53507

THE ANNUAL OF THE AMERICAN
SCHOOLS OF ORIENTAL RESEARCH

VOLS. XXIX–XXX

FOR 1949–1951

EDITED FOR THE TRUSTEES BY

W. F. ALBRIGHT AND FRED V. WINNETT

EXCAVATIONS AT NEW TESTAMENT JERICHO AND KHIRBET EN-NITLA

(Joint Expedition of the Pittsburgh-Xenia Theological Seminary and the American School of Oriental Research in Jerusalem)

JAMES L. KELSO, *Director*
DIMITRI C. BARAMKI, *Associate Director*

SUPPLEMENTARY MATERIAL BY

W. F. ALBRIGHT
ARTHUR JEFFERY
C. UMHAU WOLF

مكتبة جامعة بيرزيت
23504
BIRZEIT UNIVERSITY LIBRARY

PUBLISHED BY THE
AMERICAN SCHOOLS OF ORIENTAL RESEARCH
NEW HAVEN

WITH THE AID OF THE
JANE DOWS NIES PUBLICATION FUND

1955

SPC
DS
110
.J47
E93
1955
RBK

Digitized by Birzeit University Library

PRINTED FOR THE
AMERICAN SCHOOLS OF ORIENTAL RESEARCH IN JERUSALEM AND BAGHDAD
AND UNDER THEIR DIRECTION BY
THE J. H. FURST COMPANY, BALTIMORE, MARYLAND

Digitized by Birzeit University Library

TO

WILLIAM FOXWELL ALBRIGHT

Christian Gentleman, Biblical Scholar,

and

Inspiration of Younger Archaeologists

Digitized by Birzeit University Library

PREFACE

Since the excavations at New Testament Jericho have uncovered the only large group of *opus reticulatum* buildings east of Italy, we have taken special concern to have our findings checked by both Palestinian and Roman archaeologists. Foremost among those helping in this task have been Professor W. F. Albright, G. Lankester Harding, Père R. de Vaux, Father Sylvester Saller, President B. Maisler-Mazar, Dr. Carl H. Kraeling, Professors Frank E. Brown and J. H. Young. Many others have also helped in various ways during the excavations and in the preparation of the material for publication. Due credit is given to them at the proper place in the book.

Special recognition goes to Professor Dimitri C. Baramki who was my associate on the excavations and who also collaborated in most of the text. Professors Arthur Jeffery and W. F. Albright kindly wrote the chapter on inscriptional material. Professor C. Umhau Wolf, of the excavation staff, prepared the chapter on Khirbet en-Nitla and the Gilgal traditions. All of them have been most helpful and deserve real credit for their work. Where authorities have been at variance, I have been responsible for final decisions.

The Pittsburgh-Xenia Theological Seminary and the American School of Oriental Research in Jerusalem have now participated in eight joint expeditions since the initial one in 1924, including the 1954 campaign at Bethel. We hope that a new joint expedition will soon be in the field.

JAMES L. KELSO

Digitized by Birzeit University Library

18. Wood from Hellenistic fortress.
Terra cotta revetment panels and crestings.

19. **Moulded plaster.**
Painted plaster.

20. **Moulded plaster from *opus reticulatum* building.**
Cross section of moulded plaster.

20A. Drawings of moulded plaster.

21. **Arabic inscription containing suras from the Qur'an.**

21A. **Transcribed text of Arabic inscription.**

22-25. **Drawings of pottery from New Testament Jericho.**

26-32. **Drawings of pottery from Nitla.**

33. **General plan of New Testament Jericho.**

34. **Walls of Arab period on Tell 1.**
East elevation of fortress on Tell 1.

35. **Plan of towers on Tell 2.**
Plan of Hellenistic fortress and grand stairway.

36. **Section facing west through fortress on Tell 1.**
Section facing south through fortress on Tell 1.

37. **Section facing west through grand stairway on Tell 1.**

38. **Plan of façade.**

39-39B. **Elevation of Grand Façade.**

40. **Section facing east through water conduit and Rm. D.**
Khirbet en-Nitla: the four churches.

41. **Khirbet en-Nitla, section A-B facing north.**
Khirbet en-Nitla, section C-D facing south.

Digitized by Birzeit University Library

TABLE OF CONTENTS

PAGE

LIST OF PLATES ix

CHAPTER I. The Excavation of New Testament Jericho (Tulul Abu el-'Alayiq). JAMES L. KELSO and DIMITRI C. BARAMKI 1

CHAPTER II. The Pottery of New Testament Jericho (Tulul Abu el-'Alayiq) and Khirbet en-Nitla. JAMES L. KELSO and DIMITRI C. BARAMKI .. 20

CHAPTER III. The Masonry and Plaster of New Testament Jericho (Tulul Abu el-'Alayiq). JAMES L. KELSO 42

CHAPTER IV. The Excavations at Khirbet en-Nitla. DIMITRI C. BARAMKI 50

CHAPTER V. Inscriptional Material from New Testament Jericho (Tulul Abu el-'Alayiq) and Khirbet en-Nitla. ARTHUR JEFFERY and W. F. ALBRIGHT 53

CHAPTER VI. Khirbet en-Nitla not the Byzantine Gilgal. C. UMHAU WOLF 57

Digitized by Birzeit University Library

LIST OF PLATES

(The captions are abbreviated)

1. **Grand stairway descending from Tell 1.**
Site of New Testament Jericho.

2. **Tell 1 and environs.**
Expedition staff.
View from *opus reticulatum* building N. of Wadi Qelt.

3. **Tell 1 with depression showing location of Warren's excavations.**
Rooms in Arab fortress on Tell 1.
Herodian ashlar walls on Tell 1.
Rooms in the Hellenistic fortress.

4. **Tell 1, exterior E. wall of Hellenistic fortress.**
Fallen *opus reticulatum* wall showing construction details.
Tell 1, N. W. corner of Rm. 1 in Hellenistic tower.
Top piers of grand stairway on Tell 1.
Opus quadratum pier on Tell 1.

5. **Fallen arch and pilaster in front of Rm. A.**
N. wall of Rm. A showing *opus reticulatum* construction details.
Stairwell and Rm. A.

6. **Roman drain from Rm. A.**
Excavating grand stairway on Tell 1.
Massive fallen niches of retaining wall of the sunken garden.
"Anti-splash" rim on *opus reticulatum* wall of sunken garden.
E. wall of sunken garden with hole cut through it in later times.

7. **S. E. corner of sunken garden with first of niches appearing.**
Excavating for the foundations and lower sections of the niches.
Niches at western end of retaining wall.
W. end of sunken garden with niches.
S. W. corner of sunken garden with stairway and niches.

8. **Western half of terraced garden.**
Reflecting water basin at foot of terraced garden.
Terraces of the sunken garden.
Reflecting water basin and benches of terraced garden.

9. **Massive N. wall of Rm. D.**
Plaster wall painted in imitation of marble.
Workmen in niches of retaining wall.
Tell 1 and *opus reticulatum* building at W. end of sunken garden.
Building on N. bank of Wadi Qelt.

10. **Tell 2 as seen from the east.**
Small stone tower on Tell 2.
Tamarisk tree which gives the site of Nitla its name.
Fragmentary inscription from first church at Nitla.

11. **Site of Nitla.**
Mosaic in the chapel of the third church.

12. **Close-up of inscription in floor of doorway into the chapel.**
Mosaic pavement with inscription in the narthex of the third church.

13-17. **Photographs of pottery from New Testament Jericho and Nitla.**

Digitized by Birzeit University Library

CHAPTER I

The Excavation of New Testament Jericho (Tulul Abu el-'Alayiq)

1. The seventh joint expedition of the American Schools of Oriental Research and the Pittsburgh-Xenia Theological Seminary was conducted in the lower Jordan Valley in the winter and spring of 1950 with a major excavation at Tulul Abu el-'Alayiq (New Testament Jericho), an extended sounding at Khirbet en-Nitla and an exploratory survey of the canyon section of the Wadi Qelt.[1] The original plans had called for three extended soundings:—Tulul Abu el-'Alayiq, Khirbet en-Nitla and Khirbet Fasayil. Tulul Abu el-'Alayiq, however, produced so much unique material that a projected sounding extended into a major excavation of almost four months' duration. Indeed, this campaign took so much time that the projected sounding at Khirbet Fasayil had to be abandoned because of the oppressive heat of May. Khirbet en-Nitla was tested to see if it might be the site of the Gilgal which was Joshua's military headquarters at the conquest of Jericho. Four soundings were made but nothing earlier than the fourth century A. D. was discovered, so the site was abandoned after the study of a Byzantine chapel found in one of the soundings. While the 'Alayiq excavations were under way, the United Nations were talking of damming the Wadi Qelt and we were requested to examine that canyon in detail looking for archaeological sites, prehistoric caves and any significant remains that would be flooded by such a dam. This investigation was made by Prof. C. Umhau Wolf, but no new unrecorded archaeological material was discovered.

2. The joint campaign of the American Schools of Oriental Research and Pittsburgh-Xenia Theological Seminary began at Tulul Abu el-'Alayiq January 10th, 1950, but on January 26th the United Nations became a third partner in the expedition, for on that date they began the payment of the wages of many of the common laborers on the dig, guaranteeing a maximum of 150 Arab refugee laborers a day. Their total contributions amounted to LP. 1522.075. Mr. James Keen, Field Director, United Nations Relief for Palestine Refugees, was most anxious to use Arab refugee labor at worthwhile projects and he cooperated most graciously in every way with the expedition. He is not only a great humanitarian but also a true friend of scientific research. Palestinian archeology owes him a hearty vote of thanks. Although the United Nations specified that refugee workers be employed for only two-week periods, thus causing a constant turnover of workers, these Arabs were so adaptable that the work suffered little. We have only the highest commendation for them.

3. The executive staff of the expedition consisted of the following persons (Pl. 2). Prof. James L. Kelso, Director of the American School of Oriental Research (1949-50) and Old Testament Professor at the Pittsburgh-Xenia Theological Seminary, was director of the expedition. Mr. Dimitri C. Baramki, who was senior officer in the Palestine Department of Antiquities at the close of the Mandate, acted as associate director. His unique quarter-century experience was invaluable on these very difficult digs. He is one of the few Palestinian archaeologists at home in the Roman and Byzantine periods. Prof. C. Umhau Wolf of Chicago Lutheran Theological Seminary, Fellow of the School in Jerusalem, joined the staff February 10th and gave tireless assistance throughout all phases of the work, including publication. Rev. Carl Kissling of Sayo, Ethiopia, formerly a professional architect, carried out the major architectural phases of the work and made the plates for the Nitla pottery. Rev. Sydney A. Temple of Essex, Conn., helped in the architectural field. Prof. Theophilus M. Taylor of the Pittsburgh-Xenia Theological Seminary made the plates for the 'Alayiq pottery. Prof. John Thompson of the Cairo Theological Seminary and his wife assisted in preparing the plaster materials for publication. Other Americans assisting for brief periods were Prof. Walter C. Klein of Seabury Western Theological Seminary and Mr. Howard C. Kee, Two Brothers Fellow from Yale. Mr. G. Lankester Harding, the Director of Antiquities of the Hash-

[1] For preliminary reports see BASOR, No. 120, pp. 11-22; No. 121, pp. 6-8; *Bib. Arch.*, Vol. XIV, No. 2. *The National Geographic Magazine*, Dec., 1951, pp. 825-844.

Digitized by Birzeit University Library

emite Kingdom of Jordan and Père R. de Vaux of the École Biblique de St. Étienne often visited the excavation and were most helpful in the solution of difficult problems. Other assistants on the staff were chiefly former employees of the Palestine Archaeological Museum and the Department of Antiquities. Mr. Soubhi Muhtadi served as surveyor, Mr. Mahfouz Nassar as *formatore*; Mr. Sami Fattaleh and Mr. Nasri Nasr were foremen, and Mr. Emil Abu Dayeh was chauffeur. Mr. Hanna Safieh was photographer.[2a]. All were loyal and efficient, doing work normally handled by a much larger staff. A few trained diggers from the Khirbet el-Mefjer expeditions were employed to pace the local workers, i. e., the refugees.

4. Tulul Abu el-'Alayiq is owned by Mustafa, Nafez, and Ali Effendi Muhyiddin el-Husseini, who kindly granted us permission to excavate the site gratis. It was their father who, in Turkish times, restored the irrigation channel in the Wadi Qelt which today waters large sections of the Jordan plain south of the Qelt. The owners were always most helpful and gracious in every way; it was a pleasure to work with them. Khirbet en-Nitla is the property of the Supreme Muslim Council of Jerusalem and they also were most gracious in allowing us to work the site without any cost whatsoever. Thus both individual Arab families and important Muslim groups cooperated with archaeological research; and the Hashemite Kingdom of Jordan gave us the same gracious treatment that we had received in other years at the hands of the former Mandate government. No director of antiquities could have been more helpful than Mr. G. Lankester Harding. Mr. Awni Effendi Dajani, his inspector in the Jerusalem office, was always gracious, as was Mr. Joseph Sa'ad of the Palestine Archaeological Museum.

5. Tulul Abu el-'Alayiq (Pls. 1, 2, 33) is located just east of the point where the Wadi Qelt leaves its magnificent mountain gorge to debouch into the flat plain of the wide Jordan valley.[2b] The backdrop of the site is the mountain mass of the wilderness of Judaea, which here throws out two isolated peaks like sentinels to guard each side of the canyon (Pl. 2). Indeed, they were just that, for each was crowned with a fort. One brief exploratory trip was made to each. The south peak (Map Ref. 190.139) commands a view of both the Jericho plain and the western approach to Jericho. The top of the hill and the slope on the south side yielded sherds, including Roman Types 1, 2 and 3 c (§§ 70-72), as well as a sherd of the Umayyad period. Two fragments of painted plaster similar to that found on Tell 1 (the southern *tell*) were picked up and at once identified the site with the Herodian period. Some foundations were discernible on the peak. To the south of the hill were the remains of a square building measuring 13 m. on each side with a cistern in the center. The sherds found here were similar to 4th-6th century sherds at Nitla. Lower down the hill on the east side is a large cave which is at present used as a cattle-fold. The only two sherds collected from it were Early Arabic of the 8th century.

5a. On May 11th, 1954, Professor J. L. Kelso carefully examined the south peak and found on the moutain top itself ten sigillata sherds, each of which represents a different form of that ware. Painted plaster fragments in four different colors and one pattern were discovered. They are similar to the painted plaster on Tell 1. The bench on the south side of the hill yielded not only Byzantine but also Roman sherds. Three different sigillata forms were represented as well as Roman Types 3, 21, 22 and 27. One weathered stone appears to be Herodian. The saddle west of the peak carries the remains of an aqueduct 1.55 m. wide. On the hill below it is a large section of water-proof plaster about 5.5 cm. thick, similar to that of the water basin in the sunken garden of New Testament Jericho. Also, near a shallow bench on the north side of the peak, there is a row of thin stones which are stained with copper, showing they must have been laid in conjunction with copper piping. Another slope of the hill yielded four short limestone columns, perhaps from a stairway. They are badly weathered but are at least 65 cm. tall with the best preserved base measuring about 33 cm. square. One circular column measured 72 cm. in circumference just above the square base and 68 cm. at the top of the column. All of these data lead to the identification of this mountain site with the fortress Kypros described in Josephus, *Jewish War* I: xxi, 4, 9.

[2a] All photographs had to be made without the use of flash bulbs as none were available in the country when we were excavating.

[2b] For airplane photos see D. G. Dalman, *Hundert deutsche Fliegerbilder aus Palästina*, Nos. 69-71. For Nitla see No. 79.

Digitized by Birzeit University Library

6. The northern fortress peak is due west of Tell 2 (the northern *tell*). This peak, like the other, is reached only after a very steep climb. It is known locally as Nuseib Uweishira (Map Ref. 190.140). The view commands the entire Jericho plain, the Dead Sea and the Jordan, and also that section of the western approach to Jericho which is concealed from the peak on the south. A square fort 8 m. on a side crowned the peak which was scarped out of the mountain mass to the west. Although this fort was doubtless of the same Herodian date as that on the south peak, the only surface sherds picked up were from the 3rd century A. D. There were also mosaics on the site.

7. The old Roman road from Jerusalem came down the south bank of the Qelt canyon, which was scarped in places to contain it. Upon leaving the gorge, it at once entered New Testament Jericho which was spread out on the plain before it (Pl. 1). The larger area of the city was on the north bank, where the earlier German excavators estimated it spread north for 2 km.[3] Farther down the wadi, on either side, was a second set of forts. It is these ruined towers that are the key features of Tulul Abu el-'Alayiq.[4] The southern tower, which lies farther east in the plain than its partner, is about half a mile east of the mountains and about a mile west of modern Jericho. Roman ruins extend a short distance east of the southern *tell*, but surface indications today do not take them as far as modern Jericho. The latter is built over Byzantine Jericho. Sellin's preliminary report on his excavations gives a good description of the area.[5] In a normal winter season the wadi may have a good stream of water—usually more than knee high from December through March, with a lesser flow in November and April.[6] This stream played an important part in the layout of Herodian Jericho for major buildings were oriented to both banks.

8. We excavated only a very small area of New Testament Jericho in this campaign. On the south bank of the Qelt, Tell 1 was excavated as well as the grand stairway descending from it to the wadi. Along the wadi the excavations included the rooms at the bottom of the grand stairway, the massive retaining wall of the great sunken garden to the west, and the rooms immediately beyond. A small wadi at this point had unfortunately washed out most of the building remains. North of the wadi Tell 2 was excavated in part and a test trench sunk in a large *opus reticulatum* building across the Qelt from Tell 1. Since our excavations Prof. James B. Pritchard has excavated a large building on the level land southwest of Tell 1.[7]

9. The *tell* on the south bank of the wadi (Pls. 1-3, 33) has always fascinated archaeologists. Sir Charles Warren dug here in 1868,[8] and Ernst Sellin worked here briefly in 1909 and 1911. Although Warren had expected to find New Testament Jericho at this site, he was disappointed in his findings and thought that the city must be located elsewhere. Sellin, however, recognized it and began to search for detailed features of the site. The English dug an east-west trench across the mound and the Germans sank a north-south trench. When we began work, the latter averaged about 3 m. in depth and the former varied in depth from about 1 m. at either edge of the mound to 3 m. where it crossed the other trench. Warren dug before archaeology had become a science and his records of the dig are very brief, and give only a little help in the interpretation of the site's history. Sellin's brief work was done in conjunction with his Tell es-Sultan campaign and was of a strictly exploratory nature. He did not dig enough to discover the unique nature of the site. His published material deals more with the history of the site and surface exploration than with excavations themselves. The findings of both men will be discussed in our report at appropriate places. Our excavation of Tell 1, i. e., the *tell* on the south bank of the Qelt, was highly complicated by these former digs as well as by the occupation of a British military force here in World War I. Fortunately the sections of the *tell* which they did not dig were rich in remains and even their dumps

[3] MDOG, No. 41, 1909.

[4] The ruins are probably named from thorn trees on the site.

[5] Sellin and Watzinger, *Jericho, Die Ergebnisse der Ausgrabungen*, and Watzinger, Sellin, Nöldeke, MDOG, No. 41, 1909.

[6] In the other months the wadi is usually dry as the springs upstream have been diverted for irrigation. Some of this water was also diverted for irrigation in Herodian days.

[7] BASOR, No. 123, pp. 8-17.

[8] *Notes on the Valley of the Jordan and Excavations at Ain es-Sultan* and *Underground Jerusalem*. See also Conder and Kitchener, *The Survey of Western Palestine*, Vol. III, pp. 224-225.

Digitized by Birzeit University Library

yielded helpful material. The excavation of this *tell* had to be supervised most carefully and Baramki and I were both present all the time when virgin material was being uncovered.

10. January 9th, 1950, marked the transfer of archaeological equipment from the American School in Jerusalem to Jericho. Work rooms for the study of the finds were rented at the Hotel Jordan. The digging equipment was kept in a tent on the site until the latter was destroyed by a storm, after which a nearby house was rented as a tool shed. At the close of each day the pottery was taken to the workrooms at the Hotel Jordan where it was worked over by Mahfouz Nassar, a former *formatore* of the Palestine Archaeological Museum. Only such a professional *formatore* can quickly rescue the maximum number of vessels from their sherds. His presence was especially helpful because it enabled us to salvage every available form in the small amount of pottery recovered. Furthermore he had the reconstructed jars available for study a day or so after their fragments were dug up.

11. On January 10th Baramki began laying out a surveyor's grid on Tell 1 (Pls. 3, 35), and the slope of the wadi which descended from the northern side of the *tell*. The grid reached as far north as the modern irrigation ditch. The southern bank of the Wadi Qelt in Roman times was still north of this point. This grid was 115 m. × 80 m. and was divided into five meter squares. Letters of the alphabet were given to the ordinate and numerals to the coordinate squares. Warren described this *tell* as about 116 ft. long and 36 ft. high. When we began work, the highest point was still 11 m. The pottery which we found on the *tell* showed that the last permanent occupation was during the 8th century A. D. with an overlap into the 9th century.[9] Warren incorrectly spoke of these ruins as a comparatively recent structure.

12. The *tell* served as an Arab military outpost guarding the Jerusalem road. The entire top of the mound was enclosed in a thin defensive wall varying in width from 1.05 to 1.10 m. (Pl. 34). It was in the form of a slightly flattened circle about 31 m. on the longer axis and 27 m. on the shorter. Here and there a few worked stones from the earlier Roman occupation had been built into this rampart. The rooms of this guard station seem to have been arranged around an open central court, roughly polygonal in plan (Pl. 3). The rooms were built of stones taken from an earlier Herodian building on the *tell*, and of more roughly cut stones. The house walls, ranging from 45 to 70 cm. wide, were standing from one to three courses high. Typical stones ran approximately 65 × 50 × 45 cm. Sun-dried bricks were also employed in the construction.[10] There were often two coats of plaster, with the under one crowfooted to key-in the finishing coat. Only at one point did any paint show up on the plaster; this was a yellow color. The deepest foundations (of rough stones) were 1 m. In Warren's day the Arab ruins were still showing above ground and their total height, including foundations, was six feet. But in the intervening years since his excavations the building of modern Jericho had stripped these ruins of most of the available building stones.

13. The finest construction of the Arab period was a large circular grain pit 3.82 m. in diameter, with a quarter-round curbing at the junction of the sides and floor.[11] The floor was approximately level. Three coats of plaster had been used with small crushed rock in the undercoat. Proper keying had been used. In places ash was found about 15 cm. above the floor; in other places carbonized grain and rat teeth were on the floor. All sherds were Arabic. Much of this grain pit had been sunk through the massive S.W. corner of the Hellenistic tower.

14. We found only one inscription (Pl. 21), which was written on a broken slab of marble 33 × 16.5 × 4 cm.[12] This inscription is very interesting because it recorded short suras from the Qur'an. The text is in 26 lines: 22 in a column, 4 along the side. This inscription is treated in detail by Prof. Arthur Jeffery; see Ch. V. The only important worked stone was a piece of chancel screen probably taken from a nearby Christian church. A small marble tile on which they had

[9] World War I saw this *tell* again a military post, and bully beef cans were the first items excavated.

[10] Complete bricks measured 38 × 38 × 7.5 cm. and 37 × 35 × 7.5 cm. A broken brick still measured 39 × 34 × 6 cm.

[11] Several refugee workers commented on the similarity of its shape to the grain pits in their villages.

[12] It was found near the surface of the mound and just at the edge of a house.

Digitized by Birzeit University Library

just started the carving illustrates their method of work. There was an abundance of Arabic pottery, considering the small number of rooms, and much of the pottery was in fine condition. For a detailed study of it see Ch. II, §§157 ff.

The Opus Reticulatum Period

15. Immediately below the foundations of the Arab structure, and covering the entire area of the mound, were the remains of an *opus reticulatum* building. There were sections of *opus reticulatum* walls and vaults along with moulded terra cotta revetment panels (Pl. 18) and pierced crestings; see §108. Scattered about were fragments of wall and ceiling plaster (Pls. 19, 20); decomposed mortar and plaster left their white dust everywhere. Mingled with it were Early Roman sherds.[13] Where this level had not been disturbed by previous excavators, it lay between an Arab floor level above and a Roman floor 1.81 m. below.[14] This Roman structure was built in *opus reticulatum*. This is a concrete type of masonry lined with small, square-faced pyramidal blocks (averaging 8 or 9 cm.), set at a 45° angle, giving a net or *reticulum* design. The *opus quadratum* used with it is reserved for exterior corners, door jambs, piers, etc. This latter stone work is shaped like large bricks and laid after the same fashion. The blending of these types of masonry presents a beautiful and striking pattern, but authorities on Roman building say that *opus reticulatum* walls, whether exterior or interior, were covered with plaster unless they were underground. This accounts for the large amount of plaster and plaster dust found everywhere in this level. For a detailed study of this masonry see Ch. III. Although we use the terms "concrete" and "cement" in dealing with this *opus reticulatum* work, this is not a true Roman concrete after the pattern of the Italian cement made with *pozzolana*. This so-called "cement" is simply a good grade of mortar. Nevertheless the method of handling the stones in the mortar here at Jericho is a characteristic concrete technique. Roman architects and Roman builders were definitely in charge of this work.

16. Owing to the activities of stone looters and to the trenches of former excavators the ground plan of this structure could not be recovered. Among the fallen sections of the walls, vaults and piers (Pl. 4), the largest unit was an *opus quadratum* pier 2.60 m. long, with maximum width of 1 m. Another unit was 2.45 m. long and 0.97 m. square. The pieces of painted plaster and plaster mouldings together with the terra cotta revetment panels and crestings, ventilating wall tiles and other architectural features demonstrated that this building was a member of the same architectural complex as the buildings along the wadi below. A number of small marble and limestone pieces cut for special floor designs were discovered, but only one small mosaic fragment was found.[15] This structure was oriented to the wadi, for the grand stairway (Pl. 1), which descended from it to the buildings along the wadi, fitted perfectly into the over-all architectural complex. This structure was apparently a royal reception hall or a pleasure pavilion. It had a magnificent view in all directions. After Titus captured Jerusalem, this building appears to have been used as a military post. It was occupied until late in the 3rd century. It was deserted, however, during the next four centuries, for no pottery characteristic of the 4th-7th centuries was found. This same chronological gap appeared everywhere else on the site, wherever excavations were conducted. This *opus reticulatum* building must have been destroyed by an earthquake sometime during the Byzantine period since its ruins lie to the south of its foundations, i. e., away from the wadi. This was demonstrated by the location of the Arab fort which was built on its ruins; see Pl. 34. Here the Arab ramparts on the wadi side actually rest above the wall of the earliest tower, but on the opposite side they extend over 8 m. beyond the wall of the original tower.

The Herodian Ashlar Building and the Hellenistic Tower

17. Immediately beneath this *opus reticulatum* building, which is dated in the Herodian period,

[13] Early Roman pottery is dated from about 50 B. C. to about A. D. 150; the Late Roman phase is from approximately A. D. 150 to about A. D. 350.

[14] Warren reported finding pieces of a large Roman wine jar about 2 ft. below his Arab level. A part of this variation between his Roman level and ours could be accounted for by a clay bench on which the jar may have rested, but which he missed in his digging.

[15] Two pieces of special interest were the typical pinkish buff stones from Bethlehem. They blended excellently with the marble. Black bituminous limestone or Dead Sea stone was also used.

Digitized by Birzeit University Library

we came upon the remains of an earlier ashlar building which Herod the Great had erected in the earlier part of his reign. In the S.W. section of the *tell* an extensive burnt level containing Early Roman sherds characteristic of the Herodian period separated these two buildings. This earlier ashlar building is so intimately related to the Hellenistic fortress beneath that the latter must be described before discussing the Herodian building.

18. This Hellenistic fortress (Pls. 3, 4, 35) is the oldest building on the *tell*. Indeed, the actual core of the *tell* is this tower and the slopes of the *tell* are the talus formed by the débris of the fallen sections of the tower and of the later buildings constructed on it. This tower had been erected on the flat plain just where it drops off rather sharply into the Wadi Qelt. Although the wadi side of this fortress was a meter thicker than the other three walls, nevertheless the wadi side of the tower had to be reinforced later by a buttress about 3.15 m. wide.[16] This buttress did not rise to the full height of the tower, but it did extend a few meters beyond both the east and the west sides of the tower. Work at this point has not been completed so these details cannot be specific. The tower itself was approximately 20 m. square, although each side had a slightly different length: N. wall 19.33 m., S. wall 19.07 m., E. wall 20.45 m., W. wall 20.50 m. (Pls. 4, 34, 35). These complex figures are illustrative of all the dimensions both in the Hellenistic towers and the *opus reticulatum* construction everywhere. Parallel walls are seldom the same length or width; even a long concrete wall will vary in width in different places. The total length of the niches west of the exedra is 1.44 m. longer than those to the east. There is also a 6.5% variation in the width dimension of the eastern water basin. Therefore we are often forced to use the term "approximately," or arbitrarily to take an average width. Some parallel features at the opposite ends of the grand façade actually vary considerably in dimensions. The walls of the fortress were constructed of courses of large roughly cut stones, sometimes alternating with layers of smaller stones or wadi boulders. The alternating layers are more common in the partition walls within the fortress (Pl. 4). The large stones often average 60 cm. in length and about half of that in thickness. The heavy stones at the corners sometimes run 90 to 100 cm.; one was 117 cm. Excellent stepped-back foundations both inside and outside the tower gave the proper footing for the heavy structure. The stones were set in a clayey mortar of a creamy green color[17] and packed with wadi pebbles or stone chips. The height of the tower from the inside foundation level to the Roman floor above was 6.81 m. The débris of the sun-dried bricks of the upper courses was found in great quantity both inside and outside the tower.

19. The unique feature of this tower was its circular interior (Pls. 34, 35, 36). This was not set in the dead center of the tower, but was to the south of center because of the extra meter thickness in the wall facing the wadi. The diameter was 15.10 m. and the wall was approximately 2 m. wide at its thinnest points. The corners were exceptionally massive. Nowhere in Palestine has similar military construction been found. The circular interior of the fortress was divided into nine rooms (Pl. 3) with partition walls approximately 90 to 100 cm. thick. The plan of the tower shows the various shapes of the rooms. Rm. 1 (Pl. 4) was excavated down to floor level and then through the heavy stepped-back foundations to virgin soil. Unfortunately no sherds were found. The dangerous state of the walls made it unwise to risk excavating another room to virgin soil. At one point in the outer wall of Rm. 2, the masons erroneously started to shorten their circle, but quickly caught the mistake and corrected it in Rm. 3. About 2.40 m. below the Roman floor the masonry of the tower was interrupted by a bonding course of wooden beams which stretched from the east face of the fortress across to the west face. These divided the rooms of the tower into two stories, with the lower one approximately 2.70 m. high. Some timber was approximately 15 cm. in diameter. It was laid fairly close together as can be seen in Pl. 4. This is the same type of timber bonding recommended by Vitruvius (I: 5, 3) over a century later. Although the wood is in a poor state of preservation, it shows not only in the exterior eastern and western faces of the tower, but also in Rm. 1 where the beams crossed that room. In it a few pieces of these broken-off

[16] Since Jericho is in a severe earthquake zone, this measure was doubly necessary.

[17] The face of the tower was originally covered with a plaster, parts of which remain.

Digitized by Birzeit University Library

beams were discovered in the débris. Specimens of the wood (Pl. 18) were sent to the Yale School of Forestry. Because of their fragile condition, Prof. Arthur Koehler was able to identify only one of them, namely *Ficus sycamorus*. This sycamore fig is common in the Jericho district. Zacchaeus climbed up into one of them as Christ was passing through Jericho.

20. Although no Hellenistic sherds were found in Rm. 1, the only room excavated to floor level, a few Hellenistic sherds were found at the buttress against the north wall, and in the débris of earlier digs. Even without evidence of the sherds, however, the tower must by inference be Hellenistic, for it shows no sign of repair anywhere except immediately below the Herodian rebuilding, and this is doubtless a part of that remodeling. The fortress is most likely one of the two towers, Threx and Taurus, which Pompey destroyed in 63 B. C.[18] Its construction may have been the work of Bacchides or one of the Maccabees.[19] Since no Rhodian jar handles were found, it could be argued that the tower is more likely Maccabaean, but since the architecture is foreign to Palestine, it is more likely the work of Bacchides. Later this tower, or the one represented by Tell 2, may have been called Dagon, the site where Ptolemy was besieged by John Hyrcanus.[20] Dagon, however, is usually identified with Dok.

21. Now to return to a study of the Herodian ashlar building which was constructed upon this Hellenistic tower. The exterior walls of the original tower were leveled off about 2.33 m. above the wooden bonding of the tower. Then a course of wooden beams was laid lengthwise around the entire exterior of the tower and flush with its face.[21] This course was only one log in thickness, in diameter c. 10 to 15 cm. Above it came a row of roughly dressed *ka'kuli* stones set upright in a rich lime mortar of a dirty white color. One section of timber with a course of nine foundation stones above it was still *in situ* near the center of the east face (Pl. 34). Much of the western face, however, still showed both the wood and foundation stone courses intact. Near its southern corner in addition to these two courses, there was a single dressed stone of a third course *in situ*. This latter is typical Herodian masonry with a smooth marginal draft on all four sides and a rough dressing on the rest of the stone but without a boss. Some sixty-three drafted stones of a similar size were found loose in the débris but always related to this early Herodian construction; none were related to the later *opus reticulatum* structure. Doubtless many of the stones used in the Arab level were also redressed Herodian stones. Before the ashlar building was erected, the interior of the tower had been filled with large stones, wadi boulders and débris from the sun-dried bricks. This fill doubtless represents the upper sections of the Hellenistic tower. In one room which we studied in detail, however, the last layers of the fill were exclusively wadi boulders which had been purposely added. The trenches of the two former digs and the work of stone looters made it impossible to secure a ground plan of the ashlar building, just as was the case with the *opus reticulatum* structure above it. It may, however, have used the old partition walls of the Hellenistic tower as foundations for a related plan, for at one point a foundation course and three courses of dressed Herodian masonry (Pl. 3) were still standing upon the old Hellenistic cross wall.[22] No timber, however, separated the Herodian masonry from the Hellenistic section, as was the case in the exterior wall.

22. In addition to this ashlar masonry which separated Rm. 7 from Rm. 8, there was a solid mass of rough stone filling the segment where the exterior wall of Rm. 7 approached this partition wall of Rms. 7 and 8. Its eastern face is not bonded into the Herodian ashlar, and the whole stone mass is laid on the loose wadi boulder fill (just referred to) without any foundation course. Probably this mass of roughly dressed stone represents a foundation for some section of the *opus reticulatum* building which was erected above it. In this ashlar building, Rm. 9 of the Hellenistic tower was probably converted into the hypocaust of a bath or an oven. This room, unlike any of the

[18] Strabo XVI: 2, 40. Tell 2 represents the second tower; see § 24 ff.

[19] I *Macc.* 9: 50; Josephus, *Antiq.* XIII: i, 3.

[20] Josephus, *Jewish War*, I: ii, 3-4; *Antiq.* XIII: viii, 1.

[21] Qasr Far'on at Petra also has wooden courses but these are high in the walls and served a different purpose.

[22] This unit was only 2.55 m. in length and 83 cm. in width. The photograph shows only two courses of dressed masonry, as one had to be removed as a safety measure.

Digitized by Birzeit University Library

others in the tower, was plastered with a very thick coat of lime. The plaster was badly burned in the intense heat which also calcified materials in the adjoining Rm. 8. More details of Rm. 9 are lacking, because of the circular granary sunk at this point in the Arab period. It left only a corner of the original room intact for study. This small area, however, was most informing. It proved that this room was still being used in the later *opus reticulatum* structure, for *opus reticulatum* blocks were found more than 4 m. below the main floor-level of the Herodian building. Late Roman sherds were also there. Rm. 7 was much smaller in the last Roman period, because of the large stone mass in the western part of the room, as described above. Its floor was laid upon the boulder fill of the Hellenistic tower. But between the lime floor and the boulder fill came a layer of red sandy-gravelly material.

Summary of Tell 1

23. The history of Tell 1 may be briefly summarized as follows. The sherds from the earliest occupation in the fields about the *tell* were Chalcolithic and Early Bronze, but no buildings were found.[23] The first construction was the square Hellenistic tower which should probably be credited to the Seleucids, with the Maccabees as the alternative possibility, § 20. No sign of repair or remodeling was discovered in Hellenistic times except that a reinforcing buttress had been placed against the wadi side of the tower. The first historic reference to the tower comes in Strabo's account of Pompey's conquest of Jericho. Herod the Great completely remodeled the tower in the early part of his reign, erecting an ashlar building upon it. This was destroyed in one of the restless periods of his reign or in Simon's revolt at the king's death, § 31-32. The *opus reticulatum* structure which replaced it was still in use in the 3rd century. Then the site was abondoned until early in the 8th century, when an Arab outpost occupied it for approximately a century. Since then it has remained a ruin except for a brief period in World War I when it served as a British outpost in the Palestine campaign.

[23] Warren seems to have discovered Chalcolithic pottery under the *tell* where he went down to bed rock. Pritchard also found Chalcolithic and Early Bronze pottery in the field near Tell 1. (BASOR, No. 123, p. 8).

The Towers on Tell 2

24. The history of Tell 2 (Pls. 1, 10, 33, 35) cannot yet be worked out with the same detail and certainty as Tell 1. The digging which Warren did here was more destructive of evidence than on the other *tell*, and the oppressive heat of early summer compelled us to quit digging before we had worked out a satisfactory solution of the history of all the reconstructions on the site. This *tell* is not on the north bank of the Wadi Qelt but on the north bank of the Wadi Shaqq ed-Dabi, a small canyon which enters the Qelt from the northwest. When Warren began his work the mound was 170 ft. long, 20 ft. high above the plain and 35 ft. above the rock.[24] He discovered great brick walls with some colored plaster in place but no sign of marble or any veneer. The sun-dried bricks were 14 in. long and 5½ in. thick. Toward the western edge of the *tell*, we excavated just such a great brick wall as he described. It was made of brownish red sun-dried bricks laid in a drab greenish mortar and plastered with the same. It was laid on a good solid stone foundation 1 m. deep. It is a massive brick unit, the excavated section being almost 19 m. long and 1.30 m. wide, and still standing 5 m. high. It leans westward 21 cm. out of plumb. Although we found the south corner where this wall made a right angle turn, we did not have time to dig out the south wall. Later, when looking for the foundations of one of the stone walls, we found them in the débris of this collapsed wall. At one point there was a floor level at the bottom of the western brick wall but unfortunately it provided us with no sherds or other evidence for dating. Indeed, as yet there is no clue to the date of this brick wall except that it is the oldest construction on the *tell*.

25. The small central stone tower, which we excavated, must be the one referred to by Conder and Kitchener.[25] It was approximately 11 m. square. The sides measured 10.75 m., 10.96 m., 10.60 m., 11 m. The western wall was 1.15 m. wide. It seems, however, to have been a part of a larger complex, for a second set of stone walls discovered in test pits showed up 3.10 m. to the south and 3.10 m. to the east of this central tower. These walls were in perfect alignment with the

[24] C. Warren, *Underground Jerusalem*, pp. 193 f.
[25] *The Survey of Western Palestine*, Vol. III, pp. 224f.

Digitized by Birzeit University Library

central unit, thus suggesting that there was a second larger stone building with walls parallel to the small tower. The south wall, however, ran into the great brick wall and simply abutted on it. Apparently this brick wall was reused as the west wall of the new complex. We did not have time to look for the north wall. The matter is also complicated by the fact that the stone wall to the east is ½ m. thicker than the walls of the center tower. Furthermore, in trenching again to the east, we came to yet another stone wall parallel to both these eastern walls. More work still needs to be done on Tell 2.

26. There is one interesting feature, however, about all these stone walls. Although their masonry is all identical, it is strikingly different from the masonry of the original tower on Tell 1. All the walls on Tell 2 are constructed of roughly cut stones packed with stone chips and laid in a mortar so deficient in lime that today these walls look almost like dry stone walls. These large stones of Tell 2, however, look just like those in the Hellenistic tower of Tell 1 and seem to have been quarried at the same time. Tell 2, however, has no such alternating course of wadi boulders as does Tell 1, and the lime content of its mortar differs greatly. A natural inference from the above is that Tell 2 once had a tower similar to the Hellenistic one on Tell 1, and that these two were the towers, Threx and Taurus, captured by Pompey.[26] For some reason, however, this tower on Tell 2 was replaced by a second tower or towers of entirely different design, using only the large stones from the original tower and not the wadi boulders. At any rate, one archaeological fact is definite, the last tower was used in the Late Roman period, as proved by the pottery finds. (Incidentally more Late Roman pottery was found on Tell 2 than on Tell 1). Josephus may give us the clue to this problem for he states that at the outbreak of the war with the Romans, the Jewish insurgents captured the fortress of Kypros at Jericho and demolished the defenses.[27] Josephus also mentions that Vespasian erected citadels at Jericho and Adida, and placed garrisons in them both.[28] This statement about Jericho may refer to a rebuilding on Tell 2, although it could also refer to his conversion of the *opus reticulatum* building on Tell 1 into a military post. If Vespasian did not rebuild on Tell 2, then the remodeling was likely done during the Jewish revolt against Hadrian. The excavations of the Murabba'at caves produced a letter of Bar-Cochba and other documents which show the strength of the revolt south of the Jericho district.[29] It may be that Hadrian's army rebuilt the tower on Tell 2. If we are wrong in our conjectural theory of a Hellenistic tower similar to the one on Tell 1, then the north tower conquered by Pompey may be the early brick tower or this complex stone tower. More excavating is necessary to unravel the history of Tell 2. Very little Arabic pottery was found on it and this probably came from squatters or passing campers.

27. About 10 m. to the south of these various tower walls, where the *tell* falls off steeply into the wadi, there is a retaining wall which follows the contour of the hill. Just where this retaining wall turns north, and abutting on it at the eastern face of the *tell*, one room was discovered with its painted plaster walls in excellent condition; see Pl. 9. The pattern is that of imitation marble. The colors and the method of their employment differ greatly from those of the *opus reticulatum* buildings in New Testament Jericho. For a detailed description of this plaster, see Ch. III. We did not have time to continue the excavation of this building so the room was covered up, in order that the excellent painting on the walls might be preserved. This room is not earlier than the 2nd century and not later than the 3rd. Tell 2 like its southern neighbor was abandoned before the 4th century, but unlike Tell 1 the northern one was never occupied by a permanent Arab settlement. West of the *tell* a small *birkeh* or pool was excavated. At one time it must have been used in connection with the making of pottery, because of the large amount of pottery found there. The area about Tell 2 shows the foundations of numerous and varied structures, but we had no time to investigate any of these. A few sculptured architectural fragments were found in the pool just mentioned.

---

[26] Strabo, XVI: 2, 40.

[27] Josephus, *Jewish War*, II: xviii, 6. For Herod the Great's fortress of Kypros, see *Jewish War*, I: xxi, 4; I: xxi, 9.

[28] Josephus, *Jewish War*, IV: ix, 1.

[29] *Revue Biblique*, Avril 1953, pp. 276ff.

Digitized by Birzeit University Library

A Civic Center of New Testament Jericho

28. The next feature of the site is a unique group of *opus reticulatum* constructions which constituted one of the civic centers of New Testament Jericho, the winter capital of Herod the Great and a resort site for the rich (Pl. 33). Everything about this civic center instantly calls up Rome and Pompeii. Indeed, one might say that here in New Testament Jericho is a section of Augustan Rome that has been miraculously transferred on a magic carpet from the banks of the Tiber to the banks of the Wadi Qelt. The main architectural features consisted of the following. A royal reception hall or a pleasure pavilion crowned Tell 1 and was connected with the lower gardens and buildings by a grand staircase. At the bottom of the stairway was a large building with a light, airy pergola in front of it. To the west stretched a great sunken garden. A retaining wall, consisting of a long series of niches with an exedra or hemicycle in the center, constituted the main feature and southern boundary of the sunken garden. There were 25 niches on each side of the exedra, and in front of the niches and exedra was a water reflecting basin. Beyond the garden another large building, somewhat similar to the one at the eastern end, gave balance to the pattern.[30] Across the wadi to the north two other large buildings completed the *opus reticulatum* group.

29. This building complex is of special significance in the history of Roman architecture, for this is the first and only group of large *opus reticulatum* buildings found east of Italy. Indeed there is very little of any kind of *opus reticulatum* construction reported in the eastern Mediterranean. Palestine has another minor example at Caesarea Philippi.[31] Syria had a tomb near Emesa (Homs),[32] and another near Antioch.[32a] Asia Minor has an example in an aqueduct between the cities of Kenkbelen and Selek.[33] We find no reported examples of this construction in Egypt. Greece has some *opus incertum* at Corinth, but *opus reticulatum* does not seem to have been used in that country. Dr. Carl H. Kraeling, Director of the Oriental Institute, and Prof. Frank E. Brown, former Director of the School of Classical Studies of the American Academy in Rome, were most helpful in their interpretation of these *opus reticulatum* constructions at Jericho.

30. The architectural features of these buildings date them to the Augustan period and only experienced Roman architects and master builders could have erected them. The masonry will be treated in detail in Ch. III. The next important phase of *opus reticulatum* architecture in Italy after Augustus was in the reign of Hadrian, but the Jericho buildings do not contain a single characteristic feature of his period. Not a single brick was used for bonding at Jericho, nor was any brick sector used in a column or colonnette. Furthermore, the pottery and the coins in these Jericho buildings are predominantly from the period before the destruction of Jerusalem in A. D. 70. Only a minimum of pottery is from Hadrian's time and later.

31. Although these buildings are definitely from the period of Augustus, there is still the problem whether they were built by Herod the Great or his son Archelaus. The preliminary report states "The most likely dating in the light of present evidence is the reign of Herod Archelaus, 4 B. C. to A. D. 6. Either he or his father, Herod the Great, must have erected this fine building complex in their winter capital. Apparently architects and master builders were imported from Rome and were asked to reproduce a typical Roman civic center here in Jericho. An earlier date is impossible, for Italian *opus reticulatum* is not earlier than Sulla's time, and no Maccabean ruler had such relationships with Rome as to lead to the importation of this new Roman architectural technique on so grand a scale. Certainly Pompey and other Roman officials before Herod the Great never built here after this fashion; nor is it likely that any Roman procurator who came after Archelaus

---

[30] Unfortunately the Wadi Qelt has destroyed most of the building to the east and one of its tributaries has likewise destroyed much of the structure to the west.

[31] This example was reported to us by Mr. John Whiting of the American Colony shortly before his death. He could not, however, recall its exact location on that site.

[32] Richard F. Burton and C. F. Tyrwhitt Drake, *Unexplored Syria* (London, 1872), Vol. II, pp. 282ff. This building has been destroyed since Burton's time.

[32a] *Antioch-on-the-Orontes, I, The Excavations of 1932*, ed., G. W. Elderkin, pp. 85-86.

[33] E. Labatut, "Aquaeductus," in *Dictionnaire des Antiquités Grecques et Romaines*, ed. C. Daremberg and E. Saglio, I: 1, p. 341.

Digitized by Birzeit University Library

would build so magnificently at Jericho. Furthermore, Herod the Great and Archelaus were Romans at heart and they knew Rome well from extended personal sojourns. . . . At first thought, one might think of this building complex as the work of Herod the Great, since he was the greatest builder in Palestinian history and Josephus refers to a number of his building projects here in Jericho. But everywhere else his work is in typical drafted stone masonry such as appears in the first Roman level on the *tell*. *Opus reticulatum* is as different from this as day is from night. Furthermore, a burnt level appears between the Herodian drafted masonry and the *opus reticulatum* building above it. This may be part of the destruction meant by Josephus when he reports that Simon, one of Herod's influential freedmen, led a revolt and burnt Herod's palace and other buildings immediately after the king's death. Josephus also informs us that Archelaus sumptuously rebuilt the palace. Therefore it is very likely that Archelaus built the whole *opus reticulatum* complex. If Herod the Great did build a part of it, then it must have been at the very end of his reign." [34]

32. Baramki still favors the preliminary report; but since Pritchard has excavated the great building to the southwest of Tell 1, all of the evidence that Kelso has seen from this new source points to Herod the Great as the builder of the *opus reticulatum* structures. In that case the natural date for the buildings would be upon the return of Herod from one of the three trips which he made to Rome while Augustus was emperor, i. e., sometime between 18 and 9 B. C.[35] The final verdict on date, however, must wait for the publication of all the data from Pritchard's excavation. But at any rate the maximum spread of dates for the erection of these buildings is only a quarter of a century—18 B. C. to A. D. 6.

The Grand Stairway

33. To reach the lower units of this civic center a grand stairway, 50.10 m. long, and 4.35 m. wide,[36] descended from the *opus reticulatum* building on Tell 1 (Pls. 1, 6, 33, 35, 37) into Rm. B of the building below (Pl. 5). The stairs were unusually steep, undoubtedly because of the sharp angle of the hill. This grand stairway was in the exact center of the north face of the building on the *tell* and descended from it over a series of piers of approximately equal size, and spaced more or less equidistant from one another,[37] except that the top two (Pl. 4) were closer together.[38] The topmost pier abutted directly on the face of the Hellenistic tower and was perfectly centered. The pier below it abutted on the buttress of the tower. The piers varied somewhat in thickness. The widest was 1.25 m. However, the upper two, which abutted on the tower and its buttresses were only 72 and 70 cm. thick. The second pier from the bottom still retained a part of the vault which it carried, thus demonstrating that the stairway was carried upon great arches. The topmost pier was laid directly upon the wadi boulders which formed the top of the buttress of the Hellenistic tower. No special foundation was prepared for it. All the other piers, however, had heavy concrete foundations beneath their *opus reticulatum*. Where the top pier abutted directly against the rough stone face of the old Hellenistic tower, a heavy coat of plaster covered the face of that tower on either side of the pier. This plaster fell off as we dug, for the wall was leaning out of the perpendicular at this point. The pier next to the top was the best preserved.

34. West of this pier and the next one and abutting on them, were a few rooms, only one of which was excavated.[39] Two courses of dressed stone with plaster intact were still standing. The face of the stones approximated 40×30 cm. The pottery found in this room belonged to the 2nd and 3rd centuries A. D. Also on the west side of the lowest piers there was a wall of dressed stones. We looked to the west for the other walls of this house, but found none. This leads us to conjecture that at some period a room was built under this vault. Unfortunately the débris between these piers had been washed away so we could not verify it. This wall apparently belonged

---

[34] BASOR, No. 120, pp. 19-20 (with revised wording).

[35] E. Schürer, *A History of the Jewish People in the Time of Jesus Christ*, Div. I, Vol. I, pp. 410-414; 452, 457.

[36] Missing details at both ends of the stairway prevent an accurate estimate of its length; our estimate may be too short. In the preliminary report in BASOR the width was incorrectly given as 4.45 m.

[37] 3.93 m. was the shortest space, 4.64 m. the longest.

[38] 2.48 m.

[39] As this work is incomplete the rooms are not shown on the drawings.

Digitized by Birzeit University Library

to a house, as it seemed too well built for a terrace wall. If, however, it did serve as a terrace wall, then it must have been a part of an original eastern terrace wall for the gardens, which were behind the great building at the foot of the stairs.

35. The grand stairway terminated in a stairwell (Rm. B) in the great concrete building at the east end of the façade (Pls. 5, 38). This stairwell was finished partly in *opus reticulatum* and partly in plain unfaced concrete, which showed the marks of the wooden forms used to make it. The west wall was deeper than the east one and also slightly wider. The foundations of the east wall sloped to the north. Part of this east wall had been repaired at a later date. What looks like the north wall on the plan is later reconstruction, with the possible exception of the concrete section. As concrete was used in later repairs, however, even this is not conclusive. The rear or south wall of the stairwell was built of rough stones, doubtless a repair job as everything else in the stair complex is unfaced concrete or *opus reticulatum*. This stairway reminds one of a similar stairway at Herodium which likewise descended from the highest building on the site to a lower level. Both buildings looked out upon magnificent panoramas. Here at Jericho the eastern horizon was the long stretch of Transjordan. To the south one saw far down the Dead Sea with the mountains closing in on either side. Near at hand was the plain of Jericho, with its unique balsam groves and famous date palms. To the west, like a backdrop, were the great mountains of Judah and ahead the Jordan river. All of the building to the east of the stairwell has been destroyed by a modern irrigation ditch, except for a part of a room immediately east of the stairway.[40] It was still in use in the Late Roman period and was reoccupied in early Arab times. The part of this building just in front of the stairwell has also disappeared. In a part of the area here at the foot of the stairway, water-borne clay separated the Arab and the Roman pottery levels.

Room A

36. Immediately west of the stairwell was a great barrel-vaulted hall, 9.65 m. × 5.15 m. (Pls. 5, 38). The north and the south walls were respectively 1.20 m. and 1.15 m. thick and the west wall 90 cm. The east wall, which had the stairwell on the opposite face, had the thickness of the walls in the stairwell, i. e., only 60 cm. The interior of the room was finished in *opus reticulatum*. The southern and western exterior faces of these walls were unfaced concrete when below ground level and *opus reticulatum* when above. This feature is especially helpful in locating the upper ground levels. The ancient gardens south of this room were at almost the same ground level as the fields today. The outer face of the west wall shows its *opus reticulatum* going uphill from the top of the niches of the grand façade to the garden level above. Several features made the interpretation of this room difficult. The massive vault, which had collapsed and filled much of the room, was too expensive to move, and the Germans had already worked the rest of the room but had not published their findings. Furthermore, there were complicated repairs to interpret.

37. The *opus reticulatum* walls were set on wider unfaced concrete footings. On the north side of the room, the foundation unit and the *opus reticulatum* wall upon it were not parallel. At one point the *opus reticulatum* wall was on the edge of the footing and at another point 20 cm. inside. Although the upper part of this wall had collapsed northward at one point, it does not seem to have affected the lower section except for cracks. This bad alignment looks like a surveyor's error. The most startling feature, however, is that the western section of this north wall had a very deep and heavy foundation in contrast to the center and east sections. In the west the foundation is regular *opus reticulatum* going down to a depth four times as great as the unfaced concrete footing of the remainder of the wall.[41] Although this latter foundation was laid on a rough rock base, the two were totally inadequate for an earthquake area where the foundations should be of equal strength. These unequal foundations met under a doorway. This explains why a heavy earthquake tremor threw down the eastern door jamb and made typical earthquake cracks in the wall to the east of it. The earthquake damage, however, revealed an ideal cross-section of an *opus reticulatum* wall and showed perfectly the details of its construction; see Pl. 4.

[40] Rm. C on the plan.

[41] It must have gone still lower but we did not dig any deeper because of special features outside the wall at that level.

Digitized by Birzeit University Library

38. The exterior decorative features of the north wall of Rm. A were a doorway to the west and a recessed niche to the east (Pl. 5). A little distance on either side of the doorway was an *opus quadratum* pilaster which carried a large concrete arch (Pl. 5). It is natural to assume that the recessed section of the wall was also finished off with a similar arch. The rectangular niche or recess was 2.35 m. long and about 60 cm. deep. On the lower sections of the exterior wall of the room the plaster was fashioned into rectangles, one panel of which measured 33.5 × 16.5 cm. The plaster was yellow, a common color for a Roman dado. At the northwest exterior corner there was a large drain 32 cm. in diameter, which collected the water from this building and perhaps some of the water from the gardens above (Pl. 6). A part of the original drain (toward the wadi) is still intact, although at that point it had been reduced in Arab times to a diameter of 24 cm. Close to the building the Roman drain had been destroyed. The Arabs had laid a foundation of wadi boulders and worked Roman stones which carried a new drain from the building to connect up with the old Roman drain near the wadi. Some drain covers were found. One was 40.5 × 40.5 × 8 cm. and another 41 × 32 × 8.7 cm.

39. The back wall, i. e., the south wall of Room A, is still standing higher than the level of the original terraced garden behind it. Large sections of the *opus reticulatum* facing of the inside walls of the room have fallen, but even in this ruined state there is a sense of splendor in the room. The footing of the south wall is higher than of the east wall. The north wall shows at least two major repairs. One was in concrete, but it differs from the original work. At the northwest corner of the room an earthquake crack was so large that a heavy stone had been placed in it to plug up the hole. There were also floor repairs at this point. The corner and the floor repairs were Arab work. The Arabs also did considerable repairing at the north doorway and immediately outside. At the northeast corner of the room the repair work was probably Roman. This is represented by a small unit 90 × 60 cm. which constitutes the north section of the east wall seen on the plans. This concrete wall was made with wadi boulders about 15 cm. in diameter, instead of the usual undressed stone fragments that were normally used in the concrete. Between it and the original north wall was a separate masonry unit 25 cm. square which filled in the corner.

