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HYKSOS PERIOD IN PALESTINE
(Palestine under the Hyksos)

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S Y N O P S I S

The contents of this thesis give an archaeological picture of the civilization of Palestine (the land of Canaan) in the Middle-Bronze II Period c. 1800-1550 B.C. The citizens of this part of the world were sharing in the general civilization of the coastal area of Syria. They had, of course, close connections with the rest of the Near East.

The geographical formation of the land tended to accentuate local differences, a condition which is favourable to a political organization based on the city-state. We may presume that each city-state had its chieftain, sheikh, or tribal leader, as in the period of the Amarna Letters.

To call these chieftains, sheikhs, and tribal leaders "Hyksos" is a misnomer, because they were not foreigners to Palestine. The basic culture of Palestine in the Middle-Bronze II Period (the so-called Hyksos) does not reveal any break in the continuity of the preceding phase.

It has always been stated that the Hyksos are bands of warriors. By the available archaeological evidence they impress us rather as a peace-loving people ruled by their chieftains, sheikhs or tribal leaders.

They had never used the horse and the chariot as a war technique in Palestine and Egypt until possibly in their

last struggle against the Egyptians before they were expelled from the country, i.e. our Phase V or the XVIII Dynasty. Their daggers were not as efficient as those of earlier and later periods. They hardly used the spear (if at all) at the very early period of our Phase IIA i.e. 1750 B.C., though it was in common use in the Middle-Bronze I Period. The use of the bow and arrow in the early Phases of our period is also uncertain. However, in Phase V there is slight evidence of their use but they are not as common as in the Late Bronze Period.

The archaeological evidence from a number of sites suggests that there was a state of instability. This was most probably one of the main reasons for the decline in their standard of living recognized in every aspect of their life. This feature of decline, with a quantitative prosperity, could be compared with Palestine nowadays.

Acknowledgements

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C H A P T E R I

Geographical Outline

Palestine (the Land of Canaan) is a tiny country, with an oblong shape, bounded on the west by a gently curved line of the Mediterranean coast, with a break where the promontory of Mount Carmel juts out to the sea; and bounded on the east by an arbitrary straight line along the Syrian Desert. On the north are the mountains of the Lebanon, dominated by the stern majestic and snowy peak of Mount Hermon. On the south the Wilderness of Sinai stretches between two seas, from the Mediterranean coast on the west to the Gulf of Akaba, a narrow inlet of the Red Sea, on the east.

Small as it is, Palestine offers a remarkable variety of landscapes, soils and climates. It is a country of mountain and plain, desert and pleasant valleys, lakes and seaboards, barren hills, desolate to the last degree of desolstion and stretches of fruitful soil. It 'distils extremes'. Two mountain ranges, parallel with each other, descend the length of Palestine from the Lebanon, on either side of the Jordan Valley. The range on the west forms the Hills of Galilee and the plateaus of Samaria and Judea. The range on the east side of Jordan, which is the higher, forms the mountains of Gilead, Moab and Midian. Between

the ranges is the deep cleft of the Jordan Valley, where civilization started, the rich Dead Sea and, beyond it, the dry and wide river-bed, known as the Araba (i.e. the Plain) that runs to the Gulf of Akaba.

Wherever you walk in the Land of Canaan, or the Land of the Bible, you tread on history. And I hope that this thesis may throw fresh light on the archaeology and the history of the land during the Middle Bronze II period c. 1800-1550 B.C.

Excavations and Publications

Archaeological research has shown that Palestine played a leading part in the first stages in the development of settled life, thereafter, the great river valleys out-distanced the intervening areas in the development. But the fertile crescent as the zone of interaction between them remained a most important area, and Palestine was an essential link in the chain connecting them. Thus archaeologists turn to it because of its importance as a geographical bridge between continents and cultural areas.

Most excavations were undertaken by research organizations and institutions. Men of wealth had frequently shown great generosity; often the excavator had raised the necessary funds personally. Grants may

come from endowed institutions and foundations. Expeditions now in Palestine are given every facility by the Department of Antiquities of the Hashemite Kingdom of Jordan, and the government welcomes every expedition irrespective of its nationality.

Below is a short description of some (1) of the Middle Bronze II sites discovered in Palestine, running from north to south. Hazor, Megiddo, Gezer, Afula, Dothan, Jericho, Bethel, Tell Beit Mirsim, Tell Ajjul and Beth-Pelet.

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(1) For other Middle Bronze II sites see Map Pl. I.

1. Tell El-Qadi (Hazor).

This site lies in the Huleh plain at the foot of the eastern ridge of the mountains of upper Galilee, about 14 km. due north of the Sea of Galilee, and about 8 km. southwest of Lake Huleh. It is located in one of the most stratègical areas of Ancient Palestine - dominating the several branches of the famous Via Maris leading from Egypt to Mesopotamia, Syria and Anatolia. The present highway leading to Damascus runs about 2 km. south of it while the road leading north, literally traverses it.

The site comprises two distinct areas. (1) The tell, bottle shaped, stretches for about 600 meters and has an average width of about 200 meters, thus comprising more than 25 acres in area. Its very steep slopes rise up from the surrounding ravines to about 40 meters.

(2) A huge rectangular plateau - 1000 meters in length and 700 meters in average width - lies immediately to the north of the mound. This plateau, which is also raised from the three surrounding ravines, is protected on its western side by a big 'beaten earth" wall still rising to a height of about 15 meters, and its width at its foot is about 100 meters. This side of the rectangle, being originally at the same height as the area near it, was further protected by a gigantic moat to the west of the

wall. The three other sides of the rectangle were steep enough, and a further glacis built on them turned the whole area into a well fortified enclosure. This type of site is quite rare, and only Carchemish and Qatna in Syria could be compared with it in character and size.

Excavations and Publications.[1] Professor John Garstang made soundings at the site in 1928; unfortunately except for a brief description in his famous book "Joshua, Judges" his results were never published in detail.

Annals of Archaeology and Anthropology, XIV, 1927, "The Site of Hazor".

(2) Excavations started in 1955-56 and are still going on by Yigael Yadin. Preliminary results are published in the Biblical Archaeologist, vol. XIX, 1956, pp.2-11.

(2) Tell El-Mutesellim (Megiddo).

The site lies on the south-west side of the Plain of Esdraelon at the point some twenty miles from the Port of Haifa, where the ancient road from Egypt to Syria and Mesopotamia crossed that from Judea to Phoenicia, and it guards the pass by which the former crossed the Carmel Ridge after leaving the coastal plain of Sharon.

Excavations and Publications. (1) G. Schumacher, who was engaged in surface explorations, directed an excavation on the site in 1903-05. His publication was in German, Tell El Mutesellim, Leipzig, 1908.

(2) Work started in 1925 under the direction of Dr. Fisher; he was succeeded by Mr. P.L.O. Guy in 1927 who continued as Director until 1935. By 1935 it was seen that the site could not be completely dug with the resources available. Between 1935 and 1939 an expedition directed by Gordon Loud selected certain areas. The results are published in

(a) Megiddo I by Robert S. Lamon and Geoffrey M. Shipton. Megiddo I seasons of 1925-34, strata I-V (OIP XLII,1939).

(b) Megiddo Cult, Herbert G. May, Material remains of the Megiddo Cult (OIP XXVI 1935). (c) Megiddo Ivories, Gordon Loud (OIP LII 1939. (d) The Megiddo water system by Lemon.

(e) Notes on the Chalcolithic and Early Bronze Age pottery

of Megiddo (SAOC no.10 1934) by Robert M. Enberg and Geoffrey M. Shipton.

(f) Megiddo Tombs P.L.O. Guy and Robert M. Enberg (OIP XXXIII 1939). (g) These were supplemented by Shipton (SAOC no.17) Notes on the Megiddo Pottery of strat VI-XX (1939). (h) Megiddo II seasons of 1935-39 Text Gordon Loud. (i) Megiddo II seasons of 1935-39 Plates, Gordon Loud.

(3) Gezer

Gezer lies on a hill, in the boundary that divides the maritime plain of Philistia from the Judaean mountains. It is 16 miles south-east of Jaffa, and 13 miles from the mouth of the Nahr Rubin, which is the nearest point of the sea-coast. To the traveller proceeding to Jerusalem, whether by the ancient valley road or by the modern railway, it is a striking object in the scenery, appearing first as he approaches Ramleh, seme five miles away, and remaining in sight almost continuously until the view is shut in by the Judaean mountains, though which he passes in the last stage of his journey.

The ruins of the city at present form a mound of accumulation, that attains a height of 756 feet above the sea-level, and about 200-300 ft. above the level of the surrounding plain. The height is not uniform; at each end,

especially the western, it rises in a knoll. The summit is a long oval, about 1/2 mile in length, and about 450-600 in breadth. The slope of the hillside is steepest on the north-west corner. At the western end the mound is connected with a subsidiary hillock, on which stands the modern village of Abu Shusheh; but otherwise it is completely isolated from the surrounding hills.

Outside the limits of the city itself, there are but few remains of antiquity to be seen in the neighbourhood. Quarries, tombs, fruit-presses are thickly dotted on the hillsides. There are a good number of caves, most of them natural or slightly enlarged by art, some of these have probably been used at one time or another for dwellings.

Excavations and publications.

Excavations were carried out in 1902-9, directed by Macalister. The stratigraphy and photography were neglected; surveying was inadquate.

Results published by Stewart Macalister, The Excavations of Gezer, 1902-1905 and 1907-1909 (3 volumes) London 1912.

(4) Afula

The tell of Afula is situated within the built-up area of the town, west of the Jerusalem-Nazareth highway. Its length (from north to south) is 250 meters, its width (from east to west) is 120 meters; its area is approximately 30 dunoms. The gradient is steepest in the south, where the tell rises from an altitude of 55 meters to 64 meters above sea-level.

Excavations and publications. The tell was examined by Professor Sukenik in 1926 and 1936. In 1951 Dr. Ben Dor carried out his excavations, and then continued by M. Dothan. Excavations confirmed the presence of remains of the Middle and Late Bronze Ages. Results published in the Journal of the Palestine Oriental Society, vol. XXI (1948); and Dothan in Atiqot, vol. I, 1955, pp.19-74.

(5) Dotha (Dothan)

Some sixty miles of road north of Jerusalem lies the mound called Tell Dotha identified with the site of Ancient Biblical Dothan. From the modern black-top road running from Jerusalem and Samaria to Jenin, the mound a thousand yards to the east looks like an ideal tell, with a relatively flat top and steeply sloping sides. The top of the mound covers over 10 acres and the slopes almost

another 15, giving a total of 25 acres (100 dunams).

This magnificent mound, rising nearly 200 feet above the surrounding plain, has fired the imagination of archaeologists for years.

Excavations and publications.

Joseph Free started his excavations on March 28th, 1953. The work was carried on every spring, and is still going on.

Results published in the Bulletin of the American Schools of Oriental Research, nos. 131, 1953, pp.16-20; 135, 1954, pp.14-20 and 139, 1955, pp.3-9.

(6) Tell Ain Es-Sultan-Er-Riha (Jericho)

The city of Jericho lies in the Jordan Rift, five miles west of the river some 175 meters above the waters of the Dead Sea, but still 290 meters below normal sea-level.

The ancient ruins of Tell Ain Es-Sultan lies one mile west of the modern city of Er-Riha. The tell is oval in shape, 32 dunums and 22 metres high.

In addition to its exceptionally good supply of water, the importance of the city in early times was enhanced by its connection with nature's trackways in that part of the world. It controlled the permanent fords across Jordan and thus Jericho became the meeting place of several trade routes coming from the east, which in their turn branched out westwards towards Bethel and Shechem in the north, to Jerusalem directly west, and to Hebron in the south. Another important track in antiquity, less familiar today, led northward by the Jordan Rift.

This central position of the city upon so many trade routes, profoundly influenced its subsequent life history.

The outstanding, important discoveries carried but by Dr. Kenyon showed that it was most probably in Jericho that the great step forward in human evolution took place, in which man ceased to live a wandering existence as a hunter and food gatherer, and discovered the possibility of cultivating wild plants and domesticating animals, which enabled him to settle down on the spot and thus village life began. A date of almost 7000-8000 B.C. has been suggested by the excavator.

Jericho had thus already made important contributions to knowledge and it is clear that more important results may be expected in next year's excavations. ~~In-Insha-Allah~~.

Excavations and publications

(a) The site was first tentatively explored by Warren for the Palestine Exploration Fund in 1868. Results published in 1869 by Warren, "Notes on the Valley of the Jordan and Excavations at Ain es Sultan".

(b) Systematic excavations were undertaken in 1907-9 by Sellin and Watzinger, who subsequently published their archaeological results in a folio volume. Sellin and Watzinger, Jericho, "Die Ergebnisse der Ausgrabungen", Leipsiz 1913.

(c) New excavations by English archaeologists under the guidance of Professor Garstang between 1930-1935 were resumed, and the results published in Liverpool Annals of Archaeology and Anthropology, vol. XIX, 1932, pp.3-22, 35-54; XX, 1933, pp.3-42; XXI 1934, pp.99-136, also John Garstang and J.B.E. Garstang, "The Story of Jericho", London, 1940.

(d) In January 1952 the British School of Archaeology, directed by Dr. Kethleen Kenyon, resumed active work, jointly with the American School of Oriental Research in Jerusalem. Excavations showed an outstanding importance as a result of well organized technical, systematic modern-methods of excavations. Work started since 1952-56 and will be continued this year.

For reports on these excavations, see Miss Kathleen Kenyon in Palestine Exploration Quarterly, "Excavations

at Jericho" 1952, pp.62-82; 1953,pp.81-95; 1954, pp.45-63 and 1955,pp.108-117. See also Antiquity Vol. XXVI, 103, Miss Kathleen Kenyon; Royal Anthropological Institute Journal, 1953-4, Kenyon, /and Palestine Exploration Quarterly, 1955, Professor F.E. Zeuner, "Notes on the Bronze Age tombs of Jericho", pp.118-128; ibid. "The Goats of Early Jericho", pp.70-86. Bulletin of the American School of Oriental Research 127, 1952, "The Joint Excavations at Tell Es-Sultan (Jericho)", A. Douglas Tushingham.

(7) Beitin (Bethel)

Beitin lies on the north-south ridge road about 12 miles north of Jerusalem. An east-west road from Jericho to the Mediterranean also passes through the city. Bethel occupied no natural military terrain as did Jerusalem, but in spite of this military handicap, the exceptional amount of water available here on this high ridge made a city at this point inevitable.

Excavations and publications.

In the summers of 1934 and 1954 joint expeditions of the American Schools of Oriental Research and the Pittsburg-Xenia Theological Seminary were engaged in excavating Ancient Bethel. Professor Albright was the director of the first expedition and Professor James Kelso was his assistant; in the second campaign the latter was director. A third joint campaign is projected for the

summer of 1956.

Results published in "The Biblical Archaeologist", vol.XIX, "Excavations at Bethel" by Professor James Kelso 1956 and also Bulletin of the American Schools of Oriental Research, no. 55, pp. 24-25; no.56, pp.2-15; no.137, pp.5-10.

(8) Tell Beit Mirsim (Kiriat-Sepher or Kebir).

The site is situated about twelve miles south-west of Hebron, some thirty km. in a straight line eas of Tell el Ajjul, on a ridge which runs just out from the hill country into Shephelah, about 500 meters above sea-level.

It is almost unique in the large numbers of strata and phases of occupation which may be distinguished in a comparatively shallow site, seldom more than four or five meters deep. Owing to the fact that the site was more or less completely destroyed at least ten times it is generally possible to obtain continuous areas of occupation in each period separated from earlier and later occupations by levels of destruction. The value of this for archaeological chronology is evident,"in obtaining a remarkably complete picture of the evolution of culture in southern Palestine, from about 2300 B.C. to the Babylonian Captivity".

Excavations and Publications.

Excavations were carried out in four campaigns, in the years 1926, 1928, 1930 and 1932.

The main condensed publications were written by Professor William Foxwell Albright in the Annals of the American Schools of Oriental Research, vol. XII for 1930-31, XIII for 1931-32 and XVII for 1936-1937.

(9) Tell El Ajjul (Ancient Gaza).

The site lies almost four miles south-west of modern Gaza, on the edge of the Wadi-Ghazzah and near the highroad which has led, all through the ages, from Africa into Asia. The area of the mound is 33 acres, the site is nearly twice as large as Megiddo. The remains are almost exclusively of the EB-MB and the Bronze Age periods.

Since there is no comprehensive plan of the excavations in the fourth volume, and since no topographical grid was laid out, it is hard to get a clear idea of the excavation as a whole. Yet the excavator, Sir Flinders Petrie remains the great archaeological genius of modern times, whose work stands alone in originality and quantity.

Excavations and publications.

The excavations were carried out for four consecutive winter campaigns from 1931, to April 1934. Results are published by Sir Flinders Petrie in Ancient Gaza Tell El Ajjul, vols. 1-IV. London.

See also W.F. Albright, The American Journal of Semitic Languages and Literature, vol. LV, no.4, 1938 "The Chronology of a South Palestinian City, Tell El Ajjul".

(10) Tell El Fara (Beth-Pelet).

This site is most probably "Sharuhen". It occupies a hill one hundred feet high, with nearly fifty feet of ruined towns on the top of it. Moreover it proved to have widely spread cemeteries on the west and north of the hill. The city occupied a rise on the western side of the Wadi Ghazzah, eighteen miles south of Gazah, with open wilderness between. The stream makes a turn at that point, and hence, the hill being on the worn side, it has always been ~~cut~~ cut away steeply, and forms a good defence on that face. To the north and south the hill is bounded by two ravines. The mouth of the northern ravine curves round the hill and winds up into it; it forms the only accessto the top. The southern ravine is not so long and ends bluntly. These

ravines were apparently slighter in the natural form, and have been deepened, and the sides smoothed away to aid in the defence of the city.

Excavations and publications.

Excavations carried out by Sir Flinders Petrie. in 1928. The work was resumed by MacDonald, Starkey, & Harding.

Results published, Petrie, W.M.F. "Beth-Pelet, I, (Tell Fara)" London 1930: MacDonald, J.L. Starkey, and Lankester Harding,"Beth Pelet II" London, 1932.

C H A P T E R II

HISTORICAL OUTLINE (1)

Here we have no intention of giving a minute historical picture of the Middle Bronze II period C 1800-1550 B.C. Such information can be found in various books and articles of history (2). Yet it is very necessary to give an historical background for the neighbouring countries, Syria, Mesopotamia and Egypt.

At the time of the Mari (3) archives, Syria, Mesopotamia, Babylon and the lands east of the Tigris were divided among a number of confederations (see map pl.11 fig. 1) each under the leadership of the most powerful state in the area. This political position is described

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(1) I do not want to quote all the endless controversies and references about the historical , chronological and etymological points arising in this chapter.

(2) See Bibliography.

(3) Modern Tell el Hariri on the Euphrates. Excavated by Professor André Parrot and has been in progress since 1933. The letters published in "Archives Royales de Mari"(A.R.M.) vols. 1-VI and XV (1950-1954). The chronology adopted in my treatment is that proposed by Professor Sidney Smith in"Alalakh and Chronology" (1940)

in a letter from Intur-Asdu, an official of Zimri-Lim. "In the matter of the message which my lord sent to the kings, in these words, 'Come to the sacrifice of Istar': I had then assembled at Sharmaneph and I took the word as follows: "There is no king who, of himself, is the strongest. Ten or fifteen kings follow Hammurabi of Babylon, the same number follow Rim-Sin of Larsa, the same number follow Ibal-Pi-El of Eshnunna, the same number follow Amut-pi-il of Qatana, twenty kings follow Yarim-Lim of Yamkhad".(1)

The nature of the political relations between the leading power and the other members of a confederation is illustrated by the correspondence of Zimri-Lim with the kingdoms forming his coalition. While some may have been independent states, allied to him by treaty, the majority were vassal kingdoms acknowledging him as suzerain.

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(1) Dossin, Syria XIX, 117-8. cf. S. Smith, opc. cit. 11-12 where he gives the idea that this letter should be later than the death of Samsi-Adad, for the omission of Assyria from the list of states implies that it was no longer a leading power, and earlier than the death of Yarim-Lim, which must have preceded by some years the defeat of Rim-Sin by Hammurabi of Babylon in the latter's 30th year.

"It is evident that in the eighteenth century B.C. relations between the states of Western Asia were governed by a system of rules which in essentials was identical with that recognized in the latter half of the second and in the first millennium B.C."(1)

This general unrest caused blood feuds, and those who did not accept domination most probably emigrated with their men to Palestine and Egypt. This process of emigration in the Near Eastern countries when blood feuds fall in among tribes happens even now in the twentieth century/exactly as it did in the twentieth to the A.D. eighteenth century B.C.

This balance of power between rather small states did not last long. Hammurabi of Babylon defeated Larsa and Mari, and for a short time possibly also ruled Assyria. But soon a tribe from the eastern mountains descended into the plain, and these people, the so-called Kassites, established their rule in the eastern part of Babylonia.

In Assyria, another foreign people (the Hurrians) gradually became a strong political factor, and possibly Alalakh, the capital of Yamkhad was sacked.

Egypt in the nineteenth century B.C. was a strong state." The political and commercial strength permitted her to play a dominant role also in the north, and at least

Save-Sorcleigh. "

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(1) Iraq XVIII, Part I, 1956 "Diplomacy in Western Asia", by J.M. Munn-Rankin, pp.68-110.

"the kinglets of Byblos in Syria seem to have been Pharaoh's vassals",(1) and it is probable that "other Syrian cities, too, such as Ras-Shamra-Ugarit, were politically dependent on Egypt"(2) Palestine, states Dr. kenyon "was of course always more subject to Egyptian influence than the cities of Phoenicia proper".(3)

The collapse of the Twelfth Dynasty (c.1780)(4) and Egypt's subsequent weakness and gradual disintegration after c.1750 into a number of "ephemeral kinglets, ruling the country contemporaneously" created a state of anarchy.

5-5-

Meanwhile, some tribal leaders with their followers from Palestine may have been emigrating to Egypt because of years of drought(5), and Egypt had then normal rainy seasons with better pasture lands for the cattle to graze.

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(1) Montet: Byblos et L'Egypte.

(2) Schaeffer: Ugaritica I, P. 20ff. For a more extreme view of Egyptian domination in N. Syria, see Sidney Smith, Alalakh and Chronology, pp.13-16.

(3) Archaeology of Palestine, p,20.

(4) See F. Drioton & J. Vandier, "Les Peuples de l'Orient Méditerranéen II, L'Egypte," pp. 17, 629.

(5) G.E.P. Brooks, "Climate through the Ages" (1949) p. 321, Figs. 33 and 36.

Other emigrating from Syria because of the political unrest described above were settling in Egypt then, either for work or trade. These foreign groups have seen that opportunity presented itself to establish themselves as rulers of the Delta.

Among the many ephemeral rulers of this period, The Ramesside king-lists of the Turin papyrus (col. 9, 30/1) mentions the names ỉ3-m3-ỉ (Anti (= ỉmn-ḥr (Amélu) on contemporary scarabs and Bbnm Bebnem (or Bblm), which are clearly of an Asiatic Semitic character. "These two kinglets were probably such Asiatic Dynasts of the Delta"(1).

The only literary source that calls them "Hyksos" was written by Manetho(2) in the second century B.C. i.e. about 1500 years after the event. The Egyptian term is probably ḥḳ3w ḫ3swt(3) which "means "rulers of foreign countries" i.e. foreign rulers. The Egyptians referred to them as ḥḳ3 ḫ3swt "Asiatics"(4) (e.g. on the Kamose stela, and the Speos Artemidos inscription).

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(1) T. Säve Soderbergh, J.E.A., 37 (1951) p.55.

(2) Ibid.

(3) Pl. II Fig. 2 from an Egyptian Wall Painting. E.G. Newbery; showing an example of who these Hyksos were. This seems to have been a usual designation of the sheikhs in Palestine and Syria as early as the beginnings of the XIIth Dynasty. For instance such a sheikh who came with thirty seven "Asiatics" to bring their product to the monarch is depicted in a tomb at Beni-Hasan. In the accompanying inscription he is called "The Ruler of a foreign Country"

(4) A.H. Gardiner, JEA.XXXII, p. 48 ff.

Manetho tells us also that the Hyksos king Salatis built a stronghold at Avaris in the Eastern Delta. After him he says,"reigned the kings Bnon, Apachan, Apophis, Iannas, and Assis (or Aseth or Kertos) and their descendants". Their whole race ΕΘΝΟΣ was called Hyksos.

They established, according to archaeological evidence, their dynasts in the Delta about 1730 B.C. Sequenen Re (Seknenre) began the war of liberation against them at an unknown date; Kamose (? -1570 B.C.[1]) carried it on to the siege of Avaris. His brother (or nephew) Ahmose (= Amosis) I completed the expulsion. A naval officer "Ahmose the son of Ebana, tells us that Avaris fell after a siege, and that Sharahen (possibly Beth-Pelet or Tell El Fara) in southern Palestine was then besieged for three years"[2]. This may possibly show that Palestine was also under the control of the Hyksos.

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(1) C.1578 B.C. or a few years later. The date of the beginning of the 18th Dynasty is fairly well fixed, since we have a "Sothic date" of c.1547/42 for year 9 of Amenophis I, and Ahmose (= Amosis) reigned 22+ years.

(2) Urh IV, 3ff. ~~contra~~; Breasted , "Ancient Records of Egypt", vol. II, p. 8 where he translates "one besieged Sharuhen for 6 years".
contra. cf. T. Säve Soderbergh in H.E.A., p.71 states that "Sharuhen in Southern Palestine was then beleaguered for three years".

" With the fall of this fortress the danger in
" the north was averated, and the power of the Hyksos was
S-S. " broken, and Amosis now turned to the south and
" recaptured Lower Nubia up to Huhen at the second
" cataract."

Palestine:-

" The condition of Palestine may be deduced with
" considerable confidence from the literary, documentary
" and archaeological sources taken together. The
" Egyptian records, especially the so-called Execration
W.F.A. " Texts/in the late twentieth century B.C. both Eastern
" and Western Palestine were largely occupied by
" nomadic and semi-nomadic tribes. A century later
" Western Palestine had become an area of much more
" settled occupation, but Transjordan remained somewhat
" nomadic." These execration texts show that Palestine and the neighbouring lands were under certain obligations to the Pharaoh.

That the Pharaoh of the Twelfth Dynasty claimed and often held the suzerainty over Palestine and Phoenicia, extending their sphere of influence as far as Ugarit and Qatna may now be considered certain (1).

(1) The discoveries confirming its correctness is now established cf. Schaeffer and Montet, Syria XV, 113f, 131f.

"Palestine was known in the Twelfth Dynasty to the Egyptians as Rzānu (Retenu) a name which is presumably Semitic, since it has no Egyptian etymology and has a good Amorite form."(1)

It may have been possible that the Egyptians in the nineteenth-eighteenth centuries did not oppose the establishment of city-states under native rulers in Palestine. We see that in the eighteenth century B.C. the unity of Egypt began to break up, and gradually to disintegrate, and as a reult Egypt's control over outside territories collapsed, and relations were in fact reversed, and by the end of the century Asiatic domination was established in Egypt under the name Hyksos "foreign rulers", or rulers of foreign lands. The Middle Bronze aristocratic tribal leaders or "shephen/sheikhs" of Palestine who were emigrating and settling there either for trade or for grazing their cattle, because of drought years in Palestine (2),

(1) J.P.O.S. XV, 1935, Albright "Palestine in the earliest historical period", p.221.

(2) G.E.P. Brooks 1949, "Climate through the Ages" shows, in a curve for rainfall variations in Western Asia that there was a distinct minimum towards the middle of the second millennium B.C. bounded by peaks at c.1700 and 1300 B.C. which, however, did not reach, or barely reached the modern average. For Egypt the data seem less complete, but though the curve lies consistently below the modern average, there are no important variations in the period concerned, so that the climate of the time may have offered the attraction of greater stability. (In a recent discussion with Dr. Ian Cornwall (Institute of Archaeology, London University) regarding Brook's grsphs Figs. 32 and 36 we both arrived at the same conclusion).

were among the first Semitic rulers to seize the opportunity of the weakness of Egypt and to overrun Lower Egypt and in the seventeenth century Palestine formed an important part of a north-west Semitic confederation controlled from the Hyksos capital at Avaris in the north-eastern corner of the Nile Delta under Khayana and Apophis."

" After the end of the fifteenth Dynasty in the early sixteenth century, the Hyksos "confederation" seems to have been broken up rapidly. Before the end of the reign of Amosis I[1] the Hyksos had been driven out of Egypt, and the southernmost fortress of the Palestinian "shepherd sheikhs" of the Middle Bronze II period had been stormed after three years' siege and bitter resistance."

To use the name Hyksos "foreign rulers", or "rulers of foreign lands" to the people of Palestine in the Middle Bronze II period is a misnomer, because they are not foreigners to Palestine, and the basic culture of Palestine in the Middle Bronze II (the so-called Hyksos) does not represent any break with that of the preceding phase.

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(1) UrK IV, p.3 ff. cf. Breasted "Ancient History of Egypt", vol. II.

C H A P T E R III

Town Planning

Layout and Houses.

The site has been chosen to be almost always where water is available. The fortifications have been built. The gate leads from the bottom of the tell to the houses of the town, usually through a stone paved street having steps with a drainage channel beneath it. At both sides of the main street shops have been most probably built. e.g. Jericho shops have been recognized by Dr. Kenyon (not yet published). They are typical to those found nowadays in Jericho running along the two sides of the streets of modern Jericho. The street leads from the gate to the centre of the city where other narrow crooked streets run between the complexes of buildings as seen in Megiddo and Tell Beit Mirsim.

A street paved with rubble stones running parallel with the city walls and the principal north-south house walls has been uncovered in Megiddo II, fig. 379 (AA.XI). The streets run not between houses, but between the blank walls of courtyards and the complexes of buildings.

The plan of a house may show some variations, but has in essence remained unaltered in Palestine from the earliest times to the present day, since it satisfies the demands both of the climate and of the social life. Some of the houses were rectangular, others were square. A typical plan consists of/an oblong or square

courtyard with rooms beside or round it; some of the rooms may communicate with each other and others may not, but generally speaking, the door affords the only entry for fresh air and light because the windows were most probably very small, though archaeological evidence is lacking.

Houses were made either of stones or mud-brick. Earth was used in its natural state for manufacturing bricks, but centuries of experience of its use showed methods of treatment whereby its life could be prolonged. Such mud-bricks were mixed with hay and straw; after being mixed thoroughly together, the compound was packed into plain wooden moulds of different sizes, according to the need, purpose and wishes of the builder. After the bricks were removed they were then left to dry in the open air, which they did more quickly in the hot summer weather than in winter. Clay was sometimes used for mud-bricks.

Although the process of mud-brick manufacture was sufficiently simple to be within anyone's capacity, it was in practice an expert occupation and is still so today. Some bricks were noticed in Gezer to have two strokes - probably maker's mark, or a mark intended to keep the mud used for mortar. Kiln burnt mud-bricks were not used at all in Palestine in this period.

If the house was built of stones, they were rough and of a great variety of sizes, as in Nahariya and Tell Beit Mirsim, from small stones to large boulders that needed a strong man to carry them, as in Ajjul Palace I. The stones were always set in mud. Very few of the stones show any evidence of any but the very roughest hammer-dressing in walls of dwelling rooms. In Tell Ajjul Palace I[1] the lower courses, i.e. podium, was built of sandstone slabs about 30 inches across and 6 to 9 inches thick, placed on edge for the inner and outer faces of the walls, and the space between was filled in with rougher blocks. These stone slabs were carefully dressed, with flat edges, and the smooth face is slightly drafted along the margin.

As to the foundations of houses, they were generally not deep, and are of rough stones of different sizes, usually not big. The foundations of tell El Ajjul were made up of the stone slabs described above and were exceptionally good, and they rise to few courses above marl, and projecting above the paving level forming a wainscot of massive sandstone, on which rested the wall of mud-brick. Without any doubt the foundations of

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(1) Petrie, Ancient Gaza, Palace I, Plan Pl.

courts, palaces and temples were made of wider and stronger foundations than those of dwelling houses and rooms.

Doors:- The doors were mostly on the side of the walls very near to the corner, with one or two steps sometimes plastered, with door-sills, one was found in Megiddo (1) to have a mud-brick door-sill still in existence. Room corners and door-jambs in Megiddo are frequently rounded and give a moulded effect (2). One cannot give judgment to that because doorways were absent in the majority of cases. Rounded stone sockets were usually used.

The threshold in most cases was raised some inches above the surface of the ground, with one or two plastered steps leading to it, usually the walls were ruined to below this level.

Floors:- The floors of houses were sometimes the base surface of earth over which the mud-bricks were laid and the houses erected. Sometimes they consisted of beaten earth, or beaten mud mixed with lime cream as in Gezer houses. In others a regular pavement of cobble-stones, or else of small stones and lime chippings were found. Others were found plastered with lime, and in the little locus SE130-2 of stratum D in T.B.M. and room 7 in SE22 of the

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(1) Loud, Megiddo II text.
(2) ibid. stratum X, Fig. 400.

same stratum in a patrician's house a well made floor of gypsum plaster was discovered.

One may say that the general method followed by the MB.II people in Palestine was a floor of beaten earth, though if the owners were rich and well-to-do they may plaster some of the rooms they liked, and the whole or part of the courtyard. In Megiddo provenance 5026 in stratum X, Fig. 400 was noticed a platform-like structure of mud-bricks, with a single course of 15 cms. thick up on the lime floor.

A certain level of adobe or fallen brick, or chippings of stone were usually found under the floor, and this causes frequently a slight rise in floor levels in ancient buildings. The reason may be intentional or it was levelled after the walls were destroyed, i.e. the floor has been tightly laid on the remains of the predecessor's. But it was usually recognized that the pavements wherever found were not exactly horizontal, but sloping slightly, so that the rain-water, or the waste water ran away easily to cesspools or outside the hou se. It was noticed in Jericho and T.B.M. that the floor lime plastering rran sometimes upward with the wall plaster. It is very interesting to notice that rooms 73 and 71 in Jericho had wooden floors, since the ends of charred beams were bedded into the southern walls of the rooms. (1)

(1) AAA. vol. XXI, 1934.

Walls:- Walls of houses are usually straight, very few irregularities. The walls are of two types, some ofthem are made up of one row of stones, and appear clearly to be of a clumsy construction, and probably belonged to a poor citizen; others are of (a) strong well laid stones (in) of two rows probably of a rich class of people, and such a type is strong enough to carry a second storey while the first type i.e. with one row of stones, are (not) poor enough to carry a second storey. Both types of construction could be easily recognised in T.B.M. strata E and D.

Mud-brick walls are the usual type, some are thin, others very thick. They are set on mud or lime. Joints in between the courses of mud-bricks are sometimes clearly recognized. Sometimes they are of a lighter colour than the mud-bricks used. Corners of rooms are usually angular but they appear in Megiddo, Fig. 400, stratum X together with door-jambs to be somewhat rounded and give a moulded effect. 43.31.

They were plastered with lime ~~from~~ inside and out, sometimes a white lime wash was used. The lime plastering was sometimes carried, in a very fine, smooth texture, downward to meet with the plaster of the floor and appears as continuous plastering. A white line at the

junction of floor and wall often survives. Such type of plastering technique has been recognized in MB.II sites, i.e. in Megiddo and JerichO. Sometimes the plaster is of simple mud, i.e. TIN other times of gypsum. Plaster when available was used as seen on the walls of Palace D2 of T.B.M. where walls are plastered inside and out. The use of the plaster is of many benefits. They strengthen the walls, conceal the roughness of the surface, and beautify the house.

Roofs:- It has been noticed in T.B.M.(1) halls that the roofs were supported by wooden posts set on large stones with flat tops, securely set in hôles dug in the pisé floor, with small stones wedged around them in order to hold them firmly in place. The same was noticed in Nahariya. The north house of T.B.M exhibits only two

(1) AASOR, vol. XVII, 1936-37. T.B.M. Excavations, by W.F.Albright:39, stratum E, Loci SEA3, sub.D-3 and SE.13 sub.D-4-5-6-11; see Plan Pl. 50 and Photo.Pl.10:a-b. This principle is quite different from that of the stone socket in which the supoørting post of period G was set but is essentially the same as in the much earlier hall of the "A" Palace, otherwise there is very little in common with the latter, so we may safely regard the resemblance as accidental. A typical one is shown north of SE.13 Sub D-14, near the eastern edge of SE13 (Pl.13:a, centre) as well as by a smaller one preserved in SE33 E-2.

relatively small bases, placed on the main axis of the hall and nearly on lines which represent the prolongation of the interior west-east walls of rooms SE.12 sub.0-5 and SE.13 sub-D-12 - a disposition which at least shows a nice sense of economy of support. One drum of a stone column was found in Tell Ajjul, Palace I[1]. But half of it was covered by a wall of Palace II.

After fixing the beams for roofing, they were most probably covered with reeds and leaves, and finally adding a layer of earth or howwar.

Some of the rooms have hollows in their walls, possibly the remains of store cupboards[2], as those made today. These were noticed in T.B.M. and in Gezer where a wall with a niche had in it a lamp and a bowl.

Granaries:-

People living in these houses need storage places for their food which we may call now as granaries. They formed an important class of buildings at all periods; some of these seem to have been private stores, attached to the individual houses. They are small bins or silos. Others are public granaries or store-rooms. They were indicated by the size and the quantity of grain found in them on floor level or inside jars. Some of these store-

(1) Tell Ajjul Palaces I and II. F. Petrie, Ancient Gaza.

(2) Macalister, Gezer, vol. I, 11, p.167.

rooms seem to have perished by fire and the charred grain, retaining perfectly its original shape, is easily recognized.(1)

Kitchens:-

Very often there is no separate kitchen, and probably a cooking range made of earth stands against the courtyard wall as the case today, while if a special room is denoted to this purpose it has no chimney and the smoke is left to find its own way out of the door or an extra hole cut in the wall most probably.

Stairs:-

As a rule there was but one step, or two, which may have simply reached up to a doorway raised above the level of the ground, like an ordinary outdoor of a house, or to a platform of beaten mud erected against one side of the chamber as seen in Gezer houses. In T.B.M. SE.12 sub.d D-1 is a flight of stone steps leading up into the street, certainly dating from period E.

Upper storey:-

Most houses in Palestine were only of one storey high, and a slight evidence shows that there are some houses of two storeys, e.g. in Megiddo, Jericho and Tell Beit Mirsim. In the west-central part of the court discovered in T.B.M. SE.22 D_2 stratum D were found numerous remains of charred beams and scantlings, which had fallen from the roof of the second storey when it collapsed. Most of the

(1) Tell Beit Mirsim, Jericho, Megiddo towns.

few objects found in the court had also fallen from the second storey as illustrated by twenty ivory squares belonging to a game-board whose pieces were found in the adjacent room and by a complete alabastion.

Palaces:-

Courts, halls and palaces were discovered in most of the MB.II cities in Palestine. They are large, rectangular or square, made up of thick walls, and surrounded, connected, or backed by houses and rooms. They are as houses either made up of mud-brick walls nicely constructed and strongly laid and mostly with plastered walls, or made u p of stones well laid and nicely planned, and plastered, and that of T. Ajjul Palace was well built of nicely hammered sandstones of large sizes, with marginal bosses on their sides. Palaces were roofed, the roofs were supported by wooden beams or posts set as seen in T.B.M.

There is no documentary evidence anywhere in ~~the~~ Palestine palaces discovered, but because they are of grandeur, magnificent, well-built, nicely planned, and surrounded by chambers and rooms in addition to their archaeological finds, we call them,for the sake of convenience, palaces, and I think the name is appropriate, e.g. Palace I[1] of Tell Ajjul was nicely constructed of

(1) Petrie, Tell Ajjul Palace I, one drum of stone column remained in Palace I, but half of it was covered by a wall of Palace II.

q p. 35.

stone slabs, carefully dressed, with flat edges, and the smooth face is slightly drafted along the margin.

46.30 The slabs were about 30 inches across, 6 to 9 inches thick, placed on edge for the inner and outer faces of the wall, and the space between was filled in with rougher blocks. These were the lower courses of the building on which the mud-brick walls were erected. Why should such a grandiose place not be called a palace, and the rooms surrounding it are used by the officers and other family members. And so the building in Megiddo Provenance 4031, stratum X the remains of which, and the rich finds in it suggests the idea of its being used as a palace.

The courts and the halls in MB.II Palestine sites are either roofed or open courtyards, left without any roofing, but they are large enough to be called so without hesitation.

Most of these palaces, courtyards, and halls have a raised floor of adobe or beaten earth, with plastered floors, having one or two plastered steps leading to them, and a door leading to the street.

Streets:-

The streets were paved with stone slabs, with alleys and lanes branching from them. The houses were on both sides of the streets planned in complexes of domestic unit blocks, each quite complete, each of the unit has its houses with doors to the street or lane, and each house

has its court with rooms surrounding it on the three sides.

The complexes are sometimes set apart by an open space for social gatherings and marketing.

Drainage system:-

It is worth mentioning here something about the drainage system. Most citizens of Palestine in MB.II had thought of some way or another to get rid of the rain-water and the waste water, and so they constructed them where they were needed. In Jericho they were traced running down under the paved street of the city, in Megiddo also, and under temple areas and some of the houses.

In T.B.M. a long channel of 45 meters was uncovered in SE.32, and 23 and 24, and in SE.12 pf period D (Pl.12:a-b). It was constructed in a line of flat stones carefully laid end to end in such a way that the flow of water over them would be steady but not too rapid - hence the right-angle tunns and windings. On this line of flat stones were laid two parallel rows of hammer-dressed stones of rectangular form on which was placed a second line of flat covering stones, after the floor and sides of the channel had been limed with gypsum plaster to keep the water from escaping too rapidly into the earth along the line of the channel. The only difference between this and that of Jericho is in the latter being unplastered ~~from~~ inside.

Small and short drainage channels were found plastered under floors of rooms in Gezer, leading probably to small cesspools or pits outside the rooms.

2. Fortifications

The plan of the defences of the chieftains or the tribal leaders of Palestinian city states, with the help of their architects, if they had any, seems to have been dictated to some extent by the formation of the ground of the mound on which they happen to live. They mostly built on already existing oval or irregular shaped tells. They certainly have chosen the high tells which had water available near by.

Fear of attacks, and the prevailing disturbed political situation then, i.e. city states attacking each other, obliged them to fortify their cities strongly, so as to have a peaceful, quiet life, and this seems natural enough.

The citizens of Palestine were mostly the same as those of coastal Syria, i.e. Canaanites, had close connection with the rest of Asia, and seemed to have favoured the introduction of the sloping glacis type of fortifications, which is a completely new type of fortification in Palestine, and considered to be one of the most characteristic feature of Middle Bronze period in a wide area of the ancient Near East.

Such fortifications were of two types (a) the "fortified camps" or enclosures and (b) the fortifications

of the cities, built on tells.

The first (a) was found in Palestine in Hazor[1] and Ascalon[2] only. The examples known from Syria are Carchamish[3], Qatna (el-Mishrifeh)[4] and tell Sefinet Nurh[5]. Those found in lower Egypt are Tell El-Yahudiyeh[6] and Heliopolis[7].

The second type (b) was actually noticed in every Palestinian town occupied in the Middle Bronze II period. The intimate connection between the people of the "fortified camps" and those of the "glacis fortified towns" is well attested, inter-alia, by the similarity of technique employed in both types. I could not find any evidence for Yadin's explanation "for the adoption, although temporary, by the latter, of a method best suited for the purpose of the former". cf. Basor, 137, 1955, p.26.

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(1) Garstang: Joshua, Judges, London 1931, p.184, also AAA.XIV "the site of Hazor" 1927, pp.35-42. Yadin: B.A.XIX, 1956, pp.10-11.

(2) Garstang, op.cit. (Syria N.12) Plan no.1 on page 358.

(3) C.L. Woolley, Carchemish II (1921), p.43.

(4) Du Mesnil du Buisson, Le Site Archeologique de Mishrife-Qatna, paris.1935, pp.40-42, and Plates 1-II; Syria VIII, 1926, pp.289, ff., Plate LI.

(5) Albright, JSOR,vol.X 1926; JEA,vol.37-38 Soderbergh, London 1950-52, p.61.

(6) Petrie, Hyksos and Israelite Cities (London 1906) pp.3-10, Pl. ~~Mx~~ IV.5.

(7) Petrie & Mackay, Heliopolis, Kafr Ammar & Shurafa (London, 1915) p.3 ff, and Plates 1-III.

