PRELIMINARY REPORT ON THE SECOND SEASON OF EXCAVATIONS AT QAL'AT EL-MISHNAQA MACHAERUS

by
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With the gracious permission of the Director of the Dept. of Antiquities of Jordan, Dr. Adnan Hadidi, our second season of excavations at Qal'at el-Mishnaqa-Machaerus took place from Sept. 3 to Oct. 20, 1979. Fr. Virgilio Corbo, director of the excavation, was assisted by Fr. Michele Piccirillo, Fr. Tomislav Vuk, and the writer.

The first season of 1978 was rather a reconnaissance of the site:[1] since our project is to dig the whole fortress, it was imperative from the very start to trace its outer limits, in order to avoid the risk of dumping the debris on top of some structures. This preliminary work enabled us to trace for the first time a general map of the main fortifications. With very few exceptions, we intentionally avoided deepening the soundings: this will be the task of future excavations, as soon as a more exact dating of the fortifications will be fixed by stratigraphy.

The second season of 1979 was mainly devoted to the recovery of the famous palace which, according to Josephus Flavius, Herod the Great built "in the center of the enclosure with magnificently spacious and beautiful apartments"[2]. It is well known that many travellers and archaeologists were rather disappointed by the meager amount of ruins visible on the surface before the excavations. To be sure, the very fact that bed-rock was in some areas visible to the surface, as for instance on the northern side of the fortress near the water reservoir n.31, helped strengthen the impression that very little ground was left for the lofty palace described by Josephus.

The results of our exploration have definitely disproved this false impression. The area on the crest of the mound, some 100 m. long and some 60 m. wide in round figures, revealed a perfectly planned and gorgeous thermal complex in grid MN-3,4.

The second season was also useful in clarifying some problems of chronology concerning the Hasmonaean fortress.

1. The Thermae of the Herodian Palaces. (Pl. XXI, 1-2).

The Thermae are located on the southern portion of the fortified area. From north to

1 Corbo, V., "La Fortezza di Marcheronte. Rapporto preliminare della prima campagne di scavo: 8 settembre-28 ottobre 1978": *in Liber Annuus* 28 (1978) 217-231, and pl.57-70.
Piccirillo, M., "First Excavation Campaign at Qal'at Elmishnaqa-Meqawer (Madabay)": in *ADAJ* 23 (1979) 177-183.
Loffreda, S., "La fortezza asmoneo-erodiana di Mishnaqa-Macheronte". in BibOr. 21 (1979) 141-1550.

2 *Jewish War*, VII. 6.2.

south, we uncovered the Apodyterium (n.18), the Frigidarium (n.17), the Tepidarium (n.16), the Laconicum (nn.15 and 14), the Caldarium (n.13) and the Praefurnium (nn.10-12). The thermal complex is limited on the NW side by corridor n.19, and on the SE side by a large courtyard (n.5).

On the SE flank of courtyard n.5 we started tracing some spacious rooms (nn.2-4).

Apodyterium (n.18). - An almost square hall, measuring 8.70 by 8.90m. The original walls were levelled to the ground or to the very foundations. The hall was paved in antiquity with a black and white mosaic floor, the borders of which could help us in checking the NW and SW limits of the room, while the line of the stone pavement belonging to courtyard n.5 delimits the eastern side. We can assume that the Apodyterium was entered from courtyard n.5 and from corridor 19 as well.

Unfortunately we will never know what kind of scenes, if any, decorated the central part of the floor: everything disappeared, except for some limited portions of the borders, having a straight fascia of black tesserae on a white background.

We can surmise that the mosaic floor was already in a very bad state of preservation before the outbreak of the First Jewish War, since only a few loose tesserae were found in the area; whereas the wholesale destruction which followed the surrender of the fortress in 72 A.D. left clear marks of ashes affecting the very preparation bed of the mosaic floor.

In the last days of the ill-fated fortress, the Apodyterium was reused by the besieged soldiers to build two fire-places: they have been found near the northern corner, together with a coin and pot-sherds.

A white limestone column-base, with a moulding closely resembling those employed in the fortress of Herodion near Bethlehem,[3] was found in secondary use on the southern inner side of the hall.