40. In that part of the room where the fallen vault is missing,[42] two floor levels could be traced close to the wall. The upper one of these was *huwar*. It concealed the lowest 4 cm. of the plastered wall and is definitely Arab. There was a cement floor bedding 8 cm. below it. This probably carried a Roman mosaic. The plaster of the wall stopped before reaching the bedding. Near the center of the room, however, was a third and lower floor level. The falling vault had crashed through this floor level. In Arab times a door-sill had been put in the east doorway so that it covered up two courses of the *opus quadratum*. Just outside the very deep foundations of this room, there was a floor level that extended some distance toward the wadi. A small water channel which crossed the floor appeared to come from Rm. A above. The same channel, however, also seemed to be related to a large hole that had been cut through the heavy eastern boundary wall of the nearby sunken garden (Pl. 6). But on the other hand, the large size of that hole in the retaining wall implied a far greater stream of water than this channel carried. We did not have time to dig farther to untangle these water problems. Nor were we able to date this floor level exactly, although it appears to be Arab. Near this floor and at the same level on either side of the wall of the sunken garden, we found a considerable amount of sand of the type used in the construction of the *opus reticulatum* masonry. It is light in weight, yellowish in color, and well worn rather than sharp cut.

Stone Foundation Walls in Front of Rooms A, B and C

41. Just in front of Rm. A and at the bottom of the stairway there were deep stone foundations, each about a meter in width (Pl. 35). The one in front of Rm. B was still over 1.65 m. deep. They line up well with the *opus reticulatum* walls, and three of them also parallel the eastern boundary wall.[43] This seems to imply that they are a part of this same building complex, but nowhere else have we found similar foundations prepared for *opus reticulatum*. Perhaps these were the

[42] This part of the fallen vault was probably removed by the German excavators.

[43] One of these was under the drain of Rm. A.

Digitized by Birzeit University Library

foundations of an ashlar building belonging to the earlier Herodian phase on Tell 1 and were later reused in the *opus reticulatum* period just as there was some reuse of the ashlar foundations on Tell 1. The large amount of painted and moulded plaster (Pls. 19, 20), as well as *opus reticulatum* pieces in the débris above these foundations, testifies that some kind of an *opus reticulatum* structure stood on this site, whether or not it used these foundations. Mixed with the plaster were many stone sectors of concrete columns. Some of these were still coated with fluted plaster. A 2 m. section of such a column was crushed into the ground by the falling of the arch of the façade in Rm. A. This may imply that there was a one story building on the site. Perhaps it was a pleasant, shady pergola. We know that it was roofed over because of the large amount of ceiling plaster. We have the reeds, which served as the laths of antiquity, and in other places the imprints of these reeds in the plaster itself. The Germans found the remains of a large column almost a meter in diameter in this location. It is uncertain whether this column belongs with the buildings on the *tell* above or with those along the wadi. We did not have time to remove the débris in front of Rm. D to see if this pergola construction in front of Rm. A is paralleled at that point.

Room D

42. At the western end of the grand façade (Pls. 7, 9, 38, 39, 39 A-B was a great barrel-vaulted hall (Rm. D) similar to Rm. A at the eastern end of the façade. Rm. D is slightly smaller, the interior being 9.30 m. × 4.95 m. The "cement" floor was 20 cm. thick and had been laid on ashes. Rm. D was difficult to study because we had to break through the massive fallen vault (over a meter in thickness) at one end of the room and go through deep débris. Only a part of the room was excavated but from this the following data is available. The north and south walls were approximately 1.20 m. thick; the east wall was 1 m. and the west one only 75 cm. The north wall was built first and the east wall simply abutted on it without being bonded in. The lack of bonding was bad construction as this east wall had to serve as a high retaining wall for the gardens above it. The north end of the west wall was broken off and this would suggest a door at that point. This is made certain by the adjacent Rm. E which must have been a stairway with an easy gradient. The *opus reticulatum* facing above its concrete foundation follows up the slope of the hill, but without the sharp angle of the grand stairway.

43. The striking feature of Rm. D is an outlet for a stream of water about 18 cm. in diameter, at the floor level of the south wall, about 2.80 m. from its eastern corner. The water, which had been carried here in a covered aqueduct on the high ground behind the building, was now shot down through a circular conduit at a steep 70° angle to the floor level (Pl. 40). The outlet was in the back of the room where there was a small grotto in the wall. Details of the exterior of this outlet and the distribution of the water system are missing because the center of the room was not excavated and the *opus reticulatum* about the outlet is missing. The length and the steepness of the conduit suggests the pressure necessary for some type of fountain and the angle of the drop would also produce the sound-effect of rushing water. In the water channel above there was a settling basin just before the water shot down into Rm. D. Under the north door there was a channel leading out of the room where it connected with a cement-lined stone drain.[44] In the southeast corner of the room was what looked like a built-in water basin. As it was not built of *opus reticulatum*, it may be the work of squatters who moved in after this part of Jericho was abandoned following the destruction of Jerusalem by Titus. The presence of such squatters is verified by a hoard of fifteen copper coins[45] which was found under the north door sill of the room. The earliest coin is one of Herod Archelaus and the latest is dated A. D. 86. No Arab pottery was found in the room, so apparently the vault of this room collapsed during the Byzantine period when the site was unoccupied. The façade of Rm. D was in better condition than its eastern counterpart. There the western pilaster that carried the arch over the door was missing, but the lower sections of both pilasters were intact for Rm. D. In this case the eastern pilaster is 17 cm. closer to the door than the western one. The eastern pilaster was also thinner than the western one which was 58 × 44 cm. The pilasters were *opus quadratum* with a concrete core anchored

[44] As the work in front of Rm. D is incomplete, this does not appear on the plans.

[45] The coins are catalogue nos. 296-310.

Digitized by Birzeit University Library

in the wall (Pl. 9). The door was 1.35 m. wide and finished on either side in *opus quadratum*. The ruined wall was not high enough to determine whether the doorway was finished off with a lintel or an arch. The pilasters on either side of the doorway must have carried a great arch similar to the one found in the débris in front of Rm. A. Beyond the western pilaster there was a recessed niche as in the eastern unit. It is quite likely that decorative arches appeared above both the eastern and western niches similar to those above the doorways; but as we had time only to remove the deep débris immediately in front of the wall, and not that farther away where the arches would have fallen, we could not verify their presence.

44. To the west of Rm. D the details of the façade are uncertain. On the plan just beyond Rm. D there is what looks like a doorway, but it is much more likely that a part of the wall is missing here, especially since the section just beyond it has lost its face. Furthermore, no door would likely be built at this point because of its odd relationship to the adjacent walls; and the missing wall section is narrower than any doorway in the building. West of the stairwell a deep gully has completely destroyed the façade of the building. The surface on the face of part of the façade of Rm. D is worn by water. This damage was due to the lay of the land, which in recent years channeled the winter rains over this façade. Incidentally this demonstrates how well the rest of the façade has been preserved, for the limestone used on this site is very coarse and fragile. Indeed, the natives call it sandstone. The drain for Rm. D and the gardens beside and behind it seems to be similar to the Roman drain of Rm. A, although we have not completed this study. As has already been noted, Rm. E must have been a stairway. Rm. F was very narrow and looked like a storage area. Some pottery was found in it. The rest of the ground plan of this building is missing in detail but part of it can be reconstructed, although immediately to the south all traces of the walls have been destroyed by an irrigation canal, and to the west the small but deep ravine already mentioned has destroyed all evidence. Several legitimate inferences, however, can be drawn from the few walls that are left (Pl. 38).

45. The heavy west wall (1.04 m.) of Rm. E must have been paralleled by another wall further to the west. This would have extended the façade by at least the width of one room. As the wall just mentioned has *opus reticulatum* on the east face (the stairway) but not on the west, the normal conclusion is that the western face of the wall would be underground. This interpretation is confirmed by the sharp rise in the terrain just across the deep narrow gully which destroyed the building. Thus this wall would serve as the wall of a stairway on its face but at the same time it would act as the foundation for a room on the floor above and to the west of the stairway. This would be at approximately the same elevation as the terrain behind Rm. D. This latter ground level is demonstrated by the junction of the unfaced concrete and the *opus reticulatum* on the south face of Rm. D. The heavy wall going east at the southeast corner of Rm. F must have had a parallel wall farther south, as the area south of Rm. D and east of Rm. F is open ground. These two projected rooms call for other rooms in order to give a normal Roman pattern to the building.

The Grand Façade

46. The entire distance between the two *opus reticulatum* buildings was occupied by a spectacular façade (Pls. 2, 6-9, 39), which served as the retaining wall for the gardens above, and at the same time formed the south side of a great sunken garden.[46] Architecturally the façade consisted of an exedra or hemicycle (Pl. 8) in the center with units of twenty-five niches on each side. A short blank wall at the end of each set of niches abutted on the buildings treated above (Pls. 6, 7, 39 A-B). The blank wall of the west section is framed on the one side by the pilaster east of the doorway of Rm. D, and on the other side by the first of the niches. The first or western unit of this blank wall is 3.75 m. long and occupies over two-thirds of the blank space. Its face is on the same building line as the *opus reticulatum* structure (Rm. D), but this new wall had been thickened to 1.60 m. instead of the 1.20 m. of the adjacent building. At its eastern end this section was finished off with an *opus quadratum* corner. Then the face recessed along a line 38 cm. shallower, giving the thickness of this unit 1.22 m. The common back line for the blank wall continues to be the back line for all the niches. Just below the ground level at the western edge of the blank wall

[46] See plan, Pl. 38, and elevation Pls. 39, 39 A-B.

Digitized by Birzeit University Library

is the large drain of Rm. D. Two weep-holes present in the blank wall also assisted in the drainage of the gardens to the rear. Abutting on the central third of the blank wall was a massive low retaining wall, 1.90 m. wide at the top. It formed the western boundary of the sunken garden. This feature divided the blank wall into three units. At the opposite or eastern end of the façade the same plan was followed, although the recessed angle there was finished off in *opus reticulatum* instead of the proper *opus quadratum*. The drain at the western end, however, is closer to the western boundary of the garden than the eastern one is to its boundary.

47. The western unit had one important variation from its eastern counterpart. Between the low retaining wall, which formed the western end of the sunken garden, and the first of the niches, a concrete stairway 1.66 m. wide descended northward into the sunken garden (Pl. 7). This was not a solid piece of concrete as one would expect, but was rather a heavy concrete shell or frame to hold the cut-stone treads. It was hollow inside. The stairway itself is doubtless wider than the original plan, for its outside wall is not flush with the angle of the flat wall behind but overlaps the colonnette and goes another 9.5 cm. beyond that.

The Niches in the Great Retaining Wall

48. Immediately beyond the blank wall-sections of the façade, the niches begin (Pls. 6, 7, 9, 38). They are in units of twenty-five, alternately semicircular and rectangular, except that two rectangular niches are found immediately before the exedra begins its arc. The last rectangular niche in each unit, however, might better be termed a recess, as it is only half as deep as a niche, and the outer wall toward the exedra seems to be missing. They mark a transition between the shallow panels which appear in the exedra wall and the much deeper niches. These niches and especially the colonnette units between them vary slightly in width.[47] The average width of a niche at the west end was 1 m., with its depth about half a meter. The frame about each niche was approximately 12 cm. wide. The average width of a colonnette unit between the niches was 57 cm. The semicircular niches terminate in a half-dome head and the rectangular ones in a flat soffit. The height of a rectangular niche was 2.80 m. The height of a semicircular niche to the spring of the half-dome was 2.25 m. The height of the half-dome was 55 cm. A high overhanging cornice rose above the niches, but its details are missing. The niches are best preserved at the extreme western end of the façade (Pl. 7).

49. On the exterior edge of one of the half-domes, the arches have stones roughly shaped as voussoirs, and above these are several half-circles of *opus reticulatum* blocks laid flat to the ends of the voussoirs. The concrete workers, however, did not take the same care with the other two extant half-domes. One of the flat soffits of the rectangular niches had all the stones at approximately a right angle to the flat soffit; the other did not. This shows that the workmen understood thoroughly the difference between the use of cut-stone and concrete, but the tradition of voussoir construction was apparently so strong that it still had some influence. For many other interesting masonry details of the façade, see Ch. III. Rather heavy stones were often used in the concrete of the floors of the niches. In the back wall at a height of about 1.75 m., some niches either had *reticulatum* blocks, or some *quadratum* pieces were laid in an irregular pattern. This leads to the conjecture that fountains may have been planned for these niches, but careful searching at all available points back of the façade failed to uncover any water line of any kind. Futhermore, the niches show no signs of water erosion.

50. Below and in front of the niches and the exedra ran a narrow water basin (Pl. 8). Along the niches it varied from 1.55 m. to 1.65 m. but on the arc of the exedra it was 1.57 m. wide and 1.37 m. deep. There seems to have been some remodeling of sections in front of the niches but we did not have time to dig out all the channel, except in front of the exedra. Where the fallen units of the massive retaining wall could be studied, we found the destruction was due to the normal pressure of the hillside behind the façade rather than to an earthquake. Note the position of the fallen units of the façade at its eastern end (Pl.6). The ground behind the niches is a fine grade of potter's clay and when wet can exert great pressure.

[47] One was 74 cm., another 50 cm. but they averaged about 57 cm.

Digitized by Birzeit University Library

The Exedra or Hemicycle

51. The central unit of the grand façade and one of its most interesting features was the exedra or hemicycle (Pls. 8, 38, 39). This hemicycle looks much like an outdoor theatre, with a stairway in the center and tiers of very low terraced walls or benches running up the slope. But flower pots found *in situ* in the earth behind the benches suggest a terraced garden. The radius of the hemicycle to the panelled wall was 11.93 m. This panelled wall is the circular counterpart of the niches. Beyond it rose the terraces. A stairway, 2.30 m. wide at the water level, led up the center of the exedra, but the cut-stone steps themselves are missing.[48] It widened slightly where the terraces began. The lowest point in the exedra was occupied by the water basin. Where the arc of the basin begins the walls are thickened for a distance of 3.70 m. The thickened walls may have served as bases for statuary. The walls of the water pool have *opus reticulatum* on the inside but rough concrete on the outside. The waterproof plaster, 2 to 4 cm. in thickness, was in four coats. The basin was still water-tight after all these centuries, for we tested it several days after an irrigation ditch in the field above had overflowed and filled it. The corners, as well as the junction of side and bottom, were rounded in this plaster. Above the basin was a flat bench about 80 cm. wide, and behind it a blank *opus reticulatum* wall 75 cm. high.

52. Above this blank wall, and on the same level as the niches of the façade, came a series of shallow recessed panels, nine on each side (Pls. 38, 39). Both the panels and their frames are wider than the niches and their colonnettes. This panelled wall seems to have been about 75 cm. high, although it is not preserved to full height at any point. It was very thin, being only about 30 cm. from front to back. The divisions between the panels were in a poor state of preservation, but the panels were about 1.10 m. in width and their frames about 64 cm. wide. Perhaps some of these panels were finished in mosaic. Some green, blue, yellow, gray and white *tesserae*, averaging about 7 × 7 mm., were found in the débris of the exedra.[49] Some had the mortar backing still in place. Some of these *tesserae* were also found along the niches, and in this case they may have been used in the decoration of the overhanging cornice. Above this panelled unit the terrace walls began. Parts of the four lowest were still *in situ*. The tallest terrace was 63 cm. high, including foundations. The height above ground seems to have been one-half meter or less. At a few points the cement tops of the terrace walls were still intact. The width of the terrace bench (the wall and the soil behind it) averaged 75 cm. In the soil behind three of the benches flower pots were found *in situ*. There is only one clue to details above this point. Shallow panels, similar to those already described, had been washed down the hill and lodged in the terrace. They were doubtless a part of the finishing course at the top of this terraced garden. Some of the poorest masonry on the site was in the construction of the terraces. Some terraces were laid directly on the clay bank without any foundations whatsoever.

The East and West Walls of the Sunken Garden

53. The fifty niches and the central terraced garden formed the south side of the sunken garden, whose total length was 113.67 m. The northern wall originally ran along the bank of the Wadi Qelt, but today all of it has been destroyed by that stream with the exception of a short stretch of foundation near the northwest corner (Pl. 33). Fortunately, however, this enabled us to calculate the over-all length of the nearby western wall. It was 37.27 m. The width of the sunken garden is thus approximately one-third of the length. The extreme south section of this western boundary wall is still *in situ* but most of the wall had been undermined by the Qelt and massive fragments of it are strewn about. It is probably these units which led Warren to say that there was a bridge here. To be sure, there must have been a bridge somewhere near here, but we were unable to find its location. The eastern and western boundaries of the sunken garden were massive low retaining

[48] Theoretically the site of the stairway might be a water-cascade. But there are no architectural features to contain the water in these narrow limits; and since some of the adjacent terraces are laid directly on the soil, they would easily have been washed away. Nor is there any sign of water wear on the *reticulatum* blocks, although this soft stone shows such action quickly.

[49] The blue and yellow ones were made of paste, the green of glass and the gray and white of stone.

Digitized by Birzeit University Library

walls. The eastern one was 1.76 m. wide at the top and 1.73 m. high. The western one was 1.90 m. at the top and the same in height.[50] Each wall was unfaced concrete on the side away from the garden because it was underground. The inside pattern of these walls is seen in Pl. 6. Each wall was much broader at the top than at the bottom, because of a wide, massive, overhanging cornice in the form of a half arc left unsupported on the other side. One naturally conjectures that the cornice above the niches of the retaining wall was of the same pattern. The cornice was very wide for below it the width of the walls is reduced by approximately one-third. This overhanging cornice reminds one of a perfect anti-splash rim for a gigantic swimming pool, and it is possible that on occasion it might have been so used.

Opus Reticulatum Buildings on the North Bank of the Wadi Qelt

54. On the north bank of the Wadi Qelt, opposite Tell 1, there are *opus reticulatum* ruins (Pls. 6, 9, 33) that run for 80 m. along the steep bluff of the stream. Indeed, the wadi has eaten away the southern section of these structures, until today the ruins are only 30 m. in width. The original buildings were not only wider but also longer than at present, especially at the eastern end. A test trench sunk here showed these ruins to be of the same building period as those across the wadi. The masonry is identical, the same plaster is still on the walls, the houses yielded the same Early Roman pottery, and a coin of A. D. 59 was found. These buildings had a perfectly breath-taking view of the structures across the wadi; see Pls. 1-2. In the days of the city's prime this view must have been as intriguing as a world's fair in our day.

Another Look at the Civic Center of New Testament Jericho

55. Indeed, this whole site reminds one of the lay-out of a world's fair, and the buildings on it are after the same fashion. The craftsmanship, too, runs from excellent to shoddy, with both varieties often side by side. Spectacular features were built without considering what the passage of time would do to them. The retaining wall of the fifty niches, for example, was much too weak to stand up to the clay pressure behind it, and the building walls that had to stand the same pressure often suffered because they were not bonded. But in spite of everything the structures were beautiful, spectacularly beautiful while they lasted. The lay of the land was intelligently utilized and an old building such as the Hellenistic tower was carefully blended into the plan and remodeled to fit it. The gardens on every side gave the city a unique feature which few cities could afford to copy. Herod was a lover of gardens. Even in crowded Jerusalem he used thirteen acres for his palace and its gardens.[51] Jericho's waterworks used the modern technique of tapping different water sources (wadis in this case), so that there was always plenty of water, not only for gardens but for the fish ponds and swimming pools. In addition to this civic center the site contained other attractions, for Josephus tells us of theater, amphitheatre and hippodrome. The ruins themselves tell us of still other major building groups as well as villas scattered about. It was in one of these latter that Jesus was entertained by Zacchaeus, who was what we would term today an under-secretary of the treasury.[52]

A Summary of the History of Tulul Abu el-'Alayiq

56. The history of each building excavated has been dealt with in detail in connection with the study of its structure, so the following is only a résumé. Chalcolithic and Early Bronze sherds were so numerous in the fields between Tell 1 and the Wadi Qelt that there must be ruins nearby. We did not have time, however, to look for them. In later excavations, Pritchard refers to an extensive settlement in these early periods.[53] Although we found no material from the Late Bronze Age, Prof. C. C. McCown, in a personal letter, told of finding Late Bronze sherds at the extreme southwestern corner of the site, i. e., where the road from Jerusalem comes out of the mountains on to the plains. The next sign of occupation was the Hellenistic tower, which is the heart and core of

[50] This measurement includes the section of the wall which is underground.

[51] S. Merrill, *Ancient Jerusalem*, p. 102; Josephus, *Jewish War*, V: iv, 4.

[52] Luke 19: 1-10.

[53] BASOR, No. 123, p. 8.

Digitized by Birzeit University Library

Tell 1. The archaeological evidence dates it as Hellenistic, and the closest literary reference suggests that it was the work of Bacchides. The tower was captured by Pompey and later remodeled by Herod the Great, who erected a new building upon it, using the same cut-stone technique common to his reign. This building in turn was replaced by a whole complex of *opus reticulatum* buildings on both sides of the Wadi Qelt near the old fortress, using it as the foundation for one of these buildings. The exact history of the northern *tell*, i.e., Tell 2, however, has not yet been worked out, but for tentative conclusions see §§20, 26.

57. But what was the subsequent story of these buildings? What was their fate when Vespasian and Titus used Jericho as a military base in their campaigns against Jerusalem? What happened to them in the Jewish revolt of Hadrian's reign? Why did the whole site become a ruin by the 4th century? This excavation did not solve all of these problems, although it has thrown some light on them. Eusebius[54] states that Jericho was overthrown at the capture of Jerusalem, but unfortunately Josephus,[55] who gives us some specific information about the Jericho-Jerusalem campaign, and who was a contemporary of the events, does not speak of its destruction in any such definite terms. He tells of the city's capture by Vespasian and of the large garrisons he established here. Titus sent the 10th Legion from Jericho for the final assault on Jerusalem. This is the substance of the literary sources. We found no evidence of burning by Titus. The destruction of Jerusalem, however, naturally marked the beginning of the end for Jericho and it was not many years afterwards that the city lost its prominence. There were no longer any royalty or rich to spend the winter in Jericho; there were no priests to commute between the temple and the valley; and the gardens lost a major market in Jerusalem. We do not know what happened to the famous balsam groves of Herod; but, even if they remained intact, Jericho must have declined to the rank of a district capital, which also served as the military headquarters of the Qelt district. In any event, somewhere around the year A. D. 100, the site had ceased to be a city and became primarily a garrison town. The *opus reticulatum* buildings, with the exception of the fortress on Tell 1, apparently became squatter's quarters and they never regained any prominence, although they do show minor repairs. The great vaulted hall (Rm. D) became the home of a poor family that hid its copper coins under the old doorway. As the latest coin in the hoard is A. D. 86, it furnishes a good check date on the tragic influence of Titus on Jericho.[56] The town, however, still had a major asset in the great concrete building on Tell 1 which could easily be used as a fortress at this eastern terminus of the Jaffa-Jerusalem-Jericho road, which must always be kept open. This road probably served as a minor supply route in Trajan's campaign against the Nabataeans. The fortress was certainly of strategic value during the period of the Jewish revolt against Hadrian, for the excavations in the Murabba'at caves produced a letter of Bar-Cochba which shows that the revolt was strong south of the Jericho district.[57] It is still uncertain whether Bar-Cochba or Hadrian rebuilt the tower on Tell 2 as a defense measure during this second Jewish revolt; perhaps Titus had already reconstructed it.

58. After the 1st century A. D. the population, exclusive of the military, was certainly small in the sections we excavated, but nevertheless the site was occupied for about another two centuries. The Bordeaux pilgrim in A. D. 333 reports Jericho as still located at this site. Our archaeological findings gave no definite answer as to why the city came to an end and why it was succeeded by Byzantine Jericho (Eriha) only a mile or so to the east. After about four centuries of silence, Tell 1 came to life again in the 8th century when an Arab military post occupied its crest. The site has been abandoned since that day. Now, however, the small Arab refugee village of Aqabat Jaber is growing up at the extreme southwestern corner of New Testament Jericho (Pl. 1).

---

[54] Eusebius, *Onomasticon*, ed. Klostermann, p. 104.

[55] Josephus, *Jewish War*, IV: vii, 5; viii, 1-2; ix, 1; V: i, 6.

[56] The coins of Pritchard's excavations may show some little occupation elsewhere in the intervening period but again they may be simply coins lost by campers on the site.

[57] *Revue Biblique*, Avril, 1953, pp. 276ff.

Digitized by Birzeit University Library

CHAPTER II

The Pottery of New Testament Jericho (Tulul Abu el-'Alayiq) and Khirbet en-Nitla

59. This study of the pottery found at Tulul Abu el-'Alayiq and Khirbet en-Nitla emphasizes three features: (1) a general introduction, (2) a detailed description of each type of pottery with any variants it may have, and (3) a comparison of each type with the most important related finds at other Palestinian sites, where such pottery assists in working out the ceramic history of our types. The periods covered in this study extend from the Late Hellenistic into Early Arabic. This comparative study necessarily has numerous blank spots because of the small amount of published ceramic material. These are the neglected periods of Palestinian archaeology. This work therefore can in no sense be considered an exhaustive study of these periods; it is simply a working outline based upon the pottery found at these two sites. In the study of the pottery of 'Alayiq and Nitla we have consulted all available publications, although only those have been listed which we feel have a special bearing on our pottery. No attempt is made to record all sites which have parallels to our types but only those which yield the greatest value to the historical study. All available reports, however, have been studied in great detail, so the omission of a site normally means that it does not furnish as significant data as the sites mentioned. In tracing the development of pottery styles we do not go back beyond the Hellenistic period nor later than the Early Arabic. We have restricted our comparative material to Palestine except in rare cases where it seems wise to use a foreign site such as Tarsus. In our conclusions we have tried to differentiate carefully between the positive and the probable. The latter is used chiefly when related, but not similar, forms are treated. In many cases the small number and the fragmentary nature of our rarer forms complicate the difficulty of interpretation.

60. Photographs are not as accurate as drawings for comparative study and therefore they have not ordinarily been referred to unless drawings also appear in the publications. In some cases, however, photographs do bring out sufficient characteristic details and in such cases they have been used even if no drawings accompany them. In our drawings we are especially interested in the general outline of form and therefore have used whole jars when intact or those most nearly complete, even though they may be exceptional in regard to ribbing. Problems of interpretation are often presented by ribbing. Was it a purposeful part of the design or simply the result of fast work in "throwing" the ware? The drawings and the descriptions may seem at times to be at variance with one another at this point. We have drawn our conclusions from the relative percentages of ribbed and plain ware, and thus the description may say "plain" whereas a drawing may show an exceptional case of "ribbing," or vice versa. Follow the text for general conclusions. In dealing with rare forms, the evidence is often so scanty that we have been forced to follow only the major details of form rather than all the characteristics.

61. Such a work as this always has a subjective element but this has been reduced as much as possible. Other archaeologists may differ with some of our comparative identifications for there are many points of conflicting details. In transitional forms and in copy work in other clays there are always delicate evaluation judgments. Sometimes, even in the most common types, there are problems. For example the various forms represented in Type 12, Roman, actually covered several centuries of time not only at 'Alayiq but also at other sites in Palestine. But it is also true that examples of almost all the forms represented in this type were found in a single hoard at 'Alayiq, thus showing that virtually all the forms were at one time synchronistic. Facts such as this illustrate how difficult it is to be dogmatic on the chronology of much of this pottery, when so little has been published to date. In comparing Byzantine and Arabic wares, form alone was an insufficient criterion at Nitla, for many of the forms were distinctly Byzantine although the craftsmanship and the ware were Arabic. Therefore such pottery was typed as Arabic because it was actually made in the Arabic period. Nevertheless the comparative forms from other sites which we use in our

Digitized by Birzeit University Library

study are often Byzantine, since that is the original form and little Arabic material has been published. This illustrates why the best comparative ceramic studies must always be made by actually handling the pottery itself. Such collections as those in the Palestine Archaeological Museum are ideal for this comparative ceramic study.

62. In view of D. C. Baramki's long experience with pottery in the Roman, Byzantine and Arabic periods in Palestine, we requested him to work out the types of these wares. Subclasses were often made in the hope that future years might thereby discover clues to dating. He took three factors into consideration in classifying the pottery: form, ware and decoration. Ware was the most important of these, but by itself it was not sufficient, as vessels were found which were of different wares although identical in form. Various forms also were encountered which were so different that they could not be classed together although they were made of the same ware. Such surface decorations as ribbing, combing, grooving, painting, etc., also had to be taken into consideration. The comparative study of pottery from other sites is primarily the work of James L. Kelso with the assistance of D. C. Baramki and C. Umhau Wolf. In this work the major emphasis has been on form, even where the wares differ. Form is always the best clue to ceramic development. Good forms may later be copied in almost any ware.

63. In order to conserve space in publication, the abridged name of a site is used and this is immediately followed by the specific figure or plate of the example mentioned. The following is a list of the abridged site names and of the publications referring to them which we have used.

'Ain el-Jedide: "Note on a Chapel and Winepress at 'Ain el-Jedīde," *The Quarterly of the Department of Antiquities in Palestine*, Vol. IV, No. 3, R. W. Hamilton.

'Ain Yabrud: "A Rock-cut Tomb-chamber at 'Ain Yabrūd," *The Quarterly of the Department of Antiquities in Palestine*, Vol. VI, No. 1, S. A. S. Husseini.

Askalon: "Vaulted Tomb at Askalon," *The Quarterly of the Department of Antiquities in Palestine*, Vol. II, No. 4, J. H. Iliffe.

Beit Nattif: "Two Roman Cisterns at Beit Nattīf," *The Quarterly of the Department of Antiquities in Palestine*, Vol. V, Nos. 1 & 2, D. C. Baramki.

Bethany: "Excavations in the Ancient Town of Bethany," *Studii Biblici Franciscani Liber Annus II* (1951-1952), Fr. Sylvester Saller.

Bethel: Unpublished data from the Bethel Excavations, 1934, W. F. Albright and J. L. Kelso.

Beth-shan: *Beth-shan Excavations 1921-1923, The Arab and Byzantine Levels*, G. M. FitzGerald.

Beth She'arim: *Beth She'arim, Report on the Excavations during 1936-1940*, Vol. I (1950), B. Maisler.

Beth-zur: *The Citadel of Beth-zur* (1933), O. R. Sellers.

Gerar: *Gerar* (1928), Sir Flinders Petrie.

Gezer: *The Excavation of Gezer, 1902-5 & 1907-9*, Vols. I, II, III, R. A. S. Macalister.

Hassan: "An Early Byzantine Basilica at Tell Ḥassān, Jericho," *The Quarterly of the Department of Antiquities in Palestine*, Vol. V, No. 3, D. C. Baramki.

Jebel Jofah: "A Roman Family Vault on Jebel Jofeh, Amman," *The Quarterly of the Department of Antiquities in Palestine*, Vol. XIV, G. L. Harding.

Jerash, ASOR: *Jerash-Gerasa 1930, The Annual of the American Schools of Oriental Research*, Vol. XI, C. S. Fisher and C. C. McCown.

Jerash, Gerasa: *Gerasa, City of the Decapolis* (1938), C. H. Kraeling.

Jericho: *Jericho, Die Ergebnisse der Ausgrabungen* (1913), E. Sellin and C. Watzinger.

Jerusalem:—

B & D: *Excavations at Jerusalem, 1894-1897* (1898), F. J. Bliss and A. C. Dickie.

Bishop Gobat School: "Excavations at Bishop Gobat School, 1933," *Palestine Exploration Quarterly*, July, 1935, R. W. Hamilton.

Citadel: "The Citadel, Jerusalem," *The Quarterly of the Department of Antiquities in Palestine*, Vol. XIV, C. N. Johns.

Karm al-Shaikh: "Notes on a Cemetery at Karm al-Shaikh, Jerusalem," *The Quarterly of the Department of Antiquities in Palestine*, Vol. I, No. 1, D. C. Baramki.

Kiraz Tomb: "The Earliest Records of Christianity," *American Journal of Archaeology*, Vol. LI, No. 4, E. L. Sukenik.

N. Wall of Jerusalem: "Excavations against the North Wall of Jerusalem, 1937-8," *The Quarterly of the Department of Antiquities in Palestine*, Vol. X, No. 1, R. W. Hamilton.

Ophel: "Excavations on the Hill of Ophel, Jerusalem, 1923-25," *Palestine Exploration Fund Annual*, 1923-25, R. A. S. Macalister and J. G. Duncan.

Tyropoeon Valley, 1927: "Excavations in the Tyropoeon Valley," *Palestine Exploration Fund Annual*, 1927, J. W. Crowfoot and G. M. FitzGerald.

Tyropoeon Valley, 1931: "Street Levels in the Tyropoeon Valley," *The Quarterly of the Department of Antiquities in Palestine*, Vol. 1, No. 3, R. W. Hamilton.

Jish: "Rock-cut Tombs at el-Jīsh," *The Quarterly of the Department of Antiquities in Palestine*, Vol. VIII, Nos. 1 & 2, N. Makhouly.

Mefjer: "The Pottery from Kh. el-Mefjer," *The Quarterly of the Department of Antiquities in Palestine*, Vol. X, Nos. 2 & 3, D. C. Baramki.

Murabba'at Caves: "Les grottes de Murabba'at et leurs documents. Rapport préliminaire," *Revue Biblique*, Avril, 1953, R. P. R. de Vaux.

Nasbeh: *Tell en-Naṣbeh, Excavated under the Direction*

Digitized by Birzeit University Library

of the late William Frederic Badè; I. Archaeological and Historical Results (1947), C. C. McCown.
Nebo: *The Memorial of Moses on Mount Nebo, Part III. The Pottery*, Rev. Father Hilary Schneider.
Ophel, see Jerusalem.
Petra: "Sela-Petra, The Rock, of Edom and Nabatene, IV. The Finds," *The Quarterly of the Department of Antiquities in Palestine*, Vol. IX, Nos. 2, 3, 4, G. and A. Horsfield.
———: *A Street in Petra*, British School of Archaeology in Egypt, M. A. Murray and J. C. Ellis.
Qasile: *The Excavations at Tell Qasile* (1950), Preliminary Report by B. Maisler.
Qumran (1): "Fouille au Khirbet Qumrân. Rapport préliminaire," *Revue Biblique*, Janvier, 1953, R. P. R. de Vaux.
———: "Khirbet Qumrân and Wady Muraba'at," *Palestine Exploration Quarterly*, 1952, G. L. Harding.
Qumran (2): "Fouilles au Khirbet Qumrân, Rapport préliminaire sur la deuxième campagne, *Revue Biblique*, Avril, 1954, R. P. R. de Vaux.
Samaria: *Harvard Excavations at Samaria 1908-1910, Vol. I Text* (1924), G. A. Reisner, C. S. Fisher, and D. G. Lyon.
Sandahannah: *Excavations in Palestine during the Years 1898-1900*, F. J. Bliss and R. A. S. Macalister.
Shiloh: "The Excavation of Shiloh 1929," *Journal of the Palestine Oriental Society*, Vol. X, Hans Kjaer.
Silet edh-Dhahr: "A Roman-Byzantine Burial Cave in Northern Palestine," *Bulletin of the American Schools of Oriental Research: Supplementary Studies, Nos. 15-16*. O. R. Sellers and D. C. Baramki.
Tarsus: *Excavations at Gözlü Kule, Tarsus*, Vol. I, Text and Plates, *The Hellenistic and Roman Periods*, Hetty Goldman.
Tyropoeon Valley, see Jerusalem.

64. The sequence of Roman, Byzantine and Early Arabic pottery in Palestine is well illustrated at 'Alayiq and Nitla. Roman pottery in Palestine falls roughly within the years 50 B. C. to A. D. 350, with an Early Roman phase extending from about 50 B. C. to approximately A. D. 150, and a Late Roman phase from that date to about A. D. 350. By that time the pottery of Palestine had shown sufficient modifications to warrant a new designation, Byzantine, with a time span reaching from approximately A. D. 350 to about A. D. 650. The Byzantine period also had an early and a late phase although these are not as prominent as in the Roman period. At Nitla we had no stratification and therefore can lend no help in the differentiation of these phases of the Byzantine period, except by following the normal canons of pottery evolution. The Byzantine period was followed by the Early Arabic which on our sites lasted until the first part of the 9th century.

65. The pottery found at 'Alayiq is Late Hellenistic, Early Roman, Late Roman and Early Arabic. Nitla's pottery covers only Byzantine and Early Arabic. The Hellenistic ware found at 'Alayiq represents the last phase of that period and is small in quantity. The Hellenistic phase goes out about 50 B. C. and is replaced by the Early Roman. Although this period lasted for about two hundred years, the largest amount of Roman pottery reported in Palestine has come from the years 50 B. C. to the destruction of Jerusalem in A. D. 70. This period is sometimes referred to as Herodian, but that is not a good term, for much of this so-called Herodian ware continues for more than a century after Herod's death. On the other hand there is some justification for the term Herodian since most of the characteristic forms in the Early Roman period seem to have appeared before his death. The century following the destruction of Jerusalem is still something of an uncertain spot in ceramic history, for we have so little accurately dated material from this period. It is hoped that the publication of the pottery of the last excavations of Samaria will throw light not only on this phase but on the whole Roman period. After A. D. 150 the pottery increases in quantity and shows sufficient changes in style and craftsmanship to warrant the designation Late Roman. The excavators at Tarsus also start a new Roman phase at the middle of the 2nd century. Some writers, like Petrie, use the term Late Roman to describe the Byzantine era, but it is much better to give the Byzantine period a specific designation.

66. The Roman ware of Palestine was derived from two major sources—native Hellenistic ware and imported ware. Most of the latter was made in the eastern Mediterranean, but some came from Italy. Although some Hellenistic forms came over with little change, others were modified.[1] The imported wares were quickly imitated in unglazed native pottery. Especially in the Early Roman period, the potter was an excellent craftsman in all phases of his work. In the Late Roman phase some of the early forms deteriorated in craftsmanship, although the new forms normally showed good skill. Ribbing is a characteristic feature of much ware in Roman, Byzantine and Arabic times, although general conclusions in this field must not be driven too far, as there are many exceptions.

[1] Slip and wash are less common than in the Hellenistic phase.

Digitized by Birzeit University Library

The ribbing of Early Roman ware is normally very delicate, but fully rounded and closely spaced. In Late Roman, the work tends to be less delicate, and the ribbing shows prominently. By Byzantine times it is often corrugations. In the Arabic period, this corrugation is usually made by alternating flat surfaces and U-shaped depressions. The newer forms in the Byzantine and Arabic periods show something of the skill of the Early Roman potters but not in the same degree. The older shapes tend to deteriorate in craftsmanship. Occasionally one finds an Early Roman form still lingering on in Late Byzantine or Early Arabic ware. Although only a small amount of imported terra sigillata ware was found at 'Alayiq nevertheless this foreign ware had influenced some of the native pottery.

67. The sites of 'Alayiq and Nitla are ideally related for the study of Roman and Byzantine pottery because 'Alayiq, the Roman site, was abandoned before Nitla, the Byzantine site, was founded, and yet the intervening time was not excessive. Thus at 'Alayiq the Roman pottery runs a complete cycle of both the Early and Late phases but the site was abandoned approximately at the time the pottery was ready for the transitional phase to Byzantine. The Nitla site on the other hand does not have anything distinctly Roman, but it represents much of both the Early and Late Byzantine ware. (Schneider's study of the Mt. Nebo pottery deals in detail with some of the problems of Byzantine chronology). Although there is no stratification at Nitla, and Byzantine and Arabic wares are intermingled in the thin level of débris which is the ancient site, yet whenever similar forms are present in both wares, they can be differentiated easily by the craftsmanship of the respective ages. 'Alayiq helps in the study of Nitla's Arabic ware, because Tell 1 was remodeled into a fortress at the beginning of the Arabic period. The fact that the Arabic areas excavated at both sites were small explains why each site yields forms not present on the other.

68. The preceding rapid sketch of Palestine's pottery has prepared the ground work for a detailed comparative study of each type. Where it is helpful, a type has been divided into variants. Illustrative drawings and photographs have been listed. Then follows a historical study of the type. Where we were not able to find comparative data for a type, we have only given a description of our ware. We have avoided conjectures and have preferred to let a type go uncompared rather than to speculate. On the other hand, if ceramic technology showed a probable relationship, we have called attention to it, but always in cautious terms. The over-all pattern of presentation is to treat the pottery in broad chronological units. Thus all the Roman types at 'Alayiq are discussed first. Then the Byzantine forms at Nitla are treated and they are followed by Nitla's Arabic types. The final section is then devoted to 'Alayiq's Arabic ware. This ceramic study, of course, does not give a complete historical review of Palestine's ceramics from the middle of the 1st century B. C. to the early 9th century A. D. for we are only treating types comparable in some degree to our 'Alayiq and Nitla pottery. Nevertheless the study is sufficiently broad to form a skeleton outline into which other forms may be fitted. The Roman types are of necessity treated as a unit for many of them run the full history of both the Early and Late Roman phases, whereas others are characteristic of only one of these periods. An introductory section for the Byzantine and Arabic periods will appear immediately before the detailed study of the individual types of each period. It is most important that these introductory sections be read before any detailed type is consulted.

After this text was sent to the publishers, Père de Vaux gave the author the proof pages of the official report of the second campaign at Qumran. We have incorporated this material in our text because of its importance. Qumran gives an excellent picture of the transition of Hellenistic pottery into Roman and the site also produced some pottery from the little known post-Titus period. All dates are verified by coins.

'Alayiq Roman Pottery

69. Every section of the excavations at Tulul Abu el-'Alayiq is represented in the Roman pottery herein described. It is divided into 38 types. Although parts of Tell 1 and Tell 2 had been dug by Warren, and Sellin had worked over a different section of Tell 1, nevertheless there were sufficient virgin areas in both *tells* to get stratification enabling us to differentiate Early and Late phases of the Roman period. These results were verified by digging an area untouched by either group, i. e., the rooms at the western end of the grand façade.

Digitized by Birzeit University Library

Also a test trench was sunk in the rooms of a building on the north side of the wadi.[2]

70. Type 1, Roman

This type includes all terra sigillata ware.
(a) Imported Italian ware.
(b) Eastern Mediterranean ware, mostly "Pergamene."[3] (Photographs on Pls. 13 and 14; drawings on Pl. 22).

This pottery was studied by Prof. Howard Comfort and Dr. Frances Follin Jones; and this report on Type 1 is based on their findings. They use the designations Hellenistic and Roman in their normal classical uses without suggesting any specific date for the shift from Hellenistic to Roman at Jericho. There was only one fragment (a rim) of imported Italian ware.[4] It does not necessarily come from Arezzo itself. The two horizontal ridges on the exterior surface are a little unusual. The date would be under Tiberius, or perhaps Claudius.

The remainder of the pottery was of eastern manufacture and all but one piece belonged in Jericho's Hellenistic and Early Roman phases. This ware was found on Tell 1 and in all the *opus reticulatum* buildings including the test pit in the structures north of the wadi. None was found on Tell 2. The only complete piece which is approximately duplicated in Palestinian publications is A 40. This piece is from "A Nabataean Tomb at 'Amman," Fig. 2, 8, Pl. XX, 8, where the wide dating is 1st centuries B. C.–A. D. and the close dating *c.* 50 B. C.–A. D. 50.[5] A later modified form appears at Jerash, ASOR XI, Pl. 12, R5/X77.

"Hellenistic Pergamene" is represented by A 77, A 103, A 104, A 106, A 473, Z 3.[6] A 106 shows "reduction" signs on the rim, and there are faint traces on A 104. Dr. Jones suggests this may be a local characteristic for Jericho, since A 77, A 104 and A 106 have finer fabric and are redder buff clay than is usual for "Hellenistic Pergamene." She thinks there was a *koine* for "Hellenistic Pergamene," into which local productional differences were intruded. A 108 and Z 2 are "Hellenistic Pergamene"; the walls are thick and the clay is light buff.

A 191 is a transitional form. It has a "Roman Pergamene" rim profile of approximately Haltern Form 8 shape but a "Hellenistic Pergamene" foot; it is thus transitional, a type lacking at Tarsus. "Roman Pergamene" is represented by A 105, A 461, A 469, A 470, A 471, A 472, A 474 and Z 5. A 461 is a Roman lamp disc, probably 1st century, shape Corinth Type 22/23. A 459 may be a lamp or an internally ridged bowl.

Some of the pottery presented problems. A 43 is not quite "Roman Pergamene"; it might be as late as the Severi but could also be 1st century; it is glazed externally only; its surface is iridescent, possibly as a result of firing; the smaller part is above the larger; perhaps it lacked handles. Z 10 is neither "Hellenistic Pergamene" nor "Roman Pergamene" nor "Samian"; it is somewhat micaceous and has some lime. It is not unrelated to A 43, and has some iridescence in the glaze. It is fired quite hard. The profile of the foot is reminiscent of the Hellenistic, but the technique is later. It is an interesting but puzzling piece. A 458 is perhaps a lamp disc; it appears to be a Near Eastern relative of "Roman Pergamene." A 50, A 462 and A 465 are early imperial unglazed fine forms of kitchen ware; they are usually two-handled cups, with rouletted ornament, and are sometimes sanded. They might even be western; some western ware was found at Tarsus. The pottery represented by the drawings A 21 and A 41 was not available for study.

71. Type 2, Roman

Cooking pots, urns and a few bowls, juglets and strainers, body plain or evenly ribbed, very sharp edged collar rims, some with very shallow groove, usually loop handles, hard fine ware, deep red to grayish buff. (A few without characteristic sharp edge but collar decorated with two grooves on outside). Pl. 22: A 119, A 120, A 174, A 238, A 239, A 241, A 407, X 21, X 98, X 3, X 5, X 8, X 59, X 75, X 83, X 93, X 124, X 136.

This is Hellenistic and Early Roman ware of excellent craftsmanship. Although used for a wide

---

[2] The following condensed detailed studies are best understood only in the light of the preceding introductory material.

[3] Among the writers in this field are J. H. Iliffe, QDAP, Vol. VI, No. 1; Vol. IX, No. 1; F. O. Waagé, *Antioch-on-the-Orontes*, I, and other papers, and Frances F. Jones, *Tarsus*, Vol. I. Her volume is most helpful for all Roman pottery in the Near East.

[4] No drawing of this fragment appears in the plates, but the ware was identified by Profs. Frank Brown and Howard Comfort, and Dr. Frances F. Jones.

[5] QDAP, Vol. XII, Nos. 3-4.

[6] Fragments labeled "Z" are not shown on drawings. They are from débris of other digs.

Digitized by Birzeit University Library

variety of ceramic forms it has one characteristic, viz., a sharp overhanging edge. It was found in an undisturbed level in the structure below the *opus reticulatum* walls on Tell 1 and is therefore definitely Hellenistic-Herodian.

This ware is Hellenistic at Beth-zur, Pl. XI: 3; Gezer III, Pl. XCVII: 8; CLXXXI: 5a, 6a, 9a; and Sandahannah, Pl. 58: 12, 16 (cf. A 239); 59: 6; 60: 13-15, 17, 21. The Hellenistic-Early Roman date is paralleled at Bishop Gobat School, Jerusalem, Pl. VI: 5, 17; Samaria, Fig. 177: 7b, 7c, 7e. Qumran (1) Fig. 3: 8 is related to our A 119, although it is deeper than ours. The general form of Fig. 3: 2 Qumran (1) is somewhat like our A 241, but the handles differ.[7] For a Nabataean relative of A 239, cf. Petra XXVI: 200.

72. Type 3, Roman

This type includes most of the cooking pots and other similarly shaped vessels of the Roman period. They are a soft to medium hard red ware, have a square shoulder, slightly grooved rim, and two small loop handles attached vertically to the top of the rim and shoulder. In some the angle of the shoulder is greater than a right angle.

(a) Semi-globular body. Pl. 23: A 171, A 172, A 415.
(b) Variant with slightly flaring grooved rim. Pl. 23: X 1, X 4, X 27, X 51.
(c) Spherical body, usually ribbed, sloping shoulders, flaring rim. Pl. 23: A 173.
(d) Variant with deep grooved rim. Pl. 23: X 122.
(e) Variant with plain rim only slightly flaring. Pl. 23: X 54.
(f) Variant with sloping shoulder unbroken by any angle, but flaring considerably. Pl. 23: X 76.
(g) Shallow body, wide mouth, upright rim, curve of shoulder broken by an angle. Pls. 13 & 23: A 215.
(h) Variant with shoulder unbroken by an angle.
(j) Small amphora, flaring rim, slightly grooved with S-handles, fine hard red or light gray ware; in a few examples rim is sharper than in others. Pl. 23: X 26, A 248.
(k) Jar with thin, out-turned flaring rim, light red, buff or gray color, hard ware with fine grits in some cases. Pl. 23: X 67, X 108, X 132.

The Roman cooking pots are lineal descendants of the Hellenistic ones but at the same time they are also a big improvement on them. Indeed, the finest and the thinnest walled of all Palestinian cooking pots come in the Roman period. The Roman ware is soft to medium hard with (1) a smooth finish, (2) a finely ribbed surface, (3) with ribbing on the shoulders but the body smooth.[8] The ribbing is delicate but fully rounded and closely spaced. It is in striking contrast to the heavy broad corrugations of the Byzantine period.

The most common Roman body form was spherical, as in classification (c)—A 173.[9] The other major body form was semi-globular as in (a)—A 171.[10] Our (g)—A 215 represents a rare form. The mouth of the (a) variety is much wider than that of the (c). Indeed, in some of the (c) examples, the diameter of the mouth is only about one-third of the diameter of the body; the average, however, is about one-half. Two thin strap-like loop handles, attached on rim and shoulder, are the most prominent features of Roman cooking pots. The details of the necks and shoulders from 'Alayiq ware furnish the basis of our sub-types. By the close of the Late Roman period the craftsmanship had deteriorated; both the jars and handles became heavier and the fine ribbing had degenerated into the corrugations so characteristic of Byzantine ware; cf. A 215.

On Tell 1, (a) ware was the most common as well as the earliest with its variant (b) the next in number, (c) was less numerous and late. On Tell 2, however, (c) was the dominant form, where its presence seems to coincide with a remodeling of the fortress. The (d) and (e) sherds were too few in number to furnish any valid conclusions. Although some (f) necks looked like Hellenistic ware (Beth-zur, Pl. X: 2, 6), the (f) ware is from a definitely Late Roman context; cf. Gerasa, Figs. 42: X 17; 47: X 86, Jebel Jofeh, Pl. XXVI: 12. The (g) ware is also Late Roman although it is already showing the corrugations typical of Byzantine ware; (k) is both Early and Late Roman.

The 'Alayiq cooking pots are Roman rather than Hellenistic. They cannot be much later, however, than Beth-zur Pl. X, as a number of other Beth-zur ceramic forms do appear at 'Alayiq.[11] The description of Hellenistic cooking pots in Gezer

[7] See also photograph in *Pal. Expl. Quarterly*, 1952, Pl. XXIX: 1.

[8] This last variety is rare.

[9] Sometimes, however, the width was greater than the height.

[10] Cf. also N. Wall of Jerusalem, Fig. 14: 11, *Israel Exploration Journal*, Vol. 2, 2, Pl. 7: E, and Qumran (2), Fig. 4: 13.

[11] Our (c) is a more rounded body than 1st century B. C. from the Citadel, Jerusalem, Fig. 14: 2a.

Digitized by Birzeit University Library

II, p. 214, actually deals with the transition from Hellenistic to Roman ware. The early 'Alayiq cooking pots follow immediately after those that are described at Gezer. The 'Alayiq ware dates from about the middle of the 1st century B. C. to the latter part of the 3rd century A. D., with (a) and (b) concentrated in the early period, (c) with the longest life span, and (f) and (g) at the very end. A few (b) sherds may be of a B. C. date, but they also run into the 2nd century A. D. X 51 of the (b) group is a rare form. It should be noted that the wide mouthed, shallow, horizontal-handled cooking pot of Byzantine times does not occur at 'Alayiq, although it had already made its appearance in Late Roman times at Jerash (Gerasa, Fig. 36: X 12); nor does the frying pan or casserole appear.[12]

The over-all history of Palestine for our major types (a) and (c) shows that they were used in both the Early and Late Roman phases. For the early period there are such places in Jerusalem as Bishop Gobat School,[13] the N. Wall,[14] the Tyropoeon Valley (1931),[15] and the Tombs;[16] also such varied sites as Samaria,[17] Qumran (1)[18] and Murabba'at Caves.[19] Jerash[20] and Jebel Jofeh[21] represent the late phases.

For more details on Roman cooking pots, consult P. Kahane in the Israel Exploration Journal, Vol. 2, No. 2, pp. 128 ff. For the story of the transition of Roman cooking pots into Byzantine ones, see Nitla Type 11, § 121.

73. Type 4, Roman

(a) **Jar, rounded out-turned rim, loop handles, buff or red ware. Pl. 23: A 115.**
(b) **Thicker rim, ware contains small lime grits. Pl. 23: X 80, X 81.**
(c) **Still thicker rim.**

At 'Alayiq it is rare and appears about the middle of the Roman period. Related body forms, but without handles, are as follows: Ophel, Pl. XIX: 12, where it is dated as postexilic; Gezer III, Pl. CLXXV: 7, where it is called Fourth Semitic although its form is definitely later than the hole-mouth jar. Qumran (2), Fig. 5: 3 is closely related to 'Alayiq A 115. A Late Roman form comes from Jerash (Gerasa, Fig. 37: X 24) as does one with a tan slip (Gerasa, Fig. 47: X 68).

74. Type 5, Roman

Bowl, carinated, chocolate-brown and red ware. Pl. 23: X 42, X 78.

This type is Late Roman and on other sites it carries over into the Byzantine period. It is treated under Nitla Type 14, Byzantine. It is rare at 'Alayiq.

75. Type 6, Roman

(a) **Bowl, flat rim with sharp short flange on outside and two burnished horizontal bands below rim. Pl. 23: X 107.**
(b) **Sharp flange on inside, red ware with fine grits.**

Only a few sherds were found. These were in a Late Roman context.

76. Type 7, Roman

(a) **Bowl, similar to Type 6, outer edge of rim rounded, thicker red ware. Pl. 23: X 55.**
(b) **Collar immediately below rim. Pl. 23: X 95.**

This type is Late Roman and Byzantine. At N. Wall of Jerusalem, Fig. 16: 9 and Fig. 22, it is more carinated, rouletted and definitely later, i. e., Byzantine. It also appears at Silet edh-Dhahr, Fig. 30: 13, 14, 18. The collar below the rim (X 95) seems to go with later ware. *A Sixth Century Monastery at Beth-shan*, Pl. III, Fig. 3, has a photograph of a jar which seems to be somewhat like X 55. This type is rare at 'Alayiq.

77. Type 8, Roman

Bowl, slight recess below rim on outside, light reddish buff ware containing lime grits. Pl. 23: X 121.

This type is Late Roman. The same form but a different ware appears at Jerash (Gerasa, Fig. 36: X 9; cf. also 46: X 64). Only a few sherds were found.

78. Type 9, Roman

(a) **Bowl, carinated body, horizontally projecting rim, thin red or gray ware with some lime grits. Pl. 23: A 209, X 17, X 34, A 25, X 71.**
(b) **Rim projecting slightly downward, red ware containing some lime grits. Pl. 23: X 25.**

---

[12] Type 28, Nitla, Arabic.
[13] Pl. VI: 9.
[14] Fig. 14: 7, 11.
[15] P. 109: 2, 5.
[16] P. Kahane, *Ossuary-Tombs*; cf. next paragraph.
[17] Vol. I, Fig. 176.
[18] Pl. VII, 29; Fig. 3: 7, 11.
[19] Fig. 4: 16,17.
[20] Gerasa Fig. 42: X 17; Fig. 47: X 74, X 75, X 76, X 86, X 127.
[21] Pl. XXVI: 12.

Digitized by Birzeit University Library

Although we did not find much of this type, the form appeared in both Early and Late Roman contexts. This type had a long life extending throughout the Roman period and into the Byzantine. It appears at Qumran (1), Fig. 4:11, like our A 209, and at N. Wall of Jerusalem, Fig. 20:8, where it is in an Early Roman context.[22] Jerash, ASOR XI, Pl. 12: R 5/X 79 is like our A 25; it is late 3rd century Roman.

79. Type 10, Roman

(a) Vessel, angular shoulders, flaring rim, buff ware. Pl. 23: X 64.
(b) Grooved rim, an angular turn 2 cm. below rim, hard ware containing lime grits. Pl. 23: X 106.

In general this type is Late Roman and Byzantine, but we found some sherds in a definitely Early Roman context. It is rare at 'Alayiq. X 106 is paralleled at Nebo, Fig. 6:11.

