower (L. 1242)

A staircase abutted the inner face of the wall, leading to the top of the wall and from there to the tower.

Pools (L. 711-712) (Figs. 89-90)

Near the southern part of Masada were two pools that were not hewn like the others at Masada but rather were constructed on the surface. The capacity of the large pool, reached by descending a flight of steps on its



Fig. 89: The large pool

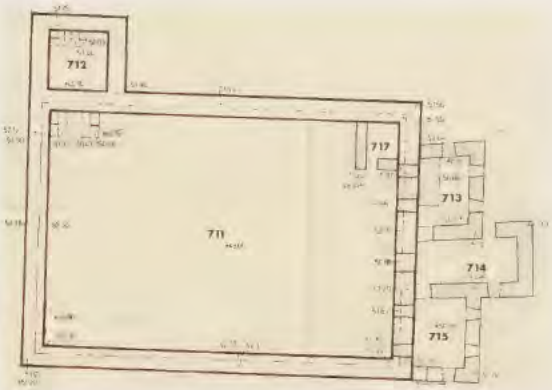


Fig. 90: Plan of the large pool

northeastern side, was about 550 cu. m. The second pool, adjacent to the staircase into the first one, is much smaller. No channels or other means of filling these pools were apparent and therefore, if they were indeed filled with water — which seems to be the case, since they were coated with hydraulic plaster — the filling was done by hand. Based on comparisons with similar, contemporaneous pools uncovered in the excavations of the palaces in Jericho, identified as swimming pools, it may perhaps be assumed, with all the difficulties inherent in this theory, that the large pool also served this purpose.

The Southern Fort (L. 1211–1218)

This structure is located in the southernmost corner of Masada and is incorporated into the casemate wall (Fig. 91). Its staircase, the thickness of its walls and the height of its rubble show that it boasted two or even three stories. This corner of Masada afforded relatively easy access to the top of the plateau, which explains the construction of such a stronghold here. As noted, a wall was also built a few meters below the top of the cliff to further impede access for anyone trying to ascend from here. Another reason for the construction of the Southern Fort is that most of Masada's buildings, including barracks for soldiers and commanders, were on the northern side of the plateau and an additional control center on the southern side was apparently needed. Like the other buildings, the fort saw a good deal of activity during the rebel period on Masada. However, remains scattered around this area show that after the fort was completely demolished during Masada's conquest, the Romans continued to make some use of it.



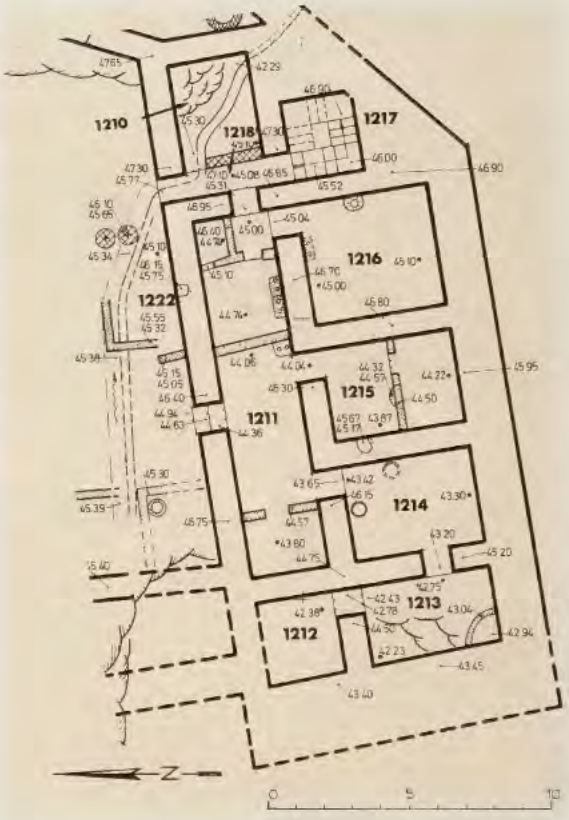


Fig. 91: View and Plan of the Southern Fort

Cistern (L. 1911) (Figs. 92-93)

This cistern, with a capacity of some 2,500 cu. m, is one of the finest on the plateau. Its entrance was from the north, down a stepped corridor hewn into the rock. Its southern half extends beyond the built-up area to beneath the casemate wall. The cistern filled mainly from surface runoff via an opening on the south in the wall opposite the entrance. A means of filling avoiding the steps prevented water damage to them, and is typical of the cisterns on Masada.

The Southern Gate (L. 1200) (Fig. 94)

This gate, unlike the previously mentioned ones — the Snake Path Gate, the Water Gate (early and late) and the Western Gate, is of secondary importance since it does not lead to an exit or entrance to the summit. It provides access only to the cisterns on the southern cliff and a number of caves scattered on the cliff beyond the wall, which served as dwellings during various periods.



Fig. 92: The large cistern

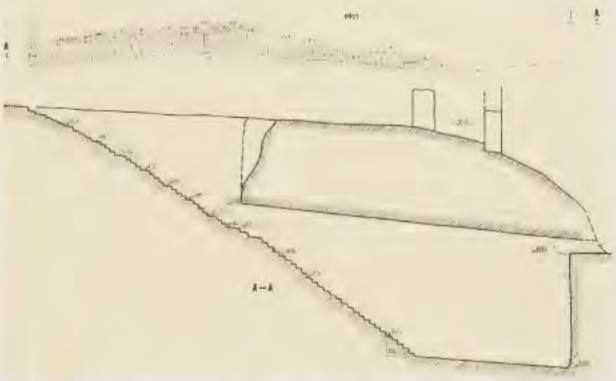


Fig. 93: Section of the large cistern

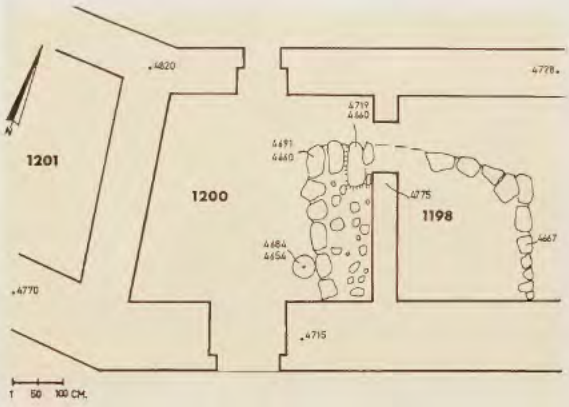


Fig. 94: Plan of the Southern Gate

The miqveh (L. 1197) (Figs. 95-96)

The *miqveh*, (ritual purification bath) was built on the eastern end of one of the casemate-wall rooms near the "bakery" tower. It consists of three pools, the largest and the medium-sized ones connected by a narrow conduit that passes through a wall between them about 0.90 m above the floor. An additional conduit connects the large pool to a shallow settling basin to its west. The water entered the large pool through the settling basin, which was fed by a conduit from the north.

North of the *miqveh* a complex consisting of a courtyard and five rooms was built abutting the casemate wall from the inside. On the east side of the courtyard was a room that opened onto the courtyard. In its façade are the remains of two columns made of sandstone drums. The drums and the



Fig. 95: The *miqveh*

Ionic capitals that topped them were no doubt removed from one of the Herodian palaces and brought here during the period of the rebels. Only fragments of the capitals remain, one of which bore traces of gold paint. In the northern wall of this room a doorway led to another room featuring niches in three of its walls — west, north and east. The purpose of these niches is unclear; they may have been used to store the personal items of those using the *miqveh* (Fig. 97).

Two small pools were also found in one of the small rooms next to the casemate wall on the west side of the courtyard. This room may have also served as a *miqveh*, although secondary to the one mentioned above. The *miqveh* and the various rooms off the nearby courtyard were all built by the rebels.



Fig. 96: Plan of the *miqveh*

The Bakery Tower (L. 1196)

This tower is immediately adjacent to the *miqveh*. The rebels made many changes in it, the most significant of which was the construction of a partition wall and the addition of storage and baking installations. Thus the excavators dubbed it "the bakery," although it is unclear if that was its true purpose. The main installations in the tower were baking ovens, cooking stoves, niches in two of the walls, the remains of a 'cupboard' in the



Fig. 97: Niches in wall of a room next to the *miqveh*

northwestern wall and another, two-story 'closet' abutting the northeastern wall (Fig. 98). A large millstone was found on the floor of the room along with a number of storage jars.



Fig. 98: Installations in the wall of the bakery tower

The "transit camp" (L. 1149-1167)

Nearly all of these structures were located along the inside of the casemate wall. As noted, the excavators gave them this name because of their meager construction. These structures date from the period of the rebels at Masada.

In one of these 'neighborhoods,' 15 dwelling units were found in an area



Fig. 99: Dwellings abutting the inside of the Casemate Wall in the southern part of Masada (the "transit camp")

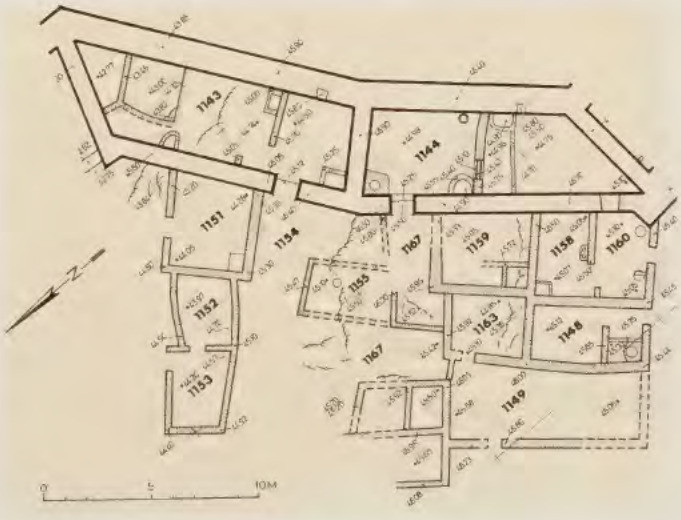


Fig. 100: Plan of a 'neighborhood' of rebel dwellings in the southern part of Masada

of approximately 250 sq. m. (Figs. 99–100) Some were no more than extensions of dwellings of families occupying two adjacent casemates, and some probably housed families who could not find room in the casemates. The walls, whose average width was 0.40 m, and average height 0.75 m, were made of small stones. The floors consisted of a thin layer of earth laid on the bedrock, and in some cases the rock itself was the floor. The various rooms revealed baking ovens, cooking stoves and silos.

Josephus Tower (L. 1156)

This was originally a room in the casemate wall, but at some point during the Herodian period it was converted into a tower and a staircase was added abutting the wall facing the inside of the fortress. Inside, the rebels built various installations, among them a small triangular niche for a lamp and various alcoves for storage, along with a cooking stove, a baking oven and a constructed silo that was partially preserved to a height of over one meter. Three rectangular seal impressions bearing the name Josephus in Latin letters were found in the plaster covering the wall with the silo.

Cistern (L. 1907) (see Fig. 2)

This cistern is surrounded by a thin wall, built in the Byzantine period. Its ceiling had completely collapsed, making it impossible to identify the opening. Excavation of the cistern has not been completed, but, as noted above, it clearly differs from the rest of Masada's cisterns in a number of ways: the lack of steps leading into it; its general form in terms of the relation of length to width; and the composition of the hydraulic plaster that coated it. These special characteristics led the excavators to assume that the cistern was not contemporaneous with rest of the cisterns at Masada, and it may have been hewn before the time of Herod, perhaps during the Hasmonean period. This cistern is surrounded by a thin, one-meter-high wall built in the Byzantine period. At its base were a number of perforations to admit surface runoff. The area bounded by the wall apparently served during this period as a (vegetable?) garden, irrigated by the runoff. In that same area, which is the lowest point on the plateau and thus the point to which the surface runoff flowed, evidence was found of cultivation in earlier periods: Near the Byzantine-era garden two long, straight walls that intersect at a sharp angle can be seen. They may have bounded a cultivated plot in the days of the rebels.

Building 9 (Hostel?) (Figs. 101-102)

In the center of Masada, south of the enclosed northern block of buildings, are five structures. One of these has been defined as a dwelling and the four others as palaces.

The area of the dwelling measures approximately 1,160 sq. m, and consists of rooms arranged around a central courtyard. To the north, south, and west of the courtyard, nine identical dwelling units were built, three on each side. Each of these units consisted of three rooms — one large one in the front and two smaller ones in the back — with the entrance to each unit through the central courtyard. The entrance to the courtyard itself was from the east, flanked by two rectangular rooms taking up the eastern side of the structure. The floors of the courtyard and the rooms were of beaten earth. The units were roofed, with the ceilings of the two small back rooms of each unit apparently lower than the larger rooms to admit light and air into the closely built structures (Fig. 103).

In the northwestern and southwestern corners of the building were two square halls with four column bases in the center of each. Unlike the entrances to the dwellings, access to these two chambers was apparently from outside the complex. The columns in the center of the halls were square, unlike most of those at Masada, which were round.

This complex, located halfway between the Western Palace and the northern block of buildings, probably served as a hostel. Its nine dwelling units could have accommodated about 60 people. It cannot be known with certainty what the two corner halls were used for; however, the fact that they were accessible from the outside may indicate they were stables. The design of the building is similar to those used as hostels for pilgrims to Greek shrines such as those at Olympia, Epidaurus and elsewhere. This plan was adopted in the Roman period, and similar hostels have been found in Italy, Germany and England. Thus Building 9 may have housed short-term guests at Masada, although it must be noted that no cooking or bathing facilities were found from the Herodian period; these were added at a later time.

Building 9 continued in use in subsequent periods as well. It saw its most intensive activity during the rebel period, at which time various alterations were made: Some entrances were blocked and others breached; partition walls were built; rooms were added (of the "transit camp" type) some abutting the central courtyard and many others against the outer walls, especially on the west and the north (Fig. 104). Cooking stoves and



◀ **Fig. 101:** Building 9, aerial view

▼ **Fig. 102:** Plan of Building 9

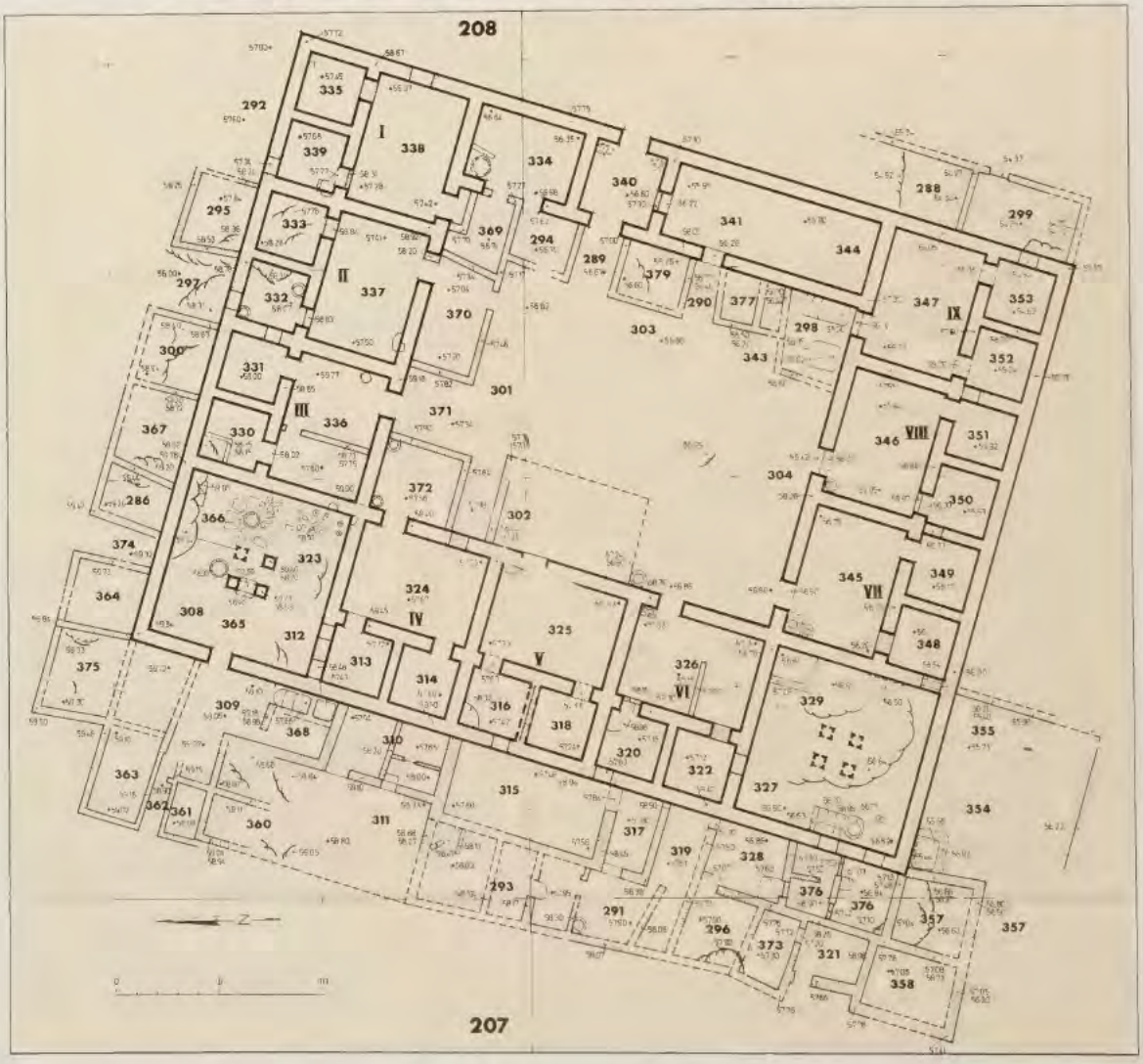


Fig. 103: Isometric reconstruction of Building 9





Fig. 104: Rebel dwellings abutting Building 9

baking ovens were added in several rooms, and southeast of the courtyard two small pools were dug that apparently served as *miqva'ot*. Another *miqveh* was built in one of the rooms added to the building near the northwest corner (Fig. 105).

Less obvious are remains indicating the Roman army's use of Building 9 after the fall of Masada. These were observed mainly in the northwest portion of the structure: The interior of the northwestern hall was divided into cells by partition walls, and additional cells on the outside were constructed against the northwestern corner. A few monastic cells were built in the center of the courtyard during the Byzantine period.



Fig. 105: *Miqveh* from the rebel period in the courtyard of Building 9

Building 10 — The Western Palace (Fig. 106)

This is the largest and most sumptuous of Masada's buildings, with an area, in its final stage of construction, of close to 3,500 sq. m. It was built here, in the center of the southern part of the plateau, apparently because of its proximity to the Western Gate. The complex reveals four phases of construction, all Herodian (Fig. 107)



Fig. 106: The Western Palace (Building 10), aerial view

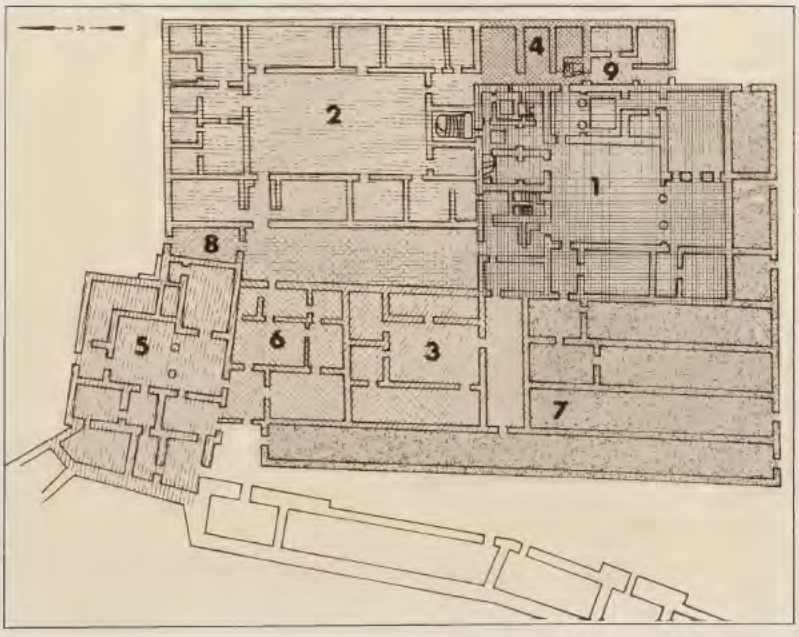


Fig. 107: Plan of the Western Palace, indicating construction phases

- The first phase — the palace core (1);
- The second phase — the Eastern Service Wing (2), the Western Service Wing (3) and phase 1 of the Eastern Entrance (4);
- The third phase — the Guard-House Wing (5) the Intermediate Wing (6) and the Storeroom Wing (7);
- The fourth phase — the northern main entrance (8) and phase 2 of the Eastern Entrance (9).

The first phase of construction

The palace core: This unit was built as an independent entity consisting of several rooms surrounding a central courtyard. This part of the palace was excellently preserved, better than the other parts. Its main entrance is from the north, via a doorway leading to the central courtyard, which provided access to all the other rooms. Like most of the entrances, this one featured benches and walls covered with masonry-style plaster (Fig. 108). On the northern side of the courtyard were entrances to the rooms of this part of the core, particularly those with mosaic floors, and to one of the stairwells leading to the second story. A cistern was also found on this side, fed by runoff via a conduit leading from the main entrance. On the south side of



Fig. 108: Northern entrance to the Western Palace core

the courtyard was a doorway flanked by two columns between two piers (a *distyle in antis)*, which linked the courtyard to a large space that was probably a reception hall (see Fig. 6a). The floor of the courtyard and the reception hall were coated with grayish plaster on a bedding of earth, small stones and potsherds. The walls were covered with white plaster, while traces of red plaster were discerned on the stumps of the two columns in the passageway between the courtyard and the reception hall. This hall opened onto a larger hall on the east via three doorways. The location of wooden doors is attested by the remains of grooves set into the floor for the doors and the impressions on the plaster left by the doorjambs. The excavators called this room, the largest in the palace, the "throne room" because of four square holes found in its southeastern corner, with the remains of ash above them from burnt wooden beams that may be evidence that a throne stood on this spot. Another, more likely possibility, is that if there were a throne in this hall, it would have been placed in the center rather than the corner. It has therefore been proposed that rather than supporting a throne, the four holes held the legs of a table on which fine utensils were displayed. The large number of small bronze objects found here, which may have adorned such a table, lends credence to this theory.

A literary description of the symposium tent of King Ptolemy Philadelphos mentions a table of this sort on which luxury items were displayed to guests. A number of artistic depictions of such tables, some of them on mosaic floors of this period, are known. Rugs were apparently laid on the floor of this hall, and its walls were hung with cloth curtains. The layers of ash found along the walls, in which the remains of ropes and metal rings were found, support this proposal. Fine carpets and curtains are mentioned in a number of literary descriptions of palaces, for example that of Alexander at Susa, or of Roman mansions. A good many wall paintings in Pompeii also depict curtains hung on the walls of rooms or between columns. All of this evidence substantiates the idea that the "throne room" was the grandest and most important room in the Western Palace, and perhaps anywhere on Masada.

In the northeastern corner of the "throne room" a doorway leads to the Eastern Wing of the core, which is divided in two by a low ashlar pediment that bore two columns. The eastern column left scant remains, and the western column left only its imprint on the pediment. Four steps against the northern wall of this wing are all that remains of the staircase leading to the second, private, story of the palace, where among other things, the bedrooms would have been located.



Fig. 109: Mosaic floor in the Eastern Wing of the Western Palace

The floor of the southern part of this wing was adorned with a polychrome mosaic floor (Fig. 109) — Masada's most intricate and finely executed. The design consisted of 13 bands forming a concentric frame, part of which was adorned with geometric and plant motifs. In the center was a circle with stylized rosettes. The lack of human and animal images in the mosaic may attest to Herod's consideration for the religious sensibilities of Jews visiting his home with regard to such images. Less than half of this mosaic has survived. The missing part reveals the floor's bedding, bearing the incised outlines of the pattern on which the tesserae were laid. The remains on the floor, particularly the signs of an intense fire, show that it was still intact at the time of the rebels; it was certainly destroyed by looters among the Roman soldiers. Fragments of mosaic were discovered in the heaps of rubble, which reached a height of about 70 cm above the floor.

The grandeur of the Eastern Wing — the mosaic floor and the *distyle in antis* which was covered with red-painted plaster — attests to its great

importance. This wing was apparently part of a complex of private rooms, perhaps the women's dining room.

In the northeastern corner of the core was a bathroom, accessible through a doorway in the central courtyard (Fig. 110). An entrance corridor, divided in two by a pair of piers facing each other in the corridor's eastern and western walls, led to a small chamber in which the bath water was heated. The water was apparently collected in a metal cauldron (that did not survive), which was placed on a stand built next to the northern wall of this chamber. The hot water would have flowed from the cauldron through a conduit in the wall separating the heating chamber from the bath chamber to its north. The floor of the entrance corridor was paved with mosaic; the southern part was white, while the northern part was composed of a polychrome 'carpet' design like the mosaic in the room next to the "throne room," featuring concentric borders with a rosette medallion in the center (Fig. 111). The only installation added to the core during the time of the rebels was possibly a silo of plastered sandstone, built on top of the mosaic floor next to the western wall of the entrance corridor to the bath.

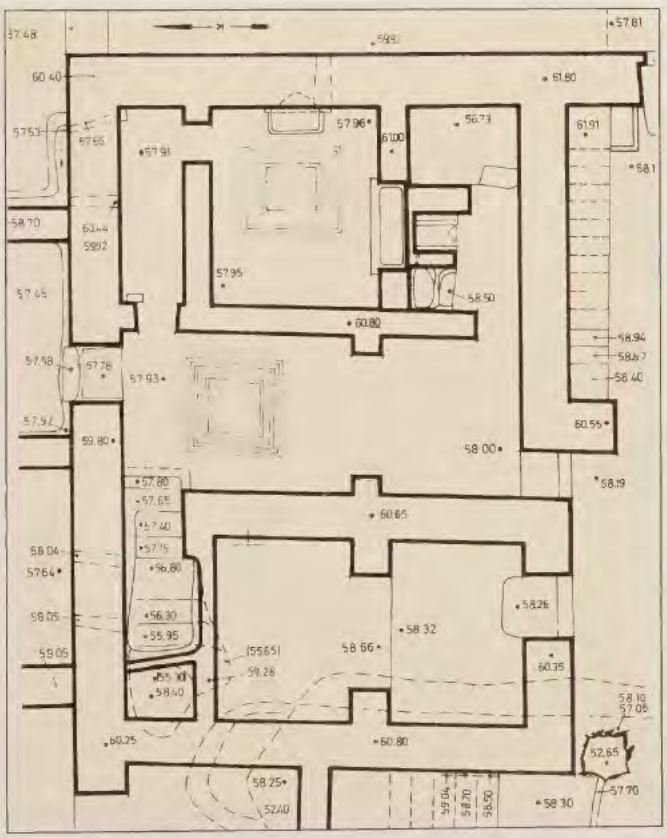


Fig. 110: Plan of the bath of the Western Palace



Fig. 111: Mosaic floor in the entrance corridor to the bath in the Western Palace

Beyond the mosaic floor, was a pool with nine steps to the bottom. The northern wall of the pool bore two window-like apertures connecting it to the courtyard to the north. Water was apparently brought to the pool through these two windows. This pool might have served as the *frigidarium* of this bath complex, or as a *miqveh*. East of the rosette mosaic is a narrow corridor paved with a white mosaic leading to the bath room. A triangular niche was carved in the northern wall of this room to house an oil lamp, and a window was preserved almost in its entirety. This is one of four windows found at Masada. The second window is in the adjacent bathroom and the other two are in the storeroom east of the block of long storerooms, in the northern part of the plateau.

The southern wall of the bathroom features a rectangular, narrow bath-tub and an opening in the wall connecting it to the cauldron in the heating chamber to the south (Fig. 112). The water was taken from here to another tub, which was located next to the room's western wall. At some stage the tub was dismantled, but its shape and location are revealed by repairs in the



Fig. 112: Bath room

plastered floor after its removal. Opposite the tub, against the room's eastern wall is a low, plastered stone bench, on which the bather would sit while being rubbed with oil. The western wall of the room has a triangular niche for a lamp, while the eastern wall features a window. The niche and the window are identical to those uncovered in the bathroom's antechamber. The floor of the room is covered with a white mosaic, in the center of which are two concentric borders, one red and the other black. All three mosaic floors uncovered in the Western Palace core are in the late Hellenistic tradition, both in their colors and patterns. Parallels are found in Pompeii, Alexandria, Jerusalem and elsewhere.

At least the northern part of the core had two stories, as indicated by stairwells, one in the northern part of the courtyard, another in the northern part of the Eastern Wing, and a third near the private Eastern Entrance (see below). Second stories, which among other things served as women's apartments, are known from private dwellings of the type unearthed at Olynthos and Priene. This elevated portion of the northeastern core could have served as a relatively cool place to relax and enjoy a view of the whole plateau and the Judean Desert. Elevated relaxation areas like this are known from contemporaneous palaces such as those at Pella, Vergina and Delos.

The second phase of construction

Three additional units were added to the core at this stage: the Eastern Service Wing, the Eastern Entrance and the Western Service Wing.

The Eastern Service Wing: This wing consisted of rooms arranged around a central courtyard, the main entrance to which was from the northwest, from the palace's main entrance. A number of rooms in this wing are of special note: Three dwelling units on the north side of the courtyard are identical to those of Building 9 (see above): Two of them had a large anteroom leading to two smaller rooms. Between the units was a 'half-unit' including one small room fronted by a 'large half-room.' These units, which communicated with each other through doorways with only the central room opening onto the main courtyard, may have been the servants' quarters.

The base of a circular installation built of stone was found in one of the eastern rooms along with a thick layer of ash, wood fragments and a large quantity of potsherds, perhaps indicating the presence of a potter's workshop.

Two rooms on the southeastern side of the courtyard featured water installations: The eastern room contained a pool lined with hydraulic plaster to which five steps descended. A conduit through its southern wall fed it with water from the bathroom in the palace core, thus allowing the servants to enjoy their own hot bath after the palace-dwellers had had theirs. The adjacent room on the west had a stepped pool that took up most of the space. It, too, was connected to the bathroom in the core by an opening in its southern wall.

Alterations and additions were subsequently made to this wing, some by the rebels and most, after the fall of Masada, by the Roman soldiers who took up residence here.

The Eastern Entrance (Phase 1): South of the Eastern Service Wing and east of the eastern wall of the core, three rooms were built, separated from the core by a narrow corridor. This complex was apparently built to protect the entrance to the palace core from the east, an entrance that led straight to the more private apartments (the 'guest' entrance?). The thickness of the walls of these rooms and the remains of a staircase (Fig. 113) show that this complex also had two stories, with the upper story affording direct access to the second story of the palace core.



Fig. 113: Flight of stairs in the eastern entrance wing to the Western Palace

The Western Service Wing: The southern side of this group of rooms, arranged around a central courtyard, abutted the northwestern corner of the palace core. South of the courtyard was a long space on the eastern end of which was a doorway connecting this wing to the palace core and, on the western end, a doorway connecting it to the Storeroom Wing. Two cisterns designed to hold surface runoff, hewn prior to the construction of this wing, run beneath the floors of the various rooms. This wing is much smaller than the Eastern Service Wing, but it does have three advantages: a direct link to the core, access to the palace stores and proximity to the water cisterns. These characteristics probably indicate that this is where food storage and preparation for the palace was carried out, although so far no installations have been discovered anywhere on Masada that indicate cooking and baking on a large scale. Most of the cooking and baking installations that have been found — ovens and stoves — belong to the days of the rebels, and all were intended for use by relatively small families.

The third phase of construction

Like the previous phase, this one also added three units to the core: the Guard-House Wing, Intermediate Wing and a Storage Wing.

The Guard-House Wing: This wing was located northwest of the palace core and resembled the core in its layout. On the west it was connected to the casemate wall, on the east — to the main entrance to the palace and on the south — to the Intermediate Wing. These links on its three sides are especially important in understanding the chronological order in which the various components were built, of which this wing is the earliest. The wing has a central courtyard surrounded by rooms on the west, the north and part of the east. A relatively large hall bounds it on the southeast. A deviation in the direction of the walls of the structure in relation to the rest of the palace walls can be explained by the apparent need to adjust the building to the direction of the nearest casemate wall, which due to topographical considerations protrudes here toward the inside of the fortress.

The excavators called this part of the complex the Guard-House Wing — the headquarters of the chief of the palace guard, or even the commander of the guard for all of Herodian Masada. This interpretation is based on the great similarity between the layout of this wing and that of the palace core and the smaller palaces (see below) as well as on its proximity to the casemate wall, the path ascending to the plateau from the west and the

direct connection between it and the palace core via a doorway between it and the main entrance from the north.

The Intermediate Wing: This wing, as its name indicates, filled the space between the Guard-House Wing and the Western Service Wing. In the large hall in the southwestern part of this wing, a roundish stone installation was built abutting the northern wall of the Western Service Wing (Fig. 114). The function and date of the installation are unclear; some see it as the base for a large cooking or baking installation, and date it to the Herodian period. If this theory is correct, the Intermediate Wing, like the Western Service Wing, may also have been connected to the preparation of food for the inhabitants of the palace.



Fig. 114: The round installation in the Intermediate Wing of the Western Palace

The Storeroom Wing: This wing was also added to the palace in its third phase of construction. It included four long storerooms similar to those in the northern part of Masada. The storerooms abutted the palace core on the west: The westernmost, with a length of more than 55 m, is the longest storeroom on Masada; the other three are about half that length. The storerooms are about four meters wide, which is standard for the storerooms at Masada. The overall area of these storerooms was therefore 500 sq. m — much more space than needed to store supplies for the Western Palace. It is

therefore possible that these storerooms served not only the Western Palace but the smaller, neighboring palaces as well. The openings in the southern walls of all four storerooms face the smaller palaces, lending support to this theory.

Only slight changes were made in the storerooms in subsequent periods. These included mainly the addition of silos, baking and cooking installations during the time of the rebels. A double stove with four burner-apertures on each side for pots (Fig. 115), which was found in the central of the four short storerooms, is the largest stove found at Masada. Only one other four-burner stove was found in the fortress, in a room of the Eastern Entrance Wing. These three stoves were installed during the time of the rebels, all three very close to the core, and apparently were intended for the preparation of food for those living in the palace core at the time of the revolt.



Fig. 115: Cooking stove in a storeroom of the Western Palace

The fourth phase of construction

At this stage, the last and less significant phase of the palace's construction, two small units were added: the northern main entrance and an addition to the Eastern Entrance.



Fig. 116: The main entrance to the Western Palace

The Northern Entrance: This part, which the excavators called the Main Entrance Wing is not a wing in the usual sense of the word, but rather the final arrangement of the entrance to the palace. In the first phase, when only the palace core stood, it was entered from the north. When, over time, the Eastern and Western Service Wing, the Guard-House Wing and the Intermediate Wing were built, it became necessary to construct an entrance to the entire palace complex. This entrance was naturally situated in the north, in the area between the northwestern part of the Eastern Service Wing and the southeastern part of the Guard-House Wing. The Northern Entrance was intended for anyone entering the palace, whereas its residents would enter it from the 'private' Eastern Entrance Wing. The entrance walls were covered with a thick layer of white, masonry-style plaster, and benches were installed along them (Fig. 116). To improve surveillance of those entering the palace complex, another doorway was opened in the eastern wall of the Guard-House Wing.

The Eastern Entrance (Phase 2): At this stage an annex was added to the Eastern Entrance Wing, including a narrow corridor and a small courtyard onto which two rooms opened (Fig. 117). The style of this annex differed from the other units of the Western Palace: All of its walls were constructed, fairly carelessly, of dressed greenish stone.

In the southern of the two rooms was a cistern that could be reached by a staircase. Water flowed to it via a drainage channel originating in the small adjacent courtyard, as well as by means of a receptacle built nearby. Two bathtubs abut the eastern and northern walls of the room (Fig. 118). In the adjacent room, four installations were found, one against each wall. The only one apparently dating from the Herodian period is a large furnace to heat the water for those bathing in the adjacent room. Three other installations — a silo, a baking stove and a four-burner stove, were added during the period of the rebels. These installations reveal the two rooms to have been service rooms, both during the Herodian and the rebel periods.

All four phases of the palace should be dated to the time of Herod. No evidence was found that would date any of the alterations to the period between Herod and Masada's takeover by the rebels. Thus throughout that



Fig. 117: Addition to the eastern entrance wing of the Western Palace



Fig. 118: Tubs in the eastern entrance wing of the Western Palace

whole 60-year period, the palace was well-maintained by those responsible for the site, most probably the Roman garrison.

Changes to the palace during the time of the rebels were very minor: In the core the only addition was a silo built in the bathroom; in the dwelling units of the Eastern Service Wing a number of partition walls were built along with a few silos, revealing use of the rooms by the rebels. The minimal changes to the rest of the palace were also of this nature. In light of this limited activity, as opposed to the intensive activity in and near the casemate wall as described above, it is clear that during this time only a small group of rebels lived in the palace. Perhaps they were leaders, either in terms of their socio-religious affiliation (Essenes?) or their hierarchy (commanders?).

Activity in the palace that can be attributed to the Roman army after the conquest of the fortress is clearly associated with the search for plunder, especially the dismantling of floors, such as the mosaic floor in the eastern unit of the core and the placing of items of no interest in heaps similar to those found in the Casemate of the Scrolls and the Tannery. Some additions were made at that time to transform the structure into a dwelling, particularly in the Eastern Service Wing and the Intermediate Wing.

The overall layout of the palace

A close parallel to the Western Palace, built from a core to which units were added over time, is the palace at Dura Europos. It, too, was built on a spur, which served as the city's acropolis. The construction of the Dura Europos palace began during the Hellenistic period and it continued in use as it expanded until the first century BCE.

The general layout of the Western Palace with all its wings is rooted in the architectural tradition of the East — in the close integration of private apartments with reception, service and storage units. However, although the layout is fundamentally Eastern, the building reveals unmistakable Hellenistic characteristics as well, especially the design and ornamentation of the reception units. In general, the palace presents an 'introverted' design, essentially different from the layouts of Hellenistic palaces and Roman villas, where marked efforts were made to be open to the panoramic view.

Herod's architects were able to design two different palaces on one site, each of which suited its function and surroundings: the administrative 'introverted' Western Palace and the ceremonial Northern Palace. The latter's unusual topographic location clearly placed a particular emphasis upon views of its surroundings.

The Small Palaces

We do not know whether these three buildings were constructed during the early Herodian phase of construction at Masada, together with the Western Palace core, or were built during the main Herodian phase. The question of whether they were earmarked for specific members of Herod's family or whether they housed visiting dignitaries also remains unanswered. None of these buildings had bathing facilities and it is possible that the bath in the nearby Western Palace also served the guests in the smaller palaces. In any case, unlike most of the other buildings on Masada, these structures evinced no changes throughout the Herodian period, indicating that they were well-suited to their purpose.

Building 11 (Fig. 119)

This rectangular building, measuring approximately 210 sq. m, is located at the second highest point on Masada, about five meters lower than the tower southeast of Building 7. This location gave the building a good view of most



◀ **Fig. 120:** The "swimming pool"



▲ **Fig. 119:** Plan of Building 11 and the adjacent "swimming pool"

of the plateau. Its entrance was from the north into a relatively small courtyard surrounded by rooms. A *distyle in antis* stood in the passageway between the northern courtyard and another, narrower courtyard to the south. This arrangement is similar to the "reception room/throne room" in the Western Palace core.

Considerable changes were made in the building during the time of the rebels: A small, stepped pool, which apparently served as a *miqveh*, was hewn in the northern part of the courtyard. Two groups of rooms of the "transit camp" type were also built, abutting the building on the east and the west, and were connected to it by breaches in the Herodian-era walls.

Swimming Pool (?): Beyond the "transit camp" and about 20 m west of the Building 11 is a complex the excavators termed the "swimming pool" (Fig. 120). This was apparently originally a quarry, whose stones served in the

construction of Building 11, which was transformed into a pool lined with hydraulic plaster. West of the entrance was a small room, perhaps for a superintendent. Plastered niches were built into the walls surrounding the space on the south, east and west, in which bathers apparently placed their belongings. Similar niches were found in a room next to the large *miqveh* (1197) in the southern part of the casemate wall (Fig. 97).

Two questions will help clarify the nature of this structure:

1. When exactly was it built? The quarry into which the pool was built is Herodian, but was the pool installed at that time, or was the quarry transformed into a pool only during the time of the rebels? The meager artifacts unearthed here do not provide an unequivocal answer to this question, but the relatively high quality of the construction indicates that the pool might have been in use as early as the Herodian period.
2. Was this really a swimming pool? The answer to this question is equally ambiguous. A comparative study of pools identified as swimming pools elsewhere (Jericho) and those identified as *miqva'ot* (Jerusalem, Jericho, Herodium), alludes to the fact that this pool should be seen as a *miqveh* or perhaps an immersion pool for the use of the inhabitants of Building 11, who may have been Essenes. This theory also finds support in the sparse find of coins and the lack of spindles found in this building (which Ronny Reich takes to mean no women lived there; see below, The Spindles).

Building 12 (Fig. 121)

Located a few dozen meters east of Building 11, Building 12 greatly resembles it in its layout. A square structure, with an area of about 400 sq. m, it is larger than Building 11. Its entrance is from the north, and its rooms surround a central courtyard. The courtyard, which was originally divided into two parts by a *distyle in antis*, as in Building 11 and the Western Palace, is narrower in its southern portion. Because of the many alterations to the building during the days of the rebels, nothing is left of these columns, but based on the similarity of its design to the other palaces, this reconstruction seems very likely.

The addition of thin walls subdividing the central courtyard and some of the building's rooms into smaller spaces attests to its continued use during the time of the rebels. Another group of rooms of the "transit camp"

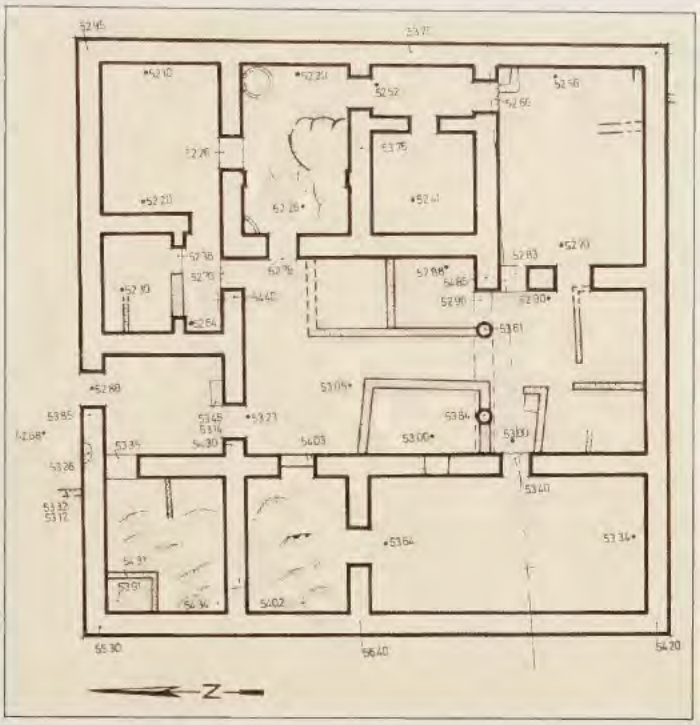


Fig. 121: Plan of Building 12

type from this period was uncovered northwest of the structure; however, unlike the other Herodian buildings used by the rebels (for example buildings 9, 11 and 13), no openings were breached in the walls to communicate with the annexes built around it. This might indicate that Building 12 was home to a single family, and other families lived in the annexes.

A number of monastic cells were built southeast of Building 12 during the Byzantine period.

Building 13 (Figs. 122–123)

This building is located a few dozen meters south of Building 11. Rectangular in layout, its area is 285 sq. m, making it slightly larger than Building 11 and smaller than Building 12. Here, too, the entrance is from the north and the courtyard narrows toward its southern end. However, unlike the other structures described above, the courtyard is not in the center of the building, but rather abuts its western wall, so that it is surrounded by rooms only on three sides. The main room, or "reception room," is located in the southeast corner of this palace. Unique to Building 13 is an annex, apparently built during the Herodian period, abutting its southern wall from the outside and increasing its size by about 160 sq. m. This annex apparently



Fig. 122: Building 13, aerial view

functioned as an independent unit, since it is not connected by any doorway to the original structure.

Of all the structures at Masada, Building 13 was the most intensively used by the rebels. Various signs, such as thin walls built over wall stumps of the original building, show that Building 13 and its southern annex were already in ruin when the rebels arrived at Masada. Inside the building, in the structure abutting it on the south, and outside it, especially on the south and the north, additional "transit camp" structures were built, with their

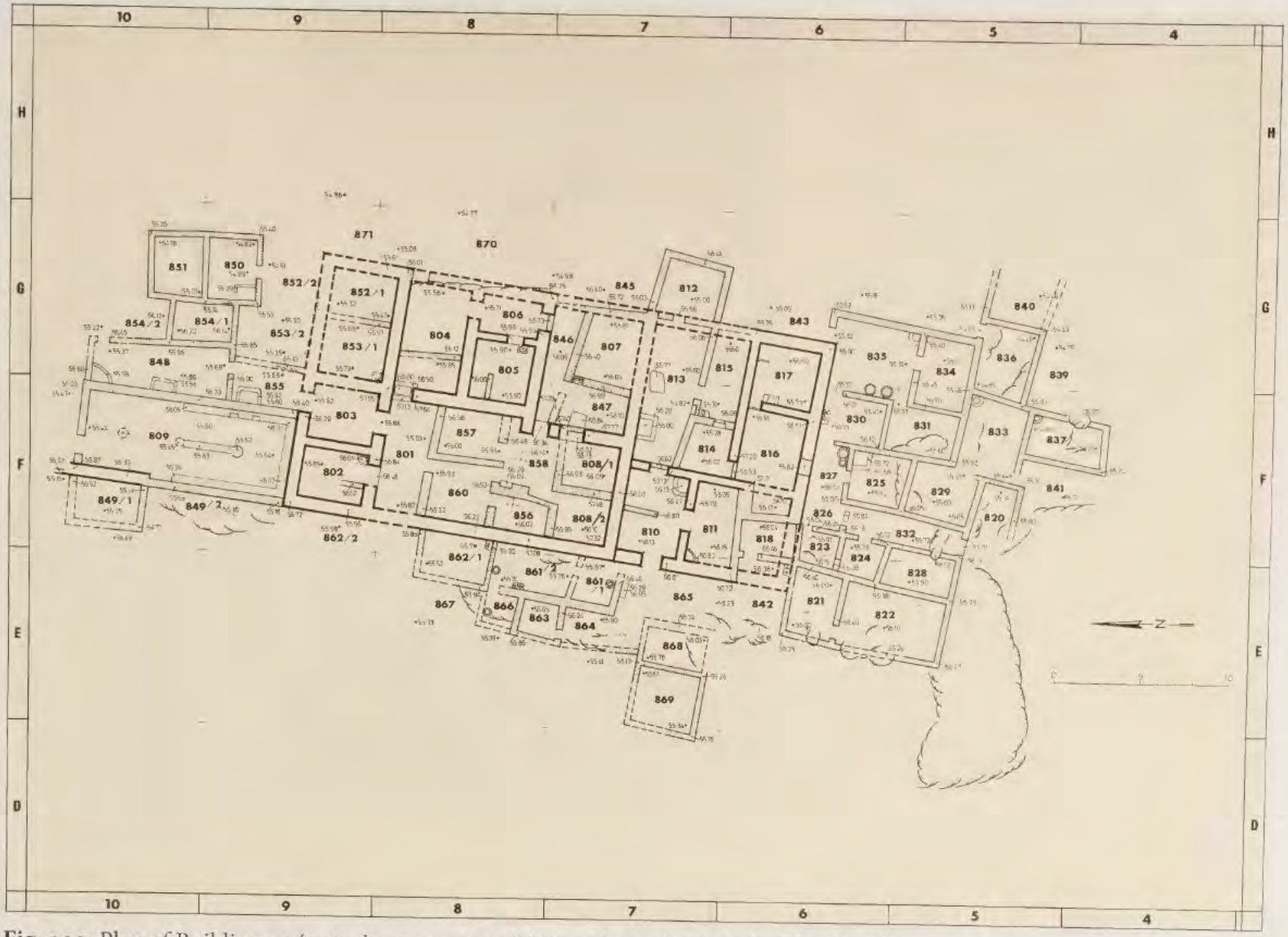


Fig. 123: Plan of Building 13 (note the numerous additions from the period of the rebels)

typically thin walls, divisions into smaller rooms and cooking and baking installations. Building 13 revealed 15 stoves and 11 ovens, more than any other building on Masada except the casemate wall.

A long hall was added to Building 13 on the north. It is unusual compared to the other additions built by the rebels: Its area is 52 sq. m, the largest of the rebel buildings other than the synagogue. Along the walls on the southern side of the building low benches were constructed, some of column drums in secondary use. An additional bench was built along the central axis of the hall (Fig. 124). At either end were two columns, apparently of wood, standing on bases, which supported the ceiling. About 50 people could have sat on benches in this hall and an equal number on the floor, which makes it likely that this was a public building. While there was no clear indication of the structure's function, the excavators dubbed it the "Study House" (*beit midrash*).



Fig. 124: Benches from the time of the rebels in the room known as the "Beit Midrash" of Building 13

The Layout of the Palaces (Fig. 125)

Four structures uncovered at Masada — the Western Palace core and the three "small palaces" shared similar characteristics:

- A square or rectangular plan and an entrance on the north.