Tepidarium (n.16) — A fairly small room of 4.30 by 3.50 m. The walls are as badly preserved as those of the Apodyterium, but fortunately a large piece of a mosaic floor escaped the general destruction. The black and white mosaic pavement has an outer fascia, partly preserved on three sides of the room. Some 47 cm. from the outer fascia, another one appears, followed immediately by the classical motif of "cani correnti", that is to say by a series of interconnected volutes. The central part of the mosaic was certainly a circle within a square frame, but, alas, at this point the panel is broken.

Though less pretentious, the mosaic floor of the Tepidarium is stylistically associated with the one found at the fortress of Masada in a room of the Western palace.[4]

Frigidarium (n.17) — This structure, 4.90m. wide and 4.35 long, is better preserved because it was partly underground. The only entrance was from the SE side, that is to say from the Tepidarium. Both the inner walls and the seven

3 Corbo, V., "L'Herodion di Giabal Fureidis. Relazione preliminare della terza e quarta campagne di scavi archeologici": in *Liber Annuus* 17 (1967) 65-121.

4 Yadin, Y., *Masada. Herod's Fortress and the Zealot's Last Stand.* London 1966, p.119-127.

steps were white-plastered. A good number of restorable vessels were stored along the steps, together with about 80 coins of the First Revolt, grinding stones etc.

The stratigraphy is very instructive. To start with, the top layer near to the surface was made up of consolidated patches of mortar, discarded during the systematic pillage of the stone courses belonging to the dismantled walls. The significance of a stray coin of Traianus, rescued on the first steps of the Frigidarium is difficult to evaluate. One single coin is not sufficient to fix the exact date as to when the walls were dismantled. In any case we have to keep an eye open to the possibility that the systematic removal of stones continued even after the fortress was eradicated by the Roman legions.

At the level of the third step from the top we came across a layer of loose soil with ashes. It is from this stratigraphic context that many objects were recovered, together with some forty coins of the First Revolt. Apparently in that date the Frigidarium had already ceased to be used as a place for "dolce vita" ablutions, and was employed for the more mundane needs of the inmates. This would explain the presence of grinding stones, cooking pots with conspicuous soot, etc. An additional observation corroborating this interpretation is the fact that the vessels from this stratum do not bear any sign of incrustations due to constant contact with water, and this is supported by the presence of ash.

A third layer of silted soil mixed with sand and gravel was recorded in the lowest portion of the Frigidarium. Here the pot-sherds did preserve a clear patina due to prolonged immersion in the water.

Caldarium (n.13) — The plan of the Caldarium is preserved at the level of the Hypocaustum. It was a rectangular hall, measuring in the inside 8.10 by 6.35 m. Two or three courses of the well constructed walls are preserved, starting from the floor of the Hypocaustum, with a maximum height of 1.05 m. and with an average thickness of 1.20 m. A small rectangular niche, reaching the pavement of the Hypocaustum, was on the SE wall, close to the S inner corner of the hall. Another niche was found in the center of the NE wall, some 65 cm. above the pavement of the Hypocaustum. The semicircular shape of the niche, with a maximum width of 1.90m. can be reconstructed mostly from the presence of eight suspensurae.

The pavement of the Caldarium, some 65 cm. above the pavement of the Hypocaustum, was completely dismantled. It was, at least in part, in *opus sectile*. This can be deduced on the basis of several stone slabs of geometric form (rectangles, triangles, lozenges, etc) and generally of small size. Hard stone of different color (white, pink, reddish, black, etc) was employed. It is also clear that the inner walls of the Caldarium were lavishly decorated with stuccoes and crustae. The splendor of this and other halls of the palace is gone forever, but can be surmised by a sizeable amount of displaced fragments.