Type (a) fortifications were rectangular in shape, and of a great size, surrounded by ramparts built up of beaten-earth. i.e. terre pisee, with alternate layers of different materials such as adobe, sand or qurqar, covered with a plastered surface. These ramparts are sloping downward; the purpose of such type of sloping ramparts is not yet accurately and finally decided, and the purpose of the "fortified camp" itself is also not yet verified or agreed upon.

It has been generally accepted that the fortified camps were intended to protect the hosts of chariots, because the towns were not large enough to accommodate the citizens and the chariots, and it is difficult for the chariots to ascend to the city. But since chariots in my view (see chapter VI) were not in use before the sixteenth century, I cannot accept the purpose (though it might appear convincing) unless the excavations of Hazor or elsewhere reveals a sixteenth century date or later for the "fortified camp enclosures".

Yadin's preliminary excavations last year had shown that "below the stratum of the thirteenth century B.C. several layers containing earlier cities ranging from the Middle Bronze II (the so-called Hyksos period of the 17th - 16th centuries) down to Late Bronze I in the 15th century B.C.".(1) Thus a conclusion has been drawn by him from

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(1) B.A. XIX, 1956, pp, 10-11.

this preliminary excavation that "the whole area of the enclosure was nothing but a real city".(1)

I personally think that if these enclosured camps proved to be within the sixteenth century B.C. or later, chariots should have been most probably kept there, and the houses discovered are mews and stables for the horses. On the other hand if they proved to be before the sixteenth century, the enclosures had most probably kept the cattle and the cattle-breeders, their guardians, the servants of the rulers and the tribal ~~ruler~~ leaders, and for some of the soldiers whose responsibilities lie in guarding the town and the farms during the night. Anyhow we must wait and see the results of the excavations at Hazor, which is still in progress, rather than attempting to guess the solution.

The second type of city fortifications (b) is the sloping glacis(2) which was probably always crowned by a wall. It was neither of two types nor of two periods as Yadin stated in B.A.S.O.R. 137, 1955. It was most probably of two parts, built in the same period as recognized e.g. in Jericho Excavations of Dr. Kenyon, 1952-56 in the three consecutive phases of the glacis fortifications, and of Tell Beit-Mirsim excavation of Albright (1932-3).

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(1) B.A. XIX, 1956, pp. 10-11.

Those of Jericho showed always that the lower part was a great battered revetment of stones, of large boulders with the faces roughly dressed, and the interstices are packed with small stones as seen in Shechem.

The fortifications of Ak-Alan[1] are an earthen rampart, fortified on the outside with stone masonry. This close connection between the remains of the fortifications of Ak-Alan and the other fortifications of Boghazkoy may well be established, since the construction of the ramparts in both cases is similar and based on the same construction methods.

Apart from the rampart at Boghazkoy other fortified Hittite constructions are known built on the same principles as e.g. the rampart of the walls of Jericho. Over the foundations at Ak-Alan there were rows of large, unhewn stones, acting as a facing for the earth embankment which has, as at Boghazkoy and Jericho, a considerable slope on the inside.

? analogy

Maksimona states that "the analysis in the construction of the fortification rampart at Ak-Alan and the ramparts at Boghazkoy and Jericho permit the dating of the fortified walls of Ak-Alan to the Hittite period, but they are insufficient to consider this fortified settlement a Hittite fortress"[2].

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(1) JNES, X, 1951, pp.77 ff. M.I. Maksimona "Hittites in the Black Sea area region.

(2) Ibid.

In Tell Beit Mirsim the same was noticed but the stones used were of massive polygonal hammer-dressed ones laid in rough courses. Albright states that "southwest of the East gate, there can be no doubt that the glacis was originally a battered construction of stone, on the top of which was set a rampart of adobe, just as at Jericho and Shechem in the late seventeenth or sixteenth century B.C."(1)

The construction of the upper part of these sloping revetments was in practice done in different ways. The main feature of it was a terre pisee, i.e. beaten earth, sloping and resting on top of the stone revetment, and crowned by a city wall. This beaten earth, i.e. terre pisee was either sandwiched haphazardly with other material available on the spot, or elaborately sandwiched (the most common) where layers of sand, qarqar, mud or bricks, were built alternately on top of each other, and smoothed on top with a surface of lime or howar plaster, the characteristic feature of most glacis sloping revetments.

The best example of the technique stated by Yadin to have been discovered by the late Professor E.L. Sukenik at Tell Jerishah.(2) It is described to be exactly in technique as that of Carchemish where "they cast up a mound not haphazard, but on a system; they took the material which came to hand, but they used it scientifically.

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(1) AASOR. XVII:37, p.29.

(2) QDAP. X (1944) p.198 - cf. BASOR, 137, 1955, Yadin p.27

Between layers of shingly gravel or of soft limestone chippings were spread layers of brick clay, and sometimes heaped lines of such seem to have divided the strata of less solid stuff in the compartments; in this way the mound was not so much thrown up as built up. The face of the slope ..... was revetted with brick clay to protect it from disintegration by the weather"[1]. The best preserved is Alalakh (Tell Atchaneh)[2].

In some cases additional protection was added by a moat or a fosse at the foot of the glacis e.g. Ajjul, Duweir and Beth Pelet, but Jericho is to be excluded from such additional protection. The excavations of 1952-56 of Dr. Kenyon disproved the idea of Jericho having a fosse or any kind of external ditch.

The sloping glacis revetments in Ajjul and Beth-Pelet were cut of sandstones and crowned by the city wall. Both glacis end with a great fosse surrounding three sides of the tell as has been noticed also in Duweir[3].

As to the purpose for which these sloping revetment glacis were built, I am inclined to favour the idea of Professor Garstang[4] stated in "The Story of Jericho", p.79

"while the whole conception of this new rampart was majestic,

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(1) L. Woolley, ~~Q.D.A.P. X,~~ (supra no 13) p.47.
(2) Ibid. A forgotten kingdom. (Pelican books) A.261, London, 1953, pp.69, 87.
(3) J.L. Starkey. "PEFQS, 1934 ,"Excavations at Tell-El-Duweir, p.167, see also B.P.I. p.16.
(4) John Garstang and JBE Garstang, p.79. London, 1948.

its construction was equally imposing. Solidly built of large, rough hewn stones, laid and set with surprising regularity, it was provided with special features for defensive purposes. All around, about half way up its slope, a 'string course' of stone projected slightly, in order to cause a missile launched from above to bound outwards against the attackers. This feature may be seen in our photograph on Plate XIIa. Nearer the bottom again, where the size of the building stones was proportionately larger, one course in particular was constructed of enormous blocks each more than a ton in weight. This girdle was clearly designed to resist the battering-ram".

Therefore, Yadin's conclusions (1) regarding the use of such fortification as against the battering ram was a development of Garstang and Harding's (2) ideas for the purpose of constructing such a sloping glacis revetment types of fortifications.

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(1) BASOR, 137, 1955. "Hyksos Fortifications and the Battering Ram", pp.23-32.

(2) B.P. II, .1932 MacDonald, Starkey and Harding.

3. Fortress gates and bastions.

Another extremely interesting peculiarity of the period fortifications is the fortress gate with two or three gates, each flanked by a pair of massive piers; all four or six of the piers were of the same size and were symmetrically disposed in two parallel alighments.

Examples of this type of gateway which had a long history and gradually changed to new derived types after the sixteenth century, have been found in Middle Bronze city states in a wide area of Palestine and Syria. These monumental gateways were not only impressive, but they must also have been effective in defence or the type would not have persisted so long.

Generally speaking, every town in the MB.II period was enclosed up by a wall, these walls were on top of either a sloping terre pisee glacis ~~or~~ & a battered stone revetment. They were either single or double walls.

Since not all the city walls, gates and bastions of the Middle Bronze Age discovered have not been adequately published, it would be impossible to describe the evolution of the whole art of fortifications, and for the sake of convenient study I am going to deal with walls, gates and fortresses of each city state alone, relating them to each other where necessary.

Ajjul (Ancient Gaza)

It was fortified by a smoothed sloping glacis cut of a sandstone revetment (1) crowned by a single wall of black mud brick, and ending with a great fosse surrounding three sides of the tell. The fosse was nearly 1300 metres long, 12 metres wide and averaging 4 metres deep. The stones cut from the fosse are said to have been used in building Palace I.

The main gate into the city was at a bridge (ramp) left across the fosse at the north-east side; with a causeway of 8 metres wide or more. No towers or bastions were discovered.

Beth-Pelet (Tell Fara)

The tell was enclosed by a glacis or sloping revetment cut in marl or sandstone, crowned by a double wall, filled in between with earth; in case the outside were attacked and broken by the battering ram (2) or by the besiegers, there would still be the inner wall which is over 2.50 metres thick and could stand independently.

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(1) A.G.II Petrie. Remains of stone revetment Pl.XVIV, 2, was seen outside Palace I and on the north of it. It seems more likely that the revetment was connected with Palace I. This was a facing to a bank of sandstone grit that was crowned by the city wall.

(2) B.P. II. The excavators of B.P.II have taken that into consideration and suggested that the new weapon which endangered the citizens then was the battering ram.

The approach to the city was up the end of the north ravine. In the position between the city wall on either side of the ravine, lies a row of large blocks of stone, evidently foundations of the gateway (see BP.II, base Pl. IV). No remains for bastion or towers have neen found.

Megiddo (Tell El Mutasallem).

It is very difficult to clarify the walls and gates of the different periods, especially of strata XII-X. One may conclude that the publication is not so accurate in identifying the different above-mentioned strata. Therefore I am here only summing up the parts related to fortifications, and will treat Megiddo strata XII-X in a future separate article.

Anyhow the walls of Megiddo city shown on Fig. 378 (AA.XII)are of mudbrick and doubled in squares K-L-6-7, i.e. filling in the spaces between the buttresses of the earlier wall and adding about 1.50 metres of brick plus new buttresses of area AA, where an addition abuts the outside of stratum XIII wall (Figs. 21-22) just as in area BB. The fact that it is a single unbuttressed wall in the eastern part of the area may be due to the underlying sloped approach 4103 to the stratum XIII gate. Stone foundations were used only for the pylon or tower, at the south-east corner of the area. This pylon or tower is possibly indicative of a gate. "There is no real evidence for it" (1). One may expect the/ stratum XII gate

(1) Megiddo II Loud, text. p.87.

to be to the east and from the fact learned by excavations that the north city gates at Megiddo tend to shift eastward in succeeding strata. The plain outer face of the wall immediately west of the supposed gate may be considered a reflection of the irregular buttressing of the stratum XIII wall at the corresponding section in relation to its gate. The original thickness was more than doubled. The new buttresses are wider, but not deeper, and are spaced at greater interval.

The type of city wall on Megiddo Figs. 379 (AA.XI) and 25 is unusual, both in its scale and in its inside buttressing. "Such a flimsy appearing structure would seem to offer little advantage as Loud states over the customary thick defensive wall, other than saving of material and labour in construction and possibly increased visibility on the part of the defenders in time of stress"(1). Its foundation is of small rubble, never greater than three courses; nothing of the super-structure remains. The inner limit of a glacis found about .50 m. above this foundation corresponds exactly with its outside line. Glacis and wall, Loud states "must, therefore, have been used together, the glacis running part way up the exterior face of the super-structure of the wall"(2). Half of the city gate remains at the eastern extremity, the other half

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(1) Loud, Megiddo II Text, p.15.

(2) Ibid. p.15, see also Fig. 27.

having been destroyed when later deep-set foundations were constructed.

It is worth mentioning here that in Megiddo Fig.379 (AA. XI) there was a street paralleling the city wall and the principal north-south house walls.

On Megiddo Fig. 380 (AA X) remains of a single city wall said to have been existing at the edge of the mound, and to the south of the street surviving from previous figures 378-379.

There is no evidence to the plan or position of the city gates in the plan figures 378-380 (ascribed to strata XII-X).

Tell Beit Mirsim.

The city was enclosed by a glacis, crowned with a single wall. There was a large MB.II bastion lined with the glacis for the protection of the east gate. The foundations of the bastion glacis ran over the remains of the circular retaining wall.

The lower courses of the bastion glacis, wherever exposed, exhibits the same relatively massive polygonal construction as is found at the bottom of the main revetment almost anywhere along the line exposed. Albright states that the rough polygonal masonry differs radically both from characteristic work in the fortifications of the G-F comparatively small stones, hammer-dressed and laid in

rough courses where feasible and this may be considered as a decline.

The city gate has been discovered in the east side of the tell. Albright[1] mentions that the plan of the cleared positions of this E-D gateway is most interesting showing the closest similarity to contemporary plans elsewhere in Palestine and Syria, especially to MB.II gateways in Qatna[2] (El Mishrifeh), Shechem[3] (Balatah) and Tell El Fara[4].

4. Conclusion.

The land of Canaan was in a state of military chaos and instability. The four general destructions, with the three partial ones in Tell Beit Mirsim, and the three consecutive construction phases of Jericho glacis with the two partial repairs; added to, nearly, the same number of destructions in Megiddo are obvious evidence to show the instability. And this instability was the main reason for the declining standard of living which I have already shown in every aspect of their life.

The purpose of these sloping revetment glacis was most probably designed to resist the battering-ram. But the origin of such types of fortifications discussed above can not yet be proved. "The theory that such camps and fortifications are to be linked to similar structures in Iran and Transcapia is appealing, but more evidence is

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(1) AASOR XVII, pp. 28-30
(2) Qatna, Syria VIII.
(3) Shechem, Sellin ZOPV Pl. 33.
(4) BP.II, P.28, Pl.LXXVII.

required to prove it conclusively"[1]. The houses in which they lived, as we have seen, are most probably of a primitive type of dwelling, and if we are to compare the construction and architecture of these houses with those of earlier periods, e.g. Ai, Nahariya and G-F of Tell Beit Mirsim, they show a decline. Anyhow, it should be noticed that many of these constructed camps and fortifications have not been adequately investigated or published, and the history of town planning and the art of fortifications of the Middle Bronze Age remains to be written.

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(1) Albright, J.S.O.R. X, 252-254 describes a rectangular enclosure near Merv in Transcaspia and another at Kalah-i-Gabri south-east of Teheran. Unfortunately neither of these sites is well dated.

C H A P T E R IV

RELIGIOUS CULTURE

Introduction

In the pagan world of ancient times men could scarcely believe in the divine as an all-prevailing spirit. Divinity did not reveal itself at any time or in any place chosen by the worshippers. The common man could pray, but his prayers were more likely to be heard when they were uttered in particular spots where a divine being was believed to have manifested itself in times past. In other words certain places on the earth had become sacred or holy, and worship was largely confined to them.

At these holy places it was customary, when resources permitted, to build temples and sacred buildings to the god or gods there worshipped. In no country, so far as we know, were thinking peoples naive enough to believe that a god could be confined to a particular building. Re (sun) in Egypt, Ba'al (the god of the storm, the controller of rain, and the giver of all fertility) were the most popular gods for the Canaanites. Not only had these gods various abodes (temples) as did kings and nobles, but they were cosmic gods who were believed (1)

(1) For a detailed study see Biblical Archaeologist, vol.VII, No.4,1944 "The significance of the temple in the Ancient Near East" by G.E.Wright; For Egyptian temples, Nelson, ibid. VIII,pp44-54; for Mesopotamian temples, see Oppenheim, ibid. pp.54-63.

to control the times, seasons and destiny of earth.

In all ancient temples the proof of the deity's presence was his statue, which somehow was thought to house his essence. The divine was not one, as some believe, but many. Nature was alive, and its powers and forces since time immemorial had been personified and worshipped (See B.A. VI,1, p.6.)

As to the rites of worship carried out in a temple by specially ordained priests, they took the form of ministrations to the physical needs which a god was belived to have i.e. food (sacrifies and offerings), drink and incense. Man's duty was to supply divine wants, and in return for the service thus rendered, he could hope for divine rewards. In Mesopotamia, Egypt and Palestine we find that the role of the temple was basically similar in considering the temple as the abode of a god.

RELIGIOUS CULTURE

SECTION I.

I. Sacred Places.

(1) High places, temples and altars.

In Palestine, unfortunately, the remains of Middle Bronze II religious buildings are incomplete and meagre. Their interpretation often depends upon more or less speculative reconstructions, making use of what is known in other areas. Since nothing but the foundations and lower walls of the buildings survives, with distinctive objects, and in this period no inscriptions were found to establish the purpose of the structures, even the identification of a sanctuary is frequently difficult and uncertain.

Temples of an earlier period are known in neolithic Jericho; the Early Bronze Age temples of Ai, Gezer, and Megiddo; the Canaanite sanctuary on the slope of Mount Gerizzim, above Shechem; the only Middle Bronze II temples known are those at Nahariya, Gezer and Megiddo.

The general characteristic of these Middle Bronze II temples lies in the fact of their architectural simplicity. They are mostly the re-used temples of the Middle Bronze I period, if not even the earlier temples if not ruined and if still in good preservation. They are not of large size if compared with temples of earlier or later periods. The Middle Bronze II temples are mostly a small central court, surrounded by chambers and rooms on three or four of its sides.

In the centre of the court at Megiddo was a curious little object, perhaps a sacred stone (I suggest it to be an altar).

For the sake of convenient treatment I am going to deal with the temples of the MB.II period separately. Meanwhile I show where necessary points of resemblance, the most recognizable temples with architectural remains, and by their finds (figurines, goddesses, offering vases, chalices and lamps, and many others) which may help to establish with some certainty the possible sanctity of the remains. The proposed temples are Gezer, Megiddo and Nahariya.

a) Gezer:

The High Place was an open space, in the middle of the town as seen in the assumed sacred High Place area in Megiddo strata XI-X. But the extent of the High Place area in Gezer could not be defined, while in Megiddo it could be defined by the complex buildings around it.

Down the middle of the area ran a row of standing stones. There is a strip of pavement of smooth round stones on which stands the bases of these stones. It is partly so with the long narrow slabs of stanes, noticed in Megiddo, some of them rest on stones but others on earth. In Megiddo High Place area a heavy structure at the extreme west of the area was noticed with continuous

line pavement that extends to the High Place.

In Nahariya too the Bamah or High Place Area was paved. It lies south of the temple, and it shows nearly the same phenomena developed in the High Places of Megiddo and Gezer, that is to say, a flourishing of architecture and religious remains in M.B.I and earlier, a decline in the MB.II period, and reflourishing in the Late Bronze period.

The houses around the High Place are in lines, while the houses around the High Place of Megiddo are grouped in complexes. One could not show any signs of religious characteristics or religious finds in Gezer, while in Megiddo the complexes had small shrines or temples surrounded by rooms; figurines, deities, religious pottery offerings and chalices were found. Two later rounded houses were found in Gezer "supposed temple area". They were paved, probably in the Late Bronze Age period, because the finds in them were fragments of wishbone handled Cypriote bowls.

On the last side of the alignment there was a cave, used in earlier periods, but no buildings, and east of that cave there was what seemed to be the depository in which the refuse from sacrifices was cast. The depository is an ordinary rock-cut bell-shaped cistern. The mouth is rather wider in proportion than was usual in cisterns.

In the middle of the floor was a depression.

In the roch surface round this pit was cut an elaborate system of cup-markings; these cups are cut on a natural table of rock in irregular outline and surface. They are of various sizes, but generally speaking the depth of these cups is not so great.

The pit was full of human and animal bones. West of the alignment infant jar burials were found under the earth, all over the area. This child burial custom was noticed in Megiddo strata XI-X in rooms surrounding large halls, probably temple chambers, e.g. Tomb 3026 in area BB 014, Fig. 400 of stratum X, and Tomb 4043 in area AA L6, Fig. 380 of stratum X, also T.2026, Fig. 325 of stratum XI, and T.5050, Fig. 326 of Stratum XI. (See Megiddo text, Loud, for other tombs.)

This sacrosanct nature of the first born is a principle so deeply rooted in the Semitic mind. In the earliest Pentateuchal legislation the sacrifice of the first born of man was anticipated and evaded by subsitution of some lawful animal. It was also practiced before Islam, and had been restricted by the holy Koran.

The principal objects of religious use that were discovered were small figurines of divinities and emblems of various kinds. The most valuable figure in the High Place sacred area is a bronze statuette of the horned Ashtoreth. A different type of horned Ashtoreth has been discovered in Nahariya sacred temple area and in Megiddo strata XI-X.

The Eyptian horus eye amulets on Plate CCX, Fig. 22, and the bronze statuette of a female divinity Plate CCXI, Fig. 2 show that the temple was in use also in the Late Bronze Age. Egyptian amulets chiefly representation of Bes, were common within the area.

It seems that the High Place and the temple area of Gezer, Nahariya and Megiddo produced rare religious objects in the Middle Bronze II period, though they were in use earlier. But in later periods they spplied us with many magnificent religious remains. As to the standing stones and the cup hollows in the High Place, they are discussed separately.

The temple of Gezer.

The temple was found ruined to its foundation. A plan is shown on Fig. 491. It was, I suggest, of two

complexes, bounded on the south by two walls aa,bb not in line, probably a passage was between them. To the north, the structure is not so definitely marked off from the surrounding building. In the south there is a doorway c, with a threshold of two slabs within it. To the north of the western section of the south wall is a building, which consists of a forecourt not quite regular in shape, and a paved chamber, which is of great resemblance to Megiddo temple of strata XI-X in area BB,[1] with the only difference that Megiddo temple has a stone altar which Loud interprets as a stone supporting the roof[2]. The paved chamber of Gezer is separated from the forecourt by a row of four large column bases, e,e,e,e, each about .75 cm. in diameter, which probably supported wooden beams; such column bases were found in the hall temple of Nahariya[3].

To the east of the forecourt was a group of circular structures (ff.)[4].

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(1) Megiddo II, Loud, Figs. 399 and 400, Square 013, area BB.

(2) Ibid. page 92.

(3) QDAP. 1954, Nahariya, Ben Dor.

(4) Gezer II. A view of this building from the north is given in fig. 492.

These circular structures ff. recall similar structures in the High Place. They were completely filled with fragments of sheep and goat bones. These did not seem to bear any marks of burning or of cooking which is against their being mere domestic ash-pits. They may have been the receptacles of the bodies of slaughtered offerings like the cistern described in the discussion on the High Place.

South of the row of column bases was found a long narrow courtyard in which were standing seven pillar stones (1). The alignment, like that of the great High Place, runs north to south. The pillar bases in the temple, Macalister states, are used as supporting stones of wooden columns, exactly as seen in Nayariya temple, where the stone bases are said to have been used for wooden heams supporting the roof of the temple. The temple of Gezer was paved as those of Megiddo strata XI-X.

The objects found in the temple show the use of it in different periods starting before the Middle Bronze II (1750 B.C.), and probably remained in use in the Middle Bronze II period which has no archaeological finds.

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(1) See Gezer II, Macilister, pp. 406-407 for detailed description of these stones.

(2) Gezer II, Macilister, Pl. XXII, Fig. 22.

Late Bronze Egyptian amulets were found,(1) such as the Horus eye, and the bronze statuette of a female divinity, Plate CCXI, Fig.2.

b) Megiddo:

Loud states in Megiddo Text, page 84, that "the sacred area first suggested by shrine 4050 in stratum XIX and later established by altar 4017 in stratum XVII, and the Megoron-type temples of stratum XV (one of which, 4040, was rebuilt in stratum XIV) probably continues through stratum XIIIA and upward through Stratum IX". That is quite true, and there is no harm at all to agree to his saying, but I would like to add that the large, magnificent, well-built temples and shrines in strata XVIII-XIII were not in existence in strata XII-X. They were replaced by small temples surrounding an open sacred area i.e. the Preceded Sacred Area. But this assumed open sacred area in XII-X regained its sacred value by the large temple constructed in stratum IX. In short this means for me that religious buildings began to decline in their architecture in strata XII-X, as noticed in the temples of Gezer and Nahariya.

Assuming that square N13 is the sacred open area in strata XI-X is accepted to be the High Place for that period, let us then trace the temples which have been surrounding it.

(1) Gezer III, Pl. CCX:22.

South-east of square N13 stratum XI is a large ?west square room. At its south-east corner there is a small square room probably used for religious arrangements because it is very small to be used for dwelling purposes, or for any other purpose. East of this room marked on Fig. 399 as Provenance 2133, lies the main street, intersected by an open passage leading to the assumed sacred area of square N13. Inside this room a clay human figurine, Plate 241:3 and a bronze blade, probably for slaughtering animal offerings, were found, in addition to other pottery offerings as the large jar for oil or wine, 82 of Plate 35:1, and jug type 217 of Plate 32:8.

South of this large room(which is a temple) is a corridor provenance 3071as that noticed in the temple of Gezer. In this corridor a clay zoomorphic vessel, Plate 247:2 and a jug type 191, Plate 32:26 for pouring liquid offerings, were found. The corridor is surrounded by a rectangular hall and rooms of the remaining complex. The entrance to this complex of rooms was to the main street.

In the other complex of buildings, i.e. in square 013 south of N13 (the assumed sacred open area) is a block of rooms surrounding a large enclosured hall marked (1) on Fig. 399; it has an unusual rough stone standing column-like in its centre, supported by stone foundations. I suggest it to be an altar which has remained in use in

stratum X. The height of this stone above the floor does not suggest its use as a column to support a roof, as Loud states on page 92, and the fact that the stone being short, small, rough and undressed, ~~and~~ irregular and unflattened on top, weakens the possibility of the use as a supporter, and the stone foundations around it probbbly was some kind of a platform for the priest to stand on when slaughtering animal offerings. Though not broad, yet it is enough to give a firm stand and free movement to the priest (see fig. 213, Loud II, p.92). A chalice type 4, Pl.38:7 and a lamp type 2 Pl.38:19 together with other pottery offering vessels were found in a very small room (Prov. 3096) adjacent to this suggested temple. This small room was the place where offerings were gathered and preserved. Adjacent to it another small room (Prov. 3116) produced two bronze human figurines Pl. 234:13-14. In both of the adjacent paved rooms to the temple hall were ovens. In stratum X the same temple halls remained in use for the same religious purposes. The temple noted by Provenance 2133 in XI remained the same in X with a small change for the small room from the S.W. corner to the S.E. corner of the hall. I think that these small traces of remains are nothing but the vestry for the priests, if not a store-room, though nothing was found in them.

As to Provenance I in stratum XI which is stated

above to be a temple with an altar, it remained the same in X without any changes, and marked on Fig. 440 as Provenance 3179.

The objects found in it, chalice type 3 Pl.47:14 and the other offering bowl types on Pl.45:11, Pl.44:5,12, 29 and 31, proves its use for religious purposes.

In short, the presence of chalices and human and animal figurines in the Provenances which I identified to be temples, and their absence from anywhere else in the whole of the V-shaped complexes bordering the assumed open sacred area (High Place), in addition to their being the largest halls in strata XI-X, and their continuity in use, suggest that both Provenances are temples, and one of them with an altar and paved floor.

The standing stones of square N13, strata XII and XI which is the assumed sacred area are treated on pages .

As to the other V-shaped complexes west of the assumed sacred open area (N13) in strata XI-X, they show the existence of the idea of having a smaller temple for each complex of buildings, which has been probably occupied according to family or tribal connections. The finds are very rare.

The group (1) contains a number of very unusual vessels, which renders its dating difficult. The vessels

(1) Megiddo II, Loud, Pl. Provenance 2032.

of more usual types are not closely datable, but on the whole would suggest a sixteenth century B.C. date. Some of the vessels, particularly the deep pots without handles suggest a connection with the internal Syrian area.

This phenomena noticed in Megiddo in strata XI-X of having special temples in each complex of buildings for the citizens of the locality, surrounding an open or closed sacred area (High Place) is exactly the same phenomena existing nowadays in the old city of Jerusalem where we have the Haram Area as an open sacred area with the Mosque of Omar in the middle of it, surrounded by a good number of Mosques in nearly every quarter within the city and that is to facilitate the attendance of the citizens to the daily religious ceremonies. For weekly or occasional religious ceremonies citizens attend it in the largest and biggest temple which is always located in the centre of the city as has been noticed in the ancient ruins of Palestine, and this I suppose could be noticed everywhere, i.e. the religous sacred places are always in the centre of the city in modern and ancient times.

c) Nahariya.

In the centre of the mound a stone building or temple[1] was uncovered which consisted of a rectangular

[1] For detailed description of the architectural remains, see Q.D.A.P. vol.14, pp.1-16, 1950.

central hall, two rooms adjoining this hall, to the east and the west, and two small rooms at the north-eastern corner of the building (a feature noticed in Gezer and Megiddo temples).

Two main phases could be distinguished (A, B) exactly as has been noticed in Gezer temple as seen from wallsaa and bb. Seven superimposed floors were uncovered in the central hall. This shows that the temple was used for a long pe riod, and because it lies on the shore, and probably used by worshippers coming into port only on occasions, however, the due respect to sacred areas was and still is taken into consideration (this phenomenum of the continuity of religious sacred area has been seen in Megiddo and Gezer and other religious places).

South of the temple , Mr. Dothan in 1954-55 discovered an earlier temple and a High Place (Bamah)(1). But before I proceed to the description of the architectural remains, I would like to point out that the temple discovered by Mr. Dothan is not at all earlier than that of Dr. Ben Dor. Both temples are of very nearly the same period. Both are earlier in origin than the Middle Bronze II period, as I have pointed out elsewhere. But if Dothan insists that it is earlier, what dates does he suggest and what archaeological finds has he for it? But

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(1) I.E.J. vol. 6, no. 1, 1956.

to date it earlier according to a stratigraphical connection may not be considered a strong evidence, because of the slope of the tell. And we should not forget that both Ben Dor and Dothan reached the lowest levels on the tell which is the Kurkar level in both temples.

It is clear from Dothan's dig that there were different phases, and each of these phases corresponds to a certain period in the development of the temple, which changed its location and form but remained at all times the focal building of the site. The table drawn up by Mr. Dothan on page 15 (1) is accurate and convincing in showing the development of the various buildings on the site. It shows, he states "every important change traceable in the temple, such as its rebuilding in another part of the site, or its reconstruction, is accompanied by a change in the other structures, and in particular in the High Place".

His first discovery was a cult centre (no. 23 in the Plan, Fig. 1) which was erected on the virgin soil which is mostly Kurkar. The building is almost square, about 6 x 6 meters; its foundations about 70 cm. wide.

South of this structure and touching its southern

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(1) I.E.J. vol. VI. no.I, 1956.

wall a small High Place (Bamah) was set up, consisting of rubble and pebbles laid directly on the Kurhar. This Bamah was probably roughly circular, with a diameter of about 6 m. The wealth of objects found on the stones of this Bamah and its immediate vicinity help to consider it as a High Place. Dothan states that structure 23 and the small Bamah are the only building remains in Phase A.

In Phase B level IV a new and larger hall temple was built to the north, whose foundations were laid on the debris of level V. At the same time, the small Bamah was enlarged and extended to include the early temple, forming a circle 14 m. in diameter.

In the western part of the circle, a flight of two steps made of large flat stones were laid, leading up to the centre of the Bamah. On and between the closely packed stones of the ring-shaped Bamah a dark oily matter was found, which had hardened in the course of time. West of it and between it and the temple, parts of a courtyard were discovered. At the south-western end of the Bamah a solid stone structure was erected in the form of a pillar (no. 10 on the Plan) preserved to the height of 90 cms. (Pl.2B). Dothan suggests that opposite this pillar stood another, and that both together they formed a gateway through which the worshippers entered the temple area.

West of the entrance stood a small stone-built altar (11) on the map, near which a jar was found containing silver plaque figurines of female deities.

East of the altar a flight of steps lead upwards to the Bamah (High Place); those of the worshippers who ascended to the Bamah poured an offering of oil on the stone.

A few meters west of the Bamah an area paved with pebbles and fenced in by upright flat stones was seen. The idea of these upright standing stones has been noticed in Megiddo strata XII-XI?.

At the southern corner of this flat area, a small receptacle built of flat stone slabs is sunk into the pavement with a slab forming the floor of the receptacle (60 x 50 cms.). Such receptacles have been noticed in Gezer temple but in round circular pits.

In Phase C (level II-1) which is the latest phase (MB.II - Late Bronze phase) we see that the large Bamah becomes smaller. Here and there parts of floors and stone heaps which were built over the margins of the earlier Bamah were found.

The structural development of the temple shows that
" it is declining; the earlier phases had a better, well-built
" and more solid appearance than the later phases, and to
" explain this fully, I have to describe the structural
" construction in the following pages.

In the centre of the mound a stone building oriented roughly east to west was uncovered. It consists of a rectangular central hall (Room I), two rooms adjoining this hall (Room IA at the west, Room II at the east), and two small rooms III and IV to the north of the latter at the corners (a feature of building noticed in Gezer and Megiddo temples.

The hall (Room I) measured 12.80 m. long and 8.00 m. wide. The width of the walls of the first phase is 0.75m. 0.100 or
The second (upper phase) had a thicker wall one m. wide, laid directly above the lower. The transition between the two phases is formed by a projection, of about 10-15 cms. depending upon the size of the stones.

4:QDAP. XIV, p.5.

" The masonry of Phase I is very solid in appearance." The crevices between the boulders are filled with small irregular stones." The actual cornerstones are angular " and chosen with great care." The stones were laid in a " mortar composed of black mud and sand. "

" The masonry of the second phase is on the whole " similar to that of the first, while less attention is " paid to the corner-stones." The relation of the two phases " to each other may best be seen in the construction of the " main door in the south wall, which was built during the " first phase and rebuilt on the same spot during the " second phase."

QDAP. XVI.

The photograph (Pl. III, 2) shows clearly below the sill the sides of the earlier doorway 0.92 m. wide, with coarsely constructed jambs. The door-sill is formed by a few rubble stones and by a layer of mud (1). This door was in use throughout the occupation of Phase I, while in Phase II it was enlarged to a width of 1.20 meters. The jambs are carefully constructed, and the threshold is made of large blocks laid out as a more or less horizontal platform.

It appears to me that the style of building in Phase A was better than in Phase B, especially the basic part of the building which is the corners.

The east wall of the temple (Room I) hall. Ben Dor describes it on page 7 as being "extremely well built and consists of large blocks of more or less regular form. This is particularly noticeable on the outside face where the masonry presents the most solid appearance of the whole building (Pl.II.1)".

Above, the second phase is represented by two courses at the southern end, while at the northern end the wall consists of small irregular boulders, not laid in courses. The masonry of this phase is distinguished from that of the first by the usual projection visible

(1) cf. T.B.M. vol.VII, p.21. for a threshold consisting of stones in a matrix of tin from period G.

over about three-fourths of the entire length of the wall." Ben Dor states on page 8 that "in the northern sector, the masonry deteriorates".

"The topmost portion of the wall, which is much narrower than the rest, and of much inferior masonry (Pl.II,2) belongs to a still later phase." Therefore one could say that up until now the buildings were built stronger in earlier periods than in the later, e.g. a decline in architecture and construction of both walls of Room 7.

The south wall is in general of poorer masonry than the north. But as in the north wall, the distinction between phases I and II is much clearer in the western sector of the wall than in the eastern, especially on the inside of the room. The main distinctive feature in the masonry of the second phase, says Ben Dor is "the size of the stones which are larger than the first". But personally I think that the style of building as described fully on pp.4-8 shows that Phase I is extremely well built and of more solid appearance.

The west wall of Room I (Hall) described above, had been preserved to a lesser height than the others, and all the surviving courses belong to the first phase, except the topmost course in the northern half which may have been added during the second phase. One could very

easily accept the idea suggesting a door and I may add that the jambs appear to me to be even stronger than those of later periods.

Room I A: This room is not so much an entity in itself as an extension of Room I, added when the latter had already been in use for a considerable period. A glance at the masonry, where it joins the north-west corner of Room I is enough to show its inferior quality. The stones are even rougher and more irregular than those of Room I; and the attempt to lay the stones in courses, though still apparent, is not seriously sustained. The stones are on the whole smaller, the interstics are wide, and the facing stones are less well bonded with the interior masonry of the wall.

This phenomenon, in addition to what has been shown above, is very strong evidence to show the decline in the structure of the temple complex buildings in MB.II proper in ĉir. 1750-1650 B.C.

I. The finds.

We have seen that Nahariya temple was the most preserved sacred place in Palestine. The finds were plenty and I was responsible for the registration of most of the finds in the records in 1947. The identification of the site as a temple really presented no difficulty then,

because of the presence of many religious objects. Meanwhile there should be no doubt to the suggestion given by the exaavator that the temple was dedicated to the cult of Ashtoreth. But there lies one difficulty which is the question of when was the temple first erected? I will try to point out below, the period during which the temple was most probably erected, by studying the finds, quoting as much as possible the words of the excavator, which show that the temple should have been erected in the MB.I period, i.e. about 1900-1800 B.C. if not even earlier, and not in the 18th-17th centuries B.C.

I don't object to the saying that "the destruction of the temple and the bamah may be the result of the Syrian campaign of Thuthmose (or Amenhotep I) whose campaign is not well known".(1)

a) Model pots. In treating the finds of the sacred place discovered by Ben Dor and Dothan I start with the "model pots". On page 19 the excavator says "A rather unusual pottery type is represented by a large series of miniature vases Pl. VIII. These have been unknown in Palestine". I think such an idea has never been noticed in the MB.II period, but may have been in existence in earlier periods. He continues on page 19 saying that "the pot and bowl

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(1) Dothan, I.E.J.,vol. 6, page 24; Prof. Mazar thinks of the same possibility.

shown on Pl. VIII, nos. 30-31 may serve to illustrate a class of model pots, which though of different period, must have served the same purpose as the model pots of Naḥariya, and have been done to a similar trend of thought". I suppose he meant by a different period, a period earlier than MB.II, because such a type had not been noticed in any MB.II sites, which are numerous in Palestine, and do not fall in any of the pottery phases of Chart I.

I do agree to his saying on the same page that "the closest parallel to the Naharîya model pots, with regard to both period and shape is to be seen in Byblos"(1), but this should not mean that we have no parallels for them in Palestine. I assure him that a good number of objects ha d close parallels to Nahariya , but they belong to a period mostly earlier tha n the MB.II period, and some are later as I will show now.

P.19 : "The majority are wheel-made, but quite a number are modelled by hand". "The types range from graceful and slender shape to clumsy and primitive-looking specimens" . It is an established fact that pottery objects of the MB.II period are virtually all wheel-made (quick wheel) - shaping by hand being restricted to the cheapest types of cooking pots. The shapes were generally graceful with beautifully proportioned curves. So, the fact that a great amount has

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(1) Dunand, Fouilles de Byblos, vol. 1, p.277, fig. 237; p.287, nos. 4115-19, Fig. 253; p.320, Fig. 257, cf. photographs on Pl. CLXI:4110, 4114.

been done by hand shows that the wheel was in its first stage of use, i.e. earlier than MB.II.

P.19 : "The shapes differ from that of the full-sized pottery of the period". This means that they are not of the MB.II types in smaller sizes, and mone could be traced to MB.II period types, few could be traced in origin and shape to periods earlier than MB.II as I try to show below. Generally speaking, the flat bottomed types are mostly a characteristic of periods earlier than MB.II; though this should not mean that it was out of use in MB.II period, but rare and not very common as in Nahariya. None of the model pots found in Room I or II earlier levels VIII-IV had a burnish or a slip. One only no. 317 had a dark brown slip, but this was found outside Room II below foundations of N. wall, which is of a later period.

P.19,20 - C1 : When treating other types of model pots the excavator points to what he calls "imitating in one case a Middle Bronze II dipper juglet with trefoil mouth (no.271)". Such a type does not exist at all in any of the MB.II sites (see my treatment for trefoil juglet), but one could recognize immediately the great resemblance between that of Nahariya and that found by Petrie in tomb 1410 of the courtyard cemetery of Tell El Ajjil[1]. These

(1) AG.II, Pl. XXX, 34B 271. It is shown in drawing Plate III[9] i.e. The Nahariya pot.

tombs are considered to be contemporary with G-F of T.B.M and Ras EI Ain excavations because of the closest parallels of their finds.

P. ___ : "The exquisite little pot no. 325 (1) (Pl. VIII, 16) is an exact replica of a larger juglet Pl. IX:19. The later is plain, whereas the model shows painted decoration on shoulder and handle". To such juglets I refer the excavator and reader to Ras El Ain excavations, which had produced good and close parallels to those of Nahariya. Though dated by the excavator to MB.II yet they should be dated to MB.I period or to the very beginning of the MB. I, (1900-1800).

? II

(2) Also juglet no. C of Fig. 24 of Nayariya has the same parallel in Ras El Ain and on Megiddo II, Pl.113:13 stratum XIV one could recognize the same type of juglets.

It is the same juglet.

P.31 : On fig. 25 (3) and Plate IX two fragments are represented, "Though Dr. Ben Dor says in his footnotes quoting Shipton "that no parallels can be found in Palestine" yet I refer both of them to Megiddo II, Plates, by Loud, Pl. 16:2 of stratum XIII B to see the exact parallels.

(This refers to a quite different specimen Fig 26 =)

Though the model pots on figs.14-16 are of unusual types. Yet Megiddo strata XIV-XIII produced the same styles and shapes respectively, but none is very identical and so in Tell Beit Mirsim H Pl.315, nos. 159, 255, 278, 288 and 290 (4)" are parallels to Megiddo II, Plates

(1, 2, 3, 4) are shown in Drawing on Plate III.

18:6:13:9, also Ancient Gaza I, Pl.X:21[G] (Copper Age).

The model bowls on Fig. 17, nos. 130,(232= H. of T.B.M. Pl.3:12) and 355, 375 show a style of work surely earlier than MB.II period.

As to the surfsce treatment of the ware, Ben Dor admits on page 40 that the comb decoration on Pl.IX, 10-11, 13-17 which although occasionally found in MB.II is more typical of the earlier phase; on page 29 he states that "the most frequent type of decoration in MB.II, plastic bands with herring-bone pattern is represented by a few examples". These are two obvious and important evidence to show that the temple should have been erected before the MB.II period.

Ben Dor states on page 34 that "there was nothing like the great variety of bowl forms usual in the MB.II period. The forms are on the whole simple, showing the main characteristics of the period,(I think he means MB.I of Dr. Kenyon, i.e. 18-17th centuries) but the execution is rather crude, and the ware less fine than one would expect". Some of the bowls have good parallels in strata G.-F. of T.B.M. e.g. Nahariya Fig. 31,(1) parallels that on Pl. 4: 2; Fig. 32(2) is near parallel to that of Pl.4:1, and if not that of Fig. 34 parallels the one on Pl.1:4:1;

(1) P.E.F. Annual no.VI, Pl. Fig. 1, no.1. For other references see H. Ingholt, Hamma R.P., page 36:9; M.Dunand, Byblos, p.370, no.54.11; C.F.A.Schaeffer, Ugaritica II, Fig.71:13; Megiddo II, Pl.9:20, and Pl.15:22, QDAP X, 1944 , Pl. XIV:3.

(1 & 2) are shown in drawings, see Plate III.

Fig. 29 may equal Pl.10:9 of stratum E. As to the rims of figure 35:a = G.F. Pl.4:5, d = Pl.4:8.

Tell el Yahudiyeh Juglets.

I think that the pricked Yahudiyeh ware found proves that it was in use here earlier than in the south. Thos fragmentary pricked Yahudiyeh juglets in Fig. 26[1] and Plate IX, 23-30 were the most convincing, and the most misleading objects that suggested to Dr. Ben Dor and Mr. Dothan to date their sacred temple area to the MB.II period or what Dothan called "the prosperous Hyksos period".

I have shown in the ceramic chapter that the pricked ware appeared in the very beginning of the MB.I period, and if that of Jericho (Pl. VI,no.1) which is pricked and filled with white chalky paste is accepted to be of the same style irrespective of its spindle shape, yet appears to me to be very near to that found in Nahariya, Fig. 26a[2], it will be a great help for me to strengthen my inclination to consider Nahariya temple to have been erected at about the19th century if not earlier. But anyway, I do not hesitate to consider Nahariya Yabudiyeh juglet on Fig.s. 26[3] a and c to be the closest parallel to those discovered by Albright in stratum J Pl.I no.10 and stratum H Pl.3,no.13.

As to Nahariya juglet, Fig. 26d[4], Pl.IX,28 I could not find any on Palestinian sites having so flat a base. The fragments shown on Pl. IX,27 described by the excavator

(1-4) See Plate III.

to have "incised decoration of white dots, the workmanship of the decoration is remarkably coarse, the dots are of various sizes and arranged in irregular rows". This descfiption shows that the technique is still in its first stages, and, however, it is stated to have been found one meter below the top. The one found in Room I level IV represented on Pl.IX,29 though it had the button base, yet it is not pricked and it is badly done. The other fragments were found in Locus B which is a dump.