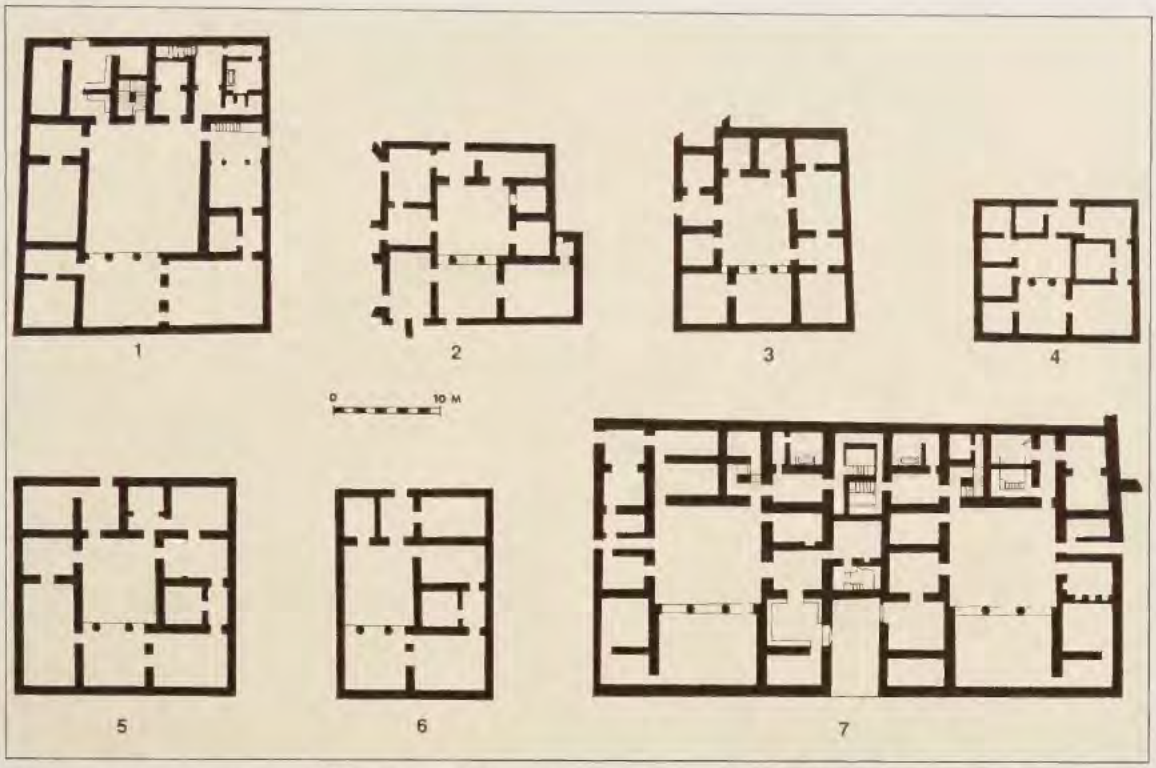


Fig. 125: Comparison of the plans of the palaces of Masada and the palace in Jericho: 1. The Western Palace core; 2, The Western Palace Guard-House Wing; 3. Building 8; 4. Building 11; 5. Building 12; 6. Building 13; 7. Jericho: the Double Palace

- A square courtyard, usually in the middle of the building (except for Building 13).
- An unroofed 'reception room' in the southern part of the courtyard, entered via a *distyle in antis* leading to a roofed 'reception room' in the southeastern part of the structure, which protrudes slightly from the wall bounding the courtyard on the east.
- Other palace rooms arranged along the eastern, northern and western walls. The rooms were mainly for public use, with almost no space for various services such as bathing installations and kitchens.

These characteristics of the Masada palaces have close parallels to contemporary Hasmonean palaces uncovered at Jericho. Other parallels, especially to the Western Palace at Masada, including stairwells around a central pillar, triangular niches in the walls for lamps, and bathing complexes including the four essential units — dressing room, cold room, tepid room and hot room, can be found in the double palace in Jericho.

The similarity between the Herodian palaces at Masada and the Hasmonean double palace in Jericho shows that the architects of Masada's palaces from the beginning of Herod's reign and those who designed the palaces at Jericho, built some 40 years earlier, were of the same school, and that both derived their inspiration from the Hellenistic tradition of construction.

Two additional structures at Masada had layouts similar to the four palaces: Building 8 and the Guard-House Wing of the Western Palace. In terms of the use the excavators ascribed to them, these two building are 'one rank below' the use ascribed to the palaces: Building 8 was described as possibly the dwelling of the supervisor of the storerooms or the commander of the entire fortress, while the Guard-House Wing was inhabited, according to the excavators, by the administrator or commander of the palace guard. These two structures were built slightly later than the four palaces, and they reveal a single design tradition throughout the Herodian period.

The layout of the palaces at Masada is closely related to structures elsewhere in the Hellenistic-Roman world. An interesting detail in this respect is that in mansions and palaces in Greece and Asia Minor (Pella, Olynthos, Delos, Priene, Pergamon) the narrow part of the courtyard, which at Masada was in the south, lies in the opposite direction; the southern part of the courtyards in those places is the wider part. This difference may have been due to a desire to provide more shade and cooler air at Masada, while in the West, the desire was for more exposure to sunlight.

The origin of the plan of the 'reception room' of the Masada palaces and the mansions of the wealthy class in the Hellenistic-Roman world should probably be sought in the architecture of Greece and Asia Minor of the late classical period and the beginning of the Hellenistic period. The earliest examples of this layout are in the Macedonian palaces uncovered at Vergina, Pella and Pergamon.

The Phases of Construction of Herodian Masada

Most of the buildings on Masada were erected during a relatively short period of approximately 20 years, from 30 to 10 BCE. The possibility of delimiting the period of construction to such a short time-span is of great importance, as it provides a clear-cut chronological starting point for a comparative archaeological study. Despite the short time that elapsed from the beginning to the end of the project, a number of phases may be

discerned, from early to late, in the construction of the various buildings on Masada. The dating of these phases is not dictated by the artifacts unearthed in them, since 20 years is too short a time to express changes in pottery or other types of finds. Rather, the dating is based solely on architectural considerations — additions, integrated and abutting walls, and other elements. The study of the structures from this perspective reveals three construction phases at Herodian Masada. Following are the main buildings of each phase.

The early phase (Fig. 126)

The only building in the main block on Masada — the northern block —

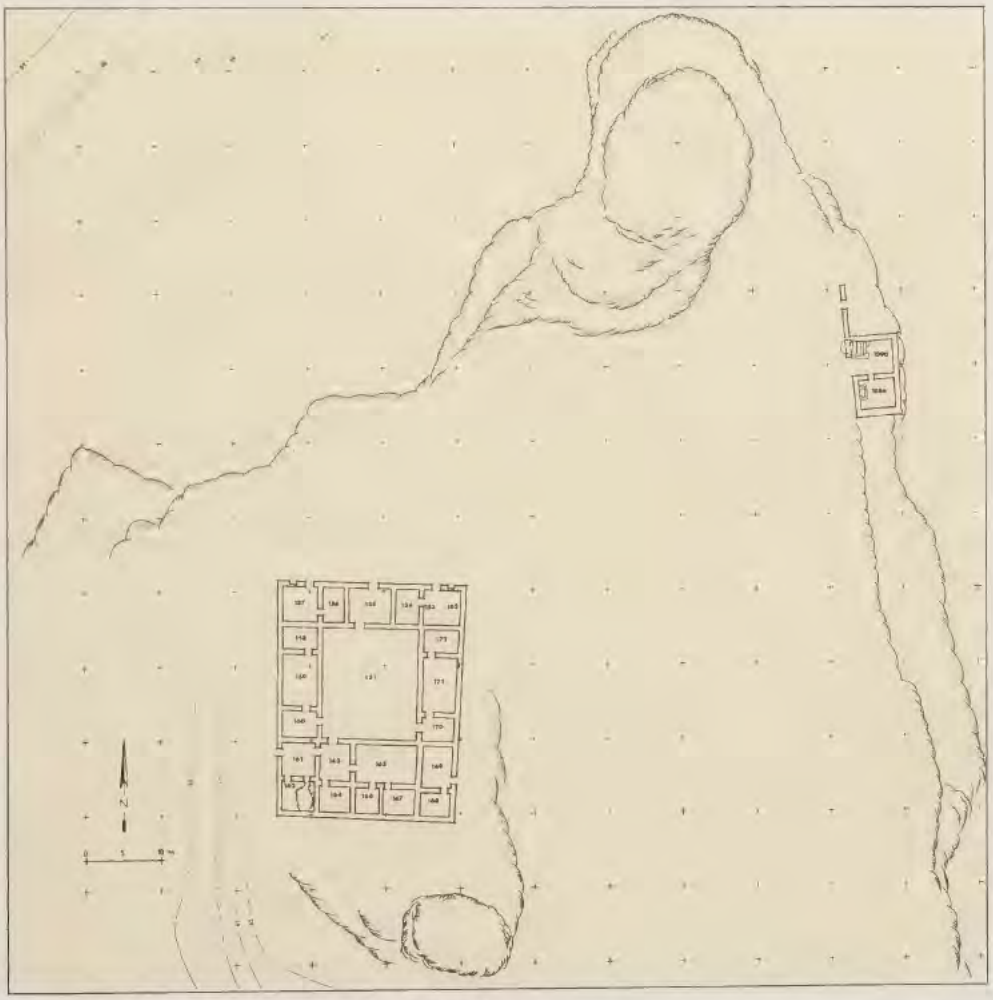


Fig. 126: Masada, early construction phase

that can be dated with certainty to this phase is Building 7. It predates the large block of storerooms, which was built only at the next phase and apparently served as dwellings and storage for those who built the fortress. The Abandoned Bathhouse and another building connected to it, which was completely dismantled at a later stage, also belong to the early period. This complex may have served as a palace and become redundant in the next phase, or served as a temporary housing for the construction foreman. If the upper series of cisterns had already been hewn by this time, the early Water Gate could also be attributed to the early phase. The core of the Western Palace should also be ascribed to this period and perhaps the smaller palaces as well, although they might actually date to the next phase.

The main phase (Fig. 127)

Three main units were built at this time in the northern part of Masada: the Northern Palace, the Large Bathhouse and the block of storerooms. The relationship of these units to each other indicates that the Northern Palace and the bathhouse were built somewhat earlier than the storerooms. The quarries apparently also date to this phase; they supplied most of the construction material for the various buildings and over time most of them became cisterns. The hewing of the two rows of cisterns in the western cliff-face dates to this phase, as do the paths leading from them to the summit.

This stage saw the construction of the two squares — the Northern Square between the Northern Palace and the Large Bathhouse, and the square north of Building 7. These served as the main "traffic junctions" for the entire building complex in the north, and from it to the rest of Masada in the south.

The tower, with its controlling view of the entire plateau, was also built at this time, as were the two dovecote towers later integrated into the casemate wall, and the round dovecote; Building 9 (which may have been built in the previous phase); the second phase of the Western Palace, and the smaller palaces (which also may have been built during the early phase). The cisterns on the summit were perhaps also hewn at this time, as were those in the southern and eastern cliff-faces.

The late phase (Fig. 128)

The main element of construction during this phase was the expansion

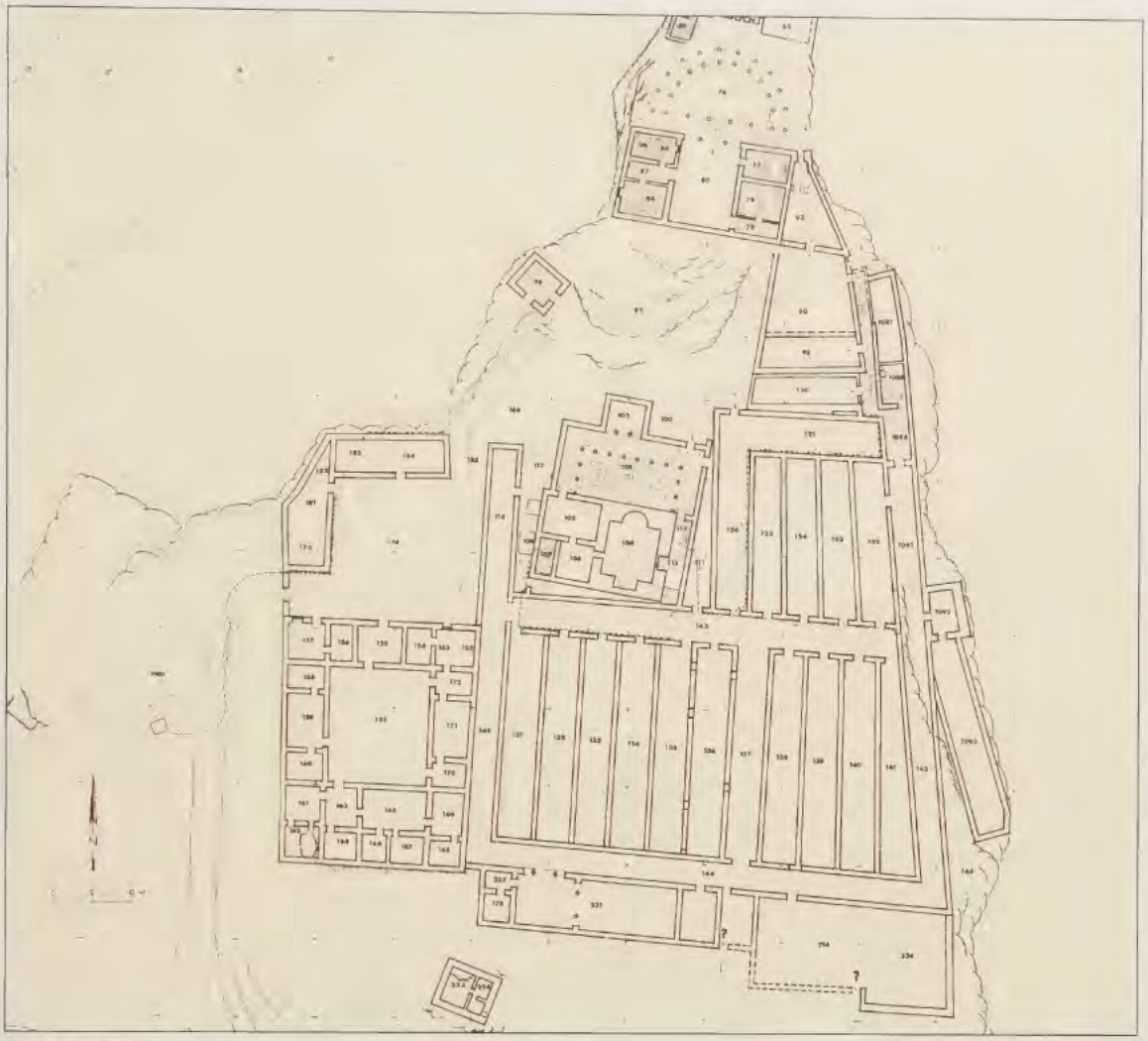


Fig. 127: Masada, main construction phase

southward of the northern block of buildings: Three storerooms were built against Building 7 and two additional storerooms were built south of the main block of storerooms. Building 8 was also erected at this time. In the northwest, the early Water Gate was blocked and a new gate was built, which opened on to the courtyard north of Building 7. The casemate wall with its towers was only built during this late phase, along with the structure integrated into it that became a synagogue at the time of the rebels (if not before; see above). The Eastern Gate (the Snake Path Gate) and the western and southern gates, which apparently existed in the main phase (and perhaps even earlier), were integrated into the wall at this time. The third phase of construction of the Western Palace is also dated to this time.



Fig. 128: Masada, late construction phase

The only structure at Masada that reveals a fourth phase, albeit still in the Herodian period, is the Western Palace, which saw the addition of two wings at this time.

The Finds

Pottery

Some 4,500 clay vessels were found at Masada representing approximately 260 types, mostly of local manufacture in Palestine. Of the imported vessels, only two families have so far been studied (see below). The other groups, particularly those belonging to the family known as Terra Sigillata and its various sub-groups, and the limited ceramic assemblage from the Byzantine period, still await research and publication.

A comparison of the pottery of Masada with that from other sites in the region (such as Machaerus, Jericho, Qumran, 'En Boqeq and Callirrhoe) shows that the Masada assemblage can be ascribed to the group known as Judean Ware, typical to the area of Jericho and the Dead Sea, dating from the mid-first century BCE to the beginning of the second century CE. This span of 150 years covers the period of the construction of the fortress at the time of Herod until the Roman garrison abandoned it. The Masada assemblage is the largest and most varied ceramic assemblage of that period ever found in Israel. Most of the vessels were in use when the rebels arrived at Masada, and the excavators almost always found them *in situ* — on the floors of the buildings they occupied. Ostensibly these vessels could be securely dated to the years 66-73/74 CE; however, this is not the case: Since the rebels used the utensils and other objects dating to the preceding period that were there when they arrived, and since the Roman soldiers would have mixed the various assemblages as they looted the fortress, in most cases the vessels cannot be ascribed to a particular point in the history of the settlement.

A group of more than 50 vessels, discovered in a cistern located in the western cliff, included wine jars sent from Rome and intended for Herod. Their dating to 27/26 BCE was determined based on Greek and Latin inscriptions on the jars mentioning the names of the Roman consuls (see below, Written Finds). A slightly later shipment of wine jars also intended for Herod and dated, based on their inscriptions, to 19 BCE, belongs to this

period as well. This group can theoretically be seen as clearly representing the Herodian period. However, most of the types, including the wine jars, are also known from later assemblages, contemporaneous with the time of the rebels. (For example, a complete jar bearing a Greek and Latin inscription from the year 27/26 BCE was discovered in an assemblage from the time of the rebels in Building 7.) It is impossible to be sure whether the jars came into the hands of the rebels empty of their original contents, but it is reasonable to assume they did. (On the use of these jars by the rebels despite the prohibition against drinking wine produced by gentiles, see Written Finds.) The limited group of vessels uncovered in the Roman siege camp west of Masada, which consisted mainly of sherds, also contained none that could be attributed solely to the period from the fall of Masada to its abandonment by the Romans (except for painted Nabatean bowls, and a few other types, see below). Except for a few cases, it is not possible to identify vessel-types specific to the Romans, since they, too, usually made use of utensils left behind by their predecessors on Masada. Exceptions are the dung vessels, which can clearly be attributed to the rebels, and probably also the 'pared' lamps, the Nabatean vessels with incised decoration and the Nabatean painted bowls, which seem to belong to the time of the rebels and the following period of the Roman garrison. One type of oil lamp was apparently exclusive to the time of the second Roman garrison (see below).

The 150 years from the construction of Masada to its fall are a relatively short time in terms of changes in pottery types and therefore, this or that type cannot usually be attributed to a definitive and exact time. Despite these difficulties, Masada produced a rich and varied ceramic assemblage, which has contributed significantly to supporting the chronological division of pottery types from the second half of the first century BCE to the beginning of the second century CE. The significance of this issue goes beyond the boundaries of Masada; it allows comparative research and dating of similar assemblages at sites where historical data is not as clear-cut as Masada's. This is true not only for the ceramic assemblage, but for all other types of finds at Masada — stone, metal and glass vessels, written material and also — as noted above — architectural elements. This is probably the most important aspect of Masada as an archaeological site.

Utensils for everyday life

Storage vessels (Figs. 129-130): This group numbers approximately 1,700 vessels, about 50 *pithoi* and the rest jars, and constitutes close to 40% of the



Fig. 129: *Pithoi*



Fig. 130: Storage Jars

entire Masada ceramic assemblage. Since the *pithoi* are not coated from within with waterproofing material, it can be assumed they did not hold liquids (oil or wine), but rather solids such as kernels of wheat or barley. Most of the *pithoi*, each of which had a capacity of about 325 liters, were probably brought to Masada during Herod's reign and originally placed in the storerooms. Two complete *pithoi* discovered in the Western Palace were apparently brought there by the rebels.

The jars, whose capacity ranged from 20 to 29 liters, were usually found in groups, some in the casemate rooms occupied by the rebels and some in other structures — in the Western Palace, Building 7 and elsewhere in

rooms used for storage. Some of the jars bear inscriptions with the names of their owners or their contents. Like the *pithoi*, many of the jars found in the assemblages attributed to the rebels were brought to Masada at an earlier time.

Tableware (Fig. 131): Approximately 640 jugs were found at Masada, most of which were apparently brought to the fortress by the rebels. Like the jars, most of the jugs were found in the casemate dwellings of the rebels. The second largest concentration of jugs — almost one quarter of the whole assemblage — was found in the Western Palace.

Flasks and kraters (Fig. 132) were rare at Masada. The number of items from these families together amounted to less than 100.



Fig. 131: Jugs



Fig. 132: Flasks (1, 2) and a krater (3)

Food and Beverage Utensils (Figs. 133–134): Numbering approximately 265 items, this family of vessels was the fifth-largest at Masada (7% of the total ceramic assemblage). Nearly half the items were found in the casemate rooms and the other half in the Western Palace. Most of the bowls were found in assemblages attributed to the rebel period. In contrast to other sites of that period, the small number of bowls found at Masada, particularly individual food dishes, is noteworthy. This fact may attest to dining customs particular to the rebels. One of these may have been families dining together around communal serving vessels in which the food had also been cooked, helping themselves with their hands or dipping their bread into the communal bowl.



Fig. 133: Deep and shallow bowls



Fig. 134: Mugs

Cooking utensils (Fig. 135): This is the third largest group of vessels in the assemblage (see cosmetic containers, below), with some 520 items, more than half of which were closed cooking pots. Unlike both the closed and open pots, which could not be attributed to a specific period at Masada, the 18 pans that were found were all in assemblages from the time of the rebels.

Accessories (Fig. 136): Containers for liquid would be plugged — in the case of wine to prevent it from spilling, evaporating or souring due to contact with the air — with stoppers of various kinds: Ancient sources mention stoppers made of fired and unfired clay, bitumen, stone and wood.



Fig. 135: Cooking pots (1–4) and pans (5, 6)



Fig. 136: Stoppers (1–3), stands (4–5) funnel (6)

Some 55 stoppers were found at Masada, mostly made of clay pushed into the neck of the jar while still pliable. The sealing of jars in this manner is known in our region from as far back as the second millennium BCE, and hardly changed at all over the years. The sealing of vessels had great significance in terms of the laws of ritual purity of their contents (B. Talmud, Avoda Zara 69b and see below, dung vessels).

Vessels with round bases were placed on special stands. Thirty-five such stands were found at Masada, quite a small number considering the hundreds of vessels with round bases found there. Thus is can be assumed that most such vessels were placed in depressions dug into the ground.

Funnels of various materials (metal, wood, glass, bone and clay) are mentioned in the talmudic literature. Thirteen such funnels, all made of clay, were found at Masada. They were used to pour liquids into containers — funnels with wide mouths were used to pour oil and wine and more delicate ones were used for cosmetics. Remains of a dark substance found inside a number of these funnels attest to their apparent coating with bitumen to insulate against the loss of the liquid they contained (B. Talmud, Avoda Zara 74b).

Cosmetics containers (Fig. 137): This group numbers some 520 items of various types. They held aromatic oils, various salves and medicinal products, and some may have contained liquids used in rituals, likely to be the type of vessel the Mishnah calls a "flagon." The large number of these utensils in the assemblage (equivalent to the number of cooking utensils!) is noteworthy, and may have been connected to Masada's proximity to En-Gedi and Jericho, known for their perfume industry. The vast majority of the utensils in this group are known from many contemporary sites in



Fig. 137: Cosmetic containers

Judea, but three were apparently brought there by soldiers of the Tenth Legion after the fall of Masada. Among these vessels was a jug inscribed with the Latin word *OLEARI* (Fig. 138), perhaps indicating the contents (cosmetic oil), or an individual who manufactured or traded in cosmetic oils.

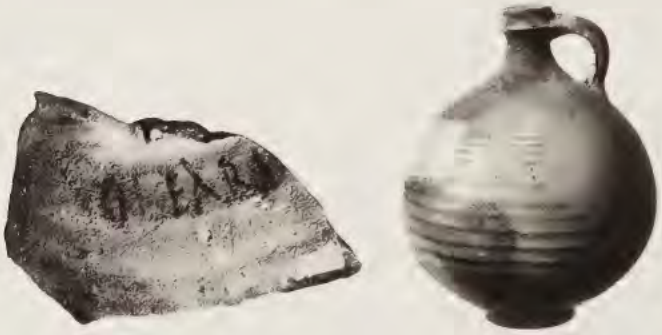


Fig. 138: Cosmetic container bearing an inscription

Utensils attributed solely to the rebels

Dung vessels (Fig. 139): The rebels very strictly followed the laws of ritual purity year-round. Those who could afford them preferred stone vessels (see below); others used earthenware or dung vessels: "If it was a utensil made of dung, stone, clay, everything is pure" (Mishnah, Ohalot 5, 5). The contents of vessels remained ritually pure as long as they were sealed with a tightly fitting cover called a *tzamid patil*: Such vessels included those made of dung, stone, unfired clay, and earthenware (Mishnah, Kelim 10,1). Water collected in cattle-dung vessels could be used for the washing of hands (Mishnah, Yadaim 1, 2) and for purification of *miqveh* water (Mishnah, Miqva'ot 4, 1). Due to the dry conditions on Masada, a remarkable number of dung vessels were unearthed, almost all of them in assemblages from the time of the rebels, in the casemate dwellings and in Building 13.



Fig. 139: Dung vessels

Basin (Fig. 140): This vessel was apparently used for the ceremonial washing of hands, a custom that began at the end of the Second Temple period.



Fig. 140: Hand basin

Local painted vessels (Fig. 141)

Decorated vessel types found at Masada are known as early as the Hellenistic period from many sites in Judea, and are therefore known as Judean Painted Ware. A study of the clay of which these vessels were made revealed that most were probably produced in or near Jerusalem. The largest number of vessels from this family was found at Masada, but items of this type were also found in wealthy homes in Jerusalem, in palaces in Judea and in tombs. Their main use was apparently as festive tableware. The most common ornamental motifs were the rosette, olive and fig branches, apples, pomegranates, birds and other animals. Most of the decorated vessels were jugs and juglets.

The vessels known as 'painted Jerusalem bowls' constitute a separate group. An examination of the clay from which they were made traces them to two workshops, one in Jerusalem and one in Jericho.

All three families — the jugs, the juglets and the bowls — were painted reddish-brown, sometimes on the vessel itself and sometimes on a thin, light slip coating the vessel. About 150 painted vessels of the three families were found at Masada (approximately 4% of the total number of utensils).



Fig. 141: Judean Painted Ware

Nabatean vessels (Figs. 142–143)

Two families of Nabatean vessels were found at Masada: incised jugs and painted bowls. Despite the close relations between the house of Herod and the Nabateans, not even one of these two families of vessels was found in the assemblages dating to Herod's day. The incised jugs were found mainly in the assemblages from the time of the rebels, while the painted bowls belonged mainly to the assemblages from the days of the Roman garrison. There is no unequivocal answer to the question of how these vessels came



Fig. 142: Nabatean jugs with incised decorations

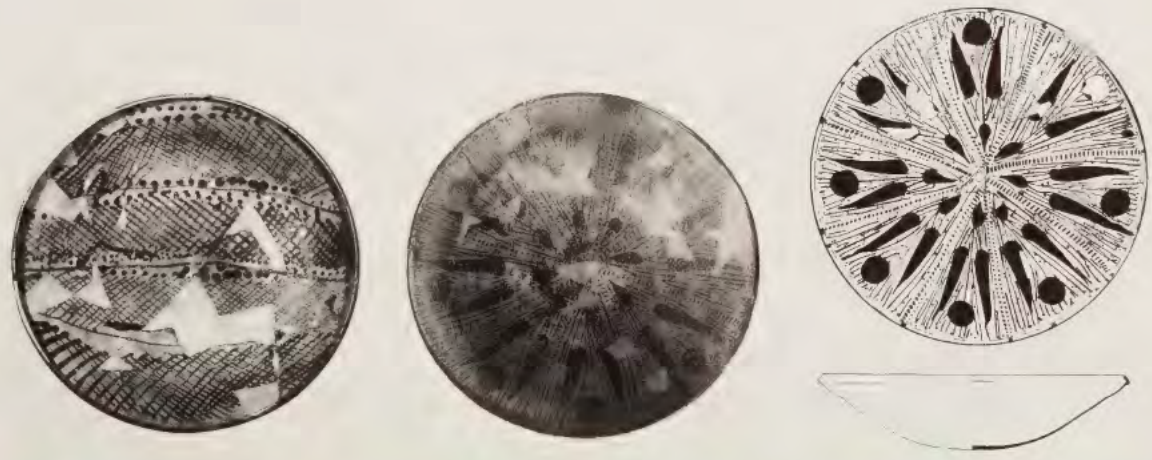




Fig. 143: Painted Nabatean bowls

to Masada. Those in the rebel-period assemblages may have been loot they brought with them, or purchased from Nabatean traders, while the vessels from the time of the Roman garrison apparently belonged to a Nabatean auxiliary unit attached to the forces besieging Masada, or may have been purchased from Nabateans.

Imported vessels (Fig. 144)

Wine jars: As noted above, two groups of imported wine jars bear dated inscriptions. The first, numbering 9 jars, dates from 27/26 BCE and the second, with 14 jars, dates from 19 BCE. Although some of these vessels came from assemblages ascribed to the rebels and the Roman garrison, there can be no doubt as to their dating to the second half of the first century BCE. These two groups, along with similar jars uncovered in clear-cut Herodian assemblages in Jericho, Cypros and Herodium, are a solid basis for the typological and chronological division of this family: Based on the vessels' inscriptions, it can be determined that the products they contained came from estates in the area of Brindisi and Campagna in Italy, as well as from the Greek Islands (Knidos, Chios, Rhodes) and from Spain. These products included wines of various types, honey, apples (from Italy) and pickled fish sauce from Spain.



Fig. 144: Imported wine jars

Italian Cooking Ware (Fig. 145): Fourteen vessels, four of them complete, belonging to the family known as Pompeian Red Ware (named for their thick coating of red slip), were uncovered at Masada. The import of these vessels to the eastern Mediterranean basin began in the mid-first century BCE, at which time they also begin to appear in Palestine (Caesarea, Jerusalem, Jericho, Cypros, Herodium and other sites). This family includes mainly large bowls, some of them shallow, and lids, and apparently contained luxury items (cheese? cakes?) in great demand, especially among Rome's military and administrative officials. The fact that a number of bowls of this family were found in assemblages from the time of the rebels is coincidental, and apparently due to later intrusions.

Lamps

One hundred and fifty-nine complete clay lamps and nearly 1,000 fragments of lamps were found at Masada. Like the rest of the ceramic utensils, they were found in assemblages dating to various periods, and it is therefore difficult to ascribe them with certainty to one period of settlement or another. However, thanks to comparative research and especially due to the fact that lamps of a certain family have been found — or not found — in dated assemblages elsewhere, the lamps from Masada may perhaps be dated within shorter time periods and to a greater degree of certainty than would have been possible with other families of clay utensils. Following are the main groups of lamps:

Pre-Herodian Lamps (Fig. 146): The base of a mold-made 'folded lamp' and a Hellenistic radial lamp are the earliest lamps discovered at Masada. But as with the other early finds (clay vessels, coins, etc.) these two items are

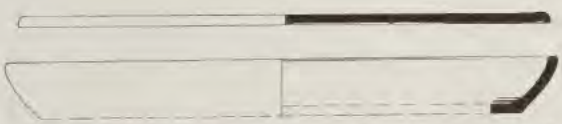


Fig. 145: Pan and cover — a cooking utensil imported from Italy



Fig. 146: Pre-Herodian lamp

not enough to attest unequivocally to pre-Herodian settlement at Masada, since they continued in used in the early Herodian period and may have been heirlooms from earlier periods brought to Masada at the beginning of construction at the site. An examination of the clay from which the lamps were made shows that they originated in or near Jerusalem.

Judean Radial Lamps (Fig. 147): Like the two lamps mentioned above, the radial lamps were also mold-made. Based on assemblages in which similar lamps were found, they were made in the second half of the first century BCE and were therefore brought to Masada during the Herodian period.



Fig. 147: Judean radial lamps

Pared Lamps (Fig. 148): These are the most common lamps at Masada, comprising about 80% of the total lamps discovered there. These lamps, which are wheel-made, replaced the radial lamps and apparently date to the end of Herod's time, although their production continued thereafter as well. At Masada these lamps were found mainly in assemblages dating to the rebel period.

Molded Lamps with floral decoration (Fig. 149): These mold-made lamps are usually coated with a shiny black slip and bear various plant motifs. Like the pared lamps, they were usually found in rebel-period assemblages. An examination of the clay from which they were made reveals their origins in or around Jerusalem. The floral designs were apparently inspired by ornamentation on grand tomb façades in Jerusalem and on ossuaries. On the lamps adorned with a myrtle-branch design, the myrtle has three leaves emerging from one point, described in the Talmud as a particularly ritually clean myrtle (B. Talmud, Sukkah 32b).



Fig. 148: Pared Lamps



Fig. 149: Molded Lamps with floral decoration

Molded Judean Lamps (Fig. 150): This group consists of fragments of 11 lamps, decorated with motifs of plants and various vessels. Their clay reveals that they were manufactured in various locations, some in the coastal lowlands and others in the Jerusalem area. Five lamps from this group were found in assemblages that clearly belong to the period of the Roman garrison, and none of the others were found in an assemblage that could be attributed to the time of the rebels. Thus it can be concluded that

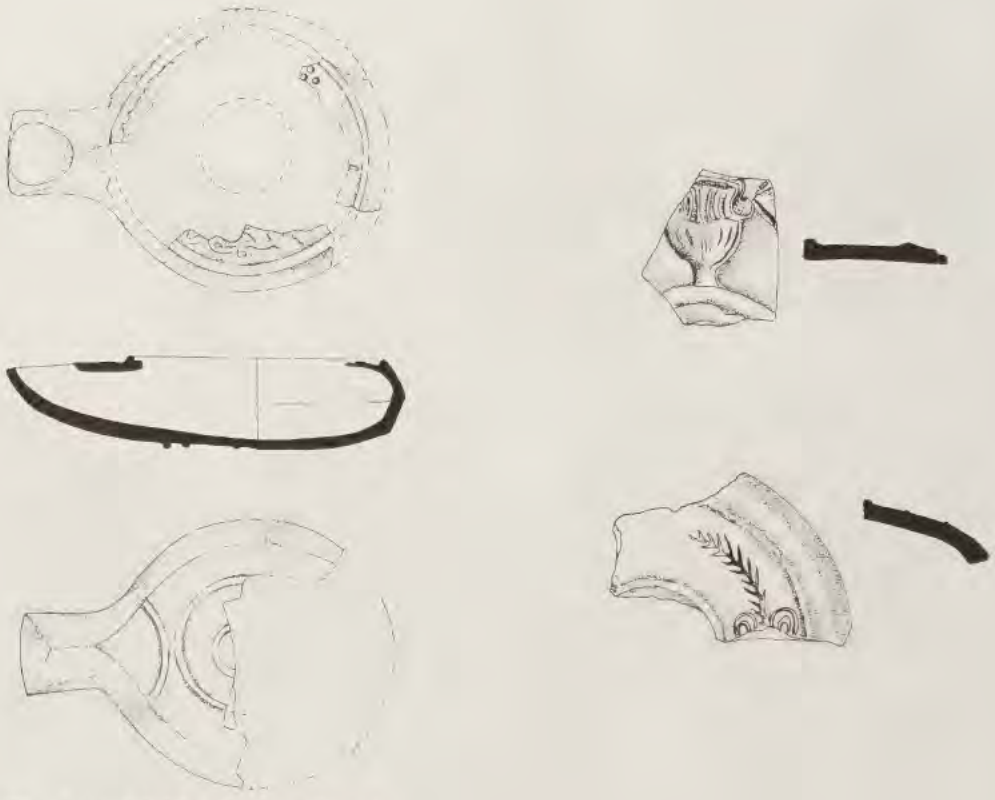


Fig. 150: Molded Judean lamps

this group should be dated to the time between the fall of Masada to the end of Roman presence at the beginning of the second century CE.

Imported lamps and their imitations (Fig. 151): This group numbered 64 items, none of them complete. Among them, 31 were manufactured in Italy, 6 in Asia Minor, 2 in Phoenicia and 14 in the Nabatean kingdom. The origins of the remaining lamps could not be clearly determined. These lamps are decorated with floral motifs (rosettes, grapevines, acanthus and others), animals (various fish, dolphins, a grasshopper) and human figures (a gladiator, Eros riding a dolphin, slaves and others). Some bore the stamp of the workshop or the artisan.

The dates of the various types correspond to the period of Masada's settlement, from the second half of the first century BCE to the beginning of the second century CE, but a specific type cannot be ascribed to a particular period of settlement there. It should be noted that none of these lamps were found in assemblages associated with the rebels. Nevertheless, an approximate chronology may be proposed for the imported lamps: the



Fig. 151: Imported lamps

Hasmonean-Herodian period: 3 lamps; the Herodian period: 4 lamps; the period of Archelaus and the procurators: 52 lamps; the period of the Roman siege: 1 lamp (found in Camp F); the period of the Roman garrison after Masada's fall: 4 lamps.

The location of the ceramic assemblages

Thousands of clay vessels found at Masada join a very extensive and varied assemblage of utensils discovered so far at sites throughout Judea. As already mentioned, it is almost impossible to ascribe specific utensils to a certain period at Masada, except for a few types.

Nevertheless, since most vessels were found on the floors of dwellings of the rebels, the study of assemblages by their find-spots reveals the following picture:

The Northern Palace: Most of the Northern Palace was not used by the rebels and its finds were uncovered in debris created later during its looting by the Roman garrison. Thus we are unable to say what role the Northern Palace played during the rebel period.

Building 7: This building served as dwellings for a number of families, apparently the higher echelons among the rebels, as can be seen by the painted vessels and the fine, red-slipped ware (Terra Sigillata). Cooking and baking mainly took place in the northern rooms of the structure, and three of its rooms — two on the south and one on the east, in which a total of 80 jars were found — served as storerooms.

The Storerooms: Some of the storerooms were still being used for their original purpose at the time of the Great Revolt. Approximately 150 jars, some of which were apparently brought during the time of Herod, were found mainly in three of the storerooms. It is reasonable to assume that during the siege the contents of many of the storage vessels ran out, after which some of the storerooms were turned into dwellings. That would explain the approximately 140 items of tableware and about 40 pieces of cooking ware found in them. As with Building 7, here too, a number of fine utensils were found, attesting to the high status of the rebels who took up residence here.

Building 8: Only 23 vessels were found here, among them a few pieces of fine ware. The assemblage indicates that a single family lived in the building, apparently that of a commander or supervisor of the storeroom area.

Building 9: Nearly 250 utensils were recovered here, mostly from rooms added by the rebels in the western and northern parts of the building. However, only one cooking installation (a stove) was found in these rooms, as opposed to 14 stoves uncovered in the original structure. The number of cooking utensils found here was also very small, and unlike other locations on Masada, they were not found next to cooking installations. Thus the building served mainly as a dwelling, and food would have been brought here from another location.

The Western Palace: More than 1,000 utensils were discovered here, mainly in the Storeroom Wing on the western side of the complex. Some were found in separate groups of bowls and jugs; they probably originally stood on shelves. The large number of utensils, among them cooking and storage vessels, the fact that two cooking centers (kitchens?) were found in the units abutting the palace core and that vessels and sherds were found bearing inscriptions relating to food (see below) — all attest to the fact that

this was a food distribution center, both for the higher-ranking occupants of the palace core and for others.

Building 11: This building was preserved in its original state, with practically no additions by the rebels (except for a *miqveh* in the interior courtyard). Only one cooking installation and few utensils were found here, among them numerous cosmetic utensils, pouring vessels and a washing basin. These finds, and the proximity of Building 11 to the Western Palace, indicate that it may have been occupied by a small group of people.

Building 12: This building also saw little change during the rebel period, and here too, pottery finds were sparse (some 40 utensils in all); however, a number of the utensils are considered luxury items. Thus it seems that the building housed a higher-ranking family.

Building 13: In contrast to buildings 11 and 12, this building saw numerous changes and additions, some inside the original building and most to the north and south. The large number of cooking installations (14 stoves) and baking ovens, mostly found in additions abutting the building on the outside, as well as numerous cooking utensils, show that a number of families lived at close quarters in Building 13.

The Casemate Wall: Nearly 1,600 vessels, (not counting lamps), were uncovered mostly storage and cooking vessels, in 85 of the casemate rooms and nearby structures. Clearly, most of the rebels lived in or near the casemate wall. The internal division of the cells in the casemates and the distribution of cooking and baking installations show that some were occupied by one family, but in many cases a number of families shared one casemate and used common cooking and baking facilities.

To sum up, most of the rebels and their families took up residence in the casemates and nearby structures, and apparently also in buildings 9 and 13. Building 8 and the Western Palace core probably served as dwellings for the higher echelons of the rebels — officers and commanders. It has been suggested that the small palaces (buildings 11, 12 and 13) may have been occupied by Essenes (see below, Spindle Whorls). The rest of the buildings — the storerooms, Building 7, the synagogue, the *miqva'ot,* and the casemate towers transformed into a bakery and a tannery — served community purposes.

Written Finds

Inscriptions from daily life

The written material uncovered at Masada is rich and varied. It includes 15 fragments of scrolls and more than 1,600 different items written in Hebrew, Aramaic, Greek and Latin on potsherds and papyri, and a small number incised on plaster. These inscriptions have enormous importance in terms of their contribution to the study of history, spelling, script, grammar and linguistics during the period of settlement at Masada. The inscriptions are divided into various categories, not only on the basis of language and the material on which they were written, but also based on content. They include mainly documents and ostraca used in administration, inscriptions on storage jars, correspondence (on potsherds and papyri) and writing exercises.

Where were these inscriptions written and by whom?

These questions cannot be answered in all cases, although it is reasonable to assume that the great majority of the inscriptions were written at Masada. The Latin inscriptions on storage jars mostly note their contents, which means they were written at the place from which the amphorae were dispatched, as opposed to Hebrew, Aramaic, Greek and even two Nabatean storage-jar inscriptions, which were almost certainly written at Masada. We can assume that all the ostraca were inscribed at Masada, those in Aramaic and Greek by Jews and those in Latin by Roman soldiers.

It is more difficult to determine the origin of the documents written on papyrus. Latin-language papyri would have belonged to Roman soldiers; however, there is no way of knowing which of them were written by soldiers on the spot and which were sent to them. The more difficult question involves the source of the papyri written in Greek. Even if they were written by Jews, where they were written cannot be known for sure. Ostensibly, the fact that no papyri in Hebrew or Aramaic (except for one fragment in Paleo-Hebrew, apparently Samaritan, see below) were found at Masada might indicate that the Greek papyri were not written there, either. However, the divorce decree found in Wadi Murabaʿat which notes it was written in "year six, at Masada" was inscribed on papyrus. Year six, referring to the count from the outbreak of the Great Revolt, means the document was written in 71/72 CE by Jews. Thus the almost complete lack of papyrus

documents in Hebrew or Aramaic seems to be coincidental rather than an indication that Jews did not write on this material at Masada. It is therefore not to be discounted that some of the Greek-language documents found at Masada were written by Jews.

As for parchment, it is reasonable to assume that the parchment scrolls, both biblical and extra-biblical were written outside of Masada and brought there by Jews.

From this survey, it appears that other than the Latin inscriptions, most of the epigraphic material found at Masada — in Hebrew, Aramaic and even Greek — was written by Jews. The names mentioned in the Greek documents underscore this fact: Among the obviously Hebrew names are, in the same inscription, names of Greek origin: Zenon with Bar Jason or Zenon on the same fragment as Shabayo; a certain Abaskantos writing to his brother Judah; Mariam daughter of Kypselos. The theory that the Greek documents were written by Jews is also supported by the fact that of all the epigraphic material associated with the Roman military units at Masada, not one inscription was in Greek. This is true not only with regard to Masada: In the whole area of Syro-Palestine no first-century CE document in Greek has so far been discovered connected in any way with the presence of Roman soldiers. Moreover, a group of ostraca written in Greek was found at Masada whose content links it to Jews: They contain instructions to deliver barley to someone for baking. A group of Aramaic-language ostraca bearing similar instructions was also found at Masada.

The Jews who lived at Masada therefore used three languages — Hebrew, Aramaic and Greek, and for the same purposes: to note ownership of storage jars, to transmit delivery and transport orders, and to write letters on matters of daily life. Use by Jews of the three languages is also known from the Bar Kokhba-era Babatha archive found in a cave in Naḥal Ḥever, from inscriptions on ossuaries discovered by the hundreds in the Jerusalem area, and in burial inscriptions from Beit She'arim and elsewhere. The fact that Masada yielded more inscriptions in Hebrew and Aramaic than in Greek does not necessarily mean that these two languages were more important than Greek. Rather, the predominance of Hebrew and Aramaic may be due to the fact that most of the finds date from the end of the rebel period at Masada, when most of the inhabitants of the fortress spoke these two languages. The preference for Hebrew and Aramaic might also have stemmed from the affiliation of most of the rebels at Masada to the poorer social classes, whereas the impact of Hellenistic culture, and specifically the Greek language, was more widespread among the upper classes. The extent

of the permeation of Hellenistic culture can also be seen in the fact that Greek names were written in Greek more frequently than in Hebrew, while the number of Hebrew names written in Hebrew was equal to the Hebrew names written in Greek.

When were the inscriptions written?

As noted above, we have no secure archaeological evidence of a settlement at Masada before the time of Herod. But from the time Herod built Masada, settlement there was continuous for 150 years: Herodian settlement was followed by the period of the procurators and the Roman garrison, the rebels and finally, after the fall of the fortress, a Roman garrison once again, with each period following closely on the heels of the preceding one. In most cases, the inhabitants of all the subsequent periods used the buildings Herod had built, sometimes with certain changes, which often resulted in a mixing of the remains of the different periods. As in the case of the pottery discussed above, it is therefore difficult to attribute most of the written finds to a specific period. Consequently the inscriptions are dated according to two main criteria: references to a date and content. Lacking these elements, dating is based on language, names mentioned and sometimes the find spot.

These criteria do not apply to the Byzantine inscriptions found at Masada. These are very rare, and are easily associated with the Christian settlement at Masada. They will be discussed separately in the chapter on Byzantine Masada.

Inscriptions in Hebrew and Aramaic on clay

Since the earliest dated inscriptions found at Masada appear on amphorae sent to Herod in 27/26 BCE, we can assume that the main period of construction had ended by that time, and the Hebrew and Aramaic inscriptions can be dated from then on.

We have no historical information about Jews living at Masada during the period between the death of Herod and the outbreak of the Great Revolt, which spanned about 70 years (4 BCE-66 CE). But there is no reason to assume that Jews did not live there or at least visit, if not through the entire period, then at least from 4 BCE to 6 CE, before Archelaus was deposed and a Roman garrison was stationed there. We can also assume

Jewish presence at the site, perhaps of transient merchants or suppliers, during the period when the Roman garrison was stationed there. It is theoretically possible that some of the inscriptions date to that time.

The period of the Great Revolt was the shortest period of Jewish settlement at Masada, but was the most intensive and is the one with which we are most familiar. Based on the descriptions of the events by Josephus Flavius, Masada was taken by the rebels when the revolt broke out, and the fortress fell in 73 CE (on the possible dating of the fall to 74 CE, see below). Thus the last Jewish period at Masada lasted for seven years.

The script

Despite the difficulty in dating Masada's inscriptions based on the archaeological context in which they were found or on paleographic considerations, it may be assumed that most of the Hebrew and Aramaic epigraphic finds, comprising some 700 items, date from the later period of Jewish settlement at Masada, i.e., from the time of the revolt. The two Nabatean inscribed items and the one item in a script similar to Palmyrene may have belonged to persons living at Masada after 73 CE alongside the Roman garrison while the items written in Syriac script apparently belong to the Byzantine period. All the rest were written in Hebrew or Aramaic in the square Hebrew script, except for a few bearing Paleo-Hebrew letters or a combination of Paleo-Hebrew and Greek. Letters in Paleo-Hebrew script also appear on masons' marks on the bottoms of column drums. Most of the masons' marks are written in square Hebrew script. They include most of the letters of the alphabet except for the letters *waw* and *zayin*, because of their similarity to the shape of numbers that also appear in a particular mason's mark. To avoid confusion, these two letters were written in Paleo-Hebrew. In an additional ostracon uncovered in the core of the Western Palace, the name Yeshua' appears in Paleo-Hebrew, although it is unclear. Two additional words appear on the same sherd, טוהר לקדש — "clean for hallowed things," executed in square Hebrew letters. It cannot be known if the word Yeshua' (which comes from the root meaning salvation), reveals any ideological inclination. An additional item in Paleo-Hebrew is a fragment of papyrus which contains, among other things, the words זימ[הרגרי], (Mount Gerizim, written as one word) which were apparently penned by a Samaritan (see below). The scrolls found at Masada, both biblical and extra-biblical, were all written in the square Hebrew script.

The language

The main language used in Judea at the end of the Second Temple period, including at Masada, was Aramaic. This conclusion is based on three letters, on instructions regarding consignments of bread, and on numbers (dates or quantities) written mainly in Aramaic. However, it can be seen that Hebrew and Greek appeared alongside Aramaic as a spoken language at Masada: Quite a few of the names of people or their nicknames and family affiliations, such as daughter, son or wife, are written in Hebrew. All inscriptions involving ritual matters, such as those dealing with the purification of vessels intended for use by priests, were in Hebrew.

Types of inscriptions

Tags with letters (Fig. 152): Some 300 sherds inscribed with one, two, three or four letters, and one sherd with five letters were unearthed mostly in the area of the storerooms. Their meaning is unclear, although they may have had some role in food distribution during the siege. The great majority of these letters (some 280) are written in square Hebrew script, with the remainder (about 20), in Paleo-Hebrew. A study of the handwriting shows that many of the tags were written by the same individual, although the letter *kaph* was penned by two different hands. The Paleo-Hebrew tags differ from those written in square Hebrew script not only in the shape of the letters, but also in the fact that no two bear the same symbols. The only letter that appears twice, on two different tags in different script is the letter *samekh*. The letter *he* as well as *yod* each appears alone; each of the rest of the tags bears two letters or a letter and a symbol. Of the 282 tags written in square script, the greatest concentration — 240 — was found in the corridor bounding the storeroom unit on the west. Twenty tags were found in the courtyard west of this corridor, and 10 in the neighboring square north of the Large Bathhouse. The various letters and symbols on the tags may have had functional significance, which eludes us. Their find-spot might also attest to their function, although we cannot know what that function was. The fact that 270 out of 282 tags were found in and around the storerooms, as were most of the tags bearing Paleo-Hebrew letters, supports the theory that the tags played an administrative role in the storage or more likely the distribution of food.