The fury of devastation reached the level of the Hypocaustum as well. Most of the suspensurae supporting the pavement of the Caldarium were removed in antiquity. Fortunately

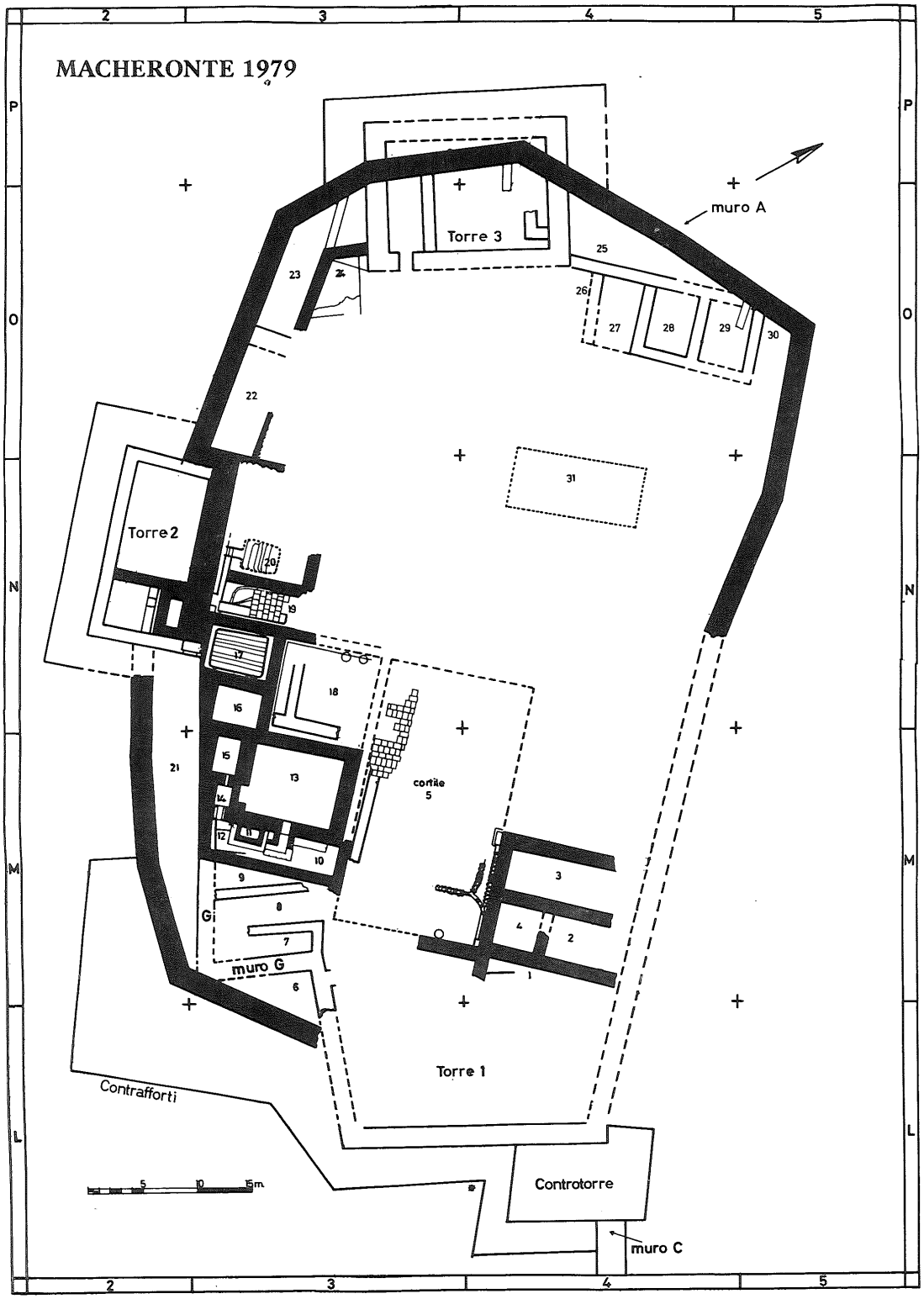
MACHERONTE 1979
muro A
Torre 3
Torre 2
Torre 1
cortile 5
muro G
Contrafforti
Controtorre
muro C
5 10 15m

Fig. 1

a great portion of the Hypocaustum pavement was spared. We were able to trace eleven rows of large square bricks (56 by 56 cm.). Similar large bricks were used in the Hypocaustum of the thermal installations at Masada.[5] Though only a few suspensurae were left *in situ, we* were able to reconstruct their original setting on the basis of their imprints left on the brick floor. The suspensurae were made up of superimposed round clay bricks connected with characteristic green clay, and measuring between 19 and 16 cm. in diameter. Several suspensurae were set in close ranks, so as to form solid and more stable pilasters. Finally the arched mouth of the Hypocaustum was well preserved in the center of the SE wall.