Ben Dor states on page 32 the fact "that practically all the Tell el Yabudiyeh juglets are of miniature size - C.5 cm. high - leads to the assumption that they, too, were meant to represent model offering vases. It is true that miniature Yabudiyeh vases are known from various excavations, but nowhere in the proportion of the small juglets so big as on our site, where only four fragments out of a total sixteen belong to juglets of normal size". And so I feel happy to say that the pricked ware of Nahariya may have been in use earlier here than in the south.

Lamps P.20 :

"A parallel may be found in the unique vessel from Megiddo (Pl.VIII,32) found in level X of the end of the MB.II Age, which is described by the excavators as a lamp".(1)

(1) G.M. Shipton, Notes on the Megiddo pottery of Strata VI-XX (Studies in Ancient Oriental Civilization XVII, 1939, pp. 21, 70, Pl. 5, no. 24 chart: stratum X, no.49.)

I am really sorry to say that the charts published by Shipton, quoted above, spoiled a number of good results published in the original volumes. This fact could be hardly noticed by those who are only looking for parallels to their archaeological finds. Therefore, I would like to point out that not much stress should be put on them. The references of Megiddo should better be taken from the other publications of Shipton and his colleagues (I will deal with that in a later separate article).

Anyhow the point of discussion now is what is called by Ben Dor a model pot represented on Plate VIII as no. 32, Whether called an offering pot as Dr. Ben Dor named it, or bowl with seven cups as called by Mr. Dothan, or a lamp as Megiddo excavators name it.

1. This lamp (as I favour calling it) has been seen in Megiddo for the first time in stratum XIIIB area B in Provenance 4009 on square N13 of Fig. 396, together with other objects represented on Megiddo II plates, Loud; Plates 16;8; 16:16-18; 178:4; 182:7; 182:8; 188:2.

A glance at the pottery objects mentioned above is bnough to show that they are of the EB-MB period of Dr. Kenyon and the MB.I period of other archaeologists. Meanwhile I am convinced to relate one of the pots of Megiddo. i.e. Plate 16:18 to those of Nahariyah nos. 249 and 284 irrespective of the attached clay to the bottom of the pot; one of the jar base fragments Fig. 22a of Nahariyah to that

of Megiddo, Pl. 16:8 and of T.B.M. stratum H Pl.2.

I should note down also that Provenance 4009 lies in what is considered to be the sacred area, and lies over the altar 4017 of stratum XIV, BB, Fig. 395.

2. This type of lamp was found also in Provenance 5218 of Megiddo stratum XIIIA on square M13 of area BB Fig. 397, which is still the sacred temple area.

3. It was found also in Provenance 2023 of Megiddo stratum X. Though the provenance is doubted because it is a free area, yet I am inclined to think that the whole area was sacred because of its religious contents, the most of which should not be dated to the Middle Bronze II period.

It is now clear that the lamp of Nahariya is found by Dr. Ben Dor in 1947 in the temple, and those found in situ east of the pillar no. 10 on the Plan of Mr. Dothan are similar to those found in Megiddo strata earlier than the Middle Bronze II period.

4. The four-nozzled lamp fragments on Pl. XI, nos.8-11 had many parallels in Jericho EB-MB tombs of Dr. Kenyon (not yet published). In Megiddo they were found in temple 4040 of strata XV and XIV; In Tell el Duweir IV of Miss Tufnell (forthcoming publication); also from Tell el Husn east of the river Jordan. Such type of lamp was certainly not in use in MB.II period.

b) Human religious figurines.

As to the silver human figurine no. 252 on Pl. XII:5 and the other bronze no. 206 represented on Pl.XII:6, one was found in Room I and below floor VII which is the earliest level of the temple. "They had no exact parallel in Palestine" states Dr. Ben Dor, but I think Megiddo stratum XIII had produced human figurines of bronze and silver that may be considered parallel to a certain extent; these are represented in Megiddo II, Loud, Pl.233, nos. 243 and 8. The human figurines found in Nahariya by Mr. Dothan marked B and K on Pl. 5, are of closer parallel to those of Megiddo mentioned above. Dothan on page 23 gives parallels to his groups of silver plaques in Megiddo II, Pl. 233:5 and 5, Gezer II, 434, Fig. 515, Ajjul A.G. IV, Pls. XIV: 6, XX:34, and to those found in Byblos by Dunand, Pls. XLVII: 3973, 4176, LX:2027, Fouilles de Byblos, I, Paris, 1937.

c) Animal religious figurines.

"It is, therefore, not surprising to find clay doves at Nahariya, a site on the sea-coast, which must have had bearings towards Cyprus and the Aegean. The fact that none have been found on other excavated Bronze Age sites in Palestine goes to confirm this contention". I quoted this not to disagree with the contention above, but to draw the attention of the excavators to that in Megiddo

strata XIII-X, Provenance N.2032 which I consider to be a sacred spot, had produced two clay dove figurines to us. These are represented in photograph in Megiddo II, Loud, Plate 245, nos. 18 and 19. These are exact parallels to those found in Nahariya by Ben Dor and Dothan in the digs of 1947 and 1954. Though the number of those found was nine (1) at various places on the tell, yet none of them is said to be of a stratified area.

The monkey figurines on Pl. 3 has parallels in the Eye temple of Chagar Bazar (2). They have the same setting, and the same outlook to those from Byblos (3).

2. Chronology.

Though Mr. Dothan states that "Ben Dor proved on the basis of the later levels in the temple, that it must be dated to the 18 - 17th centuries B.C. (4) yet I find myself after treating the finds unable not to state that the temple and the bamah of Nahariya should have been most probably erected a century earlier, i.e. ~~about~~ early 19 - 18th centuries B.C., and had flourished about the 18 - 17th centuries, after which they were hardly in use (if not

(1) For detailed description, see QDAP, vol 14, 1950, p.27 and Pl.XII; also I.E.J. vol. 6, no. 1, 1956.

(2) Iraq, vol. vII, Pl.

(3) M. Dumand, Fouilles de Byblos I, paris, 1937, Pl.LXXXI, 1887, 1998, CLXIV:3926.

(4) Mr. Dothan: Israel Exploration Journal, vol. 6, no.1, 1956.

partially abandoned) cir. 1700-1550 B.C. This phenomenon had been noticed in Megiddo temple sacred area, and in Gezer High Place and temples area.

The presence in Nahariya of different types of incense burners fragments all over the site and in a refuse deposit dated by Dr. Ben Dor to the Late Bronze period, in addition to Mr. Dothan's statement on page 22 that he found numerous Cypriote sherds, the great majority are of base-ring ware, but a few belong to the "white slip" and "white painted ware" Fig. 7. All of these evidences in addition to the bichrome ware sherds also found in the upper levels show that the sacred site was in use in and after the 16th century B.C. in a much more prosperous way than the preceding century.

This phenomanon had been noticed also in the sacred areas of Megiddo and Gezer.

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(1) Mr. Dothan: Israel Exploration Journal, vol. 6, nl.1, p. 22, 1956.

SECTION II.

T. Sacred Objects.

(1) The standing stones.

Without any doubt, stones since the neolithic period were used as relics or representations of a great power. But not every standing stone must be called sacred. The location of the stone in the building or in the open court decides its purpose, the shape and the height of it inside the building or beside it decides to a great extent its importance.

In Gezer the excavator found nine standing stones, eight are of the local stone, the ninth is said to have been the earliest, and Dr. Max Blanckenlor - the expert in Palestinian geology - suggests that the stone was brought up probably from Jerusalem. This stone in particular, says Macalister, should have been considered by the Gezerites to be the great god, while the others discovered are the smaller gods or the family or tribal gods. The stones were found in an alignment. They are of undressed stones exactly as those found in the assumed sacred area of the supposed stratum XII in Megiddo, but the later were not found in organized rows.

The fact that these stones are not dressed at all, and they are brought as they were found to satisfy only the need of probable sacrificial ceremonies, and the

prohibition of iron-dressing in the altar stones (Exodus XX:25), is no doubt a relic of an ancient taboo, of which we see another glimpse much later in the exclusion of iron tools from the works at the buildings of Solomon Temple (X Kings VI:7).

The cutting of cup hollows on some of the these stones of Gezer and Megiddo, may have been for oil or blood smearing if cut on the face; and for libation if cut on the top. These cuttings would suggest the accepted prevalent idea that the stone was regarded merely as a medium or symbol, and not as the god himself.

Whatever the purpose was, these standing stones of both Gezer and Megiddo, appear to me to belong first to an earlier period than MB.II, but may have remained in use until then.

They do represent something related to religion, i.e. they were put there I suggest for nothing more than representation of something to commemorate and remember. They were put there by certain persons on a certain occasion. Nowadays, when we in Jordan go on a trip, the last thing we do before we leave the site is to chose the largest stone around the locality and put it upright, and so we group the biggest and largest stones on the highest spot in the area, and if we could not find large stones we pile up stones in a cone form in representation

and commemoration of our visit. Whether we will be considered in future as pilgrims or mountaineers, I do not know. So I believe that those different families or tribes, or groups of peoples, had co-operated together to lift up these stones whether in rows as in Gezer or haphazardly as in Megiddo, just to commemorate their presence on the spot (which is High Place) being of purely religious value or not I could not tell. It is with these stones as it is with every "Makam" in our present day.

In the locality of Nebi Mousa "the Prophet Moses" a shrine lies at midway of Jerusalem-Jericho road. Beside it lies a stone, of irregular shape, rough and undressed as those of Gezer and Megiddo. It is considered sacred, and has a religious value. Pilgrims visiting the shrine on ~~that~~ occasion go to that particular standing stone, and rub their hands over it to get rich, and their backs on it so as to gain power. Another rough rocky protruding stone on the way to Jerusalem in Bethany is also considered to be sacred. Some of the peasants who feel rhumatism go down to the place, rub themselves on the rock, believing that, that protruding part of the rock had been blessed by our Lord Jesus Christ when visiting Martha in Bethany, and so they believe in its sanctity. Through the lapse of time, the rubbing and

and kissing of the stone made some parts of it smooth, and evidence is noticed in Gezer standing stone no. 2.

Moslems of the present day look to the Kába Stone of Mecca, and to the Rock of Jerusalem to be very sacred.

Religious significance of standing stones seem to have been attached to it also by the Hebrews. In the Old Testament we found a stone set up to commemorate some important event or experience, just as we might build a mosque or church to commemorate some great deliverance. Thus Joshua (IV,2-8, 20) set up a circle of stones in Gilgal.

Similarly, after his dream, Jacob set up a stone "a pillar" smeared it with oil and called it "Beth El" implying that the stone itself was the dwelling of "El" or marked a place where "El" could be met. In short one could say that the sanctity of some stones existed in Palestine in the very early periods, remained so in Middle Bronze II, and exist up until the present day.

(2) The cup-hollows.

Cup-hollows are found all over Palestine, and of every period, whether being large or small, rectangular, oval or circular; cut on the rock surface on a high place, or above rock-cut caves, or underneath town ruins, on the face of a standing stone or on top of it. They had some kind of use during ceremonial activities if needed. As

well, it has many other useful purposes not related to religious ceremonies. Therefore it is the location, added to other evidences, that may really decide the real purpose of the cup-hollows under discussion.

The tools with which these cup-hollows were cut varied in kind from flint chisels in the neolithic period to bronze chisels in the Bronze Ages, and to iron chisels in the Iron Age periods. I do not think this is the place to deal with such an interesting subject.

(3) Serpent Worship.

Even now the worship of the serpent is found lurking in out-of-the-way corners of the globe, and startles us at times with the unhallowed rites which seem generally to have been associated with its prevalence.

Fear, I believe, is the only or principal characteristic of serpent worship. It might be sufficient, in order to account for its prevalnnce, to say that "like causes produce like effects all the world over" and that the serpent is so terrible and so unlike the rest of creation that these characteristics are sufficient to explain everything.

To those who say that the snake was worshipped as a goddess because of her graceful slow progress over the ground, with head erect, to those who were struck with its peculiar beauty of motion, and general form and elegancy, to those who appreciate the snake because it can

exist for an indefinite time without food, to those who say that the snake was worshipped as a fertility goddess, because of her dwelling in the earth, to all of these I say that these qualities and others may be sufficient to exert curiosity and obtain respect, but it is certain that the serpent never would have become sacred as a goddess but for its exceptional power, and for its poisonous fang.

The most outstanding representation of this cult was that of Tell Beit Mirsim, which was found lying upside down in the debris of the final conflagration and the upper third was missing. The stela is about 29 cm. wide and its preserved height is 41.5 cm. The back is rounded, its thickness being 13.5 cm. on the lower end of its axis and circa 8.5 cm. at its lower edge, while it is 11 c. thick at the upper end of its axis and 6.5 cm. at its upper edge. "In view of its form and the fact that plaster was found adhering to its flat base, there can be no doubt that it was set into a niche in the wall of the upstairs room from which it fell". (1)

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(1) A.A.S.O.R. XVII, 1936-37, Albright, "The Excavations of Tell Beit Mirsim", pp. 42-43.

Remains of serpent-cult representations were found practically in every Middle Bronze II sites in Palestine. The most interesting among them are (a) the limestone stela representing the serpent goddess of Tell Beit Mirsim stratum D[1], (b) two others from Jericho, the first on a pricked Yahudiyah jug, with a female figure, having a ~~turban~~ bandeau on her head, and a snake curling itself and climbing to drink from the mouth of the vase which is on the head of the female figurine Fig.Pl.XII.[2] The other is on a bird vase[3].

So much has been written elsewhere about the ancient serpent-cult in Palestine, and I would like to mention something about it in modern Palestine.

Live serpents are preserved for charming and for tricks by the Dorwishes (religious people). In some places in Palestine they call the serpent "Mabrookah", meaning "the blessed", and in Hebron, certain people who, through ritual and religious readings, believe that they are the friends of serpents. They should never kill a snake, they should always help and feed the snake wherever they find it, believing that they are holy and sacred.

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(1) A.A.S.O.R. XVII, Pl. 22, pp. 42, 43 and 118.

(2) A Middle Bronze II tomb discovered by the writer from Jericho in the summer of 1952 (not yet published).

(3) P.E.F. Kenyon, Pl. XXII:2, tomb B.35. Excavations at Jericho (1952).

In Palestine there is a small creature that looks like a snake, called "the stick of Mousa", or "the snake of Mousa". We look to it as being holy and sacred, and nnone dares to kill it. The one who does so should be directly, or one of the members of his family indirectly hurt, because of the crime committed by kill^ing the snake of the "Prophet Moses".

(4) Tree of Life worship.

Although the actual worship of trees is far removed from our ordinary forms of faith, still it can hardly be considered as more than an exaggerated preservation of many of the ideas now current, and we can hardly wonder that in an early stage of human civilization, it may have assumed considerable importance.

There is such wondrous beauty in the external form of trees, and so welcome a shelter beneath their boughs, in addition to their natural, coloured flowers, and the flavour of the fruit, that we should not feel surprised that in early ages, groves were considered as the fittest temples for the gods.

Probably for one of these reasons above, or for all jointly, the primitive races of mankind should have considered trees as the choicest gift of the gods to them, and should have believed that their spirits still

delighted to dwell among the roots or the branches.

In modern Palestine, one may notice a large tree growing beside nearly every ancient shrine "Makam". People of the village visit the shrine and tie a bough or branch of the tree with a new handkerchief or a scarf, and ask his wish of God, through the Welli who is buried there. But people tell stories also of the sanctity of the tree and its fruit.

On our farm in Jericho called "Nuwemie" near the ancient Omayyad Palace which is adjacent to the "Ancient Gilgel" site as identified by Dr. James Millenberg in the Basor : 130, 1955, pp.11-27, 2 kilometers east of these sites, and 3 km. west of the river Jordan, is a sa cred respectable tree called "zakoomat, Yaqub". Though it lies at the eastern end of the farm in an uncultivable land, yet it was growing. Everyone looked after it with care; even the shepherds looked at it as sacred and holy; therefore none of them dare cut a branch of it. It was irrigated on special occasions.

Does its holiness descend from long ago as being a dedication to Jacob "Ya'quب" when he crossed the"river Jordan" ? or really because it is considered as a boundary line between the tribal dwellers of a hundred years ago, or because its holiness was in its being the only single tree growing in that barren land? or to preserve it from

the shepherds cutting it down? Anyway this belief or superstition of its sacred value remained in force up until the present day. I dare say this superstition exists practically everywhere in the Near East. But none looked at the tree as a god; they look at it as being only blessed by god or his prophet, Imams, or shiekhs.

The Mambre tree of Abraham in Hebron and the olive trees of Jesus in Gethsemane are the most convincing evidence to show how trees are sanctioned and venerated in Palestine up to the present day.

SECTION III.

III. Mythology.

Deities and cult figurines.

The deities of the inhabitants of Palestine in the Bronze Ages were those of the Semitic peoples in general, with the addition of gods and goddess borrowed from other nations. Many instances of such religious interpretations (p. 263) are attested by archaeological finds, scarabs, amulets and seals, added to a later source the Amarna and Ras Shamra Tablets. All of these archaeological finds picture Mesopotamian, Egyptian and Syrian deities.

Migrations and cultural contacts of various kinds were evidently responsible, and in addition to these there was the common practice of giving homage to the gods of a conquering nation. It was doubtless in this way, largely, that the Egyptian deities achieved their promenance in Syria and Palestine. Such acceptance of foreign gods did not necessarily involve much alteration of religious ideas. What often happened was that the native god was simply identified with the great god of the conqueror without any great change in the way he was thought of and worshipped.

Borrowing from different quarters involved a mixture of ideas, which is conspicuously evident in the motives and types of the images and the other

representations of gods and goddesses.

In the religion, noticed in Palestine, the blending of Mesopotamian, Egyptian and Syrian elements in early times, and Anatolian, Egyptian and Phœnecian in later, i.e. one current of foreign influence after another flowed over Palestine, each leaving some deposit to be added to the already complex culture.

It seems to me that in Palestine the case might have been as in Babylonia and Assyria that each city had probably a fertility goddess or a fertility cult of its own. One could find them in publications of every Palestinian excavation.

The material of which these fertility cults were made up from was usually clay and bronze, silver was also used. Among the most interesting figurines were those of silver found in Nahariya (a) by Dr. Ben Dor, 1947 (1) in Room I, below floor VII which had been established to belong to a period earlier than Middle Bronze II. That silver figurine representing Ashtoreth is 53 mm. high, highly stylized, showing the goddess standing with legs closed and arms in the usual attitude on the breast (no. 252; Pl. XII:5).

(b) Dothan states also that his silver figurines were

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(1) Q.D.A.P. Ben Dor.

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found "either directly on the floor of the early temple and on the Bamah or in jars"[1]. The fact that the early temple and the Bamah was earlier than MB.II has been established above. The figurines were flat, thin, silver female deities. The deities on most of the plaques wear crowns or tiaras, some show the arms joined to the sides of the body, or extended forward, while one of them represents the deity supporting her breasts with her hands. On all the plaques the legs are shown joined together.

? Ref:

(c) Silver or bronze figurines cast in a mould (Pl. 5, A-C) of Nahariya. Two of these represent a figure wearing a crown with the arms crossed on the chest. The upper half only of the body of one figurine is preserved, the other is complete and is dressed in a short kilt. Some of the figurines represent female deities with long hair and wearing a tiara or crown. To this group belongs also a male figurine. To the figure marked B on Plate 5 there is a close parallel in Megiddo II, Loud, Stratum XIV, Pl.233:2 which in date is also pelated to the early period of the temple as established above.

Thus we may deduce from the material of which the

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(1) I.E.J. Dothan, page 2.

figurines of the early temple were made i.e. bronze, (a) that northern parts of Palestine were more prosperous and richer than southern, and inland parts, because of the absence of the use of silver in these parts before MB.II periods; (b) the workmanship and the use of silver for making deity figurines was noticed in MB.I in Nahariya. It was very rare, if in use at all in MB.II, and appeared again in the upper levels of the temple which is the Late Bronze level. Therefore, this shows a decline in the making of deity figurines as the decline noticed in the architecture of the temples proper.

Another prominent goddess of Palestine and Syria was named Anat (O_nat). In the Ras Shamra poems she appears as the sister of Aleyan. In the Old Testament her name is preserved in the place-names, Beth-Anat, Beth-Anoth, and Anathoth. Egyptian sources from the Hyksos period to the fifth century mention her.

As to the religious cults of Egypt in the Middle Kingdom, the evidence of the stela of Tanis for the Jubilee of 400 years of the Seth cult marks the beginning of the Hyksos rule in the Delta, since other sources tell us that Seth or Sutekh was the chief god of the Hyksos. This cult of the Egyptian god Seth existed in the eastern Delta as early as the Old Kingdom, long before the Hyksos, but the Seth-Sutekh of the Hyksos was of a more

Asiatic character, bearing a close resemblance in his appearance to such Asiatic gods as Ba'al, Reshep and Teshub (Dussaud R.H.R. 109, 116ff). A Hyksos scarab shows us the same type as that represented on the stela (Ancient Egypt, 1933, 37, no.6). The garment and the headdress with the horns of divinity are typical Asiatic traits.

In later texts, Ashtar, Asturt or Anut was regarded as the wife of Seth-Ba'al,and his naked goddess also appears on Hyksos scarabs. (S.D.P. V, 47, 129 ff).

As to the god "Re" the Hyksos in Egypt as well as the Canaanites of Palestine, worshipped him as much as their own Sutekh-Ba'al.

SECTION IV.

. Religious Ritual and Cult Practice.

The task of attempting a description of the Middle Bronze period religious system in Palestine is a difficult one because of lack of evidence, literary and archaeological. Some indirect information may be taken from Hebrew sources concerning the Canaanite ritual, though it is mainly limited to the various ritual prohibitions in the different parts of the Pentateuchal legislation, and to occasional references in the historical parts of the Old Testament to such practices as human sacrifice, or such scenes as are described in the varied account of the frenzied behaviour of the priests of the Tyrian Ba'al on Carmel.

Source?

But in recent years much indirect information has been gained from the study of the poetic parts of the Old Testament; and in spite of a certain natural conservative reluctance, it is being gradually admitted that a great deal of the liturgical material in Psalms throws light on the ritual of the pre-prophetic religion of the Hebrews, and inferentially on the kindred ritual of their Canaanite neighbours.

It would be possible to consider some of the ritual prohibitions in the Pentateuch to show that they have connections with those elements in the central conceptions

of Canaanite and Mesopotamian religion which were most repugnant to the main tendency of Hebrew religion. It may be also added that the fact that prohibition of such practices was necessary ~~to~~ shows that they existed, not only among the Canaanites, but among the Hebrews at the time of the promulgation of such laws. It may suffice here to point out that not only do the prohibitions provide evidence for whole groups of customs connected with the central rites of Cannanite and Mesopotamian religion, but also a number of ancient customs which assumes the form of injunctions in the Pentateuchal legisla tion similarly represent vestigial remains of similar rites.

2 Since.

These This practice of furnishing the dead with food, liquid and other utensils throws enough light on the belief of the hereafter world, and the idea of dying and rising again most probably held a large place in early Canaanite ritual.

One can say nothing about cult practice. Meanwhile Mr. Dothan suggests a practice which may have been followed, probably, in that period, and to which I see no objection to accepting. He visualized that the worshippers in Nahariya accepted Asherath-Yam as a chief deity. This cult was related to the cults practised at that time along the coast of Canaan and Phoenicia. Mr. Dothan visualizes

worshippers approaching the sacred precinct from the south. They passed the pillar (10). It may well be, he says, that opposite this pillar stood another, and that together they formed a gateway through which the worshippers entered the temple area. West of the entrance stood a small stone-built altar (11). East of the altar a flight of steps lead up to the Bamah. Those of the worshippers who ascended to the Bamah poured an offering of oil on the stones (traces of it has been found). Some of the worshippers put their offering and gifts on the Bamah, while others left theirs in the courtyard, where the remains of animal bones, ashes and food bear witness to their sacrificial feasts. Worshippers bringing liquid offerings poured their offerings probably into large jars found inside the temples. Such large jars were found in the temple areas of Megiddo, Gezer as well as in Nahariya. The presence of the funnel, Fig. 6, of Nahariya and the small dippers juglets in Gezer and Megiddo found beside the large jars, strengthen the evidence of worshippers bringing liquid offerings too, to the temples, together with the animal sacrificial offerings.

It is not unreasonable to interpret the archaeological evidence in the light of the practices described in Leviticus (Third Book of Moses), as I suggest in the following paragraphs.

One may visualize the same cult practice going on in

Megiddo. Worshippers gather with their animal offerings in the High Place, the animal offerings are brought in to the altar, where they are slaughtered. The bones and other remains of the lamb offering will be put or cast into a pit (pits were noticed in Gezer, Nahariya and Megiddo), and so also the remains and the feathers of the young offered pigeon (pigeon figurines were found in the temple areas of Megiddo and Nahariya). After the priest changes his garment in the small room beside the altar, and after he is dressed in the special garment needed for slaughtering (such small dressing rooms were found in or around Megiddo, Gezer and Nahariya temples (Leviticus) the ceremony starts by slaughtering the animal offering on the altar. The blood thereof shall be drained out on the side of the altar, and the priest shall take away its entrails with the feathers (if the offering is a pigeon) and cast it beside the altar in the place for the ashes as seen in the pit at Gezer. Then these animal offerings are taken to the ovens (seen in Megiddo strata XI-X) beside the altar, anointed or mixed with oil which has been brought or left as liquid offering inside large jars (such jars have been noticed in Megiddo, Gezer and Nahariay temples).

Oil should be poured on the offering (irrespective of its kind) and frankincense should be laid on (the chalices for frankincense has been found in the temples of Megiddo and Nahariya).

After the meal offering is fried, cooked, or arranged, it will be distributed for the worshippers who are gathered, and presented for worship. The meal offering then is eaten after being blessed by the priest in the Court Hall as in Megiddo, or in the High Place as in Nahariya and Gezer. Then they go up to the High Place for the religious preaching and worshipping.

This sacrificial cult practice is noticed nowadays in the Near Eastern countries. In the Nebi Mousa festivals, the religious practice is as follows:

Animal offerings (lamb is preferable) are brought by the worshippers from all parts of Palestine. They are gathered in an open court (High Place) with their offerings. The sheikh and his assistants come with their special dress to slaughter the animal offerings, and to accept the oil offerings brought by the worshippers. (The oil is either gathered in large jars or tins). The offerings slaughtered, the remains and skins are kept aside in a corner of the altar, the blood flows in special drains in the place. The meal is cooked in ovens beside the altar, built specially for that purpose (as seen in Megiddo). The food is distributed in plates to the worshippers. After the meal is over, they go either to the mosque or to a large open area surrounding the mosque to make their prayers. Frankincense is also used. Meanwhile the sheikh changes his dress and puts on the

special prayer garments, proceeds with the religious prayer, followed by preaching. And so I cannot therefore see any fundamental changes in the cult practice of the old and modern Palestine.

C H A P T E R V

INDUSTRIES

SECTION I Weapons

Introduction.

The introduction of metals for implements and weapons is so important that it may be said to mark the dawn of a new era. It was not so much that mere sharpness was greatly increased, for an implement of flint may be given a cutting edge as keen as, if not keener than that which could then be imparted to one of metal. The great advance lay first in the durability of the material and, secondly, in the variety of form attainable.

With metal, it became more possible to suit the tool to its work, and the old difficulty of brittleness did not arise. Moreover, a metal implement, even when broken, could be reshaped.

Nevertheless, the introduction of metal did not bring the use of stone implements to an early end. In considering metal weapons we are faced with a great range and variety, but we could say that the dagger was one of the earliest copper weapons.

Daggers:

Mrs. R. Maxwell-Hyslop had a very successful treatment for daggers and swords in Western Asia published in Iraq, vol.8 1946, pp.1-65. I am going to use her description for the

dagger types used in my treatment. Her arrangement is based mainly on the typological developments. Here I am trying to make a chronological order.

Type 25, Fig. 1, Pl. IV. This is a technically advanced type, and would be an efficient weapon. Unfortunately not many of the daggers can be closely dated inside the MB.II period, though some of them were found with phase IIA context.

It is a pointed leaf-shaped blade, with multiple longitudinal ribs, short tang with several rivets. Some of them have only two ribs on the blade.

The earliest recognizable dagger blade in the Middle Bronze period was of type 25. It appeared in Megiddo tomb 911 (1) with pottery context represented on top of my Chart Fig. I. In Megiddo they appeared also in stratum XIII (2) with a limestone pommell handle.

In Tell El Ajjul (3) examples were found in tomb 1417 of the Courtyard Cemetery dated Middle Bronze I according to pottery context, and in tombs 303C (4) and 1015 (5) which may be dated a bit later than the Courtyard tomb. Others were found in Gezer (6) tomb I and tomb deposit no.226, Jericho (7) tomb 9,

(1) Megiddo Tombs, Pls. 122:9, 118:5.
(2) Megiddo II, Provenance, W = 5087, Pl.178:3.
(3) AG.II, Pl.XIV:74.
(4) AG.III, Pl.XIX:10.
(5) AG.II, Pl.XIV:71.
(6) Gezer III, Pl.LX:6 and Pl.CXX:1. It was found alone in the deposit no.226.
(7) AAA.XIX, P_1.XXXVII:6. The type is a degenerate one.

and in Oud et-Tin of Bethlehem[1]. They therefore range in date from Middle Bronze I to my phase IIa. i.e. c.1900-1750 B.C.

The absence of type 25 from Tell Beit Mirsim E and D, Beth-Pelet, and Duweir (where it was replaced by other types, see below) suggests fairly well that the type was not in use after 1750 B.C. The type was not at all in use in the Late Bronze period, and to its appearance in Megiddo tomb 1100 D. represented on Plate 149:5-7 I could say nothing more than they were heft in the tomb when it was re-used in the Late Bronze period. The tomb is a shaft tomb, (i.e. EB-MB in date) and was re-used later.

The type was not restricted to Palestine; it appeared in Egypt as well as in Syria. Petrie in his Tools and Weapons presents one on Plate XXXIV:47D and on page 29 he states that "the clumsy shape of D47 might raise doubts of its antiquity; but the rusting of the rivets to red oxide of copper is certainly ancient. The lines impressed on the blade are unlike any Egyptian design, and it is probably a foreign blade, handled in Egypt in the Hyksos Age". Mrs. Maxwell-Hyslop mentioned it and stated to have been as early as the Eleventh Dynasty.[2]

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(1) R.B. Pere Vincent, 1947, Pl.VII and Et-Tin lies 5 km. south-east of Bethlehem to the direction of Khareitown where Arah El Ta'amereh lives.

(2) Iraq, vol. 8, page 26, 1946, Pl. III, nos 25; cf. Petrie, Diaspolis Parva "The Cemetries of Abadiyeh".

In Syria and Lebanon, Schaeffer supplied us with two from Middle Bronze I sites,(1) and none from later periods. Type 26.Fig.2, Pl.IV. It was of a narrow pointed blade, with a wide curved rib down the centre; narrow tang with one or two vertical rivets. 26 is of two variations, the first has a blunt point, the second has an extra curved rib on top of the central rib, and the point is blunt. This type appeared almost always in MB.II Phase IIA together with pommel handles of calcit or alabaster.

The type was not widely spread; one was found in Gezer tomb I, andther was found in Jericho tomb 9E, i.e. an earlier level than type 25 which was found in the same tomb layer C. Miss Kenyon has however shown that there is no true stratification in these Jericho tombs, since the objects associated with earlier burials were being piled against the walls of the tombs to make place for later burials. Relative heights of objects found therefore have no significance.

One was found in Tell El Ajjul tomb 1750 dated by Schaeffer(2) to the XII-XIII Dynasty with no rivets; another two were found in the city levels E700 with one rivet, the other in level 755 with two rivets.(3)

(1) Stratigraphie, Kafer Djarra, Ruweise (Lebanon)Fig.75 no.14, tomb 57; Byblos Fig. 61.

(2) Stratigraphie, Schaeffer, Fig. 123.

(3) ~~XXX~~. A.G. IV, Pl.XXV:262 with one rivet, A.G.III Pl. XVIII:7 with two rivets.

In Tell el Farah near Nablus the same type was found in Tomb A (I) belonged to a warrior. A bronze belt was found near the waist of the warrior which may be considered as a close parallel to that found in Jericho warrior tomb discovered by Dr. Kenyon with the only difference that the Farah belt is not embossed.

This type could be used either as a dagger or as a lancehead. It was of a narrow pointed blade, with a wide curved rib down the centre; narrow tang with one or occasionally two vertical rivets. It is of two variations, the first has a blunt point, the second has an extra curved rib on top, of the central rib, and the point is blunt.

The type may have been in use in Palestine with type 25, though it became in use most probably a bit later. It was found in Ajjul tombs that are somewhat later than the Courtyard tomb 1417, tomb no. 5. The type was found in Jericho tomb 9, layer E (2), i.e. earlier levels than type 25 which was found in the same tomb layer B.

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(1) R.B. LIV, Pl. XX (1947).

(2) AAA. XIX, Pl. XXXVII:5.

In Ajjul city levels two were found, one with one rivet, the other had two rivettes and both are in level 700-755; the first represented in AG. IV, Pl. XXV:262, the second in AG.III, Pl. XVIII:7.

The type was not found in Megiddo, Tell Beit Mirsim, Duweir, nor Beth-Pelet. Thus shows a very short period.

Type 17: Fig. 3, Pl. IV. This type could be used as an ordinary daily tool, for simple purposes or as a weapon; its use depends to a greater extent according to its size. "Early examples are known outside western Asia in the Aegean in Crete in EM.II-III and MM.I, where the sides of the blade are markedly concave and the centre often strengthened by a midrib"(1). The earliest was found in Jericho by Dr. Kenyon in 1952056, and the only one to belong to phase IIA in an outstanding tomb. It was a single burial of Middle Bronze Age date, the only signle burial of that period so far found. The burial was intact, except that the skull and been crushed by a piece of roof-fall. The dead person was obviously a young warrior. Beside the dagger type 17C lay the alabaster

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(1) Iraq, vol. 8, page 20, 1946.

pummel, and an axe, both typical of an early stage in the Middle Bronze Age. And on the other side of the tomb lay two other daggers of the same type, and two other axes.

A bronze belt, much decayed, but the embossed design was clearly visible, was found beside him (See P.E.Q. 1954, Pl.XVII.) It was common in Middle Bronze phases IIB-IV in Palestine, /and its blade was of different types. Mrs. Maxwell Hyslop divides them accordingly as follows: Type 17 [1] : triangular-shaped blunt blade, with flat base curving inwards at the centre; four rivets, and thickening down the centre of ~~black~~ blade.

17a [2] : The blade is pointed and has a well-marked midrib.

17b [3] : The blade is long and narrow, with slight midrib.

17c [4] The blade is flat and this was the most common type.

The absence of the type from Duweir [5] suggests that it was in use in Palestine earlier than type 27.

Type 27. Fig. 4/Pl.IV. The small tanged blades without a rivet, which have sometimes been identified as spear-heads,

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(1) B.P.I, Pl.IX:38, ibid. Plate IX, 46 and Pl.XI,76; see also BP.II, Macdonald, Starkey and Harding, Pl.XLIII: 18 tomb 1021.

(2) BP.I, Pl.VI,11 tomb 551; Megiddo II, Pl.178:14.

(3) BP.II, op.cit. Pl. XLIII:33 tomb 1018, with an ivory handle.

(4) AASOR, XVII, Pl.41:6,17 stratum D, also R.B. Pere Vincent, Pl.VIII (1947); Kaplan Aliqot I, Tell Aviv Harbour, tomb 6, Fig. 5, no.1.

(5) Olga Tufnell (forthcoming publication and Duweir IV) states that "having now surveyed the weapons available from Duweir, it will be seen that types 25,26 and 17 are altogether missing at our site".

are certainly knives, while the riveted form could be used as a dagger or for domestic purposes. Both forms are characteristic of the Middle Bronze II period. The general description for the type is flat, blunt blade, with well-marked shoulders, long narrow tang, and one or two rivets, others may be without a rivet hole. The type is found practically in every Middle Bronze II site in Palestine (1) especially phases III and IV. They appeared in Jericho tomb 9 and Gezer Cave 28 II M with mixed context.

The most interesting one among the type was found at Tell-el-Duweri. (1) It was inscribed. One side of the blade is seen to bear four pictographic signs, deeply cut; the two central pictographs form part of the Siniatic signary; of the other two, the upper one seems to be quite a new form, the lower one is found on early inscribed objects from Crete and the Aegean. "This inscribed dagger can be assigned quite definitely to a date perhaps before, but not later than 1600B.C." (2)

Type 31. Fig.5-7 Pl.IV The dagger is characterized by a "flanged hilt, usually cast in one piece with the blade, represented an advance in the technique of casting and working of bronze weapons. The fashion was widespread in

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(1) PEFQ 1937, Pl. VIII, Fig.1.

(2) ibid. pages 239-40.

in the Late Bronze I period, though it started in use in in Palestine at the end of phase IV of the Middle Bronze II period, where the type was seen in Ajjul level 700-750 which has been dated according to pottery context to the Middle Bronze II period, but it has not been noticed in other places in the MB.II than Ajjul. and Beth Pelet.

In some examples, the hilt and the blade are cast in one piece. The edges of the hilt and ricasso are raised to hold in place the inlay of bone, wood, or other perishable material. The general description of the type is a blunt blade, with straight sides, the section flat or slightly curved. The base of the hilt is crescentic-shaped; the sides are concave and small cut to two protuberances or rudimentary "horns" at the juncture of hilt and blade.(1) It has other variations of types.

The type was found in Ancient Gaza (Ajjul) on the tell(2) and in some of the tombs, that could not be dated to a period earlier than 1600 B.C. None was found in the Courtyard Cemetery nor in the horse burial tombs.

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(1) Iraq 8, ibid. page 35.

(2) AG.III, Pl.XVIII:4, 1022 = AT.722; AG.IV Pl.XXV:263 city level 700; AG.IV, Pl.XXVI:268, city level 760.

(1)
The tombs found in Ajjul that have the dagger type 31 are three in number and they range in date c. 1600-1500 B.C. But the type was very common in the Late Bronze period of Palestine. In Beth-Pelet a similar type was found in the bilobate tomb 554 which may be dated to our Phase IV.

In Syria this type was found by Schaeffer, Ugaritica I Fig. 63u, with three rivets, one in ricasso, the others at base of hilt. Another was found in Tomb LVI and LXV having four rivets. Schaeffer dated the former to the 16th century and the later to the 17th-16th centuries B.C.

From Egypt we have a decisive chronology of the type. From the reign of the Hyksos king Apophis NebKhepeshre there
(3)
is a dagger of the same type as ours, found in a tomb at Sakkarah. "This king", Soderbergh states, in JEA, vol.37-38, 1951-52, p.70, may well have been Kamose's opponent. The dagger was found in the tomb of the Semite Ibd, and

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(1) AG.IV, PL.XXV:261, tomb 457, a circular pit grave; ibid. PL.XXVIII:295 tomb 1309, and no.294, tomb 1231.

(2) B.P.I. PL.XI:82.

(3) J.E.A, vol. 11,, 1925. " A bronze dagger of the Hyksos period", by Warren R. Dawson. Plate XXV. For a detailed description, see pp.216-217. There is also in the British Museum a bronze dagger, no.5425, which except for the fact that it is uninscribed, is an exact duplicate, and the two have the same measurements. See for it Petrie, Tools and Weapons, Pl.XXXIII, Fig.29.

originally belonged to another Semitic warrior "His Lord's follower 'Nhmn' ".

The type of dagger itself, Fig. 7 with its inlaid handle, is a new type to Egypt, and is easily compared with ours; these facts demonstrate that the Hyksos had close contact with Palestine and Syria, whence they drew their technical strength in warfare during the last decisive struggles against the Egyptians, who, in turn, relied on their African hinterland.

Thus we have probably succeeded in establishing some kind of a chronological order for some of the daggers used in the Middle Bronze Ages.

Phase	Dagger type	Date
Middle Bronze I	25	1900-1800 B.C.
Middle Bronze II Phase IIA	25, 26, 17	1800-1750
Phase IIB	17	1750-1700
Phase III	17, 27	1700-1650
Phase IV	17, 27, 31	1600-1550
Phase V	Nil	1600-1550
Horse burials		
Late Bronze	31	1550-

Other Weapons.

Since I have no place to treat all types of weapons fully here I shall content myself with a brief summary. The nature of the evidence for dating the axe-heads, adzes, arrowheads, spear-heads and knives in Palestine is unsatisfactory, because they are very rare especially in the Middle Bronze II period.

In Palestine as well as in any other Near Eastern countries, presumably the same conditions were enjoyed by metalsmiths in the past as today are found among the gypsy, the travelling blacksmiths of villages and desert who are granted certain immunities by villagers, and bedouins can travel from place to place, and can trespass tribal lands and boundaries on account of their useful activities. If in periods of invasion and war metalsmiths were the only people able to travel easily, this may explain the destribution of some of the types of metal weapons in Palestine, Syria, Mesopotamia, Anatolia, Iran and Egypt.

To mention the differences between an axe and an adze is very necessary to state here: "An axe has the edge parallel to the handle, an adze across it. Other differences between the tools arise out of their different uses. The axe is mounted into a handle, or

vice versa, while the adze is in general bound to a handle. The axe is equal-faced and symmetrically edged; the adze has one face longer or flatter, and is usually ground on one side. The axe is used to drive into wood and split it; the adze to take a thin slip off a larger mass. The axe usually had a short blade and a means of pulling it back and twisting it loose from the grip of the cloven wood;..The axe was thick to carry weight and bear shock; the adze was thinner as its momentum was less important". (1)

Axe-heads (Fig. 1,Pl. V)

They appear in tomb 911 of Megiddo. Common in Palestine in the MB.I period, such a type appears together almost always with the dagger type 25, and sometimes with type 26. Therefore it has the same history as the dagger, so that I find no necessity to mention the provenances again. Such type of axe-head does not appear later than phase MB.IIa.

Figure 2 is very common in Syria, but very rare in Palestine and the only examples there are to be dated to the E.B.-M.B. period.(2) In Syria, however, it seems to

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(1) Technology, page 505.

(2) Miss Kenyon, Eleventh Annual Report of the Institute of Archaeology.

have continued in use till c. 1800 B.C.

Fig. 3. The type was found almost together with dagger types 26 and 17. It is later in date than Figures1 and 2; and should be dated to phase IIA of the Middle Bronze II period. The type is represented in Jericho, Ajjul, Megiddo and Tell el Farah of Nablus district; No. 5 is from Jericho tomb 9; No. 6 from a tomb in Tell Aviv Harbour.

Fig. 4. These are the most crude, and show no artistic value. They also have a long history, dating from the Early Bronze Age. They were found in MB.II phases IIB-IV. In Ajjul, Tell Beil Mirsim, Jericho and Megiddo.

Adze-heads (Fig. 8 & 9, Pl. IV)

None has been noticed in Middle Bronze I or early phases of Middle Bronze II. They were common in the middle of the period. Some of the adze-heads are done in Palestine, e.g. Tell Beil Mirsim provided us from stratus D with a limestone (nari) mould (1). Three sides of this mould were used for matrices while one side is blank, a fact which suggests that the mould was unfinished. The upper side on the Plate has matrices for an adze and for three knives (two of them sharing the same matrix, end to end, and evidently separated by the copper-smith after they had been cast); the upper side has only two matrices, one for an adze, the other evidently for a brooch.

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(1) A.A.S.O.R. XVII, page 53.

The third side, i.e. the lower one has only one matrix, for a knife about 43 cms. Beside ittwo basins were found for melting copper.

Another mould for casting bronze implements and weapons such as axes were found with the mould and have most probably been cast from it. It was discovered in Balatah (Shechem)(1).

Adze-heads were common in Ajjul(2) city levels and are of different sizes and weights, yet they have practically the same type. Jericho(3), Gezer and Megiddo had some. Every other Middle Bronze II towns would most probably have used it.

Lance or Button Spear-head.

Megiddo(4) produced a unique piece of bronze object, Pl.V, Fig. 7 from a structural tomb said to belong to strata X_I-X, which from its contents should belong to phase III(5), In Byblos tombs 1 and II one of the same type (but not exact) was found.

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(1) Technology, page 678.
(2) AG.IV, Pl.XXV, no.254, level E = 700; AG.III, Pl.XXII, nos.90 and 91 level AT = 695-995 and LF 946. See also AG.III, Pl.XXII, no.93; AG.IV, Pl.. no. 253.
(3) A.A.A. XIX, tomb 9, and X^XI, Pl. XXVI.
(4) Megiddo II, tomb 3095, Pl. 185, no.3.
(5) Schaeffer, Fig. 63: i.

Spear-heads.

They are of different sizes and types, mostly socketed; a few are tanged. Spear-heads of earlier burials are apparently of copper, but in all cases where we have evidence, they are of bronze in the Middle Bronze Age. They are almost always found together with dagger type 25 (pl. V Fig.9-13) in Palestinian tombs.