Tags with specific names (Fig. 153): This group included 79 items, 49 of

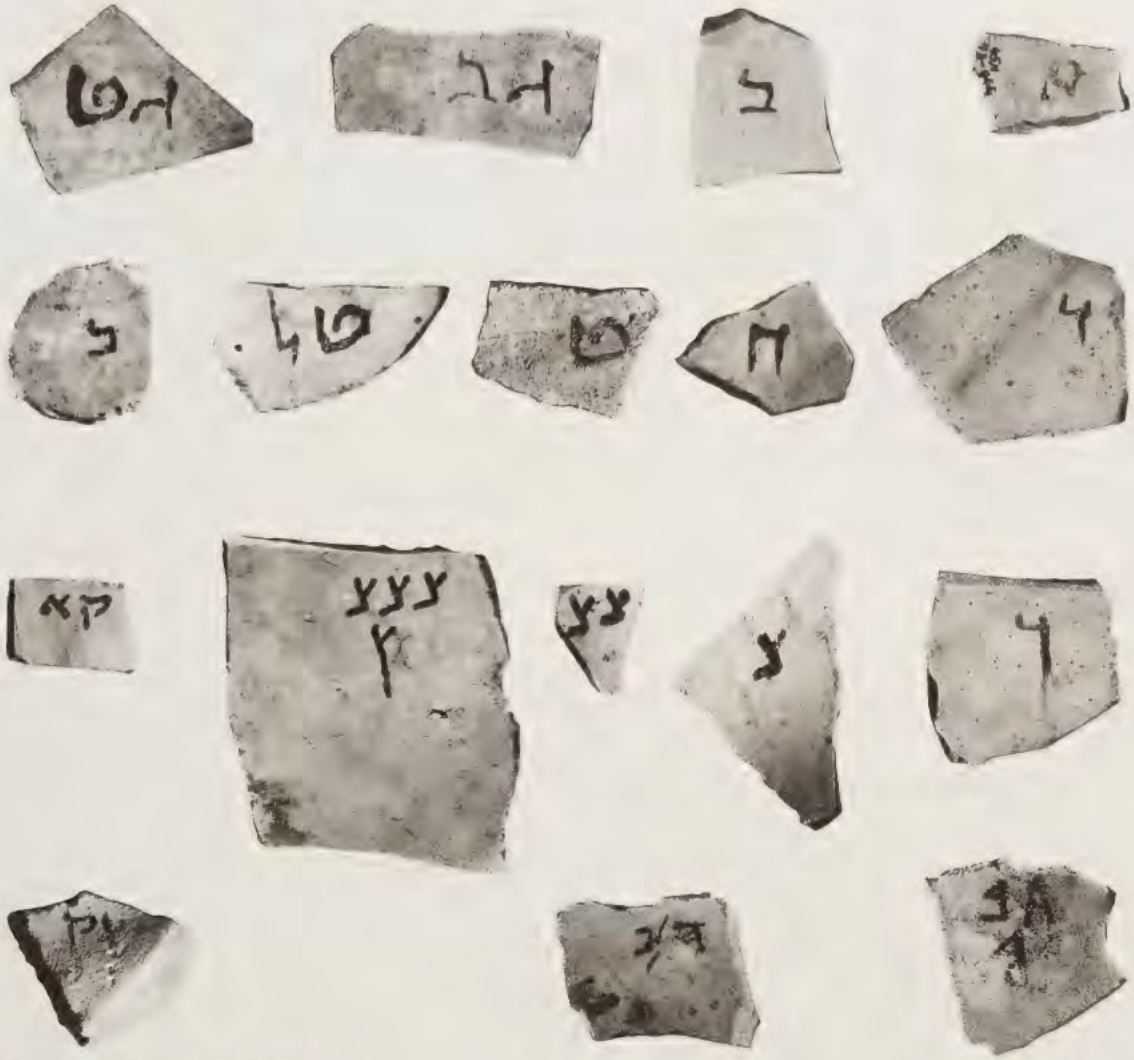


Fig. 152: Tags with letters

which bore the name Yehoḥanan in square script, beneath which were two letters: on the left the letter A, and to its right, the letter *yod* in Paleo-Hebrew. Twenty-one sherds feature the name Shimeon beneath which was the letter *gimel* in square Hebrew script and to its left, the letter *daleth* in Paleo-Hebrew. The nine remaining sherds each bear the name Yehuda, beneath which on the right is the letter *samekh* in Paleo-Hebrew and next to it an inverted Greek *beta* (facing left). The meaning of these tags is not at all clear. Since this group was also found almost entirely in the storerooms or in their immediate vicinity, they, too, are apparently connected to the distribution of supplies at besieged Masada; Yadin proposed that these might



Fig. 153: Tags with specific names and letters

have been connected to allocation to the priests and Levites among the people at Masada. He proposed that the letter A indicated the highest quality product, based on the Mishnah: "Which fine flour and oil is the choicest for the meal offering? From Mikhmas and Zenoha are a*lpha* (first in quality) for fine flour... Teqoa' *alpha* for oil" (Menahot 8, 1). The use of Greek letters to connote quality also appears in Menahot 8, 6: "Qerutim and Hattulim are *alpha* for wine." According to Yadin's suggestion, the letter *yod* should be interpreted as an abbreviation for the Hebrew word *yayin* (wine), or it may have stood for the Hebrew word for tithe (the numerical equivalent of the letter *yod* is 10). The names at the top of the tag might connote the authority that 'issued' the tags. Here, too, Yadin called on Mishnaic evidence: "These are the officers which served in the Temple: Johanan b. Phineas was over the seals, Ahijah was over the drink-offerings .... If any wished for drink-offerings he would go to Johanan who was over the seals and give him money and receive from him a seal; he would then go to Ahijah who was over the drink-offerings and give him the seal and from him receive drink-offerings" (Shekalim 5, 1–4). Although the tags were not necessarily associated with priests and Levites, it is possible that the system of 'coupons' used in the Temple in Jerusalem was copied at Masada and adapted to the distribution of supplies during the siege. If so, Yehoḥanan, Yehuda and Shimeon are likely to have been senior officers in this administration.

Tags with single names (Fig. 154): In one of the rooms of the Western Palace a number of sherds were discovered on each of which was a name: Dostas, Yo'ezer, Osha'yah (or Yosha'yah), Hizkiyah. Yadin suggested that these sherds indicated ownership by these individuals, who were priests or Levites, of the contents of storage jars, or that they were lots according to which the priests and the Levites were called to work in the Temple in

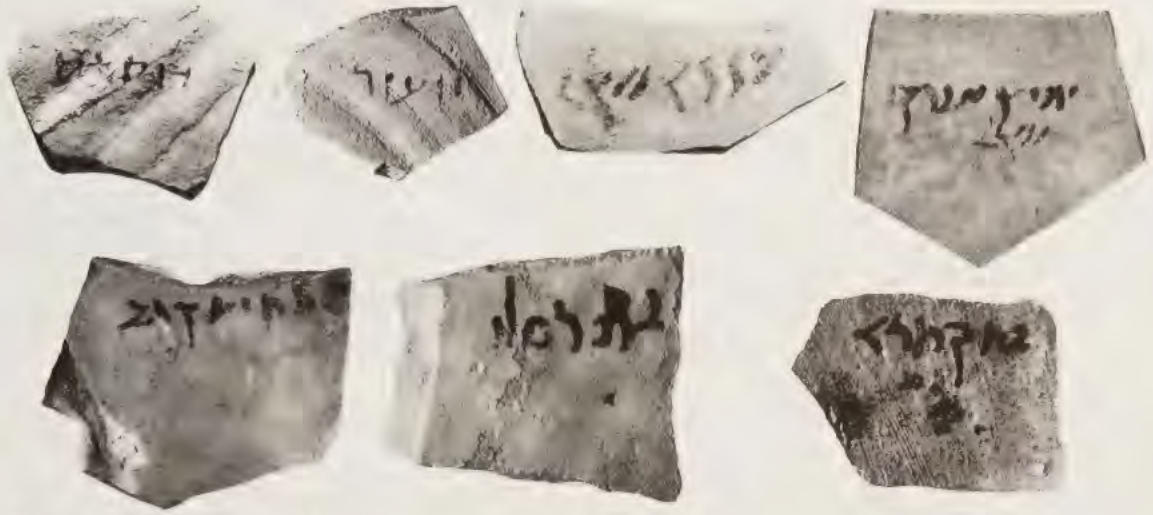


Fig. 154: Tags with single names

Jerusalem (Mishnah, Shekalim 5, 1; Yoma 3, 2–4; Tamid 3, 1; 5, 2), and that this procedure may have been transplanted to Masada. Sherds similar to these and to some uncovered near the storerooms, which Yadin also interpreted as "lots" (see below), were also found in excavations at Arad. Eight sherds found in and around the shrine in Arad are similar in size to those found at Masada, and also usually bore one name, and in two cases the name of an individual and that of his father. Among the names, are Eshiahu Ben Ezer, Ispat, Meremot and Pashhur. Yohanan Aharoni, who excavated Arad, concluded: "In light of their find-spots and content, there is no doubt that these ostraca are connected to service in the Temple, but unfortunately we cannot determine with certainty the nature of the connection [....] The question arises as to whether these 'notes' are not lots of the priestly divisions in the Temple. It is not to be assumed coincidental that among the names are also priestly families known from the Bible (Meremot and Pashhur) and the family of Pashhur is even mentioned in the *Baraita* of the 24 priestly divisions." The temple at Arad and the inscriptions connected with it predate those of Masada by some 700 years, but it is reasonable to assume that both cases dealt with the same matter: the order of ritual activities.

Among the group of sherds with names are those bearing a name next to symbols indicating quantity. One such symbol, which appears on a number of sherds, resembles the Latin letter L, with a number of diagonal lines to its right. These symbols appear on a few sherds with names — Ezra and Jehu the son of Barkay. Thus for example, the sherd with the name Ezra with a

symbol next to it can be understood to indicate that Ezra received (or gave) four *seahs* [= measure of] (wheat?).

Women's names were found on another group of sherds, usually with the addition of a family affiliation, for example "wife of Jacob," "daughter of Domli," "daughter of Qatra," and "Shalom" (or Salome) the Galil[ean]." Qatros was a priestly family known in Jerusalem (B. Talmud, Pesakhim 57a); a seal bearing the inscription "(belonging to) the son of Qatros" was found in the excavations of the Jewish Quarter in Jerusalem. Perhaps the "daughter of Qatra" from Masada was related to this priestly family.

Lists of Names (Fig. 155): This group included nine items, of which only seven are even partially legible. All the lists contain the names of individuals or nicknames, with a symbol next to each name, apparently a number indicating quantity. Thus these lists must be consignments or receipt of products (food?). In one list, the following names appear: "son of Hilki" — apparently to be read Bar (=son of) Hilkiyah, "the Gadarians" (apparently residents of the town of Gader, one of a number of places known by this name), "son of Qarzĕla" known also from other inscriptions at Masada, "son of Yeshua'" and "son of Qesa." Two additional names in this list are of special interest: One is Zomlit Z'ara, a nickname that apparently means "a

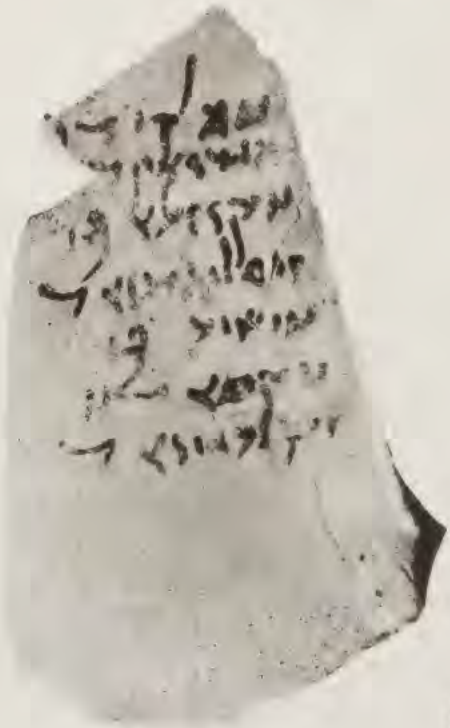


Fig. 155: List of names

small soup ladle." The word *zomlit* with this significance appears in the Mishnah (Kelim 13, 2; 25, 3) and is apparently borrowed from the Greek. The second name is "Yeshua' Gera," which apparently means "proselyte" (see B. Talmud, Ta'anit 25a where the word *giri* appears as the plural for *ger* or proselyte.)

Each name is followed by a number, for example, 21 that appears next to the name of the son of Qarzĕla and the son of Yeshua' and 12 next to the son of Qasa signifying a quantity, although we cannot exactly of what. In fragments of additional lists, the symbol next to the name apparently indicated money: So, for example, next to the nickname "the Qarnaite" (a person from the village of Qarnayim?) was the number 2 and the Hebrew letter *shin*, perhaps standing for Shekalim. Another person, possibly named *qls* received the same amount, while his son, mentioned in the same list, received half a shekel.

"Lots" (Fig. 156): This group, including 12 sherds, is the best-known of all the ostraca at Masada, and so we will mention them one by one:

- בן הנהתם (Ben Hanahtom) (the son of the baker): This name can be compared to the Mishnah: Rabbi Zachariah, the son of the butcher (Eduyioth 8, 2).
- בן כנבון (Ben Knavon): The related word כנבונא in Syriac means "a round cake." This might have been the nickname for a fat man.
- [?]בני (Beni): Yadin suggested that the writing of this name was unfinished due to a fault in the sherd, but the name can also be read "Benaiah" (a name known also from other Masada sherds).
- גרידא (Gerida): This name also appears on an ossuary found in Jerusalem, and its meaning is unclear.
- חוני (Onias): The name Onias the Circle-Drawer and his grandson חוני הקטן ("the small Onias") are mentioned in rabbinic literature.
- העמקי (Ha'imqi): Apparently the nickname for a man who came from the valley (*'emeq* in Hebrew). However, this may not have been a general nickname, but rather a nickname for a person who came from the village of עמקי ('Imqi) near Acre (see סנדלי עמקי "an 'imqi sandal," mentioned in the Mishnah (Kelim 26, 1).
- בן פותי (Benputy): This name also appears among the group of sherds with names mentioned above as well as in the Jerusalem Talmud (Terumoth 2, 5, 44d).



Fig. 156: The "Lots"

- ציפון (Zifun): This name is unknown and its significance is unclear.
- בניאיר (Ben Yair): Since the name of the commander of Masada was Eleazar Ben Yair, this sherd is of great interest.
- מלתא (Milta): A heretofore unknown nickname meaning "the word" or "the thing."
- יואב (Joab): An extremely rare name in the Second Temple period. It may have been chosen to connote a very brave person, after King David's general Joab (see B. Talmud, Kidushin 39b).
- צידא (Zaiyada): The hunter, apparently the nickname of a man who practiced this skill.

All 12 of these sherds were found in the same place: in the northern end of the corridor bounding the block of storerooms on the west. Many inscribed sherds were found in that same place, among them 240 bearing letters. It should be remembered that a large amount of fill was dumped into the northern part of this corridor, apparently by Roman soldiers looting Masada after its fall. It was in this fill that most of the inscribed sherds were found.

For Yadin, this group of sherds was the most "electrifying" find discovered at Masada. He believed they served as the lots cast to determine who, among the 10 men remaining alive on the last night before the Roman conquest, would kill his nine comrades and then take his own life, as described by Josephus (*War* VII, 395). Yadin ascribed great importance to the fact that the names were all written in a single hand, and were found in one of Masada's most 'strategic' locations — not far from the Water Gate and near the eastern square between the Large Bathhouse and the Northern Palace. Yadin saw the fact that the name of Masada's commander Ben Yair was inscribed on one of the "lots" (as he dubbed them) as irrefutable proof of his interpretation of this group of sherds.

However, not everyone accepts Yadin's interpretation. One of the difficulties raised is that the group of sherds does not number 10, the figure Josephus mentions, but rather 12. Yadin solved this problem by proposing that one of the sherds (the one with the name Beni) was incomplete and was therefore not counted. That left 11 sherds, which Yadin explained by suggesting that when Josephus mentioned 10 lots, he was not counting the commander. Another question is whether the "lots" are in fact different from all the other inscribed sherds found at Masada, as Yadin argued. A careful examination shows that despite a certain similarity between them and the other sherds with names, this group is indeed special: They were all written in a single hand, with the same ink, and apparently all, or most, were written on sherds that came from the same vessel. Another question connected to the identification of this group is whether the suicide, as Josephus describes it, documented an actual event or whether it was a literary model. If the latter is the case, there is, of course, no significance to the identity of the people were whose names are inscribed on the "lots." We shall return to this issue in the last chapter.

Inscriptions Designating Priestly Tithes (Fig. 157): This group contains 21 inscriptions, among which the following are of special note:

- A fragment of a jar found in the synagogue (!) bearing the inscription



Fig. 157: Inscriptions Designating Priestly Tithes

ma'aser kohen (priestly tithe). This is apparently a reference to the "tithe of the tithe," which was the priest's portion, mentioned in the Mishnah, Ma'aser Sheni 4, 9 discussing a find of coins "If a potsherd was found with them and on it was written 'Tithe,' they must be deemed [Second] Tithe."

- Seven sherds, on three of which the letter *tav* appears and on four of which the letter *tet* appears. Some were found in the corridor bounding the northern storeroom block on the east, and two were found in

the storeroom of the Western Palace. The letters were inscribed on fragments of jars that may have contained oil or wine, and should probably be interpreted as abbreviations for the Hebrew word *terumah* (offering) and *tebel* (produce certainly untithed) as stated in the Mishnah: "If a man finds a vessel and on it was inscribed a qof, it means qorban, a mem — ma'aser (Tithe), a dalet — demai; a tet — tebel; a tav — terumah" (Ma'aser Sheni 4, 11). A number of the sherds bearing the letter *tet* included in the group of tags above may be interpreted in the same way.

- Another group of four inscriptions on jars indicate which contents were fit for ritual use and which were not. One of the inscriptions was found in the synagogue, the second near the synagogue, and the other two in the storeroom of the Western Palace. The wording (partially reconstructed, see below) was almost identical in each case. They note that jars standing in a certain row (in their storage place) are *qerutin* while others are *prutin*. The inscriptions further note that some of them are כשירין לטהרת הקדש ("suited for the purity of hallowed things") while others are אינן כשירין לטהרת הקדש ("unsuited for the purity of hallowed things"). From one of the inscriptions it can be deduced that those dubbed *qerutim* were disqualified from sacred service, while *prutin* were qualified. The exact meaning of the words *qerutim and prutin* is not known. The jars, which may have held wine, may have been broken on purpose when empty to prevent reuse. A few of the more fragmentary inscriptions apparently deal with the same matter, for example the inscription הכדין האלה פסולות ("these jars are disqualified"), the inscriptions פסולתא ("disqualified") and טהור לקדש ("pure for hallowed things").
- Especially interesting is the inscription on a jar ח[נני]ה כהנא רבא עקביא בריה (Ananias high priest Aqavia his son). Naveh proposed that this Ananias was the one whose son Eleazar sparked the rebellion against the Romans when he called a halt to sacrifices for the wellbeing of Caesar. If this is indeed that Ananias, it means that he had another son, 'Aqavia, who is not mentioned in the sources. What is the meaning of a jar bearing this inscription? Since it was written at Masada it clearly does not connote ownership, since by that time the Ananias in question was no longer living. Thus it may be that the intentions of the writer, 'Aqavia, was to note that the jar was fit, or kosher, and called on his family affiliation to further validate his ruling.

Written sources indicate that after the Temple was destroyed, the priests and Levites continued to preserve their ritual purity along with the custom of receiving offerings for the preparation of ritually pure meals. However, when it became impossible to bring these offerings to Jerusalem, they were given directly to the priests and the Levites in their home towns. The many inscriptions dealing with the "sanctity" of vessels show that this custom persevered at Masada as well, despite the special conditions there. As Yadin put it: "The epigraphic material proves, among other things, that the Jewish defenders scrupulously observed the ritual laws concerning tithes, etc. It not only throws light on the laws themselves but also on the revolt and the character of its supporters."

Inscriptions on storage jars indicating ownership (Fig. 158): This group comprises more than 50 inscriptions, mostly discovered in the rooms of the casemate wall. Some feature only the name of the jar's owner, such as יהודה (Yehuda), יהוסף (Yehosef), חוניה (Onias), while others include the father's name: שמעון בן יועזר (Shimeon son of Yo'ezer), יהוסף בן אליעזר (Yehosef son of Eleazar), זבידו בר ישמעל (Zebidu son of Ishmael). In one case, the apparent profession of the jar's owner is noted קצבא — *katzba* — (the butcher). Of special interest are four jars, all discovered in the same storeroom, bearing the name Bar Jason and a symbol. In two cases it is the symbol +, and in one case the letters *yod* and *resh* in Paleo-Hebrew (or perhaps *yod* in Paleo-Hebrew and the inverted Greek letter *rho* facing left). In one case the letter *yod* appears next to the Greek letter *beta* inverted and facing left. The name Zenon inscribed in Greek next to the name Bar Jason and the symbol + was found in the same storeroom. (The connection between the names Zenon and Bar Jason is not clear; see below.)

These symbols are very similar to a number of symbols appearing on sherds from the group of tags bearing names (see above). Inscriptions in Nabatean script appear on two of the jars: On one the words *Shim'on ktaveh* ("Shimeon wrote this") are inscribed twice, and on the other, the word *katavbeyadeh* ("he wrote in his own hand"). These inscriptions, which are very similar to signatures of witnesses on Nabatean documents found in Naḥal Ḥever, give rise to two questions: First, why would Nabatean inscriptions appear at Masada and second, what do they mean? The name *Shim'on* (Shimeon), a Jewish name, makes it difficult to accept Yadin's proposal that Nabateans were present at Masada as soldiers in the Roman army. With regard to their possible meaning, we cannot know whether the inscriptions connote ownership or why the same inscription was written twice on one jar.

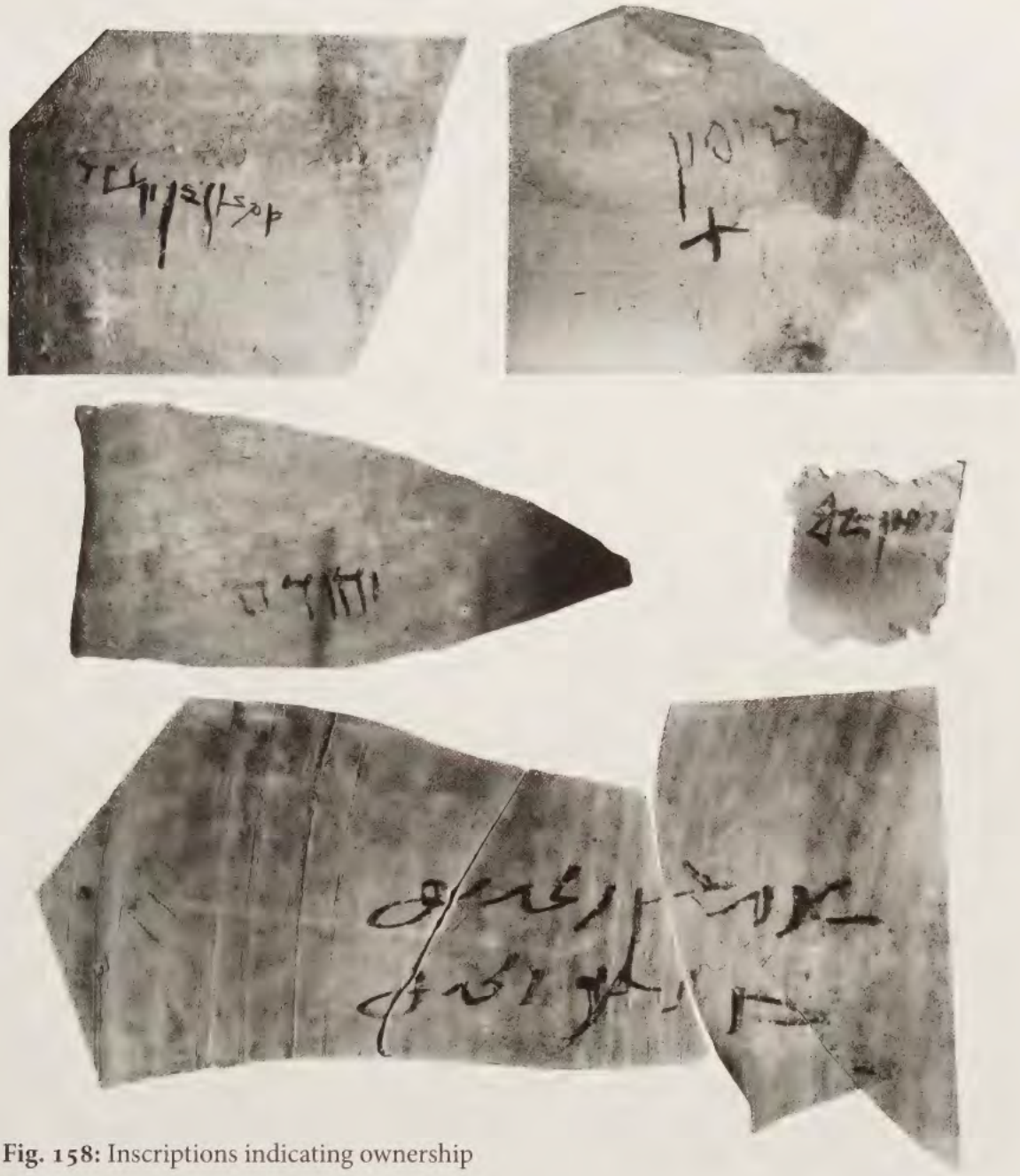


Fig. 158: Inscriptions indicating ownership

Inscriptions indicating contents (Fig. 159): More than 40 inscriptions were uncovered noting the contents of jars. The most common were those containing dried figs: 24 out of 37 indicated they held this high-calorie nourishment, which was easily preserved under the conditions on Masada. The importance of dried figs comes to the fore in various sources; for

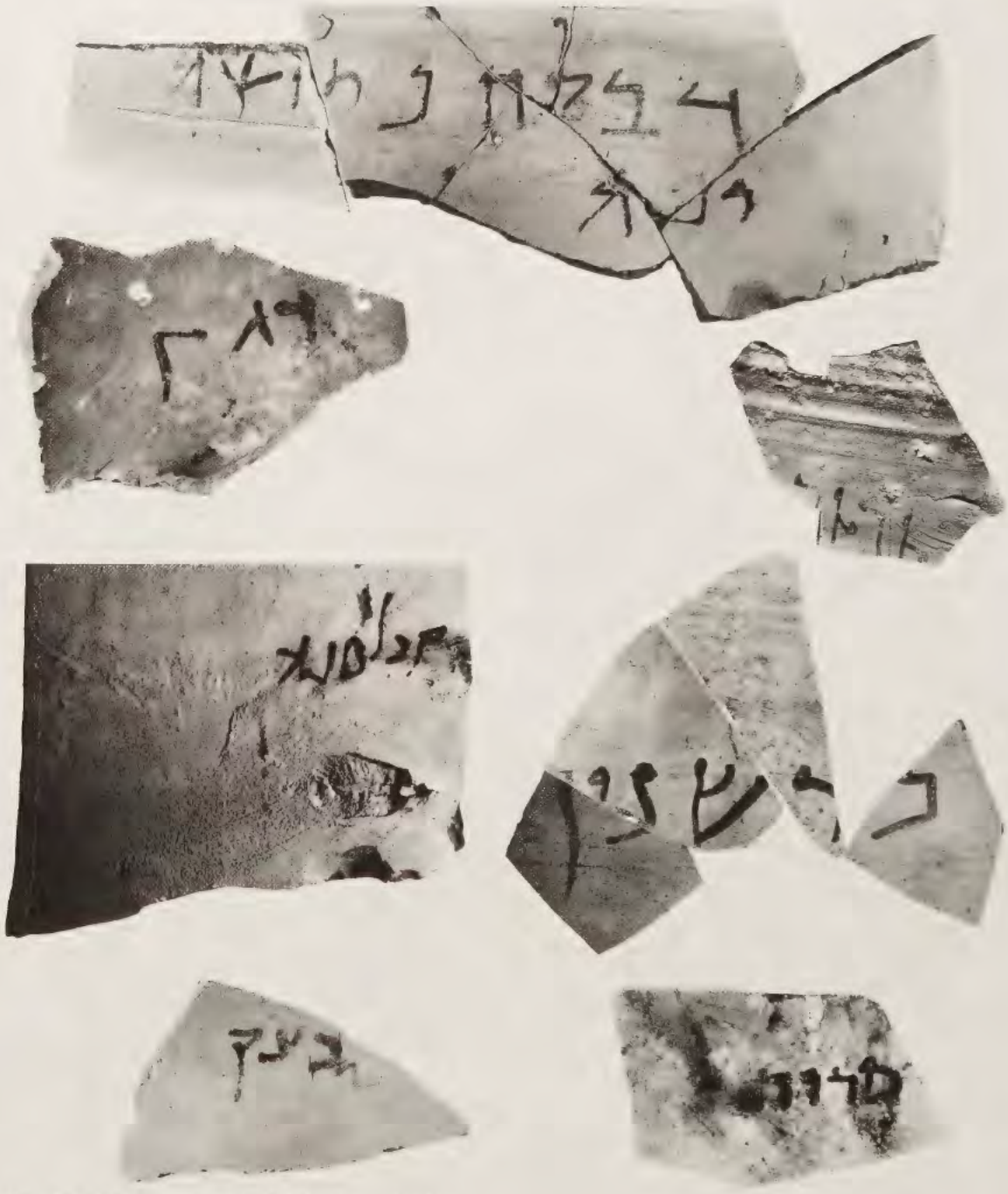


Fig. 159: Inscriptions indicating contents

example, Genesis Rabba 31, 14 states that pressed figs was the main food stored by Noah. The most complete inscription notes that a certain jar contained "a well-pressed fig cake." Most of the inscriptions mentioning

pressed figs — 22 out of the 24 — were found in the largest storeroom, in the Western Palace; only two were found in the northern storerooms. The pressed figs may have been stored in the Western Palace storeroom and distributed from here to other locations as needed.

The rest of the jars with inscriptions were found in various locations, some in the storerooms of northern Masada and the rest in the "transit camps" and the casemate rooms. Two of these jars bear the word גרגר (berry, or [olive] drupe), and among the food products mentioned are דגא (fish), בצק (dough) בשר (meat) מרור (bitter herb) and כרשנין (a kind of vetch, see the Jerusalem Talmud, Challah 4, 9, 60b). One of the most interesting inscriptions describing contents is בלסנה... preceded by the remnants of two or three illegible letters, one of which may be *zayin*. Naveh proposed reading this inscription מז בלסנה, which is the Aramaic term for the Greek word ὀποβάλσαμον meaning "juice of the balsam tree."

Instructions for supplying bread (Fig. 160): This group of 28 ostraca bore a standard wording: a date (month and day) followed by instructions to give a certain amount of bread to an individual identified by first name. In some cases the type of bread was also noted: "white bread." This term is known



Fig. 160: Instructions for supplying bread

from the talmudic sources (for example, J. Talmud, Challah 4, 1, 59d; Brachot 6, 1, 10b; B. Talmud, Kiddushin 22a), and apparently connotes bread made of white sifted flour, as opposed to unsifted "coarse flour" or black flour. Similar instructions, also inscribed on sherds, in Hebrew (from the seventh century BCE) and in Aramaic (from the fourth century BCE) were found in the excavations of Tel Arad. There too, the instruction opens in the imperative: ("give" or "bring"), notes the name of the recipient, and gives an instruction to record the date: "and write the name of the day."

Almost half the ostraca in this group were found in the Eastern Service Wing of the Western Palace, although there are no archaeological indications of a bakery or bread storage there. Since most of the jars bearing the pressed-fig inscriptions were also found in a storeroom of the Western Palace, it was apparently one of the main food distribution points for the besieged fortress.

The bread would have been given to those who presented the ostracon, and according to the apparent quantities they received, the bread seems not to have been intended for themselves and their families only. For example, an individual by the name of Bar Levi received "on the 13th of Av 1020 white (loaves of bread?)." Another recipient, Yehoḥanan, was given "260 (loaves of?) white bread." Other sherds speak of 155 and 100 loaves. In two cases the bread was not given to individuals: [+] 20 bread were given "for the porters" and another ostracon documents "70 (loaves)" given "for the camp." Some inscriptions do appear to connote a daily ration: "and on the 4th of Iyyar bring to...t[welve] (loaves?), and on the 5th bring t[welve]" or "[on the 1]7th of Adar the sec[ond] (?) (apparently Second Adar, as deduced from another document) [give/bring to...]every third day t[welve] bread."

Letters (Fig. 161): All three letters discovered were written in Aramaic in wording similar to letters from the Bar Kokhba era found in caves in the Judean Desert.

One letter was found in the basement of the lower terrace of the Northern Palace. The right side of the sherd, which is broken off, deals with the supplication of a person to have a debt paid due to difficult financial straits. Reconstruction reveals the following wording:

"[from a son of b to Menahe?]m son of Ma'uzi, Peace. Have pity on me [and please] pay me?] the five (Yadin reads here 500) denarii, [according to the] account [of X loaves of b]read (?) for a *sheqel* (=2 denarii) that you owe me. [Have p]ity, because I am [ ] and I do not possess [ ]."

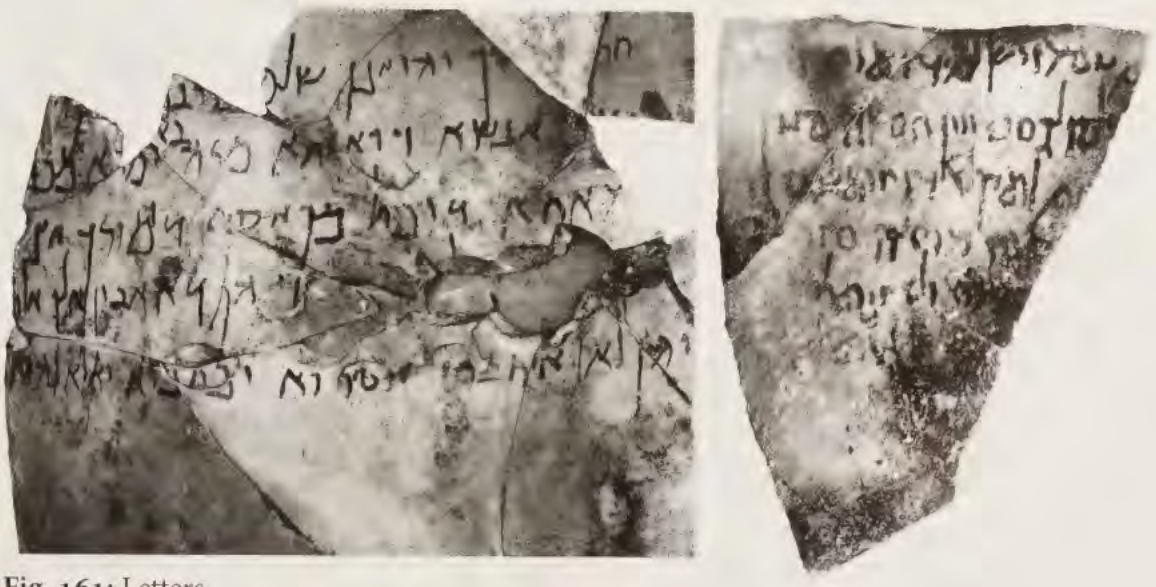


Fig. 161: Letters

Another letter, found next to the block of storerooms in the northern part of Masada, is more difficult to understand. Although 20 words are legible, the subject of the letter is not at all certain. The only thing that clearly emerges is that it was addressed to one Yehoḥanan and that it apparently mentions pottery vessels containing myrrh (perfume?).

Only a few words survived in the third letter, which apparently deals with the giving of wheat by one individual to another.

Inscriptions noting quantities (Fig. 162): About 20 sherds noting quantities were found throughout Masada. In one of the rooms of the "transit camp" near the casemate wall a sherd was found inscribed with the words "four cubits and two handbreadths and two cubits and two handbreadths." These are measurements of length, but what they refer to cannot be known. On three jars — all found in the rooms in the Eastern Service Wing of the Western Palace — the contents of a vessel is noted in the liquid measure of a *log*, which is 1/6 of a liter. Another group of six items notes sums of money: "5 drachmae and 1 obolus," and "9 drachmae." Another sherd features four rows of numbers. Except for the sign denoting 1000, all the numbers are also mentioned on other documents. In an Elephantine papyrus the number 1000 is written לף, which is an abbreviation for the word אלף (thousand). That is the way the number appears on the bread-distribution order from Masada (see above). However, in the sherd in question the letter ל = *lamed* has been left out, and the inscription reads only: 1 ף (= *pe*).



Fig. 162: Inscriptions indicating quantities

Writing exercises (Fig. 163): Noteworthy among these are:

1) A list of letters of an abecedary in two rows, the beginning and the end of which are missing:

[...] ה ו ז ח....]
[....]מ נ ס ע פ צ [....]

2) Three fragments of lists of first names arranged alphabetically:

אוריה
וני זכ [ריה]
לוליה [...].

What appears to be the same alphabetized list of personal names, though more complete than the one from Masada (of unknown origin purchased in the antiquities market) includes the following names:

אוריה בניה גמריה
דליה הודיה וני זכריה

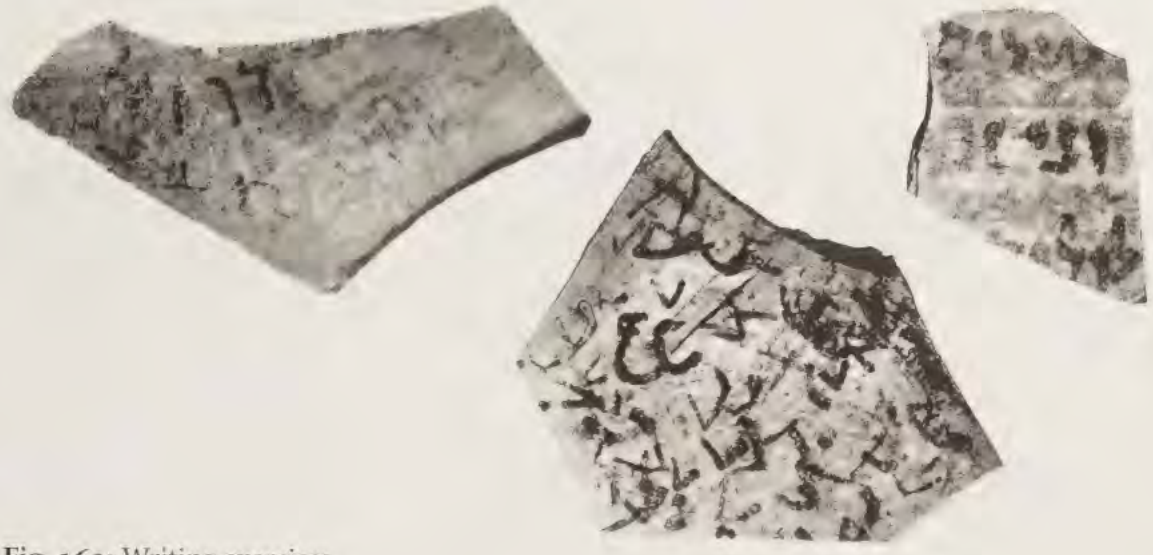


Fig. 163: Writing exercises

חנניה טוביה ירמיה
כוליה לוליה מנחם
נחמיה סמ(כ)יה
עשיה

3) A sherd bearing one name twice (an exercise?):

ישוע בר [....]
ישוע בר [....]

4) Twenty-six sherds with symbols, some of which can be interpreted as letters. These may have been attempts to test a writing implement, or a writing exercise.

Varia (Fig. 164): Some 60 sherds in this group feature words, parts of words or single symbols, some of which are blurred and can be partially deciphered, and others that are completely illegible. The meaning of these sherds is unclear. Some of them could be included in one or more of the groups described above, for example, a sherd possibly inscribed with the words "sacred libation." If this is the case, it should be attributed to the group including offerings to the priests, but it has been included here since its reading is uncertain. A few other sherds mention names with no context (Eleazar), as well as single words (the rest). Most of the sherds are inscribed in Aramaic or Hebrew except for the three in Syriac, and one apparently written in Palmyrene.



Fig. 164: Varia

Inscriptions in Latin and Greek

While the identification of the writers of inscriptions in Greek as Jewish or non-Jewish is determined by content, the inscriptions in Latin can most probably be attributed to non-Jewish writers. These would include Roman soldiers stationed at or near Masada. In terms of dating, they can be attributed to one of the three periods of Roman military presence in the area:

- Before 66 CE: From Josephus' description it appears that immediately after the outbreak of the revolt a group of rebels took over Masada and executed the Roman garrison stationed there (*War* II, 408).When exactly the garrison was first stationed there cannot be known; the possibility cannot be discounted that they came at the beginning of the period of the procurators, about 60 years earlier, that is, around 6 CE. Apparently, none of the Latin documents can be attributed to this period, since the names mentioned in them are all those of Roman citizens, that is, legionnaires (who would not have been present before 66 CE), rather than soldiers of the garrison, who were from units composed of non-Jewish residents of the cities of Caesarea, Samaria and their vicinity.
- The period of the Roman siege on Masada: This period apparently lasted only a few months. It began with the arrival of Flavius Silva in Judea and ended with the fall of the fortress in 73/74 CE.
- Excavations showed that most of the Roman garrison stationed at the site after the fall of Masada settled in the southwestern corner of Camp F. This period lasted for about 35 years, and based on the latest dates of coins found in the excavations, it ended in 112/113 CE.

Most of the Latin epigraphic material, whether on ostraca or papyri, seems to have belonged to Roman soldiers. At least some was written during the siege, but most was set down during the stay of the Roman garrison at Masada. As can be gleaned from some of the names and from other indications (see below), the writers were soldiers and officers of the Tenth Roman Legion. This conclusion underscores the theory mentioned above that the Greek material was written by Jews: Not one of the Greek-language documents relates in any way to the members of the Tenth Legion or their associates.

Various studies have revealed the extensive bureaucratic activities in the Roman military, which also comes to the fore in the meticulousness with which seemingly insignificant items were listed (for example, a list of bandages, expenses for feeding the soldiers, etc., see below). The presence of many hands discerned in these documents, and in some cases different hands in the same document, show that they were not written by a single official.

Of particular note is a fragment of papyrus, written in a practiced hand, from a document that apparently belonged to a Roman officer and contained a passage from Virgil.

Papyri in Latin

All the papyri written in Latin were found in the Casemate of the Scrolls, in the heap of items including, among other things, pieces of straw baskets, textiles and fragments of Hebrew scrolls, apparently brought to that location by looting Roman soldiers sometime after Masada's fall. These papyri could only have been written in the military camps around Masada and since it is reasonable to assume that the looting and transfer of the papyri to the heap occurred a short time after the conquest of the fortress, these documents should be dated to around 73 or 74 CE (depending on the date of Masada's fall; see below). Following is a summary of the contents of some of these documents:

Papyrus containing a literary work (Fig. 165): This papyrus measures 8×16 cm and is written on both sides — on each side is an incomplete line: On one side, half of the first line of a hexametric rhyme from Virgil survived, and on the other, half of a hexametric rhyme of an unknown work. The fluid hand attests that the writer was an experienced scribe, and the reconstruction of the missing parts of both rhymes reveals that the

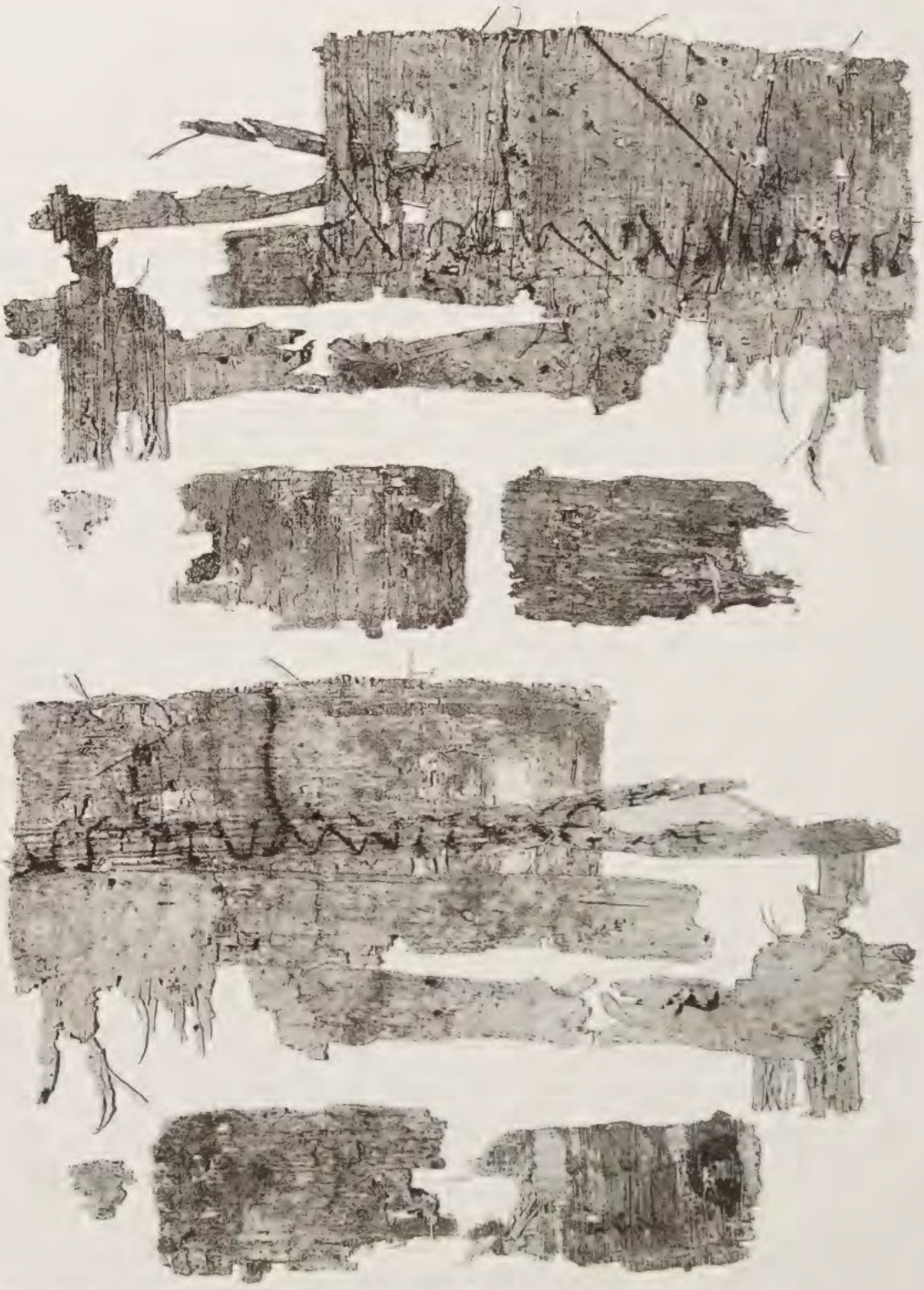


Fig. 165: Papyrus with a passage from Virgil's Aeneid

whole line was about 26 cm long — the usual length of a line in Latin literary works, which differs from the length of lines in Greek works.

The surviving line on the one side of the papyrus has been clearly identified as the beginning of Dido's first speech from Virgil's Aeneid 4.9. Portions of this work are also known from papyri found elsewhere, some of which are scribal exercises, dated based on paleographic considerations to a period from the end of the first century to the beginning of the second century CE. Thus, except for a few graffiti inscriptions of this work found on the walls of Pompeii that have been dated earlier than the Masada papyrus, the portion in question, dated no later than 73/74 CE, is the earliest text of Virgil ever found. The fact that a classic literary text of this nature was in the hands of a Roman soldier (or officer?) at Masada is surprising, and may attest to a high level of education among at least some of the military.

Unfortunately, the poetic work on the other side of the papyrus cannot be identified due to its poor state of preservation.

Details of payments and expenses of a legionary (Fig. 166): This is the largest papyrus found at Masada (12.5×16 cm) and has been defined as a "legionary pay record." The three upper lines, which are the title of the document, are written in larger letters than the rest and note the date, the name, family affiliation and origin of the soldier receiving the payment. The rest of the document is written in two columns, one noting items, and the other, amounts expended for each item. The fine penmanship reveals that the document was written by an experienced scribe, apparently a military paymaster. The name of the recipient of the money reveals that he was a Roman citizen, that is, a legionnaire and not a solider from an auxiliary unit, however, the document does not reveal his rank. Since the Tenth Legion was besieging Masada, the recipient obviously belonged to that force. It can also be understood from the document that his place of origin was Beirut.

The text reveals that the document actually contains two salaries, detailing the items in both. The translation of the document, to the extent that it can be reconstructed, is as follows:

(Year) The fourth consulate of Imperator Vespasian Augustus
Accounts (?) salaries
C. Messius, son of Gaius, from the Tribe of Fabia from Beirut
I received of my salary 50 denarii
Out of which I have paid:



Fig. 166: Details of payments and expenses of a soldier's salary

Barley money	16 denarii
]rnius (=the end of a first name apparently added later)	
Food expenses	20 denarii
Sandals	5 denarii
Leather strappings (?)	2 denarii
Linen tunic	7 denarii
I received out of my salary	60 (?) denarii
Out of which I have paid:	
Barley money	16 denarii
Food expenses	20 denarii
C. Antoninus (another name added later)	
Overall cloak	? denarii
Puplius Valerius (another name added later)	
White tunic	? denarii

These itemizations show that a soldier in the Roman army had to cover all his expenses (except for weapons) from his salary, including food and clothing. The high cost of barley (horse fodder) reveals that the recipient was apparently a cavalryman.