80. Type 11, Roman

Bowl, groove and ring below rim, fine gray ware. Pl. 23: X 48.

Only a few sherds were found and they were in mixed débris.

81. Type 12, Roman

(a) Bowl, varying sizes and colors of ware, in-turned rim, string-cut unfinished base. Pl. 23: A 20, A 38, A 79, A 88, A 91, A 92, A 97, A 100; A 136 (also Pl. 13).
(b) Shallow burnished groove below rim, either ring or string-cut base. Pls. 13 & 23: A 71.
(c) Narrow out-turned rolled rim. Pl. 23: A 422.
(d) Groove below rim on outside. Pl. 23: X 97.
(e) Thin ledge below groove, thinner ware.
(f) More incurved rim.

This is the most common of the small non-glazed bowls in the Hellenistic and Roman periods in Palestine and therefore we will study it in more detail. The general forms in the Hellenistic and Early Roman periods are the same, although they grow taller by the 3rd century A. D. Hellenistic ware often had a wash applied in various ways but this is uncommon in Roman ware. Although the forms classed under this type are rather varied, nevertheless examples of all these different forms, except A 71, were found together in a large hoard in a pool. Indeed, Type 13, Roman, was also a part of this find.

[22] Cf. also Jerusalem, B & D, Pl. XXVII: 32.

A 38 is paralleled by Beth-zur, Pl. XIII: 14; A 71 by Beth-shan, Pl. XXXIII: 18 and Qumran (1), Fig. 4: 15. A 79 is like Qumran (1), Fig. 4: 9; A 88 like Beth-zur, Pl. XIII: 18 and Jerash (Gerasa, Fig. 42: X 28, taller); A 91 like Qumran (1), Fig. 4: 7, but taller than ours. A 92 is paralleled by Beth-zur, Pl. XIII: 20; Sandahannah, Pl. 60: 26 and Jerash (Gerasa, Fig. 46: X 13, taller); A 97 by Beth-zur, Pl. XIII: 15; Beth-shan, Pl. XXXIII: 19; Sandahannah, Pl. 60: 25 and Qumran (1), Fig. 4: 20. A 100 is like Gezer III, Pl. CLXXXI: 15b; and A 136 like Sandahannah, Pl. 60: 30; Kiraz Tomb, Jerusalem, Fig. 6: 11; Jerash (Gerasa, Fig. 46: X 49) and Nebo, Fig. 6: 7. X 97 is a taller bowl, like Pl. XXVIII: 227 at Petra, although the latter is a poorer specimen. Even as late as Arabic times a modified form of A 20 appeared at Mefjer, Fig. 12: 8. Petrie in his Anthedon volume, p. 12, traces this form from the XXIInd Egyptian Dynasty to Herod the Great.

82. Type 13, Roman

Flat bowl, plain or rolled rim, string-cut unfinished base, fine soft ware of different colors. Pl. 23: A 80, A 81, A 82, A 138, A 168.

This is a very close relative of the previous type. It is, however, shallower and the turned-in rim is often flattened. Most of our examples were found with the Type 12 Roman cache.

83. Type 14, Roman

Shallow bowl, flat base, thin gray ware (slightly distorted). Pl. 23: X 65.

Only a few sherds were found and they were in a Late Roman context.

84. Type 15, Roman

Rouletted bowl, fine red or gray ware highly burnished. Pl. 23: A 50.

Only a few sherds were found; they were in an Early Roman context.

85. Type 16, Roman

Shallow bowl, fine thin red or gray ware, painted in red or black with floral patterns. Pl. 23: A 39.

This type was found in an Early Roman context. The closest example is Ophel, Jerusalem, Fig. 199.

Digitized by Birzeit University Library

86. Type 17, Roman

(a) Unguentarium, long ovate body, long stem and neck, out-turned rim, some with red slip, thin light red ware. Pl. 24: X 96; X 131 (sharp-edged rim on outside).

(b) Ovate body, short neck, out-turned rim, thin light red ware. Fragments do not show whether the ovate body had a short stem or a flat base. Pl. 24: X 63, A 246.

These unguentaria are treated in great detail by P. Kahane in Israel Exploration Journal, Vol. 2, Nos. 2 and 3; Vol. 3, No. 1. At 'Alayiq these unguentaria appear as late as A. D. 70. They were found on Tell 1, in Rm. D, and in a test trench sunk in the *opus reticulatum* building on the north side of the wadi. The Museum of the American University of Beirut has a collection of unguentaria that starts in the Hellenistic period and continues to the 7th century A. D., changing form all the time.

A hoard of 122 flat-bottomed unguentaria of the (b) variety was found by J. B. Pritchard in the gymnasium he excavated at 'Alayiq.[23] The short necks characteristic of our (b) variety are found with Kahane's "spindle-bottle" and "piriform-bottle." The former are illustrated by Sandahannah Pl. 60: 6, 7 and Petra Pl. XLIII: 397; the latter by Pritchard's hoard just referred to. 'Alayiq did not yield any example of Kahane's types C and D. These unguentaria, as well as the larger ointment jars of Types 18 and 19 which follow, remind us that one of Herod's major sources of income was the balsam groves of Jericho.

87. Type 18, Roman

(a) Juglet, round (nearly globular), short narrow neck, calyx rim, S-handle, plain or slightly ribbed body, red, light red or buff ware. Pls. 13 & 24: A 75, A 137; Pl. 24: X 11, X 22.

(b) Without handles. Pl. 24: A 74.

This type had a long life as it was both Hellenistic and Roman. Hellenistic varieties appear at Beth-zur, Pl. XII: 3, 4, 5 and Gezer III, Pl. CLXXXI: 11a. The Samaria examples are Fig. 183: 25a, b; these are close to 'Alayiq forms. This juglet was the most common ointment vessel appearing at 'Alayiq. It began early and continued late. Parallel Early Roman material was found in the Tyropoeon Valley, 1931, Pl. 109: 7, the N. Wall of Jerusalem, Fig. 14: 10, the Citadel, Jerusalem, Fig. 14: 4b, and the Kiraz Tomb, Jerusalem, Fig. 6: 14. Parallels were found both at Qumran (1), Fig. 3: 1, 3, Pl. VII: 32, 35, and the Murabba'at Caves, Fig. 4: 8. Another example dated by a bow-end lamp was found at Nasbeh I, Fig. 21, Tomb 15: 21. For a later development of this juglet, see Jerash (Gerasa, Fig. 41: X 1).

The (b) variety was the same jar without a handle, although A 74 is slightly different in form. Parallels are not common, although in ceramics it is not unusual to have the same perfume juglet form with or without handles; and writers do not always say whether such ware appears with or without handles. Examples of the (b) variety appear at Jerusalem, B & D, Pl. XXV: 9, Nasbeh I, Fig. 22, Tomb 6: 16 and "A Street in Petra," Pl. XXVI: 33. Bishop Gobat School Jerusalem, Pl. VI: 1, is a Hellenistic form like our A 74 but with a handle.

88. Type 19, Roman

Jug, globular body, slightly ribbed, out-turned rim, S-handle, thin red ware. Pl. 24: A 26, X 23; Pls. 13 & 24: A 45, A 46.

Although this is a natural ceramic form and was very common through the whole Roman period at 'Alayiq, it does not seem to have been as widely recorded on other excavations as its close relative, Type 18. Type 19, however, may very well have been treated as a variety of Type 18 by other excavators. It appeared at Gezer III, Pl. CLXXIX: 14, Beth She'arim, Pl. XLII: 4, 5, and Bethany, Fig. 13: 3, 4. A 26 is a rare and early variety; cf. Samaria, Fig. 177: 6a and Bethany, Fig. 13: 1, 2. A late form of A 46 is Karm al-Shaikh, Pl. XVI: 9.

89. Type 20, Roman

Large or small jug, flaring rim usually with deep groove, red ware containing a few lime grits. Pl. 24: X 92, X 77, X 102.

This rare type is found in an Early Roman context. If this type appears with handles, then it could be paralleled early at Qumran (2), Fig. 6: 8, and at the N. Wall of Jerusalem, where these forms occur both in an Early Roman context, Fig. 20: 13, and in a Byzantine one, Fig. 16: 4, 5, although the wares are different. Another possible example is Nasbeh I, Fig. 21, Tomb 8: 12, which cannot be dated closer than Roman. Samaria Fig. 177: 11a is a related form.

[23] BASOR, No. 123, Fig. 6.

Digitized by Birzeit University Library

90. Type 21, Roman

(a) **Jar, collared rim, Hellenistic forms, light red or red ware containing a few lime grits. Pl. 24: X 61, X 82.**
(b) **Larger sizes, reminiscent of Hellenistic types. Pl. 24: X 84, A 243, A 245.**

This type is fairly common throughout the Roman period at 'Alayiq. It is by far the most common of the water jars on Tell 2. It is paralleled at Bishop Gobat School, Jerusalem, Pl. VI: 3, 4, where it is Hellenistic and also at Samaria, Fig. 175: 1488. It is common at Bethel in the Hellenistic-Early Roman period and also appears at Qumran (1), Fig. 2: 5, Pl. VI: 1. It is first century B. C. at Bethany, Fig. 10: 1-6. In Jerusalem this type appears with Early Roman ware at the N. Wall of Jerusalem, Fig. 14: 2; 20: 3. It is 1st century B. C. at the Citadel.

91. Type 22, Roman

(a) **Jar, slightly out-turned rim, buff ware with red slip. Pl. 24: X 116.**
(b) **Jar, slightly out-turned rim, collar at bottom of neck, red ware. Pl. 25: A 242.**
(c) **Jar, vertical neck, collar below neck, two loop handles, ribbed from handle downward, light red ware containing lime grits. Pl. 25: A 132; Pls. 15 & 24: A 250.**

This is by far the most common large jar on Tell 1, running through the entire Roman period. It appears in a Hellenistic-Herodian context at Bishop Gobat School, Jerusalem, Pl. VI: 11, and there are a few examples of it in the Hellenistic-Early Roman period at Bethel. It is 1st century A. D. at the Kiraz Tomb, Jerusalem, Fig. 6: 1, 9, Pl. LXXXVI: A, 1, where its handles are placed much lower than in the 'Alayiq examples which are Late Roman. It appears at Jebel Jofeh, Pl. XXVI: 41. At the N. Wall of Jerusalem, Fig. 6: 5, 12, 15 look like Roman necks of this type although they are definitely in a Byzantine context. Cf. same site under Nitla, Byzantine, Type 1 (a).

92. Type 23, Roman

Jug, out-turned rim, a collar 1.5 cm. below lip, red ware. Pl. 24: X 43.

Only a few sherds were found and they were with the latest Roman sherds.

93. Type 24, Roman

(a) **Jar, collared overhanging rim, collar at junction with neck, unevenly fired, buff ware containing grits. Pl. 24: X 30, X 72.**
(b) **Ribbed neck, out-turned overhanging angular rim. Pl. 24: X 60.**

This is a common jar at 'Alayiq where it is found throughout the entire Roman period. It has early parallels at Samaria, Fig. 175: 1487, and at Qasile, Fig. 14: g. The body that goes with this neck may be our Type 38, Roman; cf. that type.

94. Type 25, Roman

(a) **Lentoid flask, rolled rim, twisted handles, hard fine light red or buff ware. Pl. 25: X 33, X 36, A 208, A 244.**
(b) **Single handle. Pl. 25: A 429.**

This lentoid flask or pilgrim flask with twisted handles is Early Roman; and on Tell 1 only water jars, cooking pots and cups were more common than these pilgrim flasks. Its Hellenistic ancestor appears at Sandahannah, Pl. 58: 11;[24] Gezer III, Pl. CLXXIX: 20; Samaria, Fig. 183: 30a; Bethzur, Pl. XII: 2, and Petra, Pl. XXVI: 202. Hellenistic handles were often plain rather than twisted and they were usually closer to the rim than the Roman ones found at 'Alayiq. The closest Early Roman parallels are at Bishop Gobat School, Jerusalem, Pl. VI: 16, in the Tyropoeon Valley, 1931, p. 109: 4, the Citadel, Jerusalem, Fig. 14: 4a, N. Wall of Jerusalem, Fig. 14: 9, Bethel, Qumran (2), Fig. 2: 21, Fig. 3: 18 and Murabba'at Caves, Fig. 4: 5, Pl. XI: 5.

Thus the twisted handle type is definitely Early Roman, but its history after that is not clear. It must have had some usage in the Late Roman period as it appears at Byzantine Nebo, Pl. 148: 18, and Watzinger's Jericho, Pl. 43: A, 18, shows a decadent phase of it.

95. Type 26, Roman

Large jar, collared rim, neck concave in section, ribbed handles, coarse red gritty ware with cream slip. Pl. 25: X 88.

This type is rare at 'Alayiq, where it is Late Roman. It is found, however, in an Early Roman context in the Tyropoeon Valley, 1931, p. 109: 8. This example looks somewhat like our Type 21 but the cream slip puts it in Type 26.

[24] **The body is much thicker than usual.**

Digitized by Birzeit University Library

96. Type 27, Roman

(a) Large jar, collared rim, square shoulder, handles attached above shoulder, hard light red ware; one sherd incised with letter R. Pl. 25: X 52, A 124.

The bases of these jars may be:—
- tapering and ending bluntly, Pl. 25: X 101, A 178.
- curving outwards, Pl. 25: A 247.
- sharp angle above the lower end, Pl. 25: A 397.
- pointed, Pl. 25: A 414.

The handles are either:—
- smooth, plain and elliptical in section.
- wide and grooved.

(b) Large tall jar, very narrow, excessively long neck and handles, a descendant of the old Rhodian type, red ware. Pl. 25: A 408.

These jars are predominantly late at 'Alayiq but are also in Early Roman context. The (a) variety appears at Karm al-Shaikh, Jerusalem, Pl. XVII: 4. The N. Wall of Jerusalem, Fig. 21: 1, illustrates the (a) variety and Fig. 21: 5 illustrates the (b); they also prove a post-Roman date for such ware. These are two very characteristic Roman wine jars. The various shaped bottoms may appear at any time in the Roman phase. Although these bottoms are chiefly characteristic of the (a) group, they also appear at times with (b). Jerash, ASOR XI, Fig. 3: R 5/X 1-3 (cf. Gerasa, Fig. 43: X 1 and 45: X 50) are the (b) type of ware. Jerash, ASOR XI, Fig. 4 uses a related neck but a different body form.

97. Type 28, Roman

(a) Jar, rim grooved on top, short neck, thin collar at bottom of neck, coarse light red ware containing grits. Pl. 25: X 85.

(b) Collar just below neck, coarse red ware. Pl. 25: X 86, A 401, A 432.

This is an Early Roman type appearing on both Tells 1 and 2. Its closest parallels seem to be Early Roman in the Tyropoeon Valley, 1931, p. 109: 11, and at N. Wall of Jerusalem, Fig. 14: 1. A few examples were found in the Hellenistic-Early Roman phase of Bethel.

98. Type 29, Roman

Jug, ring or disc base,

(a) chocolate-brown ware, Pl. 25: X 100.

(b) light red ware, Pl. 25: A 411.

(c) buff ware, Pl. 25: X 57.

(d) dark red ware, Pl. 25: A 427.

Types 29 and 30 are Late Roman, although the X 100 bottom is normally characteristic of Byzantine and Arabic periods rather than Roman.

99. Type 30, Roman

Jug, similar to previous type but with good ring base. Pl. 25: X 74. See remarks under Type 29.

100. Type 31, Roman

Handles:—

(a) double handles, red ware with cream slip, Pl. 25: A 412.

(b) ridged elliptical handles, Pl. 25: A 444.

(c) loop handles of bowl attached to rim, Pl. 25: A 442.

(d) square topped handles, Pl. 25: A 409.

(e) grooved handles, Pl. 25: A 443.

(f) loop handles attached to shoulder, Pl. 25: X 47.

(g) grooved thin handles, Pl. 25: A 390.

These are our characteristic handles of the Roman period. Type (f) was by far the most common, especially in the later phase. Types (b), (d), and (g) are predominantly early; (a), (c), (e) and (f) are predominantly late.

101. Type 32, Roman

Jug, truncated conical spout, soft light red ware with dark red slip. Pl. 25: X 31.

This type of spout is predominantly Byzantine, although this ware is Roman and was found with other Late Roman sherds. For related Byzantine ware, cf. Nitla, Byzantine, Types 3 and 10.

102. Type 33, Roman

Jug cover, form fitting lower rim, light red ware with dark red slip. Pl. 25: X 91.

This excellent piece of Late Roman craftsmanship is probably a stopper for an ointment jar. It actually has approximately the same diameter as the small jar Type 37. For Roman and Byzantine lids, cf. Nitla, Byzantine, Type 11A.

103. Type 34, Roman

(a) Cooking pot cover, square edge, red ware. Pl. 25: X 130.

(b) Bevel edge, buff ware. Pl. 25: X 89, A 420.

This cooking pot cover runs from Hellenistic times on through Roman, Byzantine and Arabic. This ware is distinctly Late Roman and the pitch of the lids is steeper than in Byzantine ones. For the comparison of Roman and Byzantine lids, see Nitla, Byzantine, Type 11A.

Digitized by Birzeit University Library

104. Type 35, Roman

Flower pot, buff or light red ware. Some are smooth, some lightly ribbed, some partly ribbed. Each has a hole in the bottom which is larger than in modern ware. Pls. 13 & 25.

(a) Piriform body, shallow rim, bulbous base. A 210.
(b) Ovate body, in-turned rim, flat base. A 52, A 59.
(c) Ovate body, out-turned rim, flat base. A 54, A 56, A 57.
(d) Piriform body, out-turned rim, ring base. Holes toward the lower part of the jar. A 5.
(e) Piriform body, out-turned rim, disc base. A 213.

These flower pots seem to be unique in Palestine. Some were found still in place in the benches of the terraced garden. Two of these flower pots were found 30 cm. apart in one of the benches. Fourteen flower pots were found intact. Broken flower pots had also been washed down from the upper gardens. Their date is Early Roman. Smaller examples of these were discovered at Muhin in Syria, in a 1st century (A. D. or B. C.) context. They are now in the Museum of the American University of Beirut.

105. Type 36, Roman

Jug, bird design in black outline painted over a white background, coarse dark red ware. A 51.

106. Type 37, Roman

Jar, small, cylindrical (askew), string-cut base, light red ware. Pl. 25: A 22.

This type is found in Early and Late Roman context. Unfortunately the jar is broken before the neck begins and therefore it cannot de definitely related to other sites. An apparent relative might be Late Roman ware from Jebel Jofeh, Pl. XXV: 132.

107. Type 38, Roman

Large jar, round bottom, coarse red ware. Pl. 24: A 179, A 118.

This ware runs through the entire Roman period at 'Alayiq. The body of the jar in Qumran (1) Fig. 2: 5, Pl. VI: 1, is like Type 38 and its neck is similar to our Type 21. It is therefore quite likely that our Type 21 and 38 belong together. The body (Type 38) also goes with the neck of Types 22 and 24. Karm al-Shaikh, Jerusalem, Pl. XVII: 3, is a related form but wider.

108. Miscellaneous Ceramic Finds, Roman

Roman Tile

One drain tile, drab in color, height 31 cm., diameter 23 cm.
Nipple tile or ventilating tile; red, largest fragment 23.9 × 18.7 cm.

Roman Lamps

(a) Hand-thrown bowed nozzle lamp, fine light red ware, buff slip, otherwise plain.[25] (Nozzle hole made with a dry reed or a piece of round wood); Pl. 14: 4.
(b) Moulded, bowed nozzle lamp; decorated with ring around the discus, light red ware with no slip.
(c) Round nozzled lamp, moulded, decorated with ring around the feeder; rest of discus left plain or decorated with radial bands in low relief, light red ware with dark slip. Pl. 14: 6. An early example of this lamp is Kiraz Tomb, Jerusalem, Pl. LXXXV: A; cf. also Qumran (2), Fig. 6: 3 and Bethel.
(d) Terra sigillata lamps, see Type 1, Roman.

Roman Terra Cotta

The revetment panels and crestings (Pl. 18) came from the Herodian *opus reticulatum* building on Tell 1. The revetment panels nos. 175 & 176 ran in pairs with their floral patterns curving in opposite directions. The primary coat of white paint is still in excellent condition on one of the large fragments (not in photograph). The finishing coat, however, has disappeared. The largest panel was 28.8 × 28.1 cm. The tongue and groove edges were well preserved. The pierced crestings were in more fragmentary condition. The base fragment is 14.5 × 13.2 cm. and the top one 16.4 × 11.4 cm.

Roman Stamped Jar Handle

About 8 ft. below the surface of the mound and about 2 ft. below the Arab foundations Warren found the remains of a large amphora which he estimated to have stood about 5 ft. high and which bore on one of its handles a Roman stamp. We have not found anyone able to identify this stamp.

Roman Glass

A number of the smaller ceramic shapes of the Early and Late Roman periods were copied in

---

[25] **Also called bow-end lamps. For comparative data on (a) and (b) lamps, see Silet edh-Dhahr, pp. 31-32.**

Digitized by Birzeit University Library

glass, even such an unexpected form as the pilgrim flask. No good specimens of glassware were found at 'Alayiq. The only piece of special interest was the leg of a horse, 6.5 cm. high.

The Pottery from Khirbet en-Nitla

109. The pottery from Khirbet en-Nitla is Byzantine and Early Arabic. Fortunately its Byzantine pottery fills in much of the chronological gap which existed at Tulul Abu el-'Alayiq when that site was unoccupied from the 4th through the 7th century. Both sites were occupied in the 8th and early 9th centuries, i. e., the Early Arabic period. At Nitla there was no stratification in the strict sense of the word. Not only was the pottery-bearing débris seldom a meter in depth; but check counts made every 25 cm. in the different trenches showed that Byzantine sherds were found as often near the surface as at the bottom of the débris. The chronology of much Byzantine material has, however, already been worked out by Father Hilary Schneider in Part III of *The Memorial of Moses on Mt. Nebo.* One difference in dating between Nitla and Nebo, however, must be carefully watched. Schneider has lumped all Nebo ware in the Byzantine period, whereas we treat some of his forms as Arabic because they are more characteristic of the Arabic period than of the Byzantine. Some writers, like Petrie, have called our Byzantine period Late Roman, but in this study Late Roman always precedes Byzantine. For the differentiation of Byzantine and Arabic pottery, see § 129.

110. The Byzantine and Arabic pottery from Nitla may be divided into 42 types, exclusive of lamps and drain tiles. These must not be thought of as exhaustive of the site as this excavation was only a sounding. Further work would expand and modify the findings. Types 1 through 16 belong to the Byzantine period. Types 17 through 42 belong to the Early Arabic period, especially the 8th and early 9th centuries. The most numerous Byzantine types were naturally water jars (1) and cooking pots (11). Less numerous types were bowls (16), jugs (10), juglets (6 & 9) and amphorae (2). These last appeared in almost equal quantities. All other types were comparatively rare.

Byzantine Types

111. Type 1, Nitla, Byzantine

(a) Large jar, two handles on sloping shoulder,[26] thickened ring below neck, coarse ribbed from below handle downwards, combed between the two ends of handles, light red ware. Greek letters painted in red on some jars. Pl. 26: N 31, N 34, N 35.

(b) Large jar, sloping shoulder (no handles remaining), buff ware. Pl. 26: N 168.

(c) Smaller jar, relatively longer neck, two handles attached to sloping shoulder; one inscribed with letter "A." Pls. 16 & 26: N 27; Pl. 32: Y 56.

(d) Jar, relatively short neck, out-turned overhanging rim, sharp ridge just below neck, ribbed, buff ware. Pl. 26: Y 14.

(e) Jar, relatively short neck, with or without ring around bottom of neck, round shoulders, loop handles on shoulders, coarse ribbed, red ware. (Similar to 'Alayiq Arabic Type 39 (a), but without slip and unpainted). Pl. 26: Y 47.

Roman water jars had three major body forms: (1) cylindrical, tall and narrow, (2) cylindrical, short and wide, (3) the bulging bag. They are well represented at Qumran (1) where the tall cylinder is Fig. 2: 2, 5, the short cylinder is Fig. 2: 7, and the bag is Fig. 2: 1, 3, 6. The bag seems to be the most common body form for the Byzantine period. Beit Nattif Pl. III: 8 and Jerash (Gerasa, Fig. 37: X 79-81) are Late Roman forms going over into Byzantine. Gerar, Pl. LVI: 48d, 48h are Late Byzantine going into Arabic. Gezer I, Fig. 195,[27] shows a Byzantine form with very prominent corrugations, narrow above and broader below. More delicate ones are seen in Jericho Pl. 43: A, 5. The closest Nebo form to ours is Fig. 2: 5. Neck details similar to ours are N. Wall of Jerusalem Fig. 7: 1, 2,[28] and Silet edh-Dhahr Fig. 32: 7. Beth-shan Pl. XXXI: 28 is a good example of (b). It is Late Byzantine but is certainly much earlier than Gerar Pl. LVI: 48n, which Petrie dates very late, going into Arabic. The best parallel to (c) is Silet edh-Dhahr Fig. 32: 5. Examples of (e) are Silet edh-Dhahr Fig. 32: 1, and N. Wall of Jerusalem Fig. 21: 9. New wares and painted decoration come in toward the end of the Byzantine period

---

[26] The largest sherds, i. e., those used in the drawings, were all minus handles, although many smaller fragments with handles were found.

[27] It is called Roman in the Gezer text.

[28] For a whole jar, see Fig. 16: 1.

Digitized by Birzeit University Library

and are treated in detail in Nebo, pp. 20-49. The relationship of this ware to Nitla is discussed under Nitla, Arabic Type 17.

112. Type 2, Nitla, Byzantine.

(a) Jar, elongated body, out-turned flat rim, handleless, flat ribbed base, fine hard, light red ware. Pls. 16 & 26: N 10.

(b) Jar, wider body, upper part plain, lower part ribbed, pierced with two holes for string handles, greenish buff ware. Pl. 26: N 7.

The only relative is from *A Street in Petra*, Pl. XXV: 9, although the Petra example is quite different in detail.

113. Type 3, Nitla, Byzantine.

Jug, globular, wide neck, out-turned overhanging rim, handle attached to rim and middle of shoulder, only neck is ribbed, cylindrical spout opposite the handle, a ring below the neck, shoulder decorated with oblique notches, fine hard, light red ware. Pl. 26: N 6.

Nebo Fig. 11: 4, Pl. 154: 15 seems to be the best parallel although poorer in craftsmanship. Other sites give what appears to be a later variety of this jug. 'Ain el-Jedide Fig. 2: b is a relative of this jug, but undecorated and with narrower neck; cf. also Pl. LXVII: 2-4, 10 and Jericho Pl. 43: A, 16. The shoulder decoration of oblique notches is seen in other kinds of ware of the 4th and 5th centuries at Jish, Pl. XXX: e, f, g. Similar notches also are found on Arabic ware but this Nitla piece is definitely Byzantine craftsmanship.

114. Type 4, Nitla, Byzantine

Jug, out-turned and projecting flat rim, oblique notched decoration, string-cut flat base, similar in ware to Nitla Byzantine Type 2 (a). Pl. 26: N 11A, N 11B.
Small fragments of shoulders with similar notched decoration come from Nebo, Pl. 155: 1-7, pp. 98 f. The ancestor of this jug is Qumran (2), Fig. 4: 10.

115. Type 5, Nitla, Byzantine

Small jar, or jug, elliptical body, string-cut base, fine hard, red ware. Pls. 17 & 27: N 14.

The top is missing so there can be no exact identification. The closest Byzantine relative is a lekythos from Shiloh, Fig. 19. Ancestors of this type might be a beaker from 2nd century A. D. at Petra, Fig. 19: 216, Pl. XXVII: 216, or a juglet from the same site, Pl. XXV: 182.

116. Type 6, Nitla, Byzantine

(a) Juglet, elongated body, calyx rim with round edge, square shoulders slightly rounded off, short neck, red ware. Pls. 16 & 27: N 1, N 2; Pl. 27: Y 4 (an additional collar at the rim); Pl. 16: N 4.

(b) Edge of rim is angular. Pl. 27: Y 3.

This is an ointment juglet running in staggered sizes; see Pl. 16. This type seems new, although its calyx rim is continued over from Roman ware. Something of the calyx lip appears in a different shaped juglet from 4th-5th centuries at Jish, Pl. XXX: 1 f. A much larger jar from Jebel Jofeh, Pl. XXVI: 13, seems to be in the ancestral line of this shape. A very cheap relative appears earlier at Beit Nattif, Pl. III: 5, but is Byzantine at Nebo, Pl. 150: 6.

117. Type 7, Nitla, Byzantine

(a) Jug, out-turned and flanged rim, ear-handle, sloping shoulders, coarse chocolate-brown ware with lime grits. Pl. 27: Y 13; Pl. 32: Y 6.

(b) More pronounced flange, fine hard, light red ware. Pl. 32: Y 69.

Nebo Pl. 154: 23 has the rim of Y 13. Silet edh-Dhahr Fig. 31: 1 has the rim of Y 69. This type continues on into the Arabic period but without the flanged rim as seen at Mefjer, Fig. 15: 18.

118. Type 8, Nitla, Byzantine

Small juglet, notches on shoulders, grayish buff ware. Pls. 16 & 27: N 16.

This example, like Jerusalem, B & D, Pl. XXVII: 30, may be a cheap variety of the Jish juglets, Pl. XXX: e, f, g; cf. also Beth-shan, Pl. XXX: 16 and Hassan, Fig. 3: 3.

119. Type 9, Nitla, Byzantine

Small jar, or jug, collared rim with sharp lower edge, coarse buff and light red ware. Pl. 27: Y 27.

If there is no handle to this vessel, then Jerash (Gerasa, Fig. 32: X 8) is a near ancestor of Roman date. If this is a handled jug, then Gerasa Fig. 45: X 30 is a close parallel.

120. Type 10, Nitla, Byzantine

(a) Jug, globular, trefoil mouth, sharp projecting ledge at bottom of neck, handle attached to edge of rim and middle of shoulder, ribbed, dark red ware. Pl. 27: N 18.

Digitized by Birzeit University Library

(b) Round mouth, two rings—one 2.5 cm. below out-turned rolled rim and another just below neck, strainer in neck, a cylindrical spout opposite handle, ribbed. Pls. 16 & 27: N 55; Pl. 32: Y 43.

Apparently there is no exact duplicate of these jugs but in the same general family there is an example from Jerash, ASOR XI, Pl. 13: A 12/X 1. Other forms come from Beth-shan, Pl. XXX: 23 and Nebo, Pl. 154: 19. The closest Arabic example is 'Alayiq Type 39(c), Pl. 30: X 32. Other related strainer necks come from Nebo, Pl. 154: 28-29. Mefjer Fig. 15: 1 is another Early Arabic type.

121. Type 11, Nitla, Byzantine

(a) Cooking pot, usually finely ribbed on shoulder, wider ribbed below, out-turned rim with sharp edge, large vertical handles, red ware. Pls. 17 & 27: N 22, N 33; Pl. 27: N 32; Pl. 32: Y 24.

(b) Elongated body, out-splayed rim. Pls. 17 & 27: N 63.

This is the best known Byzantine cooking pot in Palestine. It was also often used for other purposes than cooking. Each drawing in Type 11 represents a different treatment of the cooking pot neck. The most common Byzantine form is represented by N 33. A still earlier variety, with ribbing on the shoulder only, appears in Jericho Pl. 43: A, 11a. No Roman type of cooking pot was found at Nitla. All forms were definitely Byzantine or Arabic. Cooking pots from Jebel Jofeh, Pl. XXVI: 9, 12, 105, are the best examples of the transition from Roman to Byzantine ware. They look more like Byzantine ware except that the characteristic Byzantine bulge does not yet appear; 105 shows the transition into Nitla Type 11(a), and 9 and 12 show the transition into Type 11(b).

The tall N 63 or (b) type looks as if it might be a late variety but it is paralleled as early as the 4th century at 'Ain Yabrud, Pl. IV: 17, 18, and at Askalon, Pl. XLVIII: 13 from a tomb of the late 3rd or 4th century. Silet edh-Dhahr Fig 32: 6 is about half way between (a) and (b) forms. It has a (b) mouth on an (a) body. Nebo Fig. 4: 4 looks like the transitional form between the tall Byzantine cooking pot and the Nitla Arabic Type 26. Gezer II, Fig. 378; Gezer III, LXXVII: 1 show a one-handled cooking pot.

Nitla Arabic Type 26 is simply a modification of this Byzantine Type 11(b). Oddly enough it does not appear at nearby Mefjer which preferred to use Nitla Arabic Type 25 for its cooking pot; cf. Mefjer, p. 71, Fig. 13: 1-13. Some cities seemed to have preferred certain types of cooking pots. Jerash, ASOR XI, p. 36, Pl. 13: B2/X2 is a variety of cooking pot of which no examples were found at Nitla.

122. Type 11 A, Nitla, Byzantine

Cooking pot cover, ribbed, with lifting knob. Pls. 16 & 28: N 25, N 57.

This type appears as early as the 2nd half of the 3rd century at Jerash, ASOR, XI, Pl. 12: R 5/X 57. A shallower lid but with similar lifting knob is late first century at Qumran (2), Fig. 6: 5. The Nitla ware shows excellent craftsmanship. N 57 has a steam hole in the center of the lifting knob as does Beth-shan Pl. XXXI: 12, but more often it is near the knob or the rim. N 57 is also close to Nebo Pl. 157: 3. Beth-shan Pl. XXX: 13 and Silet edh-Dhahr Fig. 30: 16 are like N 25. Jericho Pl. 43: A, 9 has a special kind of air-cooled lifting knob. The Arabic cooking pot cover of Nitla, Arabic, Type 27, is something of a modification of the Byzantine form but often with poorer craftsmanship. The same Arabic cooking pot cover is seen in 'Alayiq, Arabic Type 43(b).

123. Type 12, Nitla, Byzantine

Shallow bowl, in-turned rim, fine hard, light red ware with darker slip. Pl. 32: Y 8.

This example is more shallow than most Byzantine bowls. Its closest relatives are Nebo Fig. 5: 5; 12: 5 and Jerash, ASOR, XI, Pl. 14: A 24/X 3. The former are poor workmanship; the latter is good. These Byzantine bowls continue on into Arabic times but with modifications; cf. Type 41, 'Alayiq, Arabic, A 110, A 111.

124. Type 13, Nitla, Byzantine

Bowl, out-turned rim, fine hard, red ware with darker slip. Pl. 32: Y 12.

It may possibly be an ancestor of the Arabic painted bowls at Mefjer, Fig. 6: 1, 5, 7.

125. Type 14, Nitla, Byzantine

Bowl, carinated rim, light red ware with red slip. Pl. 32: Y 11, Y 42.

Digitized by Birzeit University Library

The closest relatives are from Beth-shan, Pl. XXXI: 16, Silet edh-Dhahr, Fig. 30: 1, 3, and Nebo, Fig. 12: 3. Nebo Fig. 5 shows related forms but in painted ware. This ware is an imitation of Late Roman red pottery, Type 5, 'Alayiq, Roman, and Tarsus I, Fig. 208: I, J, K, etc.

126. Type 15, Nitla, Byzantine

Bowl, similar to the preceding Type 14, but rim is rouletted on outer edge. Pl. 32: Y 10.

No parallels were found.

127. Type 16, Nitla, Byzantine

(a) Bowl, out-turned rolled rim, side of body broken by an angle 2 cm. below rim, red ware with red slip. Pl. 32: Y 48a.

(b) Bowl, out-turned rolled rim, light red ware. Pl. 32: Y 58.

(c) Bowl, groove across middle of rolled rim. Pl. 32: Y 59.

This seems to be a Byzantine modification of Type 7, 'Alayiq, Roman.

128. Miscellaneous Ceramic Finds, Byzantine

Byzantine Drain Tile

Length 31.7 cm.; outside diameter at wide end 10 cm.; inside diameter at socket end 5 cm., drab color. Pl. 16: N 5.

The closest parallel is Jerash, ASOR, XI, Fig. 2.

Byzantine Brazier

Square in shape, rectangular holes on 3 sides, drab ware, height 17.2 cm., diameter 12.2 cm. Pl. 16: N 9.

No parallels were found.

Byzantine Lamps

Five fragments of lamps of the candlestick type (Silet edh-Dhahr Type XV) were discovered. There was also another fragment of a lamp with a dark slip (Silet edh-Dhahr Type IV).

Arabic Pottery from Khirbet en-Nitla

129. D. C. Baramki's several campaigns at Khirbet el-Mefjer well fitted him for classifying our Arabic pottery at 'Alayiq and Nitla. His report in the Quarterly of the Department of Antiquities in Palestine, Vol. X, Nos. 2 & 3, is the basic work on Early Arabic pottery. The transition of Byzantine ware into Arabic is well illustrated at Nitla where many of the Byzantine forms are used but the ware and workmanship are Arabic.[29] Nebo, Mefjer and Beth-shan are most helpful for comparison. A clear definition of the transition from the Byzantine pottery of Nitla to the Arabic of the same site is difficult when only drawings are used, for there is a good deal of overlapping of types between the two periods. If the pottery itself, however, is compared rather than the drawings of the pottery, the craftsmanship will usually differentiate the two periods. This will explain why so much ware we call Arabic is called Byzantine by Schneider in his résumé of Byzantine pottery at Nebo. The hang-over Arabic ware is usually inferior in workmanship not only to the older Byzantine ware, but also to the newer Arabic forms. Our treatment of the Arabic pottery from Nitla and 'Alayiq is primarily a continuation of our treatment of the Roman and Byzantine wares. Our study often shows only the most important Early Arabic relatives and is in no sense a comparative study of all Early Arabic pottery. The Nitla Arabic Types 17 to 42 are concentrated in the 8th and early 9th centuries. No glazed or moulded Arabic pottery was discovered or indeed anything later than the 9th century.

Nitla Arabic Types

130. Type 17, Nitla, Arabic

Jars, coarsely ribbed, two ear-shaped handles, round bases, red or black slip, painted over with white wavy lines, identical with ware 1 at Mefjer. Pl. 28: N 51; Pls. 16 & 28: N 53.

Father Schneider in his work on the pottery of Nebo, pp. 20-49, has made a very detailed study of "portable jars" so it is unnecessary for us to go into details on this type, except to note that our Type 17 is both Late Byzantine and Early Arabic. Although there is no stratification at Nitla, more of our work shows Arabic craftsmanship than Byzantine and therefore we have listed this type as Arabic. It continues on as a prominent Arabic type; cf. Mefjer ware 1. For comparative data, see the Nebo volume. 'Alayiq, Arabic, Type 39 corresponds with Nitla's Type 17.

131. Type 18, Nitla, Arabic

Jar, squarish slightly rounded shoulders, coarse ribbed, buff ware. Pl. 28: N 26.

[29] Cf. §§ 109, 110.

Digitized by Birzeit University Library

The closest parallel seems to be a Byzantine jar from 'Ain Yabrud, Pl. IV: 16.

132. Type 19, Nitla, Arabic.

Jar, neckless, out-turned rim with double ridges, large loop handles, combed, light red ware. Pl. 28: Y 45.

'Ain el-Jedide, Fig. 1: b, Pl. LXVIII: 14, is a good illustration of this type.

133. Type 20, Nitla, Arabic.

(a) Jug, out-turned rim, ear-handle, soft buff ware.
(b) Jug, ridge slightly below rim, handle attached to neck and shoulder, coarse gritty light red ware. Pl. 28: Y 17.

The closest relative in date is a smaller jug from Beth-shan, Pl. XXX: 25.

134. Type 21, Nitla, Arabic.

Jar, collared rim, light red ware. Pl. 32: Y 25, Y 65.

This is the Byzantine and Arabic descendant of 'Alayiq, Roman, Type 21.

135. Type 22, Nitla, Arabic

Jar, collared rim grooved in middle on outside, angular shoulder, decorated with wavy combing on neck and below shoulder. Pl. 32: Y 60.

No parallels were found.

136. Type 23, Nitla, Arabic

(a) Jar or jug, pointed ridge at bottom of corrugated neck, red ware with black slip. Pl. 32: Y 34.
(b) Out-turned pointed rim, "S" curved neck. Pl. 32: Y 39.

This is apparently the descendant of the 'Alayiq, Roman, Type 28.

137. Type 24, Nitla, Arabic

Jug, strainer around inner spout, incised and combed decoration, possible side spout with drip channel, buff ware. Pls. 17 & 28: N 36.

No parallels were found.

138. Type 25, Nitla, Arabic

(a) Wide-mouthed cooking pot, coarsely ribbed, horizontal handles (sometimes uptilted), coarse chocolate-brown ware. Pl. 28: N 169, N 37; N 29 (no drawing).
(b) Plain, horizontal handles (sometimes uptilted), coarse light red ware. Pls. 17 & 28: N 8.

At Jerash (Gerasa, Fig. 36: X 12) in the late 2nd or early 3rd centuries, we find the earliest ancestor of this Nitla type. This is the common wide-mouthed cooking pot of Byzantine and Early Arabic times. Jericho Pl. 43: A, 9 has a photograph of an excellent example of this cooking pot with beveled rim and a form-fitting cover with a cool lifting knob. At the end of the Byzantine period, Beth-shan Pl. XXXI: 12 shows that some of this ware still had excellent lines. The latest Nebo ware is also much better than Nitla's. Most of the Nitla ware is placed in the Arabic period for it lacks the fine lines of the Byzantine ware; the ribbing is coarse or missing. 'Alayiq, Arabic, Type 43 is the same variety of cooking pot as this Type 25. The ware from both sites is similar to Mefjer's ware 18a, Fig. 13: 1-13. For a history of this cooking pot see Grace M. Crowfoot's remarks in the *Palestine Exploration Fund Quarterly*, Jan. 1936, pp. 23-24.

139. Type 26, Nitla, Arabic

Cooking pot, elongated body, plain, rim grooved on outside, two vertical handles attached to rim and shoulder, coarse chocolate-brown ware. Pl. 29: N 28.

This is the Arabic descendant of Nitla, Byzantine, Type 11(b), under which type its history is discussed.

140. Type 26 A, Nitla, Arabic

Cooking pot, globular body, long neck, long vertical handles. Pl. 29: N 19.

This may be a new type of cooking pot; it does not seem to be reported elsewhere. A second and more likely alternative, however, is an amphora or a storage jar, which for some reason was made of a cooking pot clay. The form is something like that of Mefjer Fig. 4: 21.

141. Type 27, Nitla, Arabic

(a) Cover for cooking pot or frying pan, plain, interior and exterior flange on rim, coarse red ware. Pl. 28: Y 41.
(b) Plain, flattened rim, coarse light red ware. Pls. 17 & 28: N 17.
(c) Similar to (b) but larger size. Some have lifting knob, near which there is a steam hole, coarse red ware. Pl. 28: N 170, Y 23.

This is the Arabic descendant of the Nitla, Byzantine, Type 11 A. The (a) variety is best represented by Mefjer Fig. 13: 16. Jerash (Gerasa, Fig. 45: X 26) looks like a cooking pot cover of this (a) variety but is differently identified by the excavators. The (b) variety is par-

Digitized by Birzeit University Library

alleled by Nebo Fig. 14: 1, 2 and the (c) variety by Mefjer Fig. 13: 17, 21. The corresponding 'Alayiq Arabic covers are Type 43 (b).

142. Type 28, Nitla, Arabic

Frying pan or casserole with wish-bone handle, coarse red ware. This unique handle represents an attempt at getting a cool handle. Pl. 29: Y 40.

This is one of the common Late Byzantine and Early Arabic cooking pots. Whole vessels of this type are rare as the shape of the vessel predisposes it to quick breakage. There is a photograph of one in Tarsus I, Pl. 163: 807, and there is a drawing of one in Ophel, Jerusalem, Fig. 207. The latter is 6½ inches in diameter with a handle 3 inches long. (It is incorrectly dated as Roman.) It appears at the N. Wall of Jerusalem Fig. 7: 7; cf. also Jerusalem, B & D, Pl. XXV: 12. Nebo Pl. 150: 21-24 dates it to the 6th century and the 1st half of the 7th. Tell el-Hesy in the Negeb, Pl. IX: 221, also has it. None were found at 'Alayiq.

143. Type 29, Nitla, Arabic

Small bowl, flanged rim, ring base, hard dark gray ware. Pls. 17 & 29: N 20.

Its closest relative, which is of better craftsmanship than ours, is Silet edh-Dhahr Fig. 30: 8. This type is apparently descended from a rouletted Roman bowl such as Qasile Fig. 14: e.

144. Type 30, Nitla, Arabic

(a) Cover or stopper, inverted funnel shape, flanged rim, soft light red ware. Pls. 16 & 29: N 56.

(b) Cover or stopper, flanged rim, soft buff ware.

The problem of this pottery shape is complex. It looks something like a decadent cup or libation bowl from Roman days; cf. Jerash (Gerasa, Fig. 36—the lowest line of drawings). Beth-shan's Byzantine examples on Pl. XXX: 4, 9, 10 are all cups or lids (p. 38), but Beth-shan, Pl. XXXI: 11, looks as if the "cup" had definitely become a stopper. The Nitla variety also has the elongated top which is easily grasped.

145. Type 31, Nitla, Arabic

Stopper with lifting knob, soft red ware. Pl. 29: N 155.

The Nitla type differs somewhat from that on other sites as it has the highest lifting knob—as high as the rim of the stopper. Hassan Fig. 3: 6 is the closest relative. This Nitla type corresponds with 'Alayiq, Arabic, Type 46. 'Alayiq X 35 is like Mefjer Fig. 12: 27, N. Wall of Jerusalem Fig. 7: 9, and Tyropoeon Valley, 1927, Pl. XIV: 14, 18.

146. Type 32, Nitla, Arabic

(a) Deep bowl, two vertical handles attached to grooved rim and side, flat base, sloping sides broken by an angle 3 cm. below rim, light buff ware. Pls. 17 & 29: N 23; Pl. 29: N 54.

(b) Vertical handles attached below rim. Pl. 29: N 12, N 60, Y 20. (N 60 has a twin grooved rim).

(c) Shallow bowl, out-turned and thickened rim, flat base, buff ware. Pl. 29: N 24.

(d) Out-turned rim incised with wavy band on top, and another horizontal band 1 or 2 cm. below rim, soft buff ware. Pl. 32: Y 52.

(e) Widened flat rim, buff ware. Pl. 32: Y 30.

(f) Thickened rim, carinated shoulder, buff ware. Pl. 29: Y 21, Pl. 32: Y 66.

(g) Deep bowl, cylindrical or nearly so, sometimes with loop handles, light red ware. Pl. 26: N 62; Pl. 29: N 58.

This is one of the most typical and widely used of the Arabic bowls. Nebo has large amounts of this ware and the text goes into the details of dating. The Nitla ware does have one special characteristic in that most of the ware is plain, lacking wavy notched mouldings and having only a little combing. The closest example of form (a) is N. Wall of Jerusalem Fig. 9: 11, although the ware differs. Nebo Fig. 7: 5 is cheaper ware. The most widely distributed bowl is (b). The closest example is Hassan Fig. 3: 7. Jerash, ASOR XI, 13: X 20, has an example from about the 6th century with slightly different form and with combing. The Nebo example, Fig. 7: 7, is poorer ware. Jerash (Gerasa, Figs. 45: X 27; 46: X 45) have related (c) forms but are different ware. The (f) variety is represented at Nebo, Fig. 8: 2, 7, and a related (g) form at Nebo, Fig. 7: 6. Nitla, Arabic, Type 32 is paralleled by 'Alayiq, Arabic, Type 42.

147. Type 33, Nitla, Arabic

Bowl, concave sides, out-turned rolled rim, fine soft red ware. Pl. 29: Y 19.

No parallels were found.

Digitized by Birzeit University Library

148. Type 34, Nitla, Arabic

Bowl, flanged rim, some combed, some plain, fine red ware, varying thickness. Pl. 29: Y 35; Pl. 32: Y 22, Y 26, Y 37, Y 38.

This is the Arabic variety of a characteristic Byzantine bowl. The closest parallels are from the N. Wall of Jerusalem, Figs. 6: 11, 13; 7: 5, 6; 9: 3, 6.

149. Type 35, Nitla, Arabic

Plate or bowl, in-turned rim squared-off on exterior, coarse dark red ware. Pl. 29: Y 28.

No parallels were found.

150. Type 36, Nitla, Arabic

(a) Bowl, out-turned rim, thick groove below rim, light red ware. Pl. 32: Y 68.
(b) Out-turned flattened rim, plain, coarse light red ware. Pl. 32: Y 67.

Closest parallel is N. Wall of Jerusalem, Fig. 9: 2, but it is combed.

151. Type 37, Nitla, Arabic

Jar, relatively short neck, out-turned rim with triangular section, buff ware. Pl. 32: Y 29, Y 32.

This is the Arabic descendant of Nitla, Byzantine, Type 1 (d).

152. Type 38, Nitla, Arabic

Bowl, out-turned rim with low ridge on inside, soft buff ware. Pl. 32: Y 64.

No parallels were found.

153. Type 39, Nitla, Arabic

Jar, plain rim with interior flange which is semicircular in section, coarse gray ware. Pl. 32: Y 44.

A parallel was found in Tyropoeon Valley, 1927, but ours had a simpler profile.

154. Type 40, Nitla, Arabic

Cup, plate and jug, hard metallic ware, usually thin, sometimes burnished horizontally, less often painted, identical with ware 10 at Mefjer, p. 68, where it is treated in detail. Pls. 17 & 29: N 15; Pl. 29: N 49; Pl. 32: Y 2.

N 15 is paralleled at N. Wall of Jerusalem Fig. 8: 2. Fig. 8: 3 has an incised wavy band like N 49 but is on a differently shaped bowl; cf. also Beth-shan Pl. XXXIII: 16. The wavy band design is as early as Nabataean 1st-2nd century A. D. at Petra, Pl. IX: 18. N 15 is also similar in form to Nebo Fig. 13: 4 but Nitla has no incised lines; Fig. 13: 13 is similar but taller. N 49 has no exact duplicate at Nebo; Fig. 6: 5 has the same form but is painted instead of incised. Y 2 is like Mefjer Fig. 7: 4. This ware was found at Esbeita in the 6th century levels.[30]

155. Type 41, Nitla, Arabic

(a) Bowl, out-turned rim, small flat base; pierced with a hole just under rim, soft buff ware. Pls. 17 & 29: N 21.
(b) Plain vertical rim, disc base, red ware with buff slip.
(c) Out-turned rim, disc base, decorated with incised bands 2 cm. below rim, hard red ware. Pl. 29: N 13.
(d) Plain vertical rim, decorated with 2 incised bands below rim, buff ware. Pl. 32: Y 63.
(e) Similar to (c), but combed horizontally 2 cm. below rim, softer ware. Pl. 32: Y 5.

Closest parallel to (a) was from Tyropoeon Valley, 1927, Pl. XIV: 19.

156. Type 42, Nitla, Arabic

Large jars, deeply grooved handles, coarse hard buff ware. (No drawings.)

Arabic Pottery from Tulul Abu el-'Alayiq

157. Most of the Arabic pottery herein described came from Tell 1. It is predominantly 8th century with some early 9th; no glazed or moulded Arabic pottery was discovered. Only a very small amount was found on Tell 2, and this doubtless came from transient campers. The site was apparently abandoned shortly after A. D. 800. The pottery of the Arabic period at 'Alayiq may be divided into 23 types. Unfortunately three of the drawings were lost en route to the U. S. and therefore three Arabic types have no illustrative drawings. Some of this pottery has already been treated in the study of the Nitla ware and so only important new points will be added in this study of the 'Alayiq Arabic ware. Our treatment of the Arabic pottery from 'Alayiq, like that of Nitla, shows only the most important 8th century relatives, especially those from nearby Mefjer, Nebo and Beth-shan. It is in no sense a comparative

[30] D. C. Baramki wishes here to make a belated acknowledgment to his friend T. Colin Baly, who first drew his attention to this ware which Mr. Baly had discovered at Esbeita.

Digitized by Birzeit University Library

study of all Early Arabic pottery, but primarily a continuation of our treatment of the Roman and Byzantine wares.

'Alayiq Arabic Types

158. Type 39, 'Alayiq, Arabic

(a) Jar, large, coarsely ribbed, red or black slip, painted over with wavy white lines, identical with ware 1 at Mefjer (p. 66).
(b) Juglet or small two handled jar, not ribbed, similar slip and painting. Pls. 15 & 30: A 10, A 11, A 12.
(c) Jug painted with wavy lines, ridge half way down neck, strainer in neck. Pl. 30: X 32.

For (a) water jars, cf. Nitla, Arabic, Type 17. For (b) the closest relative of A 12 is Nebo, Pl. 145: 6, although the painted design is different. For (c) cf. Nitla, Byzantine, Type 10.

159. Type 40, 'Alayiq, Arabic

(a) Bowl, flat base, hard light red ware, painted with stylized floral patterns in red over a white or cream slip, identical with ware 9 at Mefjer. Pls. 15 & 30: A 24; Pl. 15: A 16.
(b) Tall bowl, similar ware and decoration; Pl. 30: A 121.
(c) Pottery other than bowls, light or grayish buff slip, similarly painted.

The best parallels to A 24 are Mefjer, Fig. 6: 1-3; Pl. XXI: 5 and Beth-shan Pls. XXX: 8; XXXIII: 20, 27, 31.

160. Type 41, 'Alayiq, Arabic

Cup, plate and jug, hard metallic ware, usually thin, sometimes burnished, horizontal rings, less often painted, identical with ware 10 at Mefjer, p. 68, where it is treated in detail. Pls. 15 & 30: A 23; [31] Pl. 30: A 29, A 30, A 33, A 34, A 35, A 110, A 111, X 192; Pl. 15: A 32, A 36, A 37.

The closest parallel for cups is Nebo Fig. 13: 14, Pl. 156: 49, 52. Mefjer Fig. 7: 2, 3 and Beth-shan Pl. XXXIII: 23, have related cups that are painted. We have a sherd with the Beth-shan design. The closest parallel for plates is Beth-shan Pl. XXXIII: 33. Mefjer Fig. 6: 8, 10, 14 are similar forms but are painted. Hassan Fig. 3: 5 has one of these cups with horizontal rings. This 'Alayiq type is paralleled by Nitla Arabic Type 40.

[31] Mislabeled 22 in photograph.

161. Type 42, 'Alayiq, Arabic

(a) Bowl, with or without handles, fine buff ware, comb incised decoration, identical with Mefjer ware 12 a.
(b) Rolled rim, light red ware. Pl. 30: X 104; with thin lower edge, Pl. 30: X 73.
(c) Out-turned rim, rolled, red ware. Pl. 30: X 103.
(d) Top of rim grooved. Pl. 30: X 38.
(e) Top of rim incised, buff ware. Pl. 30: X 109.
(f) Out-turned rim, grooved on top, buff ware. Pl. 30: A 396.
(g) Rim, grooved on top, comb incised decoration. Pl. 30: X 41.
(h) Projecting rim with sharp edge, light red ware. Pl. 30: A 391.
(j) Jar or jug, grooved rim, fine hard buff ware. Pl. 30: A 385.

Related examples are Mefjer Fig. 10: 8-10 & Pl. XXI: 6. Cf. also Nitla Arabic Type 32.

162. Type 43, 'Alayiq, Arabic

(a) Cooking pot, coarsely ribbed or plain, coarse red ware similar to ware 18a at Mefjer. Pl. 31: A 113.
(b) Cover of similar ware and similarly ribbed. Pl. 31: A 61.
(c) Bowl, flaring out-turned rim forming slightly less than a right angle with body, coarse red ware. Pl. 31: X 129.
(d) Rim forming angle greater than a right angle with body. Pl. 31: X 90.

For detailed study of this type cf. all related cooking pots and covers at Nitla, Byzantine, Types 11, 11 A, and Nitla, Arabic, Types 25 and 27, especially Type 25.

163. Type 44, 'Alayiq, Arabic

Jug, soft ware, white slip painted with geometrical designs in dark red, identical with ware 19 at Mefjer. Only one base was found; X 152 (no drawing). It is a later intrusion.

164. Type 45, 'Alayiq, Arabic

Juglet, globular body, narrow neck, heavy string-cut base, light red ware, red slip; similar to ware 22 at Mefjer. Pl. 31: A 9.

The Mefjer parallel is Fig. 14: 8, 10; Pl. XXI: 4, but made of a different kind of clay.

165. Type 46, 'Alayiq, Arabic

Cover, knob in center, buff creamy ware similar to Mefjer 12a. Pl. 31: X 35.

See Nitla, Arabic, Type 31 for detailed treatment.

Digitized by Birzeit University Library

166. Type 47, 'Alayiq, Arabic

Bowl, in-turned rim, round base, drab buff ware. Pl. 31: A 114.