They were found in Ajjul (1), Gezer (2), Ras El Ain (3), and abundant in Megiddo (4). The same type of socketed spear-heads has been found at Byblos (5) associated with pottery, some of which are comparable to Megiddo forms. It is known also from the second stratum at Ras Shamra (6) which contained XIIth Dynasty pottery and painted pottery similar to examples represented on my pottery Chart (end of phase MB.I) (7) In inland Syria at el-Mishrife (Qatna) the same forms as those of Megiddo were present in tomb I. All of those found in Syria and Palestine should be dated according to pottery context found with them to the 19th-18th centuries. And thus, we see that the same cultural element

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(1) AG.II, Pl.XIV: 75 tomb 1417 of the Courtyard Cemetery; AG.II, Pl.XIV:72, tomb 1015; AG.III, Pl.XIX:9, t.303 which is a bit later in date than the Courtyard Cemetery.

(2) Gezer III, Pls. CCXVI-CCXVII, First Semitic period. Tomb I and Cave 28II had none in them.

(3) Ras El Ain, QDAP.6/1936, Pl.XXXII:5 and 7) graves 2 & 4.

(4) Megiddo tombs; Tombs 911,912; Megiddo II, Prov.3509, 3512, 3492, 3492, 3493.

(5) Montet, Byblos, Pl. CXLIX:942 and CXLVII:931-32.

(6) Schaeffer, Syria XIII, Pl. XIII:1.

(6) Du Buisson, Syria VIII, Pl. XIII:47.

in spear-heads and daggers type 25 seems to have developed contemporaneous in Syria and Palestine.

None of the spear-heads were found in Middle Bronze II Palestinian sites.

The Composite Bow.

Bows are made of perishable materials, therefore actual remains of them ordinarily do not survive; evidence as a rule comes from representations. The earliest example of such representation in Palestine is depicted on the scarab found by Garstang in Jericho tomb 5 (1). The type and the style of work of the scarab show it to be of the XVIIIth Dynasty period, another scarab was found in Megiddo stratum VIII (2). In Egypt they do not appear until the New Empire. The composite bows were made most probably of several strips of horn and wood glued together.

The bow has, however, a long history in the Near East. It is known in Mesopotamia in the Dynasty of Accad (c. twenty-fourth century B.C.) (3).

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(1) AAA.XXI, Pl. XXVI:5F. Stratification of Garstang's tombs are unsound.

(2) Megiddo II, Pl. 152:154, Provenance W ≙ 5083. cf. Newberry, Scarabs, Plate XLIII:35-39; Petrie, B.D.S. Pl.XV, no.94.

(3) I.N.E.S. I (1942) Albright and G.E. Mendenhall "The Creation of the composite-bow in Canaanite Mythology."

Arrowheads.

Arrows are made of flint, copper, or bronze. Those of flint are usually polish flaked on both sides, those of bronze have mostly a square tang, some have a central rib, others are socketed.

The mode of attaching the head to the shaft varies with the material. Reed is the earliest kind of shaft, naturally straight, stiff and light. The heads are necessarily fastened by a tang, the reed being bound with thread to prevent splitting. On the other hand when wood is used for shafts, a tang is impossible, as a slender shaft cannot be bored; a socket head is therefore necessary. The use of wooden shafts is therefore not possible until archaeological advance makes it possible to cast sockets.

In Middle Bronze I and II periods in Palestine arrowheads are few in number if the evidence of their provenance is to be accepted as sound, while in the Late Bronze they are very common. Those attributed by excavators to the MB.II period must be considered critically in the other context of objects found with or beside them. A glance at the list grouped below show the correctness of my above statement.

No.	City	Provenance	Illustration	Description	Date
1	Megiddo Tombs	T.911C	MT. 120:12. 1:2	Intact,T.006,"Bronze", central rib.	MB-LB
2		T.912 A1	MT.123:20 2:5	Intact,t.007,"Bronze", central rib.	L.B.
3		T.42	MT.107:15 act.	T.005, "Bronze", square tang.	MB-LBIV
4		T.3	MT.135:10 act.	T.015 "Bronze", square tang.	L.B.
5		T.876	MT.142:8 act.	T.007 Flint double feather flaking on both sides, polished and tanged.	L.B.
6		T.1100A	MT.145:9 act.	Intact,T.005,Bronze, square tang	L.B.
7		T.1100D	MT.148:19 act.	T.008,Flint, double flaking.	L.B.
8		T		On both sides; tang missing	
9		T.217A(1)	MT.89:2 act.	T.004 Bronze, square tang	L.B.
10		T.1	Mt.153:2 act.	Intact,T.007,Bronze, square tang?	? No pottery
11		T.26B(2)	Mt.155:7 act.	Intact,T.007,Bronze, square tang	L.B.
12		T.36B	Mt.156:4 act.	Bronze,	L.B.
			Mt.15:5 1:5	Bronze	L.B.
13	Megiddo II	Rooms W= 5226	MII.167:10 act.	T.008 Flint	? alone
14		XII= 5077	MII.174:1 act.	T.008 Bronze	?nopottery
15		XII.T.2138	MII.174:2 act.	T.008 Bronze square tang	MB-LB
16		X. T.3167	MII.174:4 act.	Intact T.006 Bronze	MBII?

No.	City	Provenance	Illustration	Description		Date
17	Megiddo II	X.T.3167	MII.174:4 act.	Intact	T.006 Bronze	MB.II?
18	T.B.M.XVII	StratumD-C?	Pl. 41:9		Bronze	MB-LB

(1) This Late Bronze tomb (no. 217) has a very particularly interesting new type of female goddess figurine.

(2) ibid. Pl.

Albright in T.B.M. XVII§59, p.52, states that "A number of copper arrowheads were found in the course of three seasons of excavations in Middle Bronze II layers, but most of them were broken or bent when found; no. 9 is a good illustration (from D)". See ~~Fig.~~ Pl. 41 no. 9. It is a pity that others are not either represented or their provenance mentioned.

Megiddo is the only other site that has arrowheads said to belong to Middle Bronze II period. Let us examine their provenance:

(a) No. 1 found in tomb 911C. This tomb was used for a very long period (EB-MB-Late Bronze II) but no continuously. Anyhow the objects said to have been found in layer C are three in number. The bowls no. represented on Pl. are of the Middle Bronze I period. The chalice represented on Pl. is of the Late Bronze period. Therefore this tomb layer is not homogeneous and so we consider the provenance unsound.

(b) The bone arrow- or lance-head no. 17 Fig. found in provenance 2005, represented in Megiddo II, Plate 174:5 had beside it a chalice described as buff, lightly fired, poorly made and wet smoothed. It falls nearly in phase Iv on my Chart.

(c) Tomb 3167 of Megiddo II has a bronze arrowhead no. 16, Fig. With it was bowl type 220, Plate 44:39 described as buff, gritty and wet smoothed and falls into

phases III-I V of my pottery Chart.

The bronze arrowhead with the square tang found in Megiddo II tomb 2138 is very interesting to discuss because of the contents found in this tomb; most of them belong to phase IIB on my Chart. They are:

1. Piriform jug type 142, Pl.24:3 (single handle, orange wash and well burnished).

2. Piriform jug type 145, Pl.24:8 (single handle, lightly fired and wet smoothed).

3. Dipper juglet, type 192, Pl.26:9 (orange buff wash, spaced vertical burnish).

4. Bowl, type 101, Pl.28:13 (well fired and wet smoothed)

5. Bowl, type 146, Pl.29:15 " " " " "

6. Two bowls, types 150-151, Pl.29:22-23. Well fired and wet smoothed.

7. Bronze toggle pins, fragmentary and not represented.

8. This is a very interesting jar, unique in Megiddo. Type 73, Pls.27:2 described as having a spaced vertical burnish with a red decoration. Three other plain miniature jars of the same type were found only in Palestine; one was found by Dothan(1) in Nahariya (description and exaat provenance not given); the second in Ajjul tomb 1630(2); the third in tomb 457(3). The contents of Ajjul tombs show a transitional MB-LB period.

9. Of particular interest is the faience human female figurine (goddess) represented in Megiddo II, Pl.241:2. This type of human figurine has not been noticed elsewhere in Palestine. The exact parallel figurine was found in Megiddo II, tomb 217A (Pl.89) with purely Late Bronze context. Another typical figurine was found in Megiddo II tomb 26B (Pl.) with an also purely Late Bronze context.

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(1) I.E.J. 6, no. 1, 1956, Pl. 3:c.
(2) AG.III, Pl. LIV: 55 W 11.
(3) C.P.P. 55 W 7.

Though no description for tomb 2138 is given, one could say either the tomb was in use in the Middle Bronze II period, and then re-used in the Late Bronze period, or some of the objects of the Middle Bronze II were in possession of those who introduced the arrowhead, the painted decorated jar, no. 8, and the human female figurine no. 9, which undoubtedly belong to the Late Bronze period as the other two tombs in which the same type of figurine was found have already shown. But I am wholly inclined to consider this tomb was re-used in the period of Phase V, i.e. the sixteenth century.

To sum up in short we say that the evidence collected from all Palestinian Middle Bronze II sites, show that the arrowheads were not in use in Palestine before the sixteenth century, i.e. in the same time by which the composite-bow and chariots were introduced. Thus shows a new method of war technique had been introduced, [illegible] by the Hyksos.

The evidence of the occurrence of arrowheads, where it can be accurately checked by the context, shows that they are virtually absent from Middle Bronze Age deposits. The exception is apparently Tell Beit Mirsim in Stratum D, when the statement is vague, and it may be that the presence of Base-ring indicates that the stratification was not sound. The reservation should however be made that

bronze arrowheads very easily corrode and become shapeless, and that earlier excavators might not think such corroded fragments were worth publishing.

Conclusion

We have seen that the Middle Bronze II citizens of Palestine had used the spear (if any at all) at the very early period of phase IIA, i.e. 1750, though it was in common use in the Middle Bronze I period. Meanwhile they have used the arrowhead(if at all) at the very end of phase V, i.e. sixteenth century, and so with the composite-bow.

Their weapons were probably nothing more than a dagger and an axe; a dagger type which was not so strong and fatal as those of earlier and later periods; and so also their axe.

Thus we may establish a new fact, that the Middle Bronze II people were not at all warriors, the majority may have been shepherds depending mostly on the sling, irrespective of some tribal leaders whose tombs were found to contain a dagger or two, a battle-axe and a bronze belt.

Section II : POTTERY

Bowls - Inverted rims.
Straight sided.

Bowls are either shallow or deep; small, medium or large, and all are wheel-made. Those of Middle Bronze I phases mostly exhibit a combination of horizontal combing on the wheel with vertical burnishing on a hand-made red or orange slip. The burnish was elaborately done on both the inside of the bowl and on the outside, and sometimes in and out. The rims of the bowls were mostly inturned and broad-ridged with bases generally flat or disc.

At the later phases of Middle Bronze I and phase I of Middle Bronze II we notice that the red wash burnished technique became rare, and the broad ridged rim was totally replaced by the inturned (inverted) rim (1) which became very common in the Middle Bronze II phases. The base was also changing from a flat disc to a slightly concave disc type.

Meanwhile the straight sided bowls (2) started to become dominant, replacing partially the (inverted) inturned types until phase III of the MB.II period where the straight-sided were the common characteristic type of bowls;

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(1) Albright, AASOR XII.

(2) Albright, T.B.M. vol. XIII, pl.10, 5 and 8 E.
cf. also Macalister Gezer III, C 2811, P_1.XLI,5-6;
Petrie, Fara, see Corpus of Palestine pottery
21B1; Garstang, Jericho AAAXXI, P_1.XX:12, Palace store-rooms.

the red slip totally disappeared, the burnishing was very rare and a plain wet smoothed surface was abundant.

The bases of these straight-sided bowls range from the slightly convex disc base at its start to a ring base at the middle of its use, to a highly raised ring base at Phase III of the Middle Bronze II period.

Carinated Bowls

The great majority of carinated bowls are wheel-made wares of first-class quality, made on a fast wheel appearing fully developed[1] as on our Chart in the MB.I period. Many of the forms are remarkable for their sharp and angular profiles, strongly reminiscent of copper or bronze. Good illustrations of metal prototypes are found among the exvotos in the foundation jar of Byblos. (Byblos, Pl.LXXI:605 silver, 607 copper.)

They have a reddish slip with a high burnish[2]; this burnish was most probably intended to produce a metallic appearance. Some bowls exhibit a combination of horizontal combing on the wheel with vertical burnishing[3].

The rim was turning out, generally grooved, i.e.

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(1) University of London, Institute of Archaeology, "The Archaeology of Palestine" 1953, p.18; As to their origin see Albright, AASOR XIII; 16-18, pps69-70 and op.cit. XII:20.

(2) cf. Illife, QDAP, vol.V,1935, Ras El Ain, also Ory, QDAP,vol.6, 1936 Ras El Ain; Albright AASOR,T.B.M.vol. XII,Pl.41(G-F); AG.II,Petrie,Courtyard Cemetery,Pl.XXVIII, nos.25E4,G5,S28,P3,P5. have also the same type of flat or disc base and some have the grooved rims.

(3) Illife,op.cit; Albright,op.cit.XII,Pl.41:3-5.

hollowed inside as if to secure a bit (1). The base was mostly flat or disc, and sometimes burnished, nearly always smoothed with the hand after being made on the wheel (2) so as to remove the wheel-marks and give an illusion of metal-work.

Albright in T.B.M. XII, p.14, states that "they were first imported into this part of Palestine in I-H, probably in the early part of this period, but they did not become acclimated, so to speak, until period G, when they are abundant and attain forms never surpassed in beauty later ..... It may, of course, be that the pottery in question originated in Syria itself, in imitation of metal vases of Mesopotamian origin, but the latter have yet to be found".

The variety of these extraordinary carinated bowls of the most graceful forms and often of the most equisite finish belonging to our earlier phases of Middle Bronze I show that this class of pottery became exceedingly abundant, but the forms are generally not so delicate (the groove inside the rim is lacking, and the red burnished slip started a gradual degeneration, and this shows that the type had begun to decline in phase II as appears on the Chart to

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(1) Iliffe, QDAP, vol.V, 1935, Ras EI Ain, Fig. 1, 52, 64. See also Ory, QDAP, Vol.6, 1936, Ras EI ain.

(2) Albright, ASSOR, T.B.M. vol.XII, Pl.41(G-F).

which most of T.B.M. level E naturally belong)[1]. The use of burnish during the following phase III was already becoming less common[2], a process which continued to the end of the phase, so we can hardly be surprised to find the practice of burnishing almost extinct at the end of phase III.

High shouldered Bowl
"Goblet"

A fine goblet, with low or disc base, rounded body, flaring rim, ending with a wide mouth. It appears in phase I on my Chart with a red burnish. The base changes from disc in earlier periods to ring base in later periods.

On the Chart, Fig. I[3] phase I, tomb 3137 is an artistically, well fired work, with a spaced horizontal red burnish. In the other Megiddo tombs of later period e.g. T.3175[4] one with a horizontal burnish was found; T.2143 had a cream slip with a burnish outside; T.2026[5] [6]

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(1) Albright, ASSOR, T.B.M. vol.XIII:29-30, Pl.8E:1-10. Photograph in Pl.23 E nos.6-7, 9 and 10.

(2) Albright, op.cit. XIII:33, Pl. 12D:1-6, Photo. Pl. 9D5,6,7; XII, Pl.42D 4-8.

(3) Megiddo II, Pl. 28:10, T.3137.

(4) ibid. Pl.36:10, T.3175.

(5) Ibid. T.2143.

(6) Ibid. Pl.36:12.

had a gritty, wet smoothed and without any burnish; T.2145[1] has been only wet smoothed and without any burnish also.

In Tell Beit Mirsim stratum E[2] two were represented on Plate 8:11-12. The first is plain while the second is burnished. In stratum D the burnish totally disappears on those on Plates 12:7 and 13:8.

If we could accept those in G-F of Tell Beit Mirsim shown on Plate 4, nos. 6,11-12 to be of the same family (irrespective of size) we confirm that the type was in use in the Middle Bronze (Phase I) in Palestine, which may strengthen our views on those of Megiddo.

In Jericho[3] one could see the same development as in Megiddo and T.M.B., the one found in the kilns front represented on Plate XVIII:32 is of red ware, gritty and having a tan slip with a burnish, while that of Palace store-rooms represented on Plate XIX:12 is of buff ware with a white slip and brown (decoration and unburnished).

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(1) Megiddo II, Pl. 28:12.

(2) ASSOR XIII, Pl.8, 11-12.

(3) AAA.1933.

The type was common in Jericho tombs.(1) In the lower layers E and D, Pl.XXXVI:6-5 with a cream slip and burnished; No.6, cream slip with an out-turned rim, no. 7 had a burnished slip with an out-turned rim; no. 8 wet smoothed; no.11 with a burnished slip; no.12 wet smoothed; no.13 with a slip; no.14 wet smoothed and so no.15.(a-c)

While in the upper layers,none is burnished. On Plate XXXI, no.6b is wet smoothed, no.7b with a cream slip, no.8c black slip, no.9a wet.smoothed.

In Ajjul one may recognize some, though the drawing is not clear. In city level 740 = 1040 one represented in Ajjul III:Pl.XXXVI:41R^{2}, and in Ajjul IV,Pl.LII:40j four have been dug out of level E764; two others were found and could be taken probably as parallels.(2)

This type may be considered as a prototype for and a predecessor to the three looped footed bowls (goblets) and may have been a clue to the Jericho goblets, though both were in contemporareous use in MB.II sites in Palestine.

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(1) AAA 1932, Tomb 9. Also AAA.XX:1933 Tomb 19, Pl.III, nos.2 and 3, Tomb 31 Pl.V, nos 4a, 5c and 76, and Tomb 31, Fig. 4, nos. 7a and 8a.

(2) Petrie, AG.I, Pl.XLIIIA^{9}, and Pl. XLVI^{7} :112 AC.

They do not appear in Fara (Beth-P$_e$let) and Duweir. In Syria they do appear in Ras Shamra[1], Fig. 10:6 and p.111, Sin El Fill (L$_e$banon)[2] and so in Ruweisie-Kafer-Djarra[3].

Shipton says of them in article 82, page 24 in Megiddo Pottery "that these vessels had the same wide geographic distribution as the red wares of stratu XV-XIII".

Jericho Goblets

The trumpet-foot vessels, as Albright describes them, have an angular or rounded shoulder on a body which tapers to join a flared pedestal base. The neck is wide in proportion to the foot, and the rim is often well everted. In a later stage of development a ridge (collar) appears at the junction between neck and shoulder, and possibly in the last phase of its development another is added where the body joins the foot.

In phase IIA the surface is continuously burnished on a rich dark red slip. The burnishing may be applied horizontally with the wheel in motion (wheel burnished) or

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(1) Schaeffer, Syria XIV, Fig. 10:6, p.111.

(2) Schaeffer, Stratigraphie, Fig. 73, no.5, with an MB.I context.

(3) ibid. Fig. 75, no.2, T.43, and Fig. 76, Fig. 76, T.XXV: 3 with an MB.II context.

it may be applied by hand (hand burnished) or both processes may be employed successively. Those of T.B.M.[1] "are mostly burnished on a rich red slip". Very common in stratum E, others , few in number, were found in D represented on Plate 12:9[2] and 43:4a[3].

At Jericho the type was very common so that I am inclined to name them 'Jericho goblets'. They were more rounded in outline than those of T.B.M. and the greater number were burnished on a cream slip, others of later phases were of plain drab or buff ware, with wet smoothed and without a burnish.

In Megiddo[4] it seems to appear only in two tombs, T.4043 which is somewhat structural of two levels; ours on Pl. 44:9 was found in the earliest level of the tomb. It is intact, fine,buff to gray buff, minute grits well fired, well burnished outside. The second was found in Tomb in 4004 which is a doubted provenance.

Ajjul[5] produced one only with rounded shoulders,and having a collar (ridge) on neck and base, and so in Gezer (6)

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(1) AASOR XIII, Pl.7:12-14, 18, article 29, p.77.

(2) ibid. Pl. 12:9.

(3) ibid. XII, P_1. 43:4a.

(4) Megiddo II, Loud, Plates

(5) AG.III, P_1. XXXIX,62 Q. p.697.

(6) Gezer III, Cave 2811, Pl.XXXVIII:2.

but with highly angular carinated shoulders, which is of close parallel to that of T.B.M.:E,Pl.23:1. The type was also found in Tell El Farah of Nablus; Owad El Tin in Bethlehem, and Kalandia Air Port beside Jerusalem, discovered by the writer. Only two of these goblets were found in Megiddo while none in the structural tombs; none has been found in the Tell Aviv Harbour or Al Jisr cemeteries, neither in Nahariya nor in Beth-Pelet.

Thus one may suggest that the type was a product of inland cities; they like it more than the citizens of the coastal areas who had probably produced and used the other type i.e. the high pedestal trumpet goblets (Megiddo goblets). Both types appear on the Chart for the first time on Phase II, burnished with a red slip. The burnish started to decline, losing its red slip, and at the end of its use i.e. the very beginning of phase III, they were wet smoothed with a buff cream slip, and without any burnish at all.

High pedestal (trumpet) Goblets.

"Megiddo Goblets"

This type is closely related to the class described above, but show a variety of forms. They are of the carinated type vessels, but on a high trumpet foot, with sharp carinated waist, with flaring shoulders and a wide mouth. None of those found have the red slip burnishing,

they are mostly wet-smoothed, few are burnished.

This type of goblet appears on my chart to have been started at phase IIB and later than the Jericho goblets mentioned above. The one represented on Megiddo Plates 15:10 which is said to belong to provenance 5155 in stratum XIV is erroneously stated so, because the other objects found with it are a wet smoothed dipper represented on Plate 12:13 and a wet smoothed ringed base bowl represented on Plate 14:23, together with lamp type 2. All of them clearly show that they belong to a much later date than stratum XIV, and they fall obviously within my phases II and III and not at all earlier.

Among the 12 goblets found in Megiddo[1] none has the red burnished slip. One found in the structural tomb 3095 which is the earliest had a vertical burnish outside, while all the others are wet smoothed and without any kind of burnish.

Ajjul produced an incomplete one found in a grain

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(1) Megiddo II, Pl.29:5, tomb 3095 (burnished); Pl.29:3, T.3095 W.S. Pl.37:5 Prov.3096; Pl.37:7 Prov.3096 and Tomb 3085; 37:8 Prov.3096 are all wet smoothed; Pl.44:24 Prov.2032; Pl.44:25 Prov.2024; Pl.44:26 Prov.2032; Pl.44:27 T.3048 all are wet smoothed. One notices that they are common in structural tombs; and not in any other tomb.

pit 269 represented in AG.I, Pl.XXXIX:23W. Beth-Pelet had none.

In Tell Beit Mirsim[1] one appeared in stratum E with a burnished greyish buff surface, another in Stratum D covered with a rich white slip. Gezer[2] cave 28.11 gave us one represented on Plate XXXIX:4. Jericho[3] palace store-rooms 30 and 39 produced two unburnished ones. The absence of such a type in all the tombs discovered by Garstang 1932-34 suggests for me that the type should have been favoured more in coastal regions. Though Dr. Kenyon found some in her Jericho excavations of 1952-56, yet the type is rare in Jericho and should have been introduced there in a later period than the Jericho goblets discussed before.

Three looped-feet goblets.

There are good forms of MB.II period. The body is rounded, the base is made up of three vertical looped feet, adhered to the bottom of the goblets. Whether they have a spout, a handle or not, they are all plain and unburnished.

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(1) AASOR XIII, Pl.8E:13 and AASOR XII, Pl.43:6D.

(2) Gezer III, Pl. XXXIX:4.

(3) AAA.XXI,1934, Plate XXI:2, with a brick slip R.3 and Plate XXII:14 with a cream slip (room 39).

In Megiddo, one buff gritty goblet set-smoothed (1) was found in tomb 3064, phase IIB on Chart, another parallel (2) was found in T.B.M. stratum D, but differs slightly in rim, that of Tell Beit Mirsim appears to the somewhat earlier, and more related to those found in Jericho tomb 9 lowest layers.

In Jericho (3) they appear in the lowest layer of tomb 9. They appear with an out-turned rim, having a spout and a handle with base slightly rounded and wet smoothed with no decoration.

In the upper layer the handle and spout disappear, the out-turned rim displaced by a long flaring neck, the base changed from rounded to somewhat flatish, and so in tomb 31 (4) the same features appear as in level a, and with the same decoration of concentric lines around the upper half of the body.

In tomb 4 (5) they appear with nice decoration of dark purple colour; with a collar round base of long neck, and in

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(1) Megiddo II, T.3064, Pl. 38:11, type 193.

(2) AASOR XIII, stratum D, Pl. 14, no.3.

(3) AAA.1932, Pl. XXXIII:5 and 8.

(4) Ibid. no.6; ibid. 1933, T.31, Fig. 4, P.10.

(5) Ibid. 1933, tomb 4, Pl. XVI:10C.

type they are parallel to those of tomb 9, layer a, and the only one of Megiddo. All are found unburnished. One base fragment was found in Ajjul[1].

The type had been considered by Shipton as reminiscent of goblets discussed above represented on the Chart, ~~Fig~~. no. I phase I. But one should not ignore the fact that they were in contemporaneous use in MB.II sites in Palestine.

The type is not seen at Fara, Gezer, Duweir, Megiddo structural tombs, nor in Jericho Palace store-rooms.

The Piriform Juglets

For the sake of facilitating the study of this very important type of juglet, I would like to divide them according to the surface treatment of the ware to (a) burnished (b) pricked, and (c) plain.

In the Early Bronze Age, and thereabout in the EB.III, juglets of a piriform shape are very common. They differ from MB juglets in their neck form and proportions, and in being largely handmade. Moreover,

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(1)

in the EB-MB phase there are no corresponding vessels. It is therefore probable that there is no connection between the juglets of the two periods, at least in Palestine.

In Megiddo tomb 911A1 (1) of the MB.I period, we find the style with a somewhat flatish base, and a longer ridged neck. It has been recognized in tombs of strata XIV and XIII. Shipton states that "on the Megiddo evidence alone, it appears that this was the forerunner of the so-called Tell el Yahudiya juglet" (2). One could see the close parallels to those of Megiddo in Ras El Ain. (3)

In a later stage, ie.e. the very beginning of the MB.II as seen in Megiddo tomb 24 (4) and in Jericho tomb 9 (5) of the early layers, and Gezer tomb 1 (6) early levels, as well as in other later tombs of other towns, these piriform juglets started to become common in use, and

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(1) Megiddo tombs, Pl. 28, nos. 41 and 42.

(2) Shipton, Megiddo pottery of Strata V-XX.

(3) Ory, QDAP, vol 6,1936, Figs. 69, 36 and 37, p.125.

(4) op. cit. Pl.23, nos. 24-26 and 28.

(5) op.cit. tomb 9, layers E, Pl.XXXIV:2, and layer d, Pl. XXXIV:1.

(6) Gezer III, Pl. LX, nos. 7 and 9; Pl. LXII, nos. 35,41 and 43 of MB.II.

we see the potters of the MB.II period practice the production of several types of the same family. The body is either squat, rounded, and the majority were elongated. The loop handle extends from rim to shoulder either plain or with a button, and it may be single or double and very rarely triple. They may have either pointed, rounded, i.e. knob or button bottom, or with either a disc or ring base. The ware was mostly black or grey brown, polished with mostly black or gray slip and burnished. All are wheelmade.

One may recognize from the charts (Chart I) that the rounded globular body started earlier than the elongated body where the former was most dominant in Megiddo and Gezer, than any other inland town in Palestine. The purnished piriform juglets were common in early MB. periods, abundant in the first tow phases of the MB.II period and contemporary with the priched piriforms, while in the later phases they have been gradually replaced by the cylindrical juglets. But we should not ignore the fact that both the piriforms and the cylindrical were in use contemporaneously for a short period of time, i.e. at the end of phase II.

The pricked technique and the Tell El Yahudiya juglets.(1)

The pricked technique is some kind of ornamentation,

(1) They were named so after the site in the Delta where it was found in abundance.

introduced about the 19th century. It has been mostly practised on juglets having a slip and burnished surface. The technique of pricked ornamentation of puncturing were of various designs filled in with a white chalky paste or pigment; it was noticed on certain types of juglets and vases. The juglets were mostly piriform with rounded or elongated bodies as seen in Figs Pl VI and on some of the cylindrals.(1) The vases were mostly of a miniature type. (~~Fig~~.). The size, and the fact that they are decorated, suggests that they were used for perfumes and perhaps for oil. The miniature vases confirms their use for such a purpose.

The first evidence for the use of such a technique was noticed in Jericho tomb A, layer 4, ~~Fig~~. Pl VI no.1. It has been stated by the excavator to have belonged to MB.I but subsequently corrected to EB.III. The juglet has been described to have been of black ware, piriform, with slightly elongated bottom. The upper half, rim and handle, are decorated with white spots. In form of body it looks as no. 9 found in Gezer, and as those burnished undecorated found in Nahariya (Fig. 26 a-c ?)(2). The decoration on no. I of Jericho and 9 of Gezer was limited to the upper half of the juglet.

* QDAP XII

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(1) Q.D.A.P., 1950, Ben Dor, Fig. 26d-c.

(2) Megiddo tombs, Guy & Enberg, Tombs 911A1 Pl.28, and.40.

4.4.148.

It would, therefore, appear that this technique of decoration was in use in EB.III. It is not however found in EB-MB. An early MB.I period is suggested for other pricked juglets. They were found together with the four-pinched-nozzle-lamps. The first was found in Nahariya no. 29 on ~~Fig.~~ VI which is unique in style of base. (The small flat base, slightly convex, incised lines and rows of dots inlaid with white paste.) (1) In Byblos the pricked technique was seen in tombs 1 and 11 where the four-pinched nozzled-lamps were found.

This technique of prick ornamentation became common and more elaborate in the Middle Bronze I period. It was practiced now on purely piriform Tell El Yahudiya juglet types that were spread and abundant in the burnished forms in Palestine. The body was all covered with pricked ornamentations of different designs. The base of the juglets became more symmetrical than nos. 1 and 9. The flat disc base of no. 2, the disc button bottom of Jericho 3 and 27 of Ajjul Courtyard cemetery are of exact parallels, 26 of Ajjul and 20 of Megiddo seem to be of very close parallels. Thus we could recognize that the pricked decoration on Tell El Yahudiya juglets of the MB.II period, phase II, had geometrical designs, better in form than

(1) Stratigraphie, Fig. 65, no. E914. For other juglets see ibid. F.915 and G.917; ibid. Sin El Fil, Fig. 73, no.3 are all of early MB.II period, MB.I period according to their contents.

those of the MB.I period as seen e.g. on nos. 4, 6, 8, 11, 18 and 25. While at the later period of Phase II of the MB.II period, the pricked ornamentation started to decline as seen e.g. on nos. 5, 7, 21, 24 and 28, and suddenly disappeared at the end of Phase II and was replaced by the culindrical types.

Albright (1) states that the pottery in question came into use in T.B.M. in G-F but did not become abundant until stratum E, when it enjoyed its greatest development, while in stratum D the type was not in existence at all." The type was not found in Jericho Palace store-rooms, not in Ajjul Palaces I-III and not at all in Beth-Pelet (Tell El Farah).

Plain piriform Yahudiya juglets.

At Phase II of the Middle Bronze II period the plain piriforms appeared for a very short period and passed away at the end of it, where the type of piriform was totally displaced by the cylindrical juglets.

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(1)

Conclusion.

It is very clear now from the Chart Figures pl VI and from the description of the pricked Yahudiya juglets on page that one could not accept the statement of Enberg(1) in his thesis "the Hyksos Reconsidered", p.18, where he states that "while there are numerous pottery forms typical of the Hyksos period in Palestine, not all of them concern us here. For our purpose, it will suffice to mention a few which are Hyksos products par excellence. The best known is the so-called "Tell El Yahudiya type" ..... "It is readily seen, that such types, once they were recognized as Hyksos products, became invaluable aid in the detection of the Hyksos occupation of a site". Soderbergh(2) in his article "The Hyksos Rule in Egypt" treated that point of view and stated that the above statment of Enberg is "in my opinion wholly unwarranted. First of all it is a very dangerous method to deduce ethnic movements from the presence of a certain type of ceramic ware only, if there is not at the same time some important change in burial customs, and it can often be proved that a change in the archaeological material is simply due to trade. Moreover, the typical Tell El Yahudiya jugs are gradually developed in Palestine and Syria,

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(1) Studies in Ancient Orietnal Civilization, No.18, Chicago 1939.

(2) J.E.A. vol. 37, London 1951.

and their appearance there marks no sudden change in the ceramic tradition". I feel happy to agree with Soderbergh that "in Egyptian (1) territory they were (Tell El Yahudiay) introduced long before the arrival of the Hyksos, and are found in tombs in Lower Nubia dating from a time when the Hyksos had hardly even reached Middle Egypt". "The most that can be said about the connection between the Hyksos and the Tell El Yahudiya jugs is that the Hyksos perhaps like them, and that possibly greater quantities were imported when the Hyksos rulers controlled the trade than when it was handled by a more conservative Egyptian Government. It should also be stressed that these jugs were used in Egypt after the unpopular Hyksos had been expelled".

In Cyprus it has been stated by the curator of the Nicholson Museum that "The black lustrous juglets of the puncture-decorated Tell El Yahudiya type which are common on the mainland and have been related to the Hyksos appear in Cyprus along with Syrian juglets in wheel-made red-lustrous ware". (2)

Thus, we have seen that the pricked technique of this punctured ornamentation was first practised in Palestine, and the pricked Tell El Yahudiya piriform

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(1) ~~AASOR T.B.M. XXII, p.179, XIII, p.79, also AJA 36,p.559.~~

(2) Handbook to the Nicholson Museum, p.146, second edition p 194-8.

(1) JEA vol 37, 1951

juglets were not a product par excellence to the so-called Hyksos period. The pricked piriform juglets were produced in Palestine and the discovery of the pottery ovens for such type at Affula by Ben Dor is strong evidence for that.

Cylindrical Juglets

The cylindrical long necked juglets, ~~Chart~~ ~~Pl~~ XI ~~nos~~. with double or signle handles, some of which have a clay pellet attached near the rim to simulate a rivet are common in Palestine; having rounded, slightly convex or straight sides, ending with slight convex or flat base.

They are occasionally decorated with pricked dots arranged in various ways, which were originally filled with a white substance, probably lime to accentuate the design.

In Gezer (1) we could recognize a burnished prototype dated by the excavator to the "First Semitic" period, though the neck is a bit longer, and the handle is somewhat more bulging out, yet the size is the same as those of Megiddo, and the other features show it to be of the same family type.

In Ras El Ain grave 2 (2) one having a squat base and a double handle, was found. The ware is brown, covered with red slip and continuously burnished throughout. "A thumb impression left on the body surface indicates that the grooves have been made by pressing the thumb against the vessel while turning on the wheel." The contents of the grave are of the MB.I type. Though this particular cylindrical juglet

(1) Gezer, III, P_1. CXLIII:5, also Gezer II, p.139.

(2) Ory, QDAP, vol.6, 1936, Fig. 87 and Pl. XXIX:5.

is not of the exact common type, yet it may be fairly accepted as a prototype.

In Megiddo (1) two excellent cylindricals have been found, one from tomb 4016. This was made up of cream, buff, gray, white gritty, lightly fired with a well made thick red wash, with vertical burnish outside. I do not know why Mr. Shipton stated that "the presence of this form in stratum XV is unfortunate". While the provenance is exact and sound, and the contents of the tomb are of homogeneous MB.I types, I guess with probability that the reason was the general opinion of archaeologists then to consider such a type to be typically of the so-called Hyksos MB.II period. The other one of Megiddo (2) came from tomb 911A1 which is a shaft tomb of an MB.I period. Though re-used, yet the contents found with our cylindircal juglets on P Plate 28, no.39, burnished, and no.40 burnished, and had incised decoration, filled with white chalk, the presence of these two examples in good context in Megiddo is also a strong evidence for their existence in MB.I period.

In Tell Ed Duweir (3) they were found under the glacis of the city, see Plate 77, nos. 750, 751. The first is

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(I) Megiddo II, P_1.11:4 stratum XIV.

(2) Megiddo tombs, Pl.28:39 and 40.

(3) Tufnell, Lachish IV. Forthcoming publication.

pricked, the second is burnished.

In Jericho tomb 5, layer G one was found[1] while in layer F the type disappeared and in E appeared again. This feature recognized in Jericho tomb 5 gives us the history of the cylindricals as noticed in Megiddo, they appeared very rarely in MB.I tombs, disappeared on Phase I of the MB.II period and became abundant at the end of Phase II and very common in Phase III where they have totally replaced the piriform Tell El Yahudiya juglets.

Tell Beit Mirsim produced a good number in strata E and D, but all are burnished, but none pricked, nor plain, i.e. the early type and the late MB.II type are missing. Though the first were found in Megiddo and Duweir, the others in Megiddo, Ajjul, Jericho and Beth Pelet.

Albright in AASOR XIII:31, p.78 states that "there seems to be a chronological difference between the two types i.e. (cylindricals and piriforms)". To this I do not agree in relation to T.B.M. proper, because the piriform Tell El Yahudiya juglets appeared in an earlier level of his excavations G and F. T.B.M. article 11, page 65, Pl.3:13; T.B.M. XII:25, p.17, Pl.4:17 were sound provenances because that type proved to be originated also in Palestine about the MB.I period, and so the piriforms survive to stratum D though at no other site does it occur at the end

(1) Garstang AAA.XX, Pl.XX:4.

of the MB.II period, c.1600-1550 B.C. I think this is a low dating for stratum D of T.B.M. as I will show later.

The cylindrical were rare at E and abundant in D, which is the reverse of the case of the piriform Yahudiya juglets.

Trefoils and pinched mouth jugs.

Jugs with trefoil mouth having semi-rounded body and a wide neck, with triple,double or single handle, stretching from rim to shoulder. The body ends with rounded base in its earliest period, disc base later, and with a ring base at the end of its use. They vary in size, long, medium and short. It has been burnished in its beginning, Plain and wet smoothed juglets are the most common feature and abundantly found especially in Megiddo.

I am inclined to consider the coastal region as the place of origin, e.g. Ajjul, and if we are to consider the trefoil mouthed jug of the Courtyard Cemetery tombs nos. 1410 and 1413 represented on Pl.XXX,34B^{9} and 34Z^{9} in AG.11 found by Petrie to be of the same family, they are then the earliest at least as prototypes. These tombs are dated to MB.I.

Megiddo tomb 5171 (1) produced one, described to be intact, buff to pink-buff, white grits, well fired, and poorly made as that of Ajjul. It was hand-finished, wet

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(1) Megiddo II, Pl.11:14.

smoothed and had red decoration. Other contents in the tomb show an MB.I period.

The technique had improved in Megiddo, and the potters produced very nice, well done trefoil jugs at the beginning of the MB.II period. Tombs 3072 and 3083 of Megiddo (1) produced two well burnished jugs dated by other contents to the MB.II period, while all the other trefoil jugs found in Megiddo are wet smoothed and have no burnish at all. The tombs fall clearly in our phases IIA, B and III. One could state they have mostly the ring base. The type was very common in the structural tombs.

Gezer Cave 28 11 (2) produced three with a trefoil mouth and another with a pinched lip exactly as has been noticed in Megiddo tomb 24 (3). One was found having a rounded base in the MB.II cemetery near Tell Aviv Harbour (4).

In Jericho (5) tomb 9, layer (a) one was found, having one triple handle ending in a curl, with a ring base. The body is covered with a yellow slip. None has been found in earlier layers, neither in this tomb nor in any layer in any other tomb. This feature added to the negative evidence

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(1) Megiddo II, Pl.33:30 burnished, and that on Pl.34:1 has vertical burnish on neck, horizontal on body.
(2) Gezer III, Pl.XXXiii; 3,highly carinated shoulder, that on Pl.XXXVii:3 with rounded body as that on Pl.XXXIX:11. See also Pl.XLI:10.
(3) Megiddo tombs. Pl.23:18, 20 and 21.
(4) Atiqot, Journal of the Israel Department of Antiquities. Kaplan, tomb 5, Fig. 2, no.3.
(5) AAA.XIX, Pl.XXXII:8.

from T.B.M. stratum E suggests to us obviously that the trefoil mouthed jugs started on the coastal region in MB.I period, and became common in Megiddo in the MB.II phases IIA and B, and from there were carried to Jericho (1) and other inland cities.

The trefoil mouthed jugs do not appear in Ajjul, Beth-Pelet and Duweir. It is the second type which invariably exhibits a pinched lip that occurs there exactly as in T.B.M. stratum D. They are wide-mouthed jugs or pitchers as Albright called them. They also appeared in Megiddo and Gezer together with the tréfoils, but in heterogeneous tombs (2). Albright speaks of them as a characteristic MB.II form to which I agree. Parallels to that discovered in T.B.M. stratum D (3) are available at Tell Ajjul, Pl.XLV:36G; while that of pinched lip, phase 11B (4) on Plate 42:10 and Pl.9:4 have a very close parallel in Tell el Fara CPP34,F_3. All of them are unburnished, the same as those found in Jericho (5). Thus we may consider

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(1) AAA. vol.XXI, in tower area spot 4, Pl.XVIII:6; Palace store-room 40, Pl.XXII:no.16; and room 44 Pl.XXII:3 is of exact parallel to that of Jericho tomb 9a and to Megiddo common type; Palace store-room 73,Pl.XXVI:5. All are wet smoothed and unburnished.

(2) Megiddo tombs, tomb 24,Pl.23; and in Gezer Cave 28:11, vol.III.

(3) AASOR,XIII, Pl.15, nos. 13 and 14.

(4) Ibid. XII. This type is not found in E.

(5) AAA. XXI, Pl.XVIII:25, 30 and 33; Pl.XX:1; all are wet smoothed and unburnished.

those with pinched lip were rare in phase IIB while the trefoils were rare in phase I, abundant in Phase III and passed away suddenly afterwards.

Elongated Dippers

The elongated dippers, with a loop handle and slightly pinched lip,are well known and very common, and no comparative remarks are necessary to establish their date and range. They vary in size from 100 - 250 cms. They started in Middle Bronze I with a flat base, elongated bodies with a red burnish. The base ends some times with some kind of a knob. At the beginning of phasé II as seen on my Chart the elongated pointed dippers started to appear. The red burnished slip was rarely noticed and the burnishing was badly done. Meanwhile the wet smoothed plain dippers were dominating and the flat base retrograding. A rare distinctive characteristic had been noticed at the end of phase II, i.e. a ridge around the neck, and a divided handle.

At the very end of phase III the elongated pointed style disappeared and was replaced by small sized, elongated with rounded bases and plain wet smoothed. This type remained dominant until the end of phase IV.

Albright[1] states that these elongated one-handled

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(1) AASOR, XII, p.21.

jugs died out very rapidly in Late Bronze I and was replaced, probably before the beginning of the Late Bronze II, by a type superficially much the same in appearance to my phase II, but in a medium size, and showing marks of vertical paring with a knife all round the body.

7 - One-shouldered handle jugs.

They have a long history. They either have a rounded body or a bellying one, with a long neck and flaring mouth. The handle is mostly divided, resting on the shoulder. Those of Megiddo stratum XIII[1] are obviously derived from the red burnished forms of stratum XIV. They are in tomb 911? at the top of my Chart. They are found in Ajjul Courtyard cemetery tombs[2] and Ras El Ain[3] in the MB.I period. In phases A and B of the Middle Bronze II they degenerated, but in the later phases, they came back again but with debased forms.

In Syria they have been found with MB.I contents in Ras Shamra-Ugarit[4]. In Egypt especially the divided handle shoulder type can be traced back to the 12th Dynasty period.

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(1) Megiddo II; Megiddo tombs.

(2) Petrie, AG.II, P_1. 68T. tomb 1412; Tomb 1420, Pl. 6a[13].

(3) QDAP, vol. V, 125, no.74.

(4) Stratigraphie, Fig. 47. D.

Conclusion

It is not an easy task to arrive at a satisfactory conclusion from certain types of pottery vessels, and to draw out s chronological sequence for a period of 250 years based on typological series. The difficulty is even greater when an area of 6,000 square miles is to be covered. It consists mainly of Gezer and Megiddo in the north; Tell Beit Mirsim in the centre; Jericho in the Jordan rift; Ajjul and Beth Pelet in the south.

I must draw attention to the fact that my phases are not rigidly set within a fixed number of years, but may vary from some 10-25 ± years. Most of the changes are due to natural development or degeneration in pottery styles. It was, no doubt, a period of considerable movements of population, but the basic culture remains the same, foreign elements being absorbed, and only in isolated instances might it be suggested that new forms or fashions are due to new elements in the population.