Medical care in the Roman army (Fig. 167): Despite the poor condition of this document, it was clearly written by an experienced scribe. It was written in two columns, with a blank line left between the names (of the

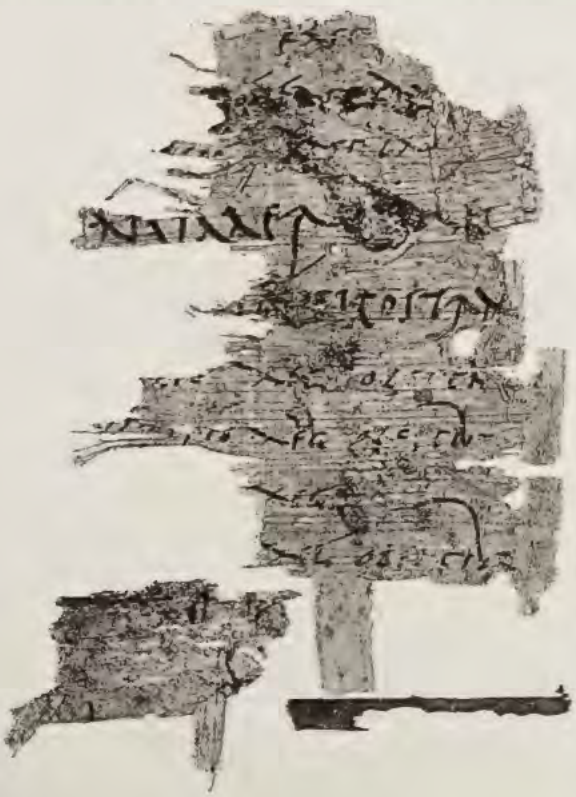


Fig. 167: Medical treatment in the Roman army

patients?) and the treatment. The document reveals nothing linking it to the army, but the circumstances of its find (the place and date) clearly show that the subject is medical care provided to soldiers of the Roman army.

The medical units of the Roman army constituted about 5% of the entire force. Sources also reveal the existence of field hospitals; such a hospital was identified in a camp at the foot of Masada.

Among the tools used by Roman physicians were cupping glasses, which have been known since Hellenistic times and appear in contemporary Roman inscriptions. They are also depicted on the tombstone of a physician from Cyprus. A number of such cups were also found in Germany and England in various Roman army camps. One cupping glass was found at Masada (Fig. 168) in the burnt level from the time of its destruction. Thus the rebels may also have used this piece of medical equipment. That cupping glass, found in Building 9, was eventually used by a resident of the fortress to hide coins (see below).



Fig. 168: Cupping glasses

The translation of the reconstructed text is as follows:

....bandage
For...]us, bandage
For...]elius a laundered (fine?)bandage
The Sick
Date (?) For the sick (in care) of (?) Nicostratus
For ...Valerius sick, eating oil. 1 ounce
For..sick
For...sick eating oil 2 ounces

The first part of the document probably dealt with supplies to the injured, while the second part is a list of supplies for the sick or convalescent. The document reveals the Roman army's customary bureaucratic precision: Even as negligible an item as a bandage had its place in the records.

Documents involving balsam: In two small fragments of papyrus, one in Latin and the other in Latin and Greek, the term *xylobalsamum* appears. *Balsamum* is the Latin term for the Hebrew *afarsemon* (see above). The balsam groves of En-Gedi were second only to those of Jericho, and their product was so highly regarded by the Romans that balsam shrubs were carried in the procession celebrating the victory of Vespasian and Titus over Judea. Pliny, in his book *Natural History*, notes that use was made not only of the plant's liquid but also its branches. He says that the branches were boiled together with aromatic oils to produce *xylobalsamum*, a substitute for the more costly sap from the shrub.

These two papyri may have dealt with the protection of this product or its transport. The Roman soldiers at Masada may possibly have used *xylobalsamum*, which was not as expensive as the original prestigious liquid (which was exported), for medicinal purposes.

The name "Masada" (Fig. 169a): Two small fragments of papyrus (1×2 cm and 1×7 cm), one of which bears a number of letters, seem to be remnants of a larger papyrus. The letters preserved apparently spell the name "Masada."

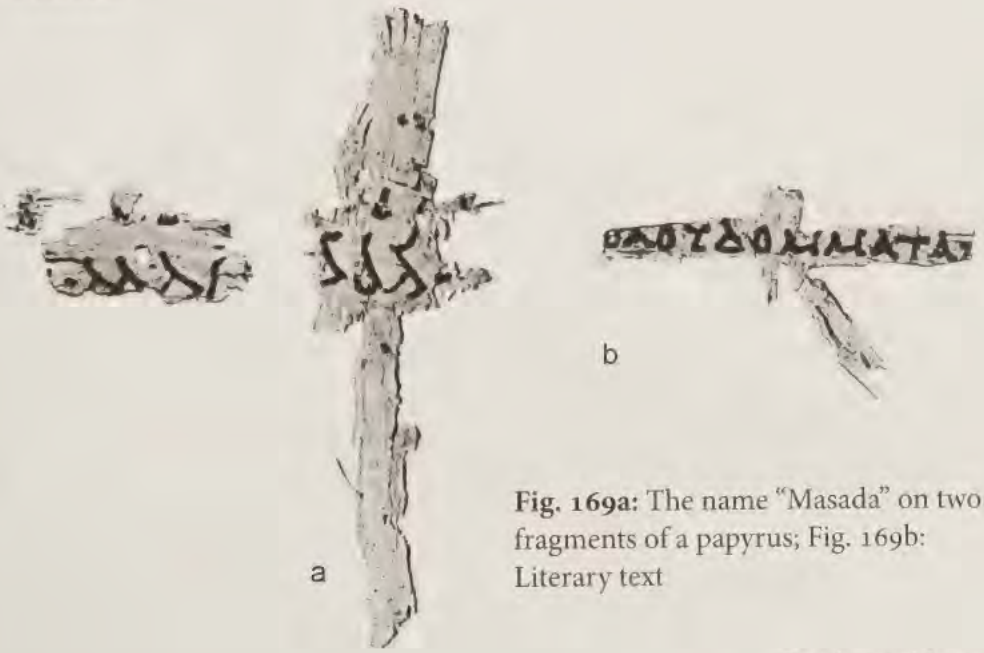


Fig. 169a: The name "Masada" on two fragments of a papyrus; Fig. 169b: Literary text

Since these were very likely to have been written by Jews, they can be dated to before Masada's fall in 73/74 CE.

A literary text (?) (Fig. 169b): This tiny fragment (4×0.5 cm), on which one word is clearly legible, is apparently the remnant of a literary work. The word, which means 'eyes,' is a term restricted to literary-poetic use. If this is a literary (or biblical?) text, albeit an unidentifiable one, it attests to a poetic work, most probably in Jewish hands, obviously belonging to someone of a higher social class.

A letter from Abaskantos to Judah (Fig. 170): This papyrus fragment was written in fine, slightly curling letters by a skilled hand. It cannot be dated to a specific period of Jewish settlement at Masada during the hundred years

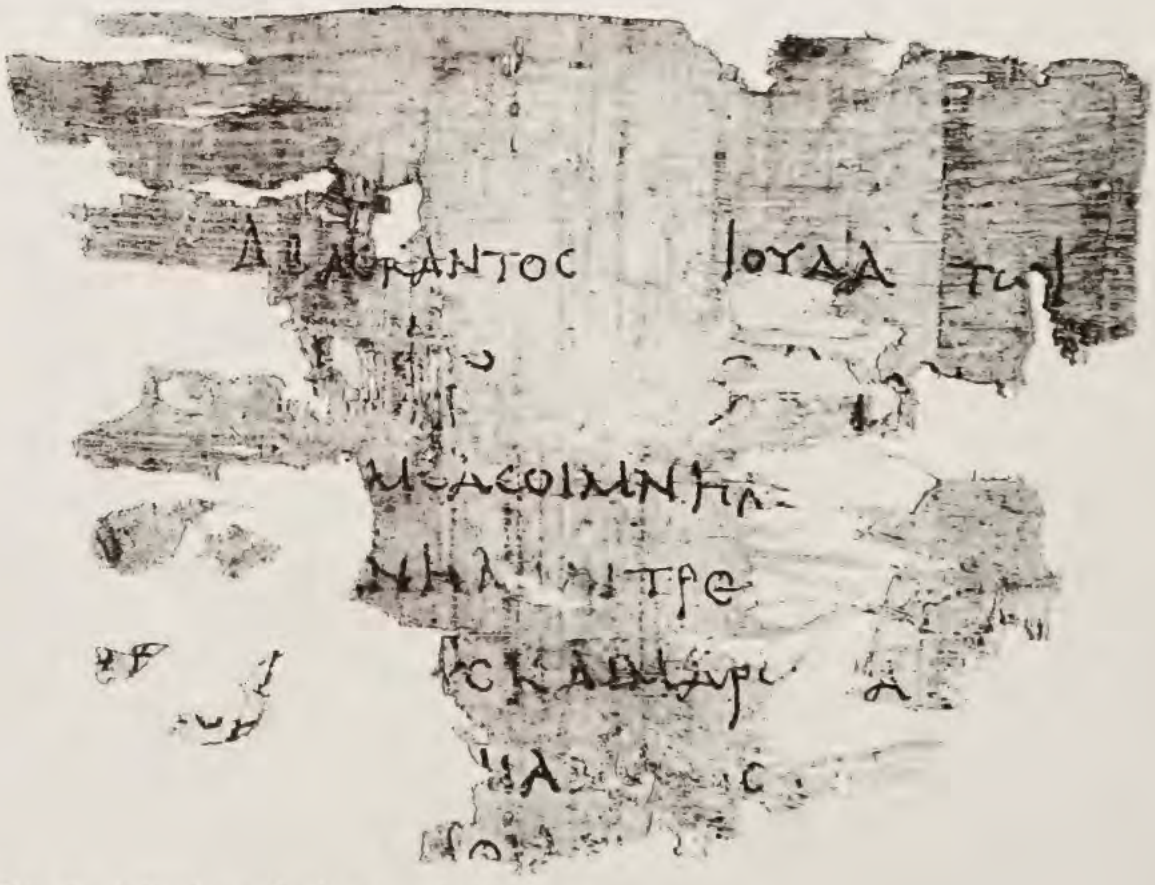


Fig. 170: Letter from Abaskantos to Judah

between Herod's time and the fall of the fortress. The letter clearly predates 73/74 CE, making it the earliest Jewish papyrus known to date in Palestine. The name of the sender, Abaskantos, is also known from an inscription on an ossuary uncovered in Jerusalem and the addressee, Judah, had one of the most common Jewish names of this period. At Masada the name appears on a number of Greek and Hebrew inscriptions.

The text of the letter, as far as it can be reconstructed, is as follows:

Abaskantos to Judah
His brother, greetings
I sent you (by the hand of?) Mnem[ona (?)
] half a litr[a] of...
...and lettuces

Remnants of approximately five more papyri in Greek were found, among them two that were apparently letters. However, their poor state of preservation renders them illegible and does not permit reconstruction of their contents.

Bilingual papyri (Fig. 171)

A bilingual name list: This papyrus was found in one of the rooms in the casemate wall in a heap similar to the one found in the Casemate of the Scrolls (see above). Here, too, the heap apparently consisted of items cast aside by Roman looters. The use of Latin might indicate that it was written by a Roman soldier, while the Greek may attest that part of it was written by a soldier of an auxiliary unit. However, two of the names written in Greek



Fig. 171: Bilingual (Greek and Latin) list of names

are Jewish — Shimeon and Judah, and Jews were unlikely to have been among the Roman auxiliary units on Masada. Thus, these may have been a list of Jewish prisoners who brought food and water to the Roman army (*War* VII, 278).

Remains of what appear to be nine other bilingual papyri, too small and fragmentary to decipher, were found at Masada. The word *xylobalsamum*, which also appears on a Latin-language papyrus discussed above, appears on one of them.

Ostraca (Fig. 172)

Ostraca with the names of Roman soldiers: Of this group of 22 ostraca, most were found in the large heap of debris north of the Large Bathhouse. All the names are clearly Roman (Aemilius, Fabius, Terentius, etc.) and also appear on the Latin papyri mentioned above, whose association with the Roman army is clear. These were soldiers serving with the Tenth Legion. It is noteworthy that all these ostraca were written on the inner side of the potsherd, unlike the rest of the ostraca at Masada. It also seems that they were all written on pieces of pots of the same type, made of clay that was rose-colored on the interior and greenish on the outside. The script indicates that at least some were written by the same person.

Ostraca bearing the names of individuals in Hebrew or Aramaic, and a number written in Greek (see below), are very common at Masada, although their purpose is not clear. The fact that ostraca bearing the names



Fig. 172: Ostraca with names of Roman soldiers

of Roman soldiers were found near the bathhouse suggests that these people may have been involved in some way in the operation of the baths.

Ostraca written in Greek (Fig. 173): As opposed to hundreds of ostraca discovered at Masada written in Hebrew or Aramaic, those written in Greek are rare, numbering only 21 items, found scattered throughout the entire fortress. As noted, Greek epigraphic finds at Masada were apparently all penned by Jews who may have belonged to the higher social classes, which were literate in Greek.

Of the 21 items, 6 are instructions for food distribution whose wording is identical to those written in Hebrew dealing with this subject (see above). One of them says: "Give seven *kaboi* of wheat to the donkey-drivers, for baking," and on another: "Give to Kosmos for baking (?) each (?) one *kabos*, baking (?) two."

One of the ostraca contains a short list of names opposite each of which is a sum in drachmas that the individual named was either to receive or give:

Aminias — 8 drachmas
Lykias — 8 drachmas
Lykias (another) — 9 drachmas
Lazar son of Masaraios — 4 drachmas

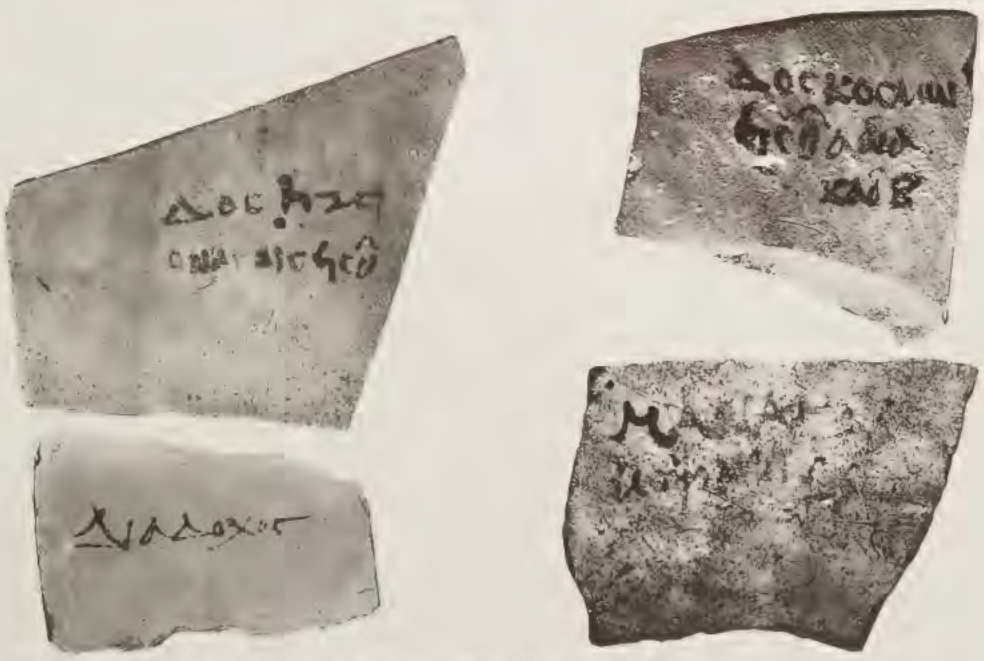


Fig. 173: Ostraca with inscriptions in Greek

Another ostracon, bearing the first nine letters of the alphabet, is apparently a scribal exercise (see above, similar ostraca in Hebrew).

Nine of the ostraca written in Greek bear the names of individuals, for example "Mariam (daughter of) Kypselos" and "Diadocus" (see above, the Hebrew ostraca with names).

Inscriptions on jars

Inscriptions in Latin (Fig. 174): Unlike the ostraca discussed above, dated to the period of the revolt, the Latin inscriptions on jars and the Latin amphorae stamps have all been dated to the Herodian period, for a number of reasons:

- All the inscriptions from this group mentioning actual dates (the years 27, 26, 19, and 14 BCE) clearly belong to that time period.



Fig. 174: Inscriptions on wine jars

- The inscriptions reveal that the vessels contained luxury commodities (wine, fish or apples) that could only have been brought to Masada for consumption by members of the aristocracy.
- The Roman garrison consumed local products and in general, the Roman military diet did not include wine or oil as these required cumbersome storage containers. If they were part of the soldiers' fare, such products would usually have been purchased from local merchants.

This group also includes a number of bilingual inscriptions, with Latin the main language and Greek secondary. The word 'Caesar' is mentioned, as well as products imported from Italy. The inscribed amphorae, three of which were completely preserved, are part of a store of vessels found on the floor of one of the cisterns in the upper row of cisterns in Masada's western cliff. The inscriptions note a date and in at least in two cases, the name of the second consul: "the year of Caesar's seventh and Agrippa's third consulate." Another inscription notes "...Aminean (the source of the wine?), the year of Caesar's eighth and Statilus' second consulate." Four of these five inscriptions may be dated to 27/26 BCE, which means that the jars came to Masada during Herod's time.

Another shipment of wine amphorae, 13 in number and according to their inscriptions intended for Herod, were sent slightly later, in 19 BCE. The jars were found in various locations on Masada, in the storerooms, the Western Palace and in Building 9. By the shape of the letters and the slight variations in their wording, these inscriptions appear to have been written by a number of people, although all 13 jars seem to belong to the same consignment.

The name of the consul is mentioned in the first line of each inscription: Gaius Sentio Saturnino. Since only his name is noted and not that of another consul, it may be assumed that the year was 19 BCE, since at that time there was a sole consul in Rome. The date is either the year of the grape harvest, the filling of the jar or that of its export. The second line apparently notes the type of wine: A reconstruction of the line by combining fragments of the jars from this group reveals that five originated in southern Italy. Pliny the Elder writes that the wines of southern Italy were "noteworthy." The third line notes "Herod King of Judea."

With regard to wine produced by gentiles: On the eve of the Great Revolt the sages did prohibit the drinking of this wine, but there is evidence that this was not a sweeping prohibition: Rabbi Gamaliel himself admitted drinking "the fourth part of wine by the Italian measure [*ba'italki*]" (J.

Talmud, Avodah Zara 1, 9, 40b). The word *ba'italki* could mean the Italian measure; however, the Babylonian Talmud states specifically *ha'italki*, "the Italian [wine]" (B. Talmud, Erubin 64b).

A number of the wine amphorae bear stamps on their handles noting names (Fig. 175), apparently those of merchants or vineyard owners.

The inscriptions on the amphorae attest that most contained wine of various types, but some contained apples, fish sauce, or wine mixed with honey, that is, luxury items imported from far-off Italy. The presence of amphorae containing select wine and other luxury items clearly showcases the splendor of Herod's court, even under the harsh conditions at Masada, and is in keeping with Josephus' testimony that Herod kept a special wine steward (*Ant.* XV, 223).



Fig. 175: Stamped amphora handles

Of special note are two fragments of one bowl with an inscription incised on its rim after firing. One fragment was found in the Casemate of the Scrolls next to papyri written by soldiers of the Tenth Legion, and the other was found in a storeroom where the ostraca with the names of the Roman soldiers were found. The inscription (Fig. 176), which was only partially preserved, appears to mention the name of the Tenth Legion.



Fig. 176: The name of the Roman Tenth Legion incised on the rim of a bowl

Inscriptions in Greek: More than half of this group of some 60 items apparently notes the names of their owners. Approximately 13 vessels bear an identical inscription describing the nature of the vessel, and the partial state of preservation of about 20 left the writing illegible. A good number of the Hebrew and Aramaic inscriptions on jars note their contents, whereas not one of the many inscriptions in Greek found in the storerooms does so.

It is impossible to determine to which of the three periods of Jewish presence on Masada the Greek jar inscriptions belong. Jews took part in economic activities at the fortress in each of these periods; however, in light of the large size of the storerooms at Masada and Josephus' testimony on the preservation of food stored there from Herod's time to the Roman conquest, it is reasonable to assume that at least the majority of these jars came to Masada during the Herodian period.

Several of the names inscribed in Greek are also known from jars inscribed in the Hebrew script, such as Salome, Mariam, Simon and Judas. This is not surprising since they were the most common Jewish names of the time.

The name Zenon appears on 23 jars with Greek inscriptions — nearly half of this group of jars (Fig. 177). Zenon is a Greek theophoric name, even if in this case it belongs to a Jew. More than half the jars in this group were found in the storerooms, and on a number of them, next to the name Zenon, the three Greek letters *theta, eta*, and *iota* (?E?) appear. In some



Fig. 177: Wine jar with the name Zenon and Bar Jason, the Hebrew letters *ayin* and *samekh* and the symbol +

cases, the name Zenon in Greek appears next to the word Shabayo, written in Hebrew letters. Three jars are inscribed with the name Bar Jason, and the Hebrew letters *'ayin* and *samekh* appear together with the symbol +. What the connection was between Zenon and Shabayo, and Zenon and Bar Jason, we do not know.

Three jars each bear a Greek name: Diodotos, Dositheos and Beryllos, names also known from Jewish ossuaries (Fig. 178). The Greek name Beryllos, like the name Zenon, was common among Jews; it was also the name of an *archisynagogos* (synagogue leader) in sixth-century CE Caesarea.



Fig. 178: Jars bearing the names Diodotos, Dositheos (?) and Beryllos

Thirteen jars, 11 of which were found in the storerooms, feature the words "beautiful vessel." (Fig. 179) Since the inscriptions are 'inverted' — their tops are facing the bottom of the vessel, they were obviously written when the jars were upside-down on the ground probably while still empty. The meaning of this inscription is unclear, since the jars are not unusual; they are similar in all aspects to those bearing the name Zenon, and are in fact not particularly fine. It is reasonable to assume that the inscriptions had something to do with quality control of the jars.



Fig. 179: Vessels bearing the inscription "beautiful vessel"

Engravings and charcoal graffiti on walls

This group includes about 20 items in Greek and Latin. It can be assumed that those in Latin were written by Roman soldiers, while the identity of those who wrote the Greek inscriptions cannot be known.

Among these inscriptions are those with names (Philo) and one with the words "good luck." The name Josephus was stamped on the wall plaster of a tower in the perimeter wall, (see above). A number of stamps of this type, known as "bread stamps," have been found in Italy; one, unearthed in Herculaneum, was found imprinted on a loaf of bread. The Josephus stamp was impressed on the wall while the plaster was still wet, that is, while the tower was being converted into a dwelling or an industrial facility (a bakery?). It is therefore possible that the owner of the stamp, apparently Jewish, was a baker.

One of the inscriptions in this group apparently mentions the Tenth Roman Legion. Another shows a partial Latin abecedary (Fig. 180) and a third shows a Greek alphabet with a Latin alphabet below it.

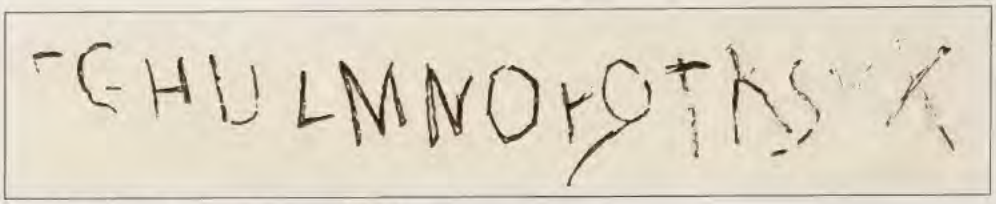


Fig. 180: An incised Latin alphabet

Scrolls

The 15 fragments of Hebrew scrolls found at Masada, 14 of which were written on parchment in square letters and one on papyrus in Paleo-Hebrew, are among some of Masada's most compelling finds. These manuscripts belong to three categories:

- Fragments of biblical scrolls:
- Genesis 46:7–11 (found in the Casemate of the Scrolls)
- Leviticus 4:3–9 (found in the Casemate of the Scrolls)
- Leviticus 8:31–11:40 (found in the square north of the Large Bathhouse)
- Deuteronomy 33:17–34:6 (found in the back room of the synagogue)
- Ezekiel 35:11–38:14 (found in the back room of the synagogue)
- Psalms 81:2–85:6 (found in the Casemate of the Scrolls)
- Psalms 150:1–6 (found in one of the rooms in the eastern section of the casemate wall)

Fragments of biblical commentary:

- A commentary on Genesis (found in one of the rooms of the casemate wall just north of the synagogue)
- A commentary on Joshua (found in the Casemate of the Scrolls)

Fragments of extra-biblical works:

- The Book of Jubilees (found in the Tannery)
- The Wisdom of Ben-Sira (found in one of the rooms in the eastern section of the casemate wall)
- The Songs of the Sabbath Service (found in the Casemate of the Scrolls)
- A Samaritan text (found in the Casemate of the Scrolls)

To these should be added two unidentifiable fragments, one of which was found in a cistern in a northwestern section of the casemate wall, and the other in the Casemate of the Scrolls.

The location of the scrolls

Nearly half the scroll fragments were found in one location — the Casemate of the Scrolls, about 10 m south of the synagogue. The rich find in this casemate makes it unique among the rooms in the perimeter wall. The dozens of ballista stones and rolling stones found in the southern part of this room will be discussed below in the chapter on the battle for Masada. Of interest here is the heap of debris in the southern part of this casemate that included — in addition to straw baskets, textiles and 19 silver shekels — 18 papyri in Latin, 10 in Greek, and 7 fragments of Hebrew scrolls, which gave this casemate its name. This dump is almost unique at Masada, with similar ones found only in the Tannery few dozen meters to the south, and another dump near the Large Bathhouse. The installations and artifacts uncovered in the Casemate of the Scrolls are firm evidence that the rebels were the last to inhabit it. The question as to whether they brought the scroll fragments here, or whether they were discarded here by the Roman soldiers looting Masada, cannot be answered.

Three additional fragments of scrolls were found in the casemate rooms just north of the synagogue and two in the eastern casemate rooms; all clearly attest that the rebels used the rooms. Two more fragments were found in the vicinity of the Large Bathhouse, in assemblages difficult to attribute to a particular group of Masada's inhabitants: one in the hewn cistern in a casemate room and the other in the open square north of the Large Bathhouse. The fragment from the Book of Jubilees was among the rich finds in the debris in the Tannery, also apparently dumped by the Romans, All together, 9 of the 15 scrolls were found in the three heaps of debris apparently dumped by the Roman looters.

Writing materials and the physical condition of the finds

All the scroll fragments were written on parchment made from the skin of goat, sheep or cattle, as per the talmudic dictum: "one should write on the skins of pure domestic and wild animals" (Sefer Torah 1,1). The writing was done on the outside of the skin, after all the hair was removed (ibid. 1,5).

The removal of the hairs helped preserve the parchment and allowed the ink to sink into the pores.

In light of all the epigraphic finds in the land of Israel (Qumran, Masada and elsewhere), parchment seems to have been the preferred writing material since at least the beginning of the second century BCE. The distinct preference for parchment over papyrus (14 manuscripts on parchment and only one on papyrus), is not unique to Masada. Of the written finds at Qumran, which scholars believe represent about 800 different scrolls, only about 100 were inscribed on papyrus and the rest were on parchment. The small number of written finds on papyrus should not be explained by the poor preservation of this material as opposed to parchment. Both materials are equally durable in the arid conditions in Egypt in areas not near the Nile, as well as in the dry Judean Desert. Rather, in our region, papyrus seems to have been used mainly for relatively short texts — letters, family documents, commercial contracts, etc., while longer texts, both sacred and literary, were usually written on parchment.

The manuscripts were not well-preserved for a number of reasons: the harsh environmental conditions, insect damage and the apparently intentional ripping of some of the manuscripts by conquering Roman soldiers. Josephus relates that one way the Romans tormented the Jews was to tear up Torah scrolls in front of their eyes (*Ant.* XX, 115). Comparative paleographic research on most of the manuscripts reveals that they were inscribed in the late first century BCE or the beginning of the first century CE apparently during the Herodian period, except for the Wisdom of Ben-Sira, which was penned during the Hasmonean period (see below).

The work of the scribe

The scribes who wrote the scrolls found at Masada strictly observed the rules for writing sacred books (B. Talmud, Shabbat 103a-105a). Here are some of the characteristics of the writing:

- The letters are of a standard size and hang from horizontal dry rulings with their tops at an equal height, except for the letter *lamed*, which protrudes above the line, and the final letters *kaf*, *peh*, *sade* and *kof*, where the down-strokes descended below the base of the other letters.
- The distance between the letters is less than a millimeter, and between words, about a millimeter, as per the directive: "one leaves (a space) between words so that they are separated and (between) letters so they

do not intertwine" (Sefer Torah 2, 1). In a number of cases, when the scribe did not correctly calculate the number of words per line, space was not left between words, for example שפטהארץ, אליישענו and תנאפבנו. The number of lines in a column is also fairly standard, but differs among the various manuscripts (for example, 25–26 lines per column in a fragment of Leviticus, but 42 lines per column in Ezekiel).

- The margins of 3–3.5 cm that were left at the top and bottom of the parchment are in keeping with the rule that: "In a Torah scroll one leaves (a margin) of the breadth of the palm of a hand at the bottom, and of a third of the palm of a hand at the top; in (scrolls of) the prophets and of single books of the Pentateuch, of a three-fingers-breadth at the bottom and a two fingers-breadth at the top" (ibid. 2, 5).
- In a number of cases, the medial and final letters are not differentiated: for example, עצמות, עמ יהוה in the Ezekiel from Masada, as opposed to עצמות and עם יהוה in the Masoretic text of Ezekiel 7:37 and 20:35. On this matter, Rabbi Hisda said "People did not know which form comes in the middle of the word and which one comes at the end; and the 'watchmen' came and ordained that the open forms should be in the middle of a word and the closed forms at the end" (B. Talmud, Megillah 2b-3a). This phenomenon disappeared after the first century CE and can thus constitute a criterion for dating this manuscript.

Finally, the care taken in the writing of the Masada manuscripts is noteworthy. It can be seen in the small number of scribal errors as opposed to the relatively large number in the manuscripts from the Qumran scrolls.

The dating of the scrolls

None of the scrolls can be dated later than 73/74 CE, the year Masada fell to the Romans and the paleography shows they were written a few decades beforehand. They must have been brought to Masada by the rebels or other refugees who gathered there before the beginning of the siege, among them possibly members of the Qumran sect.

In light of the great significance of these finds, each fragment is briefly described below.

Biblical scrolls

Genesis 46:7–11 (Fig. 181): This manuscript consists of one relatively large

sheet and a few pieces that were detached from it as a result of disintegration rather than intentional tearing. The preserved piece is about 5.5×4 cm and includes the ends of the lines of a column on the right and the first letters of the column on the left. The script here is quite fluid; not all the letters are of equal size but they do hang from the dry ruling at an equal height, with spaces the width of one letter between words. The fragment includes a partial listing of the sons of Jacob who went with him to Egypt, which differs somewhat from the Masoretic text. For example, the name Jacob is in plene spelling, that is, including the letter *waw*, a form in which it appears only five times in the Masoretic text, as opposed to 345 times in which the script appears with its defective spelling, that is, without the *waw*. An example of another difference can be found in the second line of the Masada fragment: It can be read את יעקוב [מצרי]ם as opposed to the Masoretic text, which reads יעקב הבאים מצרימה (Gen. 46:8).

Leviticus 4:3-9 (Fig. 182): This manuscript was found torn — apparently intentionally — into two fragments that can be pieced together. The two fragments together measure 11×10 cm and feature eight lines of script. Under the last line is a space of three centimeters showing that this is the bottom of the column. A vertical line of tiny perforations on the left side of the upper of the two parts shows that this was the end of the sheet and the point at which it was attached to the next sheet. The wording is identical to the Masoretic text with one exception: The Hebrew word ישפוך (pour out) is in plene spelling (with the Hebrew letter *waw*), whereas in the Masoretic text the defective spelling is used — ישפך — that is, the *waw* is missing.

The form of the letters seems to indicate that the writing of the scroll should be dated to the end of the first century BCE. Letters are of standard size, as are the spaces between the letters and the lines. An exception to this rule is the bottom line, whose letters are smaller, apparently due to a flaw in the parchment. The counting of the letters and the spaces between the words shows that the lines of this scroll were longer than those of the rest of the Masada scrolls.

The fragment deals with the sin-offering of the High Priest.

Leviticus 8:31-11:40 (Fig. 183): This scroll consists of approximately 40 parts, some tiny and some about the size of the palm of a hand, which are the remnants of five columns of text. A vertical row of tiny perforations on the left side of the column shows that this was the end of the sheet. A portion of the string that connected it to the next sheet also survived. The

script is fluid, all the letters are of equal size, and repeated letters are written in the same manner. The spaces between letters and words are also uniform. Based on the counting of the letters in each line, the space between the lines and the columns, and the space at the top and bottom of the sheet, the size of the scroll can be reconstructed: It was about 18 cm high and contained 48–50 columns, making its length about 5.5 m.

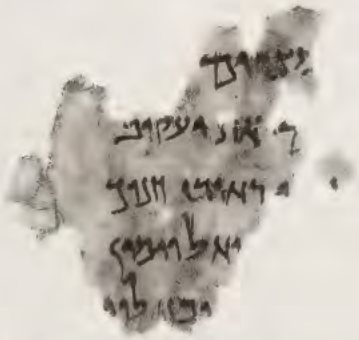


Fig. 181: A Genesis scroll fragment

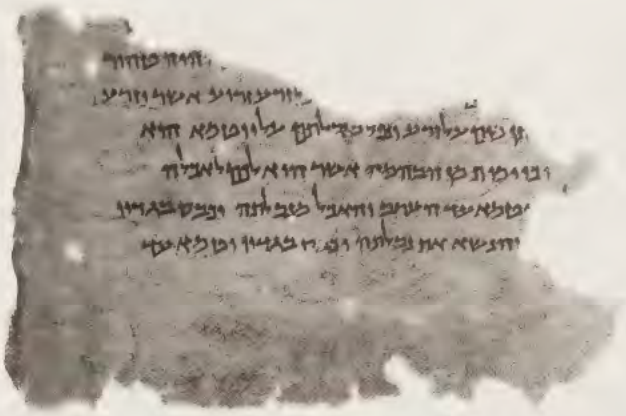


Fig. 183: A Leviticus scroll fragment, chapter 8

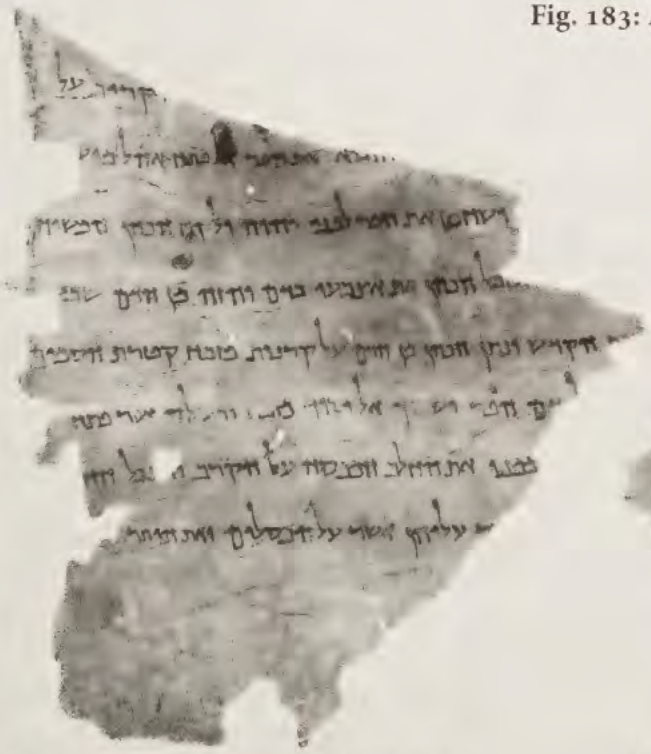


Fig. 182: A Leviticus scroll fragment, chapter 4

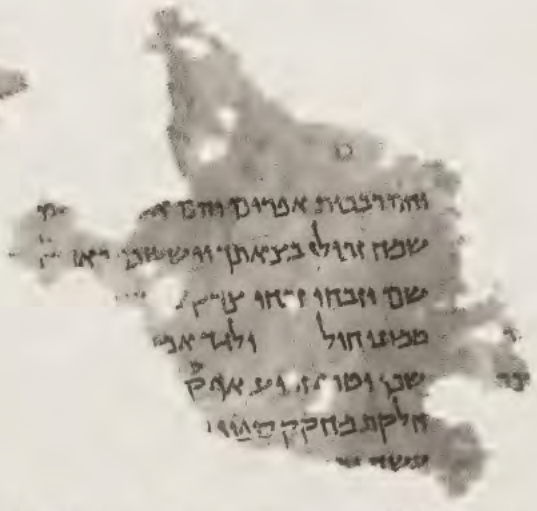


Fig. 184: A Deuteronomy scroll fragment, chapter 33

The shape of the script indicates that the scroll was penned at the end of the first century BCE or the beginning of the first century CE, that is, somewhat later than the fragment of Leviticus described above. The wording of this fragment is identical to the Masoretic text, both in the plene spelling of words such as המציאו, הקטיר and הקריבו, and the defective spelling of words like תמימם and במתם. That is the difference between this text and the one found at Qumran, where the tendency toward plene spelling is marked. One minute difference between the Masada text and the Masoretic text is the spelling of the word הסה with a final *mem* instead of the medial *mem* of the Masoretic text (Lev. 11:28). This spelling reveals the date of the scroll, since, as noted, the lack of distinction between the final and medial forms of letters ended after the first century CE.

This fragment deals with the day after the seven days of ordination following the consecration of the Tabernacle, and the list of clean and unclean animals.

Deuteronomy 33:17–34:6 (Fig. 184): The surviving fragment has four parts, each a few square centimeters in size. It was found buried in a pit dug in the floor of the back room of the synagogue (a *geniza*?). Most of the largest of the four pieces (11×9.7 cm) is blank and was sewn onto the left side of the largest of the inscribed portions. The blank part apparently served as a protective covering for the whole scroll, and was sewn onto it after the writing was completed. In this aspect, the Masada scroll differs from the Qumran scrolls, whose protective covering was an integral part of the written sheet rather than being sewn onto it. The number of letters in each row, the spaces between the rows and between the columns, and the space at the top and bottom, allow the size of the scroll to be reconstructed: It was 21 cm tall, and included about 38 columns of text, making it approximately 4 m long.

The shape of the letters reveals that the scroll was written at the end of the first century BCE by a skilled scribe. They hang evenly from the dry ruling and are of uniform [illegible] as are the spaces between the lines. The text of this scroll is identical to the Masoretic text, including the division into portions. The preserved fragment records Moses' blessing to the tribes, his death and burial.

Ezekiel 35:11–38:14 (Fig. 185): This scroll, like Deuteronomy, was found buried (in a *geniza*?) in a pit dug in the back room of the synagogue, near the pit in which the Deuteronomy fragment was buried. The surviving fragment consists of about 50 pieces, totaling 41×29.5 cm.



Fig. 185: An Ezekiel scroll fragment, chapters 35–38

The letters are in the 'formal Herodian hand' like the two fragments of Leviticus. Most of the letters are of uniform size, except for the medial *mem*, the final *mem* and the *lamed*, which are slightly larger than the others and protrude from the top or the bottom of the line, and the *yod*, *waw* and final *nun*, which are narrower than the other letters and are peculiar to the scribe who penned this scroll. The spaces between the letters are uniform, however, in some places no spaces were placed between the words, for example כאשראשפטדוידעת (35:11–12), or כאשרצויתי (37:7). The text of the scroll is almost identical to that of the Masoretic text. But here and there the scribe 'hung' above the line letters missing due to scribal error in order to suit the wording to the Masoretic text. For example, it added the letter *yod* to the words [י]על and דבר[י]כם (35:13) and the letter *waw* to the word ותנ[ו]בת (36:30). In contrast, there are cases where the defective

spelling was not corrected, such as the absence of the connecting *waw*: רעש תקרבו [והנה as opposed to the Masoretic ותקרבו (37:7). There are also cases of lack of distinction between medial and final letters, as noted above: ה[עצמות instead of העצמות (37:7) or עמ יהוה instead of עם יהוה (36:20). There are a number of words in defective spelling in the Masada text as opposed to the Masoretic plene spelling: אתה instead of אותה (36:17), ותבא instead of ותבוא (37:10); but also והסרותי in the Masada text instead of והסרתי in the Masoretic text (36:26). In general, the differences are minor and do not indicate that the Masada scribe was working from a text other than the Masoretic. Even in cases where we know of another ancient text — for example that from which the translators of the Septuagint worked — the Masada text follows the Masoretic text.

The number of letters per line, the spaces between the lines and between the columns and the margins on the top and bottom of the scroll allow its length to be reconstructed: The preserved fragment, which is 41 cm long, constitutes about 1/15 of the entire scroll. The writing of the entire text would have required about 60 such columns, thus the entire length of the scroll would have been about 6 m.

The preserved fragment, which includes the Vision of the Dry Bones, is a prophecy of comfort about the ingathering of the nation from the lands of its dispersion and its return to the Promised Land.

Psalms 81:2-85:6 (Fig. 186): This scroll belongs to the assemblage of epigraphic material uncovered in the Casemate of the Scrolls. The raggedness of the edges seems to evince deterioration of the parchment rather than willful tearing, as Yadin assumed. The script is identified as 'formal Herodian script,' which can be dated to the end of the first century BCE or the beginning of the first century CE. The letters hang at a uniform height from an incised line on the parchment, and each line begins with a vertical line incised in the same manner.

The text of the scroll differs only minimally from the Masoretic text. For example, Psalm 83:6 reads אלהי אדום (god of Edom) instead of the Masoretic אהלי אדום (clans [or tents] of Edom), which is identical to the Septuagint. This might have been an instance of the common scribal error of transposing letters, but it might also have been a different version and not a corruption, like the difference between גויים ואלוהיו (nations and their gods) in the Masoretic text of 2 Samuel 7:23 as opposed to the Septuagint's גויים ואהליו (nations and their clans). The differences between the Masada scroll and the Masoretic text can also be seen in the matter of plene versus

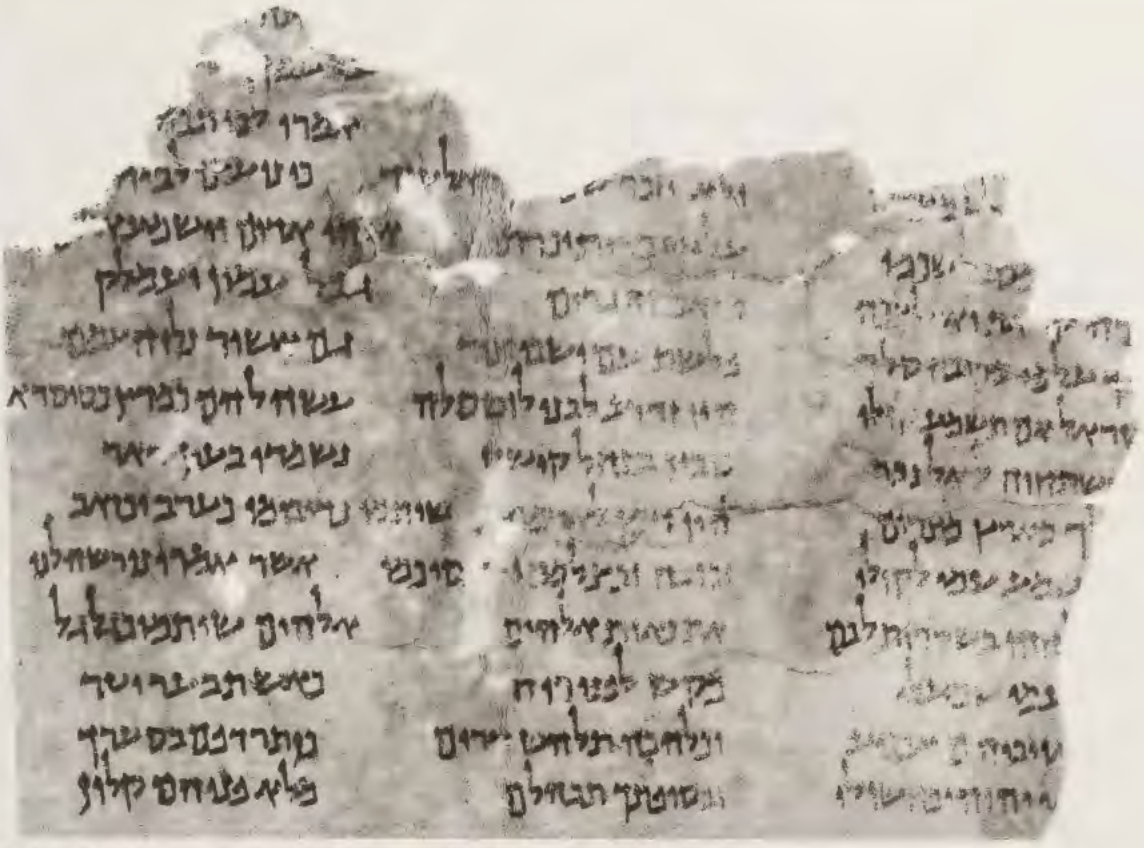


Fig. 186: Fragment of a Psalms scroll (chapters 81–82)

defective text, for example אח[לצכה at Masada as opposed to אחלצך (81:8) or בשדרות in the Masada texts opposed to בשרירות (81:13). Such differences between the Masada texts and the Masoretic text were also observed in other scrolls.

The arrangement of the chapters in the scrolls from Masada is identical to that of the Masoretic text. The names of the Psalms are written on the top line. They are: "A Psalm to Asaph" (82), "A Song, a Psalm of Asaph" (83) and "To the Chief Musician upon Gittith, A Psalm for the Sons of Korah" (Psalm 84). The scribe left a space of one line between one psalm and the next.

Psalm 150:1–6 (Fig. 187): A fragment of another scroll, including almost the entire text of Psalm 150, was found in a casemate near the Snake Path Gate on the east side of the plateau. The fragment measures about 7×4 cm. The form of the letters dates the scroll to the second half of the first century BCE.

The text closely resembles the Masoretic text, with slight differences, for

example the defective writing of the word שפר and הללהו as opposed to the plene spelling שופר and הללוהו in the Masoretic text (v. 3). However, the words בתקע שופר in the Masada text are the same as the Masoretic text, while the Qumran text of the Psalm has בתקוע שופר. The words כל הנשמה (v. 6) are identical in the Masada and the Masoretic texts, while the text from Qumran reads כל הנשמות.

Based on the width of the lines and the reconstruction of the column together with the top and bottom margins, the scroll was originally about 25 cm high. This was also the original height of the Psalm scroll described above, as well as some of the Qumran scrolls, and was apparently the accepted height of Psalm scrolls.

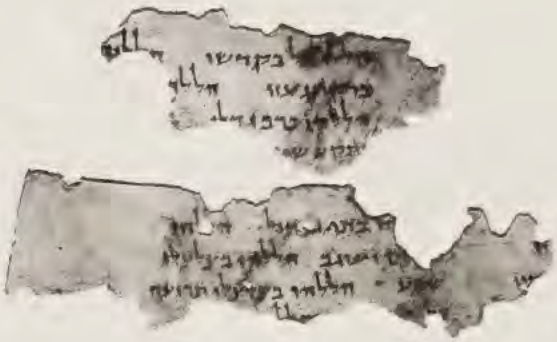


Fig. 187: Fragment of a scroll of Psalm 150

Fragments of Bible-related compositions

A Genesis Apocryphon (Fig. 188): About 15 pieces of this scroll survived, the largest of which is about 7×6 cm. Three of the fragments are blank, and probably came from the top or bottom margins, or from the space between the columns.

The scroll was penned by a skilled scribe at the end of the Hasmonean period or the beginning of the Herodian period, i.e., from 50 BCE to 25 BCE. The letters hang at a uniform height from an incised line, with only the *lamed* protruding above. An incised line also confines the columns, which are separated by a space of about one centimeter.

The plene spelling of the words ברי]ת קודשו and יום קודשד[ו connects the Masada scroll to those of the Qumran sect and this scroll may have come from there. Based on the words חן בעיניו (favor in) and ותלו את (and they hanged). Yadin assumed that this was an apocryphon to the book of Esther. However, Esther is the only book of the Bible not found at Qumran. That being the case — if indeed this scroll was brought from Qumran — it might



Fig. 188: Fragments of the Genesis Apocryphon scroll

be supposed that this is a commentary on Genesis. The word ים[][צ[, which survived only partially, could perhaps be read מצרים (Egypt). With regard to the words חן בעיניו (favor in) and את ותלו (they hanged), which do in fact connect the text under discussion to the Book of Esther, many commentators have already pointed out that the author of Esther drew many expressions from the story of Joseph in Genesis: for example, the phrase "he took a liking to Joseph" (Genesis 39:4). It is also interesting that the author of the Book of Jubilees wrote "And the Lord gave [Joseph] favor and mercy in the eyes of Pharaoh" (Jubilees 40:5, and see below). The words תלו אותו (and they hanged him) also recall an expression from the story of Joseph ותלה אותך על עץ "and he [Pharaoh] shall hang thee on a tree" (Gen. 40:19). Also pointing in this direction is the use in the Masada text of the verb להודיע (in its *hif'il* form), not known at all in the Scroll of Esther but known from the story of Joseph: אחרי הודיע אלוהים אותך ("since God has made all this known to you...") (Gen. 41:39). In addition, the verb שחק (a variant spelling of the verb צחק mock) is not known at all in the Scroll of Esther, but

appears in the complaint of Potiphar's wife "...he hath brought in a Hebrew unto us to mock us," and "The Hebrew servant [...]came in unto me to mock me" (Gen. 39:14, 17). These and other expressions show that this is a text involving Joseph in Egypt.