Laconicum (nn.14 and 15) — On the SW flank of the *Caldarium* there are two small chambers of great interest: they constitute the *Laconicum*. This additional element of the thermal compound was not found in the sister fortresses of Herodion and Masada, and it was meant for heavy *sudurationes* with a higher temperature than in the Caldarium. The hottest room (n.14) was in direct contact with the *Praefurnium* mouth, while room 15 was warmed up through a narrow opening in the center of the SE wall.

Room 14 was only 1.55 by 2.10 m. large, and room 15 measured 2.35 by 3.42 m. Both rooms are preserved at the level of the Hypocaustum. Six suspensurae were found *in situ* in room n.14, and ten more in room n.15. The round bricks of the suspensurae (16 to 18 cm. in diameter) are based on either square (28 by 28 cm.) or slightly rectangular (25 by 27 cm.) bricks no more than 4.5 cm. thick.

Several *tubuli* were also found. They were clay pipes for hot air circulation, originally fixed to the walls in a vertical position. The standard size of the pipes is 31 by 12 by 6 cm., with a vertical slot on the short flank. A good example of *tubuli in situ* comes from the *thermae* of Masada.[6]

Praefurnium (nn.10-12) — It is an open courtyard, 12 m. long and only 2.70 m. wide. In this area, where fire was made to warm up several rooms of the *thermae*, an extraordinary layer of well depurated ash was preserved; the latter was widely used to strengthen the mortar and to add impermeability to the walls.

Along the NW wall there were two arched openings to warm up both the *Caldarium* and the *Laconicum*, with a plastered tub between them, measuring 1.77 by 1.00 m. and still preserved to a depth of 1.10 m.

Courtyard (n.5) — The thermal compound is limited on the E side by a large courtyard, only partly excavated. If our provisional reconstruction is correct, it measures 24 m. in length and 14 m. in width. Only fifteen courses of the original stone pavement are preserved. Several channels, collecting the water from rooms 2-4 were partly traced.

Rooms 2-4 suffered heavily in the final destruction of the fortress, and additional disturbances took place in recent times. At least one thing is certain: they were paved in antiquity with a mosaic floor, and again , the mosaic was already deteriorated either before or during the First Jewish Revolt. Here in fact, as in the Apodyterium, the ashes of the final destruction rest directly on the preserved mosaic

5 Yadin, *Masada*, p.76 f.

6 Yadin, *Masada*, p.80.

bed, together with the objects of the last inmates. Probably these large halls were reception rooms.

The layout of the Herodian palace so far excavated is very regular and organic. What puzzled us for a long time was the strange and haphazard direction of the wall delimiting the S flank of the Thermae. Why was it not built parallel to the inner sides of the thermal structures? We assumed that a satisfactory explanation could be found in the hypothesis that some earlier walls were reused by Herod the Great.

In order to solve this problem, we cut a trench in locus 12 of the *Praefurnium*. Our suspicion turned out to be correct: the southern flank of the Thermae is indeed based on a massive defensive wall of the Hasmonaean fortress (wall G), originally connecting towers n.1 and 2.

2. The Hasmonaean fortress.

Though the recovery of the Hasmonaean fortress, which, according to Josephus Flavius was built by Alexander Yannaeus and demolished by Gabinius,[7] is still at the beginning, we can already draw some important conclusions.

The three towers on the crest of the mound certainly belong to the Hasmonaean period. To the same period belongs the defensive wall G between towers n. 1 and 2. In the Herodian period, many of these structures were re-used. For example, wall G was re-used as a foundation for the southern flank of the Thermae. Tower n.2 was rebuilt and underwent several changes: the original doorway near the eastern corner was blocked; a massive wall was built along the NE side, and more partition walls were added in the inside.