Its ware is somewhat similar to a bowl from Mefjer Fig. 12: 15.

167. Type 48, 'Alayiq, Arabic

Bowl, wide overhanging rim on the inside and outside, hard light red ware containing fine lime grits, similar to ware 13 at Mefjer. Pl. 31: A 68.

The closest parallel is Mefjer Fig. 10: 2, although the Mefjer ware is combed.

168. Type 49, 'Alayiq, Arabic

Juglet, decorated with vertical indentations around the middle, soft buff ware. Pl. 31: A 14.

No parallels were found.

169. Type 50, 'Alayiq, Arabic

Juglet, piriform body, combed, flat base, heavy drab buff ware. Pl. 31: A 17.

The closest parallel in form is Mefjer Fig. 15: 36, but different ware.

170. Type 51, 'Alayiq, Arabic

(a) Jug or two handled jar, wide neck, ridged handles, concave base, light red ware.
(b) Darker red ware.
(c) Jug, piriform body, inverted base, fine hard ware. Pl. 31: A 69, A 116, A 123.
(d) Similar but with wide combing.

This type is represented at Jericho by Pl. 44: B, 4; B, 5 is a modified form and painted. A close relative with finer lines comes from Hassan, Fig. 3: 1. Another graceful form with trefoil lip comes from 'Ain el-Jedide, Fig. 2, a.

171. Type 52, 'Alayiq, Arabic

(a) Large jar, collared rim, sloping shoulder, loop handles attached on shoulder, sometimes coarsely ribbed near base, coarse drab buff ware. Pl. 31: A 127, A 129, A 131, A 413.
(b) Small jar, ribbed concave base, buff ware. Pl. 31: A 389.
(c) Similar, very soft buff ware. Pl. 31: X 70.
(d) Jar, ribbed neck, collared rim, light red ware. Pl. 31: A 404. (A few sherds of this type were also found at Nitla).
(e) Jar, grooved handle, buff ware.

This type differs from Nitla, Arabic, Type 17 in contour and decoration. It is characterized by a long neck and is unpainted ware. Jericho Pl. 44: B, 2 is similar in form to this 'Alayiq type, but the Jericho example is painted, featuring a tree design; cf. also Nebo Fig. 2: 4. Jericho Fig. 194: A, 4 has the long neck of this type but a different body. None of the necks mentioned above have the heavy corrugations of 'Alayiq. Mefjer, Fig. 3, shows the water jars of that site.

172. Type 53, 'Alayiq, Arabic

Bowl, slightly in-turned rim, red ware. Pl. 31: X 79.

No parallels were found.

173. Type 54, 'Alayiq, Arabic

Bowl, edge of rim bent slightly inward, lightly ribbed, horizontally attached handles, red ware with a greenish buff slip on outside only. Pl. 31: A 384.

No parallels were found.

174. Type 55, 'Alayiq, Arabic

Jug, coarsely ribbed, horizontal handle, buff ware with a greenish buff slip.

175. Type 56, 'Alayiq, Arabic

(a) Jug, neckless, globular body, round base, loop handles attached at top of rim, coarse gritty ware.
(b) Handles attached below rim, angular junction of neck with body.

176. Type 57, 'Alayiq, Arabic

Bowl, slightly out-turned rim, red ware containing fine lime grits. Pl. 31: A 379.

Its closest relative in form is Mefjer Fig. 7: 17, but it is a different ware.

177. Type 58, 'Alayiq, Arabic

Jar, out-turned rim, coarse ribbed ware, light red.

178. Type 59, 'Alayiq Arabic

Jar, out-turned rim, coarse red ware containing lime grits. Pl. 31: A 418.

No parallels were found.

179. Type 60, 'Alayiq, Arabic

(a) Bowl, in-turned rim, rudimentary knob handles, red ware, dark red slip, burnished.
(b) Out-turned rim, burnished on outside only. Pl. 31: X 49.
(c) Rolled rim, some burnished, red or gray gritty ware.

No parallels were found.

Digitized by Birzeit University Library

180. Type 61, 'Alayiq, Arabic

Bowl, two small ledge handles attached 2 cm. below rim, very coarse gritty ware. Pls. 15 & 31: A 13.

It is reminiscent of Chalcolithic and Early Bronze pottery but was found in an undisturbed Arabic house on Tell 1.

181. Miscellaneous Ceramic Finds, 'Alayiq, Arabic.

Jar stand, broken at top and bottom, drab color, height 40.5 cm. A 122 (no drawing).
Lamps, decorated with stylized vine pattern, greenish buff ware. Pl. 14: A 7, A 8.

Closest parallel to A 7 is Mefjer Pl. XVII: 8; cf. also Pl. XVIII: 1.

Only a few objects of a non-ceramic nature were found at New Testament Jericho. There was a broken basalt quern and fragments of two basalt bowls. One limestone mortar was intact and there was a fragment of another; also part of a door socket. There were two flint knives and a scraper. Copper was represented by a broken spatula, fragments of a spiral bracelet, a loop and a rod. Two iron nails were found. There were five salmon-pink beads, a white one and a carnelian one.

The coins found on the site confirm the chronology derived from the pottery. Thirteen coins belong to the first half of the 1st century A. D. and five coins to the second half. The hoard of fifteen coins (Nos. 296-310) represents the following dates: 4 B. C.—A. D. 6, A. D. 9, A. D. 9-12, A. D. 20-30, A. D. 29 (two), A. D. 30 (two), A. D. 31, A. D. 42 (two), A. D. 54, A. D. 58, A. D. 59, A. D. 86 (attributed to Agrippa II, but the inscriptions are illegible, and the attribution must be treated with caution). Three other 1st-century coins belong to A. D. 9, time of a Herod, and A. D. 59. There were three coins belonging to the 2nd-3rd centuries, one to the 4th, two to the 6th, two Omayyad of the 8th, one Crusader and one 12th century Arabic. This last was the only silver coin found on the site. This indicates that after the 1st century the site declined in importance.

BIRZEIT UNIVERSITY LIBRARY

Digitized by Birzeit University Library

CHAPTER III

The Masonry and Plaster of New Testament Jericho (Tulul Abu el-'Alayiq)

182. Since Tulul Abu el-'Alayiq has the only group of large *opus reticulatum* buildings in the Mediterranean lands east of Italy, we studied the Jericho building techniques in great detail. The best treatment on *opus reticulatum* is in Ch. VI of Marion Elizabeth Blake's book *Ancient Roman Construction in Italy from the Prehistoric Period to Augustus*. We have kept this book before us in our comparative study.

183. With the exception of the typical Herodian ashlar masonry on Tell 1, virtually all the other cut-stone masonry of the Roman period which has been excavated is in *opus reticulatum*, i. e., a concrete wall whose face is made up of small square-based pyramidal blocks (*tesserae*) laid with the sides at 45° from the vertical. This gives a diaper or net (*reticulum*) pattern; see Pls. 4-8. The exterior corners, door jambs, etc., are finished off in *opus quadratum*, i. e., rectangular blocks (quoins), many of which approximate the size of bricks and are laid after the same fashion (Pls. 4, 7). Although such a wall presents a striking and pleasing pattern, when outside it was seldom left unplastered but was generally covered with stucco; interior walls were almost invariably plastered.

184. The stone used for the *reticulatum* and *quadratum* patterns is in all cases a very soft limestone, although the natives call it a sandstone (*ramli*). There is such a quarry at Khirbet es-Samra, 11 km. north of 'Alayiq. Khirbet el-Mefjer also used the same quarry. The individual *reticulatum* blocks vary considerably in size. The exterior faces run from about 6 to 12 cm. square, with the variations on a side seldom exceeding ½ cm. except in careless work where it may be as much as 2 cm., giving the unit a slightly rectangular shape. Perhaps the average size would be close to 8 or 9 cm. Adjacent squares may at times be as much as 1 or 2 cm. off size, but by varying the thickness of the mortar these differences in size were compensated for and good diagonal lines preserved. If the units varied more, however, it made the pattern wavy. The blocks taper toward the rear but it is exceptional for them to be sharp pointed. They vary in length but stubby ones are uncommon. Those measured were about 3 cm. or more longer than the maximum face dimension. The thickness of the mortar between the blocks varies, but something like 1.5 cm. is the most common figure. When it differs it is more likely to be thicker than thinner.

185. The method of construction here in Jericho was apparently the same as in Italy. The *opus quadratum* corners were laid first in order to buttress the adjacent *reticulatum*. A few courses of the latter were then laid and a semifluid mortar was poured in behind it. Various sized rocks, wadi boulders and *reticulatum* discards were then placed irregularly by hand in the wet mortar giving something of a layer-by-layer effect (Pl. 4). The larger stones ran 25 to 50 cm. or more in length. The average sizes checked were more like 15 to 18 cm. long and about half as thick. There were two methods of laying the initial *reticulatum* course. It was laid on the normal 45° diagonal in the soft concrete of the foundation, or special triangular units (half of a *reticulatum* block)[1] were placed in a heavy layer of mortar with their longest sides flat. In both cases the second and all subsequent rows fitted into the net pattern automatically. Wooden frames were not ordinarily used in the construction of *opus reticulatum* walls in Italy and there is no evidence on the face of the *reticulatum* walls in Jericho to show their use. Foundation walls, however, used wooden forms. This *opus reticulatum* construction produced for the most part a well bonded wall. Two fallen pilasters and an arch were found where they had been toppled by a severe earthquake (Pl. 4), but the exterior stone facing was still bonded solidly into the concrete core.[2] In some places,however, the bonding between the *reticulatum* face and its core was poor and the face had

[1] These triangular units were also used to finish up the top course of a wall so as to give it a level surface.

[2] At one point, where the core of the wall had been repaired later, the mortar used was not in a liquid state but was more like a thick paste. It was scantily used and there was considerable space between some of the stones in which no mortar at all appeared.

Digitized by Birzeit University Library

loosened leaving a honeycomb pattern where the *reticulatum* had been. Also a small amount of *reticulatum* and *quadratum* seems to have been repointed, and this may have been occasioned by the same trouble. Some of the refugee masons who worked with us said that this trouble might have been caused from insufficiently slaked lime or the use of too little lime in the mortar.

186. *Opus reticulatum*, of course, is ill fitted for an external corner, the end of a wall or the edge of a niche. At one point near the west stairway, however, beyond the niches the *opus reticulatum* was actually used on a corner to a height equivalent to that of 3 *quadratum* courses, above which it was replaced with normal *opus quadratum* courses. By the use of full-sized and half-sized *reticulatum* units (triangular stones), a true corner had been built. Although the *reticulatum* is laid on a fracture angle and Vitruvius (II: 8) warned against this method, it was primarily faulty foundations in Jericho which were to blame when the walls cracked along the diagonal lines. The most severe damage was in the north wall of Rm. A, where the east half of this wall, including the eastern door jamb, was laid on a foundation only one quarter as thick as the foundation wall west of the doorway. Since the Jericho district is subject to severe earthquakes it is surprising to find so few fracture cracks in the walls.

187. On this site the *opus quadratum* was always stone and never brick. In fact only four pieces of broken tile were found in all the *opus reticulatum* excavated and they were imbedded in the rubble core. In size the *quadratum* quoins remind one of bricks although they are usually longer (Pls. 4, 7). They were apparently cut to fit the places where they were used. In length they average about 30 cm., with 40 cm. the maximum. They are seldom as short as 10 cm. Their height runs about 9 cm. with 1 cm. variation either way. Occasionally if a quoin was not long enough to fill out the required distance, the interval was patched up with one or two *reticulatum* blocks laid flat. The only other place where the *opus reticulatum* blocks were not laid on a 45° angle was above the voussoirs of the arches topping the semicircular niches, where two rows of *reticulatum* blocks were laid flat to the top of the voussoirs. At points where we checked the mortar between the *quadratum* quoins it ran from 2 to 2.5 cm. in thickness. The *quadratum* ideal was a good dog-tooth pattern with both the longer and shorter units having three courses each (Pl. 7). At times, however, units of two or four are found where there is no apparent reason except carelessness. In the niches the lines of the dog-tooth pattern were not always on a true perpendicular. The units may be either longer or shorter than normal but the longer were more common. There were also places outside of the niches where this same irregularity occurred.

188. Indeed, it is in the niches (Pl. 7) that one sees all varieties of masonry craftsmanship from the very best to the worst. At times the pattern in the semicircular niches has degenerated into a hodgepodge. Where the *opus reticulatum* pattern blended into the *quadratum* pattern the small triangular *reticulatum* blocks were used in the best work, but at times the interstices were filled up with any kind of small irregularly shaped stones. The *opus quadratum*, however, was usually laid in good mortar and the work was often well pointed.

189. The foundations, although they were out of sight, were occasionally faced with *opus reticulatum* (Pl. 5). Usually, however, the foundations were unfaced (Pl. 5). The backs of the retaining walls were also unfaced. The inside of the terrace walls in the exedra were unfaced except in one case which had *opus reticulatum* on both sides. The wall of the water basin in the exedra, which was not exposed to the water, had its rear face finished in a unique fashion, heavy stones laid in mortar. The unfaced wall was normally laid against a wooden form. The imprints of these are often very plain, showing that the mortar was fairly wet and oozed out where the forms joined. Single boards were occasionally used for forms, but at other times multiple boards were used. The width of the forms were about 40, 50, 60 or 70 cm. The shortest length for a form was just under two meters. The forms did not usually extend to the bottom of the ditch dug for the wall, and the concrete spread out below the forms, making a thin footing. Some of the very low terrace walls in the exedra or hemicycle (Pl. 8) had no foundations whatsoever, but the *opus reticulatum* was laid directly on the clay of the hillside. The sections of these walls which abutted

Digitized by Birzeit University Library

on the main façade, however, did have some foundations although oddly enough they did not have any at the opposite end where they abutted on the central stairway. The topmost pier of the grand stairway (Pl. 4) had no foundation, but the *opus reticulatum* pattern was laid directly on the wadi boulders which formed the top courses of the great buttress against the Hellenistic tower. The lowest free pier had its bottom courses of large stones laid in mortar, then a section of normal unfaced foundation wall, and finally the *quadratum* quoins of the arch.

190. The *opus reticulatum* type of masonry makes the bonding of walls a difficult task, and some walls went unbonded where bonding was an essential factor. In Rm. D at the west end of the façade, the east wall must act as a retaining wall for the hillside and yet it was not bonded in but simply treated as a light curtain wall. In the building of the niches, no general pattern of bonding was used, but apparently each mason "did what was right in his own eyes." Occasionally the back walls and the side walls of the rectangular niches were not bonded together. The more common practice, however, was to bond the walls, at least in part. Sometimes the side walls were built first and sometimes the back wall; sometimes they were bonded and sometimes not. More often they were bonded in one place and not in the other. In the *opus quadratum* of the two pilasters at the west end of the façade, one was bonded in and the other was not.

191. There were stone masons among the Arab refugees working with us and we asked three of them to comment upon the mortar which had been used in the *opus reticulatum* itself. They estimated that the section they examined contained 4 parts of lime, 1 of sand and 2 of very fine gravel. The inner core, however, they estimated as 2 parts of lime, 1 of sand and 1 of fine gravel. They said the mortar in the piers of the niches had more and larger gravel.

192. Columns and colonnettes were built up of small blocks cut in the shape of a quadrant of a cylinder whose arc formed the outer curve of the column (Pls. 5, 7). Their sides, which were of irregular length, were bonded into a solid concrete core. The shapes of these pieces varied considerably as can be seen by the following specimens.

Length of the arc	chord	longest side
34 cm.	31 cm.	16.5 cm.
31	27	18
27	24	19
23	20	11
19	17	11

The lowest stone in a column, however, was always a solid drum. We found one 54 cm. in diameter and 31 cm. in height. Another was approximately 38 cm. in diameter. The German excavators reported finding the remains of a column 1 m. in diameter and whose height they estimated as at least 7 m.[3] The lowest courses of the colonnettes, on the other hand, did not have a solid drum at the base but used the same small units as the rest of the colonnette. They were approximately 25 cm. in diameter. All of the colonnettes of the niches were engaged and formed the outer unit of the piers between the niches. The mortar in the colonnettes checked averaged about 1.5 cm. on perpendicular joints and 1.5 to 2 cm. on horizontal ones. The finish on the colonnettes was only a thin coat of plaster. The columns in most cases, however, were covered with a very heavy coating of plaster which was deeply fluted.

193. The great decorative arch which rested on the pilasters on either side of the north doorway in Rm. A (Pl. 5) was not built of true voussoirs but was a concrete arch in which the stones of the face look like voussoirs. The actual load, however, was carried by the whole mass of the arch. The external facing stones were treated just like the *opus reticulatum* and *quadratum* blocks, i. e., laid in mortar and backed by a great concrete core. Most of the individual stones were about 37 cm. high and either 9 or 10 cm. wide at the top and about 1.5 cm. narrower at the bottom. The depth of these stones ranged from 16 to 30 cm. The mortar between the stones was about 1.5 cm. thick. The plaster on the face of the arch stones ran from .8 to 1.9 cm. in thickness.

194. The details of all other types of masonry excavated on the site have already been described carefully in connection with the various buildings where they were used.

Plaster

195. A good résumé of the data on Roman

[3] MDOG, 41, 1909.

Digitized by Birzeit University Library

plaster, with special emphasis upon Vitruvius, appears in Marion Elizabeth Blake's *Ancient Roman Construction in Italy from the Prehistoric Period to Augustus*. The plaster at New Testament Jericho fits into this general description, especially that from Tell 1 and the other *opus reticulatum* structures.[4] The chart on p. 46 describes the characteristic features of each coat of plaster in typical specimens from both Tells 1 and 2.

196. The ceiling plaster is of special interest because bundles of reeds took the place of present day lath.

SUMMARY OF MEASUREMENTS OF REED IMPRESSIONS IN CEILING PLASTER

(9 examples of 3 reed bundles; 6 examples of 4 reed; 7 examples of 5 reed)

	3 reed bundles	*4 reed bundles*	*5 reed bundles*
Maximum width	4.5 cm.	4. cm.	5.5 cm.
Minimum "	2.8	3.3	4.
Average "	3.	3.5	5.
Maximum depth of imprint	1.8	1.8	2.2
Minimum " " "	.6	.6	1.
Average " " "	1.1	1.1	1.5

Occasional diagonal string marks showed in the reed impressions, but none was found successively on the same piece; so the distance between ties could not be determined.

197. There is a partial research report on one piece of moulded plaster. Pl. 20 [5] shows a cross section with the five layers plainly discernible. The section closest to the scale carries the moulded design. Next to it is a very thin layer, but its outline is discernible. The other three units vary in color and are easily distinguished. The plaster consisted of a course aggregate, a fine aggregate and lime, with the aggregate constituting 33% of the volume of the moulded plaster. The heavy aggregate looks like limestone spalls plus some tiny water-worn limestone pebbles and a little clear crystalline quartz. The relative sizes of the aggregate show well in the photograph. The small aggregate, a sand, was tested and found to contain the following percentages: SiO_2 29.4; CaO 16.54; Al_2O_3 4.9; F_2O_3 1.76. The lime was tested with the result: $CaCO_3$ 90.; $AlSiO_3$ *c.* 5.; FeO_3 *c.* 1.; it was extremely low in magnesium, running less than .05. The sulphate content was also negligible. This was a high calcium mortar; no gypsum had been used even in the finishing coat.

198. This formula is very similar to that of a Palestine marl which runs as follows: "CO_3Ca 89.55; Al_2O_3 3.03; CO_3Fe 0.35; Fe_2O_3 0.61; SiO_2 5.42; H_2O 2.04." (Abel, *Géographie de la Palestine*, p. 185). The *ka'kuli* limestone has a still higher percentage of calcium carbonate. Calcite or marble discards would make a third possibility for the source material of the lime used in this plaster. Unfortunately the chemist working on this material was unable to complete the study, but the above material has already covered the major items of interest.

199. Pl. 19 gives a good sampling of the patterns of moulded plaster found on Tell 1 and the building at the foot of the grand stairway. The finest specimen, Pl. 20, came from the latter area. It was 48 × 44 cm. Some of the moulded plaster fragments are drawn to scale in Pl. 20 A. Some color still showed on a few fragments. These were red, pink, saffron, yellow, blue-green, green and black. This moulded plaster was used not only for interior but also for exterior decoration. On the outside of the Qasr Far'on at Petra, sections of original decorative stucco are still in excellent condition and cling tenaciously to the ashlar masonry. Tell 2 had a much smaller amount of moulded plaster.

200. The colored plaster used in the *opus reticulatum* buildings at New Testament Jericho instantly reminds one of Pompeii (Pl. 19). In Jericho, however, the painting was restricted to solid colors and panel designs, and depicted neither human nor animal forms, nor landscapes. A few stylized plants, however, appeared in various border designs of some panels. The largest panel found intact was 33.5 × 16.5 cm. All this painting was done in tempera and much of the plaster still retains its brilliant color and its delicate smooth finish. Brush marks are seen only very rarely. A little of the painted plaster also had shallow

[4] Not only the interior but also the entire exterior surface of all *opus reticulatum* buildings was covered with plaster, although in exterior usage plaster was also called stucco. In Italy it often had a somewhat different proportion of ingredients because of its exposure to rain. Marble dust was often added to give scintillation to the exterior finish of a building.

[5] Courtesy of C. J. Lewis, Mellon Institute of Industrial Research, Pittsburgh, Pa.

Digitized by Birzeit University Library

Digitized by Birzeit University Library

CROSS-SECTION ANALYSIS OF PAINTED PLASTER (TELL 1)

All figures are in centimeters.

BASE COAT		SECOND COAT		THIRD COAT		FINISHING COAT Very thin, fine white, no agg.	
Light pink with agg.*	.60	Gray-cream with agg.	1.10	White with finer agg.	.35	Painted pink-red.	
Light pink " "	.50	" " " "	1.00	" " " "	.35	"	black and green.
Light pink " "	.80	Gray-buff " "	1.00	" " " "	.30	"	black and green.
Light pink " "	.60	Light buff " "	.80	" " " "	.30	"	black.
Pink-gray " "	1.00	Cream-gray " "	1.00	White with finer occasional agg.	.30	"	cream area, a black & a buff stripe, black area.
Cream " "	.60	Cream-buff " "	.80	White with finer agg.	.40	"	pink-gray with inscription NΘ in black.
White " "	.50	White with finer agg.	.40	Fine white with fine agg.	.20	"	rich red (like sigillata).
Gray-cream " "	1.00	White-cream with agg.	.80	White with finer agg.	.60	"	green area (in part over red), border design of black and red lines over white.
White-cream " "	.60	White with finer agg.	.50			"	yellow area with two parallel black lines.
White-cream " "	1.20	Light cream with finer agg.	.40			"	yellow.
White-cream " "	.60	Gray-cream with agg.	.60			"	yellow area with parallel black lines, cream area with parallel tan lines.
Gray-cream " "	.90	White-cream with agg.	1.30			"	gray-white area (in part over red), with floral design (?) of black lines with blue shading.
Gray-cream " "	.70	White-cream with agg.	.70			"	green area covered with linear ovoids outlined in red.
Gray-cream with coarse agg.	2.20	White-cream with finer agg.	.20			"	white-cream area with two parallel grooves painted black.
Buff-tan with agg.	1.40	White with fine agg.	.70			"	yellow.
		TELL 2					
Cream with agg.	1.00	Cream-buff with agg.	1.50	White with finer agg.	.60	Painted imitation marble (?) in red-brown, dark red, tan, gray-white.	
Cream-white with agg.	2.30	Buff-tan with agg.	.40	" " " "	.40	"	gray-white with design of red & black stripe; brush strokes of the stripes diagonal to those on gray-white.
Buff with very coarse agg.	3.10	White with finer agg.	.50			"	cream & red.

* Agg. = aggregate

Digitized by Birzeit University Library

RECTILINEAR DESIGNS, TELL 1

For convenience we have used the following terminology: a line is .10 cm. or less; a stripe is .11 to .45 cm.; a band is .50 to 5. cm. All figures in the chart are in cm.

Area	*Line*	*Stripe*	*Band*	*Stripe*	*Band*	*Stripe*	*Band*	*Stripe*	*Line*	*Area*
Red	Gray .1	Black .15	Gray .5	Black .2	White 1.7	Black .15				Gray
Red		Black .15		White .45	Black .6		Lt. blue 2.45	Black .25		White
Red	Purple .1		White 1.7		Gray .9			Purple .15		Ochre
Red		Black .25	Red .6	Black .25						Lt. blue
Red		Black .15		White over red .45			Gray-blue 2.3	Black .2		
Red		Black .2		Ochre .4						White
Red		Black .2		White .15		Gray .15				
Red		Black .15		White .15						Red shading to pink
Red			Green 1.6							White
Red			Black over red .6							Orange
Red			White 2.							Bright green
Red			White 1.3							Red
Pink			Black 1.		White shading into gray .6					Black
Pink			Black .7		Light pink 1.7					
Yellow			Purple 1.2							
Yellow			Black .6							
Tan			White 1.	Red .15						White
Ochre	White .1	Black .2	White .6	Purple .3						Lt. blue
Ochre	Black .1		White 1.3			Black .2				Ochre
Ochre		Purple .175	Lt. purple .95		White .95	Lt. purple .175				White
Ochre		Purple .15	Red 1.2		Purple 1.5					Ochre
Ochre	Purple .1		White 1.						Purple .1	
Ochre		Black .15								White over ochre
Ochre		Black .15		Gray .45						Ochre
Ochre		Black .2								
Brown			Blue-green .9	White .25	Brown 2.9	Red .25				Red
Light blue		Red .2	Blue 1.6							Yellow
Light blue		Dark red .3								
Light blue		Black .2		Lt. blue .05*					Ochre .05	White
Light blue	Black .1	Purple .2	Cream .6	Black .2						Yellow-ochre
Light blue			Purple .55	White .4					Black .1	Ochre
Light green			White .5		Lt. green 1.9					Red
Green		White .4								
Pale green		White .3	Pale green 1.	Traces of white						Black (traces of)
Pale green		Blue .2								
Pale green		Purple .15								
Black		White .3	Green .6	White .25	Black 3.2	White .3		White .3	Green .7** white .3†	Black
Black		White .3	Green .85	White .35	Black 4.2		White .5		Black 1.**	Red
Black		White .2	Pink .9	White .2						Black
Black	Red .1	Black .2	Green .6	Black .15						Gray
Black	Red (trace)									Light blue (bright)
Black			Lt. blue-green 1.							Black

* Line

** Band

† Stripe

grooves, single or double. A groove was .5 cm. wide and the distance between the lowest points of the parallel grooves was *c.* 2.6 cm. Page 47 and the following are descriptive color charts of the painted plaster of the *opus reticulatum* buildings.

COLOR SCHEMES OF PAINTED PLASTER (Tell 1)

Solid Colors

White	i. e., natural finish of plaster.
Red [6]	Most common color. It appears as a rich red, a pinkish red and a pink.
Yellow [7]	Almost as common as red; also a light yellow.
Other colors	Blue, green, orange, ochre, brown, gray and black.

Two-Color Areas

Red & Green over red	Brown-black & Green over black
Red & White over red	Black & Light orange
Light red & white	Black & Pink
Orange red & Ochre-brown	Black & Green

STYLIZED PATTERNS ON PAINTED PLASTER (Tell 1)

There were also some stylized patterns used in borders but the fragments were usually too small for detailed study. The following patterns, however, were present:—

Lotus
- (a) Black lines with purple shading on a white ground (ochre undercoat).
- (b) Black lines with blue shading on a white ground (red undercoat).

Palmetto
- (a) Red and white design, outlined in black on a red ground.
- (b) Tan design, outlined in black, on a red ground.

Scroll
- (a) Line drawing in black (2 mm.) on a light gray ground.
- (b) Line drawing in lavender (2 mm.) ending in solid lavender center. Pale lavender area adjacent to scroll; all on an ochre ground.
- (c) Black lines on gray-cream base; dark gray shading in center of scrolls. Scroll 3.4 cm. high. Above scroll straight black stripe .15 cm., band of cream-gray 1.25 cm., black stripe .20 cm., green area.

Linear Ovoid

Small over-all pattern, purple lines over a green-blue area, with ochre shading. Ovoids range from 4 × 2 cm. to 2.3 × 1.7 cm.; lines in the pattern are from .05 to .15 cm.

Imitation Marble

Such designs were found in various veinings and colors. They appeared in panels.

---

[6] Lighter colors may be due to effect of moisture in the *tell*.

[7] *Ibid.*

201. There were no *opus reticulatum* buildings on Tell 2 and the plaster on this *tell* differed in several ways. The plaster coats on Tell 2 tended to be thicker than those on Tell 1, especially the base coat which was sometimes over twice as thick. Occasional trowel marks appeared on Tell 2 plaster; they were never seen on *opus reticulatum* plaster. The color effect was quite different on Tell 2 for the work was done in *fresco a secco*, i. e., the color was mixed with lime water and applied on dry plaster. The brush strokes were at times very prominent and the surface was often quite rough. The designs were also poorer work; and border patterns lacked the complexity of many of those on Tell 1. The lines were sometimes of irregular thickness. Solid colors were less common on Tell 2. Here a common pattern was imitation marble. Purple-cream and gray were common in solid colors on Tell 2 but not on Tell 1.

COLOR SCHEMES OF PAINTED PLASTER (TELL 2)

Solid Colors

White	i. e., natural finish of plaster.
Colors	Red, pink, purple, yellow, blue, green, ochre, brown, gray, cream and black.

Two-Color Areas

Blue-white & Purple-red	Black & Pink
Brown & Red	Black & Blue
Brown & Pink	Black & Gray
Black & Red	Black & Cream

The table of rectilinear designs, Tell 2, is on p. 49. Geometrical patterns were rare, but the following were found. Black lines outlined rectangles of ochre, blue-green and red; and purple lines outlined rectangles of ochre, gray and brown. A white area was observed with many parallel tan lines .1 cm. wide and from 2 to 3 cm. apart. There seems also to have been a checkered design, although the lines were very worn, black lines on an ochre area.

202. The only painted plaster walls still standing and in excellent condition were at the lower S. E. corner of Tell 2. Here were imitation marble designs presenting various patterns in veining and coloring. They covered the south wall of a room 5.20 m. long. There was also a 0.65 m. unit on the east wall between the S. E. corner of the room and a doorway. As we were closing the season's work we did not have time to clear out the entire room, but simply photographed the excavated walls and then filled in the room to preserve the painted plaster. The designs show up well in Pl. 9.

Digitized by Birzeit University Library

RECTILINEAR DESIGNS, TELL 2

Area	*Band*	*Band*	*Stripe*	*Band*	*Band*	*Area*
Yellow	Black .5					Red
Brown	Purple .5					Ochre-brown
Brown	Pink .7	Purple .5				Ochre
Ochre	Purple-red 1.3					Blue-gray
Light green	White .9	Red 1.8		Black 1.7	White 1.4	Red
Purple	Ochre 1.1	Red 1.				Cream
Purple	Black .4*	Purple .2*	White .4	Ochre .5	Purple .25*	Ochre
Purple	Ochre					Purple
Gray	Dk. purple 1.1			Red 2.3		Gray
Gray	Red 2.5	Black 1.3				Gray
Gray	Red 2.3	Dk. purple .8				Gray
Gray	Ochre 2.6	Purple 1.5				Gray
Gray	White .7	Pink 1.8				Red
Gray	Pink 2.9	Gray 1.4				White
Light gray	Red 2.3					Dk. purple
Cream	Black .9	Green 2.				Cream
Cream	Ochre .7	Cream .7		Dk. red 1.4		Pink
Cream	Black 1.5		Cream .25	Ochre .55		Black
Cream	Purple 3.4					Black
Black	Green .6					
Black			White .4	Ochre .8		Dk. red
Black			Purple .45			Ochre

* are stripes.

This painted plaster was similar to the plaster on the main buildings of Tell 2.

203. The best comparative Palestinian material on painted plaster comes from Samaria where there were large panels alternating in red and yellow.[8] These are from the same period as our *opus reticulatum* buildings. The closest parallels to the painting on Tell 2 also come from Samaria.[9] Fisher, in reporting the excavations of pre-Herodian Samaria, mentions imitation marble patterns on that plaster.[10]

204. The water-proof plaster used in the water-reflecting basin has already been referred to in § 51. Four coats were used. The various pieces studied ran a total thickness varying from 2 to 4 cm. The first and the last coats were very thin, with the two center coats of about equal thickness.

[8] *The Buildings at Samaria*, J. W. Crowfoot, Kathleen M. Kenyon, E. L. Sukenik, p. 42, Fig. 13, Pl. XLIX: 1; see also p. 32.

[9] *Ibid.* p. 35, Pl. LXXXIII: 3, 4.

[10] *Harvard Excavations at Samaria, 1908-10*, G. A. Reisner, C. S. Fisher, D. G. Lyon, Vol. I, p. 145.

Digitized by Birzeit University Library

CHAPTER IV

The Excavations at Khirbet en-Nitla

205. Khirbet en-Nitla, or en-Nitla, is a small ruin situated 3 kms. east of Jericho (Pl. 10), just north of the dirt road to the traditional site of Christ's Baptism.[1] The site which derives its name from the nearby tamarisk tree (*athla* in classical Arabic but garbled into *nitla* in colloquial Arabic) has in the past attracted many explorers, and by some archaeologists in the middle of the last century it was identified as the site of Gilgal. Other archaeologists, however, favored the site of Khirbet el-Mefjer. With the excavation of the latter site by the present writer and the discovery of an Early Arab (Umayyad) palace there, en-Nitla remained the only attractive site for Gilgal. In order to throw further light on the subject, Professor James L. Kelso, Director of the American School of Oriental Research, while excavating the nearby site of Tulul Abu el-'Alayiq, directed the present writer to make a few soundings at en-Nitla.[2] The use of the site was graciously donated by the owners, the Supreme Muslim Council of Jerusalem. Four of these soundings[3] exposed Byzantine or Early Arab walls of an unpretentious character. A fifth revealed the ruins of a church which had undergone many changes in construction and repair from the fourth to the ninth centuries (Pls. 11, 40, 41).

206. The first church to be constructed on the site was a three-aisled basilica built of ashlar. A small section of the south wall, the foundations of the square apse and part of its mosaic floor were cleared, as well as part of the substructure of the cloistered atrium and the *diakonikon*. The two-meter stretch of the south wall of the church was built of soft limestone procured from the quarry at Kh. es-Samra. Toward the east end of the south aisle of the church, foundations were discovered indicating the position of the *diakonikon*, which was usually built at the east end of the south aisle. Most of the foundations of the central nave and the north aisle were destroyed. The remains of the mosaic pavement which were discovered in the square apse were in a very dilapidated condition. The mosaic originally consisted of a series of hexagons and squares, in red, blue and white. In the middle there was an inscription in Greek uncials in six lines; see Pl. 10. In front of the church the foundations of piers, distinguishable by their square plan, and the substructure of a stylobate were encountered (Pl. 40). Although the north aisle and the nave were destroyed, the square apse at the eastern end of the nave was completely uncovered and the width of this apse showed that the central nave was wider than the south aisle. In these early churches the central nave was normally wider than the flanking aisles. The church appears to have been erected in the fourth or fifth century and destroyed sometime in the sixth century.

207. The second church, like its predecessor, was built of ashlar but the building was reduced in size to a single aisle, the new church occupying approximately the area of the old south aisle. The north wall was now constructed about a meter north of the northern limit of the old south aisle. The other walls of the southern part of the old church were retained, and presumably the *diakonikon* of the old church became the apse in the new. The new north wall was probably built from the masonry of the two destroyed aisles. This church succumbed to the fate of its predecessor and was destroyed in all probability by Chosroes II in 614.

208. A third church, however, must have been built soon afterwards. Except for the two-meter stretch of wall on the south which was retained all through the different vicissitudes that the church experienced, none of the walls of this church remain. However, the foundations of the walls, which were built of large river pebbles and were 50 cm. deep, were recovered as well as the mosaic pavement which was relaid at this time;

[1] Map Reference: X 196.140, Survey of Palestine 1: 100,000.

[2] Work was begun February 14th, 1950, and covered approximately 20 days with a major working force of thirty men. For the preliminary report, cf. BASOR, No. 121, pp. 6-8.

[3] One of the minor soundings does not appear on the map of the site.

Digitized by Birzeit University Library

and from these the ground plan of the church can be reconstructed. The church was reduced in size by about 2.30 m. on the north side, 30 cm. on the south side and 3.50 m. on the east side. In fact it became a small chapel with a narthex. It seems to have been constructed of plastered sun-dried bricks.

209. The narthex was paved with *tesserae*; the surround consisted of white *tesserae* interrupted inside the door by the inscription in Pl. 12. The field is a rectangle enclosed in a border consisting of a row of black *tesserae* and contains three squares connected together by hexagons. In the middle of each square there is a cross made of four blue *tesserae* with a white one at the crossing of the arms. In the center of each hexagon there is a cross formed of eight blue and five white *tesserae*.

210. The mosaics in the chapel consisted of a white surround interrupted inside the entrance by the inscription in Pl. 12. The letters are all in black. Farther inside the door there is a bunch of grapes; the outline of each grape is in black, while the rest of the fruit is in pink and white. On either side of the bunch of grapes there is a bird in black, pink, green and white, facing the grapes. The rest of the surround is decorated with indented squares. The border consists of two rows of black *tesserae* enclosing a row of white. The field is divided diagonally into rhomboids, each enclosing an indented square.

211. The floor of the apse is destroyed, but presumably the floor was raised a few centimeters above the floor of the church, and a chancel screen probably separated the apse from the rest of the chapel. This church was probably destroyed by the earthquake in 747.

212. The fourth chapel was constructed soon afterwards. It was built of sun-dried bricks and plastered with *huwar*. The mosaic pavement was retained; but the chapel was widened about 30 cm. on both the north and south sides. Otherwise the former plan was retained. During this stage some rooms were built abutting on the south wall (Pl. 40), indicating the presence of a small monastery.

213. This church was not destroyed, but was remodeled into a store-room; over it a small upper-storey chapel was constructed. Six square piers were erected along the central east-west axis of the fourth church to support a second storey which became the fifth church (Pl. 11). Access to this church was gained by means of a flight of stairs which was constructed against the north wall of Church IV, and of which the first two stairs were found *in situ*, while the impressions of three others were left in the wall, where they had been previously bedded. We know only a few facts about this chapel. It was constructed of sun-dried bricks and had a mosaic floor with a very thin bed. Its area was coterminous with the former church on the ground floor, i. e., Church IV. That this was a second-storey chapel is borne out by several facts. In the débris of Church IV, several architectural features were discovered, which obviously fell from an upper floor. These include parts of a chancel step and a chancel screen which were discovered in the débris between 40 cm. and 60 cm. above the floor. The angle at which they were discovered leaves no doubt that they fell from an upper floor. To the edges of the parts which formed the chancel step, a row of white *tesserae* was attached, suggesting that the chancel of the upper chapel was paved with mosaics. In addition many large pieces of a mosaic floor with a thin bed, 10 cm. in thickness, such as one would expect to find over a wooden support were found in the rooms to the south standing on their edges. The manner in which the mosaics were laid indicates that they belonged to floors and were not wall mosaics. It is suggested that these mosaics were laid over the wooden beams of the lower chapel. Some of the pieces were very large, being as much as 70 or 80 cm. in length, and they were numerous enough to cover the entire area of the chapel. From these large pieces it was possible to reconstruct the design. The floor consisted of a white surround, a border of two black rows of *tesserae* enclosing two rows of white, and a field divided into octagons and small squares, each enclosing a cross.

214. The mosaic pavement on the ground floor was broken into where the piers were constructed (Pl. 11), and the floor was covered with red earth and plastered with a thin coat of *huwar*. The floor of the area formerly occupied by the chancel or sanctuary was plastered with lime, after the raised step of the chancel and the chancel screen had been removed for use in the new chapel on the

Digitized by Birzeit University Library

floor above. The pottery from the débris belongs to the ninth century A. D., giving the *terminus ad quem* to the life of the church.

215. The foundations of all of these churches are of large river pebbles, somewhat round but not spherical, averaging 15 cm. in diameter and 8 to 10 cm. in height. The foundations of each of the churches were about 50 cm. deep. The site had been thoroughly looted for building stone and only a little remained *in situ*. Even less free stone was found; there were only two worked pieces—the base of a chancel screen already referred to and a small altar column of bituminous limestone. It was found in two pieces, having been sawn lengthwise. One small inscribed piece of marble was found, but it was no longer legible. The bricks used are all sun-dried and averaged 24 cm. in length and 12 cm. in width and height. The plaster is limy clay (*huwar*), with straw and sand added, and there are three coats on the existing walls. There was no attempt at keying, such as one finds elsewhere. On the whole, the workmanship is very poor.

216. Glass fragments from some of the church windows were found but none was of any size. A few large nails were discovered, which probably came from the church doors. Among the furnishings found there were parts of a bronze censer, two bronze chains and a small pottery brazier. The latter was square in shape with rectangular holes on three sides. Its height was 17.2 cm. and the diameter was 12.2 cm. (Pl. 16 : 9).

217. While it is not possible to date with accuracy the different changes the church had undergone, it is suggested that the destruction of the first church may have some connection with the Samaritan insurrection in the 6th century when many churches were destroyed. The reduction in size of the reconstructed second church may be due to the curtailed income received by the local clergy from Western Christendom as a result of the virtual schism between East and West in the time of Gregory the Great. This church was probably destroyed by Chosroes II when he invaded Palestine in 614 and destroyed most of the churches in the country. The third church was built sometime between 614 and 636 and was probably destroyed by the earthquake of 747. The fourth church was probably built in the late 8th or early 9th century during the reign of Charlemagne when the resources of the local clergy were further restrained by the virtual cessation of income from abroad on account of the Moslem occupation of the country, a possibility which explains its poor construction.[4] Such a modest and poorly constructed edifice could not have survived for long and the church went rapidly through its last stage and final destruction early in the 9th century. The pottery found on the site bears out this hypothetical reconstruction of the history of the church.

218. The other buildings discovered are architecturally of no consequence. However, the pottery found in them confirmed the evidence obtained from the excavation of the church. Very few objects except pottery were found in any of the trenches. Among the miscellaneous items discovered were a small stone bowl and a stamped glass weight. A large glass plate was reconstructed from its fragments but not a single piece of small glass was found intact. Two pendants were the only bone objects found. In the field of copper jewelry there were two pendants, a ring, a spatula and a pair of tweezers. A few pieces of copper wire were also found.

219. The pottery finds at Kh. en-Nitla were valuable for they fill in the missing years at Tulul Abu el-'Alayiq. The entire span of pottery at the two sites gives a cross section of Palestine pottery from the close of the Hellenistic period through the Roman and Byzantine and into the Early Arabic. The Nitla pottery is treated in detail in Chaper II.

220. The identification of this site with Byzantine Gilgal must be abandoned. None of the features of the church built at Gilgal were present at Kh. en-Nitla. See Chapter VI on Khirbet en-Nitla and the Gilgal traditions.

221. Of the eighty-four coins discovered at Nitla most were obliterated, and only fifteen pieces could be dated with certainty. Three belong to the 4th century, two to the 5th, seven to the 6th and two to the 8th. Of the remainder one belongs to types of the 4th century and three to the 5th-6th. The distribution of the coins confirms the conclusions drawn from the pottery.

[4] Comparison may be made with the contemporary poor structure put up by Modestos over the Holy Sepulchre.

Digitized by Birzeit University Library

CHAPTER V

Inscriptional Material from New Testament Jericho (Tulul Abu el-'Alayiq) and Khirbet en-Nitla

222. Only one inscription was found in the work at Jericho; it is written with ink on a marble slab measuring about 33 × 16.5 × 4 cm. (§ 14 and Pl. 21 (transcription in Pl. 21 A). We owe the following translation, commentary, and discussion to Prof. Arthur Jeffery of Columbia University, recognized as perhaps the foremost living authority on the text of the Qur'an.

1. In the name of Allah, the Merciful, the Com-
   passionate.
2. A token of good, a writing, an inscription
3. for Abū'l-'Abbās. May the blessings of
4. Allah be upon Muḥammad, and upon them
5. be abundant measure of grace
6. from His mercy.

---

7. (Sūra 1) In the name of Allah, the Merciful,
   the Compassionate.
8. Praise be to Allah, Lord of the Worlds, the
   Merciful, the Compassionate.
9. Master of the Day of Judgment. Thee do we
   worship, and [to Thee]
10. do we turn for help. Lead us in the way
11. that is straight, the way of those Thou hast
    showered blessings
12. upon, not of those with whom Thou has been
    angered, nor
13. of those who go astray. (Sūra 113) In the
    name of Allah, the Merciful, the Compas-
    sionate.
14. Say! I take refuge with the Lord of Men,
    the King of Men,
15. the God of Men, from the evil of the whisperer
16. who keeps concealed, who whispers into the br-
17. -easts of men, from *jinn* and from men. (Sūra
    114) In the name of Allah, the Merciful,
    the Compassionate.
18. Say! I take refuge with the Lord of the
    Dawn from the evil of that which He has
    created, and from the evil of darkness when
    it
19. spreads, and from the evil of females who
    blow on knots, and from
20. the evil of an envious man when he envies.
    (Sūra 112) In the name of Allah, [the
    Merciful, the Compassionate].
21. Say! The fact is, Allah is One, Allah is the
    Eternal. He begets not [and was not
22. be]gotten, and there is no one who is His peer.
23. (Sūra 111) In the name of Allah, the Merci-
    ful, the Compassionate.
24. [Perish] the hands of Abū Lahab, and may
    he perish. Those he has have not profited
    him, nor what he has gained. He shall roast
25. at a fire, the possessor of the flame. And his
    wife (shall be) a bearer of kindling-wood,
26. On her neck a rope of palm-fibre.

L. 1. This line is not clear but it is doubtless the *Basmala*.

L. 2. is the most problematic line of the document. There seem to be three words, the second and the third joined by *wāw* (and). My reading is merely a guess which suits the sense of the document. كَتَبَ without expression of the *alif*, is Qur'ānic usage. It must be admitted, however, that the first letter of this third word looks more like a ط, and Dr. Moḥammed Muṣṭafā of the Arab Museum, who has had much experience in these matters, would read the line لوزر ويطيب يرجى

L. 3. Who the Abū 'l-'Abbās may be, is naturally quite uncertain. It is not an uncommon name, but learned Muslims in Cairo who have been shown the photograph have unanimously agreed that it must be Abū 'l-'Abbās as-Saffāḥ (d. 136 A. H. = 754 A. D.), the founder of the 'Abbasid Dynasty. It is unlikely that the *li* is the *lamedh auctoris*, which would make this the name of the scribe who wrote the Sūras. It is much more likely that this pious work of writing these Sūras was done *for* the spiritual benefit, whether in this life or the next, of an Abū'l-'Abbās, whether as-Saffāḥ or some much more humble person.

L. 4. The *'alaihim* doubtless refers to the family of the said Abū'l-'Abbās.

L. 5. الفضل is uncertain. My first thought was that it represented الصلت, but the spelling with *tā' ṭawīla* and with unexpressed *alif* would be unusual, and *ṣalāt* coming so soon after *ṣalawāt* rather unlikely.

Digitized by Birzeit University Library

LL. 7-13. The *Fātiḥa* or first Sūra of the Qur'ān.

L. 9. ملك instead of مالك is normal Qur'ānic orthography, as can be seen from the text of the Egyptian standard edition. See also ad-Dānī's *Muqni'*, p. 88 (ed. Otto Pretzl, *Orthographie und Punktierung des Koran*, Stambul, 1932).

The second اياك is very faint but there are traces of it. The expression of the *alif* in this word is normal. (The alif has been omitted in Pl. 21 A by mistake.)

L. 10. The *alif* of صراط is expressed both here and in line 11, which is contrary to the rules for Qur'ānic orthography (see *Muqni'* p. 97) but is normal in ordinary writing.

LL. 14-20. *al-Mu'awwidhatain* the two closing Sūras of the Qur'ān, Nos. 113, 114.

L. 15. الوسوس. In Qur'ānic orthography the *alif* ought to be expressed, i.e. الوسواس as it is in the Egyptian text.

L. 16. The *alif* expressed in الخنّاس follows correct Qur'ānic orthography. The final *wāw* in يُوَسْوِسُو, however, is a scribal error. It is possible that what we have read as a final *wāw* was meant by the scribe to be nothing more than the tail of the *sīn*.

L. 18. The expression of the *alif* in غاسق follows correct Qur'ānic orthography.

L. 19. The omission of the two *alifs* in النفثت for النفاثات is also correct Qur'ānic orthography. See *Muqni'*, p. 24.

L. 20. The expression of the *alif* in حاسد follows correct orthography.

The *Basmala* is faint but the traces of it are there.

LL. 21-22. contain Sūra 112, *Sūrat al-Ikhlāṣ*, the one most commonly recited in the daily prayer services.

L. 22. كُفُوًا should be written with a final *alif* in correct Qur'ānic orthography (ad-Dānī, *Taisīr*, p. 74), and it may be that the letter we have taken to be the first letter of احد is meant to be the final letter of كفوا, another faint ا being understood before the last word in the passage.

LL. 23-26 contain Sūra 111.

L. 24. تبت is smudged but the traces are there.

مَنْ لَهُ the *textus receptus* reads مَالَهُ, and that may be what the scribe meant here, for there seem to be traces of an up-stroke, and what looks like a *nūn* (as he writes that letter) may be merely a run of ink in the stone. The مَالَهُ of the *textus receptus* means "his wealth," but if it is مَنْ then it must mean "those whom he has," i.e. his family and retainers. However, there is no such variant reading recorded, so it must be a mistake for ما.

L. 25. The *textus receptus* reads لهب "a flame," but, doubtless by error the scribe has here placed the article before it and made it definite, "the flame."

The *textus receptus* reads حَمَّالَةَ, the fem. of *ḥammāl* "a porter," but again, doubtless by error, the scribe has here used the form حمّل, or perhaps what we have is the حَمَّا of the *textus receptus*, the لَةَ having been omitted by oversight.

223. These are five short Suras from the Qur'an written in favour of one Abu 'l-'Abbas who is not further identified. Muslim manuals of devotion specify at length the numerous blessings and benefits that derive from the repetition or the writing out of specified Qur'anic passages, and such blessings may be sought with the intention of their application to a person other than the writer himself. Indeed the five Suras found here are those most commonly found inscribed on amulets, charms and talismans.

224. This particular scribe has made slips here and there, as we have already noted above, but in general he follows the normal tradition which we have in the 'Uthmanic text and the rules of orthography laid down in the works on *Rasm al-Maṣāḥif*, which are instructions to scribes on how the Qur'anic text is to be written. As can be seen from the facsimile the writing is without vowel signs or the diacritical points used to distinguish letters which might be confused. This is not necessarily a sign of very early date, for there are many later documents from which such signs are absent. Nor does the scribe have any feeling against breaking words so that part of a word is on one line and the remainder on the next (cf. lines 16 and 18). This practice was later frowned upon but apparently long continued in use in informal documents. That he begins the *Basmala* of a new Sura on the same line as the ending of the previous Sura is not significant in a document of this kind.

225. The dating of such a document is difficult. The way in which the scribe scribbles the *Basmala* shows that there is a long tradition of hurried writing of this formula behind him; it resembles that found in many of the Arabic papyri of the

Digitized by Birzeit University Library

third and fourth century of the Hijra. In fact this hand has many resemblances with that of the third century A. H. papyrus document No. 38 published on Plate III in Grohmann's *Arabic Papyri in the Egyptian Library*, Vol. I (Cairo, 1934). The fact that the text varies here and there from the *textus receptus* of the Qur'an is not necessarily an argument for an early date, for they are normal types of scribal error, and, contrary to common opinion, it is no unusual thing to find mistakes of precisely this kind in transcriptions of Qur'anic verses. For example, in the edition of al-Malaṭi's *Kitāb at-Tanbīh*, which lies before us as we type this, the editor, Sven Dedering, has had to mark in his footnotes numerous occasions where the scribe (or even the author al-Malaṭi himself, who died in 377 A. H. = 987 A. D.) has made slips in quoting from the Qur'an. Our text may date from the late third or early fourth century of the Hijra. [Since no glazed or moulded ware was found here, this date seems very late.—J. L. K.]

226. At Khirbet Nitla two mosaic inscriptions were found in the third chapel (Plate 12 and BASOR, No. 121, pp. 6-7, figs. 1-3); cf. §§ 209-210. Many divergent views were at first expressed and some scholars were even inclined to consider them as written in a mixed Greek and Latin cursive. However, the late Père F. M. Abel insisted on their Latin origin, though even he had difficulty with the interpretation. He submitted a preliminary report on the inscriptions in February, 1951, followed by a more detailed supplementary letter, May 7th, 1951, which we shall quote below. On April 24th, 1951, Prof. C. Bradford Welles of Yale University wrote W. F. Albright as follows: ". . . The letter forms are fundamentally precisely the same as in our Dura papyri [in Latin cursive] of four centuries or so earlier. . . . The first contains the prayer: *meserere* = *miserere* . . ." Meanwhile, the writer of these lines (W. F. Albright) and one of his students, Rev. W. L. Moran, S. J., decided to try their hand at the decipherment of the longer text, since Père Abel's reading seemed only partially satisfactory. We started with his reading *feci leto die le* (which last he took as two letters with numerical value; see below), and read simply *feci leto die le*[*te*] or perhaps better *feci leto die le* ⟨*te*⟩ (depending on whether the end of the inscription was later destroyed or whether the scribe had no more room, since the text ends at a door-jamb), "On a joyful day I made it joyfully." Since it scans (on the mediaeval basis of accent instead of quantity) as a trochaic tetrameter (exactly like *dies irae dies illa*, etc.), one would assume that it was a quotation from a sacred poem, but queries have not elicited any information on this point.

227. W. F. Albright wrote Père Abel on July 19th, 1951, and he replied on the 30th, accepting our proposal and discarding his numerical interpretation: "J'ai reçu avec plaisir votre lettre du 19 juillet si intéressante à divers points de vue. . . . J'abandonne l'*abbas Letus* pour adopter votre lecture en tenant compte de la simplification de la voyelle composée (*e* pour *ae*—cf. Diehl, *Inscr. lat. christ. vet.*, III, p. 95); mais je conserve l'inscription liminaire *Do*(*mine*) *meserere* avec sa particularité de *me* pour *mi* (Diehl, III, p. 555: *meserum* = *meserorum* < *miserorum*). Le reste parait dès lors très clair: 'Je l'ai fait en un jour de joie, allègrement.' . . . Quant à la date du document, puisqu'il y a difficulté à placer l'inscription après le septième siècle, en vertu de l'examen céramique, il serait alors tout indiqué de remonter au pontificat de Gregoire-le-Grand (590-604) qui entretint des relations suivies avec l'Eglise de Jérusalem et le monachisme de Terre Sainte, en particulier avec le Sinaï. Cf. notre *Jérusalem*, II, p. 917 s., Migne, *Patrologie Latine*, LXXVII, p. 917 s."

228. While Père Abel's earlier ideas must in part be discarded, they are so interesting in themselves and in part so instructive for the texts in question, that we quote at some length from his communication of May 7th, 1951:

"Le panneau de la fig. 1 (BASOR, N°. 121) presente les deux lignes que nous lisons: *Do*(*mine*) *meserere*. Le *D* muni au sommet d'un trait, signe d'abréviation, se retrouve comme 11e lettre de la longue inscription. $\overline{DO}$ est évidemment l'abréviation de *Domine* latin et la formule complète répond a l'invocation fréquente chez les Grecs: *Kyrie eleison*! La 1ère syllabe *me-* au lieu de *mi*(*serere*) se rencontre dans plusieurs inscriptions chrétiennes. Voir Diehl, *Inscr. lat. christ. vet.* 3567, 1093, 3567.