However, it is important to emphasize that according to the order of events as reconstructed in the scroll, the hanging of the baker preceded the complaint of Potiphar's wife, showing that the text of the Masada scroll was certainly different than the biblical text. The scroll is therefore an apocryphal account of the story of Joseph, and may even be a composition about the entire book of Genesis. (The preserved fragment does not contain enough text to be sure.) In any case, from a literary point of view this composition joins the genre of the Book of Jubilees, the Genesis Apocryphon from Qumran and the Joshua Apocryphon from Masada (see below). The scroll may have been brought to Masada by one of the refugees from Qumran.

The Joshua Apocryphon (Fig. 189): Two fragments measuring 9.5×6 cm together were found in the Casemate of the Scrolls and comprise a left, lower column containing 10 lines of script. This manuscript was also written in 'formal Herodian hand' at the end of the first century BCE or the beginning of the first century CE. The scribe, who used the form of the word מואדה for מאד, clearly links it to the typical spelling of the Qumran sect. Thus this scroll, like the Genesis Apocryphon and other fragments, was apparently brought to Masada by a Qumran refugee.

Yadin identified the composition as an apocryphon of the book of Samuel, based on the phrase ולוא [נפ]ל דבר ארצה which he saw as parallel to the phrase ולא הפיל מכל דבריו ארצה ("He did let none of his [Samuel's] words fall to the ground") (1 Sam. 3:19). However, the phrase appearing in the scroll: ויברכם...[ואשר] דבר עליהם בא להם ולו[א נפל] דבר ארצה should apparently be seen as a paraphrase of Joshua 21:45: כי לא נפל דבר מכל הדבר הטוב אשר דבר יהוה אל בית ישראל הכל בא and a similar phrase in Joshua 23:14. The text of the scroll is thus closer to that of Joshua than to Samuel. However, the word ארצה, which appears in our scroll but is absent in Joshua, was probably taken by our scribe from the book of Samuel. The 'poetic license' the scribes took in 'quoting' sources from the Bible is known from quite a few compositions, for example, in the *pesharim* (commentaries). Another matter connecting the Masada text to Joshua and not to Samuel is the phrase עבר הירד[ן] (the other side of the Jordan). This phrase occurs 20 times in Joshua, while in Samuel it appears only once, in

the context of the defeat of the Israelites in their war against the Philistines (1 Sam. 31:7). The fragment of the Masada scroll, like that of the book of Joshua, deals mainly with the victory of the Israelites over their enemies and thus this pair of words appearing in the small preserved fragment underscores its identification as a work based on the book of Joshua.

The subject of this scroll is the events of the last days of Joshua's life — a summary of the conquest, his words to the people and the assembly at Shechem (chapters 21, 23 and 24).

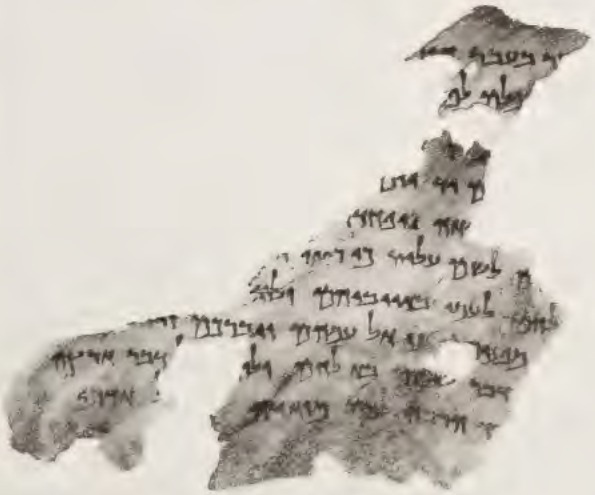


Fig. 189: Fragment of the Joshua Apocryphon scroll

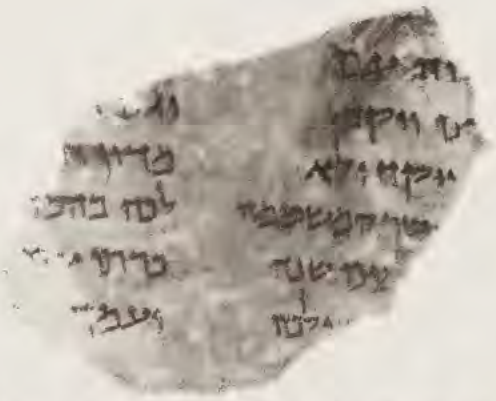


Fig. 190: Fragment of the Book of Jubilees scroll

Fragments of extra-biblical works

The Book of Jubilees (Fig. 190): A fragment of this scroll, measuring 6×5 cm, was found in the Tannery near the Western Palace in a heap of debris dumped by the Roman soldiers who took the fortress. The scroll was written by a skilled scribe in the 'formal Herodian hand.' The letters hang at a standard height from the dry ruling with only the *lamed* protruding above it and the final *kaf* and *nun* ending below the other letters. The letters *waw, yod* and *nun* are slightly narrower than the rest of the letters. All these elements are typical of this script, and have been discerned in other scrolls.

The pair of words שר המשטמה (prince of hatred or prince of enmity), which appear in the fifth line of the fragment, clearly link this manuscript to the literature of the Qumran sect, although the word משטמה also appears twice in the book of Hosea (9:7-8), albeit in an entirely different context.

This term is typical of the Book of Jubilees of the Qumran sect, where it appears in the combination שר המשטמה (prince of hatred), שר המשטמות (prince of hatreds); מלאך המשטמה (angel of hatred) and מלאכי המשטמות (angels of hatred).

The Book of Jubilees describes the acts of the patriarchs in Genesis, dividing time into "weeks" (seven-year *Shmita* cycles) according to the special calendar of the Qumran sect. The Qumran version is called "the Book of the Division of the Times into their Jubilees and Weeks" and is considered one of the most important sectarian works. This scroll was also apparently brought to Masada by a refugee from the Qumran sect.

The Ben-Sira Scroll (Fig. 191): This fragment, found in the casemate next to the Snake Path Gate, is the largest of all the scrolls found on Masada. Its 26 surviving pieces come from two sheets sewn together. The two largest pieces measure 18×11 and 23×16 cm. Three other sections are 7×6 cm, and the rest are smaller. Most of the parts can be matched together. It can clearly be seen that this scroll, like others from Masada, was intentionally torn, with further damage done by humidity and insects. The portions where the margins on the top and bottom have been preserved reveal it to have been approximately 17 cm high; the length of the surviving fragment is about 39 cm.

The text that emerges when all the parts are put together includes chapters 39:37–44:21 of the work known as the Wisdom of Ben-Sira. The scroll is written in parallel verses, with every page divided into two columns with a narrow space between them. The letters, which are not of uniform size, hang from incised lines. The top of the page was also incised with a horizontal line. The scroll is written in stichometric style, which means that each rhyme is written across one line of two columns — the first part of the rhyme is in the right-hand column and the second part is in the left-hand column. Lyrical biblical books, such as the Psalms discovered at Masada, were also written this way.

The scroll is the work of a skilled scribe, with corrections noticeable here and there: A forgotten letter was 'hung' above the line (and at one point placed below the line), or an error in a letter or a word was corrected by scraping it away and 'hanging' the correction above the effaced portion. There are also uncorrected mistakes, perhaps because the scribe did not notice them. In one case a whole line is missing, as can be discerned when comparing the scroll to other manuscripts of Ben-Sira.

The shape of the letters reveals the scroll to be late Hasmonean or pre-

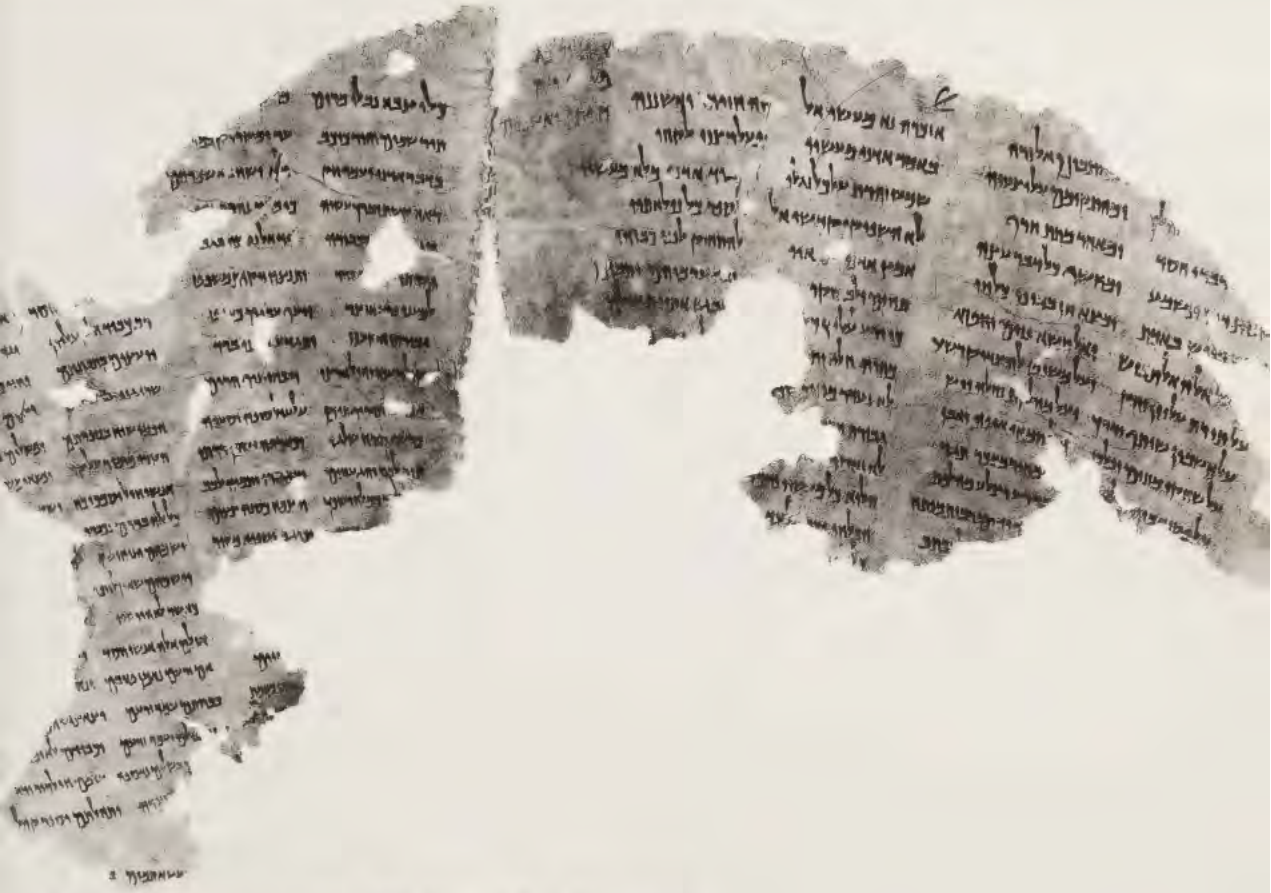


Fig. 191: Fragment of the Wisdom of Ben-Sira scroll

Herodian, thus apparently penned at the end of the second century BCE or the beginning of the first century BCE. Evidence shows that Ben-Sira was composed in the first third of the second century BCE, which means that the Ben-Sira text from Masada was copied about 100 years after the work was composed.

The Greek form of Ben-Sira reveals that except for the psalms of prayer and praise and a paean to wisdom and the wise, most of the work is devoted to wisdom and morality maxims in a lyrical style. The composition is therefore a kind of moral guide on living, presenting a code of behavior and proper conduct in the family and between people, and praises moderation and tolerance. That said, although in terms of the obligations of human beings toward each other, where the author preaches a measure of compromise, he does not believe in compromise when it comes to people's obligations to God.

The main importance of the Masada Ben-Sira scroll is that it is the earliest original text of this work ever found. Until about 100 years ago, the

original Hebrew of this work was lost, and it was known only in Greek, translated a few decades after it was composed. The Greek translation is still the main text for the study of the work, since it is the most complete version we have, despite numerous corruptions and mistakes (stemming partially from the translator's misunderstanding of the original). At the end of the 19th century, some pages of the work were identified — written in Hebrew — among the manuscripts in the Cairo Geniza. Scholars were divided at the time as to the extent to which these fragments represent the original Hebrew text or were a translation from the Greek back into Hebrew. This debate was put to rest with the discovery of the scroll at Masada after it was realized that this earliest known version of the Ben-Sira scroll, is almost identical to the Cairo Geniza version. Thus the Geniza text is a late copy of the original Hebrew, albeit with corruptions and copyists' errors.

The Songs of the Sabbath Sacrifice (Fig. 192): The size of this fragment, unearthed in the Casemate of the Scrolls is about 20×10 cm and seems to have been intentionally torn, like other scrolls at Masada. The fragment

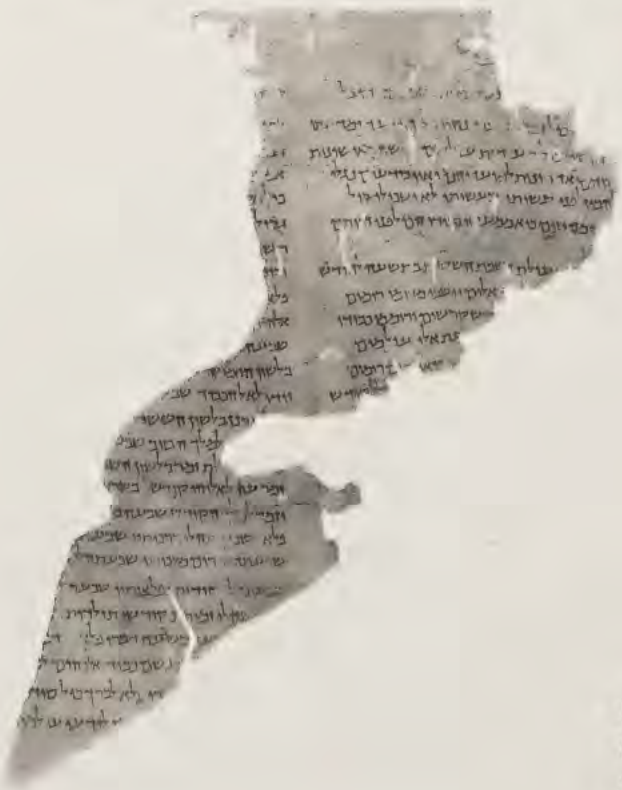


Fig. 192: Fragment of the Songs of the Sabbath Sacrifice scroll

includes 26 lines in two columns, at the top and bottom of which are margins of about 1.6 cm.

The Songs of the Sabbath Sacrifice is a typical Qumran sectarian scroll nine more copies of which were found in the Qumran library (in caves 4 and 11). Because of the similarity of the Qumran scrolls to each other and to the Masada fragment, words that were illegible in the Masada copy can be reconstructed and clarified. The composition deals with prayers recited by angels. A different text was composed for each Sabbath based on the calendar of the Qumran sect, as can be gleaned from a verse in the eighth line of the fragment from Masada: "A song of the whole-offering of the sixth Sabbath on the ninth of the second month." The sixth Sabbath could have occurred on the ninth of the second month only according to the Qumran calendar, in which the years were divided into 364 days — 12 months of 30 days and four "days of the season." (According to the Qumran calendar such days, which divided the four seasons of the year, were not counted among the days of the year.) In this calendar, the first day of the first month (Nisan) always fell on the fourth day of the week, the day in which the celestial bodies, which were the markers of the seasons, were created.

Yadin suggested that the presence of this sectarian scroll at Masada proved that most, if not all, the people of Qumran — the Essenes — played an active part in the war against the Romans, and considered it a divinely ordained conflict. Among the names of commanders of the various sectors during the war as presented by Josephus (*War* II, 567; III, 11) is an individual by the name of John the Essene, mentioned as commander of the central region (including Lod, Jaffa and Yavneh), and he would obviously not have been the only Essene to participate in the war. The presence of scrolls clearly connected to the Qumran sect (including the Joshua Apocryphon and the Book of Jubilees discussed above) can be explained in two ways: Either they arrived at Masada with refugees who escaped Qumran after its conquest by the Romans, or they were brought to Masada by members of the sect who were among the fighters from the beginning. Both explanations might also be correct.

Unidentified Fragment 1 (Fig. 193): Nine lines of writing were preserved on this fragment, measuring 3.3×7.5 cm, only three of which contain whole words. According to the way the lines were cut off on the right and the left, it may be assumed that this scroll was also purposely torn. The absence of skilled penmanship reveals an inexperienced scribe. The letters hang from lines marked on the parchment. Their shape and the spaces between them

are not uniform. The fragment should apparently be dated to the Hasmonean period, to the second half of the second century BCE.

The words (הוא=) הואה and ת קודשו[, which can be reconstructed to read ת קודשו ברי[or ת קודשו שבתו[or ת קודשו עצ[are combinations frequently found in the Qumran sectarian literature. They are an indication that this manuscript also belongs to the sectarian literature.

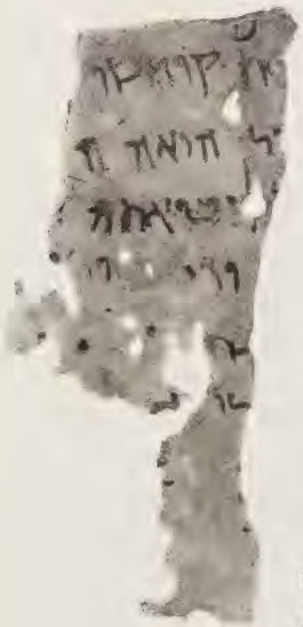


Fig. 193: Fragment of unidentified scroll A

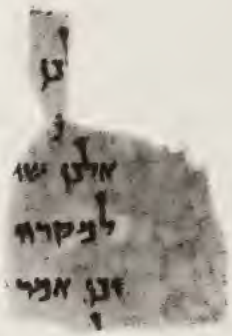


Fig. 194: Fragment of unidentified scroll B

Unidentified Fragment 2 (Fig. 194): In this fragment, measuring about 3×2 cm, the remains of seven lines of writing can be seen, only four of which are whole words. The writing is in the 'formal Herodian hand.' The words אלכן, לכן (therefore) and וכן (as follows) which repeat themselves frequently, indicate that the language of the scroll is Aramaic, since the word אלכן does not appear in the Bible. The combination וכן אמר (said...as follows) in the fourth line appears in Aramaic in the Book of Daniel twice in the singular (2:24-25; 4:11) and once in the plural וכן אמרין (Deut. 6:7). In contrast, the words למקרה (of the incident) in the Masada fragment is Hebrew; thus this may be a bilingual text.

The words למקרה and the repetition of the words אלכן and לכן may show that the text deals with the recounting of events or incidents and their outcome.

A Papyrus in Paleo-Hebrew (Fig. 195): This is the only fragment of scroll,

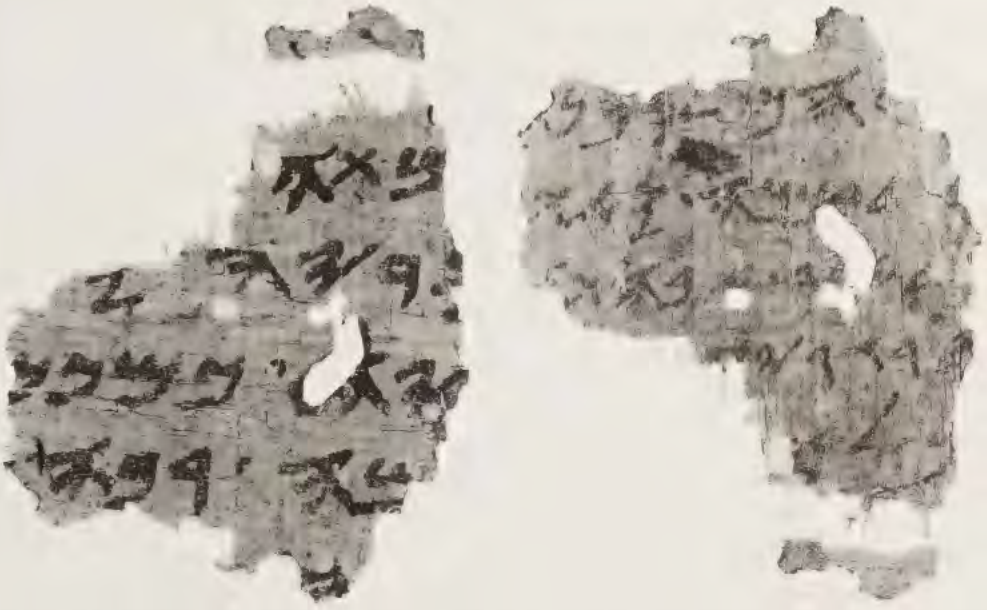


Fig. 195: Papyrus bearing an inscription in Paleo-Hebrew

found at Masada that is not written on parchment in square script, but rather is inscribed on both sides of a papyrus (4×3.5 cm) in Paleo-Hebrew. Five lines of writing survived on each side, but the various shapes of the same letters indicate that each side was written by a different scribe, both of whom were skilled. The words were separated from each other by dots — a custom known in inscriptions from the First Temple period, which persisted in writing on parchment and papyrus in later periods only in Paleo-Hebrew inscriptions. In texts executed in square writing, in which dots were not customarily used as word separators, discrete forms of medial and final letters developed over time to make reading easier.

The word לרננה (for joy) appears twice in this document. In the Bible this root appears 91 times, always in conjunction with prayer, thanksgiving, exaltation, etc., that is, in ritual contexts. The masculine form רנן does not appear in the Bible; however, it often appears in the writings of the Qumran sect; for example, in the Songs of the Sabbath Sacrifice, which prefers the masculine form over the feminine. In the Masada document the word appears near the word צלו or [תא]צלו which is the Aramaic parallel to the Hebrew word תפילה (prayer). The ritual nature of the text is underscored by the word [ים]הרגריז. The words הר (Mount) and גריזים (Gerizim) are very frequently written as one word in Samaritan tradition; in the Samaritan version of the Pentateuch it is written only in this way. In Samaritan liturgical works and Samaritan inscriptions on stone the conjoining of these two

words is also common. However, it is important to note that the word הר is attached to the name of the mountain only in this phrase; in other cases (such as הר עיבל — Mount Ebal), the word הר is separate.

This papyrus cannot be dated based on paleographic considerations, but it clearly cannot post-date the fall of Masada in 73/74 CE. It was probably brought to the fortress by a Samaritan seeking refuge. It would be reasonable to assume that the text was composed between the first century BCE and the first century CE; however, we have no Samaritan documents (parchment or papyrus) written in either square or Paleo-Hebrew from this period with which to compare. The Samaritan papyrus documents discovered in Wadi Daliyeh predate the Masada Samaritan papyrus by some 300 years. With regard to Paleo-Hebrew fragments from Qumran, there is no evidence that the form of Samaritan letters differed from that of Hebrew letters at this time. Thus lacking paleographic evidence, we can determine the possible Samaritan affiliation of the Masada document based only on the spelling of הר גריזים.

Coins

Some 4,700 coins were found at Masada, of which nearly 80% (close to 4000 coins) could be identified. Except for a few hoards of *prutot* and three hoards of shekels from the period of the Great Revolt, all the rest of the coins were found scattered in various buildings of the fortress. Coins of various periods were usually found intermixed in one structure, their dates sometimes spanning more than 200 years. The main reason for this is that various coins remained in circulation, together with coins minted after them, for a long time after they were struck. This is particularly true of Hasmonean coins, especially those of Alexander Jannaeus (more than 80 such coins were unearthed at Masada), which were in circulation for more than 100 years after they were struck. Thus like a number of pottery types from the Hasmonean period, they cannot attest to a settlement at Masada during the Hasmonean period. Coins from various periods would have also become mixed as a result of the looting of the fortress by the Romans.

Ptolemaic coins (Fig. 196:1)

Twelve coins from the period of Ptolemy I, Ptolemy II and Ptolemy IV were found at Masada. They all bear the portrait of Alexander the Great (or

Zeus?) on the obverse and on the reverse, an eagle with and the words "King Ptolemy." The coins were found in various locations (the Western Palace, Building 9, Building 11, a cistern and elsewhere). Their dates span the period from the end of the fourth century to the end of the third century BCE. If these coins had not remained in circulation for such a long time, they could, perhaps, be seen as an echo of Josephus' statement that Masada was first built by "kings of old" (*War* IV, 399).

Of the 12 coins, 4 are of the largest denomination which is unusual for a place as distant and isolated as Masada. In fact, a larger number of coins of this denomination were found at Masada than in all the excavations in Jerusalem combined!

Seleucid coins (Fig. 196:2)

Four coins from the time of Seleucus II, Antiochus IV and Demetrius II were found at Masada. On the obverse, the coins bore the head of the king (Antiochus IV, Demetrius II) or the bust of Athena, and on the reverse, an eagle or the image of Nike with the word "king" and the name of the king. They spanned a period from the end of the third century BCE to the end of the second century BCE.

Like the Ptolemaic coins, the Seleucid coins were also found scattered in various places (the casemate walls, a storeroom, Building 9 and a room the rebels used adjacent to the casemate wall). To these should be added a Greek coin struck in Asia Minor at the beginning of the second century BCE, and a silver denarius from the Roman Republican period minted in the mid-second century BCE, which is the earliest Roman coin found anywhere in Palestine.

Hasmonean coins (Fig. 196:3–5)

Approximately 90 Hasmonean coins were discovered at Masada. Four date from the reign of John Hyrcanus I and bear on their obverse a double cornucopiae and on their reverse the Hebrew inscription "Yehoḥanan the High Priest and the *Ḥever* of the Jews." Three coins are from the time of Mattathias Antigonus. They, too, feature the double cornucopiae on the obverse and on the reverse, the Hebrew inscription "Matatiah the High Priest and the *Ḥever* of the Jews," "Matatiah the king," or "Matatiah." However, most of the coins (more than 70) date from the reign of Alexander Jannaeus. The obverse usually features a six- or eight-pointed star and



Fig. 196: The early coins: 1. Ptolemaic coin; 2. Seleucid coin; **Hasmonean coins**: 3. John Hyrcanus; 4. Alexander Jannaeus; 5. Mattathias Antigonus; **Herodian coins**: 6. Herod the Great; 7. Herod Archelaus; **Coins of the Roman Procurators**: 8. Ambibolos; 9. Pontius Pilate; 10. Festus; 11. Coin of Agrippa I; 12: Coin of Agrippa II

occasionally an anchor or a double cornucopiae, and the reverse bears the inscription in Greek, "Alexander the king." On some of these coins, an inscription in Hebrew reads "Yehonatan the High Priest and the *Ḥever* of the Jews."

The earliest of these coins was struck in the last quarter of the second century BCE, and the latest in 37 BCE. They were all minted in Jerusalem.

Coins of Herod the Great (Fig. 196:6)

Masada revealed 395 coins struck by Herod the Great. They were all produced in Jerusalem, save one struck in Samaria between 40 and 37 BCE, before Herod took over the kingdom and conquered Jerusalem. The coins bear various designs on their obverse — cornucopiae, a tripod table and palm branches, and on the reverse, the inscription "Herod the king."

Coins of Herod Archelaus (Fig. 196:7)

Masada's excavations unearthed 177 coins of Herod Archelaus. A double cornucopiae, a ship or an anchor appears on the obverse, and on the reverse the inscription "Herod Ethnarch" or simply "Herod." The coins date from 4 BCE to 6 CE.

Coins of the Roman procurators (Fig. 196:8-10)

Some 500 coins from the rule of the Roman procurators were found at Masada, all minted in Jerusalem from 6 to 59 CE. Among the procurators named — Coponius, Ambibulus, Valerius Gratus, Pontius Pilate, Antonius Felix and Festus — the most common were those of Festus (184 coins), Pontius Pilate (124 coins) and Ambibulus (89 coins). A number of coins bear inscriptions such as "Caesar," "Tiberius," and "Tiberius Caesar" (the coins of Valerius Gratus and Pontius Pilate) and "Nero Caesar" (the coins of Antonius Felix and Festus). The most common designs were date palms, sheaves of grain, a scepter with a curved head (a priest's scepter) and weapons.

Coins of Agrippa I and Agrippa II (Fig. 196:11-12)

The excavations revealed 114 coins from the reign of Agrippa I and two of Agrippa II. All the Agrippa I coins date from 42-43 CE, and were struck in Jerusalem. Their obverse features a royal canopy, beneath which are the words "Herod Agrippa." The reverse shows three sheaves of grain.

The two coins of Agrippa II date from 61 CE and were both struck at Banias (they are very rare in sites in southern Palestine). On the obverse the head of Nero appears with the inscription "Nero Caesar Sebasto" and on the reverse, a wreath and the inscription "in the days of Agrippa of [the men of] Neronias (= Paneas)." On one of the two coins is a countermark of the Tenth Roman Legion. A similar imprint appears on a coin from Ascalon (see below).

Coins from the Great Revolt

Approximately 50% of the coins discovered at Masada belong to this group (2,348 coins), among them 40 shekels, 33 half-shekels (Fig. 197:1-6) and 2,275 *prutot*.

The shekel and the half-shekel coins bear an inscription written in the ancient Hebrew script "shekel of Israel," "half a shekel," or "Jerusalem is holy" and are dated according to the calendar of the Great Revolt — the first, second, third, fourth and fifth years, i.e., 66-70 CE, in various versions: Some feature only one letter, such as *aleph*, signifying the first year of the revolt. Others feature an abbreviation: the two Hebrew letters שב short for "year two" (of the revolt), and sometimes feature the full phrase שנת שתים. Particularly interesting are three shekels bearing the inscription "shekel of Israel" and the date שה (short for the fifth year of the revolt). These coins, struck in the year 70 CE, attest that coins continued to be minted even on the eve of Jerusalem's fall. It is not surprising that they are very rare. The most common designs on these shekel and half-shekel coins are goblets of various types, date palms and grape leaves.

Almost all the shekel and half-shekel coins were found in buried hoards. One may assume that those that were not buried before the fall of the fortress were looted by the Romans. Two of the hoards, one containing 37 shekel and half-shekel coins, and the other with 12 half-shekels, were found in various rooms of Building 9. On one of the hoards were remains of the cloth bag in which they were wrapped. The other was found in a bronze vessel used for medicinal cupping. Another group, containing 19 shekels, among them all three "year-five" shekels, was found in the Casemate of the Scrolls.

Hoards of shekels and half-shekels are known from other places, five in Jerusalem and one of unknown provenience but most likely from this same area. It is interesting that all six of these hoards also contained Tyrian shekels, while the hoards at Masada did not contain even one legible Tyrian shekel. To be precise, the hoard from the Casemate of the Scrolls did contain a Tyrian shekel and half-shekel, but they had both been deliberately defaced (Fig. 197:7). Originally they had born a head of Heracles on the obverse and on the reverse, an eagle, however, they were so disfigured that only indications of the designs could be discerned. These designs were apparently not in keeping with the zealous nationalism of the rebels. Evidence of this practice can be found in the Mishnah: A *sela* (a *tetradrachm*) is mentioned as being defective and used as a weight (Kelim 12, 7).



Fig. 197: Silver shekels from the time of the Great Revolt: 1. Y[ear] 1; 2. Y[ear] 2; 3. Y[ear] 3; 4. Y[ear] 4; 5. Y[ear] 5; 5. Y[ear] 5; 6. A group of silver shekels discovered in the "Casemate of the Scrolls"; 7. A Tyrian half-shekel, intentionally defaced

Most of the coins of the Great Revolt, nearly 2,300 in number, are *prutot* from the second and third years of the revolt — i.e., 67–68 CE (Fig. 198:1–3). These coins bear on their obverse an amphora and the inscription "year two" or "year three" and on the reverse, a vine leaf and the words "freedom



Fig. 198: *Prutah* coins from the time of the Great Revolt; 1. Year 2; 2. Year 3; 3. Year 4

of Zion." Coins from the fourth year of the revolt are somewhat similar to the shekel and the half-shekel, but they are made of bronze. On the obverse a goblet is depicted with the words "for the redemption of Zion," and on the reverse a *lulav* and two *etrogs* with the inscription "year four."

Nabatean coins (Fig. 199)

This group numbers 59 coins, which were minted during the reigns of three kings: Aretas IV (9 BCE-40 CE), Malichus II (40-70 CE) and Rabbel II (70-106 CE).

The Aretas coins bear his portrait on the obverse and the inscription "Aretas King [of the Nabateans lover of his people]" and on the reverse, the portrait of Aretas and his sister Shuqailat with the inscription "Shuqailat queen of the Nabateans year...." Cornucopiae appear on a number of these coins.

The coins of Malichus feature on their obverse the portrait of Malichus (and sometimes that of Shuqailat) and the inscription "The king Malichus king of the Nabateans," and on the reverse, the portrait of Shuqailat and the inscription "Shuqailat his sister queen of the Nabateans" and cornucopiae.

The coins of Rabbel bear on their obverse portraits of Rabbel and his mother Shuqailat, and on the reverse the inscription "Rabbel, Shuqailat his mother," and a pair of cornucopiae.

Judea Capta coins (Fig. 200)

All five coins of this group found at Masada were minted in Caesarea during the reign of Titus, after 70 CE. The portrait of Titus appears on their obverse with the inscription "Titus Caesar." The reverse of three of the five



Fig. 199: Nabatean coins: 1: A coin from the time of Aretas IV: 2. Coin from the time of Malichus II



Fig. 200: *Judea Capta* coins

coins features the image of a woman with her hands tied behind her back — a symbol of Judea — sitting under a date palm, and the inscription "Judea Capta" — Captured Judea. The reverse of the other two coins shows Nike the goddess of victory, holding a shield and standing next to a date palm. Here, too, the inscription reads "Judea Capta."

City coins (Fig. 201:1–4)

This group contains 173 coins minted in 14 different cities, from Antioch in the north to Alexandria in the south. The most numerous are the coins of Ascalon (89), followed by Caesarea (23) and Dor (11). A number of the



Fig. 201: City coins: 1. Coin of Tyre; 2. Coin of Caesarea; 3. Coin of Ascalon; 4. Coin of Caesarea Paneas (Banias)

coins are quite early, for example a Tyrian coin dated 97 BCE, but most were minted between 40 and 70 CE, and the latest was from Alexandria, dated 115 CE. The coins feature various designs, among them cornucopiae, a ship, an anchor, a shield, spears, wreaths, deities (Tyche, Dionysus) and portraits of emperors. The inscriptions note the name of the city, the names of the emperors (Augustus, Claudius, Nero or Vespasian) and sometimes the date they were struck.

Two of the Ascalon coins, dated 72/73 CE, feature a countermark of the Tenth Roman Legion. A similar strike also appears on one of the coins of Agrippa II (see above).

A hoard of Roman provincial coins (Fig. 202)

A hoard of 14 silver coins dating from the reigns of Nero, Vespasian and Trajan were found in one of the rooms of Building 7, which revealed evidence of the presence of Roman soldiers after the fall of Masada. The earliest of these coins dates from 61 CE and the latest is from 106–110 CE. A silver denarius struck in Bosra in 112 CE was also found. Apparently these coins were left behind by the soldiers at Masada.



Fig. 202: Roman provincial coins

Other Finds

Wooden artifacts

The wooden items unearthed at Masada numbered 1,140. This is the largest and most varied collection of wood and timber from this period uncovered anywhere in the country. It includes parts of construction beams and columns, pieces of bark, branches, roots and various items — parts of furniture, boxes, spoons, etc.

Twenty-five types of wood and shrubs have been identified, with more than 80% of the assemblage coming from seven of them. A number of these trees and plants grow in the vicinity of Masada: white broom, jointed anabasis and bean-caper grow throughout the area; acacia and species of tamarisk thrive in the wadis around Masada; reed, Euphrates poplar, sycomore fig and Christ-thorn jujube grow in the wadis around Masada and the oases along the Dead Sea. Other trees came from the Mediterranean region and the mountains of Transjordan, among them almond, cypress, myrtle, Mount Tabor oak, Phoenician juniper and Atlantic terebinth, while cedars of Lebanon would have been imported from Lebanon. It is interesting that the Phoenician juniper and the cedar, among the most common species of wood in this group of finds, would have to have been imported from the furthest locations, apparently during the reign of Herod.

Below is a list of the species in order of their frequency among the finds:

- Phoenician juniper (*Juniperus phoenicea*) — 501
- Sycomore (*Ficus sycomorus*) — 101
- Cedar of Lebanon (*Cedrus libani*) — 94
- Reed (*Arundo*) — 71
- Tamarisk (*Tamarix*) — 62
- Palestine terebinth (*Pistacia palaestina*) — 41
- Date palm (*Phoenix dactylifera*) — 40

Artifacts made of most of the variety of the species of trees and shrubs mentioned above were scattered throughout Masada, but some of the most common types of timber were found in particular concentrations, for example:

- **Phoenician juniper:**
  - 191 items in the Northern Palace
  - 152 items in the square south of the Northern Palace (apparently dumped there when the Romans looted the upper terrace)
  - 50 in the casemate wall
  - 21 items in the Western Palace
- **Sycomore:**
  - 36 items in the cells of the casemate wall
  - 27 items in the entrance courtyard south of the Northern Palace (apparently discarded there, as above)
  - 22 items in the Northern Palace

- **Cedar of Lebanon:**
  - 36 items in the Northern Palace
  - 30 items in the square south of the Northern Palace (also apparently thrown out in the looting)
  - 12 items in the Western Palace
  - 11 items in the casemates

The shrubs and trees, especially the jointed anabaxis, bean caper and white broom, were used as fuel. The cedar, sycomore, juniper, date and tamarisk served as building materials for columns, various types of beams and roofing. For furniture, mainly juniper, cypress, cedar, acacia, and Atlantic pistachio were used. Bowls were made mainly of juniper, almond, Euphrates poplar and myrtle; boxes were made mainly of juniper, almond and myrtle; combs were usually made of myrtle, and spindles and spoons were of juniper.

Woven artifacts

Thanks to the arid conditions at Masada, the excavations revealed a number of other items made of organic material. Most of the finds were woven, mainly out of palm fronds, some were made of palm fibers and a few were made of reeds; both species came from the immediate vicinity.

Basketry: (Fig. 203) Baskets of various weaves were the main finds in this category. Most of these featured a diagonal herringbone design. This weaving technique, which is very common in other Judean Desert sites, is unknown in Palestine before the Roman period. Some of the items feature a wound, braided base. More rare is a checkerboard pattern; One of the sieves found at Masada (Fig. 204) was made using this technique A sieve woven in the same pattern was also found in the Chalcolithic assemblage of Nahal Mishmar. The pattern is known from various sites in the ancient Near East, for items other than sieves as well, and remains in use to this day.

Some 300 woven artifacts were found at Masada, more than two-thirds in the Casemate of the Scrolls, in the assemblage from the time of the rebels. The rest of the items of this type were found mainly in other rooms in the casemate wall.

Many items were only partially preserved, and it could not be ascertained whether the surviving pieces were the remains of baskets or mats. Apparently most of the items, however, including woven handles, belonged to baskets.



Fig. 203: Baskets woven by various methods

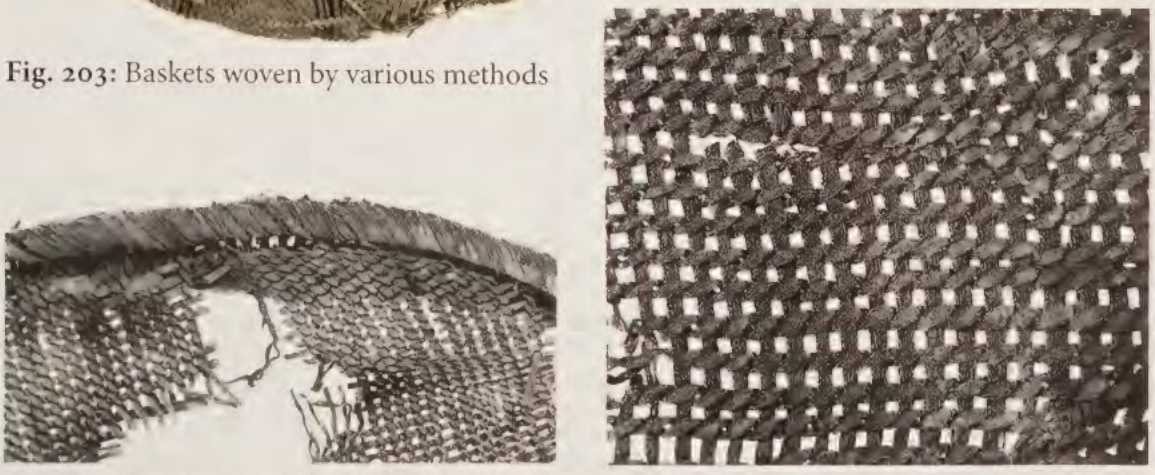


Fig. 204: Sieve woven in a checkerboard pattern

One piece that certainly came from a mat was found in a cave in the southern cliff of Masada along with sherds from the Chalcolithic period. Since an identical mat was found in Naḥal Mishmar, also from the Chalcolithic period, it seems that the item from Masada also belongs to this period.

Cordage (Fig. 205): The length of all the threads and ropes uncovered at Masada comes to almost 250 meters! About half were found, like the baskets, in the Casemate of the Scrolls, and the rest in rebel dwellings in other casemate rooms. The ropes and threads were made mainly out of

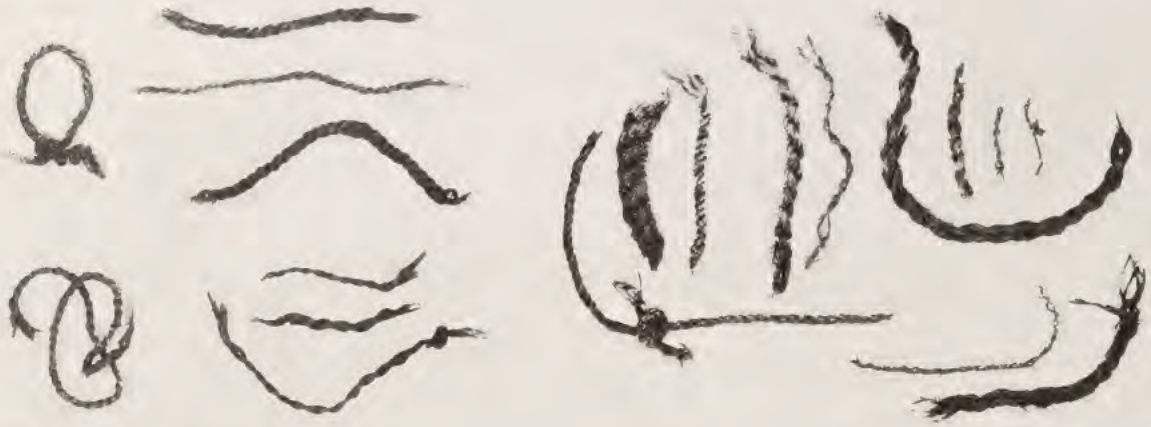


Fig. 205: Threads and ropes

palm fibers but some were made of reeds and even goat hair (about 10% of the finds).

Pieces of netting were unearthed in a rebel dwelling in one of the casemates; the average size of the mesh was approximately 4×7 cm. A similar net from the Bar Kokhba period was found in a cave in Naḥal Ḥever.

Also noteworthy are six rope rings, some about 15 cm in diameter and some about 5 cm in diameter (Fig. 206). The large rings were probably used as cushions to support loads carried on the head. Similar rings were found in a cave in Naḥal Ḥever.



Fig. 206: Rings made of rope

Tied and Bound Artifacts (Figs. 207–208): This group of finds includes three brushes made of bundled palm fronds, which were found in the rebel dwellings in the casemate walls, and a kind of 'packaging' made of palm



Fig. 207: Brush made of palm fibers



Fig. 208: 'Packaging' of palm fronds

fronds that apparently served as protective wrapping for a fragile item, similar to the packing for the glass plate found in the cave in Naḥal Ḥever.

Stone artifacts

Mugs: (Fig. 209) Thirty-one complete limestone vessels in the form of a deep mug (similar to a beer stein) were found at Masada, in addition to 110 fragments of such mugs. Most of these stone vessels were made of soft, white Senonian chalk, which is not to be found at Masada but is common in the Jerusalem area. Indeed, many vessels of this type were found in Jerusalem. They have a flat base and straight sides slanting slightly outward, with one or two handles and in some cases — especially the smaller ones — the addition of an open spout extending from the rim.

Most of the mugs were made by paring with a knife. In many cases this left a slight ribbing on the sides, which in a few cases was smoothed away by rubbing with sandstone. Some of these vessels were made on a lathe.

The 42 complete mugs found in excavations (31 at Masada and 11 in the Jewish Quarter in Jerusalem) fall into three groups in terms of their size: large mugs with a capacity of over 400 cc (50%); medium mugs with a capacity of 400 and 100 cc (19%) and small mugs of less than 100 cc (31%).

The distribution map of stone mugs found at archaeological sites clearly shows their association with locales inhabited by Jews, as does the presence of *miqva'ot* or burial in ossuaries. The distribution at Masada (the total calculation of complete vessels and fragments) is as follows: 65% in dwellings in and around the casemates; 12% in buildings 9 and 13; 10% in the storerooms, and the rest scattered in the Western Palace, Building 7, Building 11 and near the synagogue.

Such vessels used to be termed "measuring cups" because a certain amount of standardization was discerned in their size and capacity. Indeed, an examination made at the time of mugs of this type, showed an average capacity of 540 cc, which was the Jerusalem measure of a *log* (Tosefta,



Fig. 209: Stone mugs

Eduyoth 1, 2). Now, with the addition of the 31 mugs from Masada, a more exact measurement can be made. This reveals that the capacity of the mugs from Masada was between 920 and 22 cc, and the capacity of the mugs from the Jewish Quarter was between 935 and 40 cc.

It turned out that not even one of the mugs measured was equal to the Jerusalem *log*, as was believed in the past. A precise re-examination of the mugs measured in previous studies revealed errors of 5–10% in the calculation of their capacity. Moreover, the fact that only 10% of the complete mugs at Masada were found in or around the storerooms makes it difficult to accept the interpretation that these were a standard unit of measure. If the mugs served as a unit of measure they would have more likely been found in larger numbers in a food storage area. Therefore a different explanation should be sought for their function. Perhaps their use was connected to the fact that stone vessels do not "acquire impurity" (Mishnah, Ohalot 5, 5).

Weights: Thirteen stone artifacts uncovered at Masada were identified as stone weights; 11 were available for study (another two cannot now be located). Ten were of hard limestone identical to the stone from which the weights discovered in the Jewish Quarter were made, and one was made of marble. Lead weights were used in the Hellenistic cities of Palestine during that period; the reason for the use of stone weights in Jerusalem and at Masada as well (the weights were probably brought from Jerusalem) apparently involved Jewish laws of purity and impurity.

The stone weights are shaped like squat cylinders, with convex sides and a diameter greater than their height. The marble weight is an exception — it is prism-shaped with smoothed sides. This weight, which is unique in the country both in its material and its shape, was probably imported from abroad.

Some of the weights were damaged during use and have lost some of their original mass due to erosion or having been dropped and subsequently needing repair. Such damage was discerned in three of the Masada weights, which had lost 5% of their original mass. To recalibrate them, a number of holes were drilled in the base and lead was poured into them. This method of repairing weights is known from similar objects found in the excavations in Jerusalem near the Western Wall and in the Upper City.

Nearly half the stone weights from Masada were found in the Western Palace, about one-quarter in Building 9 and only a few in the casemates and in Building 7. The fact that not one weight was found in the area of the storerooms is particularly significant. In this context it is interesting that a large majority of the approximately 170 weights found in the Upper City of Jerusalem was unearthed in private dwellings.

Since the stone weights from Masada were apparently brought there from Jerusalem, the unit of weight upon which they are based should be determined by comparing it to the basic unit of weight attributed to stone weights from Jerusalem. A study of nearly 200 weights found in Jerusalem revealed that the weight of this unit changed somewhat over time. With regard to one group of these artifacts, it can be determined that the basic unit was a *maneh*, known from ancient Jewish sources. But the weight of a *maneh* differed in various locales: The Phoenician *maneh* was 358.5 g, equal to 25 Tyrian tetradrachms weighing 14.34 g of silver each. Indeed, the Tyrian shekel was used in Jerusalem during Second Temple times in calculating the Temple tax. The study of the stone weights from Jerusalem revealed that only one group of weights was based upon this unit; the other groups were based upon a slightly different unit. This variation represents

three different methods of calculation in use in Jerusalem during different periods: one at the end of the first century BCE and the beginning of the first century CE; the second common in the second quarter of the first century CE; and the third prevailed from the time of Agrippa I to the destruction of Jerusalem (41–70 CE).

With regard to the weights from Masada, two correspond to the first group and were apparently manufactured (and brought to Masada?) during the time of Herod. Most of the others fit the third group: They were manufactured a short time before the destruction of Jerusalem and it is reasonable to assume that they were brought to Masada by the rebels.