The limiting dates for ther period are discussed in the chapter on history, and for the individual phases a period of approximately fifty years would seem to fit.

At the very same time the elite (1) of the Palestinian

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(1) The elite are the aristocratic rich tribal rulers with their followers of the shepherd sheikhs.

Canaanites were also emigrating to neighbouring regions, particularly to Egypt. The causes of such movements have been discussed in the introduction to the thesis, and also in the chapter on history.

Thus taking into consideration all these various problems, I endeavour to discuss in the following pages from the typological development of certain types of pottery and metals (1) by relating them to a chronological sequence.

I do not think that any of the pottery vessels represented on my Chart has been imported in the strict sense. Some of the ideas of course may have been. The vessels themselves were certainly made in the country, as shown by their characteristic local fabric. There are, on the other hand, some definite importations discernible in the debris of the Middle Bronze I and II ruins, and in burials of the period. These importations are discussed in section III.

"The distinctive feature of the pottery of the Middle Bronze II is that fact noticed on all objects on the Chart, that it is virtually all wheelmade; shaping by hand has not been noticed on the Chart, but it was used then and restricted to the cheapest type of cooking pot and similar ware." The shapes are generally very graceful, especially

WFA.

1.

(1) Metalwork is discussed in Chapter V, section I.

WFA. " bowls which have beautifully proportioned curves." It has been suggested by most archaeologists that the sharp carination noticed on bowls points to metallic prototype as I have pointed out in my treatment for carinated bowls. The metallic illusion was heightened in the earlier periods by using a red slip which was carefully burnished all over with a stone or a spatula of bone until it shone like copper or silver. This technique has been noticed abundantly in the Middle Bronze period, and remained in use in Palestine as a common feature until the phase IIA where it has been degenerating gradually in phase IIB where we see the cream slip appearing, and the red slip disappearing. In phase III we see the vessels burnished but without the red slip, and in phase IV the burnish also was very rare, and the majority of vessels are plain and wet smoothed. This technique discussed above may be considered as a genera l descriptive feature to most types of vessels represented on the Chart.

WFA. (Pamphlet)

As to the types of the different pottery objects, a detailed description for each kind has been given, and now I explain only Chart Fig. .

The inverted rimmed bowlsof phase I really replaced the painted broad rimmed of the earlier period, and it was a characteristic feature of rims of bowls in phase IIA. Meanwhile another type of bowl with straight sides started

to appear, replacing gradually the inverted rimmed types until phase III, when the straight sided were the characteristic feature.

The carinated bowls are either angular or flared. The angular carinated have a long and early history. They are burnished on a red slip; they die out in phase III and the flared carinated types which have no red slip burnished at all, became common. Traces of burnish with a self slip could be hardly seen in phase III, while in phases IV and V these flared bowls are mostly wet smoothed.

Columns 5 and 6 refer to the piriform, including Tell el Yahudiya and cylindrical juglets. The first piriform juglet was abundant in Middle Bronze I and phase I and many were characterized by the pricked technique of Tell el Yahudiya, which type became very rare in phase IIA, and totally extinguished in phase IIB when it was replaced by the plain burnished unpricked tenhhique, but even the burnishing technique has also disappeared at the end of phase II and plain black piriforms were in use for a short period until totally displaced in phase III by the cylindrical juglets, which were in frequent use in phase IIA and fairly common and abundamt in the latter phases, but one should keep in mind that occasionally earlier types of the cylindricals had the pricked technique also and the red

grey burnish, then burnish alone, followed by the plain, exactly as the styles of degredation of technique noticed in the piriforms, but the later displaced the former.

As to the goblets represented on the Chart I gave them two separate names, according to their frequent use in MB.II Palestinian sites. The Jericho goblets with the angular rounded shoulder were descendants from the type represented on the Chart no. from tomb 3137 of Megiddo. They appeared frequently in phase I, common in phase IIA and rare in phase IIB. The Megiddo goblets which are described to have a flaring carinated shoulder seem to appear later in II. These started rare in phase IIA and were common in phase IIB in Megiddo as the others were in Jericho common in phase IIA and rare in phase IIB exactly a reciprocal history. But it is obvious that Jericho goblets started earlier and ended earlier, except in Jericho, where they continued to the end of M.B.

As Jericho goblets are descendants from those of MB.I, Megiddo goblets were also descendants of the flared bowls represented on the Chart of phase I, of tombs 2145 and 3110. In technique they have practically the same historical development of having a red burnish, or a burnish and a cream slip, and then plain wet smoothing only. But the first, i.e. red burnish slip, was very rare, and the last was the most common.

The pitchers are either of a trefoil mouth or a pinched lip. The former has a long and early history, while the latter has a short and late life, i.e. starting only in phase IIB and ending in phase IV, but appearing in later period in other different shapes and types.

The lamps may be considered as a characteristic feature of the Middle Bronze II phases. None has been found in tombs of Middle Bronze I, i.e. before 1750 B.C. Lamps were of course used in tombs in earlier periods, i.e. EB-MB but ~~in~~ a well known type with four pinched lips.

To sum up the pottery chapter one could state that the derivation of the Middle Bronze II pottery (in all its phases) from the fine wares introduced at the beginning of the period (i.e. phase I) is clear. The needs of the growing population, which undoubtedly included immigrants of an unskilled and undesirable citizen who were overthrown and have been displaced by rulers of other neighbouring Near Eastern countries, required mass production in which the finer craftsmanship disappears, and showed very obvious decline, though the types of vessels and the advanced technical methods introduced at the beginning of the period are apparent throughout.

Table of Chronology.

1900-1800 B.C.	Megiddo Tomb 911, and strata[1] XV-XII. Ras El Ain T.B.M. stratum G - F - E, Tell El Ajjul Courtyard Cemetery. Gezer tomb I and probably lower level
Phase I 1800-1750	of cave 2811. Contents.
Phase IIA 1750-1700	Megiddo tombs strata XI T.B.M. Stratum E Ajjul tomb 303 Jericho tomb 9 and tombs 4 and 5 lower layers. Gezer cave 2811 upper levels (contents mixed)
Phase IIB 1700-1650	Megiddo tombs, early structural, and Megiddo provenances. Stratum X T.B.M. Stratum D Ajjul Palace I, and Ajjul tombs 300 Jericho tombs of 1952-56.
Phase III 1650-1600	Megiddo tombs some structurals. T.B.M. stratum D. Ajjul Palace I and Ajjul tombs 600-640. Jericho Palace Store-rooms
Phase IV 1600-1550	Jericho tomb and Palace store-rooms. Beth-Pelet Bilobate tombs 551, 550 and 559 and others. Ajjul tombs 600-640.
Phase V 1550-1500	Ajjul horse burials. Duweir Fosse temple, structures I and II. Megiddo stratum IX-VIII.

(1) XV-XIV attributed by Albright to early part of G; while XIII to G-F and XII to early E. Stratum XI corresponds doubtless roughly to E, while X is contemporary to D.

Section III : Foreign Pottery Vessels

All our foreign imported vessels discovered in Palestine are said to be Cypriote. Schaeffer states in Stratigraphie, page 352, through his observations at Ras Shamra where all categories of white painted ware are numerous in the tombs and houses, lead him to doubt their Cypriote origin. They were found in Megiddo, Ajjul and Gezer. None has been found in inland cities, e.g. Jericho, Tell Beit Mirsim, Shechem, Tell el Fara of Nablus, Jerusalem and Bethel district.

Those found are all hand-made (1), but most of them are well done. The handle is thrust through. They are classed as Cypriote white painted IV ware (2).

Those shown on the Chart ~~Figure~~ I should be dated to the 18th century. All others found in Megiddo, ~~(3)~~ Ajjul ~~&~~ Gezer (3), and Tell Duweir should be dated according to the pottery context found with them to the same period. in Duweir "among the sherds from the fill of the Middle Bronze glacis was a part of the body of a white

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(1) Handbook to the Nicholson Museum, Sydney 1948, p.40 "Middle Cypriote pottery fabrics are all hand-made".

(2) Gjerstad Studies, page 273, White painted IV "WP.IV" is found in Middle Cypriote II-III c.a.1900-1600, the type comes from the stratum below the cemetery at Ras Shamra and is dated by Schaeffer; Syria XIV, 1933, Fig.10:9, and p.111 to the 20th-17th centuries.

~~(3) Petrie, AG.III, pl.~~ no.

(3) Macalister, Gezer III, Tomb I, Pl. LXII:51.

painted IV juglet decorated with wide bands and narrow crossed diagonals (NE18/174). A similar piece is attributed to stratum G at Tell Beit Mirsim, AASOR XIII, Pl.22:6 and compared by Albright to be a vase from Ugarit (AASOR.XIII:25 and Stratigraphie, page 124).

None of the Megiddo vessels has been found with any MB.II context, represented on the Chart. One has been found in Gezer tomb I with a XIIth Dynasty scarab and an MB.I pottery context.

Gjerstad[1] states that "the Middle Cypriote II is of a short period, dating from sometime in the 19th century to about the middle of the 18th century B.C. In Egypt the "White painted IV" ware is associated with MM.II Kamores ware at Kahun[2], in context which can be dated not earlier than 1800 B.C. and note later than 1700 B.C. (AJA.1947, p.1). In Syria[3] and Palestine it occurs in M.B.IIa i.e. MB.I of Dr. Kenyon's chronology which I have been using);"in one case at Gezer in a tomb with a XIIth Dynasty scarab. In view with this and of the dating of a mass of imports of Middle Cypriote III ware into Syria, Palestine and Egypt it is unlikely that Middle Cypriote II long outlasted the XIIth Dynasty in Egypt, and a date somewhere about 1750 B.C. should be the lower limit of the Phase".

1. Sance. 7. Syria

(1) Gjerstad, studies op. cit.
(2) Petrie, Illahun, Kahun and Gurab, Pl. 118.
(3) Schaeffer, Syria XIV, 1933, Fig. 10:9.

To this I do agree unhesitatingly, irrespective of Megiddo stratification, but owing to the contents of the tombs which point out to a homogeneous 18th century context.

Since this has been established, I find myself, therefore, unable to agree with Enberg that "reciprocal trade between Cyprus and Palestine was clearly not a stand still during the Hyksos period".(1) I think that the unstable situation in Palestine in the Middle Bronze II period, hindered trade, which caused most probably a real decline(2) in Palestine.(3)

In the Late Bronze period, trade flourished again from the 16th century onwards.(4) New types foreign to Palestine have been noticed from the coastal cities, e.g.(5) Megiddo, Ajjul and Dhahrat el Humraiyah near Jaffa and Nebi Rubin, and this trade revival came as a result of more stable conditions arising as a result of the Egyptian rule in Palestine.

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(1) Enberg, The Hyksos reconsidered. SAOC, no.18, 1939.

(2) cf. Albright, Archaeology of Palestine, Pelican 1954, p.91 where he states that "The country was in the hands of chieftains who were constantly at war with one another". Contra opinion Dr. Kenyon, see Archaeology of Palestine 1953, p.23, where she states that "the prosperity of towns of Palestine of this period is probably due to stable conditions".

(3) The general accepted idea is that the MB.II (Hyksos) period is the most prosperous period, to which I do not agree, because the decline has been noticed in most of my chapters, especially in Phases IIB-V.

(Continued)

(Footnotes continued)

(4) See Gjerstad, E, and others, The Swedish Cyprus Expedition; Gjerstad, E, "Studies on Prehistoric Cyprus"; Westholm "A Palestinian Vase Painter of the Sixteenth Century B.C." Q.D.A.P. vol. 8, 1939, p.21-36); ibid. "Some late Cypriote tombs at Milia"A.Westholm, pp.1-20.

(5) J. Ory, Bronze Age Cemetery, DHAHRAT el Humriayah, QDAP.vol.13 1948, It lies 13 km. south of Jaffa.

Foreign Imported Vessels

Provenance		Plate	Body		Surface	Burnish	Decoration.
							Black
T.3128	BB	N14	398	26:13 Cream-buff	wet smoothed		
T.5134	"	M12	"	" :14 buff	black wash	outside	red
T.5068	"	M12	"	" :15 pink-buff		vert.out.	red
T.3086x	"	015	"	" :15 " "	wet.sm.		black
T.3111x	"	N15	"	" :15 buff	wh.wash out.		"
Prov. 5048	"	N12	"	" :16 buff		burnished	"
T.5243	"	M12	399	34:4 pink-buff	well "		"
T. "	"	"	"	" :16 cream buff		outside	"
T.5050	"	N12	"	" : " green-buff		"	"
T.3076	"	014	"	" :12 cream-buff		"	"
T.3110	"	N14	"	" :11 green-buff		vert.out.	"
T.4107	AA	K8	378	26:17 buff	wh.wash out.		red & black
Prov. 4093	"	K8	379	34:8 cream-buff		outside	black
T.4109x	"	K8	379	" :9 buff		spaced out	"
"	"	k8	"	" :13 buff		outside	red
Prov.4031	"	K8	380	41:21 Pink-buff	wet.sm.		"
T.3065	BB	014	400	41:29 " "		outside	"
T.3046	"	014	"	41:30 green-buff	wet.sm.		black
Prov.3180	"	015	"	42:1 pink-buff		outside	red
Prov.2018	CC	R-S10 407		41:32 buff	wet.sm.		black.

Contents of Tombs having Imported Foreign Vessels.

Provenance	object	Wash	Wet smoothed	Burnish	Remarks
T.3128	jug	24:30 orange brown			Well bur.
T.5134	above	in T.			
T.5068	"	"			
Prov. 5048	"	"			
T.5243	Piriform	33:8 Pink		Outside	
	Bowl	37:25	wet.sm.		Type 53.
T.5050	Dipper	33:22 Red		Vertical	
	"	33:20	wet.sm.		rounded bottom
	Bowl	37:13	wet.sm.		string-cut base
T.3076	Dipper	33:18	wet.sm.		rounded bottom
	"	33:25 Red		Vertical	
	Jar	34:18	wet.sm.		incised lines on shoulder.
	Bowl	36:14 Red		out & over rim.	flat disc base.
	"	37:22	wet.sm.		
T.4107	Jug	23:7	wet.sm.		large jug
	Dipper	24:20 Orange		well burnished	
	Jug	25:25 Pink			
	Piriform	24:21 Red		Burnished	
	Dipper	26:10 orange red		Vertical	
	Bowl	29:19	wet.sm.		Type 53

(Continued)

Provenance	Object	Wash	Wet Smoothed	Burnish	Remarks
	Bowl 30:2			spaced vertical	one handle
	Scarab 149: 42				Scrolls with semi-cross design in middle
Prov.4093	alone				
T.4019	on Chart				
Prov.4031	jar 42:8	Red to Pink inside		vertically burn. on body.	
T.3065	jar 43:2	White wash on shoulder			red & black decoration.
Prov.3180	alone				
Prov.2018	alone				

Section IV:

Alabaster

Alabaster[1] is a name applied to two distinct substances, the one is hydrous sulphate of lime and the other a carbonate of lime." Ancient Egypt was the home of stone vessels in general and of alabaster vases in particular." "The manufacture of vases in hard stone began in the Predynastic Age"[2], and reached a level of perfection in other countries, and by the Fourth Dynasty alabaster was far more widely used than any other stone.

In Palestine as well as in Syria, the Egyptian alabaster vases were found in all discovered MB.II sites. But we should not ignore the fact that there was an alabaster local industry in Palestine, and Egyptian vases were imitated by the local Palestinian craftsmen.

The presence of stone deposits of alabaster and gypsum in Palestine, and the discovery of unfinished[3] i.e. uncompleted, alabaster juglets in Bethshan, added to the existence of a number of these vessels, the shapes of which are peculiar and cannot be paralleled in Egypt , lead Dr. Ben Dor to study the subject carefully, encouraged probably by Petrie's hint[4] that a Syrian origin for some of the vases

(1) Encyclopaedia Britannica 13th Ed.

(2) Petrie, Diaspolis Parva, Pls. II and III.

(3) The unfinished juglets are eight in number, found in Beth-shan, level XB and XA were in an early stage of working. Dr. Ben Dor states that "with regard to XB there is no doubt that it belongs to the Hyksos period, but the Late Bronze Age date tentatively assigned to level XA by G.E.Wright has in my opinion to be modified". to which I agree.

(4) Petrie, AG.I, p.8 where he says in Article 40, Pls.XXIV, XXV that these alabaster vases are usually of Egyptian alabaster, but many are of Syrian work.

found by him in southern Palestine.

Ben Dor became interested in the subject and examined all the alabaster vases available in the Palestine Archaeological Museum and elsewhere found in Palestine and Egypt. After handling the objects at his disposal and having chemical analysis carried out on them for the purpose of his study, he came to the conclusion that there are real differences between the Egyptian and the Palestinian alabaster vases, summed up below from his article "Palestinian Alabaster Vases", Q.D.A.P., pp.93-112.

The material: (1) "The Egyptian alabaster is a translucent stone, whitish to pale yellow in colour, and often with bands of darker or lighter shades. The local alabaster, on the other hand, is usually of a chalky consistency and is pure white. There is a marked difference in its external appearance, and after handling a few examples it is possible to tell at a glance whether a vase is made of local or of Egyptian material."

(2) Another difference easily established lies in the relative hardness of the stones. The local alabaster is quite soft, its index of hardness being 2, i.e. it can be scratched with the fingernail, whereas the index for the Egyptian is 3 to 3.5.

(3) Palestinian alabaster when pure is absolutely white, but it often contains an admixture of bituminous substances which either gives the stone an even light-grey colour, or

" else takes the form of grey veins which increase the
" resemblance to Egyptian alabaster."

(4) The chemical composition of Egyptian alabaster is calcite (calcium carbonate) whereas the Palestinian variety is really gypsum (calcium sulphate); therefore chemical analysis is a very important distinguishing factor to both types.

The Technique: Since the material is different, therefore the methods of craftsmanship should differ also, because it is obvious however clever the Palestinian craftsmen were, they could not imitate the Egyptian vases accurately. The differences may be recognized as follows:

(1) The Egyptians used the stone-borers or tubular drills of reed or copper[1] to carve out the inside of the vessel while the Palestinians used the chisel. Although the stone-borer seems to have been known in the Middle Bronze Age, yet it was not used in the working of alabaster. The chisel-marks are vertical, i.e. parallel to the axis of the vase, in contrast with those of the Egyptian drill which if at all visible are horizontal. The vertical chisel marks form a distinctive feature of the Palestinian vases and may serve as an additional criterion for distinguishing

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(1) For discussion of the process of drilling Egyptian stone vases see: G. Reisner, The Early Dynastic Cemeteries of Naga-ed-Dar, Part I, p.105; A.Bonnet, Ein Fruhgeschichtliches Gräberfeld bei Abusir, 1928, pp. 10 ff.

them from the imported pieces.

(2) The Egyptian craftsmen polished smoothly the surface, while the Palestinian craftsmen showed less skill in the finish of his stone vessels. The surface was left in a much coarser state and the marks of the polishing tools are sometimes visible.

The forms: It is obvious that we are not expecting to see the exact parallel forms of Egyptian vases done by the Palestinian local craftsmen. The forms in the MB.II period are mostly imitations of the Egyptians while in late periods they mastered probably the work and started doing originals of their own, such as the pyxides, characterized by a squat body widening toward the bottom, a very low and slightly profiled neck, two lug handles pierced vertically with small holes, on a flat or slightly convex base.

Therefore one could say that the local industry of alabaster could not compete in the MB.II with that of Egypt in richness and variety of form. The extant vases of the MB.II period may be divided into four main types, i.e.[1] (1). juglets (2) boggy-shaped vases (3) small jars (4) ovoid flasks.

(B.D.)

Conclusion. The availability of alabaster gypsum in

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(1) For detailed study of types and provenances see Ben Dor QDAP pp.99-111. See also Jericho, Garstang, AAA vol.XIX, Tomb 9, Pl.XXX:13 and 15; Tomb 31, excavator's No.268; Tomb 43, excavator's nos.268 and 491. AG.I, Pl.XXXIX, nos.51-3 and 38; ~~and Pl.XXV~~ AG.II, Pl.XXIII, 29, 31; AG.III, Pl.XXVI:37; AG.IV, Pl. XXV, Nos.27-28 and Pl.XXXIX:65and 68. BP.I, Pl.XI:66 from Tomb 569 and Pl.XI, no.81 Tomb 564; BP.II, Pl.XLIII, 31; also Grant, Beth Shamesh, p.125 from MB.II Tomb No.3. Albright, TBM, vol.1, pp.28-9; Buy & Enberg, Megiddo Tombs, Fig. 184; Gezer III, Pl.XLII, no.9; Jericho Tombs 1952-56.

the neighbourhood of the Dead Sea and Beth-shan, and the discovery of unfinished alabaster vases in the latter, encouraged archaeologists as Ben Dor to think of the great certainty that some of the alabaster vases found in Palestine should have been home-made, and were imitations of Egyptian vases imported into Palestine in MB.II. Though they were not perfect imitations, yet they were of good craftsmanship.

Though I do agree with Ben Dor in connecting the alabaster vases found in Palestine to the deposits of Beth-Shan and Jericho, yet I do not see that the evidence is as yet conclusive that the chief centre of manufacture during the MB.II period to be undoubtedly Beth-Shan. I do not think that the finding of unfinished vases in Beth-Shan, and its lying in the neighbourhood of the gypsum deposits of Melhamiya,(1) are enough evidence to give the honour to Beth-Shan on Jericho which was also very near gypsum deposits such as Al Lisan at Jebel Usdum and in the Valley of Wadi Hesa(2).

(1) The main deposits are about 18 Km. to the north of Beth-Shan, near the modern bridge of Jisr Delhamiya (Damiyah Bridge) and just behind Milhamiya settlement. See also G.S. Blake, Geology and Water Resources of Palestine, p.22j and Abel, Geographie de la Palestine, I, Pp.199-200.

(2) Ben Dor states that according to an oral communication from M. Harding, there is a quarry near the upper course of Wadi Hesa which is purported to contain traces of ancient quarrying. For the same deposits see Blake and Abel.

Section V :

Faience ointment vases.[1]

The use of eye-paints goes far back into prehistoric times. Stone pallets used for grinding of the ingredients for eye-paints were found in some of the prehistoric Egyptian times. The Egyption name of this "pallete" is probably connected with the word "to protect". This protection was twofold, for not only were these eye-paints believed to avoid the terrible eye-diseases which is still a scourge of the east, but we can trace the gradual change of the eye-paints from a real remedy and defence against eye diseases and the flies transmitting them, to means of beautifying the eye. They certainly had magico-religious meaning too in ancient times as well as in some parts today in Jordan.

As to the manufacture of ancient eye-paint, it was very simple, says Forbes[2]. The paste or the ointment was kept in vases either made of alabaster called kohl-pots, or of faience and called faience ointment vases.

The paste or ointment was applied to the eyelid with the finger or with the pear-shaped end of the kohl stick, which was made of/bone, wooden or ivory rod. These kohl-pots and ointment vases were found after 1700 B.C. in nearly every Palestinian site.

Albright says that "the faience ointment pots are

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(1) These may have been used for perfumes. Pl VII

(2) R.J. Forbes, pp. 17-21.

characteristic of MB.II as the alabaster".(1) As to the material of which these faience vases were made up is composed of a white or greyish paste coated with a glaze, which, presumably owing to the action of salt and damp, has generally faded to a light blue or green. This paste is granular in appearance and sometimes contains black specks which may be the carbonized remains of an adhesive that was sometimes found necessary to introduce to hold the paste together before the vessel was dipped in, or painted with the glaze and fired. There has always been some doubt as to the material of the body used in the faeince of ancient Egypt. Lucas(2) says that "it has been stated to be sand, powdered sand, carved sandstone, powdered quartz rock, and ground quartz pebbles, but whatever the material used, it always contains over 90% of silica". It seems to me that the Palestinian faience ointment vases were made up of the same material as those of ancient Egypt, in the light of the evidence discussed below, but they were worked and produced by Palestinian craftsmen in Palestine, and not imported from Egypt as has been generally accepted by archaeologists (and I am inclined to weight the scales in the opposite direction and say most probably Egyptian ointment faience vases were either brought into Egypt by Palestinian Canaanites or made in Egypt after Palestinian Canaanite craftsmanship, because ours are earlier in date).

(1) T.B.M. XII, p.29.

(2) Ancient Egyptian Materials and Industries, pp.32-33, and for detailed study read Chapter V, cf. pp.101-103.

where?

The chart of the faience ointment vases in Palestine show that they were in use in all excavated MB.II sites. They count nearly 40 in number, mostly parallel to each other either in all features or in parts. They are either in dipper form, vase type or Pilgrim bottle. All are decorated. Some have flat bases, others rounded, but none with disc-base as that of Sedment I, Pl.XLI:15.

As to the general historical origin of faience craftsmanship, I could not tell, because archaeologists do not yet know with certainty in what country faience was invented. The probabilities are in favour of Egypt (1), the Arabian coast (2) and the Indus Valley (3). There may be truth in Petrie's views and suggestions that "faience may originally have emigrated from Susa itself and have made a long halt at some point before reaching Egypt".

The faience ointment vases under discussion were found in Egypt in two places only. (a) Two in the Moyana cemetery at Sedment; the first on Plate XLI:15 has a disc base which had no parallel to our Palestinian vases which are of either flat or rounded bases, but in decoration it has some resemblance to ours. The second on Plate XLI:32 has a handle which resembles that of Duwier Plate 26:12, and Tell Fara BP.II, Pl.XLIV:53 tomb 1013; both tombs of

? work? ? Petrie Sed??

(1) Mohenjodaro, Early History of faience, p.57-.

(2) The People of Ancient Egypt, 1917, pp.26-36; also Petrie, Prehistoric Civilization, p.49.

(3) Ernest Mackay, pp. 579-80.

Duweir and Fara are dated to the very end of the Middle Bronze II period.

Brunton in Sedment I, article 32, gives a summary of the general characteristics of the Mayana Cemetery where Tomb 1300 in which these faience vases were found, as follows: "Coffins are rare, bricked graves were used as substitutes in the better class burials, sometimes with flat, generally with pointed roofs (as seen in Palestine and Syria in the Late Bronze Ages). The constant use of matting is a feature of the burials, evidently owing to the scarcity of wood, or to the povery of the people. (This feature has been noticed in Jericho tombs dug by Miss Kenyon.) Women had baskets buried with them, containing their toilet articles, and little wooden caskets with beads and trinkets" (as Jericho tombs of Miss Kenyon). Then in article 34 he says "although many forms of pottery are identical with those in the XViiith Dynasty Corpus, the general character was so different. The foreign pottery was so abundant but fragmentary". In article 31 he states that "the fine little jugs of glazed and brown pottery (Pl. XLI,15-18 and 21) are also foreign in feeling. The fine duck-bowl of wood (Pl. XLI, 22) is another link with the XViiith Dynasty fashions". The kohl pot (XLI.4) is suggestive of the XViiith Dynasty, and

(1) Sedment I, Sir F. Petrie and Guy Brunton, Pl.XLI:15, Pl.XLI:32 (London, 1924).

if we are to consider the tombs of the Mayana cemetery ~~one~~ as one entity as it should be, it is enough then to state that the date should be the beginning of the XVIIIth Dynasty if not even the end of it. The presence of the ring-base bilbils and the bichrome painted wares in this cemetery are enough evidence to show that our Palestinian faience vases are earlier than those of Sedment in Egypt.

As to the three vases found in Qau (1) and Badari, Plate XX:11 found in Tomb 4506 which has no pottery to help in dating, and that on Plate XXXV:42 found in Tomb 1114, they have close paralles to our vases of Beth Pelet tombs dated circa 1650-1550 B.C.

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(1) Qau and Badari III, Guy Brunton, Pl.XX:11 and Pl. XXXV:42, Tomb 1114.(London 1930).

Faience

Provenance	Illustration	Description
T.B.M.XIII E (1)	Pl.II:I	Lentoid flask, greenish blue, decoration in black.
XIII E	Pl.II:2	Lentoid flask " " decoration in black.
XII D	Pl.14:1	Vase, decoration obliterated, resembles that of Stratum D, T.B.M. I Pl. 44:15; Jericho tomb 22, Pl. XLI:4, B.P.11, Pl.XLIII:17, Pl.XLIV:45.
T.B.M.XII D	Pl.44:15	Vase; greenish blue, decorated black lines HT.7.5, resembles two of Badore III Pl.XX:11 tomb 4506 and Pl.XXXV:42 tomb 1114, another seen by Albright in Jerusalem antiquity dealer; also Gezer I 303, Fig.160:9. The parallels are of the same height 7.5 cms. and Jericho tombs 31 and 4.
Gezer III (2)	CCXI:13	Vase; bluish green with brown lines, a frieze of lotus plant in the middle register, but shape, colour, height decoration above and below are the same as T.B.M. 44:15; resembles T.F. with same decoration in middle register.

(1) The two of stratum E are a Pilgrim flask type not found in D, and those of D are of the common types found in other sites.

(2) One should notice that faience vases were not found in Cave 28:11 and tomb 1.

Provenance	Illustration	Description
Gézer III	CCXI:28	Vase, blue green, black painted lines, same as that of T.B.M. 44:15 in upper and lower register and differs in middle register only.
	CCXI:16	Vase rounded base ordinary type of association. Very close parallel to Qau and Badari III Brunton, Pl.XX:11 tomb 4506.
A.G.IV, 873,843	Pl.XXXVI	Vase. The level is considered as Late Bronze level.
	Pl.XXXVI:17-18 and 19	Vases, as those of B.P.I
A.G.III L.M.947=1010	Pl.XXVIII:1	Vases as those of B.P.
Megiddo II T.3048	Pl.191:1	Vase, brown decoration on white, mostly faded in colour. One may note here the absence of faiences and alabaster from the structural tombs. But all has bone inlay.
B.P.I. T.550	VI;15	Vase, blue glace, decorated eye drops at bottom, at middle triangular disc, rounded base. The earliest in period in the group of B.P.
" T.568	VI:18	Vase, blue glace, decorated with black triangular designs, flat base, parallel to Jericho tomb 4: 8E Pl.XVII.
" T.556	IX:39	Vase, blue glaze, decorated with eye drops, narrow neck, rounded bottom. Earlytype in the group of B.P.
B.P.II T.1021	XLIII:17	Vase, blue glaze, decorated with black, eye drops, flat base.

Provenance	Illustration	Description
B.P.II T.1002	XLIV:45	Vase, blue glaze, very plain probably faded all togehter, semi-flatish base. The latest among the group of B.P.
" T.1013	XLIV:53	Juglet (dipper type) black paint close parallel to Duweir T. Pl.26:12 and sedment I of Egypt, Pl.XLI:32 with a slight difference in base and decoration.
Duweir (1)	Pl.26:12	Juglet, reproduced the shape of the normal MB dipper at about half the size. Decorated with black paint. Parallel BP.Pl.XLI:32 tomb 1013 and sedment I Pl.XLI:32. The true decoration on handle of Duweir is seen on the body of sedment juglet, Ht. 1/2 size.
Duweir T.1546	Pl.26:13	Vase, pale, blue glaze decorated black paint, parallel to Jericho tomb 3, Fig.5:4. flatish base. Ht. 8.4 cms.
" "	Pl.26:14	Vase, buff glaze, decorated black paint, flatish base, Ht. 18.4 cms.
" T.153	Pl.26:15	Vase, blue glaze, decorated with black paint lines parallel to Jericho XX Pl.XVII:8 tomb 4; also to B.P.I Pl.VI:18 tomb 568, flat base, Ht. 7.6 cms.
" "	Pl.26:16	Vase, blue glaze, decorated with eye drop black paint, well matched with Jericho AAA XX, Fig.5:2, p.14; B.P.II, Pl.XLIII:17 tomb 1021, flat base, Ht. 8.6 cms.

(1) Tell Duweir, Lachish IV, Forthcomming publication by Miss Olga Tufnell (London 1957).

Provenance	Illustration	Description
Duweir T.153	Pl. 26:17	Vase, blue glaze, decorated with black, flat base, Ht. 7.6 cms.
Jericho, AAA XIX T.22 AAA.	XLI:4	Vase, blue faienee, decorated all over with black paint.
Jericho III.XX. T.4	XVII:8E	Vase, blue faience, decorated all over with black lines.
" " XX.T.31	Fig.4, page 14:1	Vase, unique at Jericho.
" "	Fig.4, page No.2	Vase, ordinary type, rounded bottom. Comparable with a specimen found at B.P.I, Pl. IV:18 tomb 568; and T.B.M.XII stratum D, Pl.44:5.
"	" No.3	Vase, represented by damaged specimens.
"	" No.4	Vase, ordinary type, flatish bottom, It is represented in layer of tomb 5, below Pl.XXV. Parallel to Duweir tomb 1546, Pl.26:13.
"	Pl.XXV chart level E	Vase, ordinary type, flat base equalls that of tomb 31, Fig. 5, no.4.

C H A P T E R VI

TRANSPORTATION

It was not until man had learned to trade peacefully with his neighbours that he undertook long journeys along well-defined routes.

Once animals had been domesticated, he began using them for loads and for riding. Although there is evidence that the domestication of animals at Jericho had taken place as early as 5000 B.C., yet, it is impossible to tell how long it was before their potentiality as bearers of burdens was grasped.

Section I - Animals

The Ass

Asses had almost certainly been used as pack-animals in Egypt and Mesopotamia before 3000 B.C., and were doubtless riden as well. An Egyptian relief from Beni-Hassan tombs (1) cir. 1900 B.C. depicts the arrival of the Canaanites with the pack-asses laden with children and many other burdens (Fig. 2 pl II). Throughout the Bronze Age in the Orient, and down to the present day, donkeys were regularly used as pack-animals and to carry riders.

The Ox

Though oxen were primarily used for pulling the

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(1) Percy E. Newberry, Beni Hasan, Part I. Tomb 3, Pl. XXXI.

plough and cart, they may be seen bearing packs on their backs in early rock engravings from the Sahara. In Palestine, there is no direct evidence of the use of oxen for transport in the M.B.II Period. But it is very probable that they were so used, as in other contemporary cultures.

In the "Quarry Inscription"(1) the oxen were mentioned as having been used in dragging stones, and were captured by His Majesty King Ahmose I in his victories among the Fenkhu (F n ḫ w).(2)

In Palestine animal bones of an ox(3) were found in rock-cut tomb of Al Jisr. Among the catalogue of ivories found in Al Jisr is a representation of two cow figurines, with hind-quarters missing; others are heads of cow figurines.(4)

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(1) Urk IV, K. Seth 3; cf. Breasted, Ancient Records of Egypt, Vol. 2.
On the wall of the limestone quarry of "Masaha" just south-east of Cairo. This inscription records the work of Nefaperet, an official of Ahmose I, who in the latter's twenty-second year, took out stone from "Masara" quarry for the temples of Ptah and Amon. The inscription records the first resumption of building after the Hyksos expulsion.

(2) Fenkhu: identified by scholars as the lands of Palestine. See Breasted, Egyptian Ancient Records, Vol.II, p. 13:31.

(3) Ory, QDAP, Vol. 12, 1946, p.33. Bones examined by Dr. M. Stekelis.

(4) Ibid. Figs. 82-86.

The Camel

"The name applied to the two species of the genus Camelus of the order Artiodactyla. Of the two species 'Dromedarius' the Arabian Camel, is larger and has only one hump, while the Bactrian Camel 'Bactrianus', has two. The Bactrian Camel is shorter legged and more ponderous, and grows a long thick winter-coat."(1)

A two-humped camel is depicted on an Egyptian tomb of the First Dynasty cir. 3000 B.C. The Patriarchs had most probably used the Dromedary (Gen. 12:16, 24:10,14). Archaeological evidence for its use may be deduced from the discovery of camel hoves found in the Second Semitic levels at Gezer and at Al Jisr(2). In Megiddo Tomb 3075 a scarab(3) was found; the animal depicted on it would be suggested as a camel.

The Onager

Is the wild ass of Palestine. Scholars, today, for instance Professor Zeuner and Professor Childe, consider it is probable that remains of equids should often be identified as those of onagers. It is possible that the onager was in use in Palestine in the Middle Bronze Age,

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(1) Encyclopedia Britannica, 14th edition.

(2) Ory, QDAP, Vol. 12, 1946, p.33. "In a rockcut tomb, remains of animal hoves were preserved, they represent ox, camel, and sheep".

(3) Loud, Megiddo II, Pl. 150:16.

and a scarab (Pl. VII:76) discovered in Ajjul II Tomb 1165, together with a scarab of Apepa I, in the opinion of Professor Zeuner, represents an onager. (See Fig. 3 *p. 196*.)

The Horse

Despite much antiquarian research and ingenious speculations, there remain many unsolved riddles connected with the origin and early history of the horse. "The most complete fossils have been found in America. It appears, however, that the real birthplace of the tribe was in Asia"(1).

I am not going to trace its history here. But it is to be noted, however, that the horse was preceded by many centuries by the ox and the ass. The horse was most probably domesticated in Central Asia; this may have been accomplished by a people of nomadic herdsmen, to whom the convenience of riding would be obvious. Sooner or later the mounted nomad came to realise the measure of his advantage over the man who travelled and fought afoot, and was encouraged to wander further afield, conquering as he went.

In any case the horse (either as a charger or yoked to a chariot) became in early times an important factor in war. The use of horses for the workaday purposes of

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(1) Encyclopedia Britannica, 14th edition.

transport and tillage is probably comparatively a modern development.

When was the horse used in Palestine? This is the question that concerns us now. No literary evidence at all in Palestine or elsewhere has been found directly or indirectly to show that the horse was in use in Palestine before the Eighteenth Dynasty of Egypt.

The generally accepted idea that the horse was used by the Hyksos, and was introduced together with the chariot to Egypt, was based on no archaeological or literary evidence. Neither Palestine nor Egypt has seen the horse harnessed to a chariot before the XVIIIth Dynasty.

A. Ajjul horse burials.

As to the archaeological evidence, to show that the horse was in use in the Middle Bronze Age II in Palestine is not easy to prove. The only positive evidence for that are the horse and donkey burials discovered by Petrie in Ajjul (Ancient Gaza). The identification of the animals was made by Petrie, who was not a specialist in this subject, and it is not now possible to check its correctness. He dates them to the Hyksos Period, i.e. MB.II cir. 1750-1550 B.C. On p. 203 I discuss the dating, and show that they must fall in Phase V, i.e. late in the Middle Bronze Age II.

Let us fully examine these horse-burial tombs of Ajjul.

Construction of tombs.

The best example of horse burial[1] is in Tomb 411. Evidently of the same class are the other tombs, 246, 407 and 263. Tombs 210 and 101 are on Plate IX, the views of 210 and 411 are on Plate viii, and of 263 and 407 on Plate X. Petrie, speaking about the Hyksos period, states in AG.I,p.4 that "The only really distinctive remains of that People are the burials with horses, and pit tombs with loculi". The construction of the tombs is really a new feature that has not been seen in Palestine before, although very many tombs of the period have been excavated. It is, therefore, improbable that the owners of these tombs, or those who had constructed them, were Palestinians of the Middle Bronze Age period. They could have been intruders on the Canaanite citizens at the very end of the Middle Bronze II/period and the very beginning of the Late Bronze Age. The type of such tombs has not been traced in Syria or Egypt in that particular period.

Disposition of the bodies. (Figs.Pl VIII).

The practice of burying animals with the dead is not a distinctive feature in these tombs. Ass burials have been noticed in the Ajjul Courtyard Cemetery in Tomb 1417.

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(1) Petrie, AG.I, Plan LVII, Pls.VIII-X. On Plate LIV of AG.I is a pit grave with loculi or alcoves surrounding it, numbered 5, 6 and 7. This may be considered a very close parallel. See ~~Fig~~. and Chapter VIII . Burial Customs, p. .

Gazelles, oxen and sheep have been found in Middle Bronze Age tombs in Palestine, but these of course are provided as food for the dead, while the ass and the horse were most probably eaten at the burial ceremonial activities which may be considered of special significance. It is true that some joints have been removed from the asses or horses (onagus) in these Ajjul burials, and presumably had been eaten at the funeral feast. The placing apart, usually in a central position, of the skeletons of the animals, suggests that their presence in the tombs has a ceremonial significance.

As to the burial custom practiced in these tombs, the bodies were laid at full length, and usually composed regularly, and sometimes the legs were bent as seen in Tomb 407, Plate X:3. None of the bodies were contracted as seen in earlier periods. This full length burial practiced in these horse burials was rarely noticed at the beginning of the Middle Bronze II period.

The toggle-pins. (Figs. Pl IX)

The toggle-pins found in these tombs were two in number, represented in AG 1 on Pl. XXI:93 and 94. They are plain, unheaded and rather short. The first found in Tomb 411, the second in Tomb 263. Although I have never seen many in secure association with the Middle Bronze II period, yet many are found in Late Bronze periods.

In Megiddo[1] strata IX-VIII we may observe the same parallels to those of Ajjul burials. They are clearly represented in Megiddo II, Plate 223, nos. 61 and 62 of Stratum IX and 68-70 of Stratum VIII.

In Ajjul the same type occurs in a Late Bronze I tomb, No. 1055, represented in AG II, Pl. XVIII, no. 212. A base-ring juglet, type 89j, has been found with the toggle-pin inside the tomb.

Tell Duwier[2] (Lachish II) has produced other exact parallels in the Fosse Temple, Structure I, which are shown on Pl. XXVII 50-53. In particular no. 52 is an exact parallel to that found in horse burial no. 411. The excavators of the Fosse Temple say on page 65 when discussing the toggle pins, rings and other odd pieces of metal, that "connections from other sites confirm a general period of the XVIIIth Dynasty for the metal".

Miss Olga Tufnell was kind enough to refer me to an examples in Lachish IV (forthcoming) of the same type of toggle pins in Late Bronze tombs numbered 121, 532 and 547. They are represented on Plate 24 numbered respectively 23, 31 and 28.

Garstang[3] in his excavations at Jericho found in the upper level of Tomb 5, the same types of toggle pins. The

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(1) Loud, Megiddo II.

(2) Harding, Inge, and Miss Tufnell.

(3) Garstang, AAA XX, p. 35, Fig. 10, two numbered 5 & 6.

The tomb had provided a very full series of different objects from early in Middle Bronze II to well into Late Bronze I, and the base-ring bilbil or juglet has been found in Layer D in the same level in which our toggle-pins were found.

Thus we have seen that the toggle pins which had been used to fasten the garments of those buried in the horse burials of Ajjul, nos. 411 and 263, had exact parallels in the Late Bronze I period in tombs found in Ajjul, Megiddo, Duwier and Jericho.

The Scarabs (Fig 4 of X)

On the scarabs used by the Middle Bronze II people a very large number of animal designs are depicted, and different dieties, different kinds of plants in addition to very common concentric, circular and scroll designs. But whatever the designs on these scarabs, they do not include a representation of the horse, although we see in the later period the horse depicted on the scarabs with great delicacy and artistry. (~~See Fig. nos.~~)

It is obvious that the animal depicted on scarab no. 96 found in horse burial no. 263 is surely not a horse. The legs, head and back show that it is of a feline family, (e.g. leopard or checter).

Tomb 101 contained a variety of animals buried within it (gazelle, ox, donkey and probably, as Petrie says,

a horse). Why was the horse not depicted instead of the lion on scarab 84 if it had already been introduced?

To scarab 105 of Tomb 411 and 85 of Tomb 101 I could not find any parallel in any of the Palestinian Middle Bronze II sites, nor in any of the Egyptian Middle Kingdom sites. Scarab 103 of Tomb 407 has a very near parallel to that of Beth Pelet I Tomb 570, the pottery suggests that it is Late Middle Bronze II. Scarab no. 84 of Tomb 101 has a mythological representation of a lion with a head of a man; this had near parallels but none exact. Scarab no. 97 of Tomb 263 and 91 of Tomb 246 has pseudo-hierographic characters.

In short, the scarabs found inside these tombs are not of the general Middle Bronze II types, and have no horse representation on them at all.

The pottery offerings. (Figs Pl. IX-X)

A glance at the pottery found in these tombs may give the idea that it is not a Middle Bronze II production, and, if anything, they form a phase in themselves on our pottery chart (Fig. I). It does not belong to the homogeneous pottery types found about 1800-1600 B.C. But if one examines the pottery objects thoroughly, he may be inclined to date them (although no clear-cut distinctive change in pottery could be recognized) to the very end of Middle Bronze II and the very Early Late Bronze I period.

No.89A Pl.IX has exact parallel in Megiddo tomb 18, Pl.38:6; another close parallel is in Megiddo II stratum IX, T.3017 Pl.51:5. Jug 35P^{6} on Pl.IX has close parallel to Megiddo tombs 877C1 Pl.14:18 and 855 Pl.44:1; both dated Late Bronze. Very few objects appear in Phase IV of our chart I.