"L'inscription longue commence par deux lettres surmontées d'un trait qui peut représenter le nom de l'artiste en abrégé ou simplement le

Digitized by Birzeit University Library

pronom *lo* qui signifie 'cela' (en francais *le*). Ainsi l'on rencontre *lo* pour *ille* dans les litanies de l'époque de Charlemagne: *S. Petre, tu lo adjuva*, etc. Quoi qu'il en soit, *feci* est clair. L'artiste mentionne son œuvre comme achevée: 'j'ai fait, j'ai accompli.' On pourrait croire que *leto* qui suit appartiendrait à la déclinaison de *laetus*, adjectif qui demanderait à s'unir à *die* . . . *Letus* est plutot un nom propre dont l'orthographe a été respectée: ce nom était porté par un abbé qui résidait au monastère de Sainte-Marie *in Coziba* à l'époque où fut rédigé sur l'ordre de Charlemagne le *Commemoratorium de casis dei vel monasteriis*, ou memoire ayant pour but de faire connaître à l'empereur d'Occident les besoins des sanctuaires et des monastères des différentes nationalités établis en Palestine en vue de répartir les subsides qui leur étaient assignés (vers 800-808). Nous avons donc entre la mention du monastère de Saint-Euthyme (Khân es-Sahel) et celui de Saint-Gérasime (ou du Baptême) la notice suivante: '*In monasterio Sancte Marie in Coziba abba* [*nomine*] *Letus, monachi . . .*' **La mention particulière de Letus avec son titre d'*abbas* au milieu de tous les anonymes qui sont mentionnés par le nom de leurs monastères seulement, en fait un personnage vivant et important, peut-être le chargé d'affaires de l'empereur pour la répartition des aumônes aux divers établissements ecclésiastiques . . . L'auteur de la mosaïque est très probablement quelque moine grec comme on pourrait l'inférer de la forme de certaines lettres du texte latin. Quant à la réflexion du mosaïste sur le laps de temps exigé par son œuvre, il unit le nom du bienfaiteur à la rapidité de son travail d'ailleurs peu compliqué: 'Je l'ai fait pour Letus en cinquante cinq jours.'" Unfortunately, as already stated above, this tempting interpretation was intrinsically difficult (e. g., the assumption that it was written by a Greek who imitated Greek writing of the numerals, etc.) and was subsequently given up by Père Abel in favor of the explanation advanced by Albright and Moran.**

Digitized by Birzeit University Library

CHAPTER VI

Khirbet en-Nitla not the Byzantine Gilgal

229. The Wadi Qilt is the main water supply of the southern sector of the Jericho plain.[1] It is supplied by major perennial springs. In addition, a large watershed channels the water of the limited rainy season into this narrow gorge. The three major springs are 'Ain Farah, 'Ain Fawwar, and 'Ain Qilt. From the first and highest of these sources near Tell el-Ful,[2] the wadi falls precipitously some twenty-five kilometers to the Jordan. The last ten kilometers are in the Jericho plain. From the plain westward, the wadi is a veritable gorge for the first thousand meters. It "is a deep and narrow gorge, flanked by precipitous cliffs, above which rise white chalk hills, presenting a tangled network of narrow water-born torrent beds, with knife-edged ridges between. The slopes are very steep and numerous conical peaks and rounded knolls project along the ridges. The whole of this district is a barren and treeless desert, uncultivated and clothed only in early spring with green and wild flowers."[3] The bed of the wadi is very narrow, rarely exceeding fifteen meters in width.

230. In this area is located Deir Jirjis and the more ancient Deir Qilt. At the source of the Qilt is a semi-oasis with the still occupied monastery of Chariton. In the plain, numerous ruins of monasteries and other sites are to be found. Wadi Qilt is the traditional site of the Brook Cherith in the Elijah cycle.[4] The Valley of Achor[5] is also supposed to lie along this wadi, but it is unfortunately located by the Pilgrim Texts only in reference to the site of Gilgal.[6] The traditions of Joshua, John the Baptist, and the climate combine to make this area important for monks and hermits as well as the goal of many pilgrims.

231. It was the tradition of Gilgal[7] at Khirbet en-Nitla that led Dr. Kelso to the site in 1950. The site, which derives its name from a nearby solitary tamarisk tree, has been so identified by the majority of scholars since the middle of the last century.[8] The uncovered ruins were Byzantine and early Arabic; there was no evidence of any earlier phases of occupation.[9] The traditions concerning Gilgal are not too clear. The Biblical notices in Joshua 4, etc., which refer to the Israelite period, Late Bronze in archaeological terms, are too general to be of value in identification. Dalman considered the ancient Gilgal to be at 'Ain Gharaba (Map 8) and the Christian Gilgal to be at Nitla.[10] Abu el-'Alayiq has also

---

[1] A dam has been proposed by the "Clapp Report," officially *Report of the United Nations Economic Survey Mission for the Middle East*, 1949, Vol. I, p. 70. The feasibility of this project from engineering and geological, as well as hydrological considerations is outside our scope. Th. Fast, "Wadi el-Kelt," *MNDPV*, 1897, pp. 21-24, and C. R. Conder and H. H. Kitchener, *Survey of Western Palestine*, Vol. III, pp. 170-171, give some information on water supply. The geological formation of the Wadi is considered in Blake and Goldschmidt, *Geology and Water Resources of Palestine*, 1947, Vol. I, pp. 152, 154.

[2] Excavated by W. F. Albright, *AASOR* IV (1924) and *BASOR*, No. 52 (1934).

[3] *SWP* III, p. 167.

[4] I Kings 17—II Kings 2. *SWP* III, pp. 174, 177. There is some doubt as to the interpretation of this tradition. For a full discussion and a tentative negative conclusion, cf. A. Augustinović, "Wadi el Qelt y el Kerith de la Biblia," *Tierra Santa*, July-August 1948, pp. 113-126.

[5] Joshua 7: 24-26. It is normally put near 'Aqabat Jabr, above 'Abu el-'Alayiq but may be east or north of there.

[6] Burchard of Mt. Zion (1232 A. D.), *Palestine Pilgrim Texts*, Vol. XII, p. 77; Marino Sanuto (1321 A. D.) *PPT* XII, p. 13; Fetellus (1130 A. D.) *PPT* V, p. 22.

[7] G. E. Wright and F. V. Filson, *The Westminster Historical Atlas to the Bible*, Plate VI; Abel, *Géographie de la Palestine*, Vol. II, p. 336 f.

[8] H. Zschokke, *Beiträge zur Topographie der westlichen Jordans'au*, 1866, p. 27 f. The two sites Nitla and Jiljulieh are for our purposes identical. They are only a few metres apart and although some scholars seem to be confused by the two names, the Nitla excavations ran into the Jiljulieh area. Clermont-Ganneau, *Archaeological Researches in Palestine*, Vol. II, p. 26 f. He himself was skeptical about this tradition; see Vol. II, pp. 37 f.

[9] It is, however, not necessary to hold that the Gilgal of Joshua was an occupied spot or a mound. Unfortunately the mosaics of Nitla are of little present value for the identification of the site.

[10] *PJB*, 1911 p. 30, 1913 p. 21. Tell Mugheifer is also ruled out (Clermont-Ganneau, *ARP*, II p. 40). E. Sellin, *Gilgal*, 1917, is not concerned with geography but

Digitized by Birzeit University Library

been suggested for the site of ancient Gilgal.[11] Schneider[12] and Alt[13] located Byzantine and probably also Israelite Gilgal at Khirbet Mefjer,[14] northeast of ancient Jericho. It is true that the excavations there have until very recently brought to light only Islamic remains, but in May, 1954, James Muilenburg made soundings in several low mounds immediately northeast of Khirbet Mefjer (within two hundred metres or so of Hisham's palace), and found Iron I and Iron II pottery in many sherds. While the majority of scholars have followed Zschokke in identifying Nitla with Gilgal,[15] our 1950 excavations did not confirm this location for Joshua's Gilgal.[16] Of course, these Israelite and Byzantine sites may have been entirely distinct. However, in reality these scholars simply followed Christian tradition. Though the pilgrims and early travellers are sometimes confusing, Alt and Zschokke may both be right in their general locations, but in error as to which Gilgal they have identified.[17]

232. A brief survey of these traditions must be made. They are numbered and put into chronological order.

1. The earliest references in the post-Christian period are to be found in Josephus,[18] who places Gilgal ten stadia from Jericho. There seems to be some error in the text since he suggests a westward location, but this might point to a site near Abu el-'Alayiq.

2. The Bordeaux pilgrim's location is even more vague: Gilgal is near old Jericho.[19]

3. Eusebius and Jerome both locate Gilgal two miles east of the town of Jericho,[20] which is supported by Paula.[21] This would fit a location near Nitla. Of course there may have been no building on the traditional place of the "Twelve Stones" in the time of the Fathers of the Church.

4. Theodosius (A. D. 530) is also of little help since his location is vague—a mile from Jericho without indication of direction. He does say that it is watered by the Fountain of Elisha.[22] Similarly Antoninus Martyr (A. D. 570) locates a church of Gilgal in the plains of Jordan.[23]

5. The Madaba Map is a real conundrum. It has been used to support almost every proposed location. It does, however, show conclusively that construction of a church had taken place at Gilgal. If a line is drawn from Jericho to Gilgal it runs northeast. But a line from Elisha's fountain to Gilgal runs southeast. Gilgal is also south-southeast of Archelais.[24] All this seems to suggest that the area in which Gilgal is to be located is east of a line running from Jericho to 'Ain es-Sultan and thence north to Archelais. This could include Nitla.

6. In A. D. 675 Arculf saw a large church, perhaps that of the Madaba Map, five miles east of Jericho. In that church were twelve stones, six on each side.[25]

7. Meanwhile, the large church at Nitla had been destroyed in the sixth century and the small second church had also fallen by 614. In 754 Willibald[26] mentions a small wooden chapel seven miles from Elisha's Fountain and five miles

---

with biblical literary criticism and the history of the conquest.

[11] H. B. Tristram, *The Land of Israel*, 1866, p. 219.

[12] A. M. Schneider, "Das byzantinische Gilgal," *ZDPV*, 1931, pp. 50-59.

[13] A. Alt, "Die Reisen," *PJB*, 1931, p. 47. These are followed by most German scholars; cf. M. Noth, *Das Buch Josua*, p. 5. H. Kraus, "Gilgal — Ein Beitrag zur Kultusgeschichte" *Vetus Testamentum*, 1951 p. 181 f. follows Schneider and does not study the traditions anew. Cf. M. Avi-Yonah, "Map of Roman Palestine," *QDAP*, 1936, p. 139.

[14] D. Baramki, "Excavations at Khirbet el Mefjer" (*QDAP* since 1936).

[15] Abel, *op. cit.*, II, p. 336 f.; Wright and Filson, *op. cit.*; P. Thomsen, *Loca Sancta*, p. 49; Federlin, *Terra Sancta*, 1903, p. 310; W. Szczepanski, *Jerusalem i Jericho*, p. 55 (cf. his *Geographia Historica Palestinae Antiquae*, p. 195 where 'Ain Gharaba is suggested). See Wright's note after preliminary reports from Nitla, *BA*, xiii, p. 48. It seems unnecessary to give a further detailed list of scholars who continue to make this identification. The welter of numerous small tells (some of them only late Arab burials) makes it seem at times like two locations—Nitla and the small *birkeh* just south; cf. Abel, *op. cit.* II, p. 336, and see note 8 above.

[16] See above, Chapter IV. on the excavation of Nitla.

[17] Cf. A. Augustinović, *Gerico e dintorni*, 1951, for a similar survey of the materials, pp. 147-154.

[18] Josephus, *Ant.* v, 1, 4, 11.

[19] Geyer (ed.), *Itinera Hierosolymitana*, p. 24.

[20] Klostermann (ed.), *Onomasticon*, s. v. Galgala, pp. 64, 24 ff.

[21] *PPT* VI, p. 12.

[22] *PPT* II, p. 14.

[23] Tobler (ed.) *De Locis Sanctis Antoninus Martyr*, p. 16.

[24] C. M. Kaufmann, *Handbuch der altchristlichen Epigraphik*, p. 437 f. Cf. Augustinović, *GD*, Fig. 8, p. 37.

[25] *PPT* III, p. 35 f.

[26] *PPT* III, p. 18. Cf. p. 45.

Digitized by Birzeit University Library

from the place of the Baptism. Either by Moslem action or by an earthquake which shook the region in 747 [27] and destroyed near-by Khirbet Mefjer, the church was leveled, and Willibald saw a poor and hastily rebuilt chapel on its site.

8. Nothing is heard of the church or the site for three centuries. In the eleventh century two great earthquakes shook the region again,[28] but Nitla was no longer important. The pottery at Nitla ceases before those earthquakes and suggests that the ruin was abandoned not later than the ninth century. This would also help to explain the absence of literary references in this period.

9. Suddenly in A. D. 1106 things changed. The Abbott Daniel [29] visited the Convent of St. Michael which contained the twelve stones of Gilgal. This combination occurs for the first time here in the literature. The hypothesis suggests itself that the Crusaders, great remakers and reshapers of tradition, selected a new spot for the site of Gilgal and there built a monastery in the name of the Archangel Michael. The location of this new site was in no way connected with earlier Byzantine or still earlier Jewish tradition. It was placed northeast of Jericho and the new Christian tradition forms the basis for Alt's acceptance of Schneider's erroneous location of Byzantine Gilgal at Khirbet Mefjer. But there is absolutely no basis for Dalman's suggestion that Arculf, Willibald and Daniel all saw the same twelve stones.[30]

10. Fetellus (A. D. 1130)[31] saw Gilgal north of the Qilt and separated by that stream from Jericho. It is fairly certain that the Crusader Jericho was at the far southern section of modern er-Riha, and perhaps the road recrossed the Qilt going to Gilgal. Or Fetellus may have confused the stream flowing from Elisha's Fountain with the Qilt.

12. Phocas (A. D. 1185) repeats Daniel's identification of St. Michael and Gilgal.[32] He records the location as six miles from Choziba, opposite Quarantana. The word "opposite" is ambiguous and may mean due east of Qarantal or at right angles to the range of mountains. Nevertheless this location hardly fits Nitla, but harmonizes with some site northeast of Jericho.

13. The only exception to this location of the Crusader tradition is the anonymous pilgrim Pseudo-Bede.[33] In the twelfth century he puts Gilgal vaguely east of Jericho.

14. In 1232 A. D. Burchard [34] saw Gilgal in the same general vicinity northeast of Jericho, N or NE of Elisha's Fountain, a half league from the Wadi Qilt, which separates it from Jericho, and five leagues south of Phasaelis. It was also half a league south or southwest of Quarantana.

15. The end of the Crusades and further earthquakes destroyed even this Crusader tradition as thoroughly as the older ones had in turn been previously lost. In the fourteenth century the Russian pilgrim Grethenius [35] does not mention the tradition. In the same century a Slavonic manuscript points to two separate sites for St. Michael and for Gilgal.[36] This is the last reference to St. Michael.

16. Marino Sanuto was one of the earliest travelers to attempt systematic mapping of the region. He divided the entire Holy Land into grids and Jericho was placed in the 58th and Gilgal northeast in the 56th.[37] This seems still to reflect the Crusader tradition.

17. The remainder of the material is elusive and inconclusive. The Guide Book (A. D. 1350) [38] places Gilgal, without mentioning buildings or monastery, two miles from Jericho, with no indication of direction. John Poloner (A. D. 1421) [39] gives the distance as one mile from Jericho and half a league from Quarantana. For Felix Fabri (A. D. 1480)[40] Gilgal was only a ruin east of Jericho in the plain between Jericho and the Jordan. Gilgal was similarly located by Feyrabend.[41] Reland in 1716 located it near Jericho.

---

[27] Theophanos in Migne, *Pat. Graec.* Vol. CVIII, 852. Also noted by Abel, *op. cit.* p. 50 f., and Baramki, *op. cit.*, as well as by others.

[28] In 1016 and 1033, with the latter's center at Jericho.

[29] *PPT* IV, p. 32.

[30] G. Dalman, "Der Gilgal der Bibel und die Steinkreise Palästinas," *PJB*, 1919, p. 6.

[31] *PPT* V, p. 22.

[32] *PPT* V, p. 26.

[33] *PPT* VI, p. 47.

[34] *PPT* XII, pp. 56-58.

[35] S. Khitrovo, *Itinéraires russes en Orient*: Grethenios, xix-xx, pp. 186 f.

[36] J. Martinov, "Récit sur les lieux saints de Jérusalem traduit d'un texte slavon du xive siècle," *Archives d'Orient Latin*, Vol. II, p. 393.

[37] *PPT* XII, p. 12-14.

[38] *PPT* VI, p. 31.

[39] *PPT* VI, p. 38.

[40] *PPT* II, p. 11 and pp. 37 f. Felix is now popular; cf. H. M. Prescott, *Friar Felix at Large*, 1950.

[41] S. Feyrabend, *Reyssbuch des heyligen Lands*, 1634, p. 70.

Digitized by Birzeit University Library

233. The site of Nitla has been a favorite for Gilgal since the great Edward Robinson thought he heard a similar Arabic name somewhere in its vicinity. The term Birket Jiljulieh is recorded in the 19th century as applied to the ruins near Nitla,[42] but the excavation indicates that it was no *birkeh*. The view of Zschokke, based on much of the literary evidence reviewed above, is that Gilgal and Nitla are to be identified, but the archaeological finds at Nitla do not agree with the Byzantine traditions of a Gilgal. The evidence also suggests that the Crusader Gilgal, which included a monastery of St. Michael, is yet to be located among the mounds north and northeast of Jericho, perhaps at Tell Matlab.[43]

234. The location of Joshua's Gilgal has not been discussed in this article; it may have been located by Muilenburg near Khirbet Mefjer.

235. In conclusion a brief summary of the history of the Gilgal tradition may be of some value. In the first three Christian centuries there seems to have been a site pointed out somewhere in the vicinity of Nitla that was presumed to be Joshua's Gilgal. No buildings or stone ruins were in evidence at that time. With the establishment of the Church, the increase of monasticism, and the emphasis on pilgrimage, a large basilica was erected, probably in the early fifth (or even late fourth) century on the site of Nitla. It had in connection with it the usual quarters for servants and priests but was not a real monastery. The history of this church and its successors is described in Chapter IV. The earthquakes of 1016 and 1033 found an already ruined site. So it remained until 1950.

236. Toward the end of the eleventh century the Crusaders included in their traditions a new location for Gilgal and there erected a monastery for St. Michael. This short-lived site northeast of Jericho is not yet located, but is still hidden beneath the mounds N and NE of Jericho, where it disappeared early in the fourteenth century. From then on the traditions grow more and more vague and neither Gilgal nor St. Michael is readily identifiable in the post-Crusader period. Nitla had long since been abandoned. Whether the Semitic name continued in use at all is dubious. Not until the 19th century did Nitla and Gilgal again become associated, and after the 1950 excavation that association becomes very improbable. Much work still remains to be done in clearing up the problems involved in each of the three Gilgals: the place of Joshua and the Byzantine and Crusader localizations of it.

---

[42] E. Robinson, *Biblical Researches in Palestine and Sinai*, Vol. II, p. 287.

[43] Augustinović, *GD*, p. 153, sees Christian Gilgal near Tell Matlab but this evidence is rather late. Clermont-Ganneau has described these ruins in *ARP*, Vol. II, pp. 17 f.

Digitized by Birzeit University Library



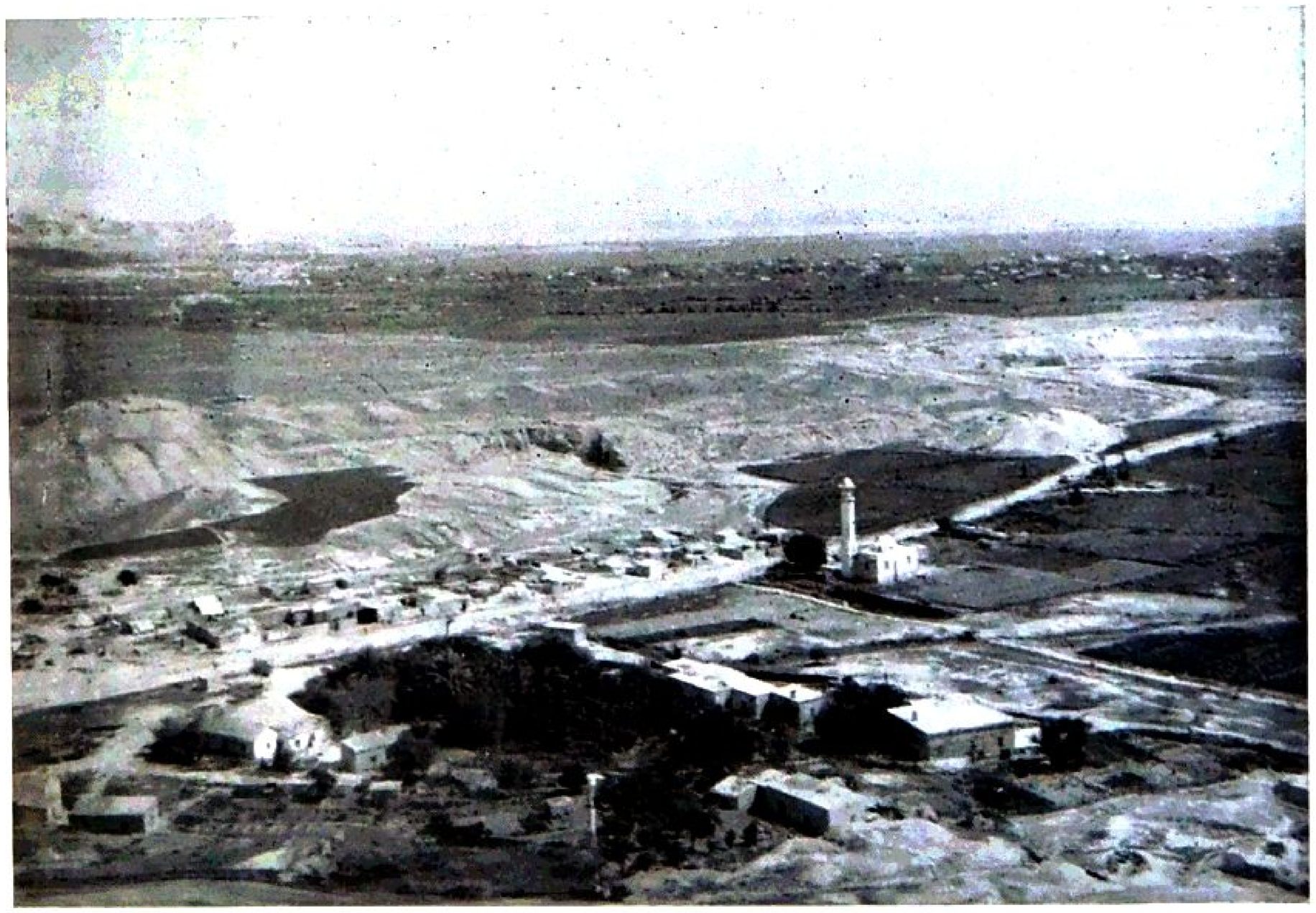


PLATE 1

Grand stairway descending from Tell 1 to the *opus reticulatum* building and sunken garden along the Wadi Qelt.

Site of New Testament Jericho taken from the mountain just behind the city. Tell 1 is beside the road beyond the minaret. Tell 2 is near left edge of photograph.

Digitized by Birzeit University Library

Digitized by Birzeit University Library



Tell 1, with *opus reticulatum* building below palm trees. Western wall of sunken garden in center of photograph.



Expedition staff (from left to right): Messrs. Safieh, Fattaleh, Baramki, Kelso, Wolf, Muhtadi, Kissling, Abu Dayeh, Nasr, Nassar.

PLATE 2



View from *opus reticulatum* building N. of Wadi Qelt; Tell 1 to the left; *opus reticulatum* building below it. Sunken garden occupied area from there to the workmen near right of photograph. Fortified mountains guarded the site.

Digitized by Birzeit University Library

BIRZEIT UNIVERSITY LIBRARY



Tell 1 with depression showing location of Warren's excavations.

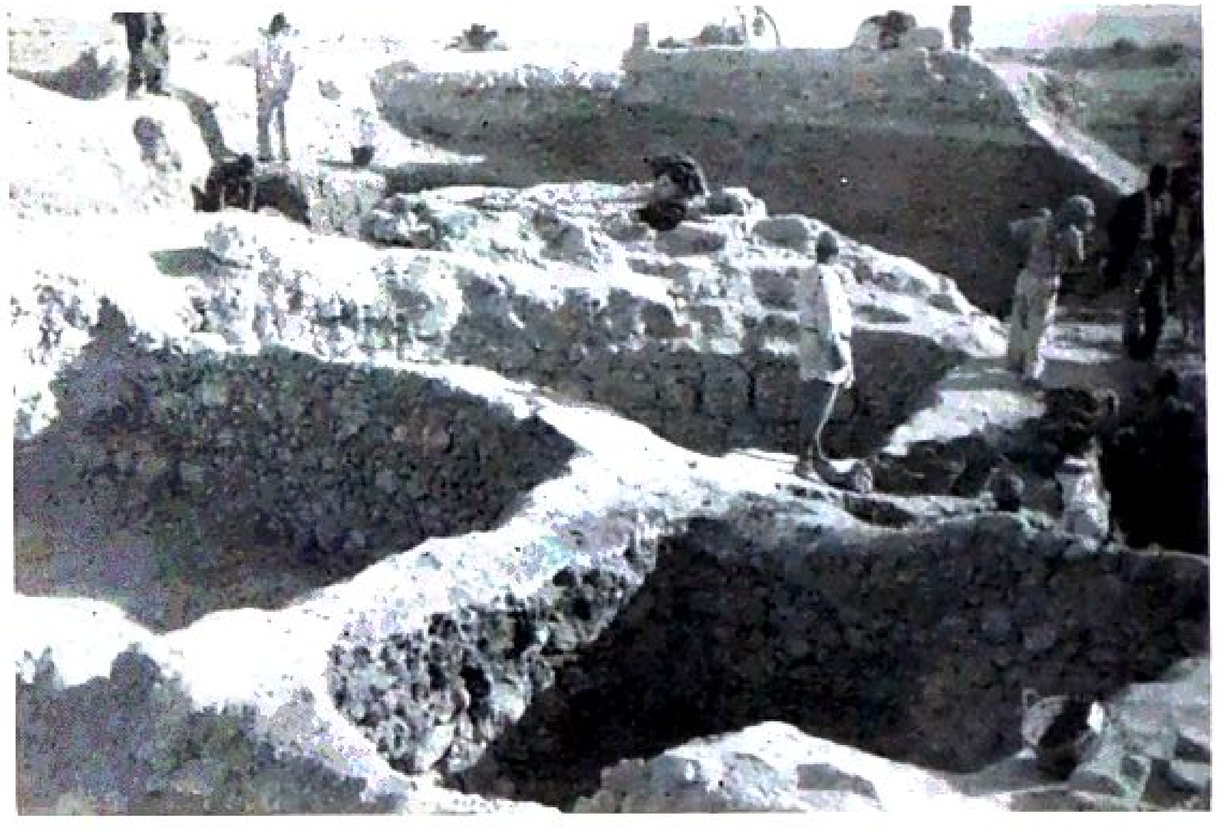


Rooms in Arab fortress on Tell 1. Courtyard is to the left.

PLATE 3



Herodian ashlar walls on Tell 1, laid on partition walls of Hellenistic fortress.

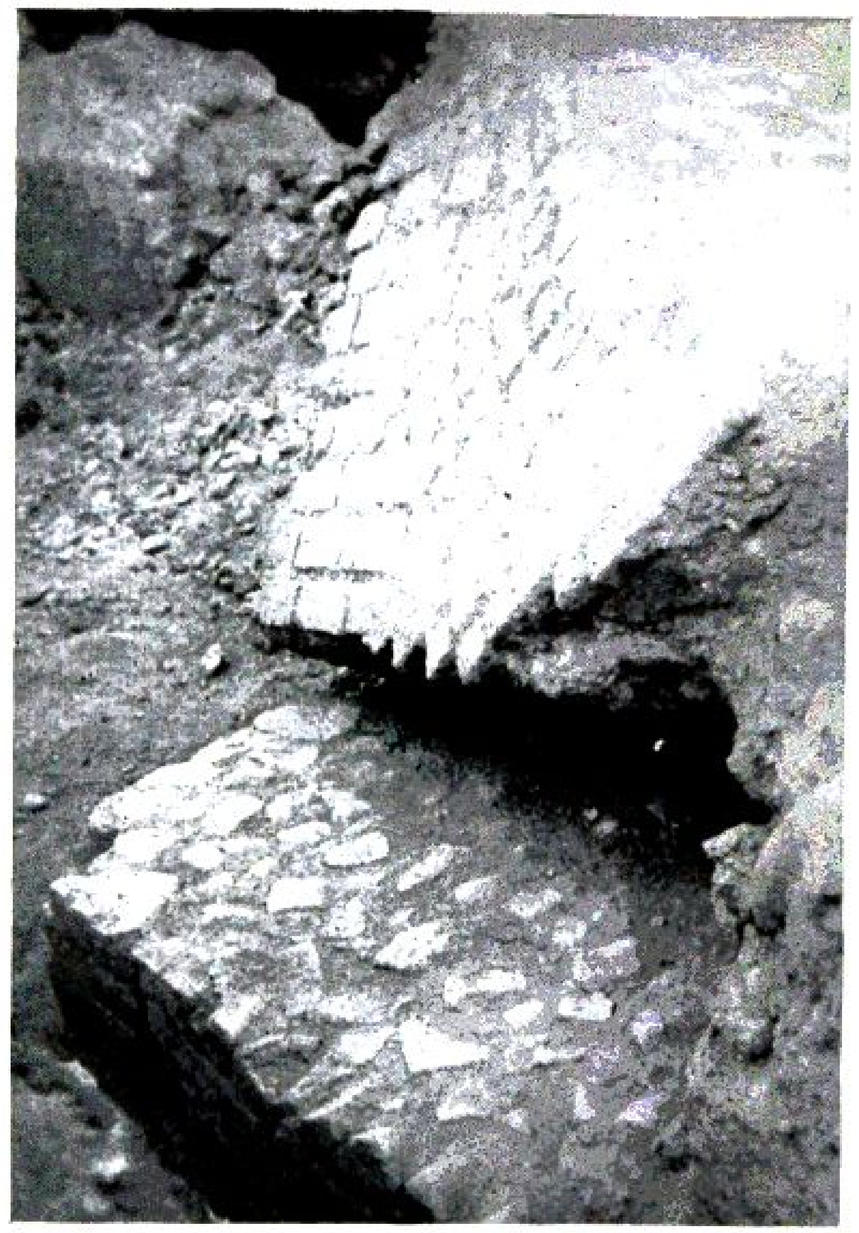


Rooms in the Hellenistic fortress. House walls of Arabic period in background.

Digitized by Birzeit University Library



Tell 1, exterior E. wall of Hellenistic fortress. Wooden bonding course shows near the center.

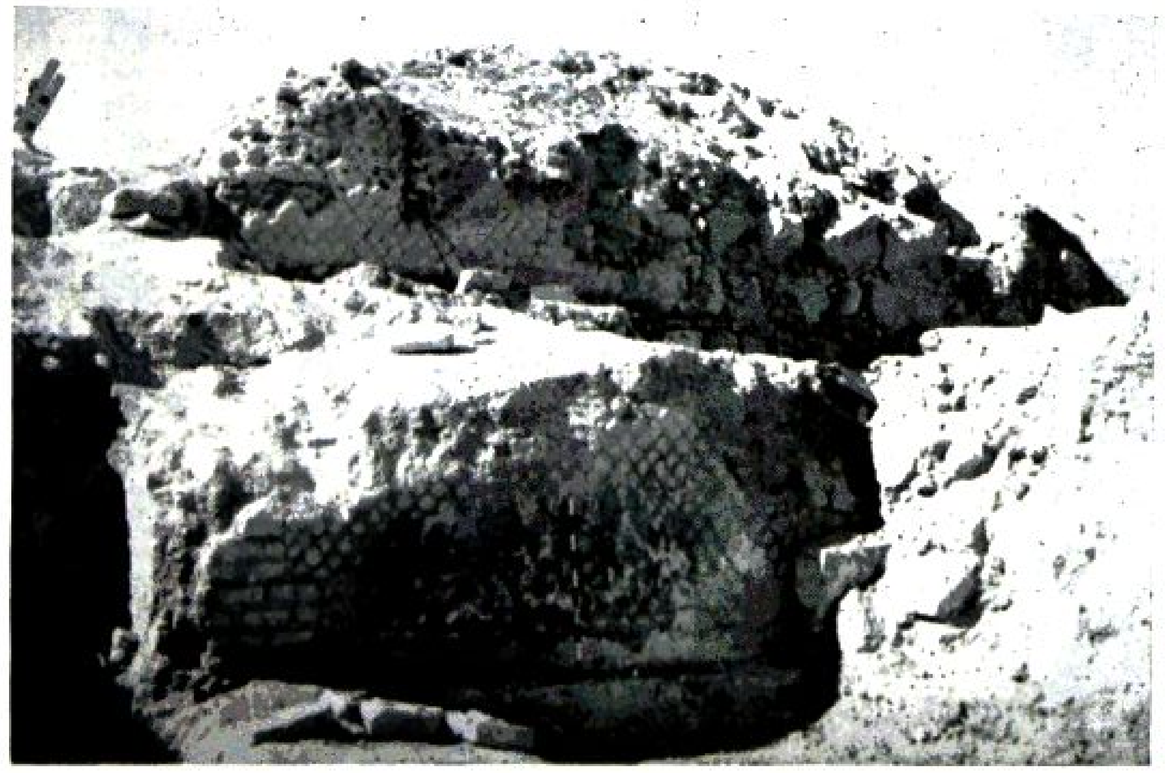


Fallen *opus reticulatum* wall showing construction details.



Tell 1, N. W. corner of Rm. 1, in Hellenistic tower, showing partition walls.

PLATE 4



Top piers of grand stairway on Tell 1.

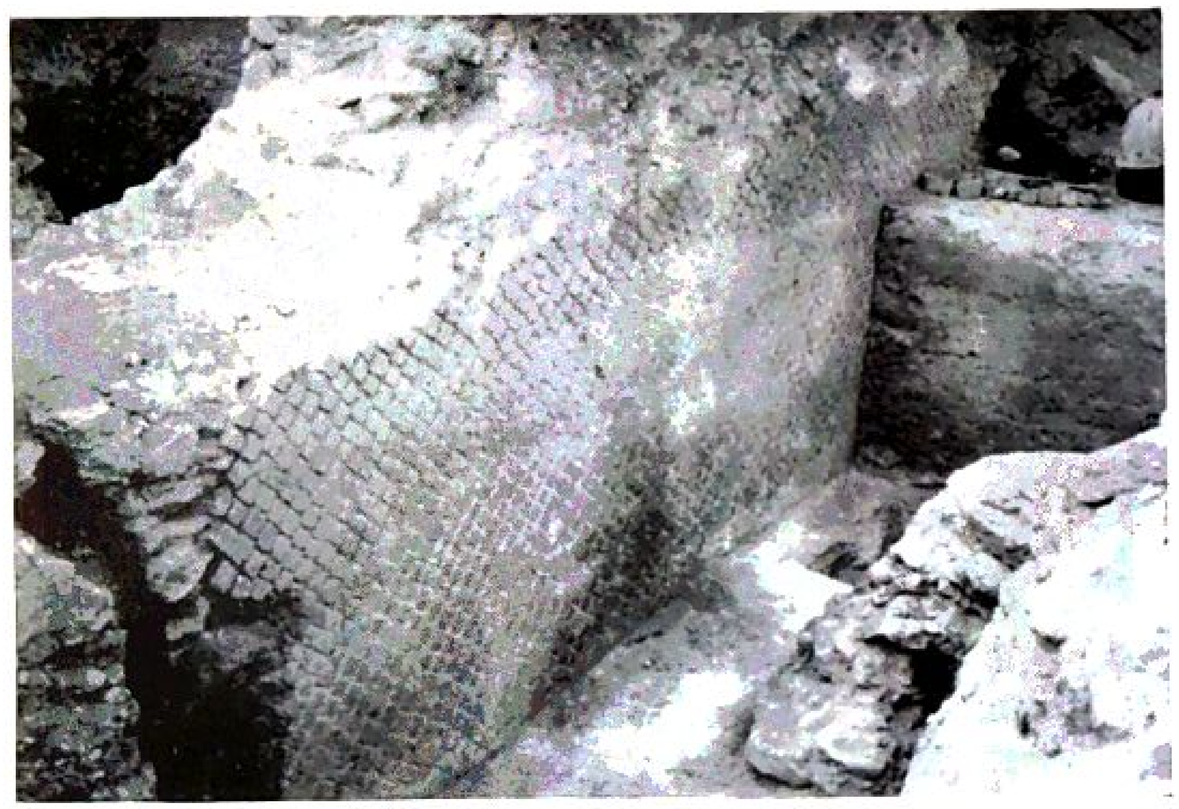


Opus quadratum pier from *opus reticulatum* building on Tell 1.

Digitized by Birzeit University Library

BIRZEIT UNIVERSITY LIBRARY





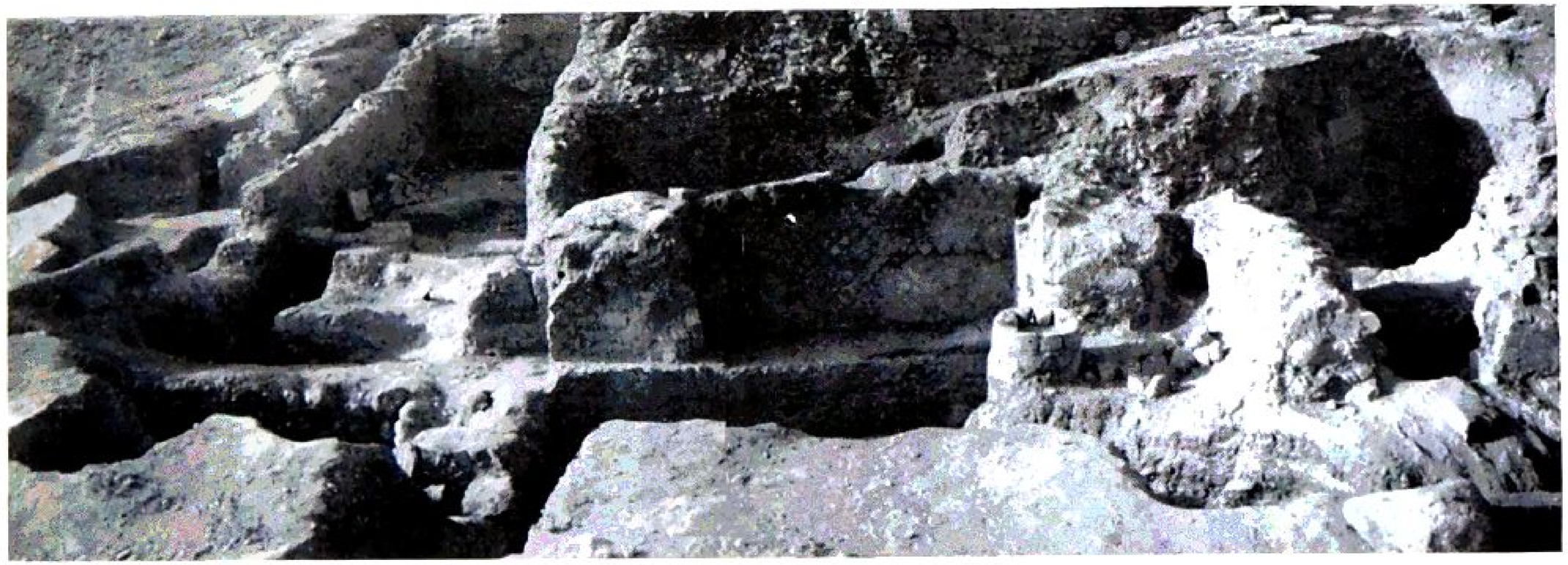
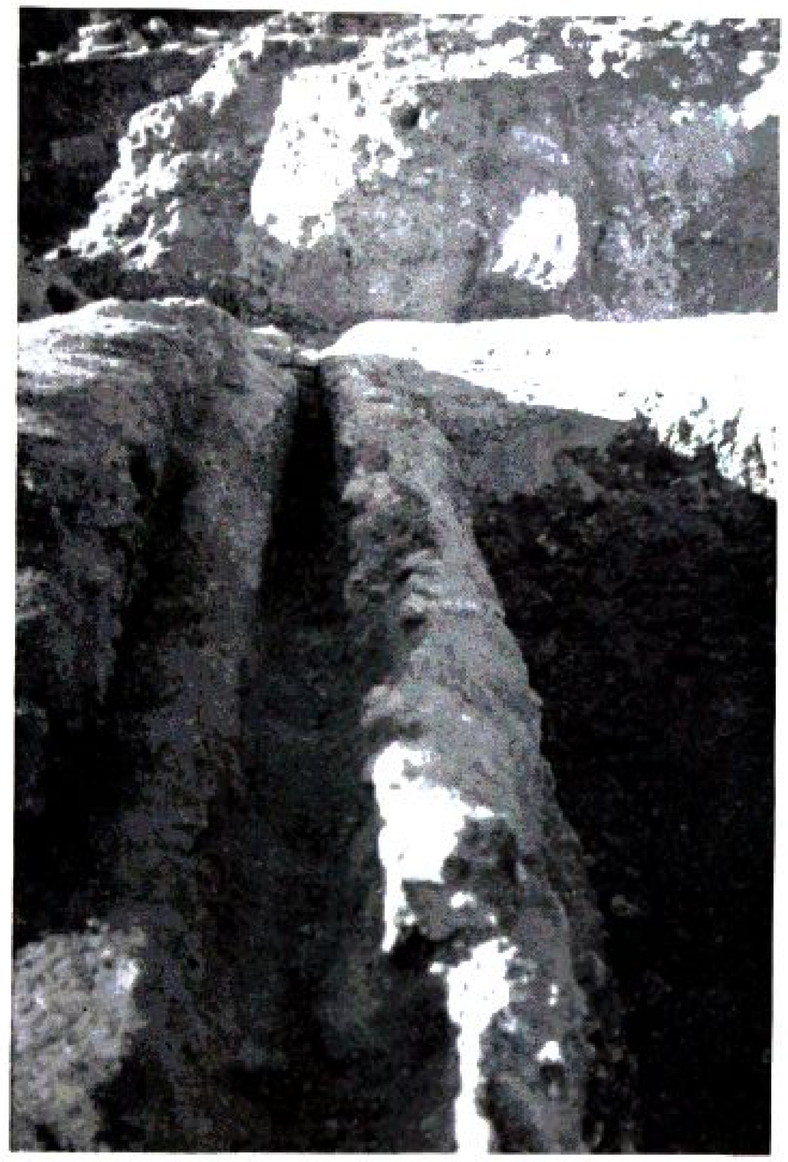


PLATE 5

Fallen arch and pilaster in front of Rm. A. N. wall of Rm. A showing *opus reticulatum* construction details. E. wall of sunken garden at the right.

Stairwell toward the left. Recessed niche in front of Rm. A in center. In foreground to the left are foundations of unhressed stone, to the right a base and sectors of a column and a fallen pilaster.

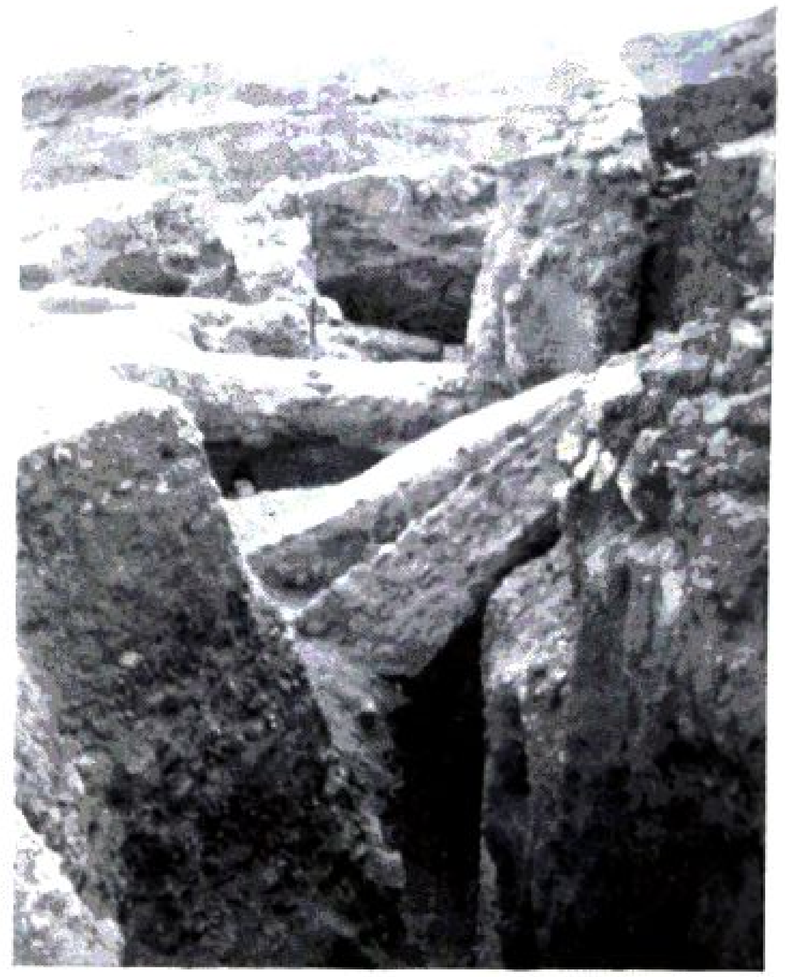
Digitized by Birzeit University Library



Roman drain from Rm. A.

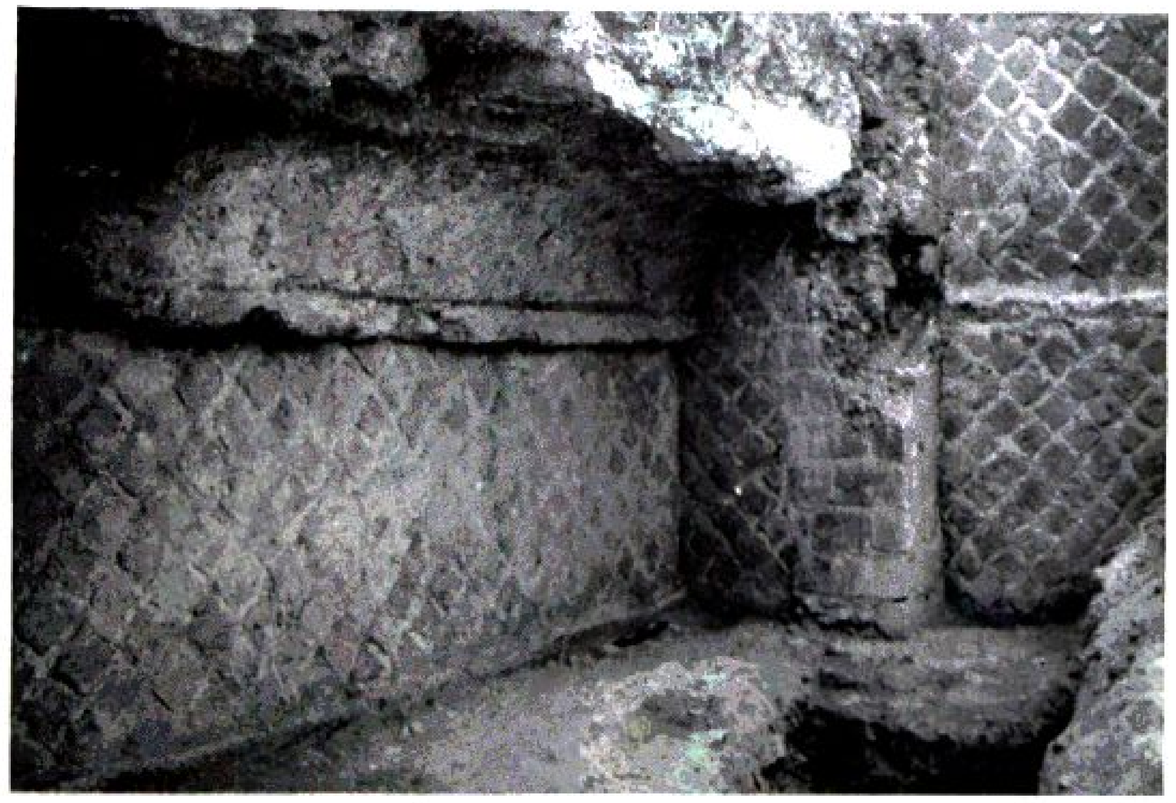


Excavating grand stairway on Tell 1. Great *opus reticulatum* buildings across the wadi.

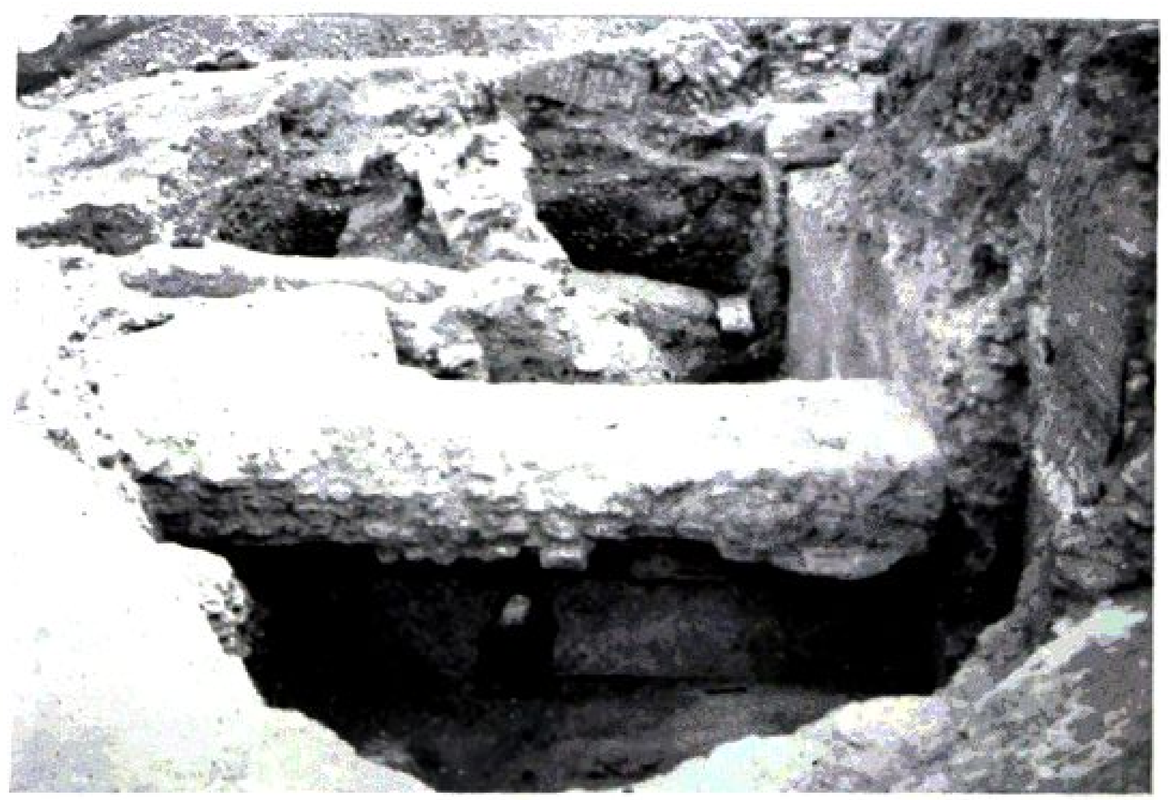


Massive fallen niches of retaining wall of the sunken garden (S. wall).

PLATE 6

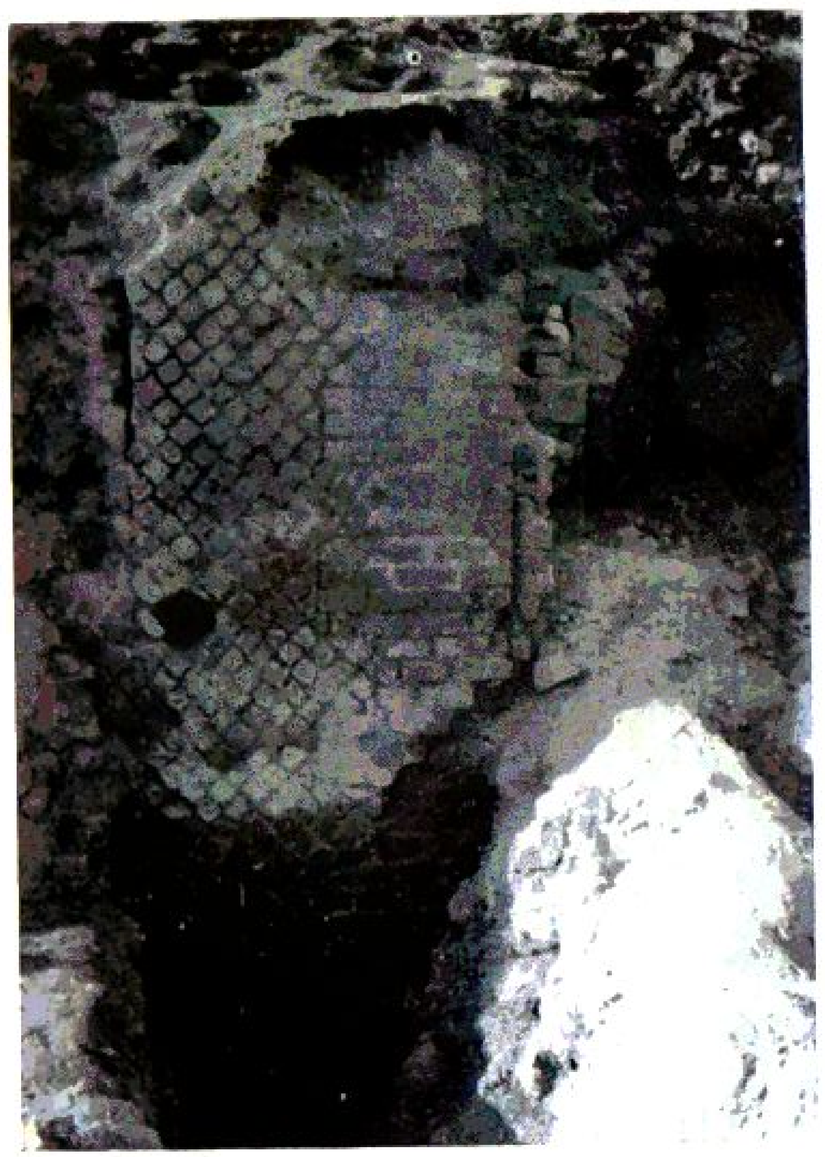


"Anti-splash" rim on *opus reticulatum* wall of sunken garden.



E. wall of sunken garden with hole cut through it in later times. Niches are beginning at extreme right. Fallen pilaster in background.