Spindle Whorls (Fig. 210): The largest group of stone spindle whorls ever uncovered in any dig in the land of Israel — 384 — was found at Masada. Whorls made of bone, clay and glass were also found in small numbers. The stone whorls are divided into a number of types: domed with a flat base (65%), conical (22%) and flat (6%). The state of preservation of the remaining 7% did not allow their shape to be discerned. There is no chronological significance to the various types; most were found in assemblages from the time of the rebels. Most spindle whorls were made of hard limestone, and some were made of basalt or black bitumen stone. None of these materials is to be found at Masada, thus all the whorls would have been brought there from elsewhere. The weight of the whorls ranges from 3 to 14 g; This variation in weights apparently attests to their use in spinning threads of varying thicknesses and materials — wool, linen, and goat-hair — which were used in the weaving of different textiles. Loomweights also varied greatly in their weight for the same reason (see below).

The distribution of the spindle whorls at Masada is of special interest: Almost half were found in the casemate rooms inhabited by the rebels and



Fig. 210: Spindles and bone items used for spinning and weaving

another large group, about one-third, was found in Building 9. Approximately another 10% were found in storerooms and the rest were scattered in various locations (four in the Western Palace, three in Building 7 and three in Building 13). Not one whorl was found in small palaces 11 and 12.

Spinning is known to have been women's work, as attested by the Mishnah: "These are the tasks that the wife performs for her husband: She grinds and bakes and launders and cooks [....] and works in wool [....] Even if she brought him a hundred bondswomen he compels her to work in wool, for idleness leads to unchaste behavior" (Ketubot 5, 5). The distribution of the whorls at Masada indicates that women lived neither in the Western Palace nor in the smaller palaces 11, 12 and 13.

The distribution of coins at Masada can be similarly analyzed: Most were found in the casemates and buildings 7, 9 and 13, while in the Western Palace and buildings 11 and 12 relatively few coins were found. The linking of this data to that of the spindle-whorl find-spots suggests that the distribution of the inhabitants of Masada may have been as follows:

- Families, including men, women and children, lived in the casemates and in Building 9, where many spindle whorls and coins were found.
- Single men lived in Building 13, where no whorls were found, but coins were found.
- Groups of men lived also in the smaller palaces 11 and 12, where no coins and no spindle whorls were found.

During Yadin's excavations efforts were made to determine 'who lived where' based on the overall distribution of finds and various characteristics of architectural plans — additions to buildings, distribution into sub-cells, multiple baking ovens and stoves, loomweights, etc. According to the distribution of coins and spindle whorls, it may now be proposed that most of the rebels who where not among the leadership lived in the casemate walls and Building 9. In contrast, the leadership, among them commanders and those with special tasks, such as supervisors of food and water distribution, would have lived in the Western Palace and Building 8, as indicated by their luxurious character and the lack of additions during the rebel period. Apparently, only men inhabited Building 13, who might have used the hall with benches that was added to the building that the excavators called the Study House.

The men who lived in small palaces 11 and 12 would have also been members of a special group at Masada, possibly Essenes who, as indicated

by the scrolls found at the site, may have inhabited the fortress following the destruction of their center at Qumran. The function of the facility constructed next to Building 11, which the excavators called the "Swimming Pool," is unclear. If it did serve as a *miqveh*, it is the largest one at Masada and as such, perhaps should be regarded as support for the theory that the inhabitants of the nearby building were Essenes.

Loomweights (Fig. 211)

About 110 artifacts identified as loomweights were discovered at Masada, of which about 90 were in good enough condition to discern their shape and weight. Most of the weights were found in the casemate rooms, mainly in the south and east, in an archaeological context that allows them to be dated to the period when the rebels inhabited them.

The weights have been classified by their shape into four types: 'doughnut'-shaped (the diameter is greater than the height); pyramidal, conical and domed. About half of all the loomweights were pyramidal, about one-third domed and the rest are 'doughnut'-shaped and conical.

The weights were attached to the warp threads of the loom by means of a ring made of goat-hair, linen or palm fibers.

A few needles were found in one of the cells in the eastern casemate wall along with iron, and charred wood, apparently the remains of a loom.

All the loomweights were made of unfired clay. These unfired clay artifacts are peculiar to Masada — all other clay loomweights of the Roman period in Palestine and elsewhere are made of fired clay. The Masada loomweights weigh between 70 to 590 g. Unfired clay tends to disintegrate, even in the arid conditions at Masada, which may account for the variations



Fig. 211: Loomweights

in weight. According to another theory, the heavier loomweights may have been attached to a larger number of warp threads so as to produce textiles with a heavier, tighter weave, while lighter loomweights may have been used to weave more delicate textiles. Similar large variations in weight have been discerned among loomweights discovered *in situ* at other sites, for example, a group of Iron Age loomweights from Tel 'Amal.

The use of loomweights ended at the end of the first century CE, when ancient sources and archaeological evidence indicate the advent of the horizontal loom, which does not require such weights. Therefore, the loomweights at Masada represent the latest group of finds of this type in Palestine.

Textiles

Only 122 of the approximately 2,000 textile fragments found at Masada have so far been published. Most of these items were found in the casemates of the perimeter wall, in the towers and in the lower level of the Northern Palace. A good many were also found among the heaps of debris left by the Roman soldiers who plundered the fortress — in the Casemate of the Scrolls, and the room adjacent to the synagogue, in the Tannery and in the large mound of debris north of the Large Bathhouse.

These fabrics represent a wide range of spinning, weaving and dyeing methods, and attest to techniques and loom-types whose existence at such an early period had not previously been known in our region. Although none has survived entirely intact, various garments can still be identified. Among non-clothing items are an embroidered wrapping, fragments of mattress covers or pillowcases, pieces of what might have been a towel, and fragments of sacks. Most of the items had clearly seen long-term use. Some were repaired and patched. A number, especially those that were found in the lower level of the Northern Palace, were clearly charred, perhaps as a result of the fire set by the besieged on the night before Masada fell, as described by Josephus (*War* VII, 394–395).

The various types of textiles

Most of the preserved pieces of fabric are small; the largest are 86×50 cm (wool), 65×17 cm (linen) and 64×55 cm (goat hair). Most of the textiles studied were made of wool — 105 items, and the rest were made of linen or goat hair. A few of the textiles were made of pieces stitched together, but in no case were linen and wool combined (*sha'atnez*). The condition of the

various items depended on a number of factors, such as wear-and-tear during use, frequency of washing, environmental conditions where they was found, etc. The goat-hair textiles were usually better preserved than the linen ones, while the state of the woolen items varied greatly depending on conditions where they were found.

Nearly half the fabrics were dyed (Fig. 212): In a number of cases woolen threads of different natural hues were woven into one cloth — one color for the warp and another for the weft (for example, lighter and darker shades of brown, light brown and black), giving the impression of a colored pattern. In other fabrics, the woolen threads were dyed various shades of



Fig. 212: Strips of dyed cloth

red — from dark to light, or blue, green and yellow. Some fabrics were monochrome; others were multicolored. The dyes were derived mainly from plants — the red came from a root of the Rubiaceae family (madder, or *Rubia tinctorum*) and shades of blue were produced from plants of the *Cruciferae*. Interestingly, not one of the purple-dyed fabrics from Masada used the costly dye derived from Murex snails. The linen textiles were not dyed. Their present color is grayish and their original color cannot be known, nor how much it faded over the years. The goat-hair fabrics are dark brown.

The closest parallels to the Masada textiles are those dating from the Bar Kokhba period found in the Cave of Letters, in Wadi Murabaʿat and Wadi Daliyeh, as well as those found in various Roman sites from the first and second centuries CE in Egypt (Quseir al-Qadim, Mons Claudianus), in Nubia (Qasr Ibrim, the Cemetery at Qustul), sites further afield such as Pompeii and Herculaneum in the first century CE, and as far away as the Vindolanda Fort on Hadrian's Wall in Britain, dated to the early second century CE. Slightly later parallels, from the third century CE, were found at Dura Europos and Palmyra, which show close commercial ties with the region west of them. The following items are particularly noteworthy:

Tunic: (Fig. 213): This quite large garment apparently belonged to a Roman soldier. It featured a checkerboard pattern rare in our region in that period, with the closest parallels in Roman sites in Europe such as Vindolanda in Britain and Thorsberg in Germany. Close parallels in our region are found



Fig. 213: Piece of a cloak-blanket of a Roman soldier (?)

at the Roman sites in Egypt (Quseir al-Qadim) and in Nubia (Qasr Ibrim). Scholars have determined that the tunic found in Egypt was "apparently brought there by a soldier who served in the northern provinces" and that the one found in Nubia was "typical of Gaul."

Mantle (*talith*) (Fig. 214): Fragments of textiles featuring straight bands with notched ends, and angled bands with notched ends resembling the Greek letter gamma, all dating from the period of the Bar Kokhba Revolt, were found in the Cave of Letters by Yadin's expedition. Based on the information then known, Yadin concluded that the straight-notched patterns belonged to men's mantles and the angled ones to the women's. Finds in the Cemetery at Qustul (Nubia), where the skeletal remains of both men and women were found, revealed that the gamma motif appeared on the clothing of both genders. It thus appears that the distinction between men's and women's mantles must be made based not on the presence or absence of the gamma motif but rather, as Yadin showed at the time, based on the color of the entire garment. Men's clothing was not dyed and women's clothing was dyed. Thus the mantle from Masada apparently belonged to a man.



Fig. 214: Pieces of a mantle (*talith*)

Pillowcase (Fig. 215): This sheet was woven in a repeating pattern that until recently had been known only in a few items from the fourth century CE. But finds from the Roman period in Egypt and those from Masada show that this pattern was known as early as the first century. Fabrics of this type were initially used as pillowcases or mattress covers, as can be seen from the size of better-preserved examples of these items from other sites, and from

the remains of a pillow with pillowcase that were found in Egypt. Only later, from the fourth century and onward, were weaves of this type, especially satin, or satin and wool, used for clothing.



Fig. 215: Piece of a pillowcase



Fig. 216: Hairnet

Hairnet (Fig. 216): Hairnets were part of the attire of women. Three types of hairnets are mentioned in the ancient Jewish sources: "There are three kinds of head-net: that of a girl [...] that of an old women [...] and that of a harlot" (Mishnah, Kelim 24, 16). A woman going out of the house with her hair uncovered could be liable for divorce (Mishnah, Ketubot 7, 6). Four plaited nets made of undyed wool were found at Masada. The closest parallels to them were found in the Cave of Letters. Based on a few hairs found in two of the nets, it seems that women with light hair wore nets of light-colored wool, and those with dark hair chose a darker net. Hairnets are known throughout the Roman Empire, from the Levant to Europe. A number of nets (mainly those found in Egypt) were completely preserved. A ribbon was sewn to the lower part of the net and a draw-string was

threaded through the loops in the warp. (In one net this drawstring was dyed red.) The net would be placed over the head and the thread tightened and tied above the forehead.

Sock (Fig. 217): This sock, which was tightly woven in linen with a knotless weave using a technique similar to knitting, resembles socks of the same period from Egypt. A division between the big toe and the rest of the toes allowed the sock to be worn with a typical thong-type sandal of the period. Such sandals were uncovered at Masada, in the Cave of Letters, and in other contemporaneous sites. The sock featured a draw-string threaded through its upper part. The sock's narrow circumference indicates that it might have belonged to a child.

Wrapper (Fig. 218): The wrapper was made of wool that had originally been dyed light blue but has faded completely over the years to pale yellow. Its weaving technique is known from Roman sites in Northern Europe but also in the East — in Syria and Egypt, where such items were imported from Europe (see below). The wrapper was 'artistically repaired' by darning in two places with a bluish thread. This technique is not found in local repair traditions which generally consisted of patching. This fabric might have been in use over a long period of time before someone made it into a wrapper.



Fig. 217: Piece of a sock



Fig. 218: Wrapper

The two parts of the wrapper's fabric were stitched together at their edges with red thread, which was also the color of the thread that embroidered its upper part. The embroidery is careless: The chain-stitched triangles are uneven, with the outermost triangle 'squeezed' into the row.

The wrapper was found partially burned on the lower level of the Northern Palace, near the skeletal remains of the three individuals. The assemblage found in this location apparently dates to the last days before Masada fell to the Romans and these items would have belonged to the rebels (see below).

The wrapper, a kind of purse that could be closed by a drawstring, was only partially preserved and was found empty. Although it differs from the scroll wrappings found at Qumran, which were made of linen, this purse, too, might have held a scroll; the Mishnah describes scroll wrappers that are "figured" (Kelim 28, 4). However, the purse might also have been used to store personal documents, like the leather pouch belonging to Babatha found in the Cave of Letters.

Where were the textiles produced?

Weaving in antiquity was done in the home using techniques passed down through the generations; thus fabrics show a great deal of uniformity of style throughout the Middle East. Variation, if any, came to the fore in the type of thread and the technique employed. The Masada textiles can be classified into four groups based on these distinctions:

Group 1: This group, which included all the linen and most of the wool textiles (74 out of 105) was made of thread apparently produced in Judea and perhaps at Masada itself. Goat hair and linen were common in Judea, while flax was raised mainly in the area of Tiberias and Beth She'an. Egypt was an important center for linen production and export, although the weaving technique of the linen cloth found at Masada differed slightly from Egyptian linen. Cloth-dyeing was also carried out in Judea (Mishnah, Baba Kama 9, 4).

Group 2: The textiles in this group, consisting of 11 items, are more delicate than those of Group 1. The spinning technique they reveal is known from various sites in Palestine and Egypt as well as from the Eastern Roman Empire, e.g., Dura Europos. This technique, which originated in the East, apparently also became popular in Judea.

Group 3: This group included nine of Masada's finest textiles. They were made of thread spun using a technique practically unknown in or around Palestine, but typical of the Western Mediterranean, especially Greece and Italy. The textiles of this group were apparently either imported from these locales, or the spinners of the thread were influenced by Western traditions. An indication of the extent of foreign influence on weaving and clothing can be found in the ancient rabbinic literature: The Talmud presents a list of 18 men's garments, all with Greek or Latin names (B. Talmud, Shabbat 120a).

Group 4: The eight items in this group include the tunic and the wrapper mentioned above. The spinning of the threads was more sophisticated than that of the other three groups. Most of the parallels to these items are found in Northern Europe, in the Celtic and Germanic areas of the Roman Empire.

To whom did the textiles belong?

It is reasonable to assume that most of the textiles found at Masada were the clothing and belongings of residents, especially the rebels, who came from various parts of the country, particularly from Jerusalem. Some of the textiles may have been brought to Masada as loot taken by the rebels during their raids in Judea (*War* IV, 405). Some of the cloth was apparently produced at Masada itself, as can be deduced from the spindle whorls, loomweights and the apparent remains of a loom found there.

Based on the classification of the textiles into four groups, it can be assumed that the items from groups 1 and 2 belonged to the rebels, the finer items to Herod's courtiers or Roman army officers, while the items from group 4 (the 'European' group), which include mainly thick fabric for protection from the cold, belonged to Roman soldiers (although they could also have been imported to Herod's court from abroad).

Still, the attribution of the items is not at all certain. It has already been shown that most of the finds of various types of fabrics from Masada cannot be securely attributed to its residents from one period or another. Herod and his courtiers, the Roman garrison after Herod's death and the garrison after the conquest of the fortress — they all lived on the site for relatively short periods. Any of them could have used items belonging to their predecessors, as is true for almost all types of finds at Masada. Some cases reveal proof of such reuse, such as the wine jars sent to Herod that were found in

assemblages from the time of the rebels. Moreover, as noted, finds were further mixed as the fortress was looted by Roman soldiers after its conquest.

The textiles from Masada are of better quality than those found elsewhere in the region, such as the Judean Desert caves. In general it may be said that the Masada textiles are of medium- to very high-quality. Although they seem to have seen a great deal of use and were repaired and patched, their original owners would have been aristocratic individuals, whether Herod and his court or refugees who arrived at Masada during the revolt, some from Jerusalem. Since Jerusalem was the center of the Jewish people, it maintained close ties to Jewish communities in the Diaspora and was also a Roman administrative center. It is not at all surprising that the textiles found at Masada reveal a great variety of types, both local and imported.

Gems (Fig. 219)

Gems are precious or semi-precious stones with designs incised into the surface of the stone, which were mounted in gold, bronze or iron rings. They served as adornments and often to impress seals on documents in order to identify their owners. The most common designs on these gems, which are usually approximately two centimeters in size, were figures and scenes from the world of Greco-Roman mythology, as well as animals, plants and others.

The Yadin expedition to Masada unearthed 12 gems and an additional one was uncovered during renewed excavation at the site. The Masada gems are of a variety of stones, among them carnelian, agate, jasper, rock crystal and one of glass.

In addition to the 12 engraved gems (intaglios) 26 blank stones (cabochons) intended for mounting in rings were also discovered.



Fig. 219: Gems

Most of the gems were found in the northwestern area of Masada: six in the casemate wall (three in the room near the synagogue), two in Building 7, one in the hostel and one in each of the palaces 10, 12 and 13. It is interesting that not one was found in the rooms of the casemate wall in the southwestern, southern or southeastern part of Masada, the main area inhabited by the rebels.

The Masada gems have close parallels in assemblages from the first century BCE to the first century CE throughout the Roman Empire in the west and the east. As with most of the artifacts from Masada, because of the many transformations the site underwent and the reuse of various items, the periods of settlement to which each of the gems belonged cannot be securely determined. It is reasonable to assume that most of them belonged to aristocrats of Herod's court, and perhaps even more so — to the members of the Roman army stationed at the site. Of special interest is the question of whether certain gems could have belonged to Jews. Because of the prohibition against graven images, this possibility might seem unlikely, but numerous examples in the Jewish art of the period contradict this: An amphora was engraved on one of the gems from Masada and another gem from Masada features a cup on which a date palm appears (for both gems, see Fig. 219). A cup containing fruit also appears on a gem from Jerusalem. All three of these motifs are common in Jewish art.

The use of gems by Jews is attested by finds of the Bar Kokhba period from the Cave of Letters: A lump of clay that served to sign one of the letters sent to Bar Kokhba bears a seal depicting a man fighting a lion. Rabbinic sources present a controversy over whether to permit the use of such seals: "A ring on which there is a figure... R. Haninah b. Gamaliel says, 'The members of father's establishment would make use of a seal on which there were figures.' R. Eleazar b. R. Sadoq says, 'Any sort of figure would have been found in Jerusalem, except for the figure of a man alone'" (Tosefta, Avoda Zara 6, 1).

The Battle for Masada

The struggle between the Roman army besieging Masada and its defenders, and the dramatic end of this conflict are the climax of the Masada story as told by Josephus Flavius and the high point of his book documenting the war of the Jews against the Romans.

The Roman Army

With the outbreak of the revolt in 67 CE, three Roman legions were sent to Palestine to quell it: the Fifth, the Tenth and the Fifteenth, as well as a number of infantry and cavalry units and some auxiliary forces. After Jerusalem fell, Titus decided to keep the Tenth Legion in Judea along with some of the auxiliary units to maintain order and deal with the three remaining pockets of resistance at Herodium, Machaerus and Masada (*War* VII, 5).

After the fall of Herodium and Machaerus, only Masada remained standing: "...the whole country now subjugated by the Roman arms, with the exception of one fortress still in revolt...This fortress was called Masada" (*War* VII, 252). With the complete suppression of the revolt, most of the large contingent of soldiers that remained in Judea were not needed, and thus the Roman army, under the command of Flavius Silva, could now focus its might on Masada. The number on the Roman side of those involved in the battle for Masada has been estimated at between 8,000 to 13,000, of which 5,000 were members of the Tenth Legion and the rest were auxiliary units — forced labor used to construct the siege ramp and haul food and water, engineers, supervisors and various service workers. The remains of the Roman camps around the foot of the plateau seem to be in keeping with a force of this size.

The main problem the Roman army faced was logistical: The closest place from which food and water could be brought was from En-Gedi. A cautious calculation shows that about 16 tons of food and 26,000 liters of water would have to be brought to Masada every day. At least some of it

would have been brought by Jews drafted by the Romans for this purpose (*War* VII, 278). A prolonged siege was therefore a most difficult task, since the defenders were clearly well-stocked with food and water. Thus Flavius Silva resolved to build a siege ramp as soon as possible and to mount a direct attack on the fortress wall. The Romans were very familiar with the topography of the plateau and its surroundings, since a Roman garrison had been stationed there at the time of the procurators. It is therefore to be assumed that the construction of the siege wall, the eight camps and the ramp was undertaken as soon as the Roman army reached Masada this time.

Some 40,000 cu. m of stone were required to build the camps and the siege wall (which was 4,500 m long, an average of 1.6 m wide and approximately 3 m tall) (Fig. 220). According to a calculation based on contemporary sources, one person could build about one cubic meter a day. Thus 8,000 soldiers would need no more than a week to complete the work. The impressive siege ramp (Fig. 221) was built mainly at the top of a natural spur protruding from the western side of Masada. A calculation of its original dimensions shows that it consisted of some 40,000 cu. m of earth and wood. Data on the construction of similar siege ramps elsewhere indicate that the ramp at Yodfat took 47 days to build (*War* III, 316), the Gamla ramp took 33 days (*War* IV, 84), and the various ramps in Jerusalem went up in 18 to 21 days (*War* VI, 5; VI, 392). This data indicates that the construction of the ramp at Masada would have taken about 20 days. Another five days would have been needed to build the stone platform at the top of the ramp, which measured about 22.5×22.5 m (*War* VII, 306-307), on which the battering ram was placed. To bring down the casemate walls, whose outer side was about 1.5 m thick, and to burn the wooden wall the defenders built from the inside would have taken the Romans no more than a few additional days.

Perhaps another week or two should be added to the time needed to complete the above activities — construction of the siege wall, the camps, the transport of the wood and soil needed for the ramp, the construction of the platform and bringing down the walls — to accommodate various preparations and technical problems that might have cropped up. All told, the operation would have required some 50 to 60 days.

It is reasonable to assume that the defenders of Masada did not stand idly by during the construction of the siege works, but rather did whatever they could to prevent it, however little. The Romans for their part positioned their archers and especially their 'artillery' to cover themselves



Fig. 220: Masada and the Roman siege system

during construction of the ramp and the platform, and while positioning the battering ram on the platform and breaching the walls. According to Josephus, the Romans kept the defenders pinned down by "volleys of missiles from numerous quick-firers and ballistae" (*War* VII, 309). It is unclear what exactly these quick-firers were; they may have been catapults, which the Romans used frequently. Catapults shot bundles of arrows, or darts with relatively large heads, as opposed to ballistae, which were stone-throwing machines. Hundreds of round stone projectiles were found atop Masada, but not one arrowhead of the type shot by a catapult. If the Romans did use catapults at Masada, perhaps the arrowheads were collected by the soldiers for reuse after they entered the fortress.

Ballista balls varied in weight from 0.50 kg to 17 kg, but most (more



Fig. 221: Masada and the Roman siege ramp, view from the west

than 90%) weighed somewhat less than 4 kg, and among these, most weighed less than 1 kg. Thus the ballista balls would not have been aimed at walls or structures, but rather against human targets. Studies show that these projectiles can be aimed with deadly accuracy, and they were therefore shot mainly to provide cover for the builders of the ramp and the operators of the battering ram. Indeed, most of the ballista balls were found in the northwestern area of Masada: One of the casemate rooms, in which the largest numbers of these balls were found, (Fig. 222): is less than 100 m from the top of the siege ramp. This was the point from which rebel archers could let their arrows fly and aim their slingshots at the besieging Romans. Therefore, it is only natural that this area would have come under an unending barrage of ballista balls.



Fig. 222: Ballista stones as found in one of the rooms in the casemate wall

The Defenders of Masada

Those under siege at Masada numbered nearly 1,000 men, women and children (*War* VII, 399-400), which meant that the number of defenders could not have exceeded half this number, and probably stood at between 400 and 500. Josephus states that most of the weapons the defenders had were those they had brought with them when they came to the fortress. The rebels would also have used arms belonging to the garrison that had been stationed at Masada for the preceding 60 years, from which they captured it in the surprise attack that marked the beginning of the revolt (*War* II, 408), although we know nothing about the size of that garrison or its weaponry. Arms may also have survived in the storehouses from the time of Herod (*War* II, 434).

Like the other types of finds at Masada (pottery, coins, textiles) the remains of weapons cannot be attributed to a particular period in the history of the site, except in rare cases.

It is most improbable that the rebels used the cavalry equipment (pieces of harnesses, etc.). However, it cannot be determined with certainly whether all arrowheads found at Masada belonged to the Romans or to the rebels.

Whether the weapons found at Masada were used by the Romans or the rebels, most of them would have originated with the Roman army. The garrison at the time of the procurators consisted of auxiliary units drafted from among the non-Jewish residents of Palestine. When Archelaus was deposed, these units of local non-Jews, which had served him and before

him, Herod himself, then began to serve in the Roman army proper. Thus their weapons were identical to those used by the Roman army. The same is true of the Roman forces that besieged and conquered Masada.

The Roman Legion left plenty of evidence for its presence. The names of the soldiers that appear on the Latin-language papyri are those of Roman citizens (see above), and since only citizens served in the legions, these soldiers would have belonged to the Tenth Legion and not to the auxiliary units. The name of the Tenth Legion is also engraved, albeit partially, on fragments of a bowl and on plaster found at Masada. A countermark of the Tenth Legion was also found on two Ascalon city coins dating 72/73 CE and on one coin of Agrippa II. Ascalon coins, the most common of the city coins found at Masada, were perhaps the currency used by the Roman soldiers left to guard the fortress. One coin was found in the enclosure in the southwestern part of Camp F, the camp that apparently served these soldiers.

In summary, the remains of weapons found at Masada, except for some of the arrow-heads, the rolling stones (see below) and perhaps some of the ballista balls, whether they were used by the rebels or the Roman garrisons, would have originally belonged to the Roman army.

The Weapons

Ballista balls and rolling stones

The question of whether the defenders of Masada had ballistae is still open. If they did, these, too, would have originally belonged to the Roman garrison and may have even survived from the time of Herod and been captured when the rebels took over the fortress. According to Josephus, the Roman garrison at the Antonia Fortress in Jerusalem did have ballistae, which were captured by the rebels, although they did not know how to use them. It is therefore doubtful that the defenders used the ballista balls found atop Masada; however, this possibility cannot be entirely ruled out.

In contrast, there is no doubt that the rolling stones (Fig. 223), some 20 of which were found on Masada, did serve the rebels. These stones, carved into a spherical shape and weighing about 50 kg, were found mainly in areas with a commanding view of the western, southern and eastern approaches to the plateau. This weapon was very effective against anyone trying to climb Masada by one of the usual routes, although its effectiveness



Fig. 223: Rolling stones

against a besieging force was minimal. The fighting, which was concentrated mainly in the area of the siege ramp, would have gone on under a rain of Roman ballista balls. It would have therefore been very difficult for the rebels to get to a point from which the rolling stones — their heavy ammunition — could be launched against the builders of the ramp.

Scale armor (Fig. 224)

Some 1,000 scales of armor were found at Masada, mainly in two groups: approximately 650 were found in a cistern under one of the rooms of Building 7, and 435 were found in the bathhouse on the lower level of the Northern Palace. All were bronze and had a raised central rib with four holes for attachment to a fabric backing. They were each between two to four centimeters long and one to two centimeters wide. It cannot be known whether scales of various sizes were used for different parts of the same coat of armor or whether such coats of armor came in various sizes. The scales from the Northern Palace are unique in that they were coated with silver



Fig. 224: Scale armor

paint, and some were painted red or gold. Therefore this armor, unlike that found in Building 7, would have seen some sort of ceremonial use. It originally would have belonged to a Roman solider, but as it was found in an assemblage clearly associated with the rebels, it can be assumed to have been taken as loot.

A number of buckles, (Fig. 225) as well as various types of clips to fasten pieces of armor, were found in the heap of fill in the Tannery together with a few arrowheads, pieces of shields and ballista balls. One of the buckles was found in a tower in the eastern casemate wall, at a point where evidence revealed a great deal of rebel activity.



Fig. 225: Armor buckle

Swords and Scabbards (Fig. 226)

A particularly interesting item is an iron sword of the *gladius* type, the standard-issue Roman legionary weapon, which was found in its partially preserved scabbard. It was discovered in the corridor west of the long storeroom complex, south of the Large Bathhouse, within a thick burnt level that included, among other items, an Augustan lamp and a Terra Sigillata vessel. Based on studies of the development of this type of sword, the one from Masada should be dated to the second half of the first century BCE, while the burnt level dates to the last days of the revolt. This means that when Masada fell, this sword was already about 100 years old. It may therefore have been a remnant of the supply of weapons Herod had stored at Masada.



Fig. 226: Sword and parts of a scabbard

Two additional swords, poorly preserved, were found in the casemate rooms, in assemblages attributed to the time of the rebels. A spearhead was discovered near one of them.

More than 10 pieces of scabbards made of wood and covered with leather, which was sometimes dyed, were found at Masada. One of these, discovered in a casemate room in the western wall in which extensive evidence of rebel activity was discerned, was partially dyed red. The bottom tips of scabbards were usually made of metal, mainly bronze coated with tin, decorated with perforations or engravings and with various metal

decorations affixed to them. A number of metal objects were also found that would have connected the scabbard to the belt. Numerous scabbards and fragments thereof are known throughout the Roman Empire; comparative research dates those found at Masada to the first half of the first century CE, a short time before the outbreak of the Great Revolt.

Handgrips (Fig. 227): Six handgrips, five made of bone and one of wood, were found in various places throughout the fortress. Their octagonal cross-section reveals them to be of the *gladius* type. At least two were still in use at the time of the rebels: One was found in the heap of burnt debris in the Western Palace, dated to the end of the revolt, and the second was found in Building 9.

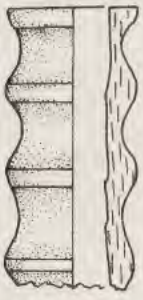


Fig. 227: Sword handgrip

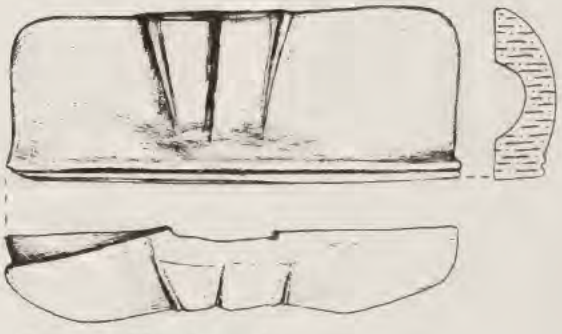


Fig. 228: Handguard

Handguards (Fig. 228): Four handguards (the part that separates the handle from the blade and prevents the hand from slipping when the sword is thrust) made of bone or ivory were found in various places on Masada. A V-shaped decoration imprinted on one of them attests that they were parts of swords. Similar hand-guards with the same V imprint are known from other places in the Western Roman Empire.

Pommels: Two pommels (the part of the sword at the top of the hilt that prevents the hand from slipping back while using the sword) made of bone were found in the burnt level resulting from the fire that was set when the fortress fell. Both have many parallels in various places in the Western Roman Empire.

Belt fittings (Fig. 229):A hinge-plate and other belt fittings were found in various casemate rooms in assemblages from the time of the rebels. These items, usually coated with silver or tin, were very common in the Roman



Fig. 229: Belt buckle

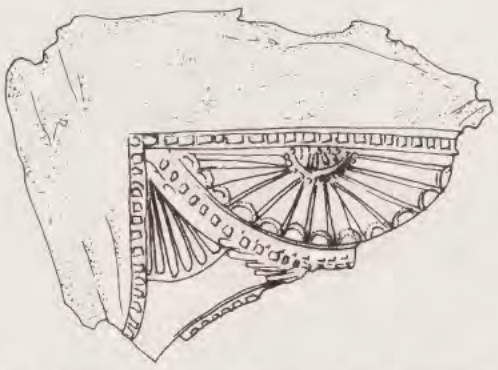


Fig. 230: Part of a helmet (cheek-guard)

army; according to contemporaneous sources such as Pliny the Elder, soldiers used them as currency.

Helmets (Fig. 230)

A magnificent cheek-guard of a helmet was uncovered in a room used by the rebels near a tower in the eastern casemate wall. Intended for the left cheek, it was made of thin copper, coated in gold and decorated. Helmets of this type were used by the cavalry. The crest support of the helmet, a few rings that connected it to a chin-strap and a few carrying-handles for helmets, also belong to this group of finds. This equipment probably belonged to Roman soldiers; the rebels would have had no use for them.

Shields (Fig. 231)

Parts of at least 10 different shields were found at Masada, most in the three mounds of debris created by looters — in the Casemate of the Scrolls, the Tannery, and the fill in the square next to the Large Bathhouse. Objects of this type, being of organic material, rarely survive. The group at Masada is the largest known in the Roman world except for an assemblage from the third century CE found at Dura Europos; it is certainly the older of the two.

The most common type of shield was made of three layers of wood (and sometimes palm fibers), faced with fabric to which it was glued and covered with leather on both the inner and outer sides. We learn about the leather covering from literary testimony — when Josephus describes the scenes of



Fig. 231: Parts of shields

the siege of Jerusalem by the Romans, he says: "Gaping with hunger... necessity drove the victims to gnaw anything... thus in the end they abstained not from belts and shoes; and stripped off and chewed the very leather of their bucklers" (*War* VI, 197). The leather covering was fastened to the wood with small wooden nails. The shields from Masada were rectangular, the typical shape of shields in the Roman legions.

Seven small fragments were found, apparently from a shield of a different type, in one of the heaps of debris. This shield seems to have been oval and was made of wooden boards that were thicker than the rectangular shield and were also covered with leather.

No shield handles, which were attached to the inside face of the shield, survived. Nor did any decoration remain other than traces of red paint on three of them. A few tiny holes in the leather covering show that something had been stitched to the outer side. Based on parallels from the West, this might have been a piece of leather bearing the name of the unit in which the shield's owner served.

Arrows (Fig. 232)

Many hundreds of arrowheads were found at Masada. All, save one, were of the same type: a trilobate (three-wing) arrowhead with barbs on the wings that were inserted into the shaft by means of the tang. The unusual arrowhead, also trilobate but with a socket attachment, is known as a Scythian arrowhead and is earlier than the rest of the arrowheads found at Masada. It is known in Israel from assemblages dating to the Persian and Hellenistic periods. This arrowhead, therefore, dates to the Hasmonean period and thus could attest to the presence of a settlement at Masada as early as that



Fig. 232: Arrowheads and arrows with parts of their shafts preserved

time. However, this is not necessarily the case, since it could have continued in use after that time, like the Hasmonean coins, which remained in circulation after the end of the Hasmonean period. This may also have been the case for the *gladius* sword, which may have been among the original weapons stored here during Herod's time.

The arrowheads at Masada are of various length-to-width ratios and also vary in weight — from 1.5 to 5 g. This variation has no chronological significance and is the result of their having been hand-forged, one by one, rather than mold-made. The arrows are made of iron and were not tempered (hardened by heating and cooling in cold water). They are therefore relatively 'soft,' which meant they were useful against human targets but could not penetrate armor.

A cache of a few hundred arrowheads was found in two rooms in the Western Palace, next to the remains of heating devices that bore signs of having contained a high-temperature fire. Slag was also found at the site, and a large quantity of charcoal. Parts of iron tools (a blacksmith's

hammer?) and the remains of arrow shafts were also unearthed. All these finds clearly indicate that these two rooms served as an arrow-production workshop during the rebel period. The raw material for the arrows was available at Masada since according to Josephus, when the rebels took over the fortress they found, "unwrought iron, brass, and lead" (*War* VII, 299).

Bows (Fig. 233)

Three fragments of bows made of bone were found at Masada, two in the cistern in Building 7, where numerous armor-coat scales were also found, and one near Building 8 in an assemblage dating to the time of the rebels.



Fig. 233: Part of a bow

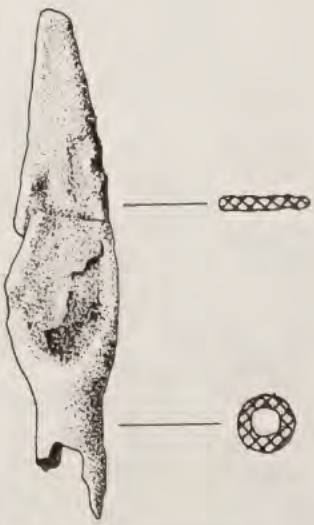


Fig. 234: Spearhead

Spearheads (Fig. 234)

Three iron spearheads were found in rooms used by the rebels in and near the casemate wall. Another piece of iron, apparently a spear-butt, was found in one of the towers of the casemate wall.

Harness decorations (Fig. 235)

Metal discs from bridle decorations were found in various locations. They apparently came from equipment belonging to Roman cavalrymen who probably served in the garrison stationed on Masada before the rebel take-over.



Fig. 235: Harness decoration

The Wooden Wall — the Last Defense (Fig. 236)

When the Roman battering ram began to bring down the wall, the rebels took one last, desperate step. As Josephus describes it:

> The Sicarii, however, had already hastily built up another wall inside, which was not likely to meet with the same fate from the engines; for it was pliable and calculated to break the force of the impact, having been constructed as follows: Great beams were laid lengthwise and contiguous and joined at the extremities; of these there were two parallel rows, a wall's breadth apart, and intermediate space was filled with earth. Further, to prevent the soil from dispersing as the mound arose, they clamped by other,

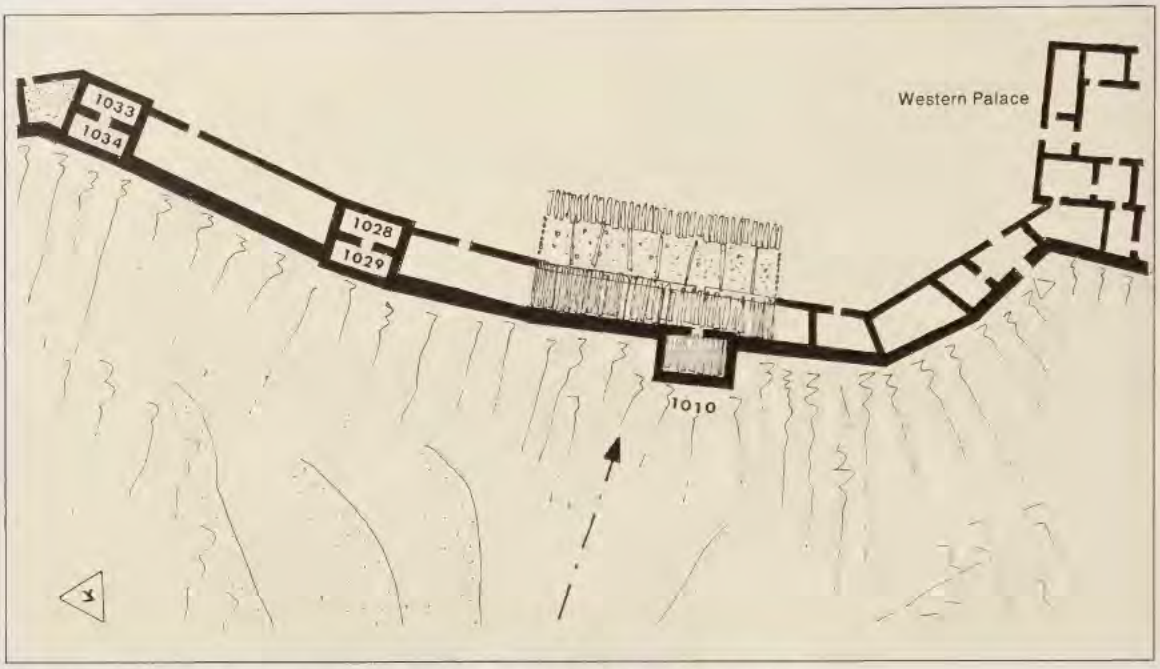


Fig. 236: Proposed reconstruction of the wood and earthen wall

> traverse beams those laid longitudinally. The work thus presented to the enemy the appearance of masonry, but the blows of the engines were weakened, battering upon a yielding material which, as it settled down under the concussion, they merely served to solidify it. (*War* VII, 311-314)

The chance of finding remains of such a wall in archaeological excavations is almost nil, since the Romans quickly set fire to it (*War* VII, 315); the wooden structure burned completely and the soil it contained would have been blown away in the wind. Nevertheless, it seems that the existence of the wall can be proven, although the evidence presented by the expedition's architect, E. Netzer (Netzer 1991:653-654), is circumstantial.

Signs of a great conflagration, which was apparently ignited by the rebels on the eve of their defeat (*War* VII, 397), were discerned in almost all the structures, although evidence of the fire was not found in every room. That is the case for the storerooms — the remains of collapsed, charred ceiling beams were found in some rooms (sometimes resting atop storage jars), while in other rooms no signs whatsoever of the fire were discerned. An examination of these latter rooms revealed that close to 90% of their ceilings were dismantled before the fortress was conquered. An approximate calculation of the amount of wood in the ceilings that were dismantled

reveals that the rebels would have had at their disposal some 4,000 beams, measuring between 4 and 5 m long, a few dozen longer beams, and a few hundred shorter beams 2 to 3 m long. This quantity would have sufficed to build a wall at the crucial point above the top of the ramp, facing the battering ram. The wall would have been about 20 m long, 12 m wide, and 7 to 8 m high — that is, 2 to 3 m higher than the top of the stone wall. It gave the defenders a considerable advantage and improved their ability to counter the battering ram and the protective tower above it. However, when the Romans set fire to it they put an end to this last-ditch effort of the defenders.

The Date of Masada's Fall

Josephus' dramatic description, together with the impressive topography of Masada, leaves many with the sense that the siege was protracted; some even estimate it at three years' duration. However, considering the impressive capabilities of the Roman army it is clear that much less time was needed to vanquish the fortress. The battle, which ended on the 15th of Nisan — the date of the defenders' suicide, or on the morning of the 16th of Nisan — the day the Romans entered the fortress (*War* VII, 401) — apparently began no more than eight weeks before (see above), and perhaps even less.

Most scholars place the date of Masada's fall in the spring of 73 CE, based on the last date Josephus mentions before the beginning of the siege of the fortress — the fourth year of Vespasian's reign (*War* VII, 219). This chronological marker appears in the context of the annexation of the kingdom of Commagene to Rome. The fourth year of Vespasian's reign began on July 1, 72 CE, and ended on June 30, 73 CE.

In considering this evidence, it should also be recalled that the date given by Josephus for the annexation of Commagene has nothing to do with events in Judea, and thus is not evidence of when the fortress might have fallen. Moreover, it has been suggested that there might have been some confusion of dates as presented in the seventh book of Josephus' *The Jewish War* perhaps due to stages of the editing process. Apparently, Josephus was describing the events in geographical order rather than chronological: Commagene-Judea-Alexandria-Cyrene.

Numismatic evidence from the dates of the Ascalon coins found at Masada, all of which are from the years 72–73 CE, does not prove that

Masada fell in 73 CE since after that year, in any case, no coins were struck in Ascalon until 76–77 CE.

However, an inscription found in Italy in the birthplace of Flavius Silva, the commander of the Masada campaign, leads to an inconsistency with regard to the accepted date of the fall of Masada — the year 73. The inscription notes various events in the life of Silva that occurred while he was still in Italy, during the shared consular year of Vespasian and Titus, which began in April 73. Thus Silva's appointment as governor of Judea and commander of the Masada campaign would have had to be later than this date.

On the other hand, a significant piece of evidence for the date of Masada's fall comes from a find in the fortress itself: a letter written on papyrus sent to one Julius Lupus. Contemporary documents reveal that a person by that name was appointed Roman governor (Prefect) of Egypt in February 73. The fact that the letter was found at Masada indicates that this individual (if indeed it is the same Julius Lupus — and it is likely to have been, since this is not a common name) was apparently among those who besieged Masada *before* February 73, and that his appointment may have taken him away from Masada shortly before its fall. Thus the fall of Masada should also be dated to that year, 73 CE.

A contradiction therefore exists between the evidence derived from the written sources at our disposal, which has implications with regard to determining the year of Masada's fall: On the one hand, the inscription found in Italy seems to indicate that Silva was still in Italy in the year 73, which means he could not have been at Masada in that year. On the other hand, the papyrus from Masada mentioning Julius Lupus, who took part in the siege, indicates that Julius Lupus was already in Egypt in February 73. Therefore, he must have left a short while before the fall of Masada. Thus, the documents seem to contradict each other, and so the question of whether Masada fell in 73 or 74 CE must at this time remain open.

Masada in the Byzantine Period

The history of Masada is divided, as noted, into five different contiguous periods from the Hasmonean period to that of the Roman garrison. Only the sixth and last period, which began after a gap of some 350 years — the Byzantine period — was cut off historically and thematically from the others.

Byzantine Masada should apparently be identified with Marda (which means 'fortified place' in Aramaic) of the Christian sources, described as a high mountain near the Dead Sea inhabited by a group of anchorites (Hirschfeld 1989). The founding of this community of monks can be dated to the second half of the fifth century CE based on the style of the mosaic floor discovered in the church (see below), and should be viewed as part of the monastic movement in the Judean Desert at that time.

Construction

The monks' most important building at Masada, their 'community center,' was the church (Fig. 237), built at the center of the plateau not far from the Western Gate, the entrance to the site at this time. Its walls, which have been preserved to a considerable height, attracted the attention of explorers as early as the 19th century.

The church had three parts: the narthex, the nave and two rooms in the northern wing, one entered from the narthex and the other from the nave. The floor of the narthex, which was mostly destroyed, consisted of a white mosaic, some of which was robbed by visitors in the 19th century, as related in travel diaries of the time. To the right of the doorway, in a preserved part of the floor, is a mosaic-lined depression whose function is unclear; it may have served to collect water after the washing of the floor. The nave had a single apse with a half-domed ceiling and a pit hewn in the exposed rock in its center. A small stone box similar to an ossuary, designed to hold the remains of saints (a reliquary), was found in one of the casemate rooms



Fig. 237a: The church, looking east (a)

used by the monks west of the church (see below Fig. 254). The monks apparently buried the box there before they left Masada; its original place was most probably the pit in the apse.

The nave was illuminated by six windows. The largest of these — in the center of the apse — and the walls, were covered with rough plaster containing small stones and potsherds arranged in diagonal strips and in a herringbone design.

Northwest of the nave, a doorway led to a square room. A doorway in the western wall of this room led to a long rectangular hall with three windows in its northern and eastern walls. The small depression discovered in the floor to the left of the doorway to this room must have served the

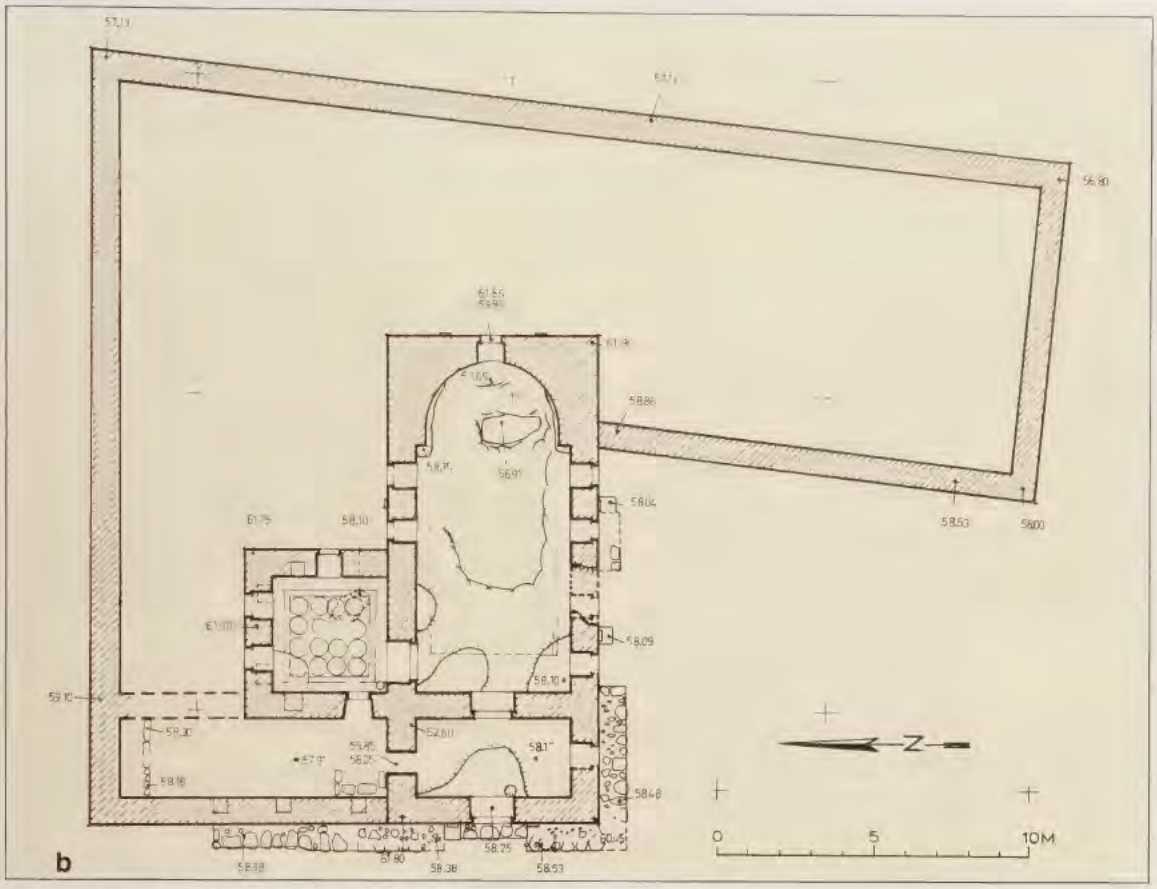


Fig. 237b: plan of the church (b)

same purpose as the one to the right of the doorway to the narthex. The floor of the square room was covered by a colorful mosaic (Fig. 238) featuring 16 medallions in whose centers were various floral and fruit designs. One of these depicts a basket of fruit adorned with a cross. In two walls of this room, which was probably the one in which the sacred vessels were kept (the *diaconicon*), were a number of niches that would have served as closets. A doorway in its western wall led to a rectangular hall that could also be entered from the narthex. The floor of this room, unlike the other floors in the church complex, was made of white plaster. A thin partition built close to the northern end of the room apparently demarcated a silo, in which a storage jar was found (Fig. 239). The western wall of the hall featured three niches that may have been used to store supplies and dining utensils. These installations and three 'legs' made of stone slabs (the base of a table?) indicate that this room was probably the refectory where the monks shared meals after prayers and on holidays.