While digging in the area of the *Thermae*, we came across several walls which were certainly buried under the Herodian level of the *Thermae*. For example, in corridor n.19 a wall, running parallel to the NW flank of the *Frigidarium*, continues both under the stone pavement of the same corridor, and under the massive wall of tower n.2, while another pre-Herodian wall branches off at right angles in the direction of the water cistern n. 20. In the *Apodyterium*, two walls, set at right angles, were partly uncovered under the level of the Herodian mosaic floor. Another pre-Herodian wall was traced in courtyard n.5: this also continues under the stone pavement. In the second room (n.15) of the *Laconicum*, some remains of a plastered wall were found, which were cut when the *Hypocaustum* of the *Laconicum* was built. In locus 12 of the *Praefurnium* a white plastered Hasmonaean structure, possibly a water cistern, was partly uncovered. It was built against the defensive wall G and it was reused in the Herodian period as a foundation for three walls of the *Praefurnium*.

It is also possible that rooms 7, 8, 9 in the south, and rooms 27, 28, 29 in the northern portion of the fortified area, though certainly re-used in the Herodian period, were originally built in the Hasmonaean period. In this case, however, more soundings in depth are needed to substantiate our impression.

So much for the Hasmonaean remains so far uncovered on the crest of the mound. An-

7 *Jewish War*, VII. I.2.

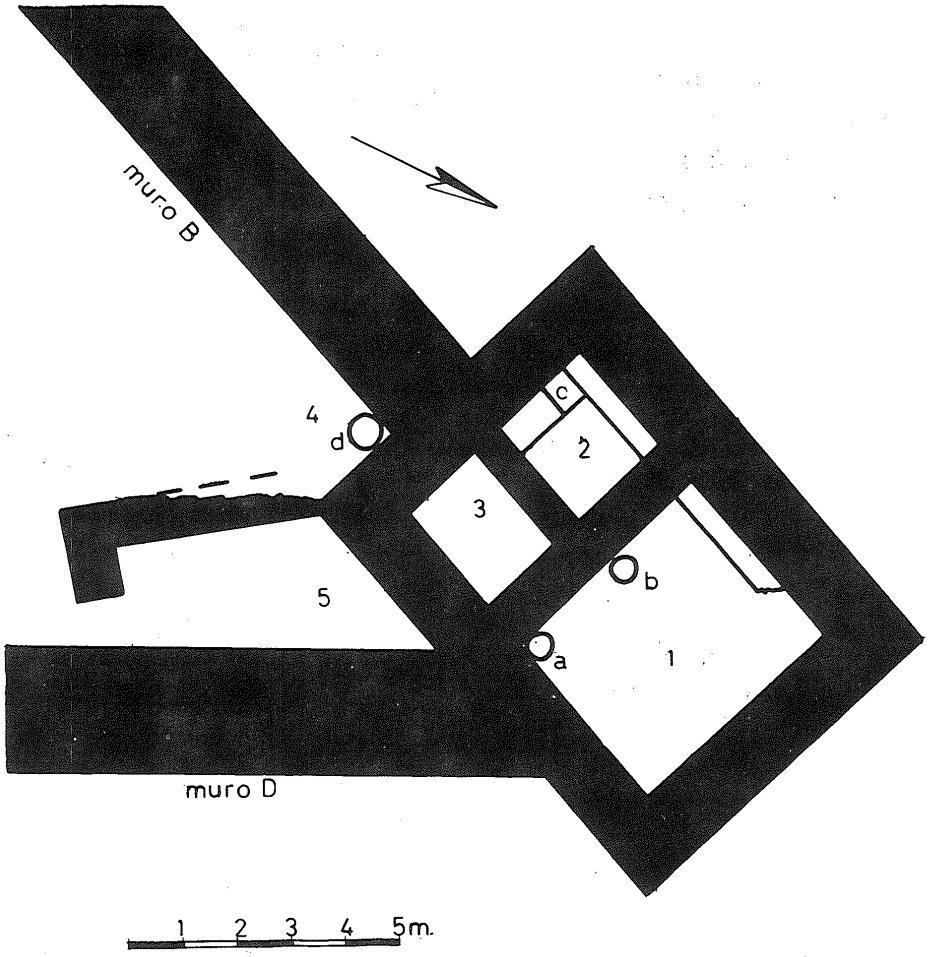

Fig. 2, Tower n.5

other substantial structure of the same period is tower n.5 on the northern slope of Jabal Mishnaqa. A more detailed description will follow shortly.