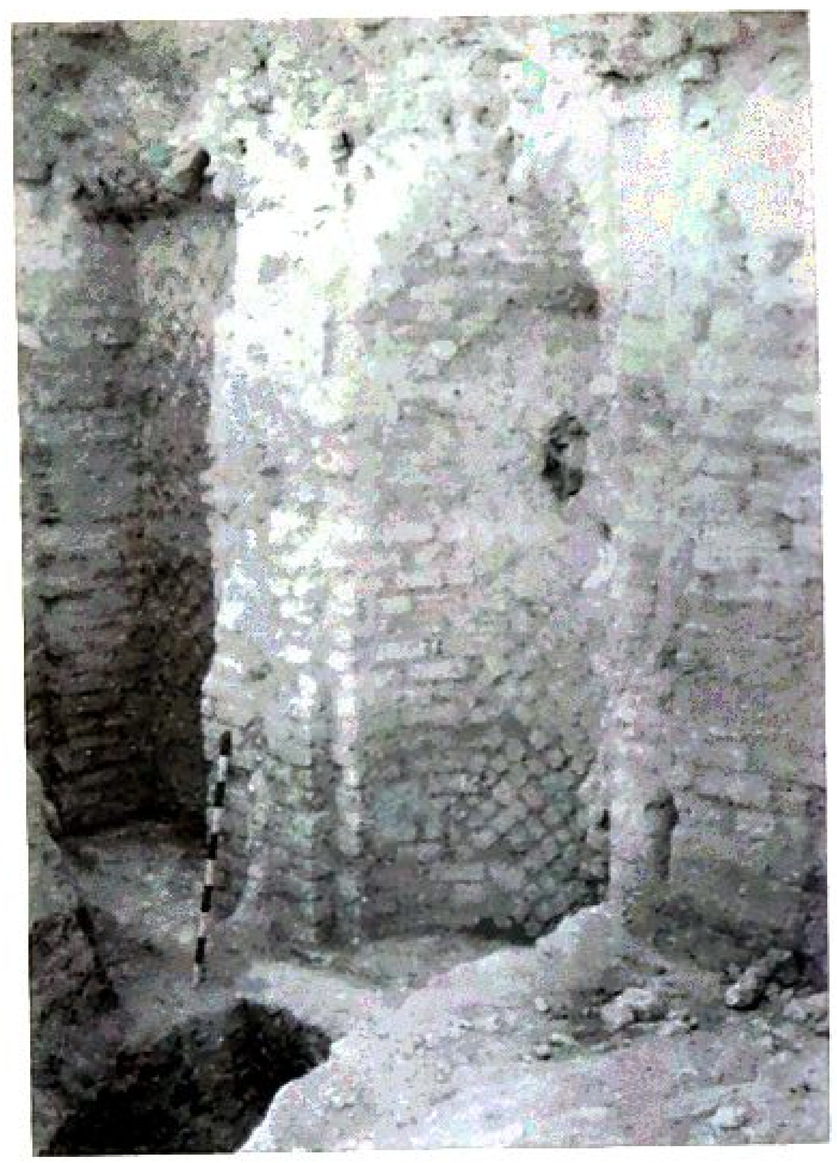
Digitized by Birzeit University Library



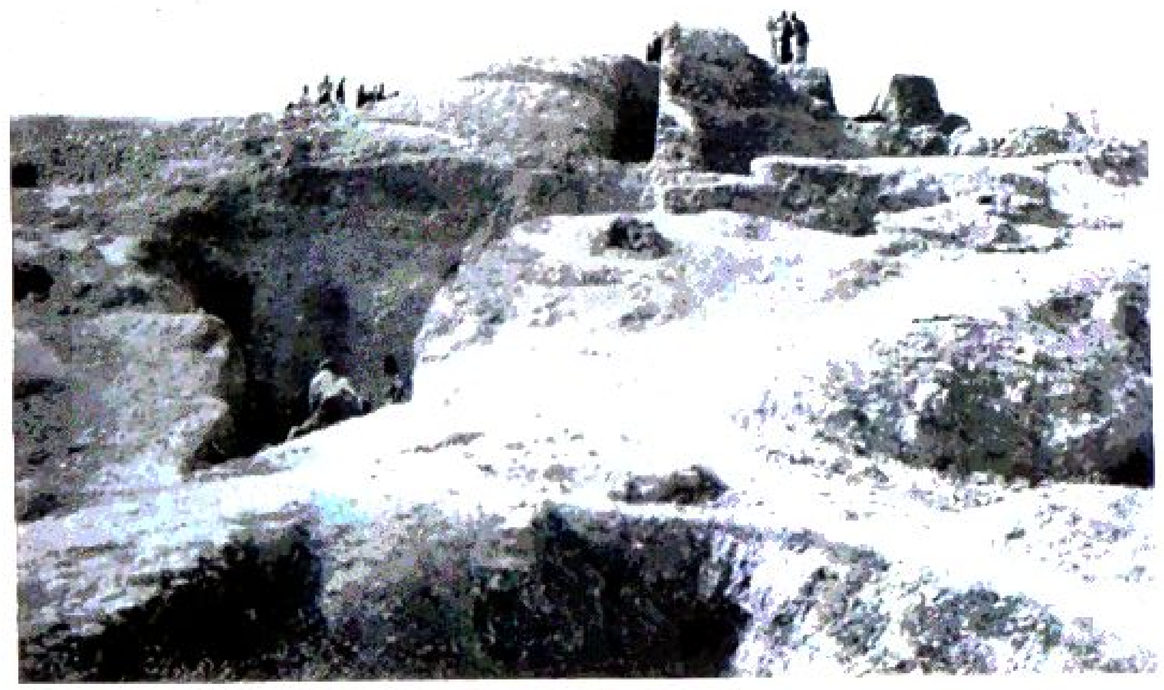
S. E. corner of sunken garden with first of niches appearing.



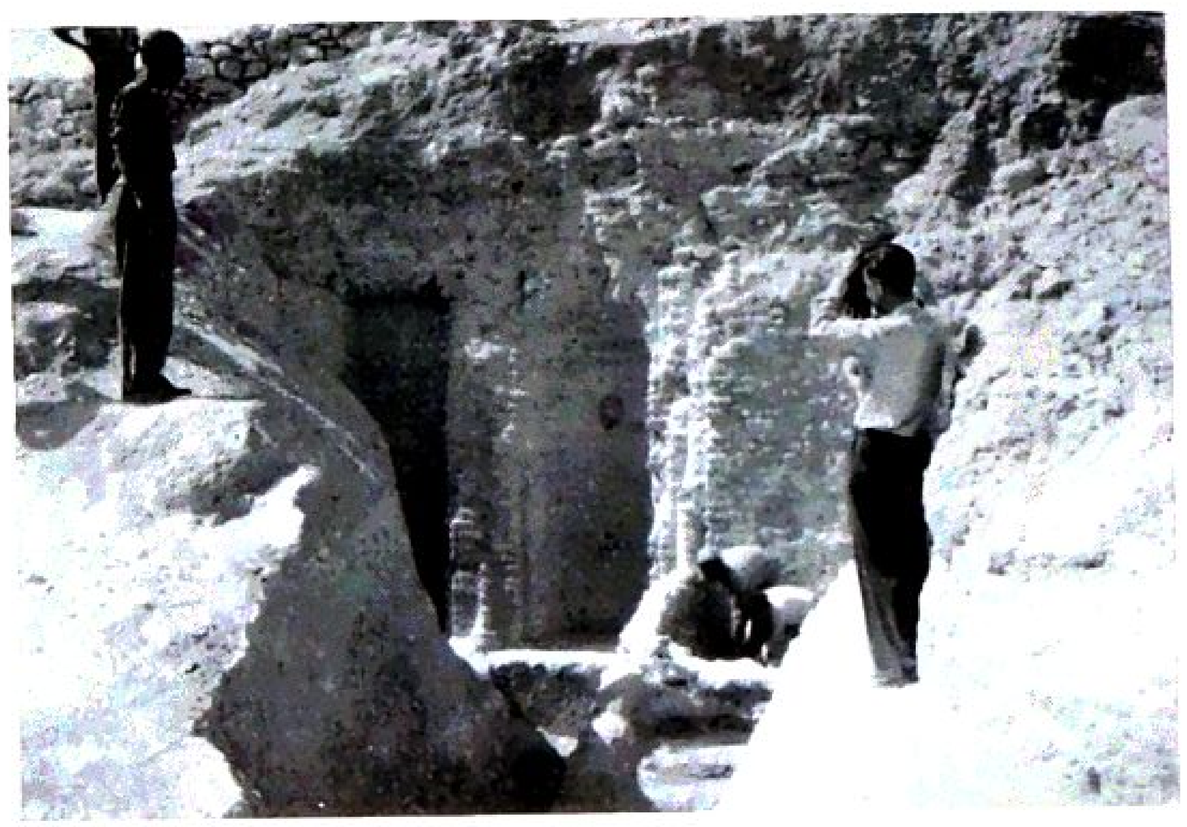
Excavating for the foundations and lower sections of the niches in the retaining wall of the sunken garden near its western end.



Niches at western end of retaining wall. In right foreground is stairway descending to sunken garden.



W. end of sunken garden with niches. High walls of Rm. D are at upper right. W. wall of sunken garden at lower left.



S. W. corner of sunken garden with stairway and niches in background.

PLATE 7

Digitized by Birzeit University Library



Western half of terraced garden.

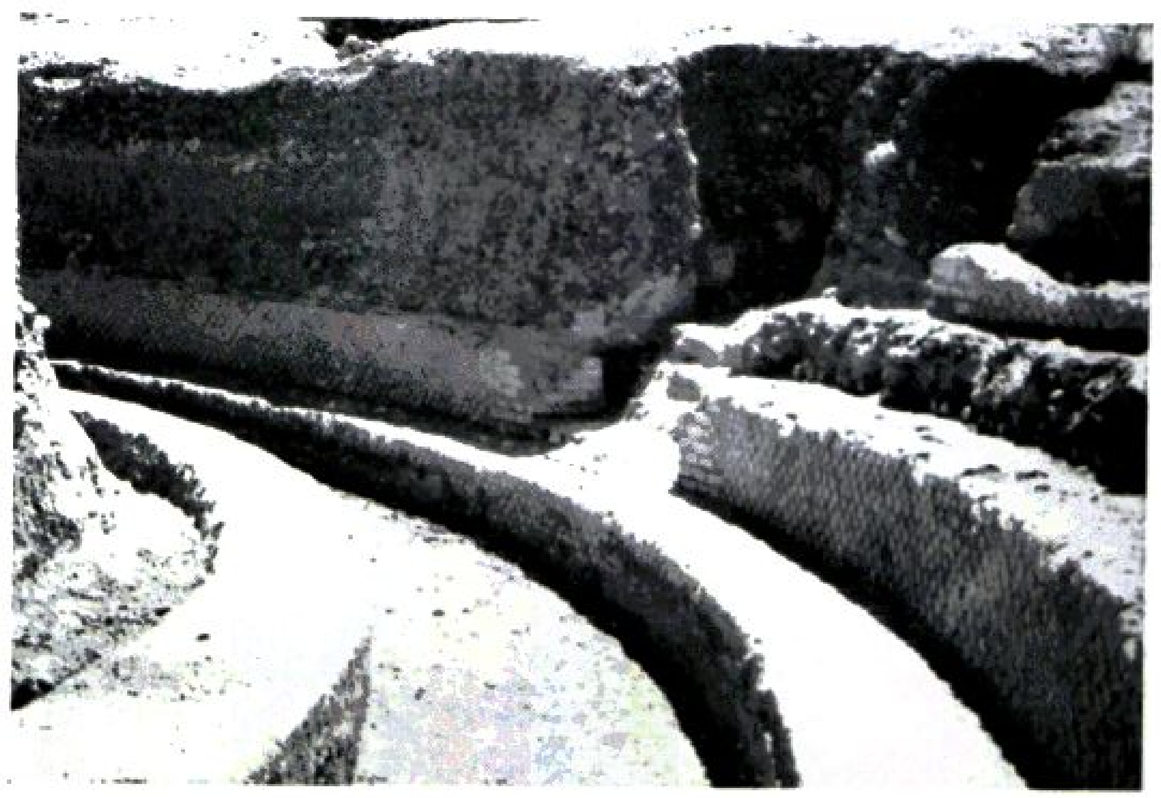


Reflecting water basin at the foot of the terraced garden.

PLATE 8

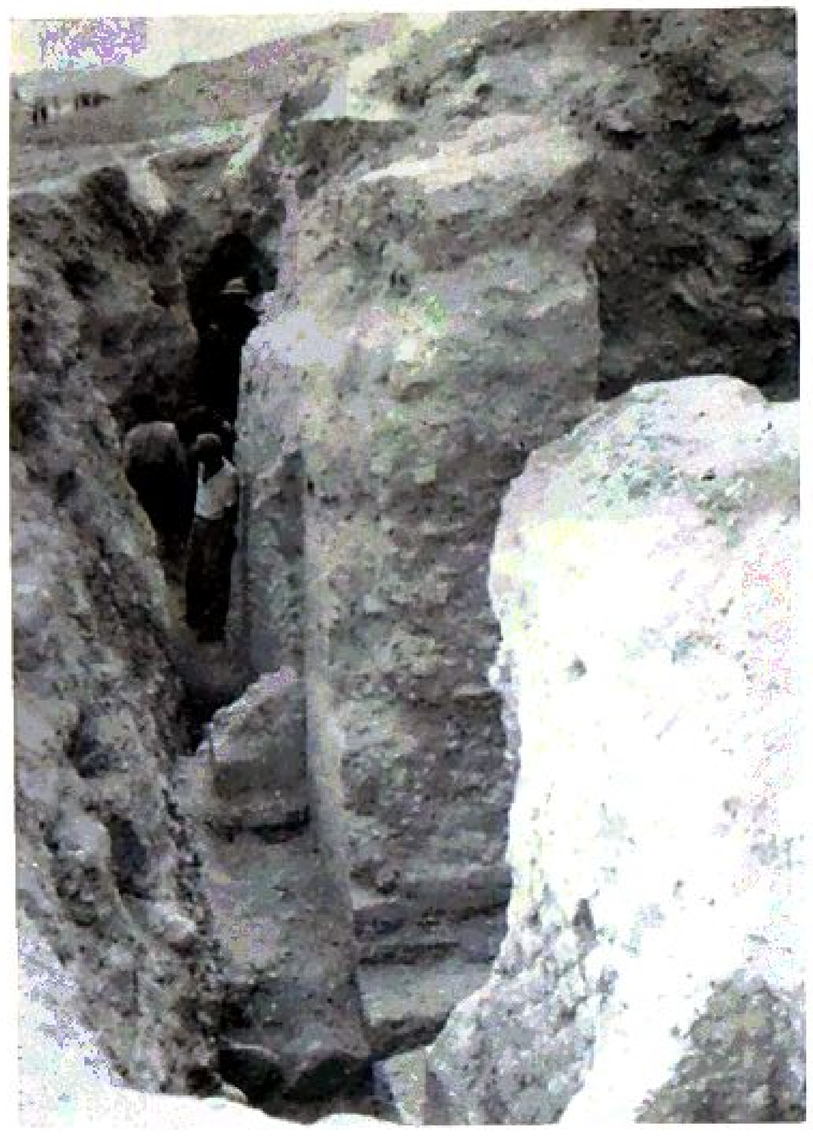


Terraces of the sunken garden. Cut-stone treads of central stairway are missing.



Reflecting water basin at the left and benches of terraced garden.

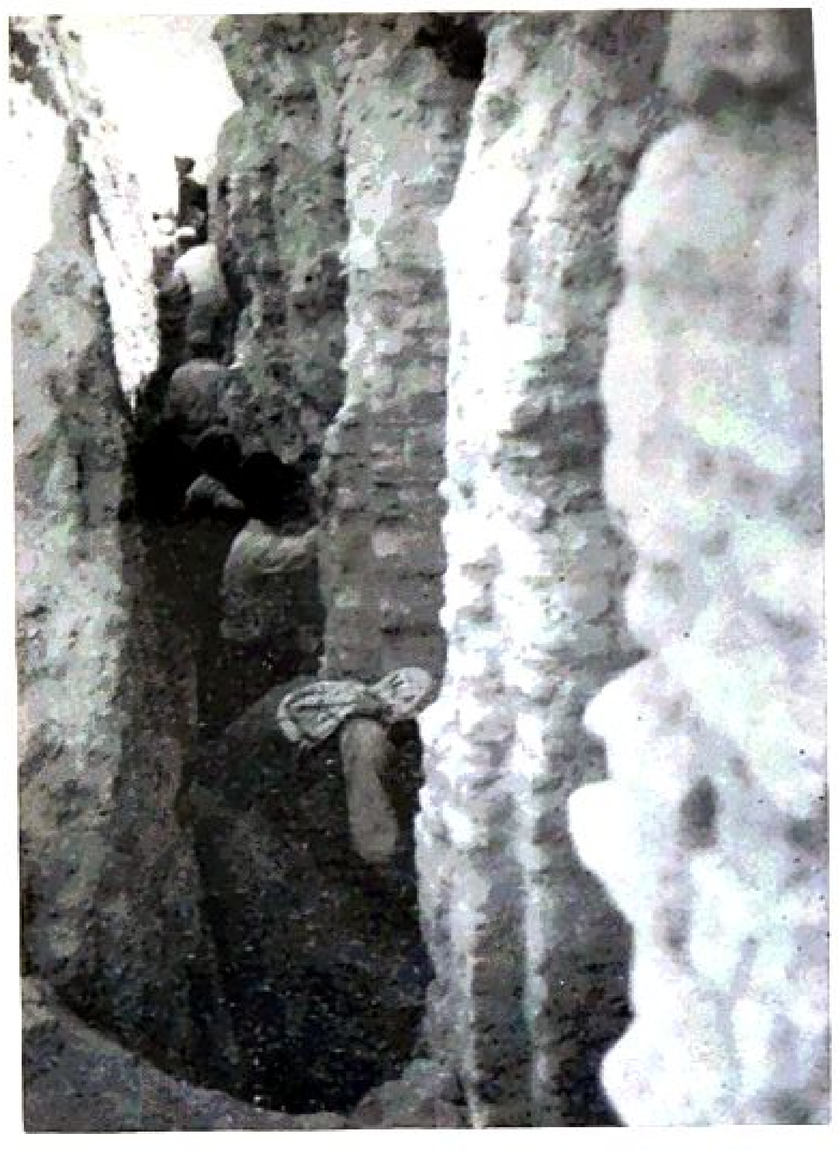
Digitized by Birzeit University Library



Massive N. wall of Rm. D with doorway. Workmen are at western end of niches.



Plaster wall painted in imitation of marble at S. E. edge of Tell 2.



Workmen in niches of retaining wall near western end.

PLATE 9

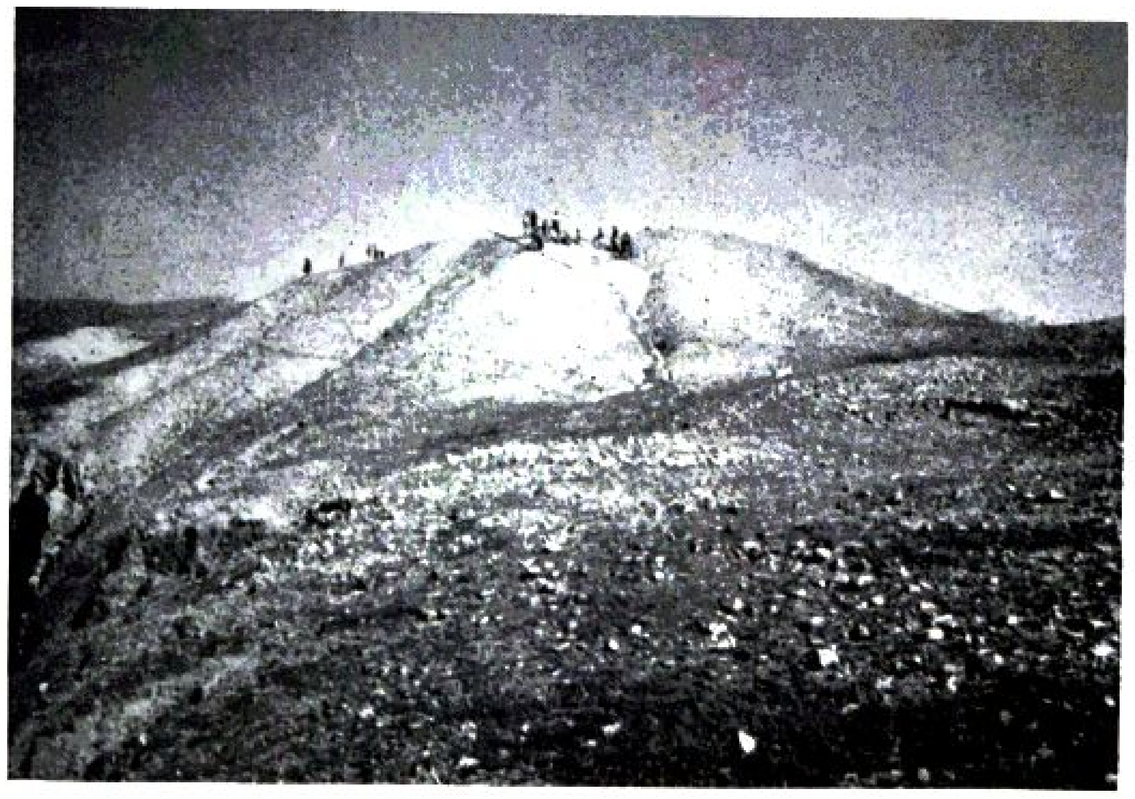


Tell 1 in background, *Opus reticulatum* building at W. end of sunken garden in foreground.



N. bank of Wadi Qelt with *opus reticulatum* building and drain.

Digitized by Birzeit University Library



Tell 2 as seen from the east.



Small stone tower on Tell 2. Massive brick wall at extreme right.

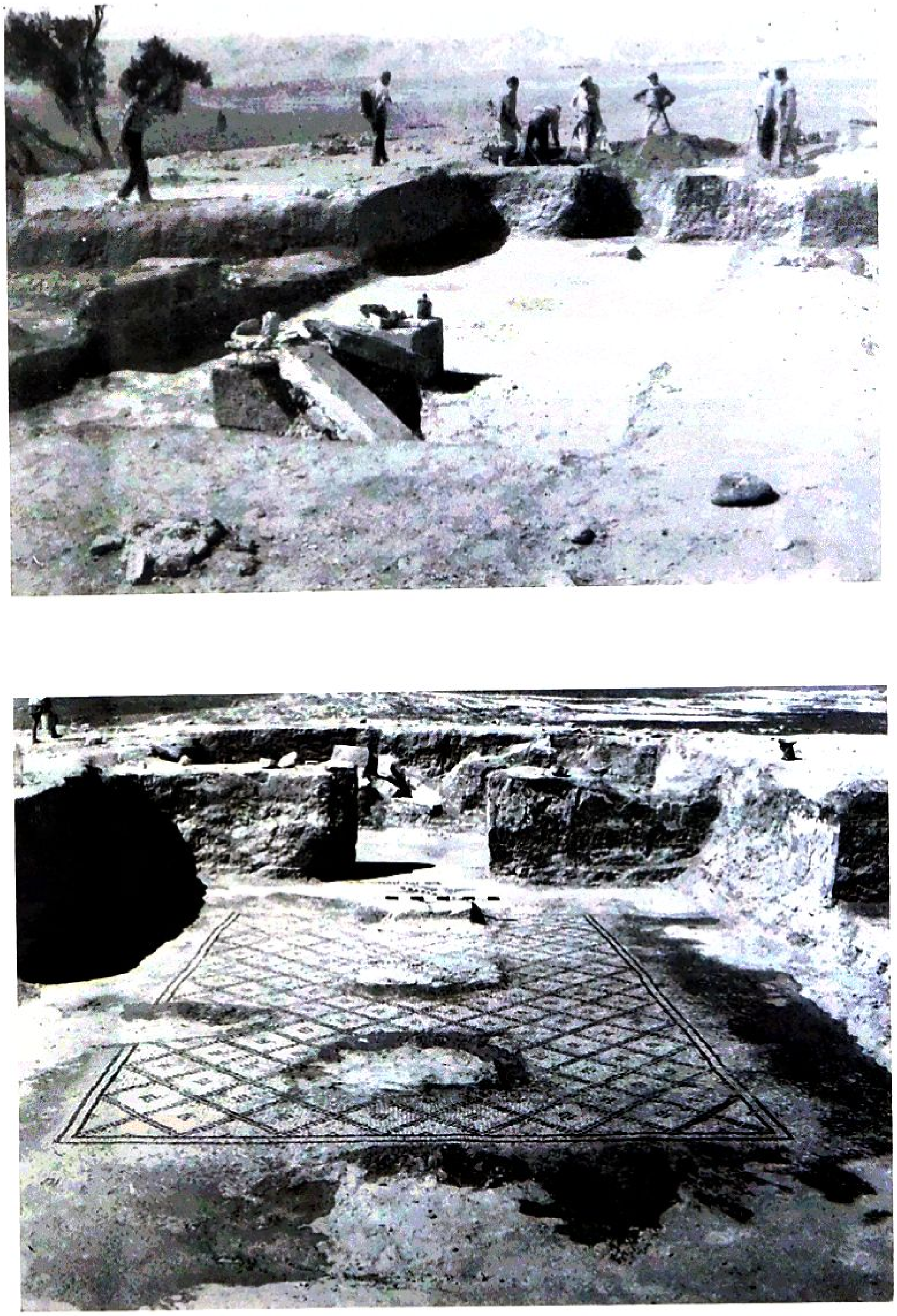
PLATE 10



Tamarisk tree which gives the name to the site of Nitla. Floor mosaics from last church.



Fragmentary inscription from first church at Nitla.

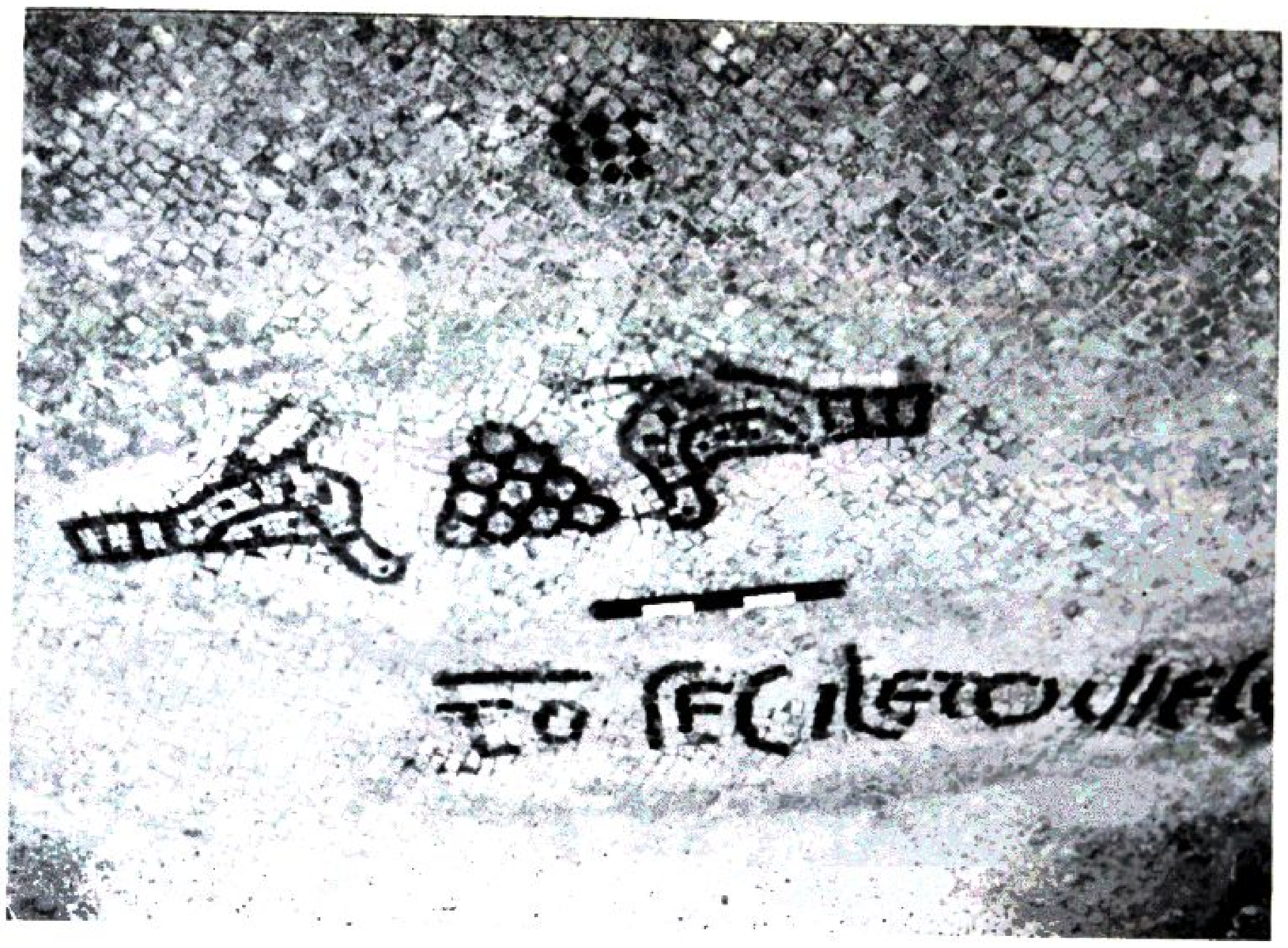


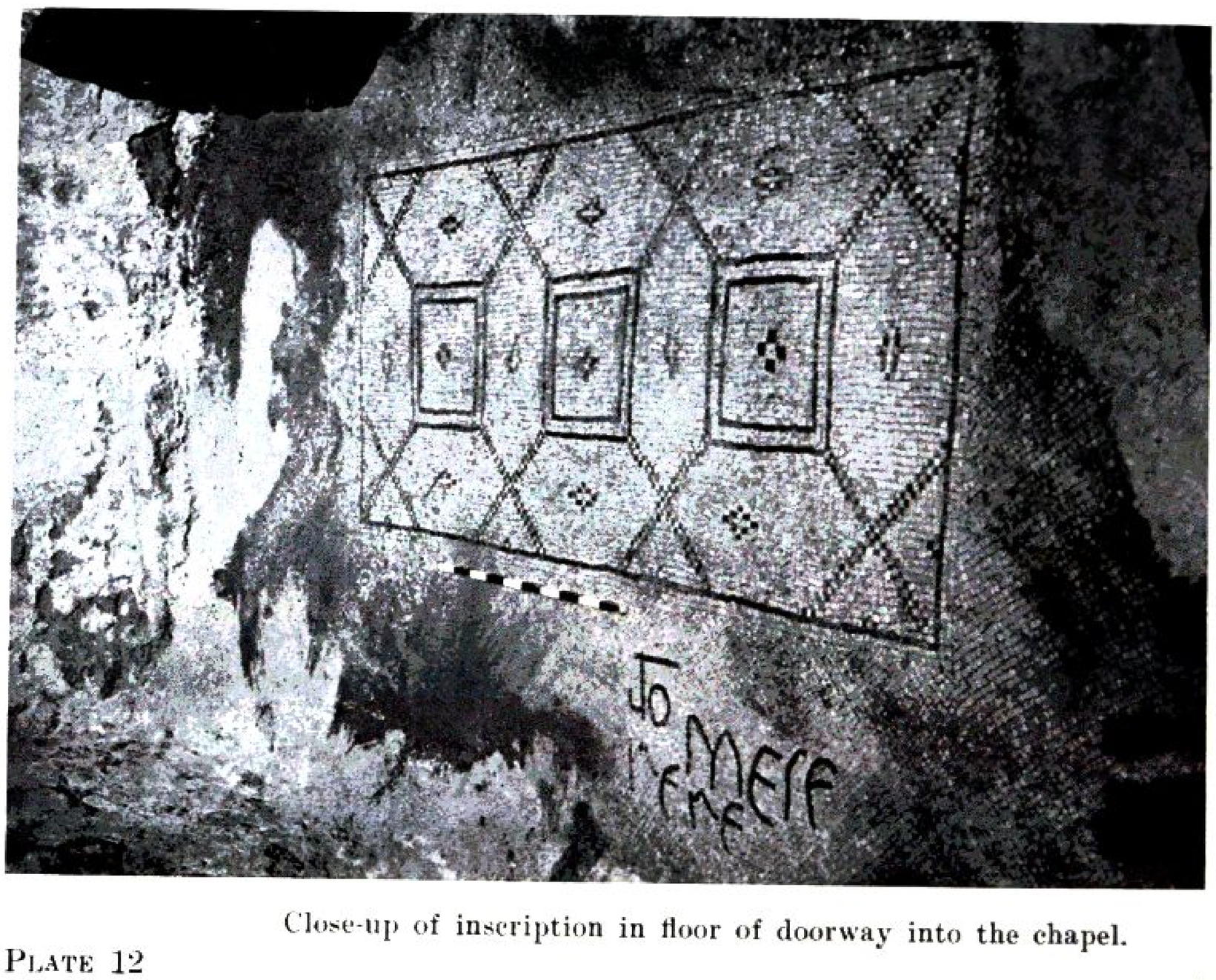
Site of Nitla with the mountains behind New Testament Jericho in background. Church in foreground.

PLATE 11

The mosaic in the chapel of the third church with inscription in the floor of the doorway.

Digitized by Birzeit University Library



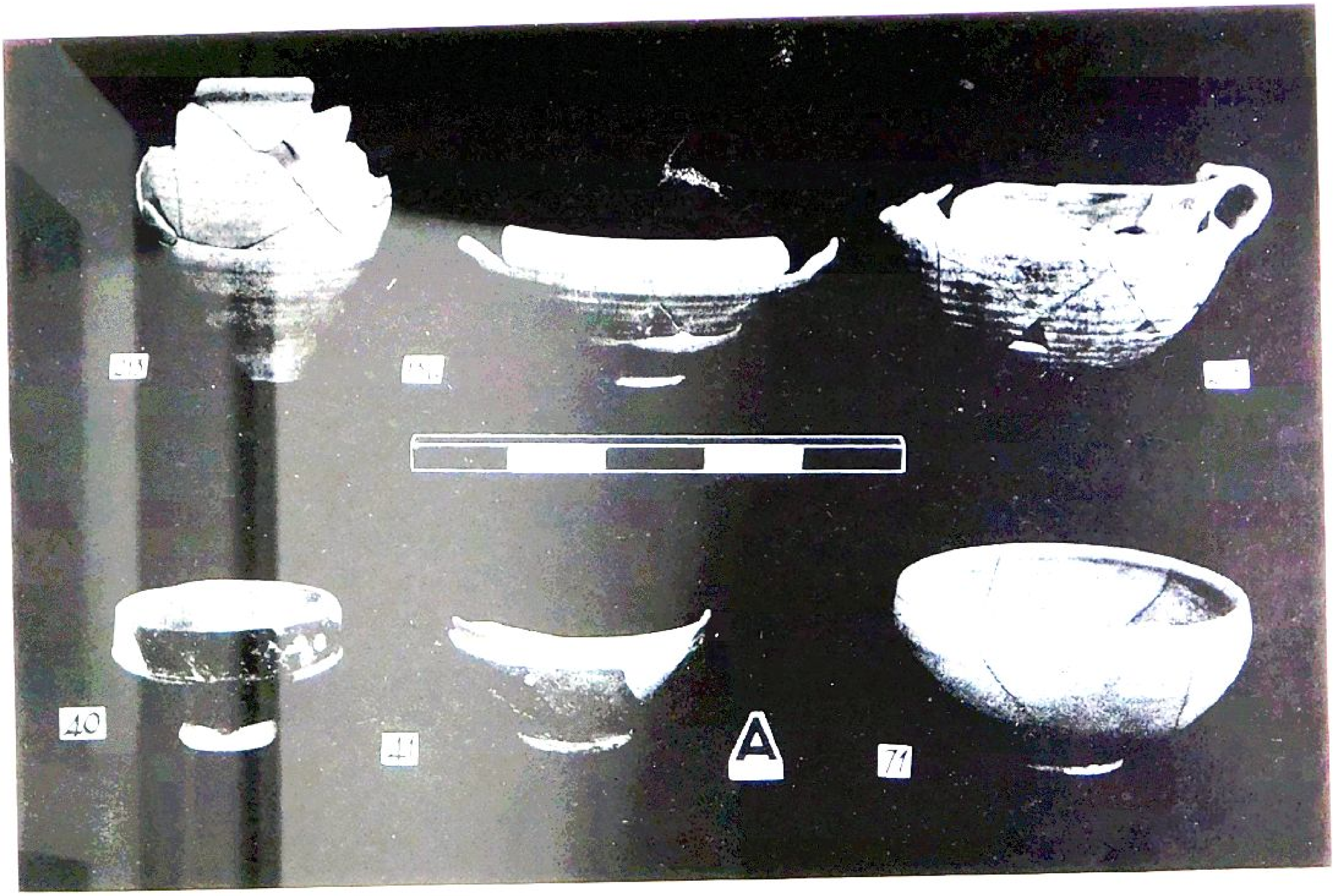


Close-up of inscription in floor of doorway into the chapel.

PLATE 12

Mosaic pavement with inscription in the narthex of the third church.

Digitized by Birzeit University Library



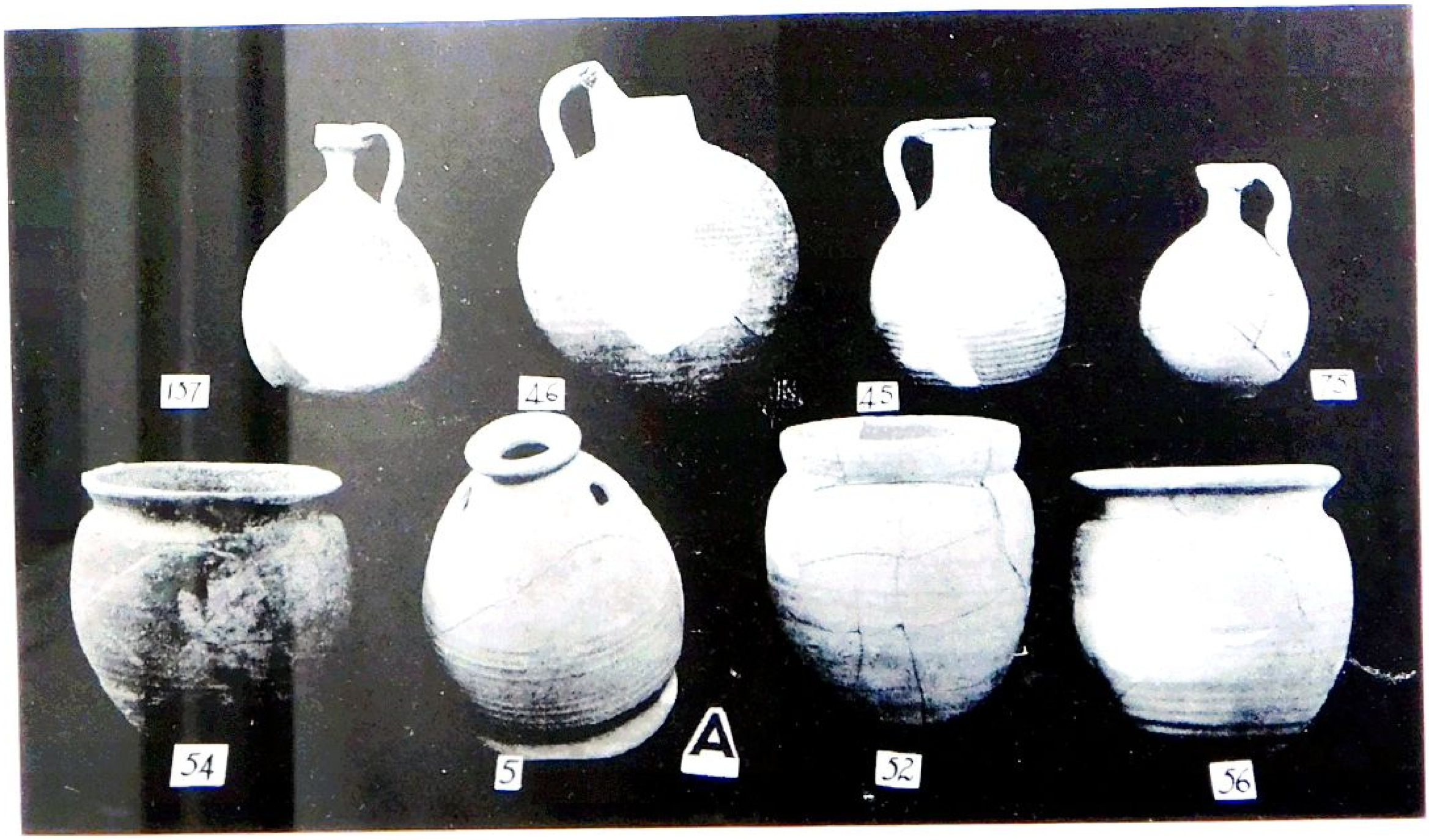
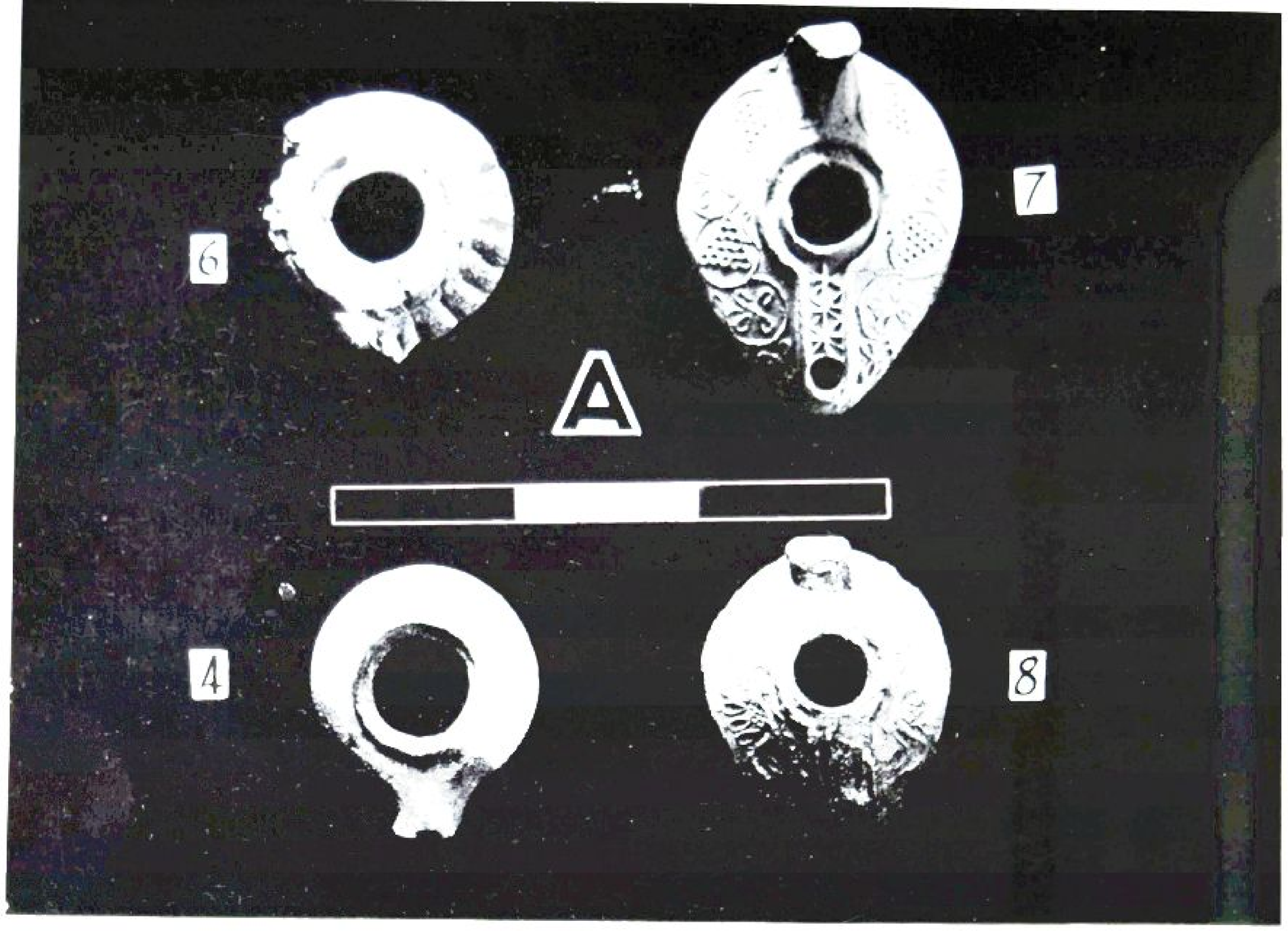


PLATE 13

Digitized by Birzeit University Library



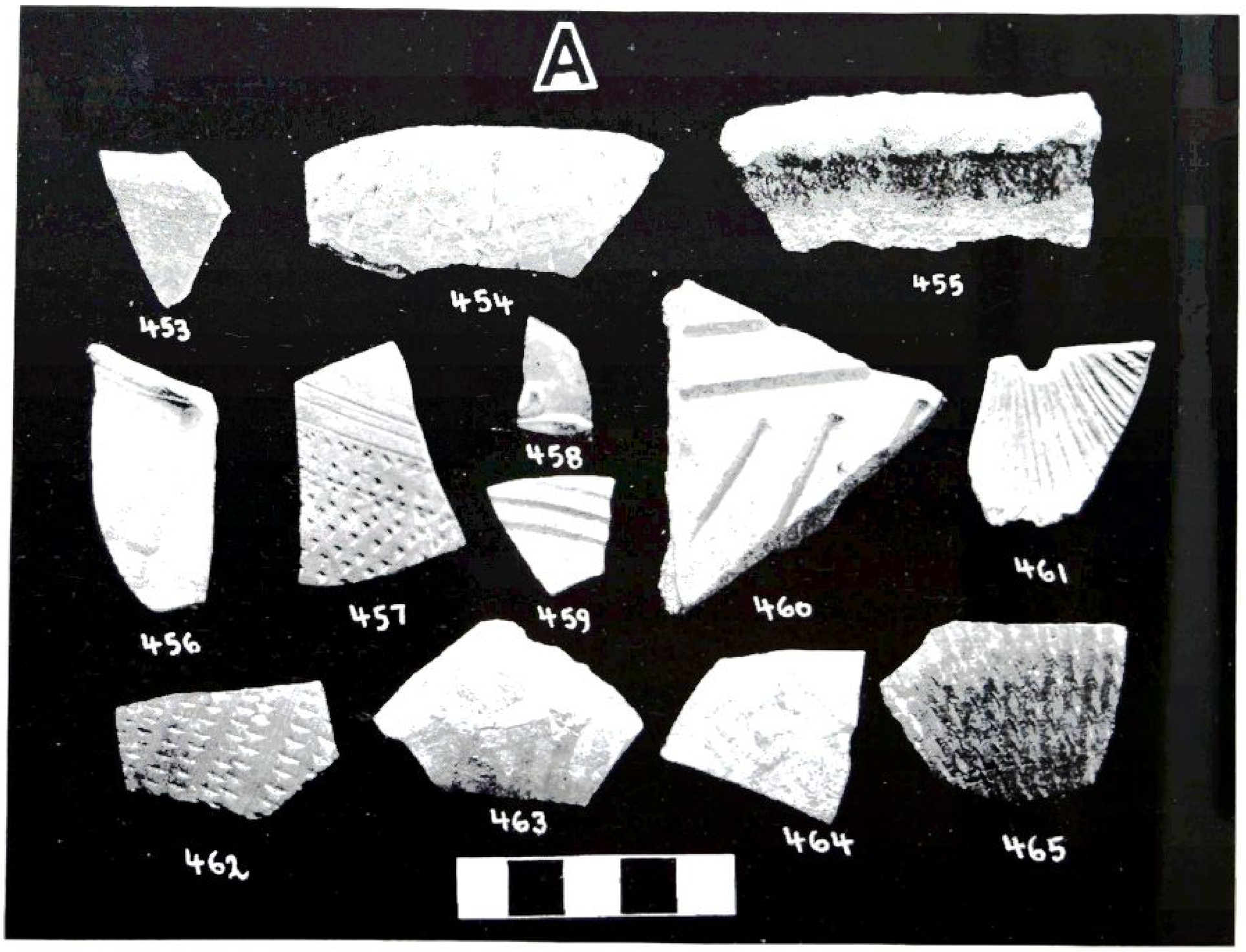


PLATE 14

Digitized by Birzeit University Library



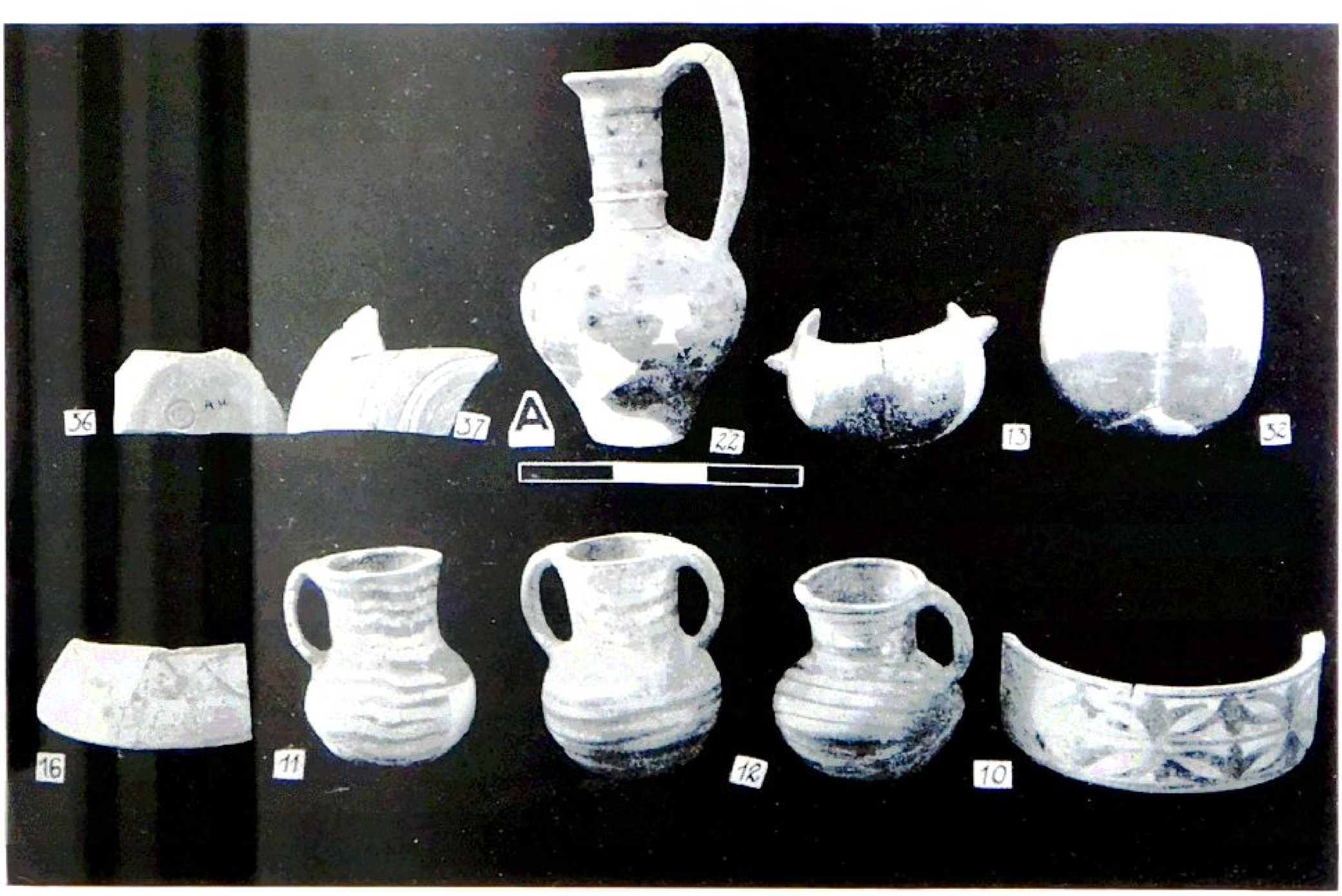


PLATE 15

Digitized by Birzeit University Library





PLATE 16

Digitized by Birzeit University Library





PLATE 17

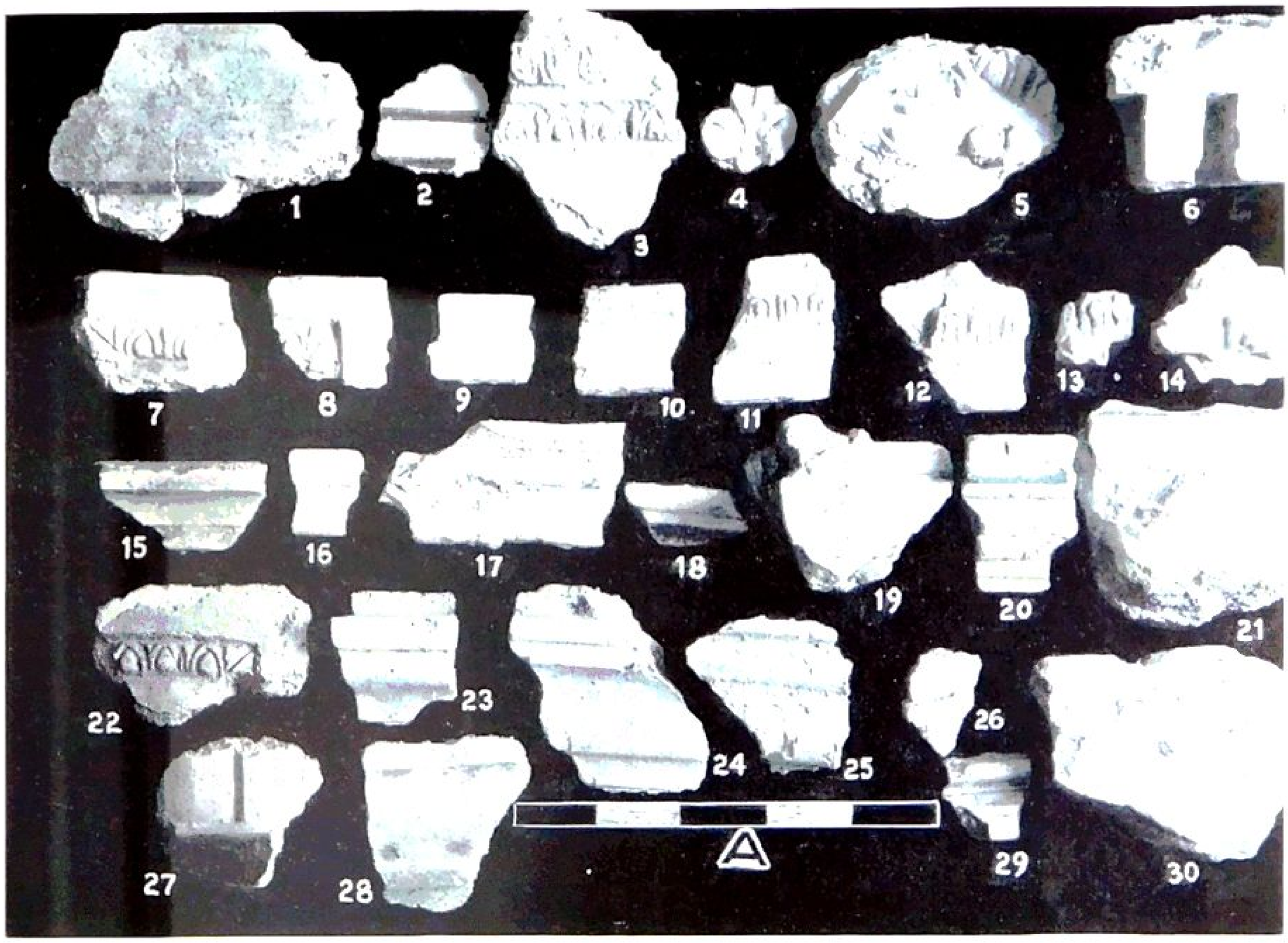
Digitized by Birzeit University Library

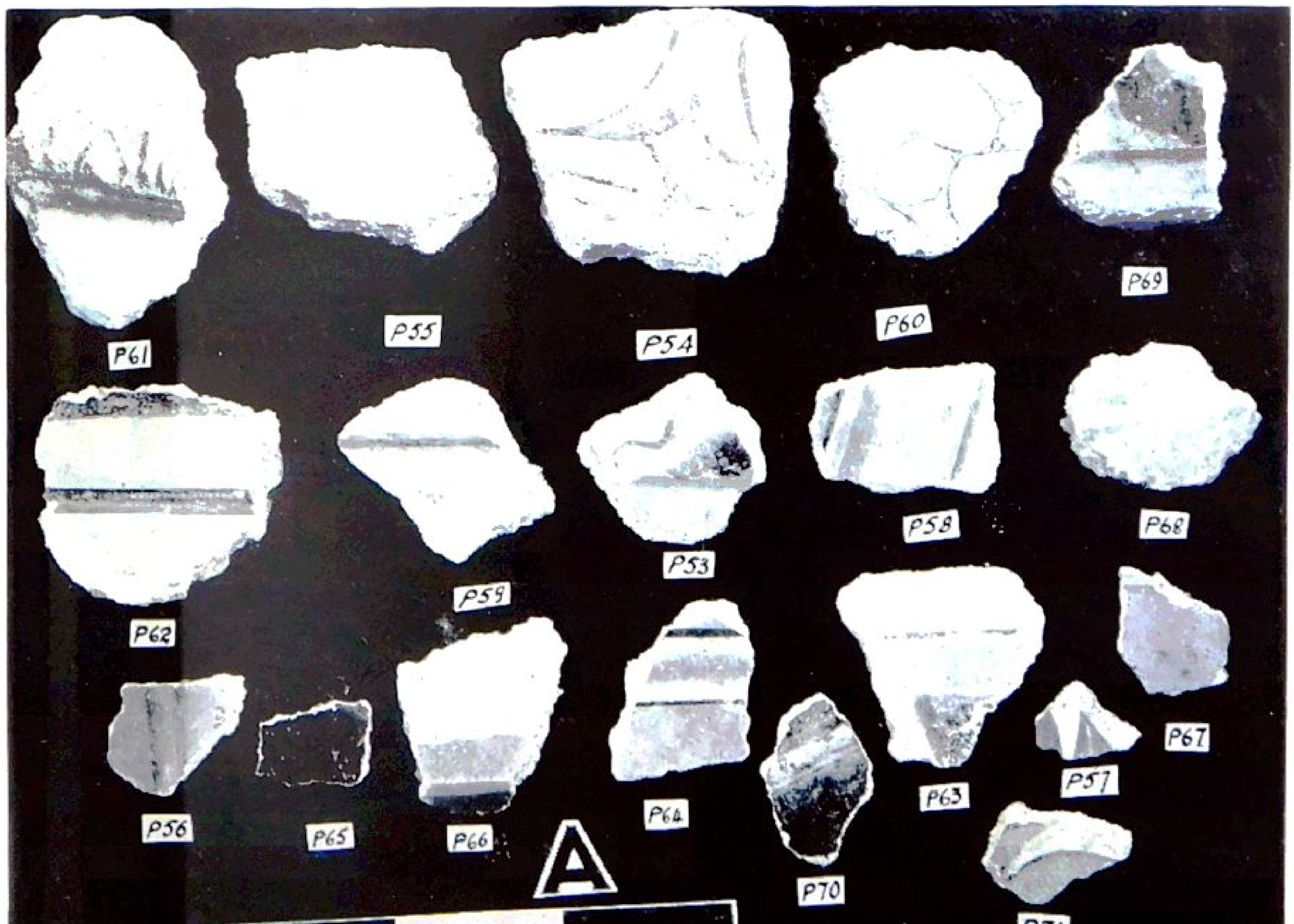
Wood from Hellenistic fortress, Tell 1.