Fig. 238: The mosaic floor of the church



Fig. 239: Silo containing a storage jar

'Gutters' made of white plaster were preserved on the outer walls of the church — one in the northern wall and two on each of the other walls (Fig. 240). It may be assumed that these 'gutters' were intended as decoration only, since no pit of any kind was found into which they could have drained, and in any case, Masada sees little rainfall. About five meters east of the church, the remains of a lime kiln were found, which was apparently used by the builders of the church.

The main area of the monks' activities was a few dozen meters west of the church in the ruins of the casemate wall. A Herodian-era *columbarium* stood in the center of this area, the southern of the pair of these towers in the western part of Masada (see above). The monks used this tower, whose walls were preserved to a considerable height, but they made a few changes to adapt it to their needs. One change was the removal of the wall that had divided the tower into two equal spaces, thus creating a square chamber measuring approximately 6×6 m. The roof of the room rested on two columns, of which only the bases survived. For some reason the monks built an inner wall near the outer, western, wall of the tower, creating a double wall, with two niches and a window for ventilation and a view to the west (Fig. 241). The eastern wall of the tower was also dismantled and replaced by a new wall with a doorway to the room and two windows. Various storage installations (for food? vessels?) were built near the northern and southern walls of the room.



Fig. 240: Plaster 'gutters' on the outside of the church's eastern wall

Fig. 241: Additions and changes made by the monks to one of the *columbarium* rooms in the casemate wall near the church



Evidence of extensive construction was discerned in the vicinity of the *columbarium*. On the north a unit of four rooms was built, on the south another complex of rooms and in the west, a balcony with a view beyond the fortress. Most of the space of one of these rooms was taken up by four square installations in the form of low benches or stools (Fig. 242). In front of each of those stools was a round column drum. The room apparently served as a dining room and the column drums as supports for tables: The diners would have sat on the benches arranged along its western wall. This room was linked by a door in its southern wall to a room containing a constructed installation divided by three stone partitions, which probably served as a kitchen. This area of activity was bounded on the east by an enclosed courtyard measuring approximately 650 sq. m.



Fig. 242: Refectory (?) of the monks near the *columbarium*

It is reasonable to assume that the monks chose to concentrate their activities in this area because of its proximity to the Western Gate (Fig. 243). This gate, whose arched lintel can still be seen, was built over the ruins of the Herodian gate.

Some distance to the south of the church, the remains of two complexes, each enclosed by a low wall, were found (Fig. 244). At the base of the better-preserved wall were two holes, apparently to conduct surface runoff into the complex. Such a wall with holes was also found in the eastern part of the



Fig. 243: The western entrance gate to Masada in the Byzantine period



Fig. 244: Installation for collecting surface runoff (for cultivation?) from the Byzantine period

fortress (see Cistern 1907, above). These installations must have been the monks' vegetable gardens.

The leader of the community and his closest aides apparently lived in the area of the church and its surrounding buildings. The rest of the monks would have lived in the cells scattered across the plateau and in a few caves. About 13 such monastic cells were found on Masada, the northernmost of which were on the upper terrace of the Northern Palace (Fig. 245) Three of these cells were approximately 3×3 m in size, entered from the central corridor, while an additional cell utilized the original Herodian walls of the northwestern bedroom. During this period the mosaic floors, which certainly must have been damaged over the years, were replaced with white plaster flooring covering remains of the original mosaic floor. These were the northernmost monastic cells on Masada. Additional cells are scattered all over Masada; the southernmost is south of the pool near the Southern Fort. Some of the cells were single cells, and some were built in groups of two or three. The quarters were extremely spartan: The floors were usually



Fig. 245: Monastic dwellings on the upper level of the Northern Palace

bedrock, measuring an average of 3×2 m, with some as small as 2×2 m. However, all of them (except for those in the upper terrace of the Northern Palace, where the height of preservation was insufficient to reveal the existence of windows) had windows for light and ventilation. Of particular note is a triple-cell unit southeast of Building 12 (Fig. 246), next to which a large quantity of white tesserae was found. This was apparently where the artisans lived who produced the stones used in the mosaic floor of the church. Another monk made his home among the ruins of the round columbarium tower.

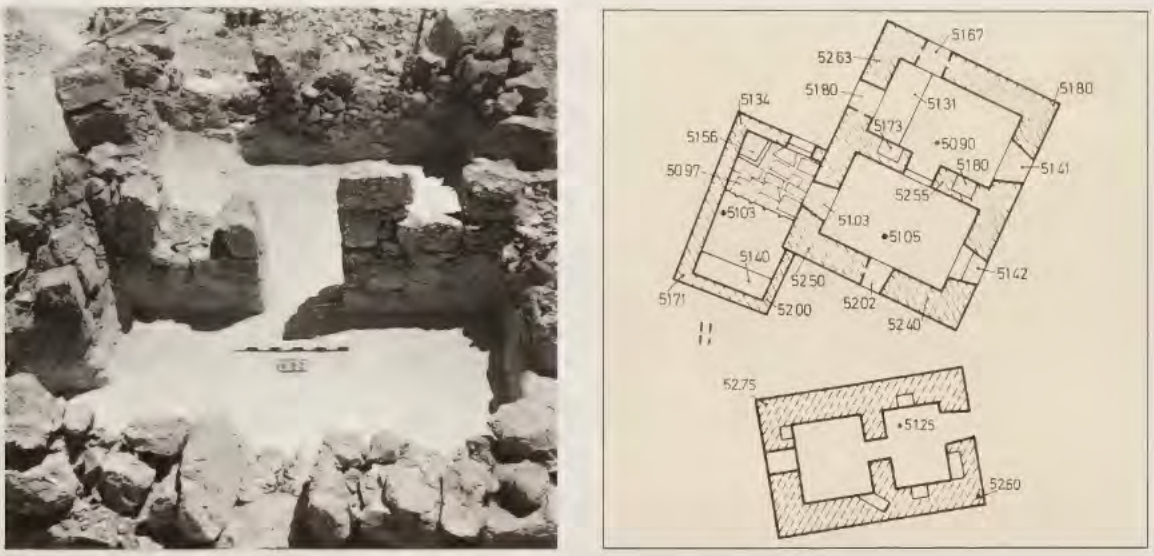


Fig. 246: Monastic cells

Another group of cells and dwelling caves was located in one of the quarries on top of the plateau (Fig. 247): The largest of the monastic cells was built here and perhaps because of its size — approximately 10 sq. m — it should not be called a 'cell' at all. It was apparently shared by monks living in the three caves to which it was connected. In the southern cliff, beyond the walls of Masada, another dwelling cave was found with a number of crosses painted on its walls.

The community of monks at Masada was small, numbering some 15 to 20 souls, a typical number for anchorite communities in the Judean Desert. After about 150 years of settlement, the site was abandoned, apparently following the Muslim conquest of Palestine in 638 CE, during which time many monasteries in the Judean Desert and elsewhere were abandoned. Masada was never again resettled.







Fig. 247: Cluster of monastic cells and dwelling caves

Artifacts

Artifacts from the Byzantine period at Masada were limited both in quantity and variety, as befitted a small group of monks who led a humble life.

Pottery

The ceramic assemblage of the Byzantine period at Masada includes only a small number of vessels, which are to be published in one of the upcoming volumes of the final report.

Lamps

Nine Byzantine lamps were found at Masada: one complete and six fragments of lamps made of clay, one made of stone and one of bronze.

The complete lamp (Fig. 248) was found in the *columbarium* tower near the church, which revealed construction activity and a great deal of use during the Byzantine period (see above). Three of the lamps belong to the type known as 'candlestick lamps,' which were typical of the fifth and sixth centuries. Two spouts of lamps of the 'slipper-shaped' type found in the room north of the church nave (the refectory?) date to the seventh century and thus belong to the end of the monastic period at Masada.

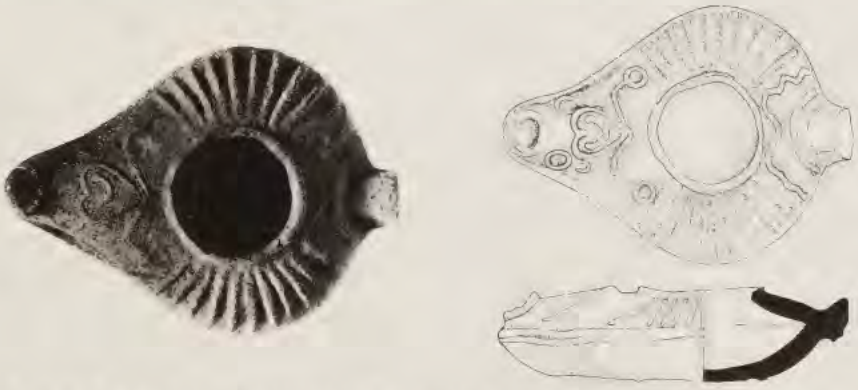


Fig. 248: Clay lamp from the Byzantine period

Of special interest is a bronze lamp (Fig. 249): in the form of a human head found in a cell built in the center of the courtyard of Building 9. The socket at its base shows that a pole was inserted into it, which means it was used in ritual. Lamps in the form of a human head are known from the



Fig. 249: Bronze lamp from the Byzantine period

Roman period; the Masada lamp may have been inspired by a return to classic motifs during the reign of Justinian and should thus be dated to the sixth century CE.

Written material

A Byzantine papyrus (Fig. 250): No epigraphic finds were unearthed in Yadin's excavations in the 1960s. However, in excavations carried out in 1973, a single document was discovered next to the foundations of one of the two *columbarium* towers that had been intensively used by the monks. Based on paleographic considerations the papyrus was dated to the fifth-sixth centuries CE. Its content is difficult to decipher, but it seems to have dealt with some sort of economic activity involving a debt (or an invoice) to/from someone. A date might also have been noted: "in the fourth" (Indiction?).

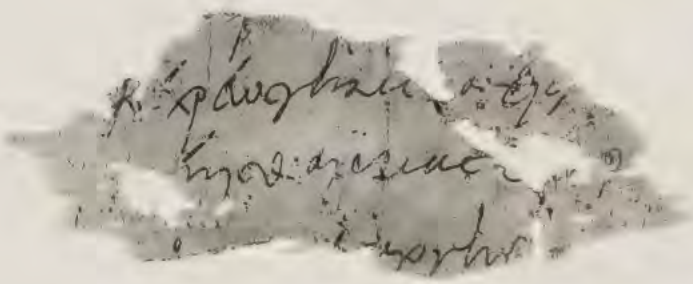


Fig. 250: Papyrus from the Byzantine period

A Byzantine ostracon (Fig. 251): A small potsherd bearing an inscription in Greek was found on the surface in the southeastern area of the fortress. The writing is fluent and appears to have been penned by one of the monks. The sherd is broken on all sides and the beginnings of the lines and the left side of the inscription is missing. The remaining part may be read "...you conquer Satan...."

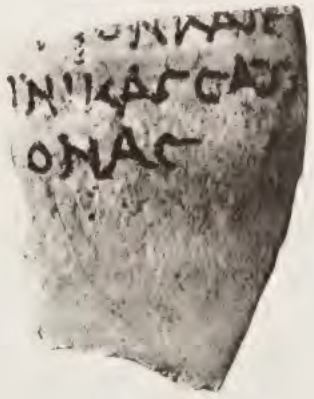


Fig. 251: Ostracon from the Byzantine period

Coins (Fig. 252)

Five coins from the Late Roman and Byzantine periods were found at Masada.

One, attributed to the reign of either Valentinian II, Theodosius I or Arcadius (388-392 CE), was discovered on the surface. A coin from the reign of Zeno (476-491 CE) was found in the Byzantine complex west of the church, where another coin, in poor condition, attributed to the reign of Anastasius I or Justinian I, was also found. Two coins, one of Anastasius I (491-518 CE) and the other of Justinian I, struck in Constantinople during 527-538 CE, were found in the corridor bounding the storerooms on the east, where construction activity had taken place after the Great Revolt. The coins bear the portrait of the ruler and sometimes an inscription noting his name on their obverse, and on the reverse a cross and the letter I (=10) or M (=40), noting the denomination of the coin in *nummi*, the monetary unit of the Byzantine period.



Fig. 252: Byzantine coin

Basketry (Fig. 253)

A basket woven from palm fronds was found in the Byzantine complex west of the church. It has a base made of a braided coil, which created a radial pattern emanating from the center. The basket was at least 18 cm tall and has been dated to the Byzantine period based on the context in which it was found.

Reliquary (Fig. 254)

A small box made of stone, designed to hold the remains of a saint, was found in one of the rooms of the casemate wall. It was probably originally kept in the apse of the church.



Fig. 253: Base of a woven basket from the Byzantine period



Fig. 254: Stone reliquary from the Byzantine period

Archaeology and the Masada Myth

Thus far Masada's archaeological story has been presented. But Masada is more than an archaeological site; it became a national symbol long before it was excavated. The detailed description by Josephus Flavius of the site and its historical background in his book, *The Jewish War,* reaches its dramatic climax with the speeches by Eleazar Ben-Yair and the suicide of the last defenders of Masada. The speeches and subsequent suicide form the basis for what has come to be known as the "Masada myth." It is not surprising that political use was made of this myth, particularly in the first half of the 20th century, the period before the State of Israel was created. The Masada myth preceded 'archaeological Masada,' and dozens of studies, books and articles have been devoted to its various aspects and its national-political significance.

Interest in the Masada myth did not ebb during the years of the excavation. On the contrary, it continued to an even greater extent to fascinate scholars and the lay public, particularly in the daily papers in Israel and abroad.

During the years that followed, interest in the story waned somewhat. An exception to this trend is the sociologist Nachman Ben-Yehuda of the Hebrew University of Jerusalem, who in recent years has published two books dealing with the three aspects of Masada: the myth, the politics and the archaeology. His first book, *The Masada Myth: Collective Memory and Mythmaking in Israel* (1995) was published 30 years after the end of Yadin's excavations at the site, and mainly discusses the creation of the myth and its place in Israeli society. He frequently mentions the archaeological story of Masada as revealed by the excavations, and is critical of Yadin's interpretation of the findings. Seven years later Ben-Yehuda published a second book on the subject: *Sacrificing Truth: Archaeology and the Myth of Masada* (2002). This work expands on the critique voiced in his previous tome and attempts to prove that Yadin had neglected and distorted the archaeological 'truth' revealed in the excavations, and sacrificed it on the altar of promoting the Masada myth.

Unlike the author of the two above-mentioned works, I do not see myself as an expert in all three fields: I am neither an authority in all aspects of mythmaking nor in the political use made of myths. My remarks mainly involve the archaeological elements, which, unlike Ben-Yehuda, I do understand, both because archaeology has been my profession for nearly 50 years, teaching and in the field, and as a member of the Yadin expedition throughout the period of the excavations at Masada, during which time I was in charge of two of the excavation areas. It is unfortunate that Ben-Yehuda did not confine himself to the field of his expertise, the creation of myths, and allowed himself to venture into a domain where his understanding is meager at best, as I will show below.

I would not delve into this matter at all had not both of Ben-Yehuda's books, in addition to discussing the creation of the Masada myth and its place in Israeli politics, been — in the main — an unbridled and baseless attack on the archaeologist Yigael Yadin. Ben-Yehuda sees Yadin as one who warps (2002:54, 143); misleads (2002:143); suppresses [evidence] (2002:132, 186); distorts (2002:143); conceals (2002:143, 251) and deceives (2002:168, 193, 241). He also states that "Yadin was clearly and intentionally engaging in deception" (2002:54), and that "the presentations of the siege ramp to Masada, the skeletal remains, the ostraca, the synagogue, the ritualistic *(sic!)* immersion bath — all illustrate this process of creating deceptions" (2002:251).

These are but a few examples of statements with which Ben-Yehuda's books overflow. They have been quoted because rarely, if ever, can purportedly scientific literature be found containing such expressions. But why? What is the source of Ben-Yehuda's anger? Might he be suffering from a "Masada complex" of his own? Perhaps it was a matter of personal disappointment at the fact that in 1994 various bodies in Israel held "special festivities in which distinctive recognition and appreciation to Israeli archaeologists was acknowledged... [while] no such recognition... was ever offered to ...economists and sociologists" (2002:186).

Here and there Ben-Yehuda does try to show favor to Yadin. He states that Yadin and Shmaria Guttman "...chose to tailor their version to what they felt were personal and national needs. However, did that basic motivation cause Guttman and/or Yadin to falsify findings of the excavations, or did their view affect the physical results of their excavations? The answer must be no. [...] the warping of the historical narrative for both Guttman and Yadin was not at the level of the excavations or the findings themselves. It was at the level of the *interpretation* [author's emphasis] ...of the findings"

(1995:67). Ben-Yehuda repeats this distinction a number of times in his second book as well (2002:186).

The most important assets of a research scientist are integrity and credibility. When these are compromised, it is like a death blow to the scholar. If Ben-Yehuda's books had appeared during Yadin's lifetime, he would have doubtless sued the author for libel. Unfortunately, Yadin died before the publication of the first of Ben-Yehuda's two books attacking him so venomously, and thus he could not protect his good name. I will therefore respond on Yadin's behalf, not only to protect his scholarly reputation, but for the sake of the integrity of the archaeological story of Masada.

Myth and Politics

In his first book Ben-Yehuda describes in great detail the origins of the Masada myth and its place in public consciousness, especially before the creation of the State of Israel. Matters become complicated when the author interfaces the myth with the archaeology, a juxtaposition that is the main subject of the second book. Ben-Yehuda's claim, which is so central as to have become the title of the book — *Sacrificing Truth* — is, as noted, that Yadin bent the archaeological truth for the sake of the myth and sacrificed it in order to foster the myth. Yadin the archaeologist is accused of being pleased and enthusiastic over every find from Masada (2002:80), of being a romantic (2002:143) and a patriot (2002:162). From my long acquaintance with Yadin, I permit myself to acknowledge these 'accusations' in his name. In contrast, Ben-Yehuda's conclusions arising from such epithets, that Yadin sought "to provide scientific credibility for the heroic mythical version of the tale," that he "lent his credibility and his scientific reputation to a questionable narrative, added a few imaginary elements, and persuaded the naïve that the Masada mythological narrative was actually history" (2002:143) — must be utterly rejected.

There is no doubt that Yadin ascribed great importance to the Masada myth and its place in public consciousness, especially among young people in the first half of the 20th century and the years after the creation of the state. Myths like that of Masada, or the battle of Tel Hai, which describe the circumstances of the death and the last words of Joseph Trumpeldor (Zerubavel 1996), fulfilled an important social role by offering a common denominator and determining a code of conduct that seemed appropriate in its day, certainly in the eyes of a public figure and a national leader of

Yadin's stature. The problem arising from Ben-Yehuda's premise — that Yadin was trying with all his might to prove the truth of the Masada myth — is that myths cannot and need not be 'proven.' The moment a myth is 'proven' it ceases being a myth and become a historical fact; indeed, even in post-modern times there is still room for facts.... In contrast, those to whom the myth is important will not be persuaded even if it is proven not to be historical fact. Thus for example, those who believe the story of the conquest of Ai, which plays a significant role in the tradition of the conquest of the land by the Israelites under the leadership of Joshua, will not be persuaded that it is not in keeping with archaeological research, according to which Ai was not settled during the period to which the story relates. Another outstanding example from an entirely different cultural context is the American myth about the death of Davy Crockett in the famous battle of the Alamo in Texas some 170 years ago. According to this myth, to which Ben-Yehuda also refers (2002:58, n. 39), the hero chose to fight to the death and thus sacrificed his life for freedom, although in reality he apparently surrendered with the last of the fighters in the battle and was executed by the Mexicans. But the historical truth does not matter at all to millions of Americans; and this in a country whose existence is not threatened. Why, then, such fierce animosity toward the Masada myth?

Myths have lives of their own: Some endure while the glory of others dims with the passing of the years and changing reality. Ben-Yehuda bemoans the fact that to this day there are people to whom the Masada myth is important: "...while one can easily see how and why there was a need for the [Masada] myth between the 1940s and the 1960s, it is quite evident that this is really no longer required in the Israel of today" (1995:311). Indeed, in today's reality soldiers are no longer sworn in on Masada, and Trumpeldor's dying declaration, if he did say what was attributed to him (and apparently he did; see Zameret 2006:4), may not have the same meaning as in the past. Nevertheless, it should be remembered that during the years of the Masada excavations, 15 years after the establishment of the state and before the Six Day War, the Masada myth had an important place in the consciousness of many in Israel. Its significance also came to the fore in the large numbers of people from Israel and around the world who volunteered to take part in the excavations, as well as in the continuous newspaper coverage of the finds at the site. Yadin, like all of us who took part in the excavation, lived through this period and was part of it. Ben-Yehuda, who was born after the creation of the state and who apparently considers himself one of the "new historians" (or "new sociologists"), who

see things differently than the "older group" (2002:226-227), maintains, in the spirit of the times, a different viewpoint on this matter. That is his right. But he should not judge and condemn a concept that was current at that time by the standards accepted — although not by everyone — today.

The Masada myth does not stand alone; it is closely entwined with politics, and therefore a few words should also be devoted to this issue. Again, I will open with a 'confession': In Israel's early years, archaeological research was indeed also used in the service of political ends. Archaeological findings were enlisted for various purposes, among them to prove the existence of the Israelites in the land as far back as the time of Joshua; to emphasize the continuity of Jewish settlement in the land from that day to this; and to establish the image of the "new Jew" who was perpetuating the ancient tradition of Jewish farmers and fighters of the land of Israel, in contrast to characteristics considered typical of the Diaspora Jew (1995:100,119; 2002:185, 232). In other words, archaeology had been drafted into the service of "national Zionist Jewish identity" (2002:176). These issues are known and typify not only Israeli archaeology, but almost all archaeological research, especially of newly established states or societies in the process of crystallizing their identity (Silverman 1989). That is currently the case for the Palestinian archaeologists as well; it is natural and understandable, and no one criticizes them for it. Among the many cases in which archaeology was used to support the right of a people to the land it inhabits, an example from distant Sweden is interesting: No one would dispute the fact that there is no comparison between the question of the Swedes' right to their land and that of the Israelis' right to theirs; yet Sigurd Curman, Sweden's custodian of national monuments in the 1940s, claimed that the importance of various sites in Sweden was such that they provide the "irrefutable evidence of our ancient right of occupancy of this country" (Werbart 1999:279). If that was the case in Sweden, why does Ben-Yehuda find such fault with Israeli archaeology in its early days? Is this not somewhat of a double standard, in the spirit of the all-too-frequent attitude that what is permitted every other country is prohibited for Israel?

The enlistment of archaeology to serve the needs of the hour was, as noted, is typical of archaeological research in the years before the establishment of the state and in its early years as well. However, this is no longer so, and nowadays accusations of such bias are heard only among Israel's usual detractors, mainly the Palestinians. It is a pity that Ben-Yehuda likewise resorts to such arguments. The ongoing debate in recent years over the extent of the credibility of biblical historiography, particularly regarding the

period of the united monarchy to which Ben-Yehuda also refers (2002:176, 232, 236), does not deal at all with the issue of the right of the people of Israel to its land, at least not among Israeli archaeologists. The claim that Israeli archaeology to this day prefers Israelite and Jewish sites and remains, that is, that it gives priority in excavation and research to sites from the First and Second Temple periods, a claim that Ben-Yehuda unfortunately reiterates (2002:176, 232, 236), is completely mendacious. Citing Shavit's research in this respect (2002:232) is (intentionally?) misleading, since the latter's article deals specifically, as Shavit himself states, with "the public interest [in Israel] in archaeology *in the 1930s*" (Shavit 1986).

What are the important sites that have been excavated in recent years and reported in the media? Beth-She'an, Caesarea, 'Acco, Tiberias, Ashkelon, Beth Govrin, Maresha, Susita, to name a few, not one of them can be defined as a "Jewish site." Another example of a recent publication is the three-volume final report on the excavations of Tel Jokneam: Only one is devoted to Israelite remains, while another presents remains from the Bronze Age (the Canaanite period), and the third deals with the remains from the Hellenistic to the Ottoman periods, focusing mainly on the Early and Late Islamic periods.

A survey of archaeological activities in Israel in recent years reveals the following: Over 100 excavations were carried out in Ramla, all of which uncovered remains from the Islamic period without which it would be impossible to reconstruct the character and appearance of the city in the past. The excavations of 'Acco revealed mainly medieval remains, and the same is true for Tiberias. Excavation of a palace and mosque from the Umayyad period have recently been renewed at Horvat Minim (Minya), along with the excavations of an important caravansary from the Mamluk period. Numerous churches from the Byzantine period have been revealed in various locations, and dozens of digs in Jerusalem have unearthed remains from the Byzantine to the Ottoman periods.

In 2006 the Israel Antiquities Authority (IAA) issued 281 excavation permits. Among these, almost half have unearthed agricultural installations, isolated farmhouses, etc., the identity of whose inhabitants in antiquity cannot be determined. In close to 60 of the sites investigated, relics of the Islamic period were uncovered, 45 to 50 are Christian, 35 to 40 are prehistoric and only 25 (less than 10%) revealed remains from the First and Second Temple periods. This data, taken from the IAA's department of excavations and surveys and accessible to all, completely refutes Ben-

Yehuda's claims with regard to a preference for "Jewish sites" (Is he himself "misleading" or "concealing" information?).

In so as far as the link between archaeology and the national-political element goes, Masada has special status. It is not just another archaeological site, but unique in the world in having a psychological complex named after it — the so-called "Masada complex." With the fall of Masada and the defeat of the last of the rebels against Rome, Jewish independence in Palestine came to an end. It is not surprising that this event became a symbol, and the lesson learned from it is that everything possible must be done to avoid such a disaster in the future. The slogan "Masada shall not fall again" — with Masada a metaphor for the independent State of Israel — is the essence of the "Masada complex," which is perhaps natural in a country whose very right to exist is continually called into question. Ben-Yehuda clearly understands and describes this (1995:63; 2002; 169). One is left wondering why he attacks the phrase "in those days, in our time" (taken from a traditional Hanukah song), which Yadin chose as the Hebrew subtitle for his popular book on Masada (Yadin 1966). In a book dealing with Masada everyone realizes that the intent is to create a parallel between the predicament of the people of Masada at that time and that of present-day Israel; it is that very parallel that is known as the "Masada complex." Why does Ben-Yehuda pretend not to understand this, and repeatedly asks, in both his books, "what was the 'miracle' of Masada?" (1995:61; 2002:61).

Ben-Yehuda's books, particularly his second one, are replete with quotes from the daily press (for example 2002:112, 140, 179). Among the newspapers quoted are *Hamodia, Hatzofeh, Ha'aretz, Ma'ariv* and *Yedioth Ahronoth*. The editors of the latter two papers would no doubt be pleased to read that in the 1960s they were "at the time the two major Hebrew-language dailies in Israel" (ibid., 163), which at the time was certainly not the case. Quotes also appear from *Bama'aleh* (the publication of the youth movement of the Histadrut labor union), and *Bamahaneh* (the Israel Defense Forces magazine). In light of the great interest the Masada excavation engendered at the time, the frequent reports in the daily papers are not surprising. Moreover, Yadin always said that his duty to archaeology was not only to the academic world but also to the wider public; the interviews he gave were only one expression of this. However, the claim that Yadin "used the press to make speculative interpretations" (2002:161) is baseless. Every archaeologist knows that news reports about excavations often reflect the reporter's understanding of what he or she saw and heard rather than what the excavator said. This is true not only for archaeology. For this

reason, no scholar would be willing to be judged by what is said about his or her research in popular media outlets, especially considering that in most cases he or she is not given the chance to see such material before it is published. Accordingly, Ben-Yehuda should, by rights, have judged Yadin based only on statements published by Yadin and in his name, although in all of Yadin's statements quoted by Ben-Yehuda, I found not a single instance of "speculative interpretations." Yadin was blessed with talent and known for his ability to fascinate his audiences, whether they were experts or lay people, and the same is true of the books he wrote. However, Ben-Yehuda ignores the fact that a popular book and a scientific publication are not the same. "It is not my purpose to offer a dry scientific record; rather, is it to enable the reader to share our remarkable experience," Yadin wrote in the introduction to his popular book describing the results of his excavations at Masada (1966:17). This is the source of the enthusiasm that exudes from Yadin's statements in this book, as from the discussions with his colleagues at the site every evening. For some reason this enthusiasm does not seem proper to Ben-Yehuda (for example, 2002:80).

Yadin met his obligation to report to the scientific world as well as to the general public on almost all of his scholarly undertakings: Along with scientific publications of a number of the Dead Sea Scrolls (1956, 1962, 1965a), especially his three-volume report on the Temple Scroll (1983), he wrote a popular book on the Dead Sea Scrolls (1957) and a separate book on the Temple Scroll (1985). He presented the results of his excavations at Hazor to the public (1975), but not before publishing the multi-volume scientific report on his excavation results (1958, 1960, 1961, 1972). He also published a popular book on his excavation in the Cave of Letters (1971), but prior to that, he released a detailed scientific report on that dig (1964). Yadin should be judged by these and his other publications; the popular ones among them are written in a language comprehensible to all and reveal his emotional involvement, while the scientific publications, intended for experts, are more technical. Ben-Yehuda might therefore like them better, but in none of these publications could he find even one case in which Yadin presents the reader with "speculative interpretations" of the findings.

A final comment about the press: In return for the financial backing of the Masada expedition by the British newspaper *The Observer*, Yadin signed a contract giving the paper exclusive rights to press releases and news reports on the excavation and its finds. Ben-Yehuda protests Yadin's fervor to "control" the information coming out of Masada and his supposed concern to ensure that "his interpretations were the ones that were

published." As an example, Ben-Yehuda presents an incident that supposedly took place during the excavation. According to Ben-Yehuda, a group of reporters arrived at Masada and began to interview some of the volunteers. A few minutes later the interview was halted, and one of the journalists was told that he would have to speak with Yadin, who would explain the possibilities and limitations in terms of an interview. In response, Ben-Yehuda quotes the journalist as saying, "Here too [at Masada] there is censorship" (2002:177). During that incident — if indeed it happened — Yadin was acting in accordance with his exclusive agreement regarding media reports, rights of which Ben-Yehuda was aware (2002:73–74). Clearly, then, this was not a case of "censorship" or the desire to "control" the information emanating from Masada.

The Excavations — The Archaeological Story

Ben-Yehuda devoted most of his second book to a consideration of the excavations at Masada and to a discussion of Yadin's interpretation of the archaeological findings which, in his opinion, was tendentious and misleading. The gist of his critique: "In the case of Masada, two such stories existed, the historical and the mythical and [...] the choice of the archaeologists in this case was clear: myth over history" (2002:231).

Before we scrutinize Ben-Yehuda's statements one by one, it should be reiterated that he is not an appropriate interlocutor for a discussion of the interpretation of archaeological finds. He would have been better off keeping to a discussion of myth-making, the area of his expertise. It is unfortunate that he became involved in a field so alien to him, whose methodology he does not grasp and his knowledge of which is clearly not first-hand, as he repeatedly demonstrates in his analyses of the findings.

The thrust of Ben-Yehuda's contention against Yadin, which he reiterates in both books (1995:67; 2002:186) involves the supposedly biased interpretation of the mute finds unearthed in the excavations: structures, pottery, weapons and other elements — their dating, who built or made them, and their uses. The answers to these questions are not always unequivocal, and require interpretation which must meet two main conditions: It must not contradict other known facts, and it must not fly in the face of common sense. That is why different scholars may propose various interpretations of the same object, all legitimate as long as they meet the two aforementioned criteria. Another matter that should be clarified

involves the process of interpretation: In many cases interpretation becomes clearer as the excavation progresses and additional facts come to light, and as the excavators discuss the finds or consult other experts. Thus an interpretation that seemed legitimate on a given day of the excavation may turn out to be incorrect on the following day when new facts emerge.

Two examples will illuminate this point. The first involves the identification of the *miqveh*: Discussions among the excavation's team members (which Ben-Yehuda quotes extensively), reveal that on February 10, 1964 they debated the identification of the "strange structure" in the southern part of Masada as a *miqveh* (2002:87). The next day, a channel was discovered that carried water into the installation, persuading the excavators that this was indeed a *miqveh*. This conclusion was later further supported by the discovery of the *otzar* (the rainwater reservoir) (2002:89).

Another example of this process is the identification of the synagogue: At the staff meeting on November 6, 1964, the possibility was raised very hesitantly that the structure was a synagogue, and discussed further on November 11. The matter continued to be debated at staff meetings during the early days of December with the exposure of other parts of the building. In 1966, two years after the excavations ended, the structure was finally recognized as a synagogue (Yadin 1966:181-191). As Ben-Yehuda puts it "all uncertainty vanished" (2002:91-92). Indeed, that is the nature of research and interpretation in archaeology. "Hesitation" during the staff discussions should not be seen as a lack of confidence in the conclusions reached or surrender by the staff to Yadin's interpretation. The process of unearthing any archaeological assemblage is a long, slow one, accompanied by repeated observations, mutual critique and consultation with the excavation team, sketches (the daily 'graphic diary' produced by the excavator responsible for a particular locus), and photographs of every stage of the dig. Eventually the archaeologist summarizes all the data, measurements and photographs, the description of the finds, and the general interpretation on a 'locus card.' But the process does not end there. At the end of the excavation the archaeologist, the architect and all those involved in processing the finds prepare for a general discussion, including a concluding interpretation of the assemblage. Disagreement on everything is natural during this long process. In an excavation with numerous participants like Masada, the final responsibility rests with the individual in charge of a given locus — on condition that the interpretation meets the two basic requisites mentioned above. Only then can publication begin. It can therefore be seen in the various volumes of the Masada Final Reports that the

interpretation of those responsible for the publications is not always the same as Yadin's (e.g., Yadin and Naveh 1989:5, 29–31; Netzer 1991:410–413; Foerster 1995:219–223).

I would not have to describe this extensive process of interpreting archaeological findings if Ben-Yehuda had not viewed its various stages as signs of hesitancy and the forcing of Yadin's opinions on one archaeologist or another. Ben-Yehuda frequently quotes the staff meetings in the early stages of discussions, but hardly ever quotes from the locus cards, on which the fairly crystallized opinion of the archaeologist is recorded. I would also note that I was present at all the staff meetings, every evening, throughout all the excavation seasons, and I never saw Yadin force his opinion on anyone. That is also the impression of the rest of the expedition staff.

Ben-Yehuda seems not to understand the importance of Masada either in its wider context as a refuge in a region that has always provided shelter for those in distress, or in terms of the richness and significance of the finds unearthed in the excavations, both architectural and otherwise. This lack of understanding is revealed in his discussion with Ze'ev Meshel on the matter of Masada's place in the history and geography of the Judean Desert (2002:149–150; 152–159) and his statement that "the archaeological findings regarding the history of the Jewish Great Revolt are meager... Yadin and Guttman must have been quite disappointed..." (2002:186). Unbelievable! These words were written after six volumes of the Masada Final Reports had been published, among them the volumes dealing with the Hebrew, Aramaic, Greek and Latin inscriptions, the scroll fragments, the rich architectural finds of both Herodian and rebel dwellings throughout Masada, as well as a number of groups of artifacts — coins, lamps, textiles and more. The various quotes in Ben-Yehuda's books show that he was familiar with these detailed reports. How then can he make such a baseless claim? Did he know of the published reports and not read them? Did he read them and not understand them? Did he understand and choose to ignore them?

Ben-Yehuda frequently compares the story of Masada as it appears in Josephus' descriptions to the archaeological story as revealed in the excavation. In so doing, he determines that "the excavations neither confirmed nor refuted important elements in Josephus' narrative, only that there was a fortress called Masada, that the Romans had laid siege to it, that the Romans built a siege ramp, and that they conquered the stronghold" (2002:70). This statement is preposterous. Ben-Yehuda expressed himself even more bluntly in his first book, claiming: "Nothing in the excavations really confirmed or contradicted Josephus Flavius' account" (1995:237).

So, for the sake of accuracy, let us expand on the comparison between the literary description and the results of the excavation. Following is a summary of the information derived from the archaeological research, which to a great extent dovetails the description by Josephus:

The fortress was built on a rocky plateau surrounded by steep cliffs, with access to the top by two paths only: one from the east that wound like a snake, and a shorter path from the west. The beginning of construction at the site may perhaps be dated to the Hellenistic period, in the second century BCE, but the main period of construction was without a doubt the time of Herod, beginning in the 30s of the first century BCE. Among the structures built at that time, the palace, built on the rocky outcropping at the northern tip of the plateau, whose three parts were connected by a way hidden from outside view, is of particular note. The palace contained dwelling rooms adorned with mosaics. Large cisterns were cut into the rock, a tower was built to protect the path up from the cisterns in the western cliff to the top of Masada, and a casemate wall with dozens of towers was constructed around the top of the plateau. Large quantities of food, including wine, oil, dates and pressed dates were stored at the site, and in time of need, food could also be cultivated on most of the plateau, especially on the southern part where there were no buildings.

At a certain stage, apparently after the death of Herod, Masada fell from glory. A small group of people subsequently took up residence there to guard the place, leaving it much as it had been in Herod's day, except for a few additions here and there. The ethnic identity of these people is unclear, but it is very possible that they lived there as emissaries of the Roman government. The ceramic and numismatic finds suggest the possibility that the group of residents at this time included a Nabatean element, and the presence of other coins attest that the group was there throughout the period of the Roman procurators (6–66 CE). A significant change occurred at Masada with the outbreak of the Great Revolt (66 CE) when a new population arrived at the site. The first members of this group came with the outbreak of the revolt, most of them apparently from Jerusalem (based mainly on the stone weights and the stone vessels). They were joined by refugees arriving throughout the revolt and until the fall of Jerusalem (based on the year-five coins). Essenes and perhaps even Samaritans were also apparently among these people.

After Jerusalem fell, and the following conquest of the two fortresses, Herodium and Machaerus, the Roman army came to Masada and besieged it. Based on the date of the fall of Masada and the period of time required to

mount the siege, the Roman army seems to have arrived at the fortress at the earliest at the end of 72 CE. The Tenth Roman Legion was the main force besieging the fortress, but others were involved, apparently civilians as well. The entire area around the foot of the fortress was surrounded by a wall to prevent any possibility of escape or access without being seen. The besiegers bombarded the defenders with ballista balls, and the defenders responded with rolling stones, which were their main weapons, along with arrows. The siege lasted at most a few months and ended in 73 or 74 CE. The Roman army breached the wall using a battering ram that had been hauled up the siege ramp, which had been built at the most convenient location for access — from the west. The besieged apparently made a last-ditch effort to prevent the fall of the fortress by building a wooden wall inside the stone wall (Netzer 1989; 1991:655-653), however, in the end the fortress was conquered and destroyed by fire, after which a Roman garrison was stationed at the site.

Here and there the excavation revealed information that Josephus did not include in his description and that ostensibly contradicts it: Two Herodian building complexes uncovered in the excavations — the storerooms and the Western Palace — were missing in Josephus' description, while the four corner towers of the Northern Palace, which appear in the literary account, were not found in the excavation. The width of the wall and the number of towers it featured also do not precisely jive with the written description: The wall is slightly narrower than that described by Josephus, and rather than the 37 towers he mentions, only 27 were found. (By the way, in one of the Latin versions of *The Jewish War* the number of towers is noted as 27.) These are all insignificant discrepancies that can be explained in various ways; all in all, the literary description and the results of the excavations matched almost perfectly.

Among the issues the excavators were unable to resolve, Ben-Yehuda focuses mainly on Eleazar's speeches and the suicide (1995:57; 2002:70). It is unclear how Ben-Yehuda expects archaeology to respond. Did the suicide (to which we will return below) really happen as described, or is the description merely a literary model, as many have argued (Cohen 1982)? As for Eleazar's speeches — did Ben-Yehuda expect the dig to reveal copies of them? These issues are, after all, at the heart of the Masada myth, and as such, how can archaeology be asked to prove or disprove them?

A hallmark of Ben-Yehuda's style in both books is his tiresome repetition of the same arguments. Does he believe that revisiting the same claims

once, twice and three times will give them more credibility? Here are two examples of such repetitions:

(1) The people of Masada were Sicarii, as Josephus calls them, and not Zealots, as Yadin calls them (1995:4, 11, 13, 58–59, 204, 237, 269, 300; 2002:47, 81–83, 93, 151, 163–164, 183).

(2) Yadin ignores the massacre that the Sicarii of Masada perpetrated at En-Gedi (1995:13, 59, 237, 300; 2002:35, 38, 41, 47, 52, 70, 83).

I will attempt to clarify both of these issues as well as a number of additional instances where Yadin's interpretation of the findings seems to Ben-Yehuda to be "manipulative," "distorting the truth," "misleading" and "spurious."

Who lived at Masada and why Yadin chose to call them Zealots

These two questions have no categorical answer. There is no doubt that most of the inhabitants at Masada were Sicarii, as can be understood from the name by which Josephus refers to them throughout his work. Josephus' opinion of them was very low: He calls them "assassins" and "bandits" (*War* IV, 402–404), who were "prolific of crime of every description amongst the Jews, that no deed of iniquity was left unperpetrated nor, had man's wit been exercised to devise it, could he have discovered any novel form of vice" (*War* VII, 260). However, in the end, when faced with the act of suicide by the besieged, Josephus changed his mind about them. When describing the Roman reaction to the defenders' suicide, he uses the words "amazing" and "fortitude" (*War* VII, 405–406), words that apparently expressed his own opinion of them. Ben-Yehuda does not share this admiration, since he does not see suicide as an expression of courage (2002:44). That is his privilege, but this of course falls within the realm of interpretation.

The issue is whether it is correct to assume, as does Ben-Yehuda throughout the two books, that the name Sicarii fits all the residents of Masada from 66 to 73 CE. Apparently that is not the case, since both the findings and logic contradict such an assumption. Rebel dwellings were identified throughout Masada, but in various archaeological contexts: Some were in the casemate wall and in the rooms of various structures, and many others in poorly constructed rooms abutting the wall or in Herodian buildings. The living conditions and shelter provided by the casemate rooms were incomparably better than those in the poorly constructed rooms. The Sicarii arrived at Masada apparently with the outbreak of the

revolt, and certainly before the fall of Jerusalem. But in the five years that followed, during which Jerusalem was ravaged by war and siege (66–70 CE), refugees clearly would have continued to arrive at Masada. It is reasonable to assume that all who could seek shelter in this hideaway did so, and it is hard to imagine that any were turned away. The difference in the conditions of those who lived at Masada toward the end of the revolt can therefore be interpreted by realizing that the first to arrive would have moved into the more comfortable accommodations, and when these were all taken, the later arrivals would have had to build themselves much scantier dwellings, so lowly that the excavators dubbed them "transit camps." These conclusions are logical ones. However, the finds also seem to suggest the presence at Masada of groups other than the Sicarii, among them Nabateans, Samaritans and Essenes (see below). The various groups cannot be differentiated according to ceramic and numismatic finds, since apparently everyone used the same kinds of vessels and coins. Neither can the relative sizes of the various groups be gauged in this way. The evidence of the presence of others is, however, revealed by epigraphic finds:

In the heap of finds in the Casemate of the Scrolls, which apparently represent items cast aside by looting Roman soldiers, was a papyrus with a partial inscription identified as Samaritan (see above).

Evidence of the presence of Essenes at Masada is revealed by another fragment of parchment found in the Casemate of the Scrolls with the Samaritan papyrus. This is a portion of the composition known as the "Songs of the Sabbath Service" which clearly belongs to the Qumran sect (see above). It is reasonable to assume that this scroll, like the Samaritan papyrus, came to Masada with refugees who fled areas that had fallen to the Romans.

Ben-Yehuda does not mention the Samaritan papyrus (intentionally ignoring readily available information?), and with regard to the portion of scroll belonging to the literature of the Qumran sect, he has his own complicated explanation. As noted, the Essene fragment of scroll clearly provides support for the statement by Josephus Flavius that the Essenes, or at least some of them, had taken part in the revolt. (see above, Written Finds; Yadin 1966:174). According to Josephus, one John the Essene was given command over the areas of "Thamna, with Lydda, Joppa and Emmaus also under his charge" (*War* II, 567). The same John was also mentioned among the leaders of the battle against Ascalon (*War* III, 11).

Ben-Yehuda's claim that it is unreasonable for Essenes to have been at Masada because they were known as "a small sect of pacifists ..." and "to

claim that these peace-lovers took to arms against the Romans is no easy statement" (2002:83) ignores Josephus' clear testimony with regard to the participation of Essenes in the war. Ben-Yehuda explains the presence of a fragment of a Qumranic scroll at Masada thus: In archaeological excavations near En-Gedi a small village was found in which Essenes lived, and the scroll could have reached Masada when the Sicarii looted En-Gedi. Ben-Yehuda bases his suggestion that Essenes lived at En-Gedi on an interview given by the excavator of this site, Y. Hirschfeld, to the Hebrew daily *Ha'aretz* and to the Hebrew University newspaper *Kav Pnim* (2002:83). What a pity that Ben-Yehuda resorted to these sources rather than to an article the same scholar wrote in the quarterly Cathedra (Hirschfeld 2000). If he had, he would have found, in the same journal, an article by Amit and Magness (both articles appeared two years before Ben-Yehuda wrote his book!) in which they summarize the debate thus: "The attempt to find [at En-Gedi] at any cost an alternative site to Qumran [...] denies basic historical data and ignores the explicit archaeological evidence" (Amit and Magness 2000:68). Safrai came to the same conclusion (Safrai 2000). In fact, Ben-Yehuda himself casts some doubt as to the validity of Hirschfeld's proposal, but he does so almost covertly (2002:83, n. 12). (Manipulation? Attempts to hide facts?).

Suggesting there were Essenes at En-Gedi allows Ben-Yehuda to kill two birds with one stone. First, he returns to his favorite subject, the attack by the Sicarii on En-Gedi. Second, he demonstrates that the fragment of scroll found at Masada does not necessarily show the presence of Essenes there. He does not relate at all to the question of why the Sicarii would have needed an incontestably sectarian (Essene) scroll at Masada.

It should also be mentioned that E. Netzer, the expedition's architect, proposed, based on his architectural analysis of one of the wings of the Western Palace, that the theory of its habitation by Essenes, at least during the revolt, is "the most logical" one. (1991:634). R. Reich (Reich 2001) also suggested that Essenes lived in some buildings (the section on spindle whorls, above, Other Finds). Ben-Yehuda was familiar with Netzer's book; he quotes from it when the quote suits his viewpoint. However, in this matter, surprisingly, he does not.

Thus Ben-Yehuda summarizes the matter: "Had there been a major element of Essenes on Masada, Josephus' failure to even mention them would require some explanation" (2002:83). In the same vein it can be argued that the presence of the two largest building complexes — the storerooms and the Western Palace — that Josephus also does not mention

"requires explanation." Ben-Yehuda would have done better to internalize the principle, valid for any historical source, that not everything Josephus wrote is necessarily 'correct' nor is everything not mentioned in his book is necessarily 'incorrect.'

In light of all of the above, it seems that not only did Sicarii inhabit Masada during the revolt, but so did refugees who were not Sicarii. While this is indeed an interpretation, it does meet the criteria: It does not contradict logic and is supported by the finds. It would therefore not be such a major error to say that not all the residents of Masada during the revolt were Sicarii. As I recall, Yadin did not express himself explicitly on this issue and therefore it is impossible to respond to Ben-Yehuda's claim in this matter with certainty. It may be that Yadin had additional reasons for avoiding the term, such as his aversion to Brit Habiryonim, discussed above. We can only say once again as Yadin used to, "we shall never know."

This issue is connected to another one that Ben-Yehuda revisits frequently: that Yadin ostensibly refrained intentionally from mentioning the attack by the Sicarii from Masada on En-Gedi and the massacre of its inhabitants. Ben-Yehuda's implied explanation for Yadin's supposed obstinate avoidance of this issue is that reference to the incident would impair the aura of heroism in the positive image that Yadin supposedly sought to give the people of Masada. This argument once again highlights Ben-Yehuda's lack of understanding of the essence of archaeology: Yadin excavated and studied Masada, not the history of the Second Temple period, and not even that of the revolt. What does the raid on En-Gedi have to do with the archaeology of Masada? Had the excavations unearthed any find, even the most meager, revealing the identity of the residents or the massacre at En-Gedi, and if this find were concealed (even the assumption that such a thing could have happened is inconceivable!), there would have been a reason for these baseless claims. It would have been nice if the Masada excavations had uncovered an inscription reading "We, the residents of Masada, are Sicarii." It would have been even better if it had also stated, "and we raided En-Gedi and massacred its inhabitants." As it happens — no such inscription was found at Masada.

Indeed, it is crystal-clear that Ben-Yehuda 'does not like' the Sicarii, and that he has enough objective reasons not to. But this is a far cry from the ridiculous claims he repeats in both his books, that the people of Masada had decided to commit suicide without asking their wives: "Were the women consulted? What about the children" (1995:37); "...those making the decision most probably did not include these same women and children

in the decision-making process..." (2002:167). How rude! They probably did not tip their hats to greet the women as they strolled around Masada, either... Had Ben-Yehuda not reiterated this argument in both his books, he could have been assumed to be joking. No, apparently he was completely serious. However, even when he was clearly trying to be facetious, we cannot share the alleged joke:

"The transcripts also reveal humor. [...] while volunteers [...] found fish bones [...] No solution is offered to the riddle of how fish bones found their way to desert-bound Masada..." (2002:81). "No solution" indeed? Of course there was a solution: Fish sauce, a central component in Roman cooking, was a delicacy brought to Masada from Italy, particularly during the time of Herod. Without a doubt, this was the source of the fish bones. Hebrew and Latin inscriptions on jars found at Masada also note that it contained this delicacy (Yadin and Naveh 1989:48; Cotton and Geiger 1989:166-167; Cotton and Geiger in Hurvitz 1997:82). These publications were known and are accessible to all, and the vessels bearing the inscriptions were on public display before Ben-Yehuda wrote his books. (Did he not read? Did he read and not understand? Did he understand and choose to ignore the information?)