Other objects.

Generally speaking, most of the Middle Bronze II tombs in Palestine had in them some of the following objects: ivories, bone inlays, alabaster, and faience. But this should not mean that if none has been found, the tomb is not a Middle Bronze II tomb. But the absence of all of these types of objects from all the horse burials and the previous facts added to the unique character of tomb construction should mean that the tombs are those of a group separate from those of the majority of Middle Bronze II burials in Palestine.

Lack of weapons.

It has been generally accepted that the Hyksos rulers introduced the horse to Palestine and Egypt, and that they were great warriors. If these horse burial owners were warriors in the real sense of the word, where are their weapons? We have not observed a single weapon in these tombs. Yet we noticed that many of the Middle Bronze II tombs which had no horses in them, have weapons of

different types. Therefore the absence of weapons from the tombs increases our doubts, and favours my belief that these tombs were not those of Middle Bronze II warriors.

Conclusion.

Even if we assume that these burials are "horse-burials" and the identification of the animal remains discloses the horse (though not all are horses as stated by Petrie), there is still no evidence to suggest that the tombs belong to the period before 1600 B.C.

B. Other animal burials. (Figs Pl VIII)

The only donkey or horse (?) burial found was (1) also dug by Petrie in Ajjul . But the type of this burial differs from the above-mentioned one, in construction, in the disposition of the body, and in the contents found in the tomb. The burial place was a circular pit (Fig. 8) dug into the gebel, composing of two large semi-circular loculi, 1467 and 1702, and two burials, 1474 and 1476 appeared in the body of the pit.

Petrie on page 15 states that "burial 1476 though recorded as a seperate tomb group, was possibly part of the burial 1702, as it included no bones, and was set in the mouth of the second loculus". The second burial 1474

(1) Petrie, AG.IV, pp.15-16, TCH Pit.

appeared in the body of the pit and is said to contain imperfect remains of a horses skeleton. And assuming the burial was a horse burial, neither a possible donkey nor a probable onager; what other contents were found?

In the register of finds in AG.IV Plate LXVI, the following objects were noted: $6K^{1}$, 18j14, ^{23}j14, 23E6, $35P6^{N}$, $43A^{6}$, 51D, 51D2, 51G12, 51D3. It is surprising to note the absence of weapons, toggle-pins, cylindrical juglets, lamps, ivories, faiences and the common Middle Bronze II pottery types. I think a glance at the drawings will allow us to conclude unhesitatingly that the objects belong to the very end of Middle Bronze II, and the very beginning of the Late Bronze I period; anyhow a period later than 1600 B.C. as the other horse burials have shown.

C. Ajjul horse remains.

Petrie in AG.II, page 14, states that "the founding of the later Hyksos Palace IV was signalized by digging a Pit in the walls of Palace III (XLVIII). In this pit a horse was thrown after removal of the shoulders for eating, and the left thigh. On the new ground level, about 1060, there was the scattered bones of two other horses which had been eaten. Such a sacrifice would be impossible to Egyptians, and stamps this as the Hyksos level". Professor Albright dated Palace II according to scarabs, pottery and other finds to about 1550 B.C. at the

earliest, and speaks of Palaces III-V as being clearly Egyptian fortresses, to which I agree.

D. Other evidence.

Archaeologists have found some other odd bits and pieces of evidence than the above-mentioned horse burials and horse remains, in different Palestinian sites: It is very necessary to examine these remains, and to consider what they really are, and to what period they belong.

(1) Horses heads figurines:-

a) Petrie in AG.I, page 2 states that "at the base of Plate XXIV is a rude head pottery, an elementary head of limestone, and a horse's head and neck of brown pottery, showing the kind of mane of the Hyksos horses". The photograph published is not sufficiently clear for details to be certainly identified, but the appearance might suggest an erect mane, which is a characteristic of the onager. Petrie ascribes the period to the Hyksos levels, but as the provenance is not stated, the period cannot be checked by the associated finds.

b) Ory found in El Jisr[1] in the Wadi-Rubin, 14 km. south of Jaffa in 1940 a Middle Bronze rock-cut tomb. Among the catalogue of ivory finds represented on Plate XIV are fragments 81 and 82. I quote his description of them: "81 Figurine of horse(?). Hindquarters missing as

(1) Ory, Q.D.A.P. vol. 12, 1946, p. 39.

well as forlegs. Mare marked by band decorated with alternate vertical and horizontal strokes in header-stretcher form. The curved line dividing the head from neck is also decorated with parallel strokes". And no. 82, "probably figurine of horse". The question-mark for 81 suggests that Ory was uncertain of the identification, and I would agree to these uncertainties.

(2) Scarabs:-

Jericho tomb 5 (1) had produced an ivory or bone rectangular hemi-cylindrical seal depicting a horse and a rider. Though Garstang states that the date is uncertain, I would mention that the type is not a Middle Bronze type, for a comparison of this seal and the scarabs of Tomb 4 nos. 7 and 9, Tomb 5, nos. 1, 2, 5 and 9 with the other scarabs on the same plate shows this group to be of a different style. Miss Tufnell would date them to the XVIII - XIVth Dynasties, and they would therefore belong to the re-use of the tomb, which Dr. Kenyon suggests was in the fourteenth century.

Petrie (2) found in Ajjul Tomb 1165 a scarab of Apepa among other scarabs (Fig. 3 Pl X). Dr. Kenyon and I inclined to identify the animal depicted on it as a donkey. It looked to me as the modern Cypriote donkey used nowadays

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(1) Garstang, AAA, XX, 1932-33.

(2) Petrie, AG.II, Pl. VII, no. 76.

in Palestine, and I doubted the design to be a horse, but I am greatly indebted to Professor Zeuner[1] who helped in the following identification. "This picture could admittedly represent a horse, but it equally could be a donkey or an onager (wild ass of Palestine). There is no anatomical evidence to recognize which of the three species is meant. An argument against this being a horse is, however, that it is shown without the usual chariot or rider, which are so typical of the scarabs of the later period. If the beast is meant to be a wild one, which is possible in view of the vegetation indicated above it, it should be regarded as an onager, a native of Palestine, but not of Egypt. If one takes the size of the ears seriously, they are too large for a horse, and too small for a donkey. This again would confirm the determination as an onager. The eye is most certainly displaced, as a result of poor craftsmanship. The muscular hindquarters also suggest the onager. On early pictures of the horse it is usually shown in movement."

The La te Bronze scarabs found in Palestine ~~(Fig.~~) show this last characteristic feature. But it must be admitted, however, that evidence of how the horse was represented at earlier or later periods is no conclusive for its treatment in the Middle Bronze Age, a period in

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(1) F.E. Zeuner, Head of the Department of Environmental Archaeology in the Institute of Archaeology, London University.

which I believe there to be no certain evidence for its presence.

In comparing this onager scarab of Apepa I with the other horse scarabs found in Palestine, and Egypt of the Late Bronze period (XVIIIth - XIXth Dynasties) there should remain no doubt that the difference between the Middle Bronze II Onager of Apepa I and the horses of the latter periods is very clearly noticed in the drawings on the scarabs concerned.

This onager may be a successor of the tribe known to the Sumerians not later than the middle of the Third Millenium B.C.(1). The onager does not exist any more in Palestine, but in the last century it was actually seen in Iraq by Layard and by Carl Roswan in the Jebal Sinjar.

(3) Ajjul horse-bits (Model chariot wheels?) Figs 5-6 Pl X

In AG.III:35 Petrie describes two small bronze objects as follows: "two wheels, found near together = 1070 of Late Hyksos Age, on the outer face there are four projections toward off attackers, and the inner side has a deep hub to allow of the chariot side projecting or possibly they were cheek pieces of a horse-bit". The presence of the bichrome painted pottery, which is characterized by friezes divided into panels like architectural metopes, ornamented with birds, fishes, and sterotyped

(1) Mallowan, Iraq, Vol X, 1948; C.L. Woolley, Ur Excavations II; L.C. Watelin, Excavations at Kish IV.

geometric patterns, i.e. the so-called "Union Jack" in the level are enough evidence to date the level to the Late Bronze period, in addition to the other metal, ivory, bone inlay s and scarabs which are all of the Late Bronze types. Childe (1) dates the same horse-bits with cheek pieces to about 1500 B.C.

Petrie publishes also another horse-bit with circular cheek pieces, from level T.830, AG.IV, Pl.XXXV, photograph Pl. XXII. This level (2), too, has the painted bichrome pottery described above, which dates the level back to the Late Bronze period. The same period could be given to the other objects found with the horse-bits.

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(1) A History of Technology, Childe, ~~Chapter~~ , p.722, Fig.521.

(2) See Albright. The American Journal of Semitic Languages and Literature, vol. LX, 1938, no. 4, "The Chronology of a South Palestinian City, Tell el Ajjul."

Conclusion.

We have seen above that the archaeological evidence found in Palestine in the Middle Bronze II period relating to the use of horse is completely inconclusive. The evidence for horse remains is all from place only, i.e. Ajjul (Ancient Gzaz) found by Petrie.

The animal skeletal remains found in the tomb burials may be those of horses, onagers or donkeys, and cannot be proved to have belonged to the Middle Bronze II period, that is to say, to a period before 1600 B.C. The other skeletal remains found in the city levels, with the hind parts partly eaten, and one leg left (a feature noticed in the skeletal remains of those found in the burial tombs), and the horse bits (or model wheel chariots) are to be dated by the pottery contents, and scarabs found in the same level to the Late Bronze period, i.e. a period later than 1550 B.C.

It is obvious that we do not have any literary evidence in Palestine or elsewhere to show that the horse was in use in Palestine and Egypt (1) before the XVIIIth

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(1) I have consulted Miss Drower, Lecturer of Ancient History in London University, and Dr. I.E.S. Edwards of the Egyptian Section of the British Museum, and both confirmed the absence of the literary evidence in Egypt before the XVIIIth Dynasty.

Dynasty period.

What other archaeological evidence than that mentioned above, had archaeologists to establish an unsound theory, which has been generally accepted, to postulate the Middle Bronze II people, i.e. the so9called Hyksos, as the introducers of the horse to Egypt?

Indded, so far as we know, there is no evidence for the presence of the horse in Egypt itself before the XVIIIth Dynasty.

S9derbergh states that "not a single buried horse nor even a bone of a horse has been found in any of the numerous tombs from the Hyksos period in Egypt, and there is not a single picture of a horse despite the fact that all sorts of different animals are depicted on the scarabs of this time. In the hunting-scenes the hunter is depicted on foot. Thus everything in the evidence seems to demonstrate that the Hyksos never used this war technique until possibly in the last struggle against the Egyptians before they were expelled from the country".(1)

Therefore, the only proved means of transportation used by the Middle Bronze II people in Palestine were the ass, ox, onager, and perhaps the camel. They knew the horse and used it with the chariot, and alone in the Late Bronze Age.

(1) Söderbergh, E.J.A. vol. 37-38, p.60.

Section II

Chariots.

Transport was revolutionized by the application of the wheel, very soon after if not about the same time, as the transformation of ceramic industry by the potters' wheel, and owing to the prestige soon acquired by wheeled vehicles, they were often buried in royal tombs in Mesopotamian, where a few have survived intact or left very complete impressions in the soil. In Europe at a later period they were deposited as votive offerings in bogs, which have preserved the wood. These carts were often faithfully represented in art or in clay models manufactured as toys or votive offerings.

Several royal tombs (1) at Kish and Ur of between

(1) History of Technology, Childe, p.205; Ur Excavations II, C.L. Woolley, Plate 92 "Royal Cemetery" with little scenes on the inlaid standard with cab chariots depicted there. See also Kish, A Cemetery mound yielded an important series of chariot models. See E. Mackay, op.cit. pp.209-212, and Pl. XLVI. cf. Nuzy III, R.F.Starr, Pl.54, clay models of chariotecabs discovered on the site.

3000 and 2000 B.C. contain actual vehicles, while numerous works of art from these and other Mesopotamian cities, and clay models found not only in Mesopotamia, but in Assyria, North-Syria and other places provide relatively detailed information on the structure of carts and wagons as well as evidence for their use.

Professor Gordon Childe states that "as early as 3000 B.C. vehicles drawn by onagers had been used in Mesopotamia for passenger transport, and as engines of war. Both two- and four-wheeled vehicles are depicted, but the former are the better known and eventually replaced the less manoeuverable four-wheelers"(1). "Not until the second millennium B.C." states Professor Mallowan did the chariot become a really effective armament which could be used to turn the tide of battle"(2).

Anyhow, the details of the origin of the new means of communication and offence have still many points of uncertainties even if it be admitted that the substitution of the horse (instead of the onager) as a draught-animal and invention of the spoked (for solid) wheels are connected.

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(1) Childe, History of Technology, p.725. Contra Op. to Sir Leonard Woolley and others who identified onagers as horses.

(2) Iraq, vol. X, 1948, Mallowan. "A copper rein-ring from Southern Iraq", pp. 51-55, especially p.53-54.

In Syria the chariot was known at the time of Iasmah-Addu c.1800 B.C. who was contemporary with the Hammurabi of Babylon. The evidence for this has been found in the Mai-Letters (1). These letters show clearly that the citizens and the rulers of Qatna had used the "Narkabat" chariot. It seems therefore reasonable to suggest that it was from Syria that the chariot was introduced through Palestine to Egypt. The Letters show also that they were something very expensive and dear.

The word "Narkabat" mentioned in these Letters was most probably imported to Egypt, and was borrowed by the Egyptians during the Hyksos period. If it was not the North Syrians of Qatna (although I think it was) who exported the chariot and its name, it should have been the intermediaries who are the Palestinia n Canaanites in that case who gave the name to the Egyptians. Speiser says "it is not surprising to discover in the Egyptian terms for horse, parts of the chariot, reins, etc. evident Canaanite loan-words. Of these two words for the chariot itself, one is the good Semitic name "m r k b t"; the other one is "W r r j t", for which there is no satisfactory Egyptian

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(I) Archives Royales de Mair, vol. I:50.12; II:123.10-22; IV:38.11; V:20.7-18 and VI:76.22.
Cf. Iraq, VII, (1940) Gadd "Tablets from Chagar Bazar and Tall Brak", f.23, where he states that Iasmah-Addu kept teams of horses at Chagar Bazar, which he perhaps used as a relay station. See also Mallowan, Iraq IX, f.215 for Syrian models of horses and chariots c.2000 B.C. and earlier.

etymology, and it is highly probable that the name is a borrowing like the rest.(1)

The earliest evidence in Egypt was found on "the Carnarvon Tablet"(2) describing the defeat of the Hyksos by Kamose, who was probably the immediate predecessor of Ahmose I. Another inscription(3) containing the biography of an officer called Ahmose son of Ebana; a nobleman of El Kab,(4) who served with distinction under three successive kings - Ahmose I, Aneuhotep I and Thutmose I. This officer, referring to his younger days states "I followed the king on foot, when he rode abroad his chariot". This chariot may have been the only chariot in Egypt which has been used by the king alone." When he describes the Asiatic campaigns of Thutmose I, when he would have been a grown man, he says "His Majesty arrived at Naharin (N-h-ry-n) His Majesty found the foe he was [planning]

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(1) AASOR XIII, pp.49-50.

(2) The Carnarvon Tablet no. I belongs to a pair of hieratic writing boards found among loose debris of pottery and fragmentary mummies on a ledge near the entrance to a plundered tomb in the Bahari, not far from the mouth of the Dier El Bahari Valley. For details see J.E.A., vol.3, pp.111-107 "The defeat of the Hyksos King Kamose". The Carnarvon Tablets, by Gardiner.

(3) Urk IV, K. Seth 3; cf. Breasted, Ancient Records of Egypt, Vol.2.

(4) El Kab family were nomarchs at El Kab, were strong supporters of the rising XVIIIth Dynasty. The family is far older than the Empire, and already under the XIIIth Dynasty enjoyed the favour of the king. For details see Breasted, Ancient Records of Egypt, vol.11.

destruction; His Majesty made a great slaughter among them. Numberless were the living prisoners, which His Majesty brought off from his victories. Meanwhile I was at the head of our troops, and His Majesty behold my bravery. I brought off a chariot, its horses and who was upon it as a living prisoner, and took them to His Majesty. One presented me with gold in double measure."

This shows obviously that chariotry was in the time of Thutmose I used in war in Naharin of Syria, and Ahmose-Pen-Nakhbet, who was also taking part in the campaigns of Nubia and Naharin together with Ahmose son of Ebana mentions also that "again I served for King Okheperkere (Thutmose I) triumphant; I captured for him in the country of Naharin (N-h-ry-n) 21 hands, one horse, and one chariot". Here also one may deduce that chariotry was known, then, as a vehicle in war. The above mentioned inscriptions found in Egypt dated to the very beginning of the XVIIIth Dynasty show clearly when the horse and the chariot were known to the Egyptians.

In conclusion, no literary evidence has been found to show that chariots were in use in Palestine in the Middle Bronze II period, i.e. earlier than the XVIIIth Dynasty period. Therefore we may consider the North Syrians (as available evidence shows) to be responsible for the introduction of the horse and the chariot to Palestine, and through it to

to Egypt. This shows that there is no Aryan element among the citizens of the Middle Bronze II period in Palestine and Egypt. It has always been assumed that the Hyksos invaded Egypt so easily because they used drawn chariots, a war technique said to be Aryan. Though it is enough to point out here that "the horse was known in Mesopotamia long before we find any traces of Indo-Iranians"(1).

Anyhow, one should admit the fact that Palestine is the only land route between Syria and Egypt through which the chariot can travel. It is true, as I have shown on pp. 195-211 that no archaeological evidence has been found for horses or chariots in Middle Bronze Age sites in Palestine. But a relatively small area of towns of the period has been excavated.

It is therefore conceivable that future digging may produce evidence in support of the prevalent unwarranted belief that horses and chariots were already used in Palestine and Egypt as early as the Hyksos period.

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(1) Mallowan, Syria XIX, 125, horses and chariots in Mari under Zimri-Lim; Iraq, IX, 216; J.E.A. 37-38, 1951-52, p.59.

C H A P T E R VII

DAILY LIFE

Although no doubt the daily life of a member of the upper classes differed strikingly from that of the ordinary man, they had none the less certain features in common; though there were contrasts there was certainly some resemblance between the life of the aristocratic city state leader and the tribal leaders and that of any of his subjects. Our immediate concern is the ordinary man and his family, and since the available space makes it impossible to go into detail, we shall limit ourselves to an outline description.

The photograph on Pl. XIII is an imaginative drawing of Mr. Michael Ricketts based on finds uncovered from Jericho MB.II tombs during the excavation of Dr. Kathleen Kenyon in 1952-1956.

The House:-

The house in which this family lived is most probably of the primitive type of dwelling. Today such a house would be constructed as follows. It is built of sun-dried mud-brick, roofed by first laying planks of palm tree (or any other tree available) wood on the top ofthe walls, so as to span the rooms, then covering them

with reeds and palm-leaves, and finally adding a layer of earth. (Howar is now mostly used if available).

The Furniture:-

The furniture in such houses is scanty, like that in common use in the same area today. They slept on mats,(1) rugs or mattress, while the better off slept on low beds(2). Only the more important men had beds or stools.(3) They sat either on stools of wood or on chairs(4) made up of plaited reeds, very much like those in use at the present day. Dining tables with small legs as those modern ones called "Tabliah" were found. The remainder of the furniture consisted of a few wooden boxes; some are plain, others are inlaid with carved bone, as those found in Jericho tombs e.g. H18 P.E.Q.1953, Pl.XLV which have contained toilet requisites.

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(1) Jericho Excavations 1952-56 by Dr. Kenyon, tomb H.22; others not yet published.

(2) ibid. tomb J:1.

(3) ibid. tombs H:6, H:18, Jl. D r. Kenyon states "it has has not been possible yet do do any work on the finds (especially wooden objects) but it is clear that many of the objects have Egyptian parallels; the stools for instance are Egyptian type".

(4) ibid. tombs H:6, H:18, B.35.

Crockery:-

Pottery played a very important part in the furnishing of the house, including cooking pots[1] of flat bases early in M.B.,[2] round based later not represented on the photograph Fig. XIII nor on pottery types represented on Chart Fig. I : jars of varying sizes for water, oil, food and wines, pots of an extremely artistic and beautiful types e.g. the Jericho goblets represented on photograph Fig. Pl XIII and the Megiddo goblets represented on Chart Fig. I

The crockery in daily use consisted of bowls of different sizes, and platters made up generally of pottery and occasionally of wood[3], and rarely of alabaster[4] and basalt stones, saddle-querns for grinding corn, basalt bowls with their feet and pestles for grinding vegetables. They also possessed among the different types of pottery vases, some kind of an

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(1) Megiddo pottery of strata VI-XX. Shipton (Chart stratum XII, no.35a); Duncan Corpus, 32E4; AASOR XII and XIII, Pl.

(2) Jericho Excavations 1952956.

(3) Jericho Excavations, op.cit. tombs G:1; H:18, H:6, J:1, no.101 with rams decorations on four handles, no.69 of the same tomb is plain with handles. T.35 has plenty plain and with burnished handles.

(4) ibid. H:6:54 with four rams's heads and so tomb,no. 9 of tomb J:1.

(5)

elongated dipper for scooping up liquids; a great storage jar still with the dipper flask with which the liquid could be ladled out, in the mouth, (see Photograph Pl. XIII was found in a Jericho tomb. Most of the large jars in tombs of Tell Aviv Harbour were found covered with a carinated bowl (1).

Clothes:-

The arts of spinning and weaving are represented by many spindle-whorls and loom-weights in most Middle Bronze II sites, and proves that spinning and weaving were undoubtedly done at home, i.e. in the country. The early evidence for dress styles was from scarabs and Egyptian wall-paintings. "A business document of about 1500 B.C. found at Nuzi in northern Mesopotamia mentions Canaanite wool"(2). Therefore dresses were made up of either linen(3) or wool, and in different styles; elaborate and often appearing to have been a

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(1) ALiqot I, 1955, p. 3.

(2) AASOR, XVI, no. 77.

(3) Linen fragments were found in Jerich 1952-56 in tomb H.18; another carbonized cloth was found in tombs B.3 and B.35; cf. J.E.A.6, In one of the offering vessels found in the Hamah of Nahariya Temple a number of shreds of cloth which were apparently preserved because they adhered to the metal objects which were found inside the offering vessels with it.

piece of cloth wrapped round and round the body; draped to the shoulder; such a style of dress requires a "toggle" pin fastening on the left shoulder.(1) The toga-like garment dresses are depicted on scarabs as well as the kilt style of dress.(2) Some of the dresses are sleeveless, others have a half-length sleeve; they are either of full length or a knee length tunic.

The women's dress was extremely simple, being long and concealing the figure. A garment closely resembling those worn by men (always long) but probably more highly developed than men's clothes, and probably the shoulders of the women when they went out are covered by the ends of the material which is gathered in front.

Hair-dress:- Could be recognized on a scarab found in Jericho. tomb 13 in 1932; a bandeaux type is recognized on the head of the lady on Pl. XII (3)

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(1) Miss Henchel Simon has proved in her valuable monograph (Q.D.A.P. that the toggle pin was not used for the hair but to fasten a robe in place. She had successfully done the typological development. The writer will publish very soon their chronological order.

(2) Q.D.A.P. 12, Pl. XIV, 1942. Male figures wearing the kilt carved on ivory pieces were found by Ory in Al Jisr.

(3) This jug was found by the writer in an MB.II tomb in 1953. It will be published in the near future in the P.E.Q.

Footwear:-

The men wore sandals, and the women wore low leather boots as shown in the Bani-Hasan tableau, and probablythe MB.II people of Palestine used the same footwear. (See Pl. II).

The Tpilet:- hair and beard.

Nearly all representations of figures of this period as the photograph ~~Fig.~~ Pl XIII shows people had a full beard and thick hair, for they use the evidence of the Bani-Hasan tomb (~~Fig.~~ Pl II).

Female hair was either plaited(1) or left long, tied with a band. The great number of combs of wood found in Jericho tombs of 1952-56 show how careful the ladies were of their hair.

Personal belongings:-

The ornaments with which the Palestinians decorated themselves consisted chiefly of necklaces made of different types of beads and pendants. The material used for them was faience, carnelian, crystal, paste inly and amethyst. They are spherical, cylindrical, square, barrel-shaped, single, double, multiple,

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(1) ~~AAA. XX, 1933, tomb 13, p.37.~~

(1) Jericho Excavations 1952-1956, tombs H:18, H:22 and Ji. see also Pl XII

and of many other shapes. They are black, white, red, blue, green, purple and of every other possible colour; some also display a variety of combinations of colours. Bronze and silver rings were used but are very rarely found. Scarabs of different materials were found every where in the Middle Bronze II period. They were either imported from Egypt or made at home. "The Canaanite scarabs at their best are as fine, if not finer than the Egyptian. The number of scarabs found in southern Palestine, so far exceeds the number found on any one site in Egypt that it becomes a question whether the scarab may not be actually a sacred Canaanite product introduced into Egypt".(1)

They were made of different material and designs.

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(1) P.E.Q. 1948-9 page 92. "Some Canaanite Scarabs", by M.A. Murray. I would like to add after the word 'introduced' (in highly developed types) into Egypt, because the scarabs were known in the Fifth and Sixth Dynasties though very rare and of rude form, with roughly geometrical designs upon their bases. cf. Petrie, "Scarabs and Cylinders with Names", Buttons and designs; Row: Cat. of Egyptian scarabs, Cairo 1936; Hall, "Catalogue of Egyptian scarabs" in the B.M. (London 1913).

The scarabs as well as the seals were an absolutely indispensible possession, since they were the means by which the authenticity of a document was established. They serve as a personal identification, being used in a variety of ways, not at all alike in any one city. The most favourite belongings of women were the toilet boxes which were decorated with fine bone inlay (1), alabaster kohl pots (2) and faience (3) perfume vases. Those found in Egypt have close parallels in Palestine. Those of Palestine were either brought from Egypt and are very rare. The majority were made in Palestine. The type of bone inlay and the faiences were known in Egypt only in the Hyksos period.

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(1) Were found in Palestine in every Middle Bronze II sites. They appeared in use in phase IIB and remained till about the fifteenth century, c.1700-1500 B.C.

(2) see chapter VI section 4.

(3) " " " section 5.

Meals:-

One might suggest from our knowledge of the food available that they would begin with a simple breakfast of bread, olives and milk.(1) At mid-day they would have an ample meal cooked with olive oil starting with lentil soup,(2) followed by a tasty meat dish, perhaps a mutton stew or liver(3) with chick peas(4) and broad beans(5) -

(1) Olive seeds discovered by Kaplan in a tomb of Beni Braq dated to Ghassolian stage of the Calcholithic period; In Beth-Shan and Jericho 1952-56 excavations. "The earliest evidence of planned olive cultivation in Egypt dates from the XVIIIth Dynasty" states D.V. Zoitscheh in Atiqot I, p.73. This I suggest shows that Palestinian Canaanites of the MB.II people had most probably introduced it to Egypt. Only one instance of an olive stone from early period in Egypt, according to Schwveinfurth Schiaparelli was found in a tomb of the XIIth Dynasty at Doraa Abu-Naga.

(2) Atiqot Vol.I, 1955.

(3) Jericho Excavations 1952-56.

(4) & (5) Atiqot vol. I. The chickpeas, the broad beans, the Kirsenne seeds, the cereal grain such as barley and wheat, all were found in a carbonized form but identifiable. They were found in storage jars of the early Iron Age period (XIIth-XIth centuries). The examiners of the seeds stated that the first three are in an intermediate position between the seeds of the wild growing Palestinian species, and those of the recent cultivated species. They are plants endemic in Palestine.

for dessert they could choose from a number of fruits accord-
(1) (2) (3)
ing to the season, dates, grapes or pomegranates.
(4) (5)
This excellent meal would be washed down with beer or wine.

Fodder:-

(6) (7)
Animals were given hay, barley and kirsenne , in addition to green and dry grass.

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(1) Palm leaves are represented on scarabs of MB.II sites; on the miniature vase on Pl. XII Fig. the palm tree is depicted on one of the sides.

(2) Grapes are ancient in Palestine; the wine presses found everywhere in Palestine are strong evidence; Jericho Excav. of 1952-56 (tomb 35). Tomb 35 B has a very attractive modern vessel carved in the form of a pomegranate, the two halves held together by minute dowels Pl. XXIII, Fig. I, near by were found remains of real pomegranate.

(3) Excavation s at Jericho, P.E.Q. 1952-53.

(4) Barley was found in Jericho and Afula; therefore beer was most probably made. Starkey suggests that the basalt bowls on three legs were used for grinding. A special kind of sealed jars which still retain traces of wine and barley found also by Garstang.

(5) Jericho tombs 1952-56, also T.B.M. XVIII, p.37.

(6) Atiqot I, 1955. Jericho 1932-35 excavations by Garstang.

(7) Ibid. Several thousands of kersenne seeds were found in Afula. Some of the seeds have holes eaten by an insect pest of the genus Burchus which is still the chief pest of the seeds of this legume.

Lighting:-

The Canaanites' system of lighting can be briefly described as the use of primitive lamps, originally shaped like a shallow saucer having a flat or rounded base, with a pinched spout through which the wick passed. The oil used, most probably olive oil (it is still now in use) and turpentine[1]. If they wanted a blaze of light, they would have most probably used torches.

Farming and Plantation:-

Grain, barley, oats, millet, sesame, kersenne, chic peas, broad bean and lentils, all of these were found in large storage jars in Jericho and Afula.

Fruit plantations were getting on well then; palm trees, pomegranates, olives, grapes and probably figs and almonds. Ploughing the land was probably done by oxen and donkey which are still in use today.

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(1) Q.D.A.P. vol. 12, 1946. Ory found in Aljisr a lump of greyish-white substance having a hard crust, possibly limestone c. 2 mm. thick, the lump proved to contain a kind of resin, probably turpentine.

Stock breeding and other animals:-

Pigeons[1], sheep, goats, gazelle[2], ostriches[3], camels, onagers, oxen, donkeys, dogs and lions were depicted on scarabs of the period. Monkeys were represented in clay figurines found in Nahariya[4].

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(1) A figurine of a dove was found in Nahariya, IEJ, 6, 1956, Pl. 4, Fig. F; Megiddo tombs, Pl. 245, nos. 18 and 19.

(2) AG. I Petrie found bone of gazelle buried with other animal bones in the same tomb no 101

(3) A Middle Bronze II tomb discovered by the writer has a miniature pottery vase, Pl. XII on which an ostrich has been depicted; ostrich eggs have been found in some of the Jericho tombs of 1952-56 and in Beth-Pelet tomb .

(4) I.E.J. vol. 6, 1956, Plate 3, Fig.F. Monkey figurine on neck of jug.

C H A P T E R VIII

BURIAL CUSTOM

From remote antiquity the burial of the dead has been regarded as one of the most important duties which man has to perform. In our own day the same idea prevails, but performance of this duty involves very much less than the performance thereof in ancient times. The seemly disposal of the remains of the deceased in a grave, vault, or cinerary urn marks the complete fulfilment of all obligations to the dead, but the conscience of ancient peoples was not appeased in so easy a manner.

The belief among the Middle Bronze Age citizens of Palestine in a future life prevailed then, and this belief made them care much for supplying the deceased with provisions, household objects, domestic utensils, and even to supplying the warriors with arms and the children with toys, in addition to the supplies of food which might be needed. This may give us the idea that they tried to make the ∝ tomb a fit dwelling place for the long future.

The earliest and most primitive form of a grave was a hole in the ground just large and deep enough to hide away the body in a doubled up (contracted) position. But in Middle Bronze II we see that the graves were not less than two meters in length, and the majority were always larger. The methods of constructing the tombs

varied in different towns depending largely on the type of soil or rock, and the locality of the chosen burial places; and for the sake of convenience I am going to treat the construction of tombs of the various towns discovered separately e.g. Megiddo and Tell Aviv Harbour on the north, Ajjul and Beth-Pelet on the south, and Jericho on the Jordan rift. Meanwhile, I will be relating other important separately discovered tombs in Palestine where necessary to the above-mentioned cemeteries.

Megiddo.

The citizens of Megiddo rarely used the earlier Early Bronze-Middle Bronze shaft-burials. Cave burials were used as in Gezer Cave Tombs 28 II and I. Pit and built stone graves were usual in the Middle Bronze II period. Pit graves were surrounded by a circular wall of masonry as Tomb 50 in square 15; others were surrounded by rough stones set in mud as in Tomb 244 in square 5.15, Fig. 59, which is contained of an adult (female?) partly contracted, on left side, holding a child in a similar position; a smaller child, also contracted, lay at the feet of the adult. In Jericho excavations by Dr. Kenyon, the re-used shaft Tomb A46 show a multiple simultaneous burial with piles of children's bodies, some lay on their backs, some on their faces, others on their right or left sides. This, with that of Megiddo, may be an evidence for some kind of pestilence, which Petrie spoke of when describing

his tomb 407 of Ajjul, within which a woman carrying in her arms her child, and having another at her feet, was found.

Of interest are the structural tombs 51 and 56, the first having a masonry passage (Figs. 54-56) and a chamber (Fig. 53) built over a cutting in the rock; the second, T.56, with sides built of masonry which is comparable to tomb 51. Such a feature of structural tombs has been found by Loud[1] in Megiddo City levels. Here is his description of them. "In the block of rooms in square O,14, Fig. 214, are three structural tombs, T.3070, 3075 and 3085. Although Tomb 3070 is attributed to stratum X and another such tomb (T.3095) to stratum XII, structural tombs in general may be typical of stratum XI in that all others - two mentioned above, T.308 in square O.15 (Fig. 215), and three in area AA are thus stratified".... "The tombs themselves are of stone, and are roofed with the same material. They consist usually, for example T.3075 (Fig.216-18) of a single irregularly shaped chamber with a small passage to a narrow doorway closed with a disk-shaped stone rolled into place. More elaborate is T.3085 (Fig.218) with two chambers at different levels with closure passage between..... The doorway between the chambers is framed with jambs and lintel of cut slabs (Fig. 222-23), Tomb 3070 of stratum X is unique in having its roof supported by a central pillar". All these

(1) Megiddo II text, Loud, p.92.

structural tombs and the others found in the cemetery were all multiple burials.

Among other multiple burials found in Megiddo cemetery[1] were Tombs 911 and 1100 which had been used as tribal or family burials for a period ranging from 2000-1600 B.C., but not used continuously. Tomb 911 has some particulars in having (a) a well finished rock surface; the walls were covered with a coat of white-wash 1-2 millimeters thick, the period of which could not be decided, but may be of a later period. A Jericho Tomb, 1952-6 has been recognized to have also some kind of a white-wash on its walls; Megiddo Tomb 1100 which is also a shaft tomb with recessed footholds is said to have had plastered walls in chamber D. Both tombs had no toolmarks visible where it was exposed. (b) A second interesting feature in Tomb 911 is the head of one of those buried bodies found in a rubble pit in the floor near the shaft. It had apparently been propped up on a "pillow" of rock, since it was 20-25 cms. above the neck; the same feature in Jericho Tomb H.6 where a stone head-rest was noticed. (c) An interesting find was the human hand bones found in three Middle Bronze II bowls. This feature was recognized in Tell Aviv Harbour graves, Ajjul, Beth-Pelet, Gezer and Jericho tombs.

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(1) Guy and Enberg, Megiddo Tombs, pp. 64ff and pp.88ff.

Stone built (lined) graves with multiple, double and single buried bodies, mostly contracted, were discovered among the different strata of the city as shown below at Fig.

STRATUM XII

Tomb No.	Type of Tomb	Burial S.D.M.	Area	Square	Plan Figures
3095	structural	M	BB	013	398	202-5
5267	"	D	BB	M13	398	311
5142	"	M	BB	M12	"	3o5
2135	lined stone grave	S	"	N14	"	315
5067	"	D	"	N12	"	313
5259	"	M	"	M13	"	316
5137	"	S	"	M13	"	309
5261	"	S	"	M13	"	307
5254	"	S	"	M13	"	
5106	"	Sch	BB	M12	"	304
3145	"	Sch	BB	014	"	310
3084	"	Sch	BB	015	"	314
3092	"	Sch	BB	D15	"	317
5255	Pit grave	Sch	BB	M13	"	308
2138	"	Sch	BB	N15	398	312
3111	"	M	BB	N15	"	
3123	"	M	BB	014	"	
4099	"	M	AA	L7	378	
4107	"	M	AA	K8	"	
3086-7	"	D	BB	D15	398	
3137	"	D	BB	014	398	
4091	"	D	AA	L7	378	
4100	"	D	AA	K7	378	

Stratum XII continued.

Tomb No.	Type of Tomb	Burial S.D.M.	Area	Square	Plan Fig.
5274	Pit grave	D	BB	M13	398
2031	"	S	BB	M13	"
2125	"	S	CC	S10	407
2142	"	S	BB	N14	398
2145	"	S	BB	N15	"
2147	"	S	"	N14	"
3104-5	"	S	BB	O15	"
3114	"	S	BB	O15	"
3117	"	S	"	O13	"
3122	"	S	"	O15	"
3128	"	S	"	N14	"
3129	"	S	"	O13	
3133	"	S	"	O13	"
4094	"	S	AA	K7	378
4100-	"	S	AA	K7	378
4102	"	S	AA	K8	"
5068	"	S	BB	M12	398
5111-12	"	S	BB	"	"
5134	"	S	BB	M12	"
5137	"	S	"	M13	"
5232	"	S	"	"	"
5241-42	"	S	"	"	"
5254	"	S	BB	M13	"
5255	"	S	"	"	"

STRATUM XI

Tomb No.	Type of tomb	Burial S.D.M.	Area	Square	Plan	Figures
3075	structural	M	BB	014	399	
3175	"	M	AA	K7	379	32, 34
3085	"	M	BB	014	399	214,218-23
4055	"	M	AA	L7	379	
4070	structural ?	M	AA	K7	379	
3070	structural	M	BB	014	399-400	227,230-35
3080	lined stone grave	M	BB	015	399	
3076	" " "	M	BB	014	399	323
4096	structural or stone	M	AA	L7	379	
5046	lined stone grave	M	BB	N12	399	
3110	" " "	M	BB	N14	399	320
2129	" " "	M	BB	N15	399	327
3058	" " "	D	BB	015	399	318
3064	" " " ?	D	BB	014	399	
3090	" " "	D	BB	014	"	
4078		D ?	AA	K7	379	
4109	Pit or stone?	D or S	AA	K8	379	
5133	Pit	D	BB	M12	399	321
2026	lined stone grave	S	CC	S10	407	325
5050	" " "	S	BB	N12	399	326
5249	" " "	S	BB	M13	399	324
5250	" " "	S	BB	M12	399	319

Stratum XI continued.

Tomb No.	Type of tomb.	Burial S.D.M.	Area	Square	Plan Figures
3058	Pit	D	BB	014	399
3064	"	D	BB	014	399
2026	"	S			
2129	"	S			
2130	"	S			
2141	"	S			
2143	"	S			
2144	"	S			
3071	"	S	BB	N-014	399
3072	"	S	BB	014	"
3077	"	S	BB	015	"
3081	"	S	"	"	"
3082	"	S	"	014	"
3083	"	S	"	015	"
3107	"	S	"	N14	"
3120	"	S	BB	N14	"

M = Multiple

D = Double

S = Single

STRATUM X

Tomb No.	Type of Tomb	Burial S.D.M.	Area Square	Plan Figures
3048	structural	M BB DI5	400	339
4043	Lined stone grave	M AA L6	380	328-29
4054	" " "	M AA K8	380	
4051	" " "	M AA K7	380	337
4106	Jar burials	M AA K8	380	336
3026	" "	D BB 014	400	333
3030	Pit or stone	D BB 015	400	
3063	" "	D BB 014	400	~~338~~
3054	Jar burial	S BB 014	400	338
3139	Lined stone grave	S AA K6	380	
3034-5	" " "	S BB 015	400	
3055	" " "	S BB 014	400	330
3029	" " "	S BB 014	400	331
4022	Pit	S AA K8	380	
5240	Pit	S BB M12	400	332
2126	"	S BB N15	400	334
3047	"	S BB 014	400	335
2027	"	S CC R10	407	
2028	Child in corner room.	S CC R10	407	340
2029	Pit	S CC R10	407	
2034	"	S CC Q10	"	
2140	"	S AA K8	-	
3050	"	S BB 014	400	
3052	"	S BB 014	"	

Stratum X continued

Tomb No.	Type of Tomb	Burial S.D.M.	Area	Square	Plan Fig.
3057	Pit	S	BB	014	400
3059-60	"	S	BB	014	400
3065	"	S	BB	014	400
3066	"	S	BB	015	"
3074	"	S	BB	014	"
3167	"	S	AA	K7	380
4007	"	S	AA	K7	380
4018	"	S	AA	K7	380
5244	"	S	BB	M12	400
4018	"	S	AA	K7	380
5244	"	S	BB	M12	400

Provenance	Type of burial	Multiple	Double	Single	Total
Stratum XII	Structural (1)	2	1	-	3
	Lined stone (2)	1	1	8	10
	Pit graves	4	5	25	34
Stratum XI	Structural	6	-	-	6
	Lined stone	6	4	4	14
	Pit graves	-	4	14	18
Stratum X	Structural	1	-	-	1
	Lined stone	3	3	4	10
	Pit graves	-	-	19	19
	Jar burial	-	-	3	3
Cemetery	Structural	1	-	-	1
	Lined stone	3	1	1	5
	Pit grave	-	-	8	8
	" " cenotaph	-	-	1	1
	Jar burial	-	-	3	3
	Pot burial	-	-	I	I
	Rock cut	-	-	1	I
	Shaft, re-used	3	-	-	3
	Burial in debris	-	-	4	4
		30	19	96	145

(1) A structural tomb consists usually of a single irregularly shaped chamber with a small passage to a narrow doorway closed with a stone rolled in place.

(2) A lined stone tomb is an irregularly built chamber without any passage, closed with one stone or more.

(3) The provenance of the tomb in the stratum is not to be taken into consideration, because the strata of Megiddo are not accurately dug.

The structural multiple burials, and some of the lined stone graves were very rich in contents, if compared to single burials. An enormous amount of pottery along with a scattering of coarse jewellery, metal implements, scarabs and incised bone inlay which was found in nearly every structural tomb, were all preserved and discovered intact in these tombs. None of the structural tombs has goblets, faiences or alabaster vases.

I am inclined to date these multiple structural tombs according to their contents to a period later than the re-used shaft tombs, i.e. a period after 1700 B.C. and before 1600 B.C.

The charts of Megiddo show that single burials seem to have been more favoured in Megiddo than in Jericho and elsewhere in Palestine. They were mostly found on the tell, while in Jericho all tombs were outside the city, and were all multiple burials, and mostly re-used shaft tombs of earlier periods.

The preference of Megiddo citizens to bury on the tell, lead them to build their graves with stones. But the structural tombs and the lined stone graves are not a new feature to the citizens of Megiddo in the Middle Bronze II period. The type of built stone graves has been seen in earlier periods on the tell of Megiddo, specially in

strata XIV-XIII;[1] and one could say too that the construction of such types of tombs continued in use in later periods, as one could notice some tombs of strata IX and VII[2].

Tomb 234 is worth noting. It was nothing more than a pit in the rock (1.5 x 1.0 x .9 meters deep). In it were found fragments of a single contracted buried adult. On the south-east edge of the pit a basalt bowl was set in the rock for the reception of offerings. A similar bowl was set in the same relative position, slabs of stones were seen bedded in some 5 cms. of earth which rested on natural rock. This locus which has been marked by the excavators (235) seems to have been an offering place or cenotaph[3] associated with the group of pit graves near it.

Infant burials in Megiddo as well as in Gezer and other Palestinian MB.II sites were found. Some were in pit graves, others were inside jars. Whether these infant jar burials were used as ordinary burials or for ritual and sacrificial purposes when found under the walls or floors of buildings I could not really tell. They may have been

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(1) Megiddo II. T.5181, sq:N12 stratum XIV BB; T.5121, M12, stratum XIX both of fig.395. T.5148, N12 stratum XIII B area BB,Fig.396 are according to contents MBI; T.4112 stratum XIII AA is of an early MBII; T.3130,N14,XIIIA, BB and T.2146,N14,XIII A, BB of Fig.397 are also of MBII as well as T.3093,014, of stratum XIII A,BB,Fig.397 and 4088, L7, XIII AA,378.

(2) Ibid. T.3169 stratum IXAA, L7
T.3094 stratum VII B,AA, L6, and T.3158 stratum VII A,AA, L9.