3. The lower fortifications.

The eastern flank of Jabal Mishnaqa was protected by free standing walls and towers. These are: wall B, 75 m. long from the crest of the mound to tower n.5; wall D, connecting towers n. 5 and 6; and wall C, 40 m. long, between towers n.6 and 1.

What is the meaning of these fortifications? Were they simply built to protect the numerous rock-cut water reservoirs still visible in this area? Or is this area the famous lower city of Machaerus, mentioned several times by Josephus?[8]

In our opinion, there is a very strong possibility that the lower city is indeed to be located in this area. Here are the main reasons. According to Josephus:

1. The lower city was protected by ramparts and towers. Only in this area, and nowhere else, defensive walls and towers appear outside the fortress proper.

2. The city covered a large area. Here we have a fortified area of ca. seven dunams.

3. The lower city was physically connected to the fortress on the crest of the mound. Again, the lower fortifications of this area do reach the summit of Jabal Mishnaqa.

Of course, only full excavations in the next seasons can prove or disprove our suggestion. In any case, through a careful survey we were able to detect several walls, which might belong to the lower city.

Up to now, we have partly excavated tower n.5 in the last days of the second season. The results are very interesting. First of all, we have definite proof that tower n.5 was built by the Hasmonaeans, and not by Herod the Great. In the small rooms of the tower, especially in room n.1 in connection with two ovens *a* and *b*, we collected a large number of restorable jars, bowls, lamps, etc. of Late Hellenistic tradition, together with some Hasmonaean coins. Secondly, we discovered that tower n.5 was connected to a huge rock-cut water reservoir, 8 m. deep and perfectly preserved. The original entrance to the water cistern was from room n.2. The entrance (c) was carefully masked and blocked in antiquity and escaped the attention of the enemy. Finally we reached the conclusion that the area was resettled in the Herodian period. On the eastern side of the tower, in loci 4 and 5, we came across a thick layer of ash, mixed with objects and coins of the First Jewish Revolt (Pl. XXII, & Fig. 2).

4. General remarks.

After two seasons of excavations we know something more about the fortress of Machaerus.

Archaeological data confirm the substantial correctness of Josephus Flavius. The oldest remains are not earlier than Alexander Yannaeus, and the subsequent Herodian fortress was destroyed in the First Jewish Revolt. Except for a very short reoccupation soon after the Rirst Revolt, the site was no longer resett-

8 *Jewish War*, VII. 6.4 and VII. 6.2.

led. Substantial remains of the Byzantine period are instead preserved in the modern village of Mukawer, some 2 km. to the east. In short, we have two main periods of occupation, followed by a short appendix:

Stratum 1 : the Hasmonaean fortress (90 B.C.-57 B.C.).

Stratum 2 : the Herodian fortress (30 B.C.-72 A.D.).

Stratum 3 : short reoccupation soon after 72 A.D.

On the other hand, the excavations help us balance the description of Josephus who was very generous in attributing most of the architectural and logistic achievements to Herod the Great. In this respect, our results illuminate what Josephus passed over in silence, as far as the Hasmonaean fortress is concerned.

The ruins of Machaerus are in a bad state of preservation. As we have seen, several halls of the Herodian palace were already deteriorated before the final destruction in the year 72 A.D. Apparently the surrender of the fortress did not change the Roman determination to eradicate this stronghold once and for all: "This fortress it was absolutely necessary to eradicate." The Romans were not satisfied with destroying the fortress. Very often removing the very foundations of the walls, they systematically threw away most of the stones from the crest of the mound, leaving only piles of soil and mortar. In fact the top layers, sometimes two metres thick, are made up of hard mortar, very difficult to dig, with very few stones. We know by experience that any stone, however large, cannot reach the bottom of deep wadis without disintegrating into hundreds of pieces.

It seems that a different fate befell the lower city. If the results of our soundings near tower n.5 are consistent with other parts of this area, we have to conclude that the Roman legions stormed the lower city in a fierce assault:[9] here in fact piles of stones mixed with heavy ash were left *in situ*.