The synagogue and the southern Miqveh

The two main ritual structures uncovered at Masada were the synagogue and the Southern *miqveh*. It should be remembered that at the time of its discovery, the synagogue, which was built and used while the Jerusalem Temple was still standing, was the earliest synagogue ever unearthed in archaeological excavations. All synagogues known until that time post-dated it by a few hundred years. (Since that time, additional synagogues of that period have been uncovered — at Gamla and Herodium.) This was the reason for the caution with which the excavators approached their final conclusion that the structure should be identified as a synagogue. Yadin's demand to "act with extreme caution and [seek] solid and definite evidence" (2002:90) was justified, and stemmed from scientific responsibility and not hesitation.

Ben-Yehuda's description of the process of decision-making with regard to the final identification of the synagogue (2002:90-92) is quite faithful to the actual events at the time. However, his treatment of the question of the identification of the *miqveh* in the southern part of Masada is more problematic. The indecision of the excavators over the identification of the

installation, which came to the fore at staff meetings, stemmed from the same source of the debate over the identification of the synagogue. However, his description of the rabbi's visit to Masada is especially surprising: "...the transcripts do not reveal how they [the rabbis] got there (2002:87)." What is the question here? Is he hinting that they were forced to come? "Apparently the installation was measured and its general dimensions supported the hypothesis that the structure was a *mikve*" (ibid.). What does "apparently" mean? Is this meant to express doubt? Every architectural find in an excavation — a room, a wall, an installation — is measured, sketched and photographed. The "problem" that Ben-Yehuda points out, as if there is some doubt as to who built the *miqveh* — whether by the rebels or back in the time of Herod — is not a problem at all. One glance is all it took to see that it was built by the rebels, based on the construction of the partitions, which incorporated Herodian sandstone in secondary use. Such construction is typical of the rebels, as was discerned throughout Masada. During the period the installation was in use it apparently became necessary to change or renovate it, but the two architectural stages that were noted both dated to the period of the rebels, as can clearly be seen by the plan presented in the final report (Netzer 1991: Plan 50), although once again Ben-Yehuda refrained from referring to this source. This finding also arises from the scientific report Yadin published at the end of the first excavation season (Yadin 1965b: 91-92).

Ben-Yehuda's conclusion that Yadin had said, "this *mikve* was not planned together with the rest of the palace but was added later, proposing that the *mikve* was built for Herod's Jewish guests" (2002:88-89) reveals that he had not grasped at all what Yadin said at the staff meeting, since the Western Palace is located a few hundred meters away from the *miqveh* and therefore it could not under any circumstances be a "late addition" to the Western Palace. There is also clearly no logic in saying that since the *miqveh* was added "later," it was intended for "Herod's Jewish guests." The *miqveh* is located in one of the casemate rooms, and is not at all an "addition" to any of the palaces at Masada. The reason for the so-called "hesitations" accompanying the identification of the installation as expressed in the staff meetings (2002:89-90), has already been discussed above. Indeed, on February 11, 1964, doubt persisted as to whether this was a *miqveh*, and the decision could only be made after sufficient additional evidence was gathered.

Where did Ben-Yehuda get the idea that the rabbis determined that this was a *miqveh* only "after persuasion" (2002:89)? After all, he was not present during the visit. The rest of the staff and I were, in fact, present, because the

question of the identification of the installation fascinated us all, and it is not every day that ultra-Orthodox rabbis come to an archaeological excavation (except, of course, to protest the excavation of tombs...). I do not recall that any persuasion was necessary. The rabbis measured, weighed and discussed, and then ruled that this was indeed a kosher *miqveh*, exactly as Yadin described in his popular book (1966:164-166). By the way, in Yadin's scientific report he reiterates the information in an "appropriately" dry manner (Yadin 1965b:91-92), without the "enthusiasm" that so troubles Ben-Yehuda.

All Ben-Yehuda had to do to realize that the installation was indeed a *miqveh* was to explore the matter in the Hebrew University library, where he would find a number of studies confirming this conclusion (e.g., Reich 1990:292-301 and especially 296-298; Grossberg 1997:22-44).

"Preference" for Jewish finds

Of all the 'accusations' leveled by Ben-Yehuda, that of Yadin's alleged preference for Jewish finds over Nabatean and Byzantine ones (2000:92-98) is one of the strangest and most unfounded. It is reminiscent of the claim against Israeli archaeology in general that supposedly prefers the excavation of sites from the First and Second Temple, which are "Jewish," over those of other "ethnic" origins. We have shown above how factually groundless this argument is. That is the case here, too.

How can it be helped that the finds that could be attributed to the Nabateans at Masada were almost nonexistent compared to finds from all other periods at the site. Here are a few numbers: out of 4,642 coins found, Nabatean coins number 59, i.e., around 1.2% of all the numismatic finds (Meshorer 1989); out of 1,160 lamps from Masada, fragments of lamps that can be considered Nabatean amounted to 14, less than 1% of all the lamps found (Barag and Hershkovitz 1994); out of approximately 1,600 ostraca uncovered, only two could be attributed to the Nabateans — slightly more than 0.1% (Yadin and Naveh 1989); out of 6,565 pottery vessels found, Nabatean vessels and fragments of vessels numbered only 61, less than 1% of all the finds (Bar-Natan 2006). It is therefore not at all clear how Ben-Yehuda concluded that the Masada excavation had turned up a "large quantity of Nabatean pottery" (2002:97). Even more surprising are the "fascinating implications" that the Nabateans were the ones "who helped Herod plan and even build it [Masada], or were involved in the pre-Herodian construction of Masada" (2002:98). What is the basis for this idea? It came from a

lecture given by Professor A. Negev quoted in *Haaretz* (2002:106, n. 27). For some reason Ben-Yehuda preferred this source over the scientific report on the architecture of Masada (which appeared before he wrote his study), in which the authors point out the clearly Hellenistic and Roman traditions reflected in the plans of the various structures, in both their style and the decoration (Netzer 1991; Foerster 1995). The authors also frequently pointed out in these publications the possibility that architects and even craftsman brought from Rome were the ones who built and decorated a number of the buildings, or at least instructed the local builders. Somehow Ben-Yehuda also ignored the fact that several of the column drums at Masada were marked with Hebrew (and not the Nabatean!) letters, intended to facilitate the placement of the drums in their correct order when erecting the columns (Foerster 1995:80–99).

With regard to finds from the Byzantine period, these are even rarer than the Nabatean finds. Out of 4,642 coins found at Masada, only 5, less than 0.1%, date to the Byzantine period (Meshorer 1989); out of the 1,160 lamps, 9, i.e., 0.5 % are Byzantine (Barag and Hershkovitz 1994). And as for the Byzantine ceramic assemblage (still unpublished), an initial examination reveals that the representation of the finds from this period is less significant even than the Nabatean ones. Out of 1,600 inscribed items, only 3 or 4, about 0.5%, date from the Byzantine period (Cotton and Geiger 1989:24); out of the entire basketry assemblage, which includes 321 items, the Byzantine period is represented by a single basket — about 0.3% (Bernick 1994).

Unlike the artifacts of the Byzantine period, which are fewer than even the meager Nabatean finds, this period certainly is represented in the architecture of Masada. First and foremost in the 'community center' — the church at the center of the plateau. This structure is indeed very impressive in terms of its preservation among the structures uncovered. Ben-Yehuda can also rest assured that the plan of the church was made by Netzer, the expedition architect, and not by "the non-Jew among us" as Ben-Yehuda implies (2002:93).

During the period of their stay at Masada the monks made use of a tower and two adjacent casemate rooms; a number of walls were done away with, others were added, and installations that were apparently used as a kitchen and refectory were also built. Thirteen monastic cells and dwellings in three caves on top of the plateau also belong to the Byzantine period, as do the remains of a number of installations scattered here and there on top of the plateau. However, all these remains are inferior (in extent, decoration

and variety) to the various structures and installations from the Herodian period, and to those attributed to the rebels.

Despite the relative paucity of Nabatean and Byzantine remains discovered at Masada, Yadin also mentions these remnants in his popular book (1966) as well as in his preliminary report (Yadin 1965b:24-25, 99, 119-120). They were also discussed scientifically and in detail in the final reports, discussion that was possible only because of the exacting treatment — registration, photographing and sketching — given to all the finds unearthed by the expedition throughout the excavations.

Ben-Yehuda's claim that the "major interest" of the excavation focused on "Jewish relics from the period of the Great Revolt" (2002:92) does not hold up under scrutiny, not even in terms of the 'division of space' in Yadin's popular book. Of the approximately 250 pages of the book, some 60 were devoted to a description of the site, the history of research, the organization of the expedition, the excavations, an archaeological summary and "Masada as a symbol" (a subject presented in two pages of photographs). Approximately 85 pages were devoted to the remains from the time of Herod, about 80 pages to those of the period of the revolt, about 20 pages to the Roman army and the siege and about 6 pages (4 of which were photographs) to Byzantine Masada. Yadin's discussion of the Nabatean and the Byzantine finds is thus in direct proportion to their importance in the historical and archaeological entirety of Masada. There was no "exclusion," "disregard" or "down-play" of the Nabateans and the Byzantines (2002:93) and no reverse discrimination in favor of others.

Although the statistics reflecting the relative weight of the Nabatean and Byzantine finds among to the total assemblage at Masada were known (except for the ceramic finds, which were published only after Ben-Yehuda released his book), or at least should have been known, it seems that here, too, the desire to attack Yadin outstripped rational thinking and common sense.

Masada also makes a significant contribution to Roman culture for this time period: The architectural finds uncovered in the excavation reveal the great scope of Roman cultural influence, which had created a kind of *koine* that extended as far as the Eastern Mediterranean. The Roman siege works, another aspect of this influence, are the most complete example known anywhere in the Roman world.

But nothing will change the facts: From an archaeological perspective Masada is first and foremost a Jewish site. Next to Jerusalem, it is perhaps the most important Jewish site from the first century BCE to the first century CE.

The siege and the battle for Masada

Ben-Yehuda raises two main arguments with regard to Yadin's interpretation of the evidence on this crucial and charged subject. Both arguments have an archaeological aspect, but mainly — and this is apparently Ben-Yehuda's main thrust — they have implications for the Masada myth: (a) From the Roman point of view, Masada was a negligible site and its conquest had much less significance to them than Yadin attributed to it; (b) The rebels did not fight at Masada and they did not die a "hero's death."

According to Ben-Yehuda, Masada was an insignificant site, the results of the excavation of which were quite disappointing to the excavators (2002:67, 180, 186). In his opinion, the Romans also deemed it unimportant: After the conquest of all of Judea they saw Masada as an "insignificant" site (1995:43; 2002:45), and "nothing major" from a military perspective (2002:158). We cannot know what the Romans thought about Masada, but we do know what they did to vanquish it. That issue has already been discussed (see "The Battle for Masada," above), but in order to examine Ben-Yehuda's argument about the importance of Masada in the battle against the Romans, we should reiterate the main points.

The siege works the Romans built, including eight camps, a siege wall and a ramp, is the most impressive surviving example in the entire Roman world. We accept Josephus' testimony that most of the Roman army in Judea was transferred to Masada after the fall of Jerusalem (*War* VII, 252) as does Ben-Yehuda (2002:54). The number of those besieging Masada — legionaries, auxiliary forces, slave labor and others — is unknown, with estimates of between 8000 to 13,000 people (2002:59, n. 43; Roth 1995:91-95). The commander of the army was Flavius Silva (ibid.) — Ben-Yehuda's doubt on this score is incomprehensible. For some reason he argues that Silva, "intervened in strategic and tactical decisions, but that the Roman Tenth Legion was actually commanded by another person during the siege on, and the conquering of, Masada" (1995:330, n. 33; 2002:45).

Based on the research, "a nine-week siege is the likely maximum, a four week siege the likely minimum and a siege of seven weeks is the most probable [...] [and] fits in well with the date given by Josephus for the fall of the fortress" (Roth 1995:109). Where Ben-Yehuda got the idea that Yadin hinted that the siege went on for three years, or, in another place, one year (2002:47, 99), is incomprehensible. What Yadin actually wrote was: "At the beginning of the 66 AD rebellion, a group of Jewish Zealots had destroyed the Roman garrison at Masada and held it throughout the war [...] after the

fall of Jerusalem they were joined by a few surviving patriots [...] who had evaded capture [...]. In 72 AD Flavius Silva, the Roman Governor, resolved to crush this outpost of resistance [...] Silva's men prepared for a long siege" (1966:11–12). Not one word with regard to the duration of the siege.

The ramp built up to the plateau of Masada on the west was without a doubt the main and decisive element in the mounting of the siege. But Ben-Yehuda, as part of his goal of minimizing the importance of the site and the effort it took to conquer it, calls the ramp "not very impressive" (1995:37), and notes that the construction of the platform at the top of the ramp, on which the battering ram was placed, was also not something that required a "striking" effort (2002:101). Ben-Yehuda bases this claim on the "discovery," arising from the geological study by D. Gill, that the ramp was not built from the base of the cliff to the top, but rather took advantage of a rocky spur protruding from Masada's western cliff (ibid.). No geological study was needed to produce this revelation: Josephus himself explained that the ramp was built on the western side of Masada because a rocky spur at this point made the work easier (*War* VII, 304). Yadin quoted Josephus' description when he explained the reason for the construction of the ramp at that point (1966:226). The relative "convenience" of this location for the ramp notwithstanding, its construction no doubt presented the Roman army with a serious challenge, since it necessitated the piling of huge quantities of fill onto the natural outcropping, and supporting this artificial fill with wooden beams (some of which can still be seen today) to stabilize it. Various studies have attempted to calculate the amount of material that would be required to construct the ramp (e.g., Shatzman 1997:127–128; Roth 1995:101–105) and it appears that close to 40,000 cu. m (see above, The Battle for Masada) would have been needed for this purpose. The Roman builders of the ramp would have had to carry out their task right under the eye of Masada's defenders, who would certainly have done their utmost to prevent its completion. Although the platform at the top of the ramp, and a good deal of the ramp itself, have eroded over the centuries, the ramp still elicits a sense of amazement and awe for its builders. This was a "gigantic ramp, the likes of which are difficult to find among the Roman siege works known to us" (Shatzman 1997:130), and it is certainly "one of the most remarkable siege structures of the Roman army which exists in the world today" (Yadin 1966:226).

The deployment of a force numbering some 10,000 men, among them the Tenth Legion — one of the Empire's elite forces that had previously besieged Jerusalem; the construction of eight camps; an approximately

four-kilometer-long, three-meter-high wall surrounding Masada to prevent the escape of the besieged (*War* VII, 275); the construction of a huge siege ramp, no simple task even for the experienced and skilled Roman army: Could all that effort have been merely to vanquish a fortress on an isolated rock in some remote desert with a few hundred defenders and an equal number of women and children? And finally, does the fact that the commander, Flavius Silva, was appointed *Consul Ordinarius* in Rome (and had the year named after him), no doubt as a reward for his conquest of the fortress indicate that Masada was an "insignificant" place, whose conquest was no major achievement, as Ben-Yehuda states? The answer to this question is best left to the reader.

And now, to the defenders: Ben-Yehuda reiterates that the defenders did not fight and were "...adept at raiding nearby villages [but] were not really good fighters and in fact, avoided opportunities to fight" (1995:42; 2002:44). Josephus provides no information on this matter, since at the time of the battle he was already in Rome. We can therefore turn only to archaeology and to common sense.

Considering that the besieged at Masada numbered close to 960 men, women and children, at best, its fighters would have numbered from 300 to 500. The weapons found in the excavations reveal that the defenders would have been armed with light weapons, mainly daggers, swords and possibly also spears — all of which are used in hand-to-hand combat, and especially bows and arrows — a medium-range weapon (Magness 1992; Stiebel and Magness 2007). The sources of the weapons are not known with certainty, but it is reasonable to assume that they were varied: weapons the Sicarii brought with them when they conquered Masada at the outbreak of the revolt; those looted from the Roman garrison when they took over the site that may have included remnants of weapons stored there by Herod; weapons brought by refugees who took shelter at Masada as the conquest of Judea progressed; and possibly, in addition to all these, weapons taken during sorties by the inhabitants of Masada before the siege began. In any case, the defenders clearly had no heavy weapons of any kind, particularly not ballistae that they could fire directly at the Roman army at the foot of the mountain (Holley 1994:360–363; Roth 1995:96–97). Another ostensible means of defense would have been the tactic of sudden forays to attack isolated units and sabotage installations, in the case of Masada to delay completion of the siege ramp. But topographical analysis and evaluation of the balance of forces reveals that this tactic would not have been possible at Masada: The Roman army had split up its forces in such a way as to keep the

besieged occupied defending against possible incursions against the fortress not only from the west, where the siege ramp was being built, but also from the east, via the Snake Path. Therefore they would not have been able to spare more than 100 to 200 men for sorties. Such a small attacking force "would have had virtually no chance of success" in the face of "half a legion of the best soldiers in the world, who would have been working incessantly on the ramp at any one time, and some 500 auxiliaries who were encamped only minutes away" (Roth 1995:96). Lacking artillery (ballistae) and the possibility of sorties, what did the defenders have left? Logic dictates that they would have placed their faith in the topographical superiority of the fortress and hope that it could not be taken.

However, with the Roman army as their adversary, and when it became clear that the conquest of the fortress was inevitable, the only thing they could do to prevent the completion of the ramp at any cost was to shoot arrows, and roll down stones, and anything else on which they could lay their hands, against the soldiers constructing it. Testimony that this was what actually happened must necessarily be indirect, since nothing that was shot or rolled survived in the archaeological record. If it did, it should be sought somewhere at the base of Masada. The concentrations of heavy rolling stones were found at the top of Masada mainly in two places — in the east, in the area above the Snake Path, and in the west — in the area dominating the ramp. These are perhaps only the remnants of the ammunition the defenders did not have time to (or could not; see below) launch at the enemy. In two rooms of the Western Palace, near the area that was the focus of the defense against the builders of the ramp, clear evidence was found of arrow production in assemblages dating from the time of the revolt (Magness 1992:60–63; Netzer 1991:250; Stiebel and Magness 2007:24–25).

The archaeological evidence, therefore, points to the fact that during the revolt, arrows were manufactured at Masada and rolling stones were placed at the appropriate points. A common-sense appraisal of the situation must also be brought to bear: It is inconceivable that people anywhere would sit back and watch as their enemy made preparations to storm their fortress and would not do anything and everything in their power to prevent it. This would have been particularly true at Masada, where the topography gave the defenders a clear advantage. In contrast, the Romans would have also taken every possible step to prevent disruption of the ramp's construction. Cover for the builders was provided by a tower "from which the Romans by volleys of missiles from numerous quick-firers and ballistae quickly beat off the defenders on the ramparts and prevented them from showing

themselves" (*War* VII, 305). To a great extent, this tower prevented the besieged from rolling down stones and shooting arrows at the builders of the ramp. Hundreds of ballista balls found in the area of the breach (Netzer 1991:416-420; Holley 1994:360) clearly attest to the efficacy of this weapon.

Roth summarizes the picture well: "The Jews certainly had every motive to resist, but simply lacked the means. The Romans had every reason to take the fortress as quickly as possible and they had the means to overcome its defenses in a relatively short period" (Roth 1995:98). Military theory speaks of a 3:1 ratio of offensive to defensive forces for the former to succeed in their mission. If we place the number of fit fighters at Masada at 400 and the number of Roman soldiers at around 8,000, the ratio of attacker to defender is 20:1 in favor of the Romans! Truly, the few against the many.

The argument that the people of Masada were cowardly and did not fight recalls statements in a different context about "going like sheep to the slaughter."

The suicide and human remains

The issue of the collective suicide at Masada is the heart and soul of the Masada myth, and therefore those who seek to dwarf or refute it have two possibilities. The first is to claim that the whole story of the suicide did not happen and was a mere *topos* — a literary model used by historians of the time to conclude chronicles of sieges ending in conquest, of which there are many examples. Indeed, this position has been taken in many studies dealing with the Masada suicide. The second possibility is to accept the story at face value, but to argue that the act of suicide shows not valor, but rather cowardice. Ben-Yehuda takes the second position. He accepts Josephus' telling of the story literally, being the only source about the revolt in general and Masada in particular, and a contemporary writer who received his information first-hand while many of its protagonists were still alive, meaning that he could not lie. And so, Ben-Yehuda writes: "We will treat Josephus as the historical truth (unless proved otherwise), and the [Masada] myth as a falsification of his historical narrative" (2002:54). I have already shown above that Ben-Yehuda's approach to historical writing is simplistic, since all historians bring their own personality and worldview to the historical truths they describe, and Josephus was no exception. Nevertheless, I accept Ben-Yehuda's approach in this matter; that is, that the story of the suicide as it appears in Josephus' account did reflect 'historical truth.'

Since this event is so cardinal to the Masada myth and is not — at least so far — a matter of archaeology, I will make do with two comments.

On the assumption that the mass suicide at Masada was indeed a 'historical event,' archaeology has so far discovered no trace of it: Despite intensive excavations at the site, no remains of the hundreds of bodies were uncovered, but rather only few human bones (see below). The remains of those who committed suicide (if this is indeed what happened) might have been removed by the Romans who remained garrisoned at the site, or by others, and they may never be recovered. So much for the archaeology.

As for the rebels, after accusing them of cowardice and avoiding combat (see above) Ben-Yehuda renews his assault on them: Not only were they afraid to fight, they were also afraid to die, cowards that they were. One speech was not enough — two were necessary to overcome their "reluctance" (1995:237; 2002:167). Ben-Yehuda sees the very decision to commit suicide rather than fight to the last rebel as an act of cowardice. He repeats this pronouncement a number of times while presenting examples of the courage of others who did fight to the finish, beginning with Samson, who said "let my soul die with the Philistines," and ending with the Warsaw Ghetto fighters (2002:43). That is Ben-Yehuda's opinion, and as such it is legitimate. But equally legitimate is the idea at the foundation of the myth, which views suicide as an act of courage in light of the terrible choice the rebels faced. Judaism is ambivalent in this matter: Although it rejects suicide, dying in "sanctification of the name of God" is seen in a positive light. The rebels at Masada put their trust in two places: in God who would fight for them, and in the eagles' nest where they had found refuge. When both of these failed them, their world collapsed around them. Considering the fate so vividly described in Eleazar's speech, suicide — with all the courage that act entails — was seen as an act of heroism. This holds also for the suicide as a last resort chosen by the people of Jotapata and Gamla (*War* III, 355-387; IV, 78-81). Furthermore, when some of the priests in the Jerusalem Temple saw that all hope was lost when it was taken by the Romans, they "...plunged into the fire and were consumed with the temple" (*War* VI, 280) and no one accused them of cowardice. Who better to judge the suicide at Masada than Josephus Flavius? After he called the Sicarii by every dishonorable name — bandits, assassins, thieves, etc. — when they took their own lives, he could not contain his admiration for them. As Josephus described it, when the Romans realized the people of Masada had committed suicide they were, "incredulous of such amazing fortitude [...] admired the nobility of their resolve and the contempt at death...unwavering" (*War* VII, 406).

The Romans, Josephus and many others, among them all those who fostered the Masada myth, and indeed Yadin himself, saw the suicide of the people of Masada under the circumstances in which they found themselves as an act of courage. Ben-Yehuda sees it as an act of cowardice. That is his right.

This story also has an archaeological aspect, which comes to the fore in two groups of finds: the inscribed potsherds known as the "lots," and the skeletons, some 30 in number, some in fragmentary condition, which were unearthed in the excavations, a small number in the Northern Palace and most in a cave in the southern part of Masada. Were these inscribed sherds in fact testimony to the lots cast on the eve of the suicide? If so, do they support the story as Josephus tells it? Are the skeletons, all or some of them, the last remains of the people of Masada? In these two matters, myth and archaeology clearly cross paths, and therefore it is not surprising that they play an important role in Yadin's book on the one hand, and come under fire by Ben-Yehuda, on the other.

The "lots"

Ben-Yehuda tries very hard to undermine the assumption that the group of ostraca labeled by Yadin "lots" were those used to select who would kill the others and then themselves, and to show that Yadin believed that this was a proven fact. But did he?

With his opening statements on this issue, Ben-Yehuda concedes that Yadin's explanation is "most tempting" (2002:107), but that accepting it, Ben-Yehuda claims, gives rise to a number of difficulties.

The first difficulty: The room in which the sherds were found is small and, "it is very difficult to imagine 960 people crowding into that elongated room," an argument that he reiterates twice (2002:109, 115). But did anyone ever claim that it could? On the contrary, during the excavation is became clear that the sherds had been brought to that location with a great many other finds during some sort of clearing, apparently by Roman soldiers who occupied Masada after it fell. Ben-Yehuda himself notes this fact (2002:109). The sherds and most of the rest of the material were found in a heap of debris that may have been created during the clearing of the Water Gate and the area between the Northern Palace and the Large Bathhouse, in a room just to the west of which the sherds were found. Yadin did call the cleared area "one of the most strategic spots" (1966:201), but was not referring to the room in which the ostraca were discovered, and Ben-Yehuda was mistaken in his understanding of Yadin's statements. Moreover, under

the assumption, which Ben-Yehuda also accepts, that Josephus' version of the suicide did reflect reality, the theory that the lots were cast in the presence of all 960 inhabitants is baseless. It is likely that only the men, and apparently only the adults among them, that is, approximately 200–300 men, were present. And there is certainly room for this number of people in that area.

Ben-Yehuda points out a second difficulty: The number of sherds in the group of "lots" is 12, but based on Josephus' description, we would have expected there to be 10. Yadin responded to this issue by noting that there apparently was a group of 10, not counting Ben Yair, the supreme commander of Masada, and together with him there would have been 11. Yadin believed the 12th sherd, on which the word בני was inscribed, was an unsuccessful attempt to write the word בניאיר and thus it should not be counted (see discussion of this issue above, Written Finds). Clearly this is an interpretation, but it meets the criteria presented above for legitimacy: Is it possible? Yes. Is it contrary to common sense? No. Even Ben-Yehuda says "one must admit that an ostracon bearing the name of Ben-Yair found at Masada is very suggestive" (2002:109).

A third difficulty: In Yadin's various publications and lectures he presented this group of artifacts, particularly the ostracon on which the name of Ben-Yair was written, as one of the most fascinating of all the finds, if not the most fascinating. However, in the daily staff meetings Yadin is said to have evinced no enthusiasm for the discovery of these sherds (2002:111). How one's extent of enthusiasm could be quantified from notes made at the time is unclear. But it turns out that Ben-Yehuda is tough to please: In another place he complains about an overdose of enthusiasm (2002:80). Ben-Yehuda revisits the issue of the archaeologist's lack of enthusiasm as a measure of the importance of finds, and we shall return to this as well.

As clear-cut proof of the fact that Yadin himself did not attribute great significance to the find, Ben-Yehuda presents the argument that Yadin did not find it proper even to mention it in the preliminary report he published, neither in the Hebrew nor the English version. This is indeed a persuasive argument. But the problem with it is that the report was published in 1965, and relates, as Yadin specifically noted, to the findings of the season that began "on October 14 1963 and continued until the end of April 1964" (Yadin 1965b:3). The "lots" were found only in the second season: In January 1965. Yadin, talented as he was, could not have reported finds discovered only in the second season in the summary of the first season's discoveries.

The gist of Ben-Yehuda's between-the-lines claim in this matter is that Yadin presented the group of "lots" as reliable evidence of the event Josephus describes, whereas the event may not have occurred at all. But in the nine pages of numerous quotes that he devotes to this issue (2002:107–115) not one example can be found of such statements. In fact, in all Yadin's written and oral statements in encyclopedias, interviews, newspapers and lectures he expresses doubt; the word "perhaps" appears in all of them. Ben-Yehuda went even further in determining that the care Yadin took in expressing doubt "seems to have completely disappeared in his most popular and impressive 1966 book" (2002:112). And yet even the most cursory perusal of Yadin's book shows that he specifically wrote: "Had we indeed found the very ostraca which had been used in the casting of the lots? *We shall never know for certain.*" [italics mine, A.B-T] (Yadin 1966:201). This is not the only time Ben-Yehuda attributes statements to this book that are not to be found in it. (Might he not have read it? Might he have read it and ignored the contents?)

Human remains

The suicide, which is the climax of the Masada story, is at the heart of the myth as well. Since the remains of 960 people who committed suicide — if the event is historical — have so far not been found, the identity of the scant skeletal remains found at Masada is a very charged issue. It is only natural that Ben-Yehuda, who consistently tries to undermine the Masada myth, would make efforts to prove that these are not the remains of those who committed suicide at Masada, and would reiterate his accusation against Yadin that his conclusions were "unfounded" (2002:129), and suffered from a "flimsy lack of evidence" and even "suppressing evidence," a "lack of evidence" (2002:132), "distortion" (p. 143), etc.

As noted, human remains were found in two places on Masada: the bones of approximately 25 individuals in a cave in the southern cliff and the remains of three additional individuals in one of the rooms of the bath-house on the lower level of the Northern Palace.

The skeletal remains found in the cave in the southern cliff (Fig. 255): Anthropological examination shows that this group included the remains of 14 men (ages 14–22), 6 women (ages 15–22), 4 children (ages 8–12), and one fetus (in the sixth or seventh month of gestation). Most of the skulls are identical to skulls found in caves in the Judean Desert, especially the caves



Fig. 255: Human bones found in a cave in the southern cliff

in Naḥal Ḥever, in which Jews who had fled to the desert during the Bar Kokhba Revolt found refuge. However, 6 of the 14 male skulls in the cave at Masada were of a different type. The skeletons were not buried in the cave; rather, it could be discerned that the "bones, [were] thrown hither after some of the bodies had already fallen apart" (Yadin 1965b:90). The bones were thrown into the cave haphazardly together with the remains of clothing and animal bones, among them bones of goats, sheep, a dog and pigs. The remains of the clothing are similar in all respects to those found in the caves in the Judean Desert with the remains of Jewish refugees of the Bar Kokhba Revolt (2002:125–131, and see there further relevant references). These were the bones interred at the foot of Masada in a state funeral in the summer of 1969, although Yadin himself vehemently opposed such burial because of his doubts as to whether the bones found in the southern cliff were indeed Jewish remains (2002:134–140).

These are the facts. What was Yadin's stand vis-à-vis these skeletons? Below are some quotes on this matter from Ben-Yehuda's book: Yadin did raise the possibility that they were the bones of those who committed suicide, but "he was definitely unsure and hesitant" (2002:126); "It is difficult to determine the identity of the corpses and stipulate the time they were placed into the cave" (2002:128; Yadin 1965b: 90). Yadin also claimed: "In [my] view there is no proof about the identity of the bones..." (2002:136). In his scientific report Yadin wrote: "Are they, then, the remains of some of the defendants of Masada? Some of the 960 heroes of the revolt?

We hope to be able to answer this question after the conclusion of our excavations" (Yadin 1965b: 91).

Since all these statements are quoted in Ben-Yehuda's book, it is entirely unclear where the "concealing of facts" and the "distortion" is.

Ben-Yehuda has a great deal of difficulty linking the skeletons to those who committed suicide, especially because of the animal bones, particularly pig bones, found among the human remains (2002:130). In an attempt to disprove Yadin's supposed conclusion that the bones found in the cave were those of the defenders of Masada (although Yadin did not conclude this unequivocally), Ben-Yehuda frequently cited studies by J. Zias and others (2002:128–134). However, the scientific report Zias wrote does not discount the possibility that these were indeed the remains of the defenders of Masada. On the contrary, he specifically states that the bones were those of the people of Masada, and the throwing of pig teeth into Jewish graves to desecrate them was known in that period (Zias et al.1994:367). The same report also states that Carbon-14 analysis of the age of the textiles found with the bones completely excludes the possibility that these were the remains of monks who lived there during the Byzantine period, since the tests showed that the fabrics dated to the first century CE (Zias et al.1994:367). Furthermore — Zias goes on to claim: "The fact that the skeletal remains of over 960 individuals were never recovered may suggest that while 25 of the inhabitants committed suicide, Josephus may have converted the few into all" (Zias et al. 1994:367).

In the unpublished manuscript of another article by Zias (quoted by Ben-Yehuda as 1998d), in an article published that same year (Zias 1998) and in a series of interviews Zias gave, among them to *Ha'aretz* (2002: 132–133), he expressed a different opinion, proposing that the bones in question were those of Roman soldiers. What new facts had come to light meanwhile that caused Zias to change his opinion so radically? Here are his reasons: (a) The number of bones shows that these were not approximately 25 individuals, but rather 6 or 7; (b) The skeletons were not thrown into the cave but rather buried, and the disarray of the bones was caused by jackals and hyenas, which left teeth-marks on them; (c) anthropological examinations showed that in contrast to Yadin's conclusion, the skulls from the cave are not identical to those found in Naḥal Ḥever; (d) Zias' most decisive argument — that the pig bones found among the human ones negate any possibility that these were Jews, while in the Roman world, the sacrifice of pigs as part of burial ceremonies was a known custom.

Zias' opinion would not be an issue here if Ben-Yehuda had not based

his main attack on Yadin with regard to the skeletons based on Zias' evidence. However, it raises a number of questions: First of all, discussion of the type of skulls, the number of bones and their conditions (including "teeth-marks" of hyenas and jackals) took place years after the bones themselves had been buried. Zias had only photographs, largely unclear, and field notes; the bones themselves could not be examined. Second, the discussion is replete with errors, for example, the determination of the time of the Roman garrison stayed on Masada (Zias 1998:64, 66), and the age of the fetus found in the cave, which contradicts the conclusion of an expert anthropologist while the material was still available for study (ibid.). Third, and this is the most significant: Zias' conclusion that the skulls from the cave were in fact similar to those found in the caves in Naḥal Ḥever, which he says were from the Chalcolithic period (ibid., 45). This conclusion is mistaken and misleading: There is no doubt that the skulls from Naḥal Ḥever were from the Roman period and were identified as belonging to Jews who hid there during the Bar Kokhba Revolt (Yadin 1971:31, 60–65). The skulls from the Chalcolithic period were found in another cave in the Judean Desert, the cave known as the "Cave of Treasures," located in Naḥal Mishmar (Bar-Adon 1971:5–6). This confusion between the two caves appeared already in Zias' article in the final report (Zias et al. 1994:366) and Ben-Yehuda seems to have been misled by Zias in not distinguishing between the skulls of two very different periods found in two different caves (2002:131–133).

In the final analysis, lacking unequivocal proof of the identity of the skeletons, the issue remains in the realm of interpretation. What, then, are the possible interpretations?

Yadin's interpretation is that the skeletons were apparently those who committed suicide on Masada, based on the condition of the bones, which seemed to have been thrown haphazardly into the cave, perhaps during clearing of the site by the Roman garrison stationed at Masada after its fall. This identification is based on the similarity between the remnants of clothing and the type of the skulls at Masada and those of the "Cave of Horror," whose attribution to the Jewish refugees is not disputed.

Ben-Yehuda's interpretation, based on Zias, is that the bones were of Roman soldiers (and what about the [ostensible] similarity between them and the Chalcolithic skulls?). Among the bones of the soldiers are those of women, at least one of whom was pregnant. These soldiers were buried in a cave (contrary to the Roman custom of burning the bones of the dead), but the bones were removed and became prey to the teeth of hyenas. The pig

bones (not to mention the bones of other animals noted above) that were found mixed with the human bones represent a known Roman custom of sacrificing pigs during funerals.

Which of these interpretations is more likely is left to the reader.

The skeletons from the Northern Palace (Fig. 256): The remains of the three individuals were found buried under the heaps of debris that covered the steps in one of the rooms of the small bathhouse on the lower terrace of the Northern Palace (Yadin 1965b: 16–17; 1966:54; Netzer 1991: 167).









Fig. 256: Plaited hair and sandals discovered next to the human skeletal remains found in the bath located in the lower terrace of the Northern Palace

These are the facts: Two weeks after the skeletons were uncovered, the anthropologist N. Haas determined them to be the remains of a man about 22 years old, a woman about 18, and a boy about 11 (2002:117). The type of skeletons is "identical with that discovered in the caves of the Ḥever Valley. On one of the steps were found fragments of a woman's scalp, with well preserved braids of brown hair, partly wrapped up in remains of a kerchief on which possible traces of blood (?) could still be observed. In the immediate vicinity of this find were found several pairs of sandals, including some of a type already known from the Ḥever caves... [also found nearby were] hundreds of armour scales (some of which have kept their this silvering... a considerable quantity of arrowheads, some of which with their shafts still attached" (Yadin 1965b:16-17).

On the steps of the corridor leading to the bathhouse an ostracon bearing an inscription in Aramaic was found, mentioning one Bar-Ma'uzi, identical in style to the letters known from the Judean Desert caves (Yadin and Naveh 1989:49).

And now for the interpretation: In this case too, Ben-Yehuda disputes Yadin's interpretation (1995:67-68; 2002:117-125), basing his argument mainly on Zias' article (1998). He argues mainly against Yadin's move from doubt to certainty with regard to the identity of the skeletons, against viewing the group as a "family" and against Yadin's theory that one of the skeletons may have been that of an officer, based on the silver-coated scales of armor found next to it. Ben-Yehuda accepts Zias' interpretation that this was "a small burial ground from the time of the Roman occupation at Masada" (Zias 1998:66).

Unlike with regard to the skeletal remains found in the southern cliff, Yadin had become certain that the skeletons from the Northern Palace were the remains of the defenders of Masada based on the context of the find; the doubt he expressed was only with regard to whether one of them was an important commander of the rebels, as he stated in the scientific report, "it cannot be said with certainty" (Yadin 1965b:17), as well as in his popular book: "This, of course, we can never know for certain" (1966:54). Thus there is no change of opinion.

Ben-Yehuda also argues that if the discovery of the skeletons was indeed so important as to have been described by Yadin as a high point of the entire excavation, how was it that the subsequent report of the find "did not generate any debate," and was "dry," lacked "awe and mesmerization" (2002:117, 118, 124), and that the written report by Netzer was "careful and factual" (ibid., 123)? The meetings that took place every evening during which the

day's finds were reported were not photographed. Thus is it somewhat difficult to determine — especially based on a written report, when that report was delivered with excitement and when it was not. I, who was the one who unearthed these remains, can attest to my own enthusiasm and excitement. After looking at the daily written reports and listening to tapes, Ben-Yehuda observes that statements by Shmaria Guttman and Dan Bahat were enthusiastic and full of superlatives, while those of others were less so (2002:80). Such emotions and their expression are a matter of character. But to draw conclusions from it about the importance of the find? There is no archaeologist who has not been asked during his or her career what they consider their most moving discovery. I have also been asked this question many times, and I always say that the day I uncovered the three skeletons in the lower level of the Northern Palace was the most thrilling day in my professional life. I feel that way to this day, over 40 years later, and after many excavation seasons at other sites.

Zias' conclusion regarding the group of skeletons from the Northern Palace, which Ben-Yehuda accepts, raises a number of questions:

- There are differences in the age and numbers of the remains: According to Yadin's report, quoted by Haas, there were three — a man about 22, a woman about 17, and a boy of about 11, while Zias says there were only two men, one of whom was about 40 and the other about 22 (of which only the leg-bones remained), and the skull of a woman (Zias 1998:44). The question is whose testimony is more reliable — that of the anthropologist who reported on the finds two weeks after they were unearthed, or that of "research" Zias mentions without attribution (ibid?). Either way, the answer has no implications whatsoever on the identity of the bones.
- According to Ben-Yehuda, apparently after Zias (1998:66), difficulty exists with regard to the term "family" that Yadin uses in reference to the remains of the three skeletons (Yadin 1966:54), particularly considering the ages (2002:122). The difficulty is not clear: Is a family only "father, mother and child"? Yadin himself said at the time that the boy may have been the younger brother of one of the others (quoted by Ben-Yehuda: 2002:118). In any case the question of whether they were a family or not has nothing to do with the matter of the identity of the remains.
- The opposition to Yadin's conclusion that "perhaps" (that is what Yadin says!) one of the skeletons was that of a commander at Masada,

> also has nothing to do with the identity of the skeletons. Yadin's proposal is based on the hundreds of scales of silver-coated armor found around the skeletons. Ben-Yehuda states that such scales were found not only there but rather throughout the Northern Palace (2002:125). How can it be helped that the facts are, once again, different. From the three levels of the Northern Palace, scales of armor were found only on the lower level. All told, 435 scales were found, among them 368 painted (silver, gold and red) all of them were found in the lower level of the Northern Palace near the remains of skeletons. Twenty-one additional painted scales (6% of the total painted scales) were found here and there throughout Masada, most in assemblages from the time of the rebels. (Stiebel and Magness 2007:1-2, 52-64).

Indeed, the armor with the silver-coated scales is not standard battle armor, but rather parade-issue, which apparently had originally belonged to a Roman soldier. Perhaps the scales were among the weapons stored from the time of Herod, which fell into the hands of the Sicarii when they captured Masada from the Roman garrison, or were loot taken in a clash with the Roman army. Either way, it has nothing to do with the identity and status of the skeleton next to which the scales were found.

Following Zias, Ben-Yehuda also argues that these were not the skeletons of Jews because Jews, "never buried an individual with his or her sandals, nor with armor or arrows, which certainly suggests that...the three individuals interred here were not Jewish..." (Zias 1998:66; Ben-Yehuda 2002:125). However, Yadin never claimed that they were buried here, rather that these were the remains of the last defenders of Masada, killed at the site, and eventually covered when the ceiling collapsed. The arched ceiling of the room in which the skeletons were found prevented the collapse of the rest of the palace into it "thus leaving an open space; in the course of time the rains swept earth into this space, finally filling it" (Netzer 1991:167).

As with the human remains discovered in the southern cave, here, too, there is no incontrovertible evidence as to the identity of the skeletons. Lacking such evidence, the issue is in the realm of interpretation. What, then, are the possibilities?

Yadin's interpretation was that these were the remains of the defenders of Masada — one of whom was apparently a high-ranking individual — who committed suicide or were killed in the place where they were found. This interpretation is based on the type of skulls, the sandals and the arrows, all identical to those found in the Cave of Letters and other caves in

which Jews found refuge in the days of the Bar Kokhba Revolt. The same is true for the remains of the fabrics and the cloth wrapper which was apparently used to hold documents, like Babatha's pouch found in the Cave of Letters (see above, The Textiles). More support for the theory that these are the remains of the defenders of Masada comes from the ostracon in Aramaic and the fact that the latest coins found there were from the period of the revolt.

According Zias' and Ben-Yehuda's interpretation, this was an intentional burial of Romans who lived at Masada apparently during the time the Roman garrison was stationed there after Herod's death, when the Northern Palace fell out of use. It is unclear where exactly this small cemetery was — was it where the bones were found, or were they brought here by jackals, as Zias notes: "What we have...is not the last resting place for a family of humans, but a temporary shelter for a family of hyenas, the human skeletal remains having been brought in from elsewhere" (Zias 1998:66).

As with the interpretation of the findings in the southern cave, here too, we leave the reader to decide which of the two interpretations is the more reasonable and which is "wild speculation" (2002:118).

So much for Ben-Yehuda's attitude to the archaeological story of Masada.

Yadin did not publish a scientific report of the Masada excavations

The last accusation Ben-Yehuda levels against Yadin is that he did not release a scientific report of the excavation results, a claim he makes, as is his wont, a number of times in both books (1995:62, 332 n.12; 2002:162, 242, 186): And again, par for the course for Ben-Yehuda, he is imprecise when he says that "Yadin would not publish, or let others publish the full report of the findings." The introduction to the first volume of the Masada Final Reports, from which Ben-Yehuda himself quotes, states: "Unfortunately, Yadin, owing to his untimely demise in 1984, did not live to see final publication of the results of these excavations. Nevertheless, it must be emphasized that he actively participated in the preparatory work despite his heavy load of teaching and research responsibilities and his political activity" (Yadin and Naveh 1989: xi). Moreover "Yadin intended that the vast finds unearthed at Masada be *published by a team of scholars, some of whom had actually participated in the dig*" [italics, mine, A.B-T] (ibid. xii).

Ben-Yehuda's argument is fundamentally correct, that Yadin did not

publish the scientific results of his excavations himself. However, things should be seen in their proper perspective and the circumstances elucidated: The excavation at Masada ended in March 1965. Immediately thereafter Yadin devoted his time to the Masada exhibition in London, as he had pledged to the British donors. Upon his return from the U.K., he spent most of his time preparing his popular book on Masada, which was published in Hebrew and English in 1966, in keeping with what he saw as his obligation to report to the wider public on his excavation results. In 1967 the Temple Scroll was purchased, on whose publication he worked for 10 years. The results of his research were published in three volumes.

During these years his book on the results of the excavations at Hazor was published. At that time, while on sabbatical in the U.S., he fell ill and needed surgery. It was not long after his return to Israel that the Yom Kippur War broke out and Yadin was appointed a member of the Agranat Commission investigating the war. That was the year he began his political activities, establishing the political party Dash, and was deputy prime minister until 1983. A year later he passed away suddenly. In light of all this, is the accusation regarding the non-publication of the excavation results justified?

From 1991 to 2007, eight volumes of the Masada Final Reports were published, including studies written by experts in their fields, containing a huge amount of information in texts, drawings and photographs of the findings, from structures to epigraphic material in various languages, coins, pottery, botanical finds, stone vessels, weapons and more.

It is true that Yadin did not take part in the writing of these volumes, but it is also true that without him, the writing would never have been implemented as it finally was. Even Ben-Yehuda cannot avoid complimenting Yadin in this respect: "Yadin was so careful with the findings that even the daily meetings of his staff of archaeologists [on which the day's finds were reported] were recorded and later transcribed. That...was quite unusual and very helpful" (2002:186). During the excavations Yadin prepared conscientiously for the writing of the Masada Final Reports, including precise documentation of every wall and every find, with drawings, sketches, photography, and excavation notes, graphic records, locus cards, recorded reports, etc. Without this preparation the various experts could not have produced the studies we now have.

Masada, with more than half a million visitors annually, is the second most popular tourist site in Israel after Jerusalem. Yadin's excavation and the reconstruction work he initiated have placed Masada on Israel's tourism map as Ben-Yehuda also conceded (2002:170–171). We may assume that at least some visitors, if not all, come there not only because of the importance of the archaeological finds, but also because of the 'Masada story.' If that is so, it means that Ben-Yehuda has wrongly concluded that the Masada myth has lost its attraction (1995:253–258). The public expression of the status of the myth, for example in the swearing-in of soldiers on the site, has changed with the spirit of the times, but the story of Masada is still alive and well.

Placing Masada on the scientific agenda (the volumes of the Masada Final Reports) on the one hand, and in the public consciousness as a tourist site on the other, are both the proper expression and a true monument to the two aspects of Yadin's personality: the scholar and the public figure.

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Most of the photos and plans in this book are the property of the Masada Expedition.

The following photos were taken by Gabi Laron, of the Institute of Archaeology of the Hebrew University, Jerusalem: 9 (lower right), 24, 25,26, 28*, 30, 31, 32, 33, 35, 36, 37, 41, 49, 51, 61, 68, 70, 72, 77, 81, 82, 85, 86, 89, 91, 97, 99, 108, 109, 111, 112, 114, 115, 116, 118, 130*, 143*, 144*, 152, 153* 156*, 197, 219, 225*, 226*, 229*, 232, 233, 240, 243, 244, 247, 253, 256*.

(*Taken from the catalogue of the exhibition: *The Story of Masada*)

Zeev Radovan: 9, 23, 221

Nelly Sheffer: 212

Albatross: 46

Front cover and frontispiece: Zeev Radovan

Back cover: Gabi Laron

This book is a summary of the eight volumes of the Final Reports of the Masada excavations that have appeared to date. These volumes are a methodical, scientific analysis of the finds unearthed at the site, described by specialists, each in his or her area of expertise. Due to the technical nature of the Final Reports, their accessibility to lay readers is limited. However, the late Yigael Yadin, who led the archaeological expedition at Masada in the 1960s, always ensured that the discoveries of his research and excavations also came to the attention of the lay public. It is in that spirit that this book is written.

The Yadin expedition uncovered finds dating to a 150-year period: from the 30s of the first century BCE, when Herod the Great built his fortress on top of the cliff to the first half of the second century CE, when a Roman garrison was stationed at Masada after its fall. Most of the architectural finds date from the time of Herod, the greatest builder of the Second Temple period in this country. Most other finds--pottery and stone vessels, written documents involving daily life and fragments of scrolls, coins, textiles and various other finds--have been dated securely to the short period of seven or eight years between the beginning of the Great Revolt and the fall of Masada (66-73 CE). It is this secure dating, the great variety of finds, and the dry climate at Masada that helped preserve organic materials, which give Masada its extraordinary archaeological significance, second in importance only to Jerusalem for the archaeology of the Second Temple period.

However, Masada is not merely an archaeological site. It is also a symbol, especially, but not exclusively, to Israelis, as can clearly be seen by the hundreds of thousands of people who visit the fortress every year. The last chapter of the book is devoted to the meaning of this symbol today, pitting the finds themselves against recent critiques of the work and conclusions of Yadin's Masada archaeological expedition.

Amnon Ben-Tor, Yigael Yadin Professor Emeritus of the Archaeology of Eretz Israel at the Institute of Archaeology of the Hebrew University, was a team member of the Yadin excavation of Masada from beginning to end. Ben-Tor studied archaeology and Jewish history at the Hebrew University, where he received his Ph.D. in 1968. From then and until 2004, he taught at the Hebrew University's Institute of Archaeology while excavating various sites in Israel, among them a regional study of the western Jezreel Valley at the sites of Tel Qiri, Tel Qashish and Yoqne'am. He has been the director of the Selz Foundation Hazor Excavations in Memory of Yigael Yadin since 1990.



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