PLATE 18

Terra cotta revetment panels and crestings, Tell 1.

Digitized by Birzeit University Library



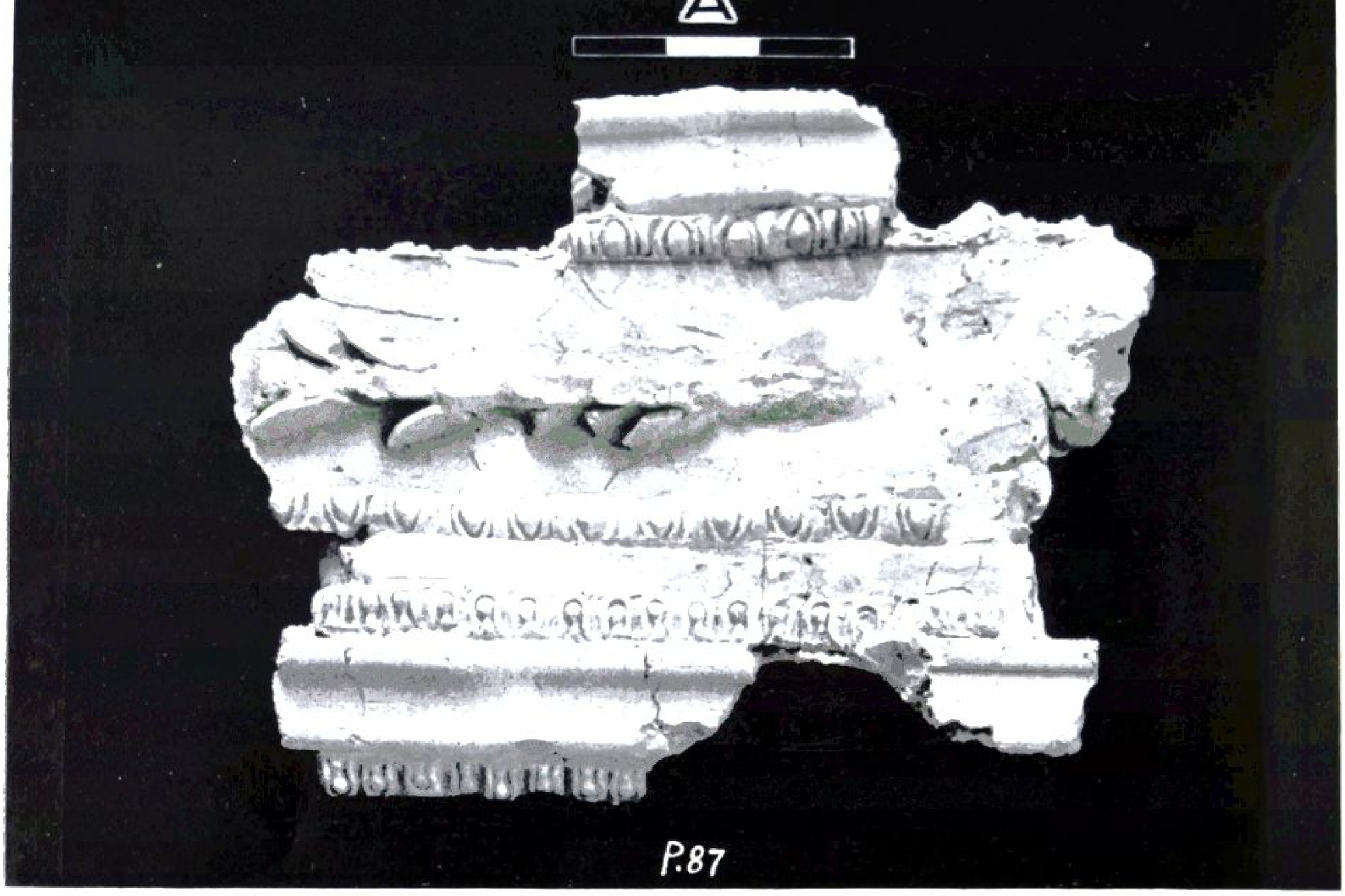


Moulded plaster.

Painted plaster.

PLATE 19

Digitized by Birzeit University Library



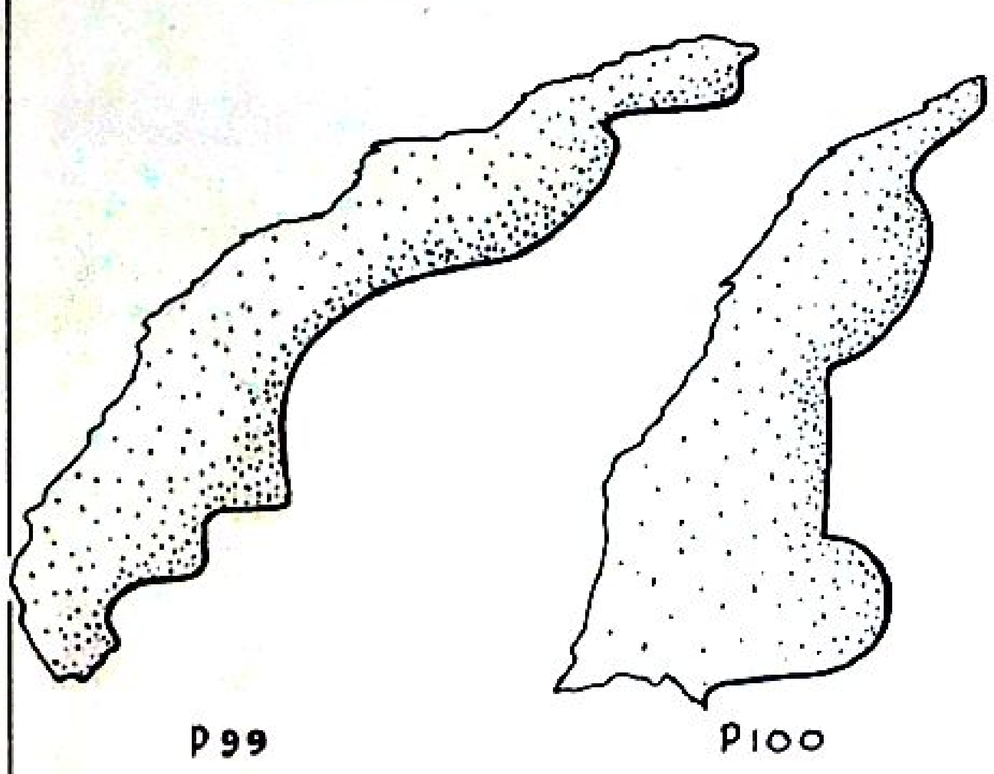


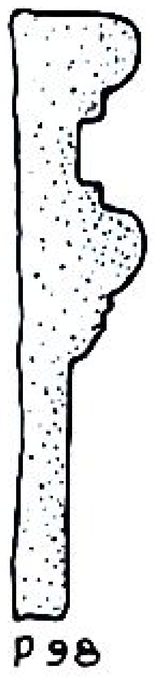
Moulded plaster from *opus reticulatum* building.

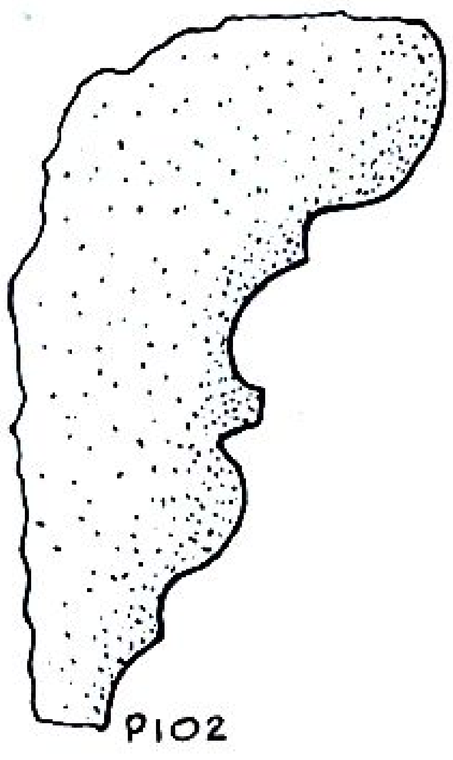
PLATE 20

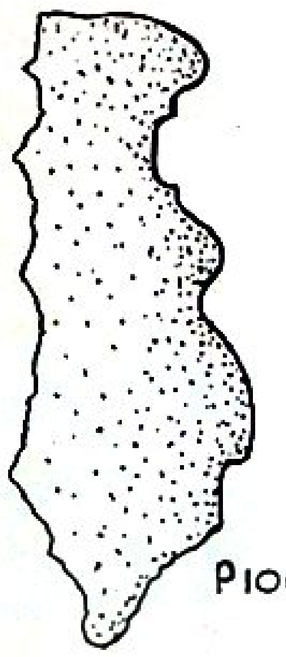
Cross section of moulded plaster.

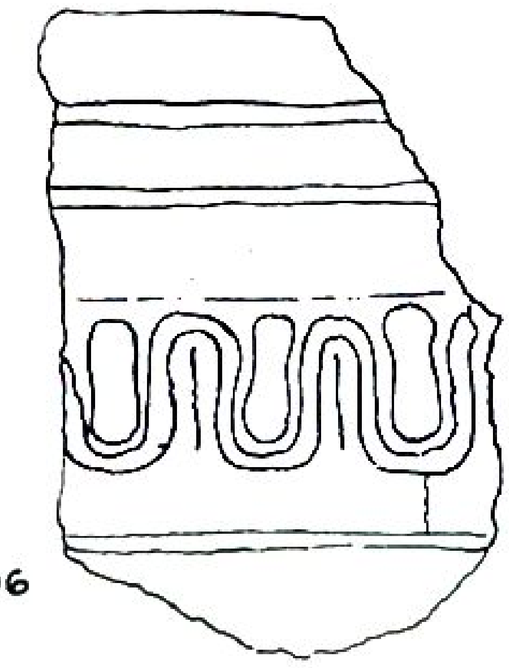
Digitized by Birzeit University Library

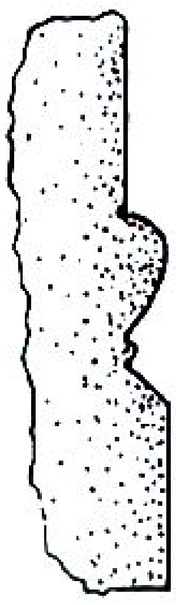


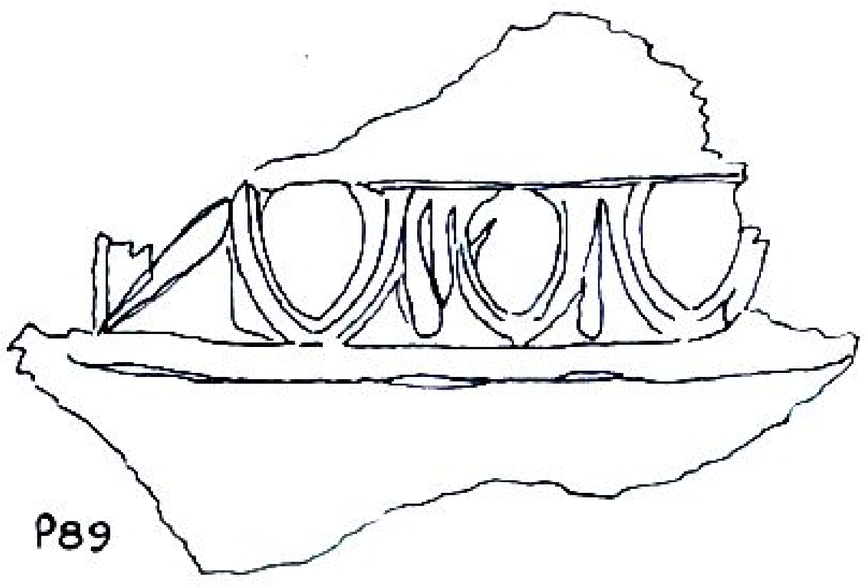




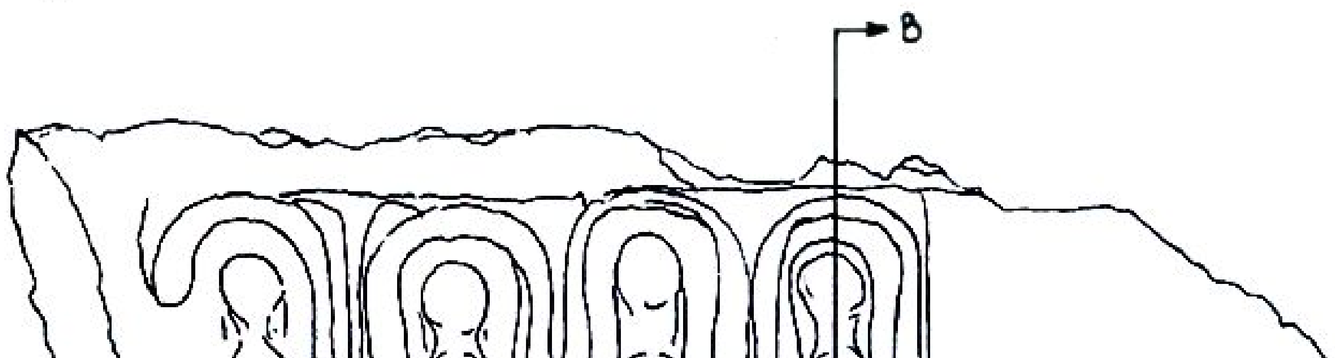


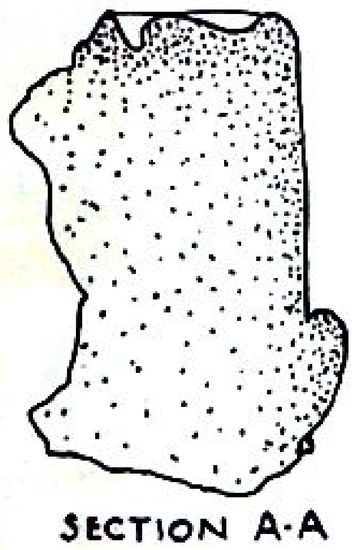












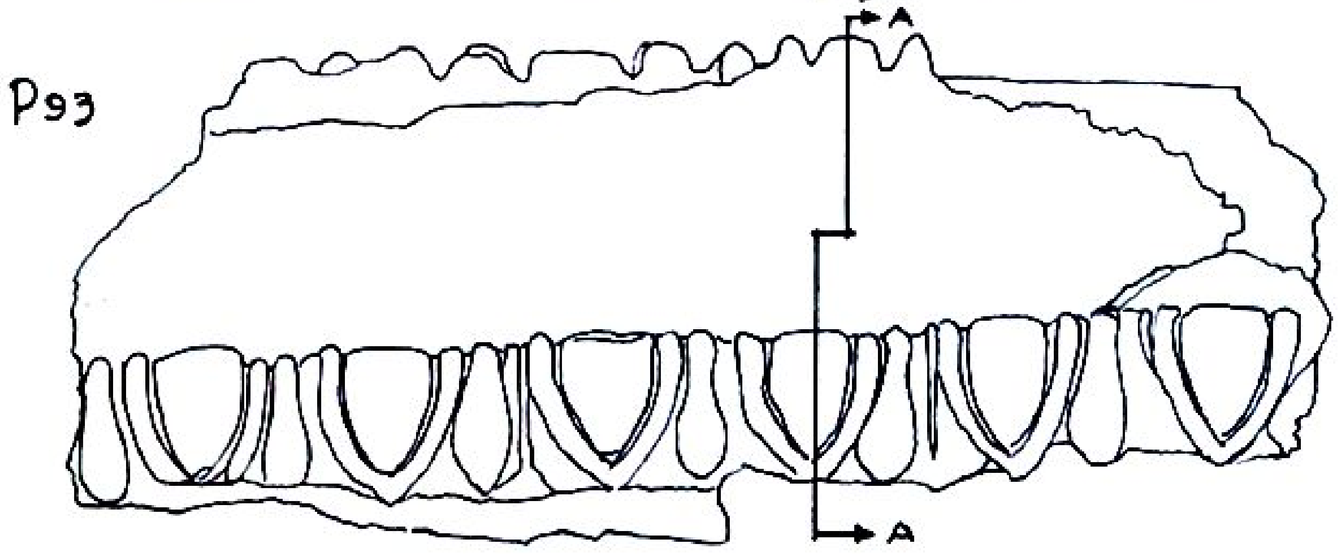




PLATE 20 A Drawings of moulded plaster.

Digitized by Birzeit University Library

Digitized by Birzeit University Library

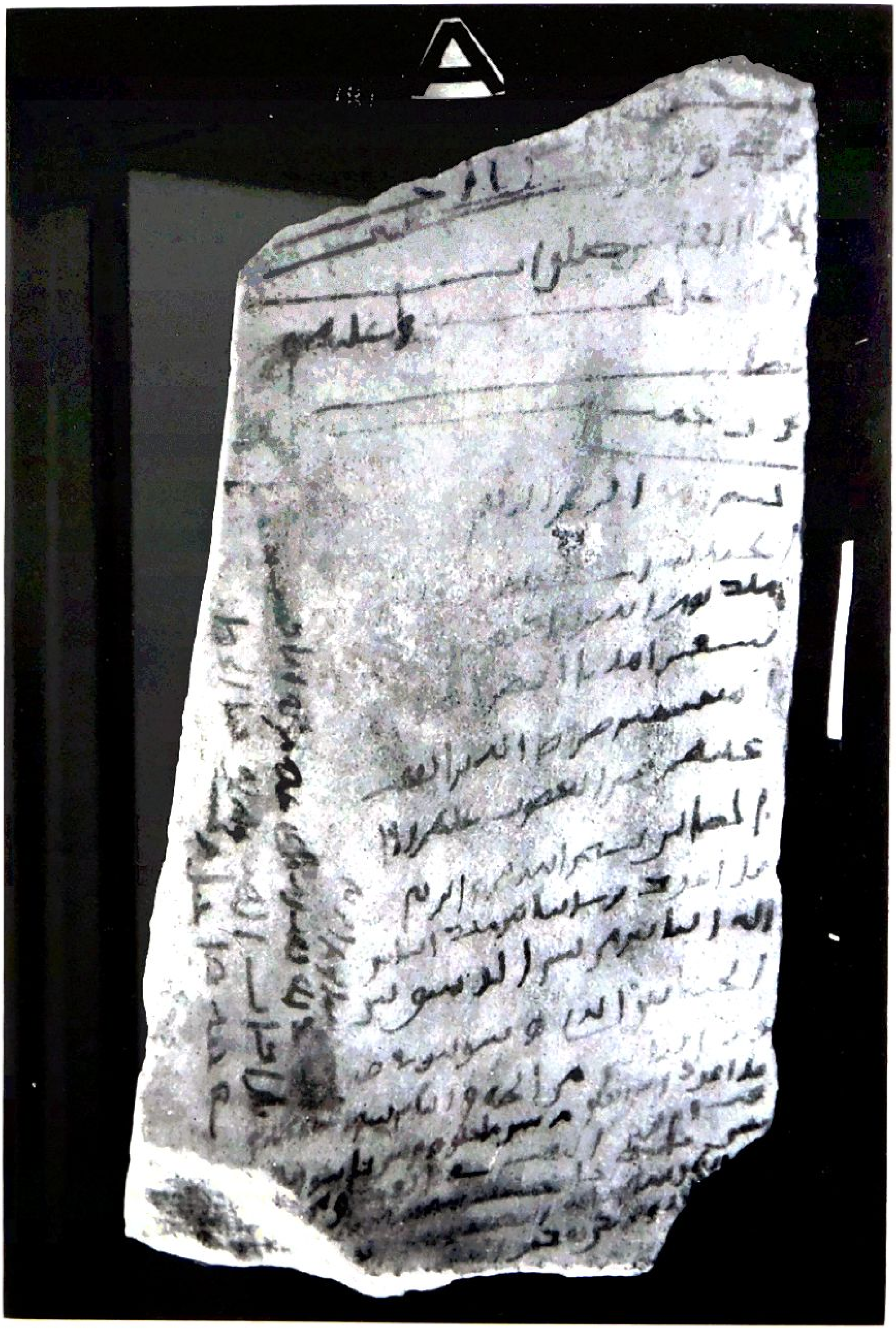


PLATE 21 Arabic inscription containing suras from the Quran.

Digitized by Birzeit University Library

١) بسم الله الرحمن الرحيم
٢) توجيه وزير وكتب
٣) لابى العباس صلوات
٤) الله على محمد وعليهم
٥) الفضل (؟)
٦) من رحمته
٧) بسم الله الرحمن الرحيم
٨) الحمد لله رب العلمين الرحمن الرحيم
٩) ملك يوم الدين اياك نعبد و [ياك]
١٠) نستعين اهدنا الصراط
١١) المستقيم صراط الذين انعمت
١٢) عليهم غير المغضوب عليهم ولا
١٣) الضالين بسم الله الرحمن الرحيم
١٤) قل اعوذ برب الناس ملك الناس
١٥) اله الناس من شر الوسوس
١٦) الخناس الذى يوسوسو فى صد
١٧) ور الناس من الجنة والناس بسم الله الرحمن الرحيم
١٨) قل اعوذ برب الفلق من شر ما خلق ومن شر غاسق اذا [و
١٩) قب ومن شر النفتت فى العقد ومن
٢٠) شر حاسد اذا حسد بسم الله [الرحمن الرحيم]
٢١) قل هو الله احد الله الصمد لم يلد [ولم
٢٢) يولد ولم يكن له كفو احد
٢٣) بسم الله الرحمن الرحيم
٢٤) [تبت] يدا ابى لهب وتب ما اغنى عنه من له وما كسب سيصلى
٢٥) نارا ذات اللهب وامراته حمل الحطب
٢٦) فى جيدها حبل من مسد

PLATE 21A — Transcribed text of Arabic inscription.

Digitized by Birzeit University Library

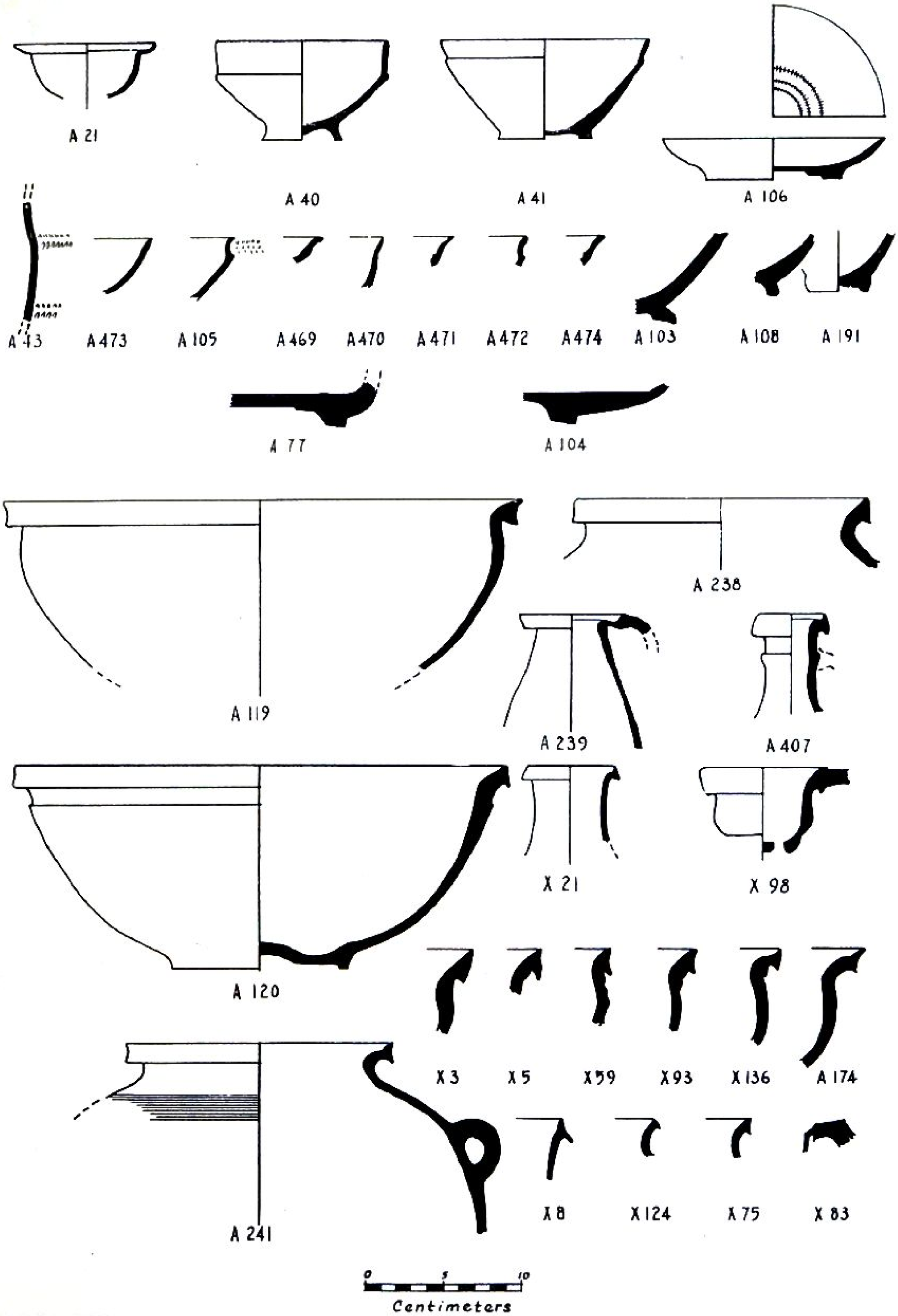


PLATE 22

Digitized by Birzeit University Library

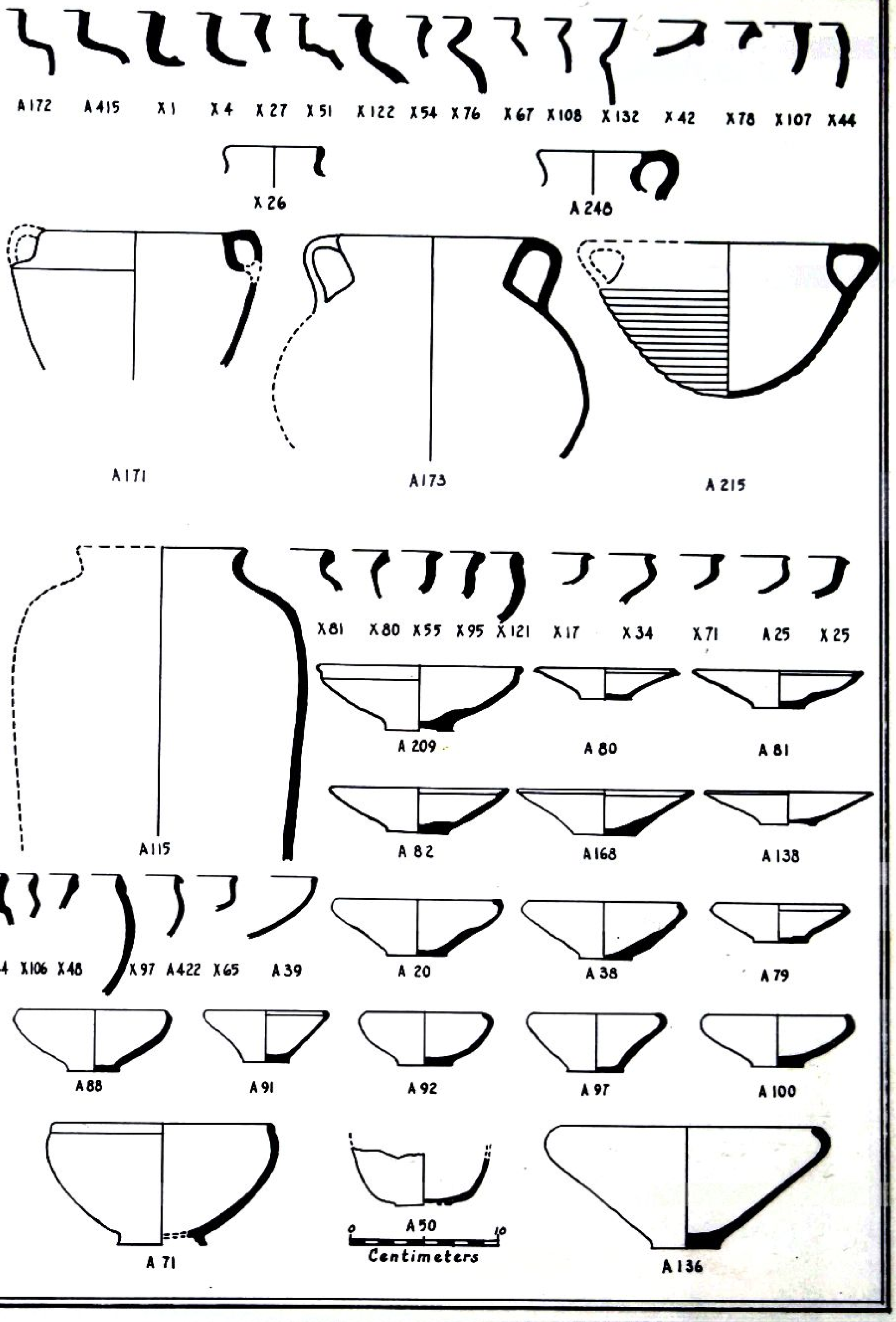


PLATE 23

Digitized by Birzeit University Library

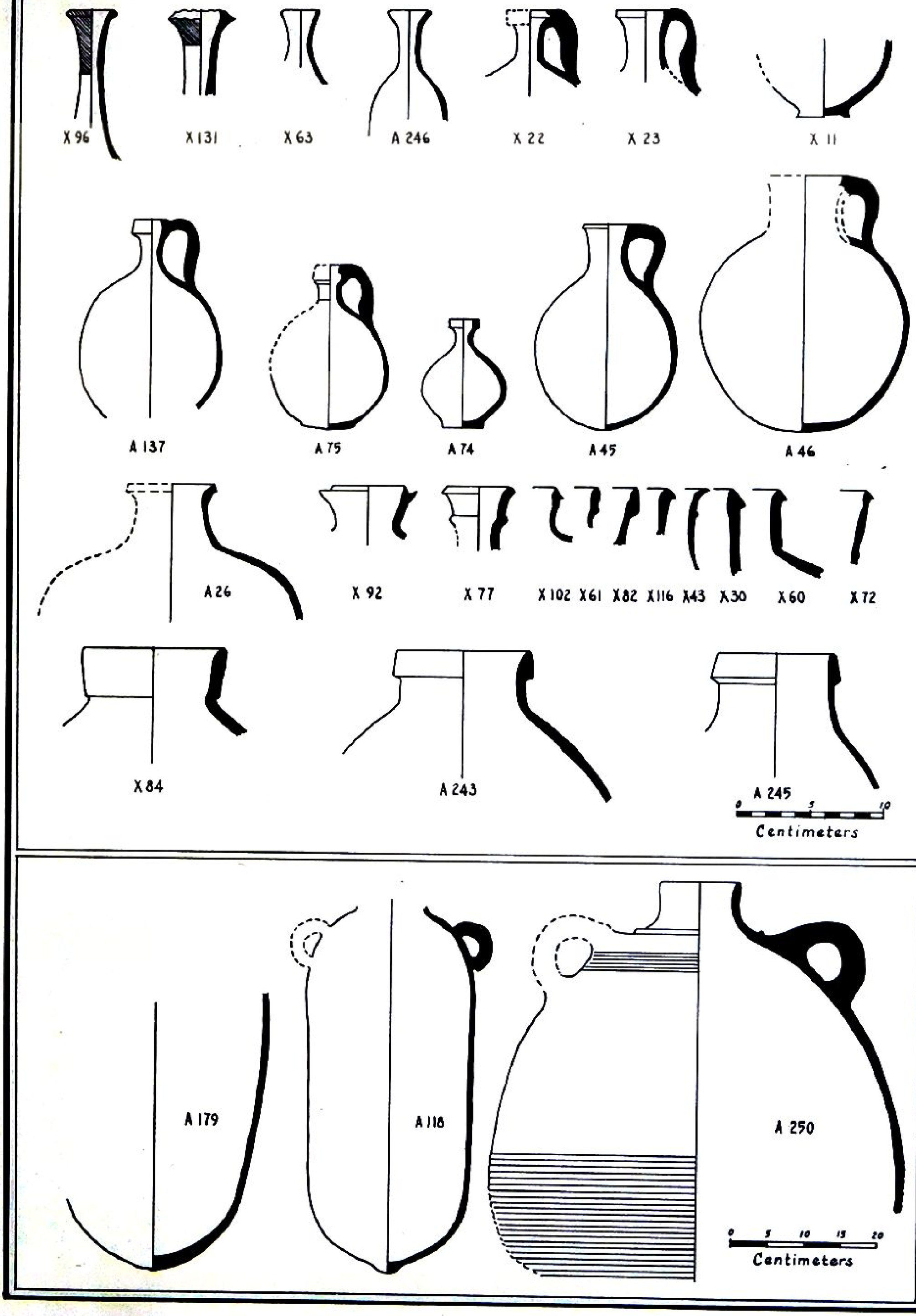


PLATE 24

Digitized by Birzeit University Library

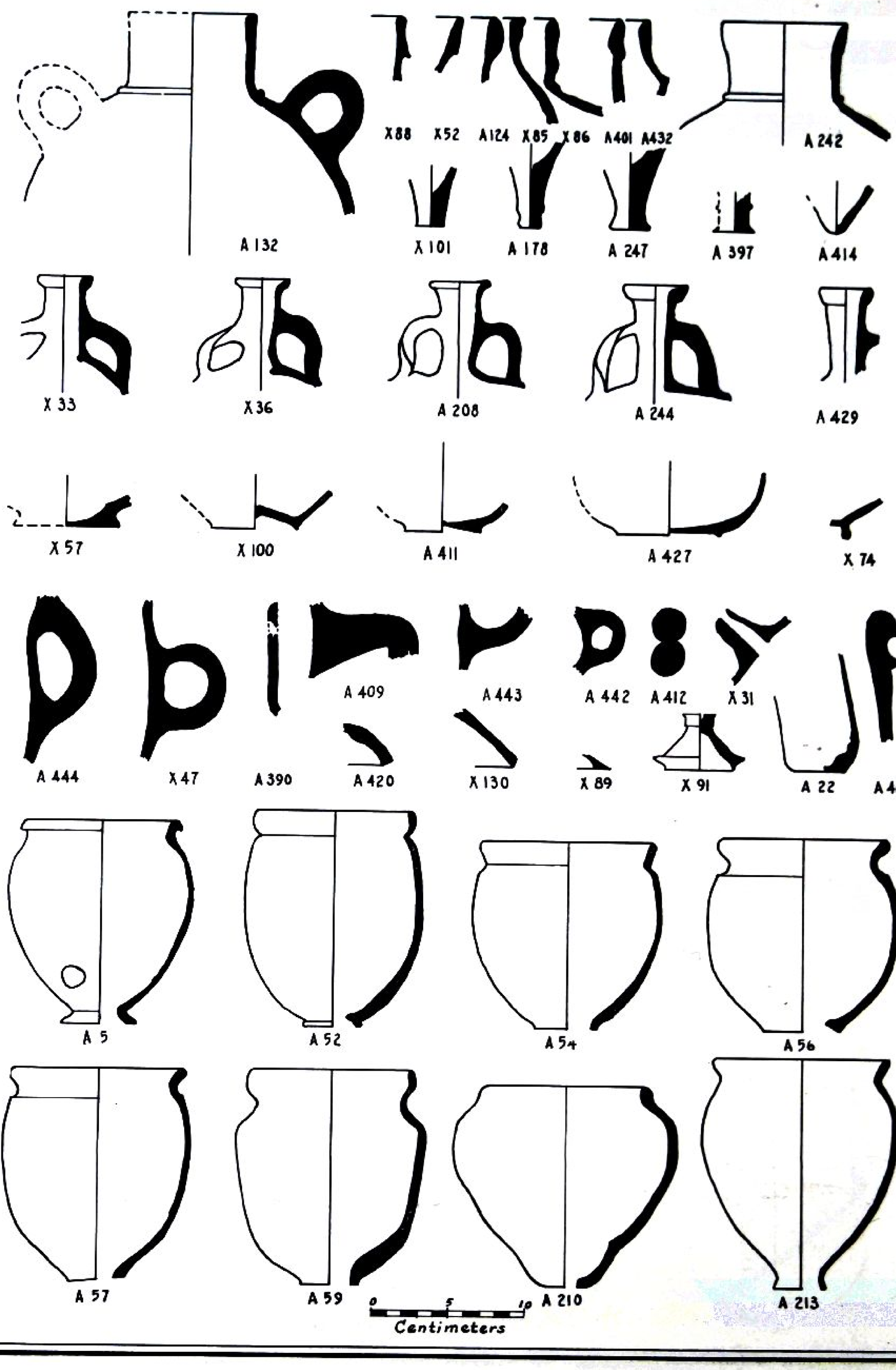
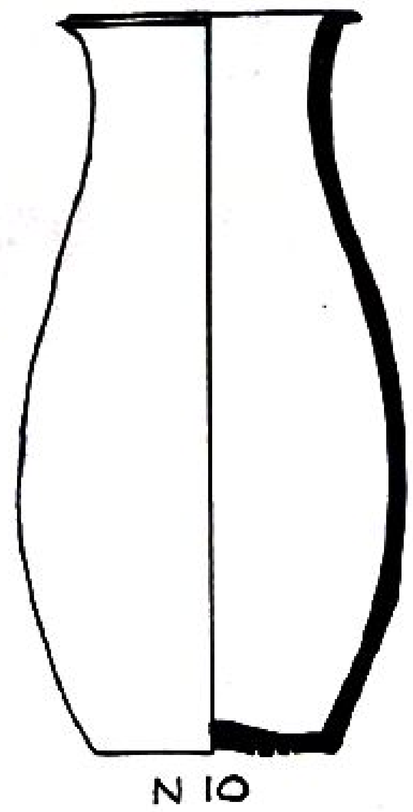
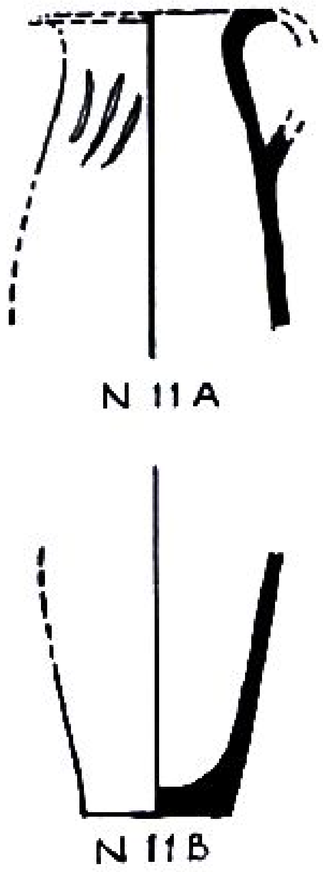


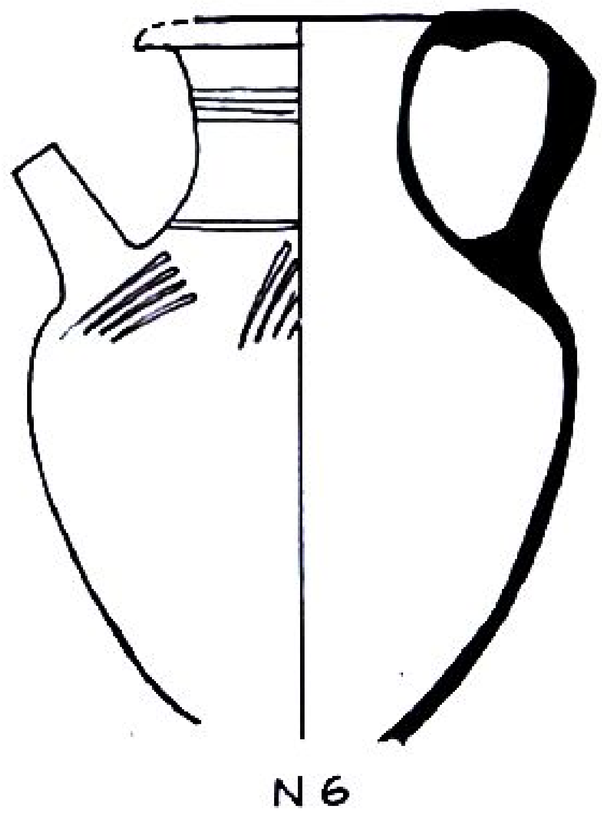
PLATE 25

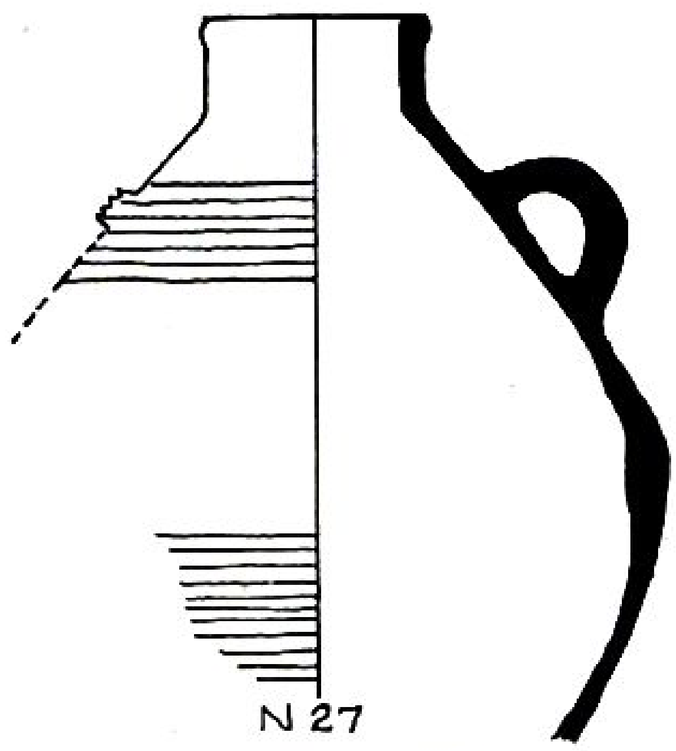
X 88, X 52 and A 124 are drawn to the scale used at the bottom of Plate 24.

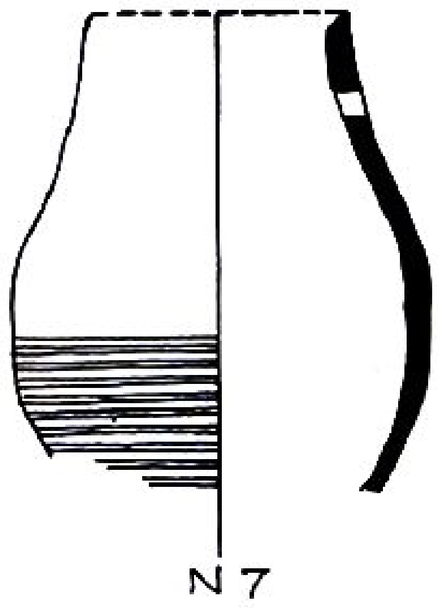
Digitized by Birzeit University Library

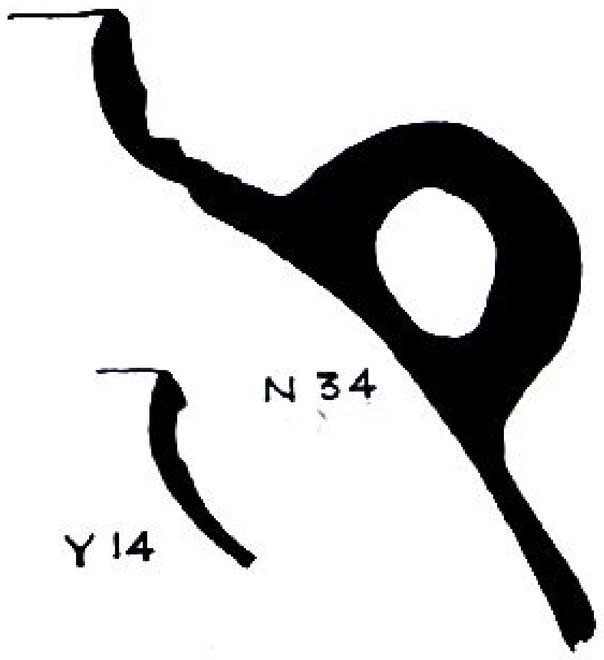


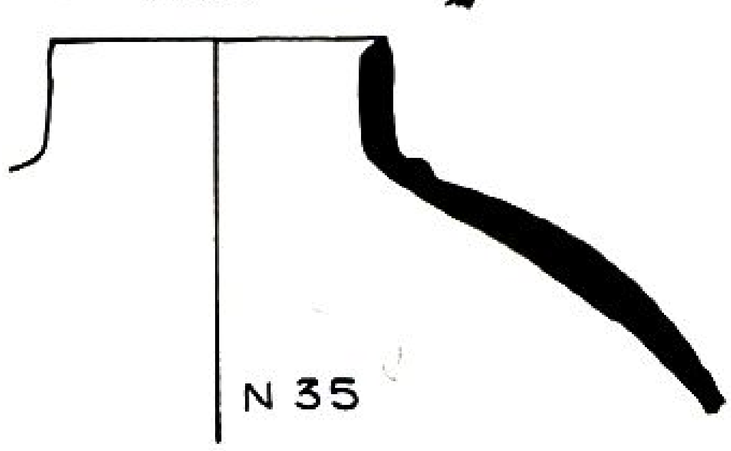


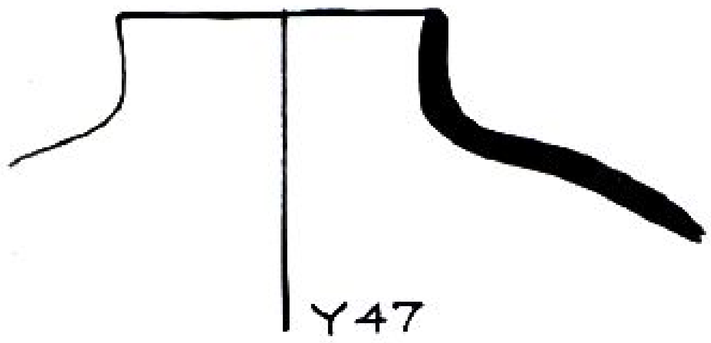












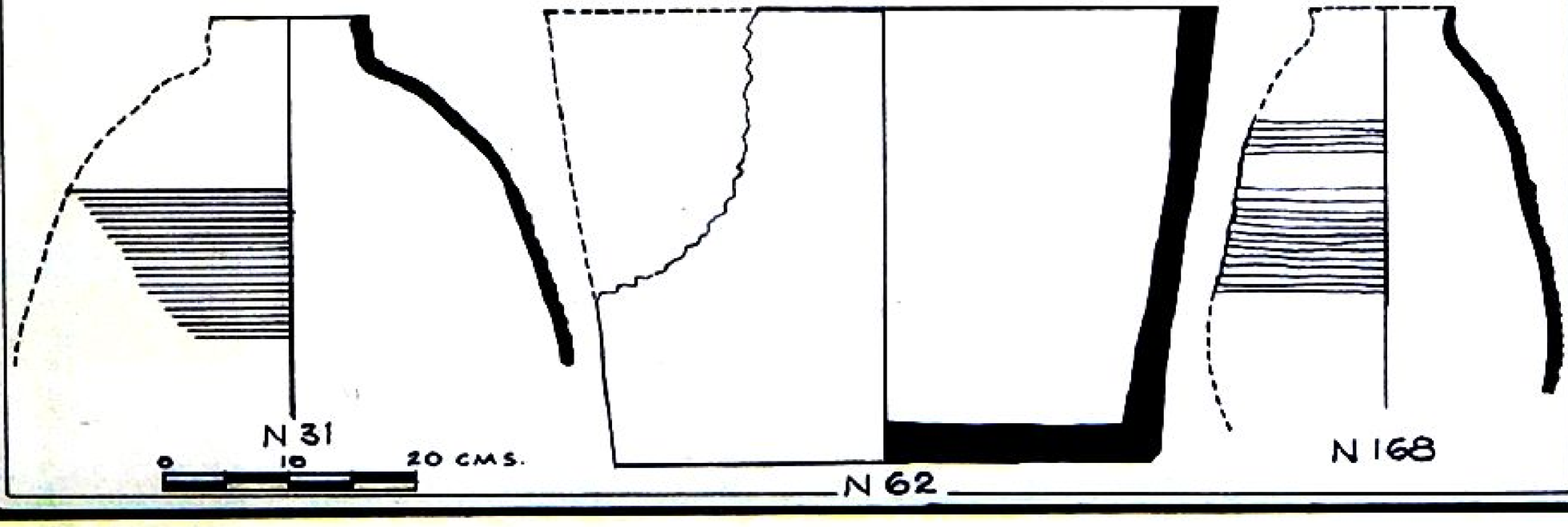


PLATE 26

Digitized by Birzeit University Library

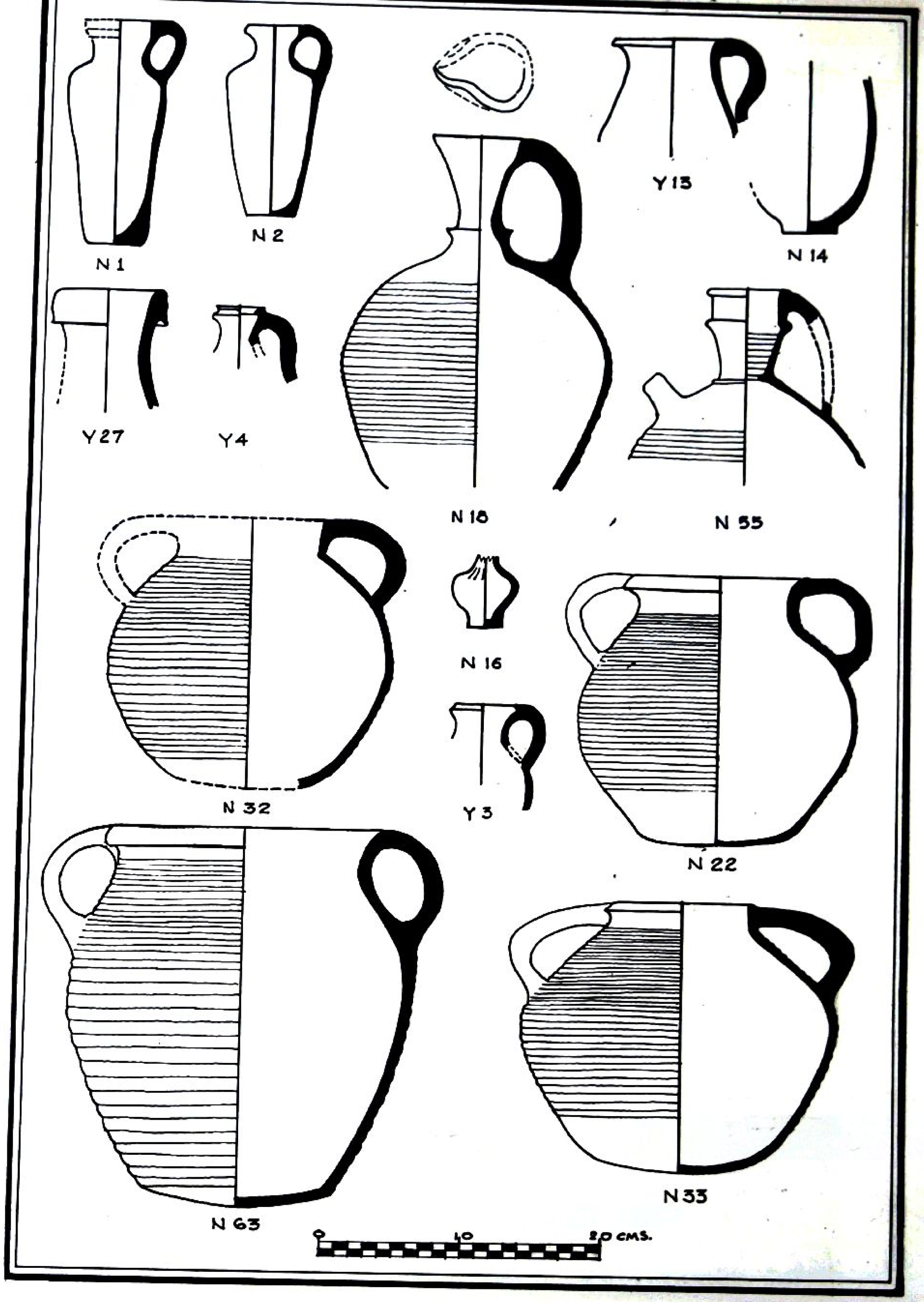


PLATE 27

Digitized by Birzeit University Library

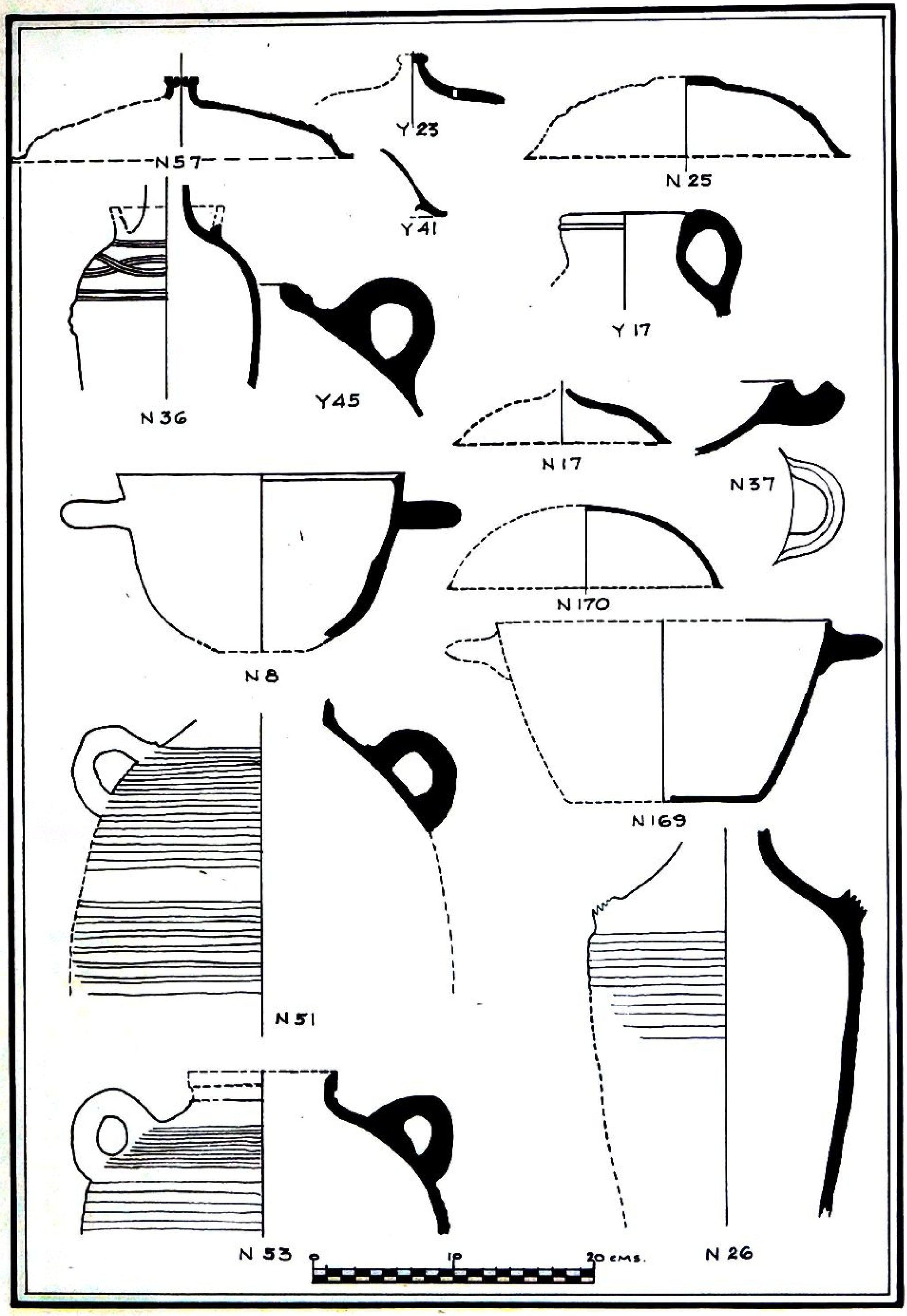


PLATE 28

Digitized by Birzeit University Library

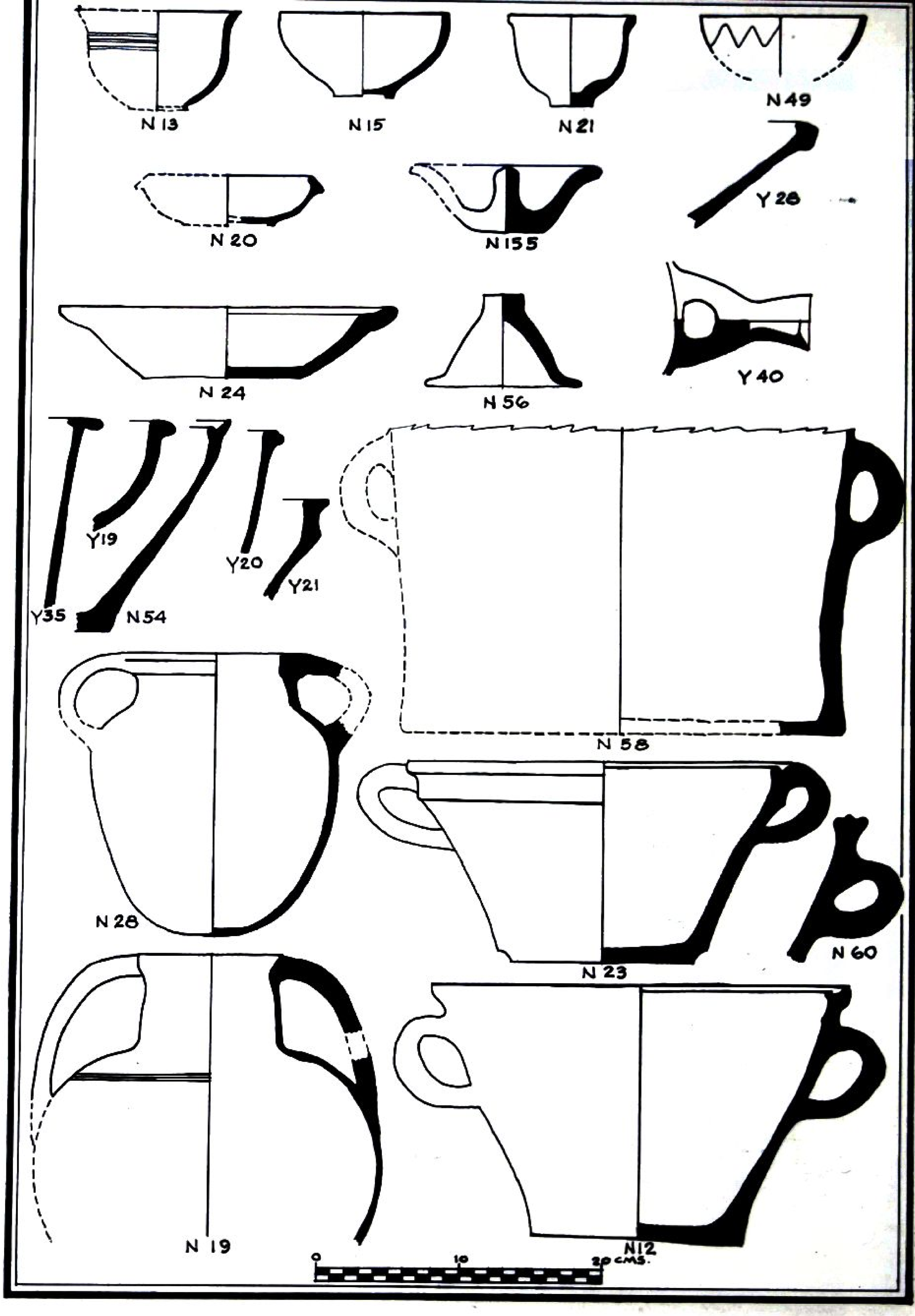
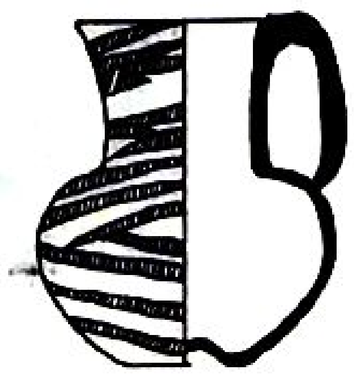
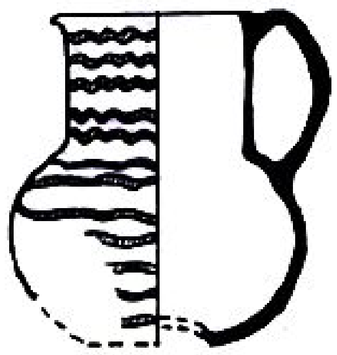