(3) Megiddo II, Loud, text, Fig. 57.

used sometimes for ritual purposes when the other circumstances and evidence show it. But what is unusual is the large cooking pot burial, tomb no. 257, found in square 15, which contains a contracted and much decayed skeleton of an infant. There was no furniture whatsoever beside it. This custom of jar burials was used in earlier and later periods as well as in the MB.II periods.

Disposition of the bodies:- Loud states that "The burial positition where ascertainable was contracted, but in most cases less so than in earlier times. Skeletons lay on either side with the head in seven out of eight cases west to northwest".(1)

Funeral offerings:- The re-used shaft tombs especially nos. 24 and 911, together with the structural family or tribal burials, give us a clear idea about the offerings, which may really be considered as a representation of arts and artifacts of the MB.II period. They have the usual MB.II offering objects.

A Cemetery near Tell Aviv Harbour.(2)

Construction of graves.(3)

" The graves were scattered without any special plan Kaplan. " over an area of 600 square meters. " In all the graves a

(1) Megiddo Tombs, Guy and Enberg, p.137.
(2) Atiqot, Journal of the Israel Department of Antiquities, Vol. I, Jerusalem 1955. J. Keplan, The excavations were carried out as part of an archaeological survey of Tell Aviv made on behalf of the Dept. of Antiquties and the Tell Aviv municipality in 1949.
(3) The description was summarised from page 2; dated by the excavator on page 6 "To the latter part of the Patriarchal

rectangular shaft had originally been cut, measuring on an average about 1.9 x 1 m. and 1.6 m. deep. At the bottom of the shaft, as a rule in the long side of the rectangle, was hewn out an arched burial niche about 2.10 m. long, 1.10 m. wide and 0.75 m. high. In the corners of some pits there were still steps which facilitated the descent to the bottom of the shaft, and in some of these steps were small, round depressions. Thirteen out of the eighteen graves were single burials. Three were double graves and the remaining two were intended for three burials.

Disposition of the bodies.

It is too difficult to tell how the bodies were laid because the bones have not survived; mainly teeth had remained intact. They were found in or near the eastern ends of the graves from which the excavator deduced that the bodies were mostly laid with their heads to the east. Orientation has not been decided as having been followed as a rule in any of the other cemeteries discussed.

The burials of Dhahrat el Himraiya[1] are classified

(Continued)

Age (MBII) corresponding to T.B.M. stratum D and Megiddo stratum X. i.e. the days of the decline of Hyksos rule in the country","and a precise examination of the findings in the different tombs show that in the cemetery under discussion there are tombs corresponding to stratum IX in Megiddo, to wit nos. 2,8,10 and 14 in which were discovered scarabs nos. 11,13,17,20 and 22 (see also the table of finds). These scarabs belong to the Early XVIIIth Dynasty, i.e. the period between 1550 and 1468 B.C."

(1) J. Ory, Q.D.A.P. Vol. 13, 1948. A Bronze Age cemetery, pp. 75-89.

by posture of the burials, and they fall into two main classes: (1) those in which heads are to the east, while the bodies are partially though sometimes only slightly, contracted; (2) those in which the bodies lie at full length with head to the west. Of these two classes the former is, generally speaking, associated with Middle Bronze pottery types; the latter invariably with Late Bronze.

? when T. Gaster

The numerous toggle pins found in nearly every grave may suggest that the dead were buried in their clothes[1]. The excavator suggests on page 3 that the double graves, nos. 3, 7 and 11, were probably intended for husband and wife.

Funeral equipment.

As usual, the graves were found to contain all kinds of funerary offerings, including not only food and drink, and the vessels containing the same, but also weapons and objects of personal adornment, but without lamps. There is a particular feature stated to have been noticed by the excavator, which has not been suggested anywhere else in relation to the number of pithos and jars found in the graves. Kaplan states on page 3 that "as a rule a pair of large pots, a pithos and a jar, or two jars, were placed beside the feet; sometimes the of the

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(1) Q.D.A.P., Vol. XII, 1946. The dead buried in clothes,

large jars was near the head and one near the feet (11B,14). In some cases however three large jars were placed in one grave, two of which were near the feet and one near the head".

Beth-Pelet Cemetery

The tombs.

The tombs were found north-east of the city. Most of them were either robbed or destroyed because the chamber had collapsed, but the usual plan of these tombs was a chamber tomb with a stairway, as those of Tell Aviv Harbour Cemetery. This type of shaft tombs, with stairs leading into a chamber, which has the unusual feature i.e. bilobate in plan, was the most common type found in Beth-Pelet. The roof of the tombs was held up in the middle. These bilobate tombs were blocked with large slabs as seen in tomb 550.(1)

The chambers were either rounded or rectangular in shape, and there is a slight possibility to say that the rounded chambers started in use a bit earlier than the rectangular type, as contents of the tombs may have shown.

Disposition of the bodies.

All the tombs contain either double or multiple burials. Those with skeletal remains show that bodies were partly extended but untidily arranged in contrast to

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(1) BP.I, Pls. XVII, XVIII.

the contracted burials of the EB-MB period, and the neatly arranged fully extended bodies of the Late Bronze period especially Tomb no. 902 [1] which has been dug into the glacis and which is a multiple simultaneous burial.

Funeral equipment.

Objects were of the usual types, pottery, faience, alabaster, weapons, toggle pins, bone inlays and scarabs. "An unusual object from Tomb 1021 was a decorated ostrich egg with a design thrown into relief by a pitted background" [2]. The ostrich egg is not unusual now, because it has been found in Duwier Tomb 1502, Ajjul Tombs 1701, [3] 1717, Al Jisr [4] MB.II cemetery, Jericho Tomb 9 and in six tombs in Jericho dug by Dr. Kenyon (forthcoming publications). Maisler and Yevin [5] state that the practice of placing ostrich eggs in tombs seems to have been customary at that time.

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(1) BP.I, Pl. XIII.

(2) BP.II, Starkey and Harding, Pl. XLii.

(3) AG.III, Pl. LXVIII.

(4) Q.D.A.D., Vol.XII, p.34.

(5) Palestine Guide, p. 64.

Ajjul Burials

The tombs.

Burials in pits were the general type. The shaft grotto types were very rare and when re-used they were very shallow. Of special interest is what Petrie calls a cave burial, 303[1], but which was probably a shaft-tomb with chamber, in which was most probably, as remains show, a single burial. It was of two layers, the lower was of one contracted human remain and offering of animal. The contracted body may have belonged to a warrior having a dagger type 25 on his left shoulder in situ. The upper layer burial 303A was more or less stretched. The doorway to the chamber was blocked with stones.

Some of the tombs in AG.I found on the tell, shown on Plate LIV, numbered 1-40 (and 601-640) on excavator's records, were mostly pit graves with single burials, though others were double and few multiple. They are of the very end of MB.II and some show MB-LB context. What is of great interest to me in all of these burials is the circular pit[2] with alcoves or loci surrounding it, numbered 5, 6 and 7. It looks to me that such a type of burial may be considered a very close parallel to the horse burials discussed in Chapter VI. Both are of nearly the same type in construction, and in disposition of the buried bodies, i.e. a single body was laid in each locus. It is a pity

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(1) AG III. Pl.XLIX.

(2) AG I. Pl. LIV.

that loci 6 and 7 had no remains of bodies or pottery in them, but it is satisfactory at the same time to find in locus 5 a dipper 5IG (as those in horse burials) and a two-handle decorated jar no. 55W7 in C.P.P. This is recorded on the excavator's Tomb cards, but not in the published register. Why was it omitted? I simply guess that it does not fit in well with MB.II pottery. This jar was either owned by the first occupant of the grave, or the grave was re-used by the owner of the jar, who may have been buried in a later period. Anyhow, whatever the case may be, this type of tomb burial appears to me to be the only close parallel to those horse-burial types, and the jar with great certainty does not belong to the Middle Bronze II period.

I would like to point out that the shaft tombs of the EB-MB were not re-used in Ajjul as they were in Jericho. The stone roofed burial tombs of the EB-MB and the Late Bronze periods were not found at all in the MB.II period in Ajjul. This may suggest to me a clear evidence of a decline in the architectural construction of tombs in this particular period.

Disposition of the bodies.

The haphazard sprawling and piling up of bodies in a somewhat contracted and semi-stretched fashion with legs slightly bent, show when compared to the single contracted burials of the Courtyard Cemetery graves (1410-

-1419)[1] of earlier period, and to the multiple burial tomb 1166[2] which is cut into the glacis with the orderly stretched, full lengthed bodies that even in the disposition of the buried bodies they show a decline of taste and due respect to those buried.

Bodies in single burials were either contracted or extended; the same feature has been noticed in Megiddo single burials at the end of the MB.II period.

Funeral offerings.

The offerings were of the usual types of the MB.II period, but they were not rich if compared with offerings of earlier and later periods which had plenty of gold, jewellery and other valuable personal ornament offerings. If this feature noticed in the tombs may be considered as the mirror of the industrial status of the period, it shows a decline as has been seen in construction of tombs and the disorderly disposition of the bodies buried in Ajjul.

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(1) AG.II, Pl. LIV.

(2) Ibid., Pl. Liii.

Jericho Tombs.

The most productive cemetery in Palestine was found in Jericho by Garstang in 1932-33 and Dr. Kenyon in 1952-56 which was very accurately dug, and delicately uncovered according to systematic, stratigraphic new method of excavation, with all objects drawn, photographed in situ, then removed, recorded, cleaned and repaired on the spot. However, the tombs were all of the same type, cut in the soft limestone, with a vertical shaft, usually deep, opening into a round chamber about two meters or more in diameter and one meter high. The entrance was blocked by a stone door (mostly rounded and nearly 40 cms. in diameter) embedded by mud and small stones to keep it tight.

Middle Bronze II citizens of Jericho did not use pit graves as in Megiddo, Beth-Pelet and Ajjul. They re-used some of the EB-MB shaft tombs, and when re-used the skeletal remains were either removed, pushed back, or in some cases kept in their place and covered with enough earth, so that not to be affected when buring another body. This later way has not been noticed anywhere in Palestine. Sometimes much of the pottery was stacked in the shaft.

Disposition of the bodies.

The bodies in most tombs were well preserved, almost

all are multiple burials, some are successive with piled-up bodies, others are simultaneous burials. None of the bodies are contracted, they are mostly in an extended position, but almost usually untidely arranged. The simultaneous multiple burials are remarkable for the fact that anything from four to ten bodies were put in at the same time. In two cases, one of the bodies appear to be a principal burial and the rest subsidiary (1). But in the others, the bodies are simply ranged side by side with no suggestion of differentiation. The excavator, Dr. Kenyon, with reference to this group of tombs, suggests that "since there is not much similarity in the pottery and other tomb furniture, it seems probable that burials in all this group of tombs were made simultaneously or at least within a very short period, probably in the seventeenth century. It thus seems likely that the bodies are those of citizens of some disaster, famine, or some infectious illness. A superficial examination did not show any sign of injuries, so slaughter in war is less probable" (2).

Of particular interest is Tomb H.6 where the centre of the tomb was occupied by a low platform of mud-brick(dais) on which the principal burial was placed

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(1) P.E.F.Q. 1953, Dr. Kenyon, pp.93-94.

(2) ibid. pp. 94

(Pl. XLI:2); ranged round it were the bodies of one adult, one young person and a child.

Another of particular interest was Tomb H.18 where the principal burial was immediately inside the entrance; the body lay on a wooden bier or bed (Pl. XLIII), which was covered by a rush mat. Beside it other bodies were laid.

In the other tombs which are all multiple burials, i.e. which have been used over a considerable period with a consequent disturbance and piling up of earlier burials, one recognizes that the latest buried bodies were ranged side by side, stretched with legs slightly bent, and none either contracted nor fully stretched, i.e. in complete full length as seen in the Late Bronze Age tombs of Ajjul, Beth-Pelet and Megiddo.

The one other outstanding tomb in character and contents was the only single burial discovered in Jericho of this period so far found. The burial was intact, except that the skull had been crushed by a piece of roof fall (Pl. XVIII,I). The dead person was obviously a young warrior. Beside him lay a fine dagger with an alabaster pommel, and an axe, both typical of an early stage in the Middle Bronze Age. On the other side of the tomb lay two other daggers and two other axes. Beside him also was a very fine bronze belt, much decayed, but the embossed design was clearly visible (Pl. XVII, 2 and

3) (see Page 18). A similar belt not embossed was found at Tell el Farah, near Nablus.(1) In the shaft of this Jericho tomb were the foreparts of three equids - whether they were horses, onagers or asses must wait examination, says Dr. Kenyon. The pottery offerings in this tomb were of exceptional fineness. The most remarkable was a beaker in the form of a goat's head (Pl. XVII, 4) (see Page 19).

Burial offerings.

Jericho tombs offered evidence never before obtained of the complete furnishings of Palestinian Middle Bronze Age tombs. From these can also be inferred the furnishings of houses of the period. Many of the objects have Egyptian parallels, especially the wooden objects. These remarkably preserved wooden, basket-work and textile objects characteristic of the Jericho tombs, enabled Professor Zeuner(2) to carry out experiments to ascertain the cause of preservation, while other funerary objects are nearly of the same types found in other Palestinian MB.II tomb offerings, and the material under discussion here may be considered as model tomb furniture offerings.

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(1) Revue Biblique LIV, Pl. XX. Pere de Vaux.

(2) P.E.Q. 1955 "notes on the Bronze Age tombs of Jericho" pp. 118-128.

The burial deposits may be divided into the following classes:

1. Funerary offerings of food and drinks in wood and pottery vessels.

Bowls and plates made of wood or pottery were placed on tables as in Jericho tombs, or near the head as seen in other places with the hand of the deceased in the bowl as if about to eat his food, or near the foot. Remains of a joint of mutton and a piece of liver have been identified in Jericho and Megiddo tombs. Charred pieces of bread, remains of a real pomegranate and raisins were recognized. Bowls and plates were common everywhere and were found around the corners of the tomb and surrounding the buried bodies.

Pithos, jars and jugs of different types and sizes were very common everywhere. Pithos and large jars were leaning on the walls when they had not been disturbed. Dippers were often found in the mouths of the pithos suspended by a stick through the handle. A skin of evaporated liquid is often noticed. The ladle, the dipper and juglets of whatever kind or type they are, were very common in tombs; they may have been used for liquids - water, oil or perfumes.

2. Weapons and tools, cosmetic vases, and other personal belongings.

Daggers with and without pommel handles were found

mostly beside the waists of the owners, axes near the hands, and bronze belts were found beside the waists of the warriors as in Jericho and Farah tombs.

Cosmetic juglets of wood, faience, alabaster and bone-inlay boxes were found close to the upper body of the deceased. Scarabs, amulets, seals, and rarely rings on fingers, and beads, mostly carnelian, beside the head or the waist were recovered in most tombs everywhere. Toys for children, among them astragali and ostrich eggs, were found in some of the Jericho tombs as elsewhere.

3. Many tombs have pins and combs which were found near the head, and remains of hair plaits (1); baskets which were found only in Jericho tombs usually contained toilet equipment. The toggle pins which were very common in MB.II tombs were found on the left shoulder of the deceased. A feature showing that the burial custom carried out was to bury the deceased in their clothes. The remains of clothing discovered in Al Jisr, Tell Aviv and Jericho tombs proves the idea.

4. Lamps were found in most MB.II tombs in Palestine. Most of them show traces of burning, which indicates that they were lit for the deceased to see the way in the here-after world.

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(1) Jericho tombs discovered by Dr. Kenyon, T.H18, H22, J1, but not yet published.

5. Other household furniture.[1] Wooden beds, stools, tables, chairs, baskets and mats were all found in Jericho tombs excavated by Dr. Kenyon. They were put most probably in tombs of other sites, but perished, and could not be preserved due to the destructibility of wearing materials of all these kinds.

Conclusion.

In considering this summary it is to be borne in mind that there has been excavated yet, only a small portion of burials in Palestine. It would be thus difficult to draw very general conclusions from the evidence so far obtained. For instance, it is quite possible that the shaft tombs, the stone structural tombs, and the raised platform graves could be considered to have belonged to rich citizens, or city rulers or warriors of a highly prestiged rank. It is then acceptable that the head of the family, tribe or city would receive more attention than a junior member who was to be buried in pit graves. The offerings for the future of the former class would be more numerous and more costly; the tomb will be much larger, more elaborate, and the tribute far greater.

The burying place of a great warrior, the uniter of tribes, and the founder of the state probably became

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(1) P.E.Q., 1952-1956 Excavations at Jericho.

the shrine or sanctuary of his people. But meanwhile we should take into consideration that the conventional nature of the tomb furniture is no proof of insincerity, it might be all that could be afforded; in any case the objects were the emblems of ideas which, with the advance of civilization, tended naturally to replace or explain the materialistic aspect.

No uniform direction has been particularly noticed in the construction of shaft tombs, or in building structural stone graves, and no orientation ~~for~~ for buried bodies has been intended. Small lined stone graves and pit graves show the same features as above in having no direction for tombs and no orientation for the bodies. But I do, however, believe that the tombs show in most cases that the partly contracted position remained popular and has been replaced by full-length burials in the Late Bronze period. The bodies were laid down in the graves without any order, just in a haphazard sprawling or piling-up of earlier bodies. They were not neatly laid or arranged as one may recognize in EB-MB shaft tombs of earlier periods, and as seen in graves of later periods.

This lack of care in the disposition of the buried bodies shows a decline in taste and due respect to those buried. This decline of burial custom has been plainly shown in the construction of the tombs in every MB.II Palestinian site, if to be compared with the EB-MB tombs.

From tomb furnishings and offerings, especially of Jericho, one could tell how much care was given to the dead and to the belief of the hercafter life. They may be a mirror showing us the furnishings of houses of the MB.II period in Palestine. We have seen in short that the practice of the care of the dead was common and general, and though the motive differed in each community and state, the development of society tended naturally to unify the system by upholding a common object of veneration.

C H A P T E R IX

CONCLUSION

The citizens of Palestine in the Middle Bronze II period (about 1800-1550 B.C.) were Canaanites, sharing in the general civilization of the coastal area of Syria. They had, of course, close connections with the rest of the Near East.

The physical features of Palestine and Syria are against the area forming a single geographical unit. The mountains, plains and valleys tended to accentuate local differences, a condition which is favourable to a political organisation based on the city-state system, and we may presume that each city-state had its chieftain, sheikh or tribal leader, as in the period of the Amarna Letters.

These city-states were the successors of old established towns, whose ruins had in many cases built up an artificial mound or tell.

The prevailing disturbed political situation in the neighbouring Near Eastern countries, and fear of attacks, obliged the rulers to fortify their cities strongly. The type usually ascribed to their being a terre pissee (beaten earth) sloping glacis, with at its foot a stone revetment which was probably always crowned by a wall. In some cases

additional protection was added by a moat or a fosse at the foot of the glacis. This conception of fortification of rampart was majestic, its construction was equally impossing and it was most probably designed in such a way to resist the battering ram.

This type of fortification was spread over a wide area of the Ancient Near East in the Middle Bronze period, and this seems natural enough to help in giving the citizens a peaceful quiet life. The evidence from a number of sites suggests that there was a state of military chaos and instability. The archaeological evidence of the four general destructions with the three partial ones in Tell Beit Mirsim, and the three consecutive construction phases, with the two partial repairs of the Jericho glacis, and the same number of destructions in Megiddo are obvious to show that city-states were attacking each other, the result of which is instability. This instability was most probably one of the main reasons for the decline in the standard of living which we have already seen in every aspect of their life.

The evidence which I have discussed suggests that the common man of the Middle Bronze II period was not a man of war. Rather, he was a peace-loving townsman, perhaps also a farmer and cattle-breeder, interested in religion, and living in a certain comfort. To this period, also,

is usually ascribed the age of the Patriarchs, who represent a more nomadic element in the population.

The Middle Bronze II citizens held their religious ceremonies in particular spots (temples) where a divine being was believed to have manifested itself in times past. In other words, certain places on the earth had become sacred or holy, and worship was largely confined to them. But as a result of the political city-state system organization one should expect to see each city-state having its rival temples to the Canaanite deities. The result then was that no one temple of Baal, for example, could be said to be his main abode, and this resulted in a greater tendency toward splitting up and localizing divine beings.

We should state that the deities of the inhabitants of Palestine in the Middle Bronze Ages were those of the Semitic peoples in general, with the additions of gods goddesses borrowed from other nations. Many instances of such religious importations are attested by archaeological finds e.g. religious figurines, scarabs, amulets, seals and other miniature vases. All these archaeological finds, picture Mesopotamian, Egyptian and Syrian deities. Migrations and cultural contacts of various kinds were responsible, and in addition to these there was the common practice of giving homage to the gods of a conquering nation.

4p.100

It was doubtless in this way largely that the Egyptian deities achieved their prominance in Syria and Palestine. Such acceptance of foreign gods did not necessarily involve much alteration of religious ideas. What often happened was that the native god was simply identified with the great god of the conqueror without any change in the way he was thought of and worshipped.

Side by side, and together with this religious culture grew the industrial culture, which was largely recognized growing quantitatively in ceramics. A glance At Chart I encourages us without hesitation to state that the Middle Bronze II types are derivations from the fine wares introduced at the beginning of the Middle Bronze period. The needs of the growing population, which included a majority of unskilled immigrants, who whre overthrown, and had been displaced by rulers of other neighbouring Near Eastern countries, required mass production in which the finer craftsmanship disappears. Towns also developed through such immigration but their architectural remains, i.e. palaces, halls and even religious temples show a decline when compared with earlier and later periods. The same feature of decline has been recognized in other arts and artifacts, e.g. scarabs, weapons and toggle ppins. Yet one should state the fact that there were certain industries that developed

4p. p169.

nicely in this period, especially faience, alabaster and bone inlay.

This feature of decline, with a quantitative prosperity, could be compared with Palestine nowadays. The Arabs of Palestine have been displaced, and set out of their homes by Israel. Those who were skillful, rich and capable emigrated to Egypt, those who are of middle class left for Syria and the Lebanon, and those unskilled, and less clever remained as refugees in Palestine and Jordan. Thus we see that the cities and towns in Palestine have been growing larger, their numbers increased, and the land is densely populated; mass production in everything is needed, thus one could recognize no break in culture with that of the preceding phase of 1947, Though personal and domestic ornaments, architecture and religious buildings, and every art and artifact have been done in a poorly declining feature. Yet quantitatively one may call it prosperous, but this should obviously exclude quality. And so, Palestinians of the Middle Bronze period emigrated to Egypt for trade or grazing their cattle (a process which may have been stimulated by years of drought in Palestine). On modern analogies, those who emigrated may have been the rich and well-off, i.e. the chieftain, the tribal leaders and their followers. Those who remained were the common class of people,

p.220 added to them the same class of people who were emigrating from other neighbouring countries because of the political unrest and the blood feuds there, and settling in Palestine.

Those who emigrated to Egypt from Palestine and Syria and settled there took the opportunity of the disintegration and weakness of Egypt after the fall of the Twelfth Dynasty and established themselves as rulers of the Delta about c.1730 B.C. It is only to those ephemeral rulers the Egyptian term *ḥḳ3w ḫ3swt* "rulers of foreign countries" i.e. foreign rulers, could be used.

To use the name Hyksos "foreign rulers", or "rulers of foreign lands" to the people of Palestine in the Middle Bronze II period is a misnomer, because they are not foreigners to Palestine, and the basic culture of Palestine in the Middle Bronze II period (the so-called Hyksos) does not represent any break with that of the preceding phase, as we have seen in this thesis.

Thus we have seen that Palestinian shepherd sheikhs and tribal and city-state sheikhs as I suggest calling them, and the Syrian city-state princes or rulers, have ruled Egypt according to archaeological evidence from about 1730 B.C. until their expulsion by Kamose at about 1570 B.C.

Therefore, we could say that those Semitic Hyksos

rulers immigrated to Egyptian territores by gradual infiltration and not as bands of warriors as often stated. They came in, not in chariots as generally accepted, but most probably on foot and donkey as those who are shown on the wall paintings of Beni-Hassan tomb (see Pl.IIB).

Every evidence (literary and archaeological) seems to demonstrate that the Hyksos in Egypt never used chariots as war technique until possibly in the last struggle against the Egyptians before they were expelled from the country. In Palestine, the archaeological evidence has shown that horses and chariots were in use in phase V, i.e. the sixteenth century, and no literary evidence shows that they were in use earlier than the XVIIIth Dynasty. But one could easily consider the North Syrians (as available evidence shows) to be responsible for the introduction of the horse and the chariot to Palestine and through it to Egypt.

It has always been stated that the Hyksos are bands of warriors; they really appear to us here, by the available archaeological evidence, that they were sheikhs of peaceful characteristics. They have hardly used the spear (if any at all) at the very early period of phase 11A, i.e. 1750 B.C., though it was in common use in the Middle Bronze I period. Meanwhile, they have used the arrow-head (if any at all) at the very end of phase V, i.e. the

sixteenth century, and so with the bow.

Their weapons were most probably nothing more than a dagger, moreover a dagger type (17 and 27) which is not so strong and fatal as those of earlier and later periods (see Pl. IV) and so we could say were their axes (Pl. V). We may suggest here that the Middle Bronze II people were not at all warriors, the majority may have been peaceful townsmen or villagers, who perhaps had a sling as their weapon, though they may have beeno of some tribal leaders whose tombs were found to contain a dagger or two, an axe, and a bronze belt. But the question of fortified enclosure camps and glacis sloping revetment fortifications arises, and may lead others to describe them for such type of fortifications to be great warriors. This I treat below, hoping that the progressing excavations at Hazor will clarify this particular point of view.

In Tell el Duweir Miss Olga Tufnell was kind enough to show me a white painted Middle Bronze I sherd found in the fill of the glacis fortifications of the tell, as those found also in Tell Kisan fortifications. And she states in her Lachish IV (forthcoming publication) that "a valuable exception to many mass burials on the site is the child's grave 173, Pl. 5:3 and Pl. 20:17-21, and Pl. 90 which was certainly sealed by the Middle Bronze glacis; while graves 145 and 157 were probably below that packing". The objects found in tomb 173 belong to

phase IIA. Nos 17 and 18 on Pl. 20 are carinated bowls with a red burnished slip; Pl. 20 a no. 19 is the piriform juglet type with the red burnished slip; Pl. 20, no. 20 is a bag-shaped burnished jug not represented on our Chart I. Parallel to it was found in Tell Beit Mirsim stratum E, and the same formbut unburnished occurs in Palace store rooms (Pl. XIX:16) at Jericho. The shoulder-handled jug Pl.20:21 corresponds with similar examples from Megiddo stratum XI.

As to the other graves 145 and 157 there should be no difficulty in assigning them to the same phase if not even to phase IIB for the appearance of cylindrical juglets. The cylindrical juglet found has pricked band chevrons that has the same appearance to that found in stratum XI at Megiddo (Megiddo II, Pl. 32:32), another cylindrical pricked juglet has a close parallel to one found in the uppermost level of Ajjul tomb 303.

Thus Ifind myself unable but to agree with Miss Tufnell that "these three groups of tombs suggest that the embankment cut for the Middle Bronze defence system was made after the occupation of stratum XI had begun, and when Tell Beit Mirsim was passing through a later phase of the four major ones of stratum E of Tell Beit Mirsim".

The only other evidence that throws light directly to the similar type of fortification is the enclosure camp of Hazor, which may be taken into consideration as an

indirect evidence for the same type of fortication which is the sloping glacis revetment.

1.43 Yadin's preliminary excavations last year had sh0wn that "below the stratum of the thirteenth century B.C., several layers containing earlier cities ranging from the Middle Bronze II (the so-called Hyksos period of the 17th-16th centuries) down to Late Bronze I in the 15th century B.C.". B.A. XIX, 1956. Let us assume that these fortified enclosure camps are somewhat later than the fortified glacis revetments. But it should not most probably be more than half a century later. This fits in well with Tell El Duweir evidence.

There is no other archaeological evidence (to the best of my knowledge) that has been found other than the above mentioned evidence which shows obviously that the sloping glacis revetment fortification should be dated to the sixteenth century.

This war fortification technique fits in well with other sharp fatal weapons, which has been used by the Palestinian citizens of our phase V i.e. the sixteenth century period, whom we could call warriors. Their use of the sharp fatal weapons, type 31 on Pl. IV, nos. 5-7, and the spear-heads, and the bow of phase V, adding these together to the introduction and use of horses and chariots which we have suggested to belong to phase V, lead us to conclude that bands of warriors appeared in

Palestine not before the sixteenth century.

Further archaeological evidence is in the new burial custom, which had tombs with alcoves or locii as at Ajjul (see Pl. X) and other religious figurine types as in the Megiddo tombs, T.26B,Pl.155:9; T.217, Pl. 89:11; T.38, Pl. 139: 25, which are found in tombs having arrow-heads and other new pottery types.

These changes confirm our theory that new elements of peoples were immigrating into Palestine during the sixteenth century. By their innovations in military technique one may regard them as bands of warriors.

We have seen so far how the citizens of the Middle Bronze II period (the so-called Hyksos) lived in Palestine. Their tombs, well furnished with provisions, household objects, domestic utensils, cosmetic vases, weapons, toys and food supplies give one an insight into their belief in an after-life and the veneration of their dead.

The End

It will be interesting to see what surprises another ten years of progress in our knowledge of the earliest history of Palestine and Jordan will yield. We can safely predict that innumerable details will be filled in, making the archaeological picture more and more complete. Increased refinement in archaeological method and new interpretation of the data found will almost certainly widen the scope of our information and enable us to present a clearer reconstruction of life and society of the time. Unexpected epigraphical discoveries as the Dead Sea scrolls may be found in Egypt, Mesopotamia, Syria and especially in Palestine, and will surely give us access to entirely new historical vistas. And every discovery made in Palestine or in one of the neighbouring lands will help to build up the intelligible picture of ancient oriental life and history toward which we are striving.

It is hoped that this thesis has been justified by its results.

BIBLIOGRAPHY WITH ABBREVIATIONS

AAA	Annals of Archaeology and Anthropology, University of Liverpool. (Liverpool, 1908-1940.)
AASOR	Annual of the American School of Oriental Research. (New Haven, 1920- .)
ADAJ	Annual of the Department of Antiquities of Jordan. (Amman, 1951- .)
AG I-IV	PETRIE, F.: Ancient Gaza, I-IV. BSAE LIII-LVI. (London, 1931-1934)
AG V	PETRIE F.: City of Shepherd Kings, and MACKAY, E.J.H., and MURRAY, M.A.: Ancient Gaza, V. BSAE LXIV. (London, 1952.)
AJA	American Journal of Archaeology, Archaeological Institute of America. (Concord, 1885- .)
AJSLL	American Journal of Semitic Languages and Literatures. (Chicago, 1897- .)
Alalakh	WOOLLEY, SIR LEONARD: Alalakh (Oxford, 1955.)
Alalakh Chron.	SMITH, S.: Alalakh and Chronology. (London, 1940.)
Ancient Records	BREASTED, J.H.: Ancient Records of Egypt. Historical Documents from the earliest times to the Persian conquest. Vols. 1-5. (Chicago, 1920-1923.)
Antiquity	Antiquity. (Gloucester, 1927- .)
APEF	Annual of the Palestine Exploration Fund, (London, 1900.)
Arch.Pal.	ALBRIGHT, W.F.: The Archaeology of Palestine. (Pelican Books, London, 1949.)

Arch. Pal.	Institute of Archaeology. (London, 1955.)
Armageddon	FISHER, C.S.: The Excavation of Armageddon. Oriental Institute of Chicago No. 4. (Chicago, 1929.)
AS	GRANT, E., and WRIGHT, G.E.: Rumeileh, Ain Shems Excavations, Vols. 1-V. (Haverford, 1931-1939.)
AY.	MARQUET-KRAUSE, J.: Les Fouilles d'Ay (et-Tell?) . (Paris, 1949.)
B.I.	DUNAND, M.: Fouilles de Byblos I. (Paris, 1939.)
BA	Biblical Archaeologist (1953- .)
BASOR	Bulletin of the American School of Oriental Research. (Baltimore, 1919- .)
BDS	PETRIE, F: Buttons and Design Scarabs. BSAE XXXVIII. (London, 1925.)
BE	MONTET, P.: Byblos et l'Egypte. (Paris, 1928.)
Beni Hasan	NEWBERRY, P.E.: Beni Hasan I. (London, 1893.)
BM	BLISS, F.J., and MACALISTER, R.A.S.: Excavations in Palestine. (London, 1902.)
BP I	PETRIE, F., and TUFNELL, O.: Beth-Pelet I. BSAE XLVIII. (London, 1930.)
BP II	MACDONALD, E., STARKEY, J.L., and HARDING, L.: Beth-Pelet II. BSAE LII. (London, 1932.)
BS	GRANT, E.: Beth-shemesh. (Haverford, 1929.)
B-S	ROWE, A.: Beth-Shan, Vols. I and II, Pt.I. (Pennsylvania 1930, 1940). FITZGERALD, G.M.; Vol. II, Pts. II and III. (1930, 1931.)

Burrows	MILLER, What mean these Stones? (New Haven, 1941.)
CAH	Cambridge Ancient History. (Cambridge, 1928- .)
CPP	DUNCAN, J.G.: Corpus of Palestinian Pottery. BSAE XLIX. (London, 1930.)
Dawn	CHILDE, V.G.: The Dawn of European Civilization. (London, 1950.)
Forbes	Studies in Ancient Technology.
Garstang	John and J.B.E. GARSTANG. The Story of Jericho. (London, 1948.)
Gerar	PETRIE, F.: BSAE XLIII. (London, 1928.)
Gezer	MACALISTER, R.A.S.: The Excavation of Gezer. 1902-5 and 1907-9. Vols. I-III. (London, 1912)
Gurob	PETRIE, F.: Gurob. BSAE XLI. (London, 1927.)
Hall	HALL, H.R.: Catalogue of Egyptian Scarabs, etc. in the British Museum. (London, 1913.)
Hall	HALL, H.R. The Ancient History of the Near East (London 1927.)
Harageh	ENGELBACH, R., and GUNN, B.: Harageh. BSAE XXVIII. (London, 1923.)
Hayes	HAYES, W.: The Scepter of Egypt. (New York, 1953.)
HIC	PETRIE, F.; and DUNCAN, J.G.: Hyksos and Israelite Cities. BSAE XII. (London, 1906.)
HNM	Handbook to the Nicholson Museum, University of Sydney. 2nd ed. (Sydney, 1948.)
IKG	PETRIE, F.: Illahun, Kahun and Gurob. (London, 1871.)
I.E.J.	Israel Exploration Journal (1950- .)

ILN	Illustrated London News.
Iraq	Iraq, British School of Archaeology in Iraq. (London, 1934- .)
JAOS	Journal of the American Oriental Society. (New Haven, 1843- .)
JEA	Journal of Egyptian Archaeology. (London, 1951.)
JNES	Journal of Near Eastern Studies. (1942- .)
JPOS	Journal of the Palestine Oriental Society. (Jerusalem, 1923- .)
L.II	TUFNELL, O., INGE, C.H. and HARDING, L.: Lachish II: The Fosse Temple. (Oxford, 1940.)
M.II	LOUD, GORDON: Megiddo II. (Chicago, 1948.)
Mélanges Syriens	Mélanges Syriens offerts à M. René Dussaud. (Paris, 1939.)
MJ	The Museum Journal of the Museum of the University of Pennsylvania. (Philadelphia, 1917- .)
MMC	BLISS, F.J.: A Mound of Many Cities. (London, 1894.)
MRMC	MAY, HERBERT GORDON: Material Remains of the Megiddo Cult. (Chicago, 1935.)
MT	GUY, P.L.O., and ENBERG, R.M.: Megiddo Tombs. (Chicago, 1938.)
Mutesellim	SCHUMACHER, G., and WATZINGER, C.: Tell el-Mutesellim I, III. (Leipzig, 1908-1929.)
New Light	CHILDE, V.G.: New Light on the Most Ancient East. (London, 1952.)
NS	NEWBERRY, P.E.: Scarabs. (London, 1906.)
ODU	PETRIE, F.: Objects of Daily Use. (London, 1927.)

PEQ	Palestine Exploration Fund Quarterly Statement, (London, 1869- .)
PSC	PETRIE, F.: Scarabs and Cylinders. BSAE XXIX. (London, 1917.)
PTW	PETRIE, F.: Tools and Weapons. BSAE XXX. (London, 1917.)
QB	BRUNTON, G.: Qau and Badari I-III. BSAE XLIV-XLVI. (London, 1927-1929.)
QDAP	Quarterly of the Department of Antiquities, Palestine. (Jerusalem, 1931-1946.)
RB	Revue Biblique. (Paris, 1947.)
RES	ROWE, Alan: A Catalogue of Egyptian Scarabs in the Palestine Archaeological Museum. (Cairo, 1936.)
SAOC 10	Studies in Ancient Oriental Civilisation, No. 10. ENBERG, R.M., and SHIPTON, G.M.: Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo. (Chicago, 1934.)
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SEDMENT	PETRIE, F.; and BRUNTON, G.: Sedment I-II. BSAE XXXIV-XXXV. (London, 1924.)
SPC	GJERSTAD, E.: Studies in Prehistoric Cyprus. (Uppsala, 1926.)
Stratigraphie	SCHAEFFER, C.F.A.: Stratigraphie comparée et Chronologie de l'Asie Occidentale. (London, 1948.)
SW	SELLIN, E., and WATZINGER, C.: Jericho. (Leipzig, 1913.)

Syria	Syria, Revue d'Art et Archeologie. (Paris, 1920- .)
Technology	SINGER, C., HOLMYARD, E.J., and HALL, A.R. (Editors): A History of Technology, Vol. 1. (Oxford, 1954.)
TH	PETRIE, F.: Tell-el-Hesi (Lachish). (London, 1891.)
Ugaritica II	SCHAEFFER C.F.A,: Ugaritica II, Nouvelles études relatives aux découvertes de Ras Shamra. (Paris, 1949.)
Ur II	WOOLLEY, C.L.: Ur Excavations II: The Royal Cemetery. (London, 1934.)
Urk IV	SETHE, K.: Urkenden der 18 Dynastie, (Leipzig, 1907.)
Winloch	H.E. The Rise and Fall of the Middle Kingdom in Thebes. (New York, 1947.)

PLATE I

PALESTINE

MIDDLE BRONZE

KILOMETRES
10 5 0 10 20 30 40 50
10 5 0 10 20 30
MILES

CONTOURS IN METRES

MEDITERRANEAN SEA

TYRE
DAN
NAHARIYA
TELL EL QEDAH (HAZOR)
TELL KEISAN
SEA OF GALILEE -209
KHIRBET KERAK
BETH YERAH
MEGIDDO
JEZREEL (AFFULA)
TAANACH
BETH-SHEAN
DOTHAN
SAMARIA
TELL EL FAR'AH
SHECHEM
RAS EL AIN (APHEK)
HUMRAIYA
TELL EL-JERISHEH
TELL AVIV
JAFFA
NEBI RUBIN
TELL ES-SULTÂN
EL JISR
AI
BETHEL
GEZER
JERICHO (TELL ES SULTAN)
JERUSALEM
ASHDOD
BETH-SHEMESH
BETHLEHEM
ASKALON
MARESHAH
BETH ZUR
TELL EL HESI
LACHISH (TELL ED DUWEIR)
HEBRON
GAZA
TELL BEIT MIRSIM
TELL EL AJJUL
GERAR
TELL EL FARA
THE DEAD -392 SEA
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600
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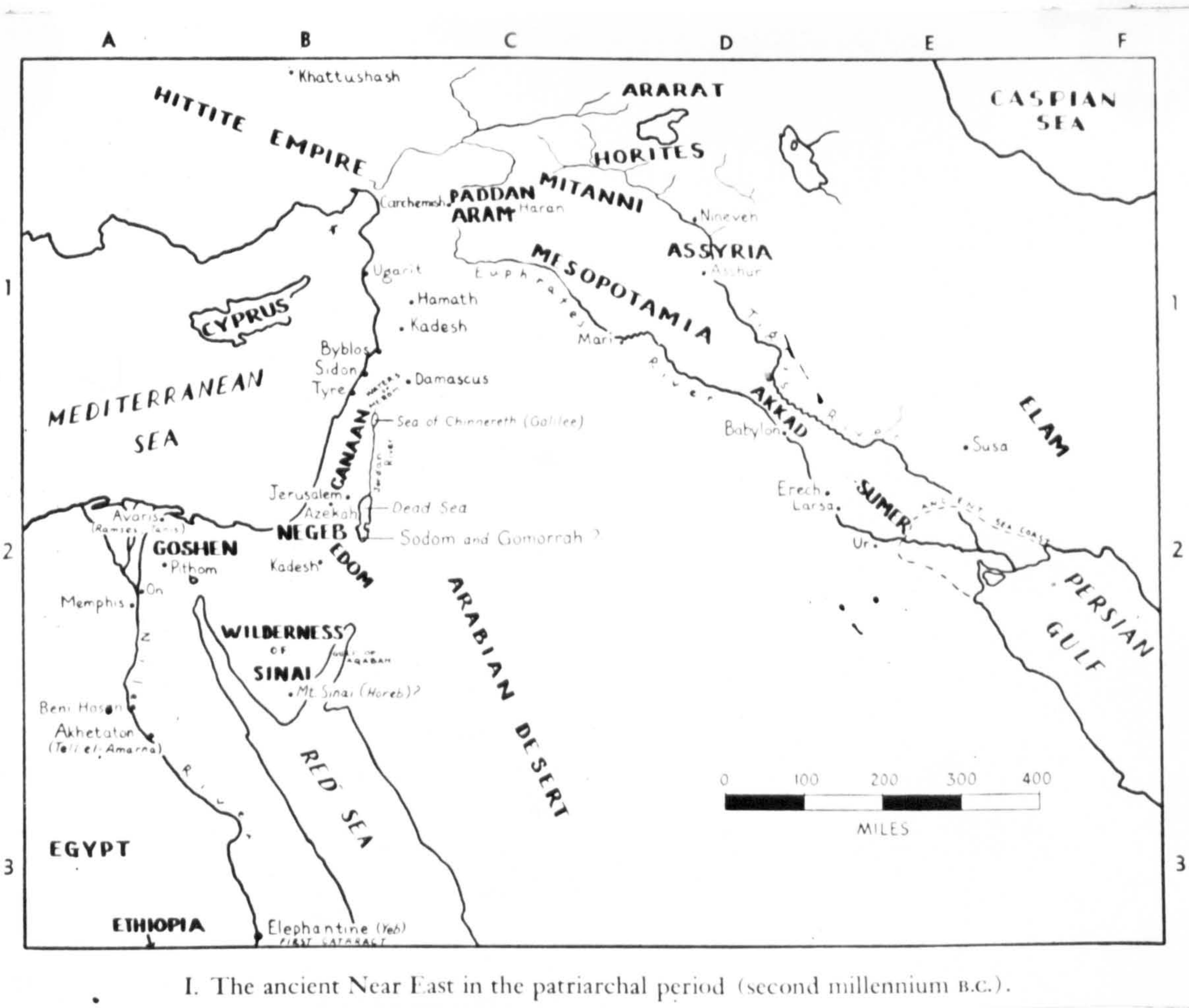
PLATE II



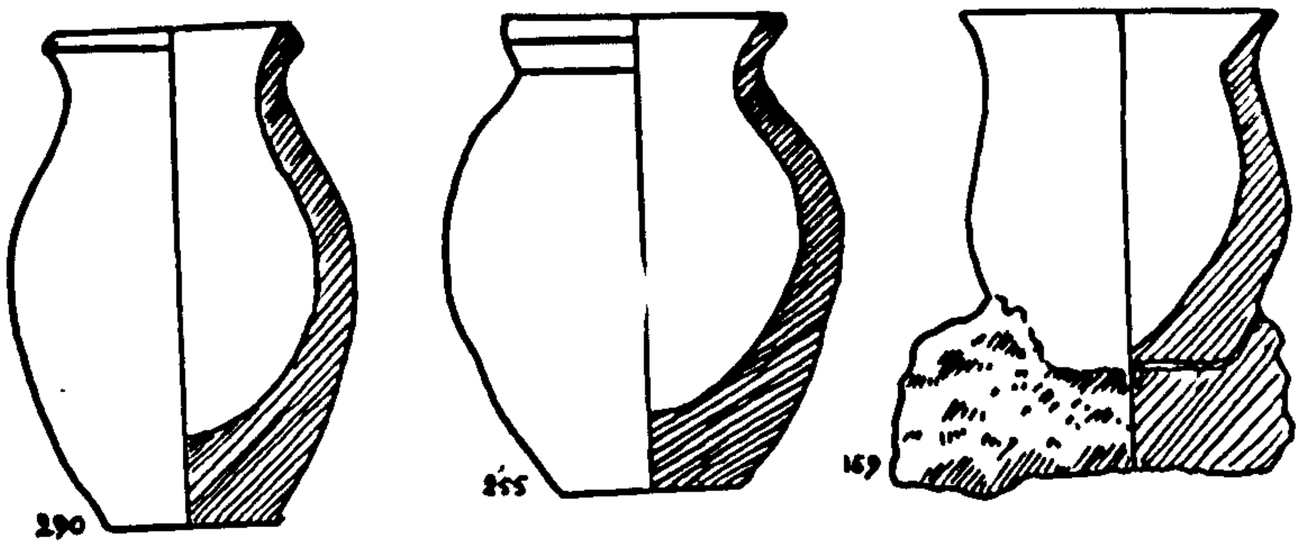
I. The ancient Near East in the patriarchal period (second millennium B.C.).