According to Josephus, "in the center of the enclosure Herod built a palace with magnificently spacious and beautiful apartments". The splendor of the royal palace is gone, but once again Flavius was substantially correct: the

9 According to Flavius (*Jewish War*, VIII. 6.4) "the Jewish party, shut up within, now separated from their alien colleagues, and, regarding the latter as a mere rabble, *compelled them to remain in the lower town and to bear the first burnt*, while they themselves seized and held the fortress above".

After the capture of Eleazar, the Jews "hastily dispatched a deputation to discuss the surrender of the fortress, stipulating for permission to depart in safety, taking Eleazar with them. The Romans and their general having accepted these conditions, the people in the lower town, hearing of the separate compact that had been made by the Jews, determined on their part to make off secretly by night. But no sooner had they opened the gates than information was given to Bassus by those who had made the treaty with him; whether grudging them their lives, or maybe for fear of being held answerable for their flight. The most courageous of the fugitives, however, contrived to cut their way through and escape; *of those left in the town, the men, numbering seventeen hundred, were slain*, the women and children were enslaved. Bassus, holding himself bound to observe his agreement with those who had surrendered the fortress, let them depart and restored Eleazar".

planning of the southern side of the palace, with a central courtyard flanked by the thermal compound and by reception rooms, is perfectly regular. Mosaic pavements were used in the *Apodyterium*, in the Tepidarium, and the reception halls. The Caldarium floor was in *opus sectile*. Walls were lavishly decorated with stuccoes and crustae.

From a strictly archaeological point of view, the fortress of Machaerus provides us with the opportunity of illustrating a short but crucial period, from 90 B.C. to 72 A.D. This period of roughly 16 decades is marked by two radical destructions, easy to recognize. As everybody knows, short and clear cut periods of occupation are a blessing in the field of archaeology.

Up to now, three main homogeneous and rich deposits of pottery have been found: one, belonging to the First Jewish Revolt, was found at a corner of the stone ramparts on the SE side of tower n.1. The second was found in the *Frigidarium* (n.17), with some forty coins of the Revolt. The third one comes from tower n.5 and belongs to the short period of the Hasmonaean fortress. The last assemblage of pottery is by far the most interresting, in my opinion: it will be very useful to complement the horizon of Qumran Ib in a more restricted chronology.[10]

On the other hand, the rich material of Machaerus II makes it possible to check the survival of several Late Hellenistic forms, believed to be still in use in the First Jewish War. To mention just one example, the evidence of Machaerus strongly suggests that jar type 11.2, according to Dr. Lapp's classification,[11] did not last until the outbreak of the 68 A.D. war: and in fact, up to now, not one single piece of this jar appears in contexts belonging to the last days of the Herodian fortress.

Another assemblage, though less conspicuous, can be dated to the very beginning of Machaerus II, around 30 B.C. It comes from the fill below the mosaic floor of the reception hall n. 3, and from our trench in locus 12 of the Praefurnium.

I hope that a thorough study of the pottery from Machaerus will be a happy complement to my previous research on the pottery found both at Capharnaum[12] and Magdala,[13] and — finally — will pave the way to a better understanding of the material coming from the fortress of Herodion.

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10 According to DE VAUX, R., *L'Archéologie et les Manuscrits de la Mer Morte*. London 1961, pp. 4-17, Qumran Ib should be dated from Alexander Yannaeas (103-76 B.C.) or from Hyrcanus (135-104 B.C.) to the year 31 B.C.
Dr. LAPP, P., *Palestinian Ceramic Chronology — 200 B.C. — A.D. 70*. New Haven 1961, p.12 writes: "On the archaeological principle that the pottery from any given stratum usually belongs to the last years of occupation it seems desirable to date the groups (of Qumran Ib and Qumran II) respectively about 50-31 B.C. and A.D. 50-68".
If we accept Dr. Lapp's principle, then the well stratified assemblage of Machaerus I (90-57 B.C.) constitutes a happy opportunity to fill the gap between Beth-zur I (140-100 B.C.) and Qumran Ib (50-31 B.C.).

11 Lapp, *Chronology*, p.14 and p.147 (under G).

12 Loffreda, S., *Cafarno, IIH La Ceramica*. Jerusalem 1974.

13 Loffreda, S., "Alcune osservazioni sulla ceramica di Magdala": in *Studia Hierosolymitana. I: Studi Archeologici*. Jerusalem 1976, pp. 339-354.