PLATE 29

Digitized by Birzeit University Library



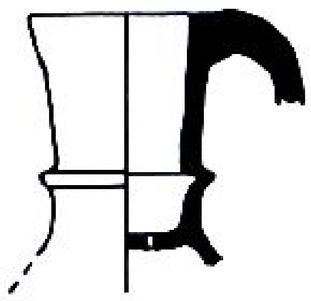
A 10



A 11

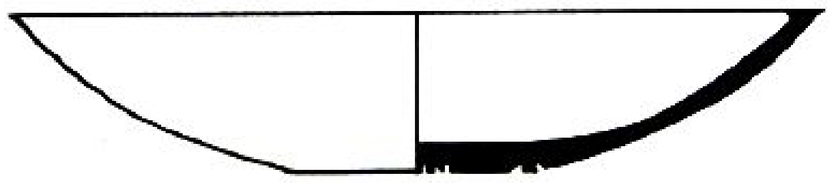


A 12



X 32

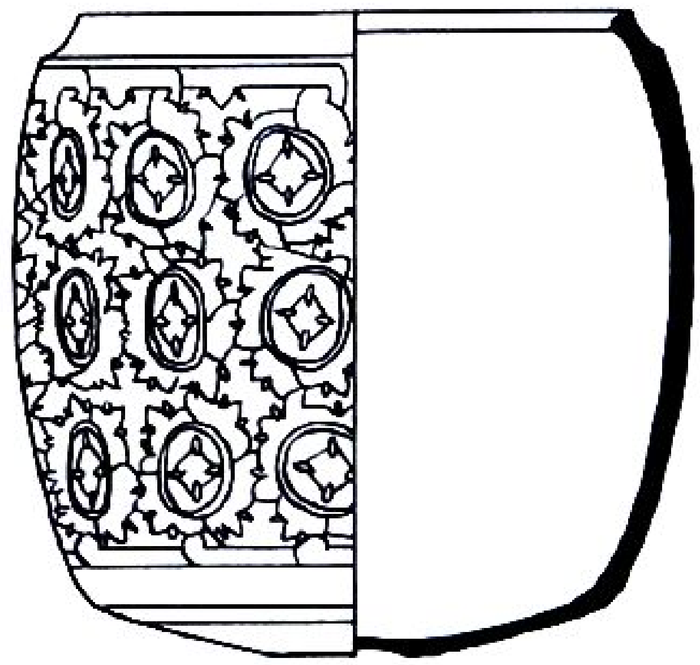
A 24



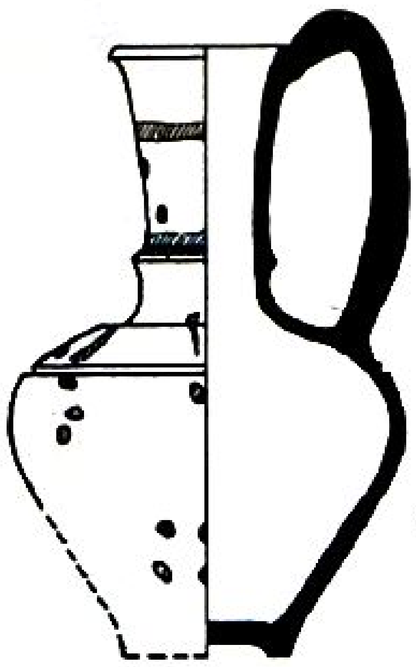
A 111



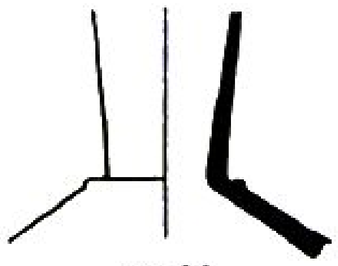
A 110



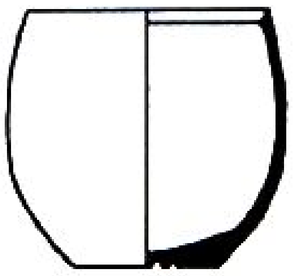
A 121



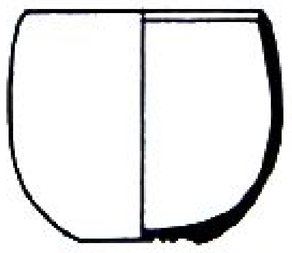
A 23



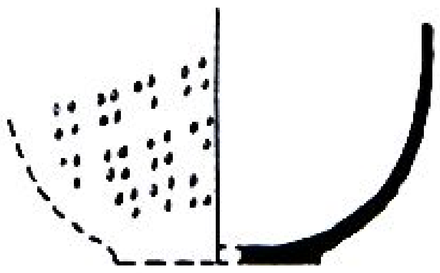
X 192



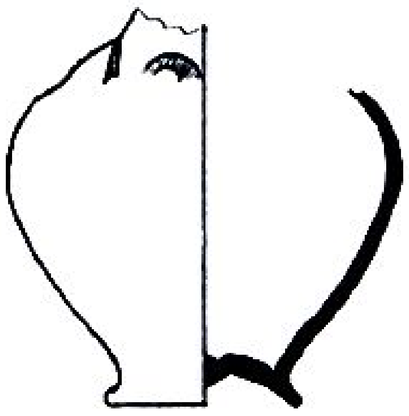
A 35



A 33



A 29



A 30



A 34

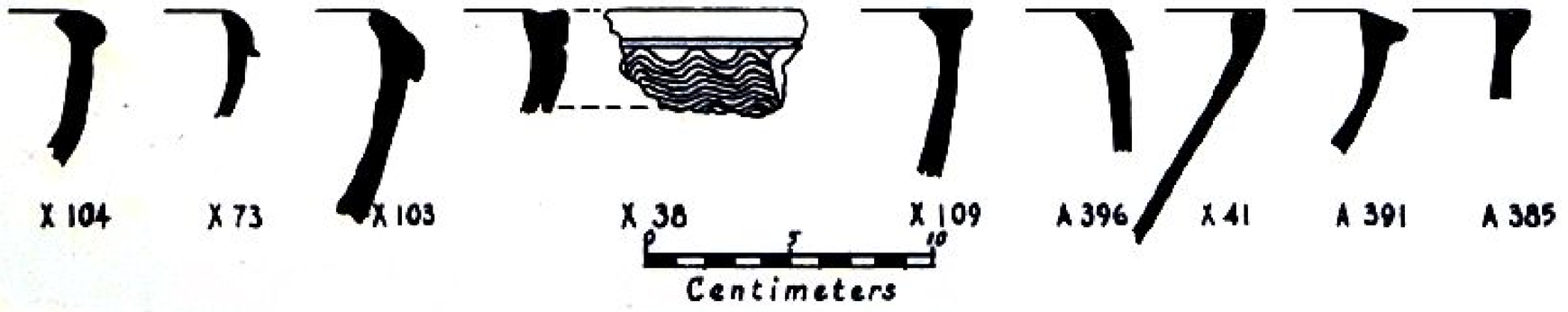


PLATE 30

Digitized by Birzeit University Library

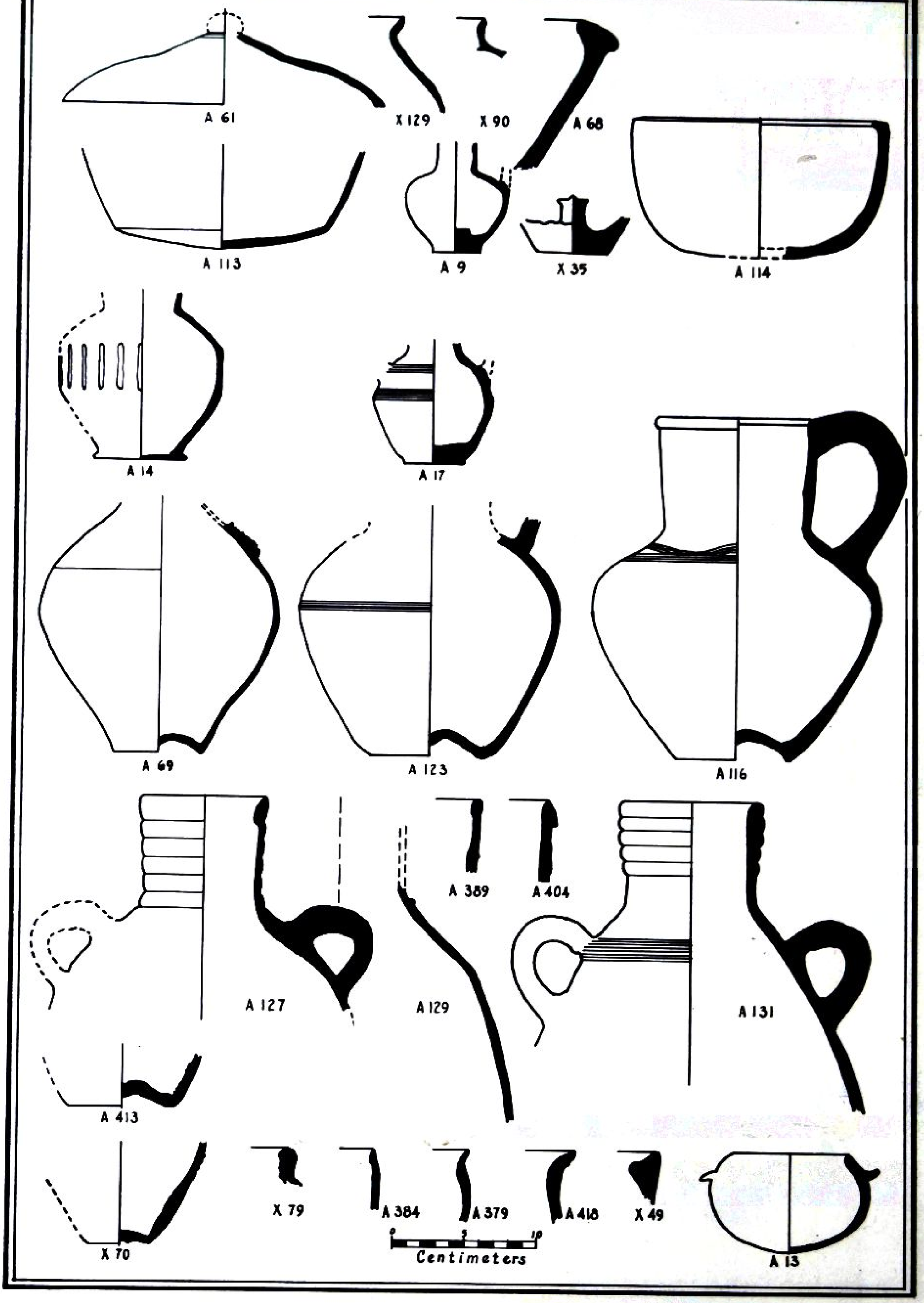


PLATE 31

Digitized by Birzeit University Library

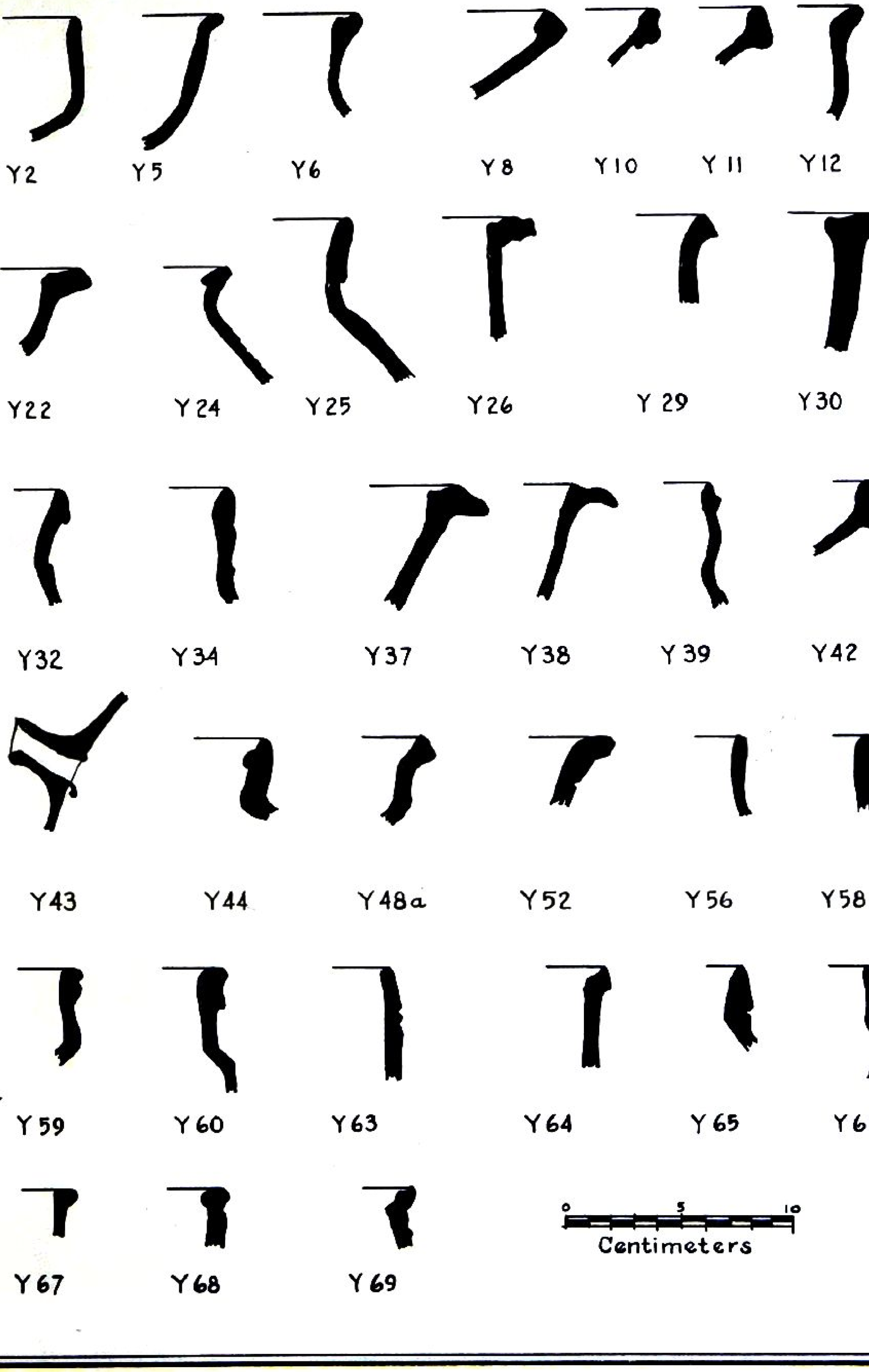


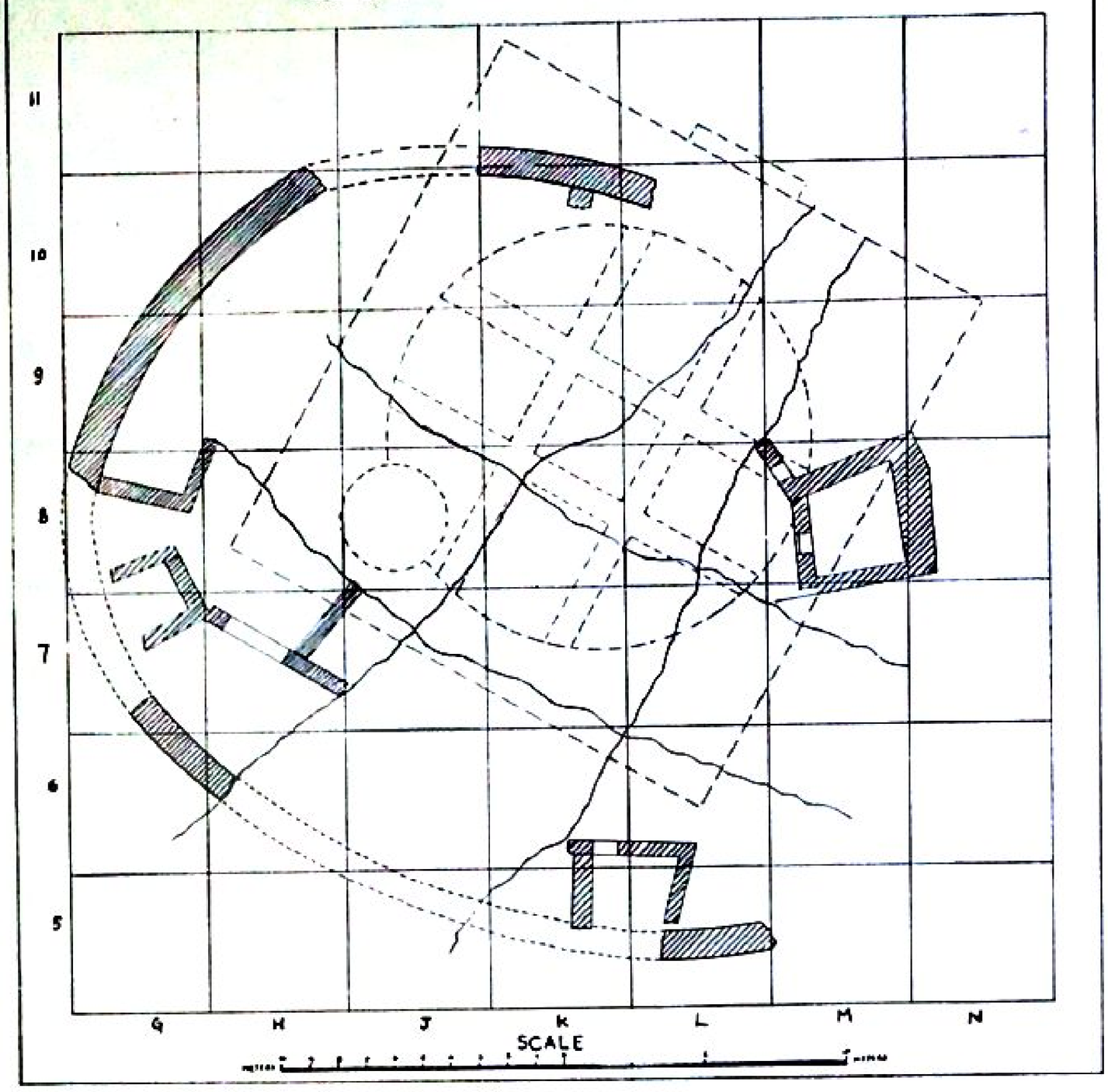
PLATE 32

Digitized by Birzeit University Library

Digitized by Birzeit University Library

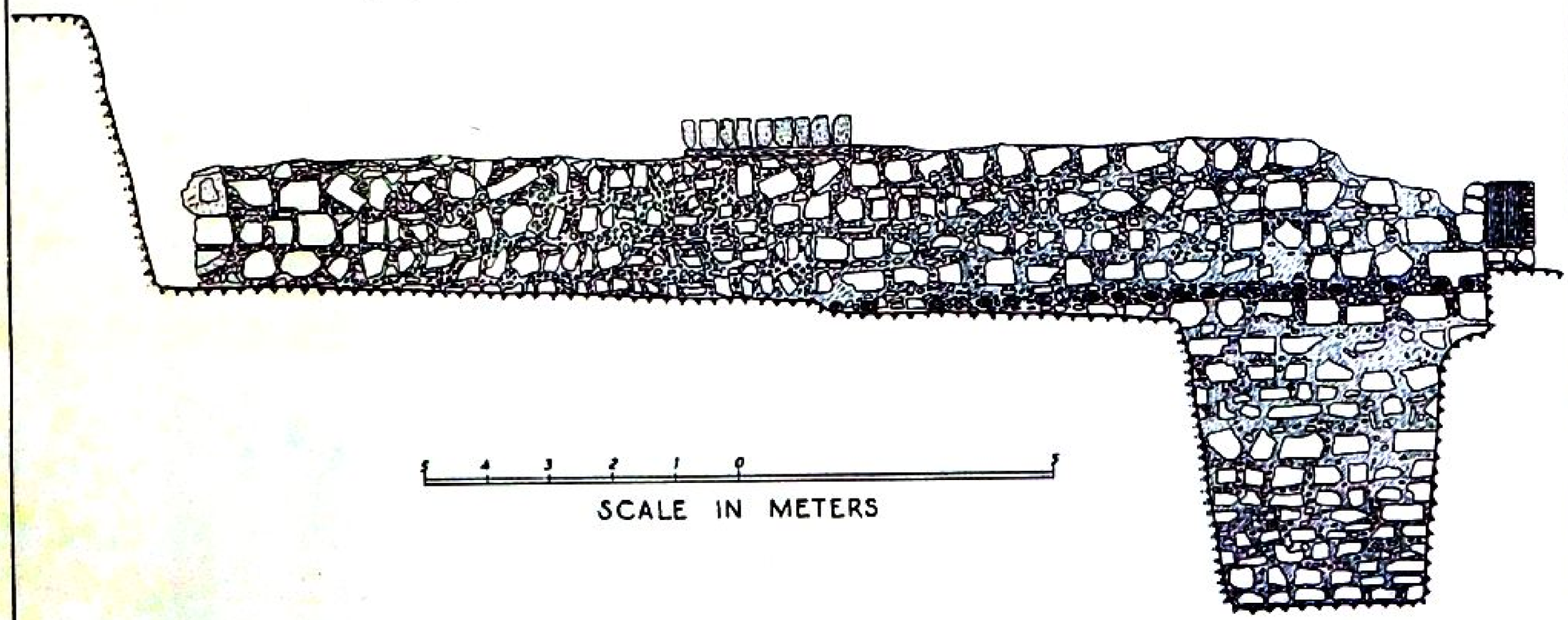
TULUL ABU EL ALAYIQ

WALLS OF ARAB PERIOD ON TELL I.



TULUL ABU EL ALAYIQ

EAST ELEVATION OF FORTRESS ON TELL NO. 1.



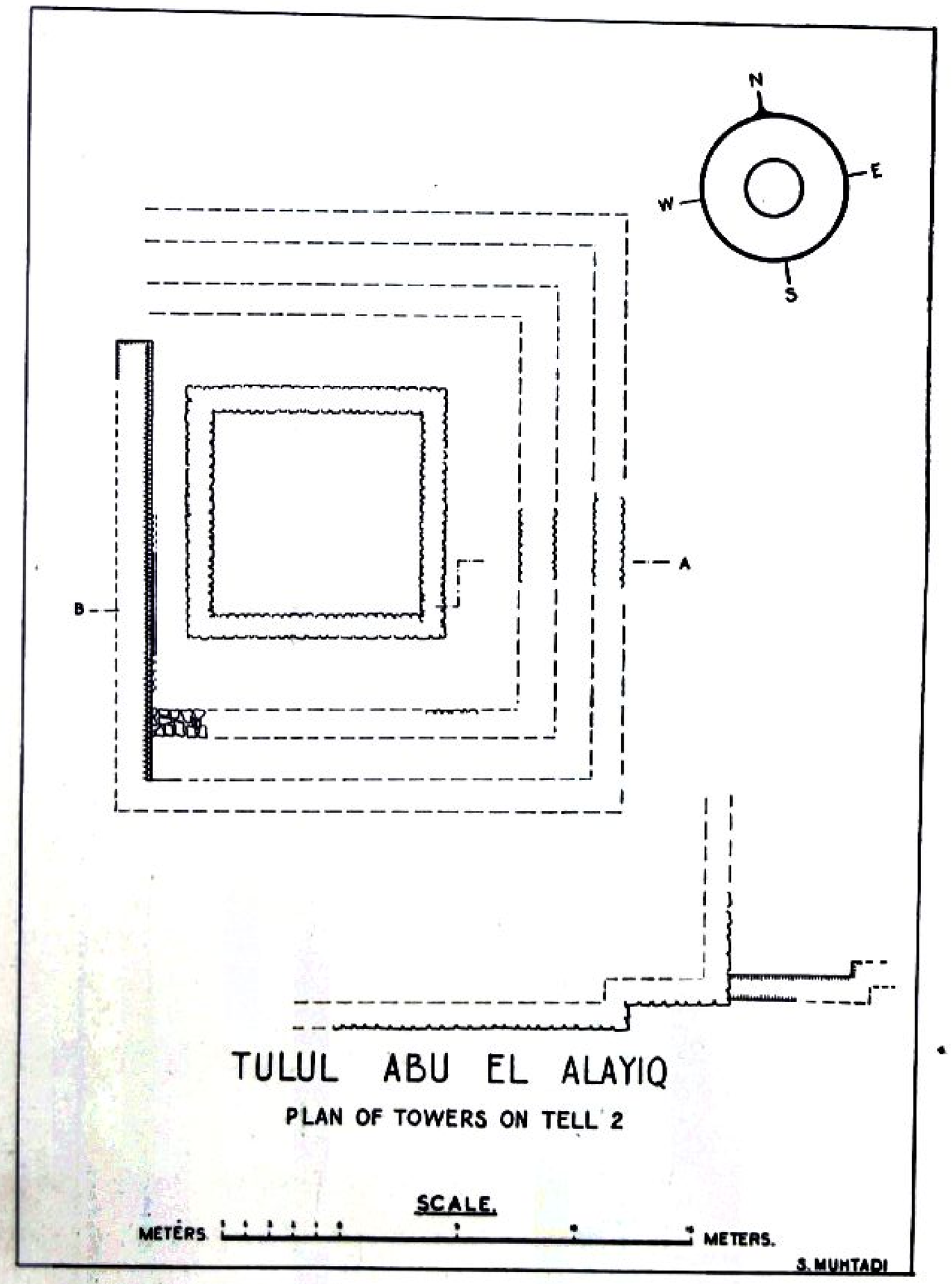
DATUM 30.80 METERS

S. MUHTADI
12. 7. 1950

PLATE 34

Digitized by Birzeit University Library

On right. Tell 1: Hellenistic Fortress and Grand Stairway.



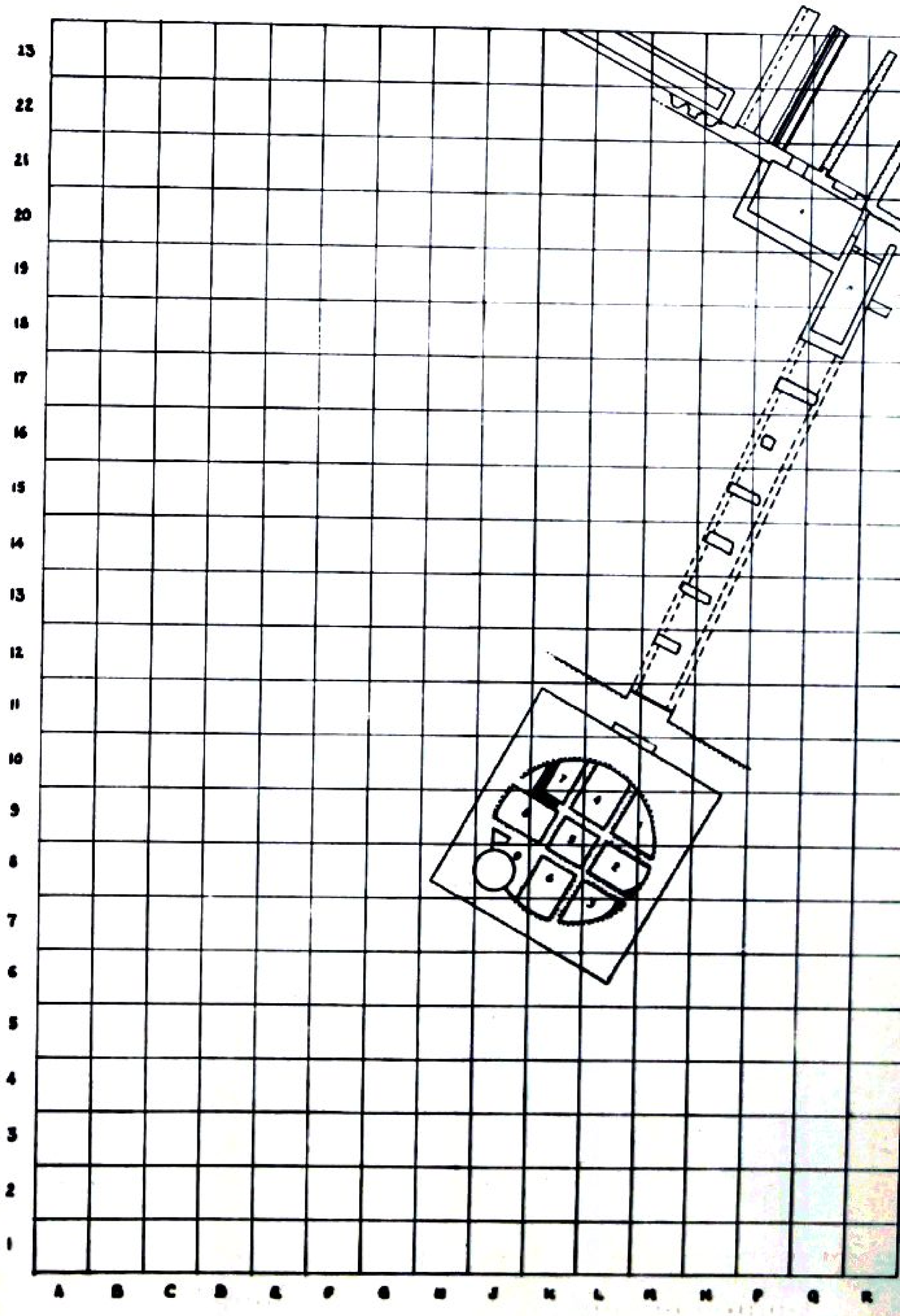


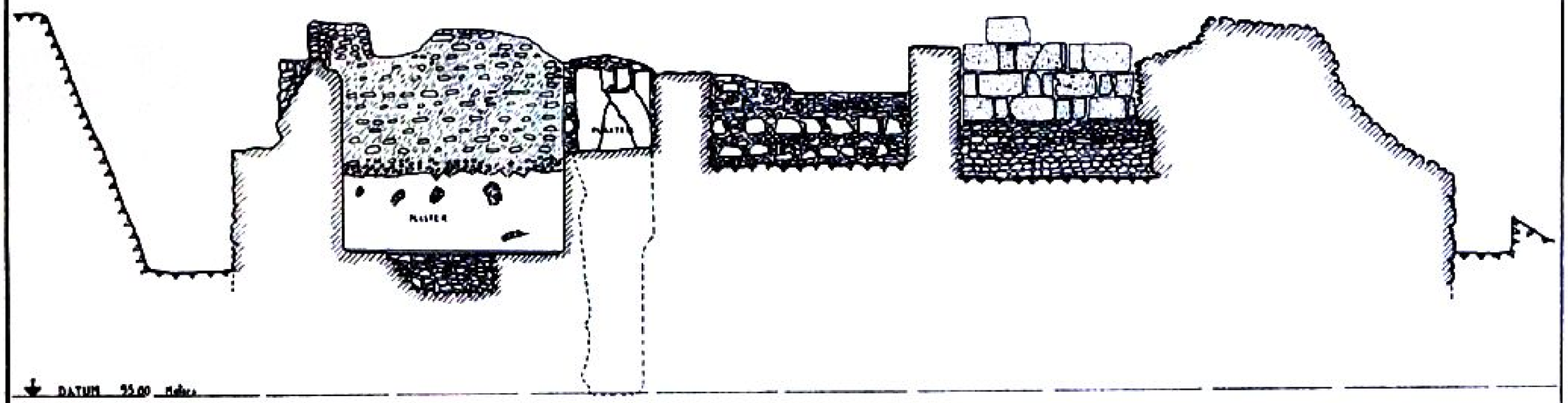
PLATE 35

Digitized by Birzeit University Library

TULUL ABU EL ALAYIQ.

SECTION FACING WEST THROUGH FORTRESS ON TELL NO. I.

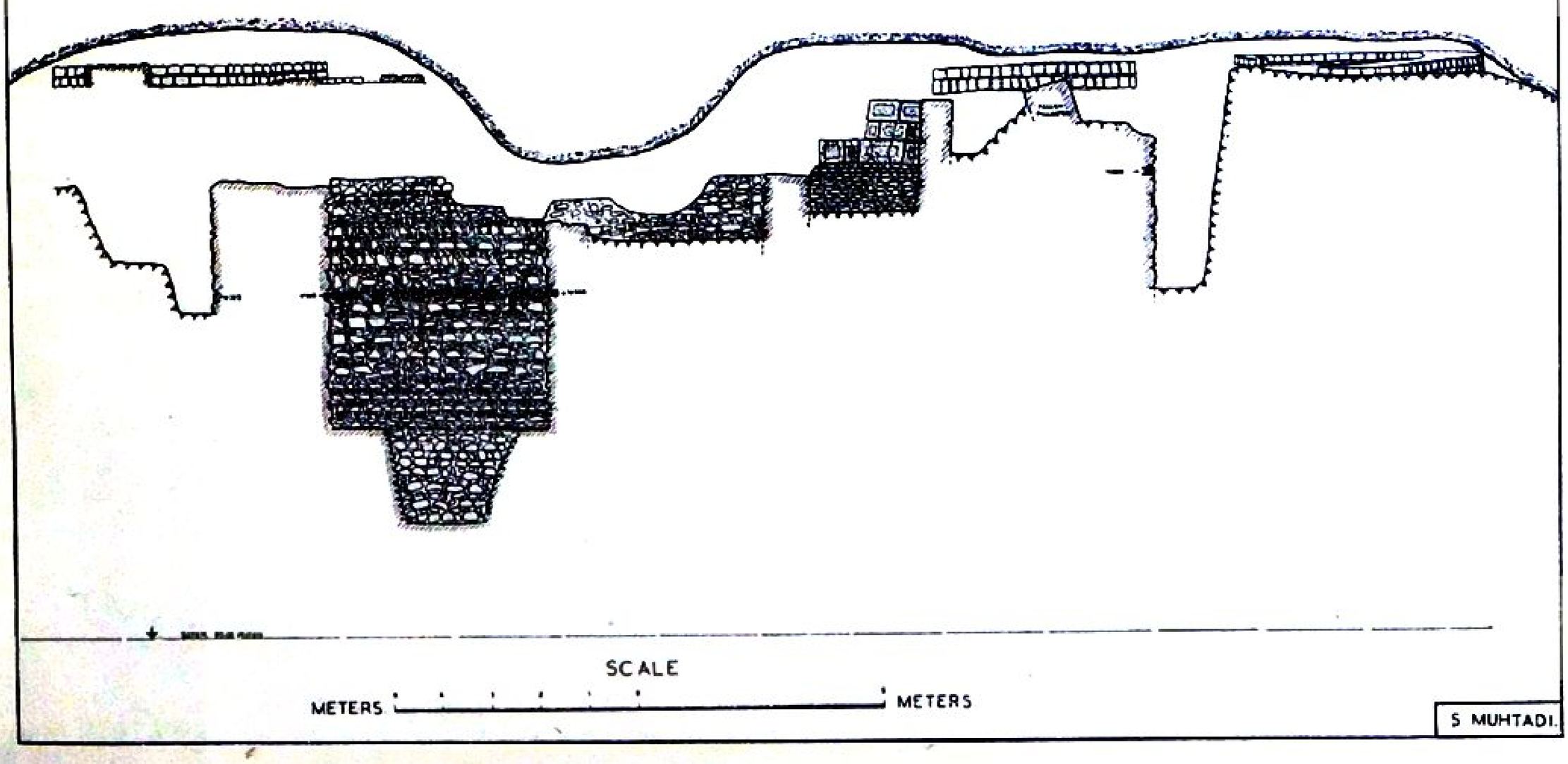
(A-B)



TULUL ABU EL ALAYIQ.

SECTION FACING SOUTH THROUGH FORTRESS ON TELL NO I

(C - D)



Digitized by Birzeit University Library

TULUL ABU EL ALAYIQ

SECTION FACING WEST THROUGH GRAND STAIRWAY, TELL 1.

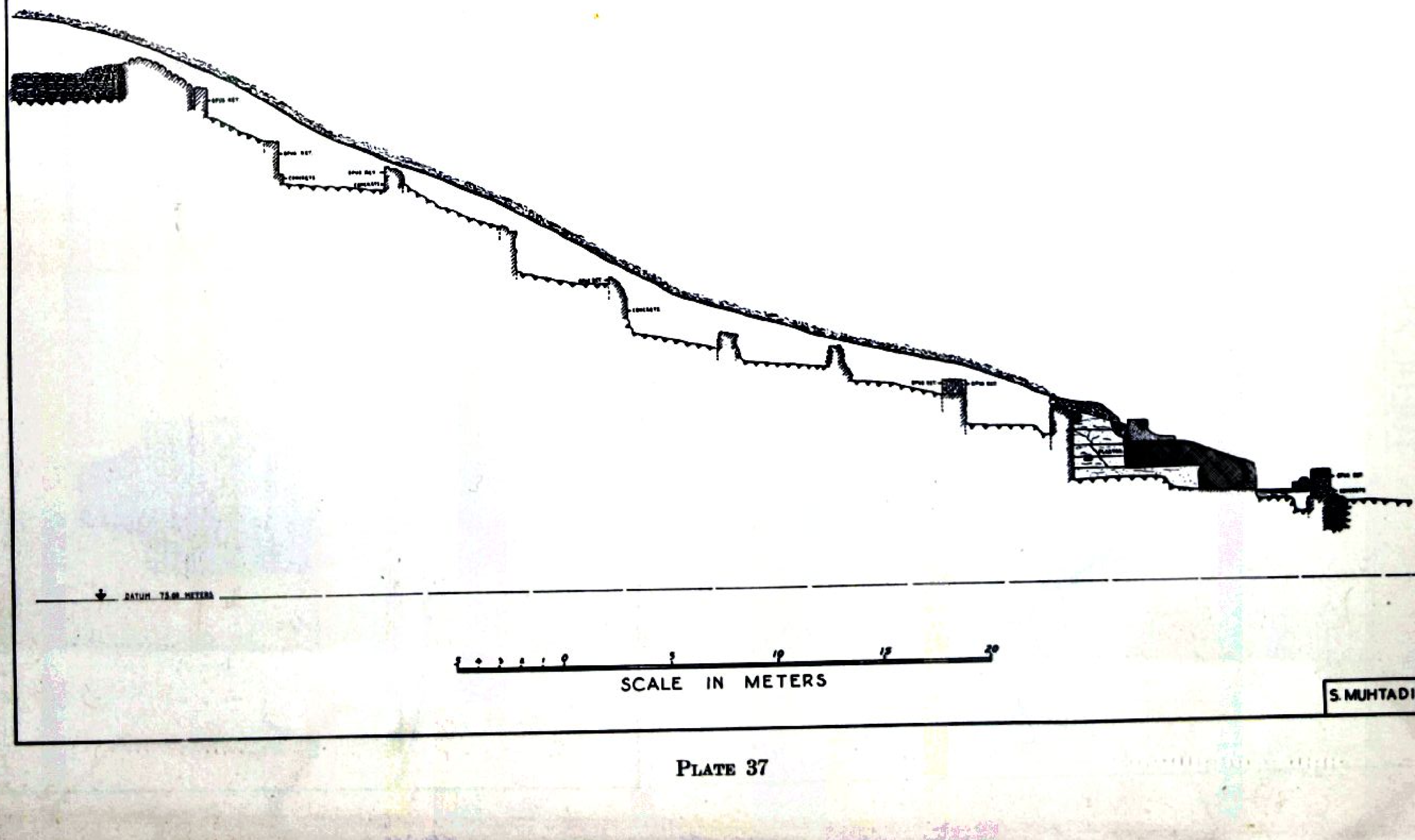
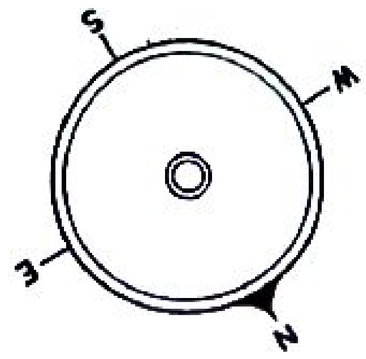
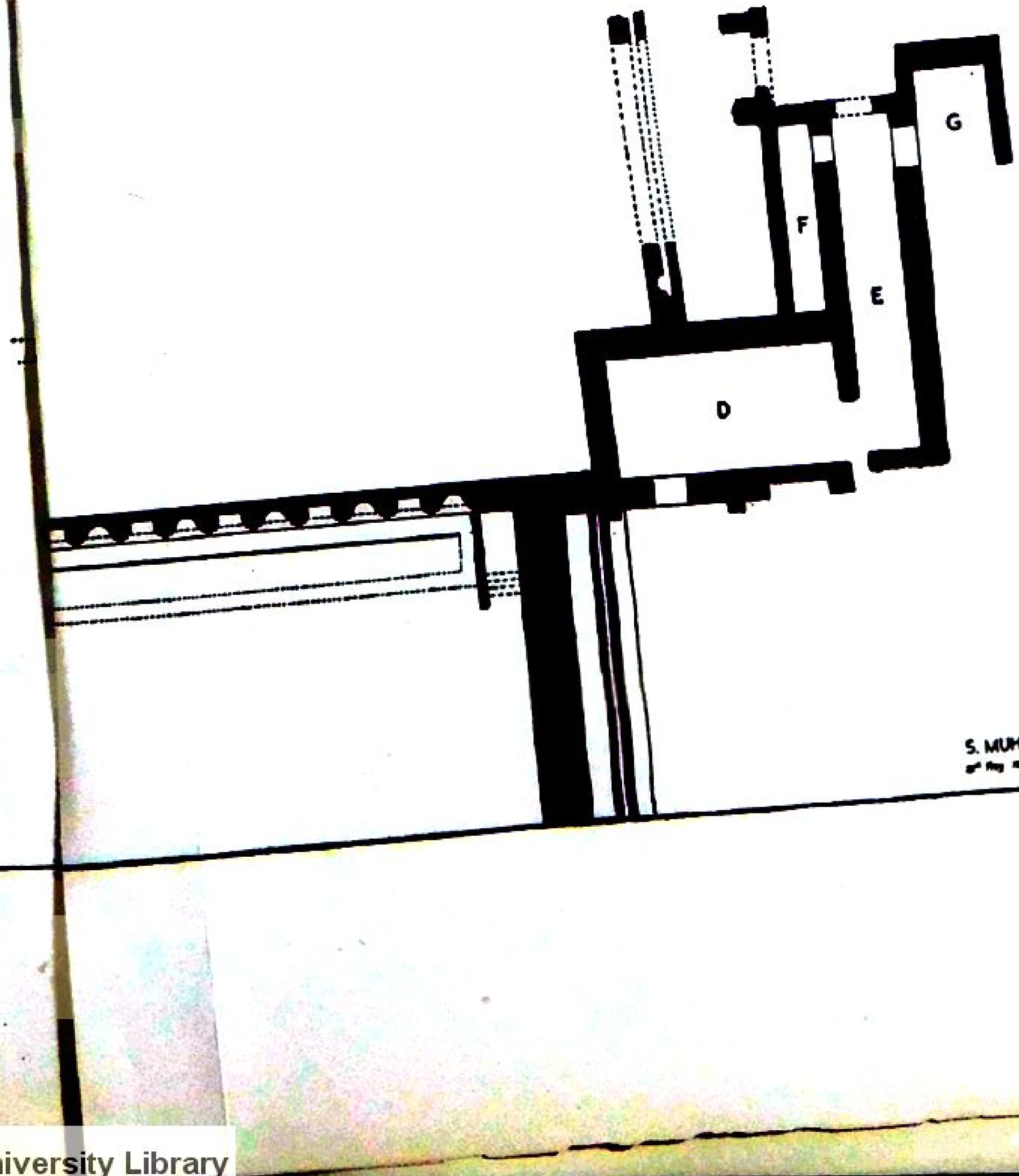


PLATE 37

Digitized by Birzeit University Library





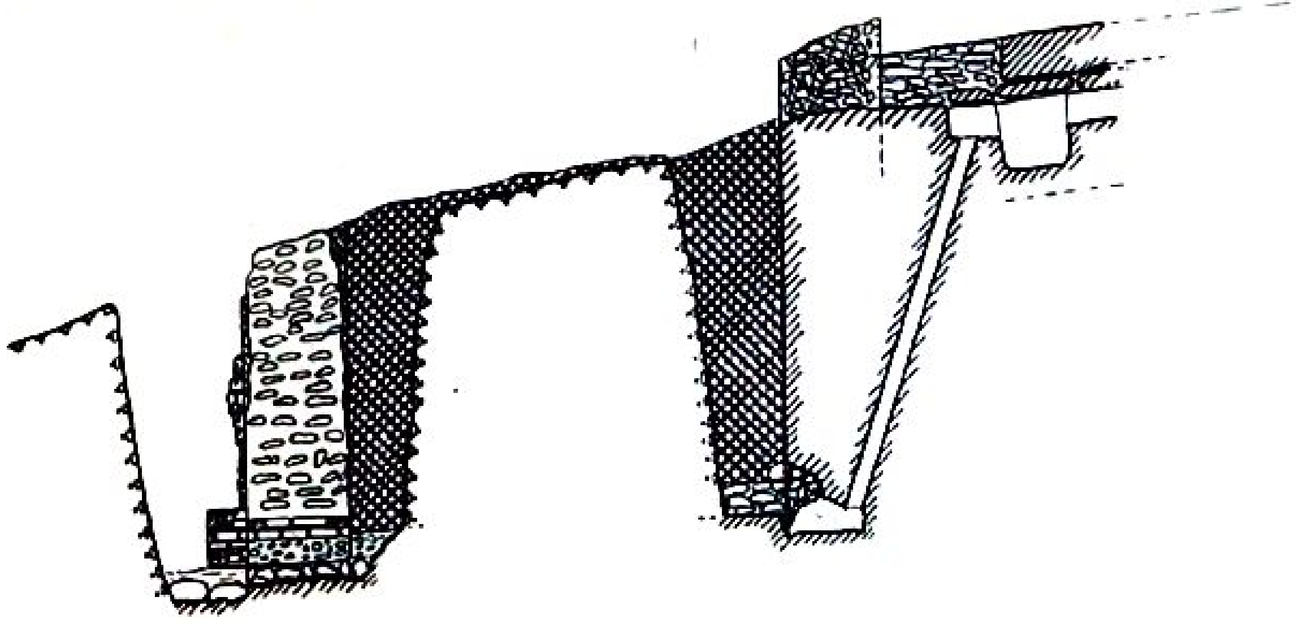
S. MUHTADI.

Digitized by Birzeit University Library

Digitized by Birzeit University Library

5 } METERS OWNED (INCLUDING 1 NICHE)

SECTION FACING EAST THROUGH WATER CONDUIT AND ROOM D.





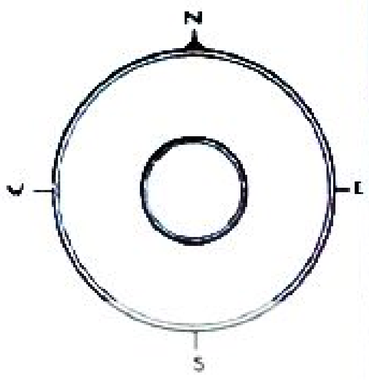
DATUM 73.00 METERS

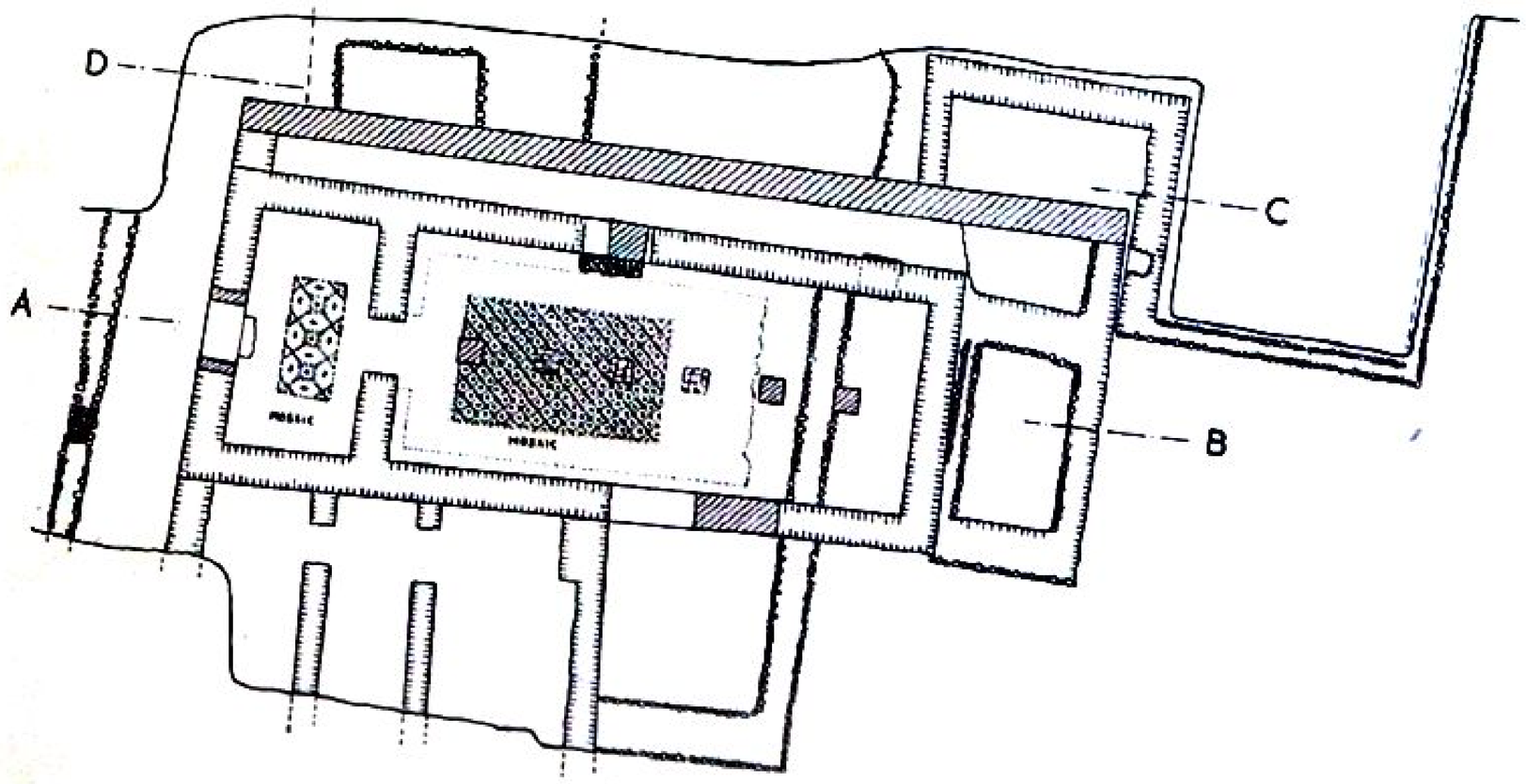
SCALE.

METERS 0 1 2 3 4 5 METERS

S. MUNTADI

PLAN OF EXCAVATIONS AT KHIRBET EN NITLEH.





SCALE.

METERS 0 1 2 3 4 5 6 7 8 METERS

S. MUNTADI

Tulul Abu el-Alayiq: section facing east through water conduit and Room D.
Khirbet en-Nitla: the four churches.

Digitized by Birzeit University Library