- A -

FIGURE 507—*Pack-asses among a group of tribute carriers. From a tomb at Beni Hasan, Egypt.*

B

PLATE III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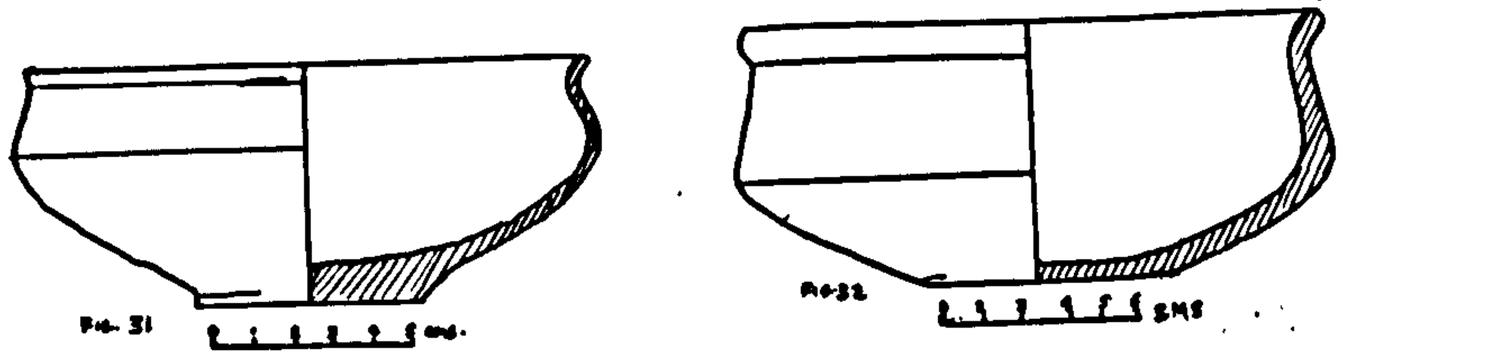
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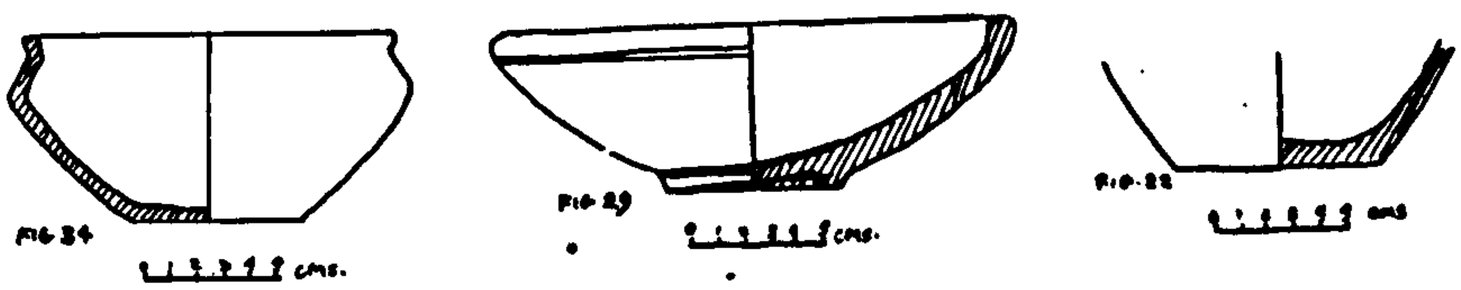
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Fig. 28
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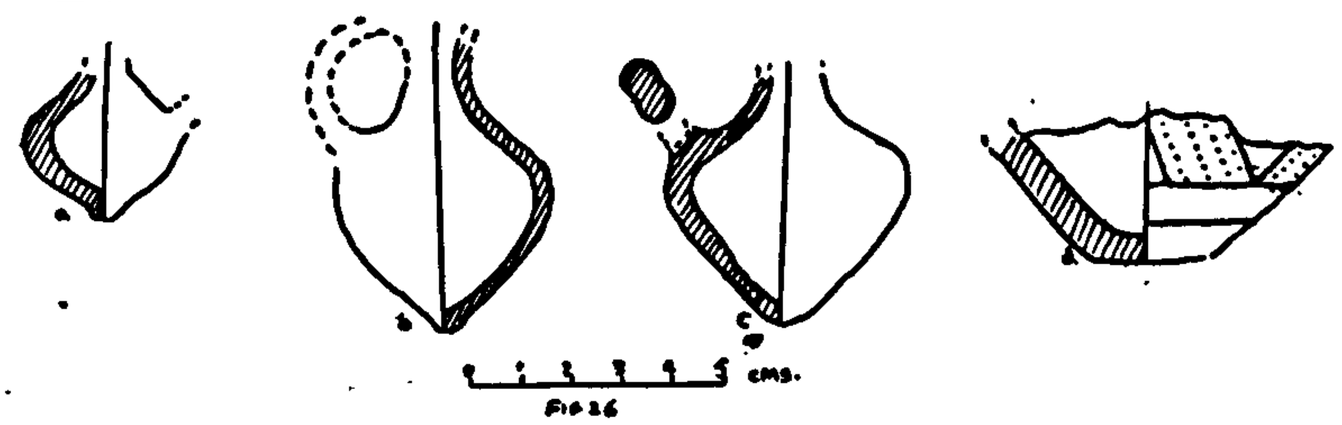
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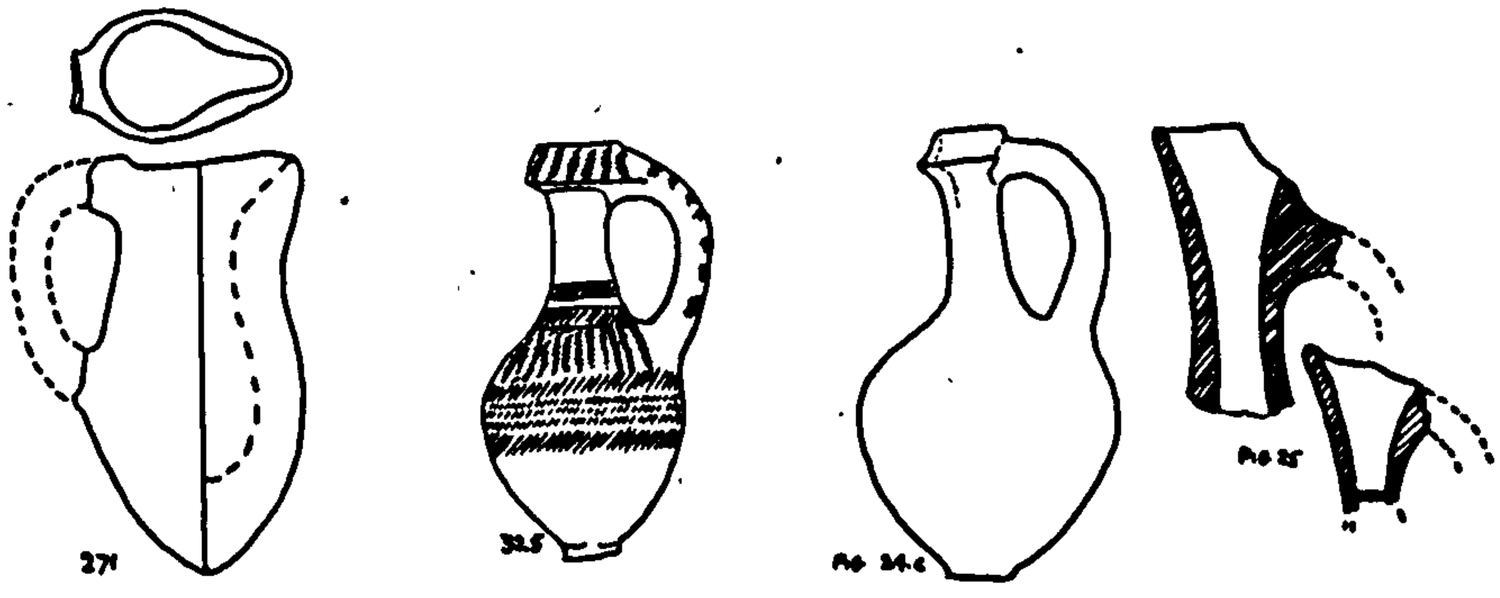
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Fig 24c
Fig 25

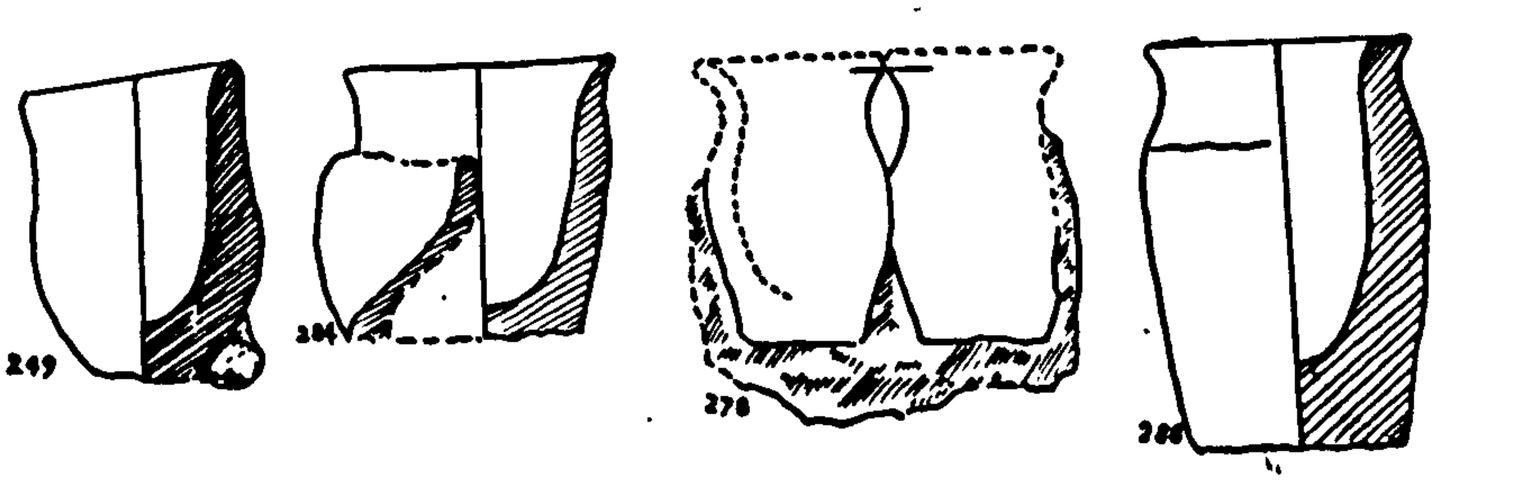
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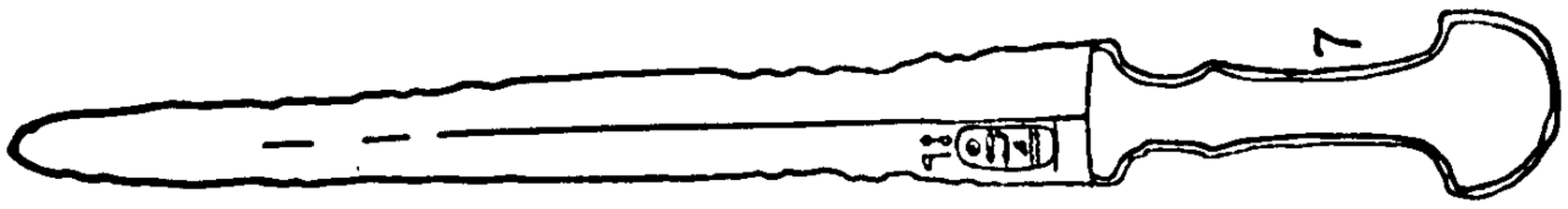
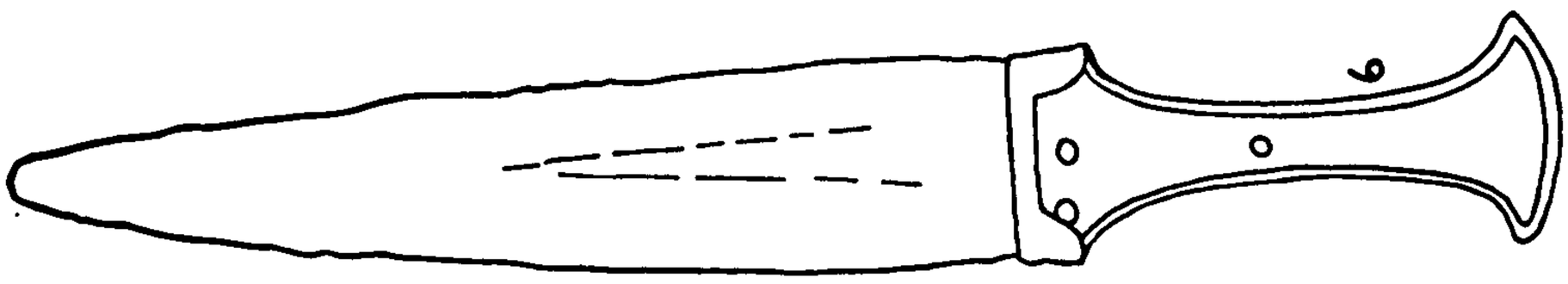
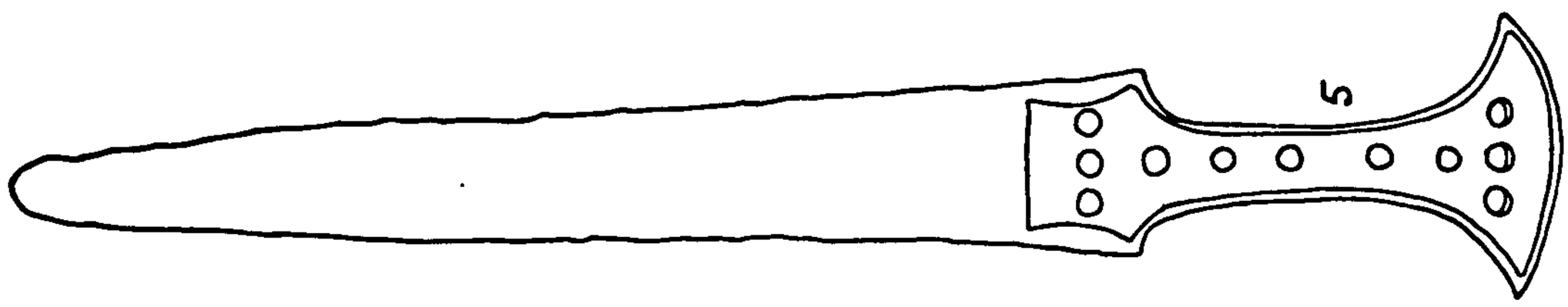
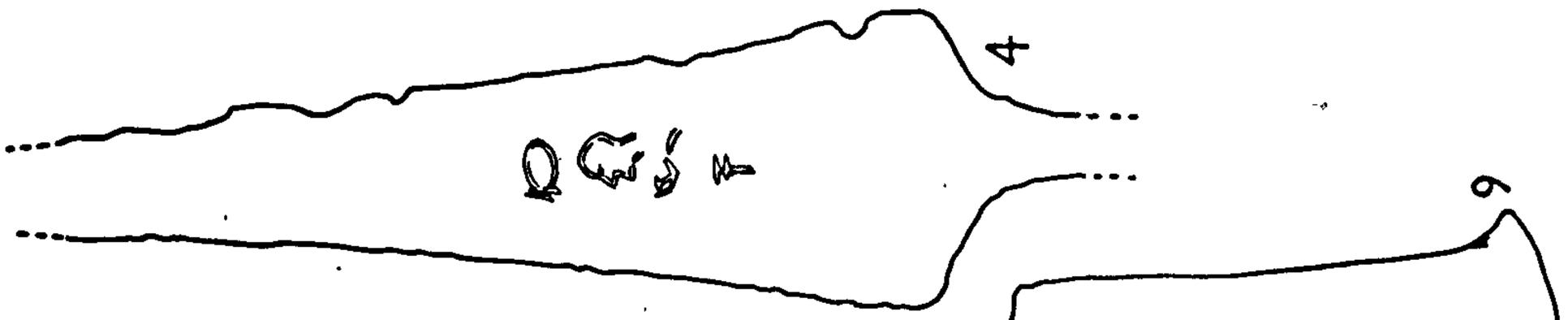
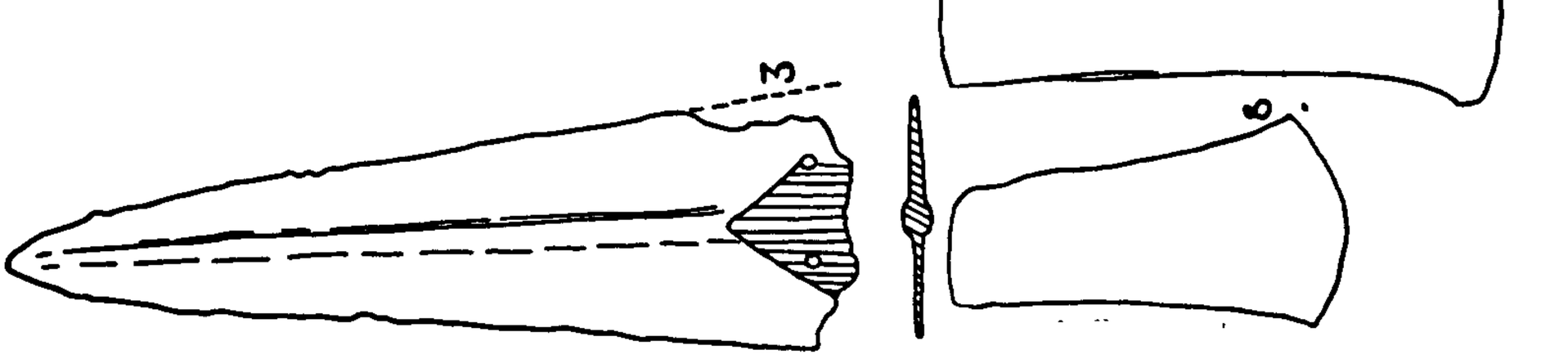
PLATE IV











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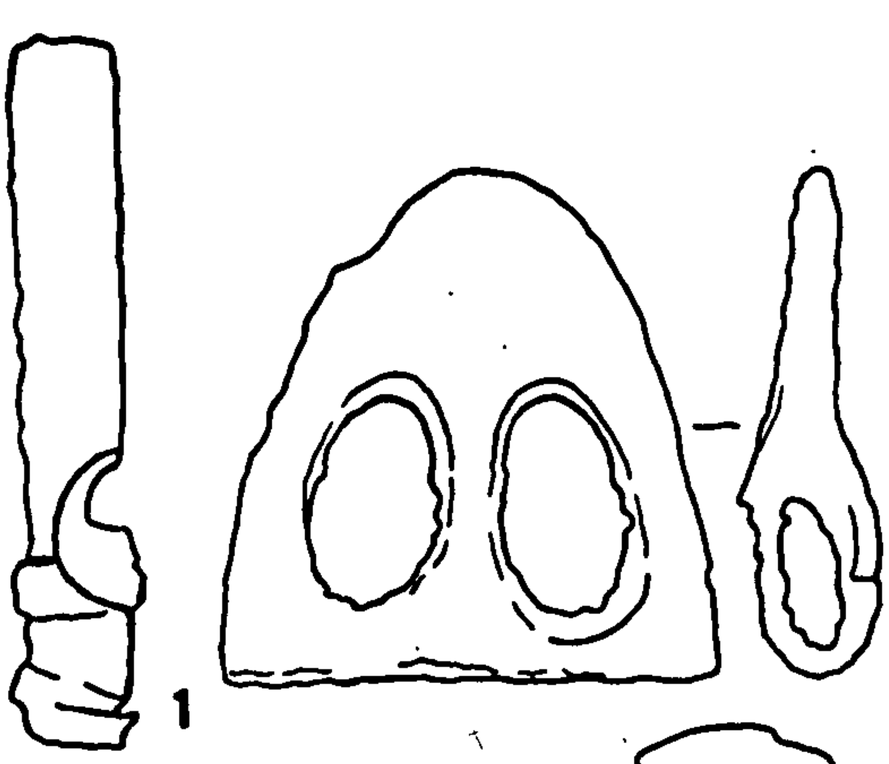
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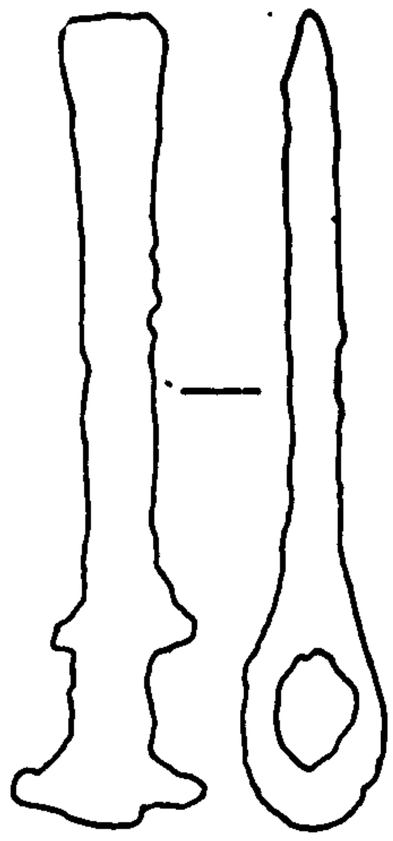
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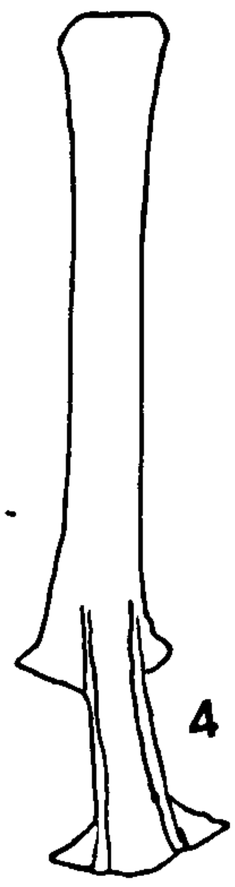
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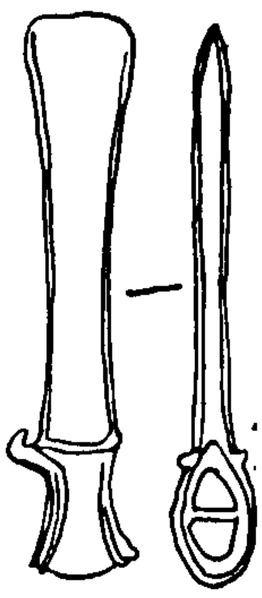
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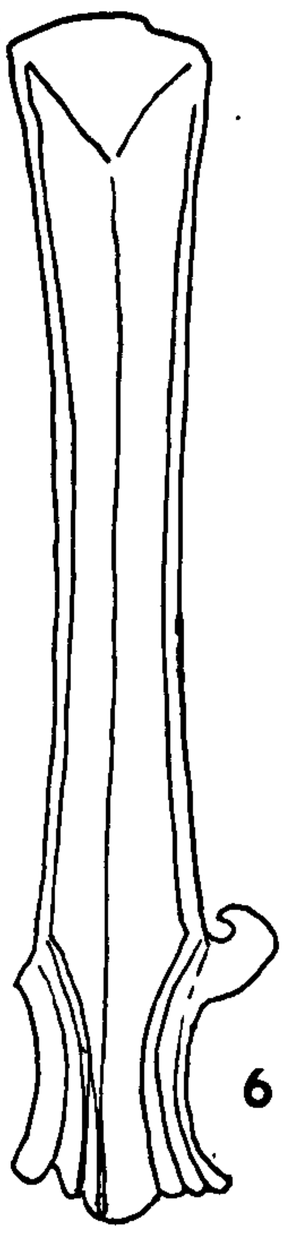
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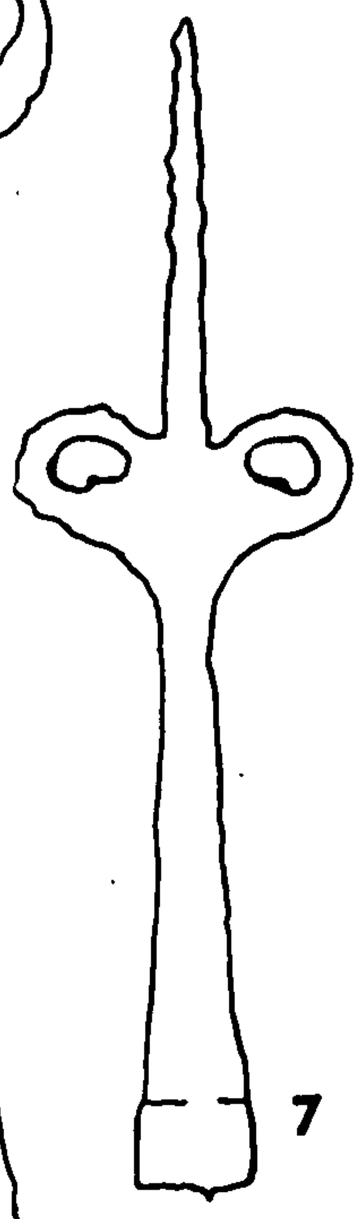
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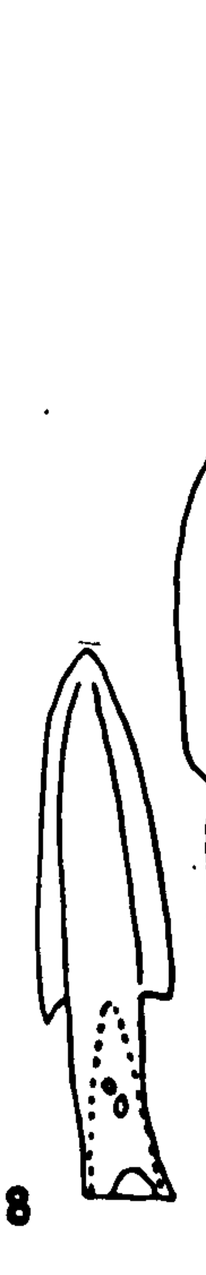
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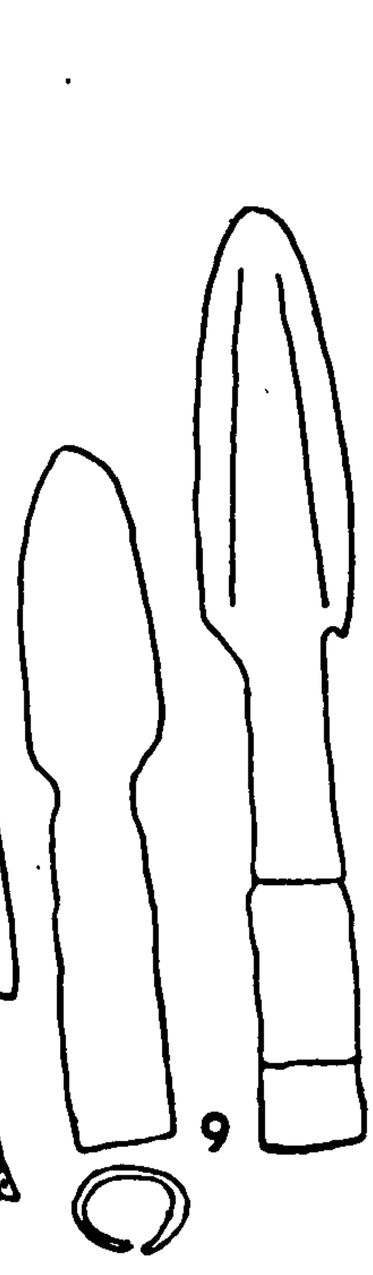
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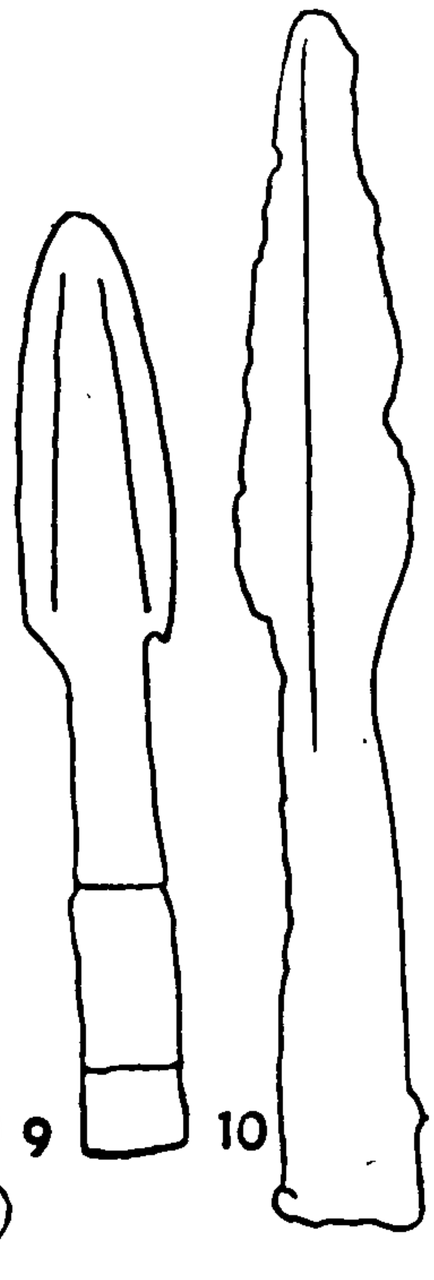
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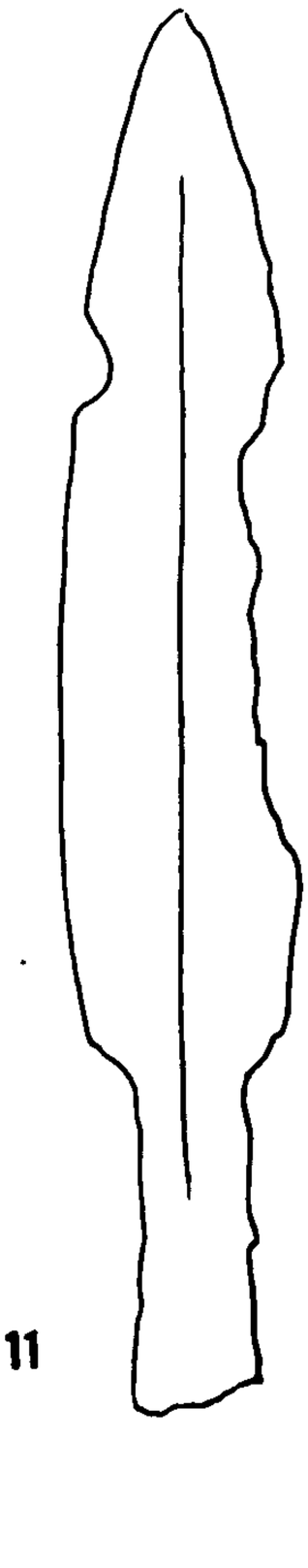
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PLATE VI

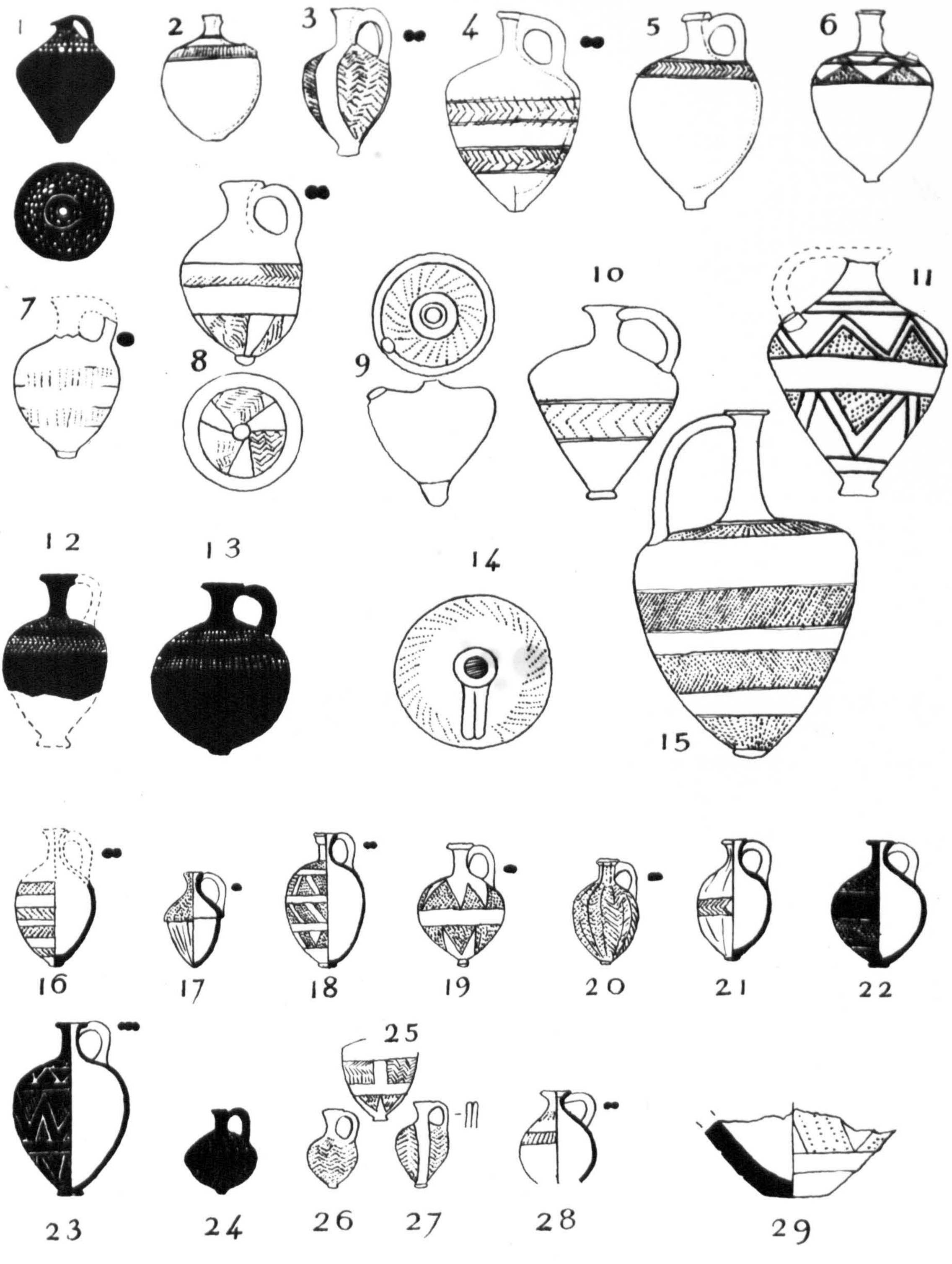

PLATE VII

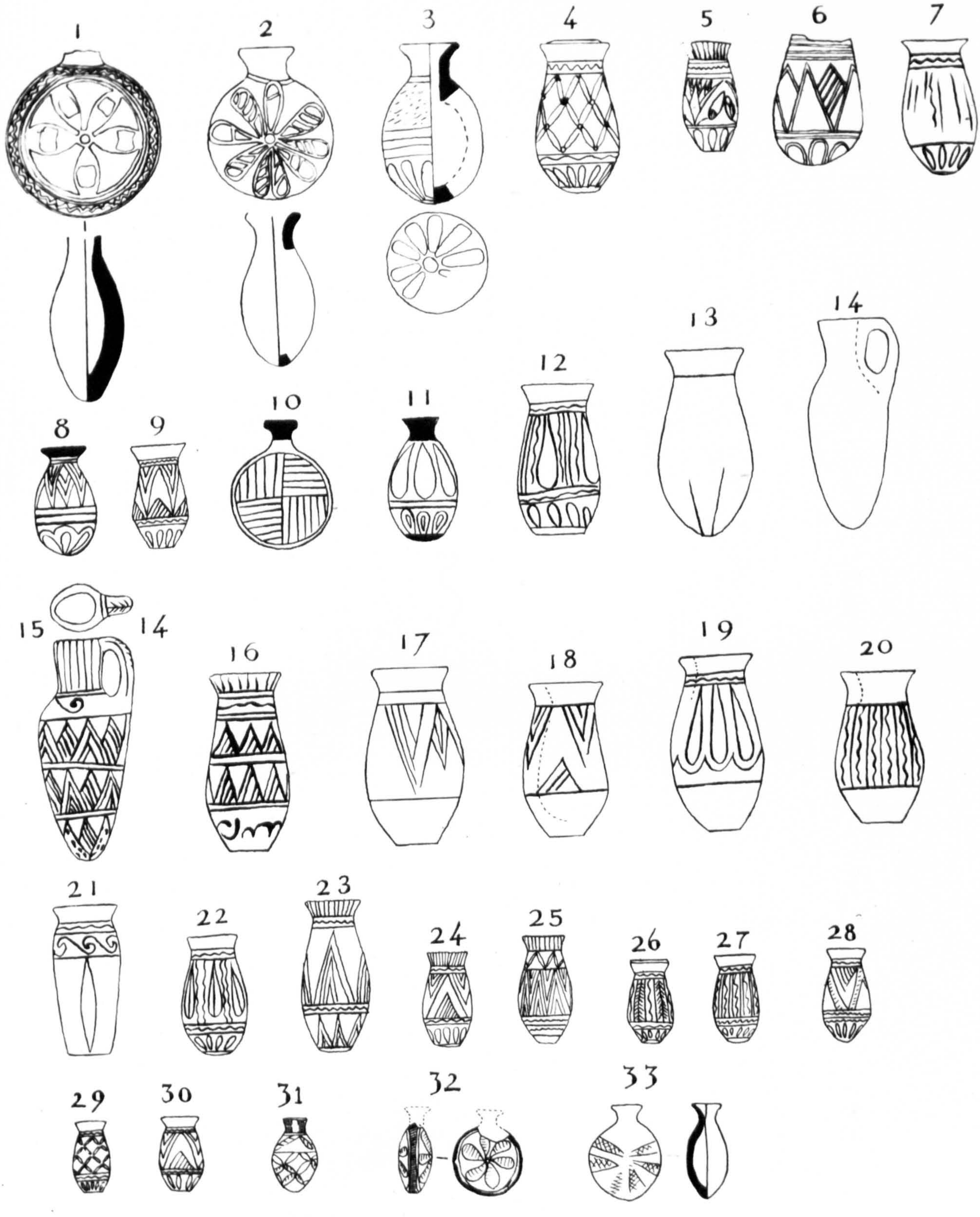
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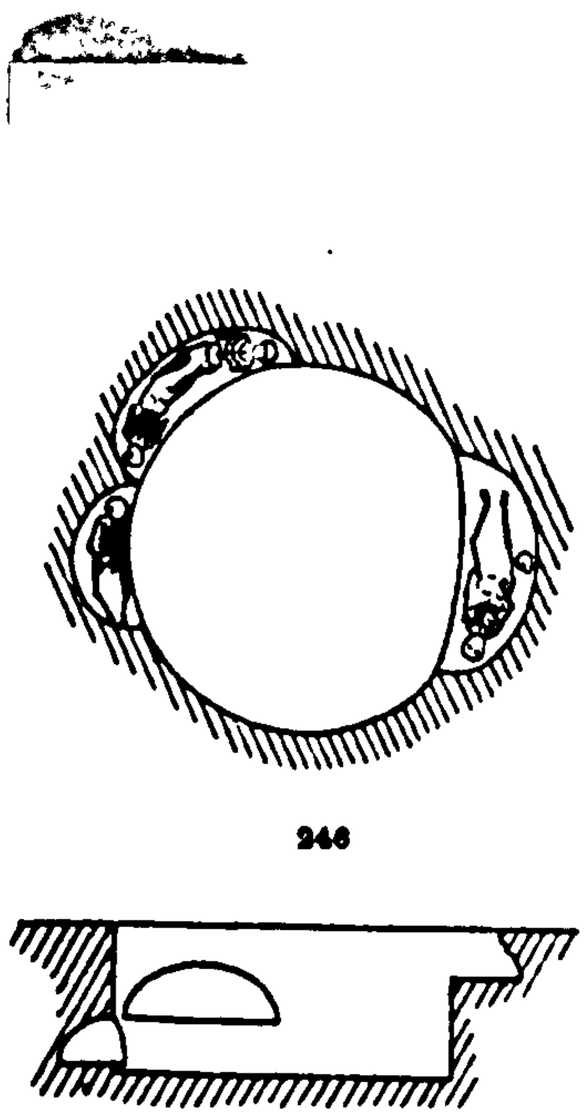
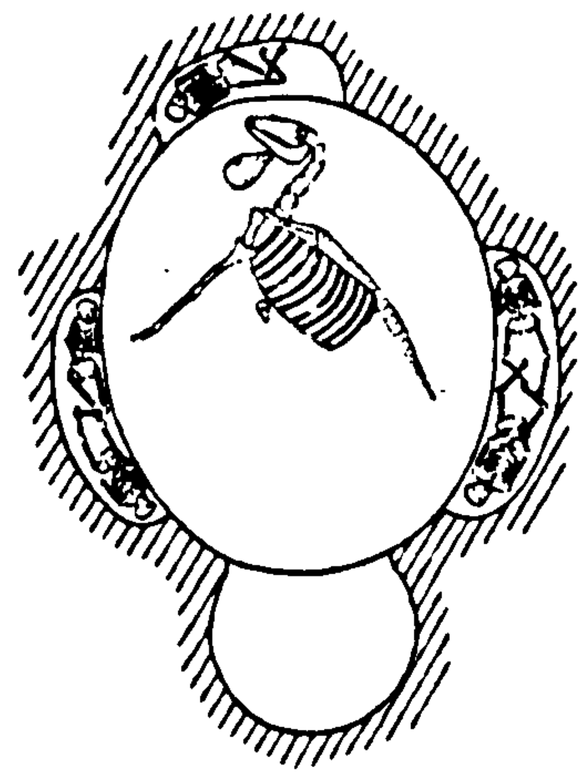
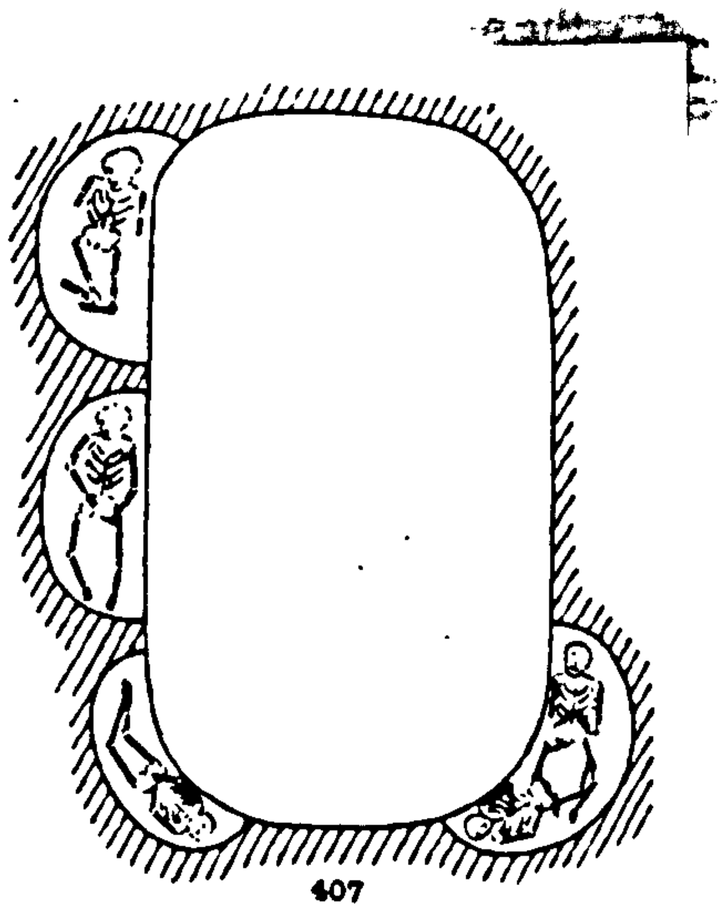
PLATE VIII







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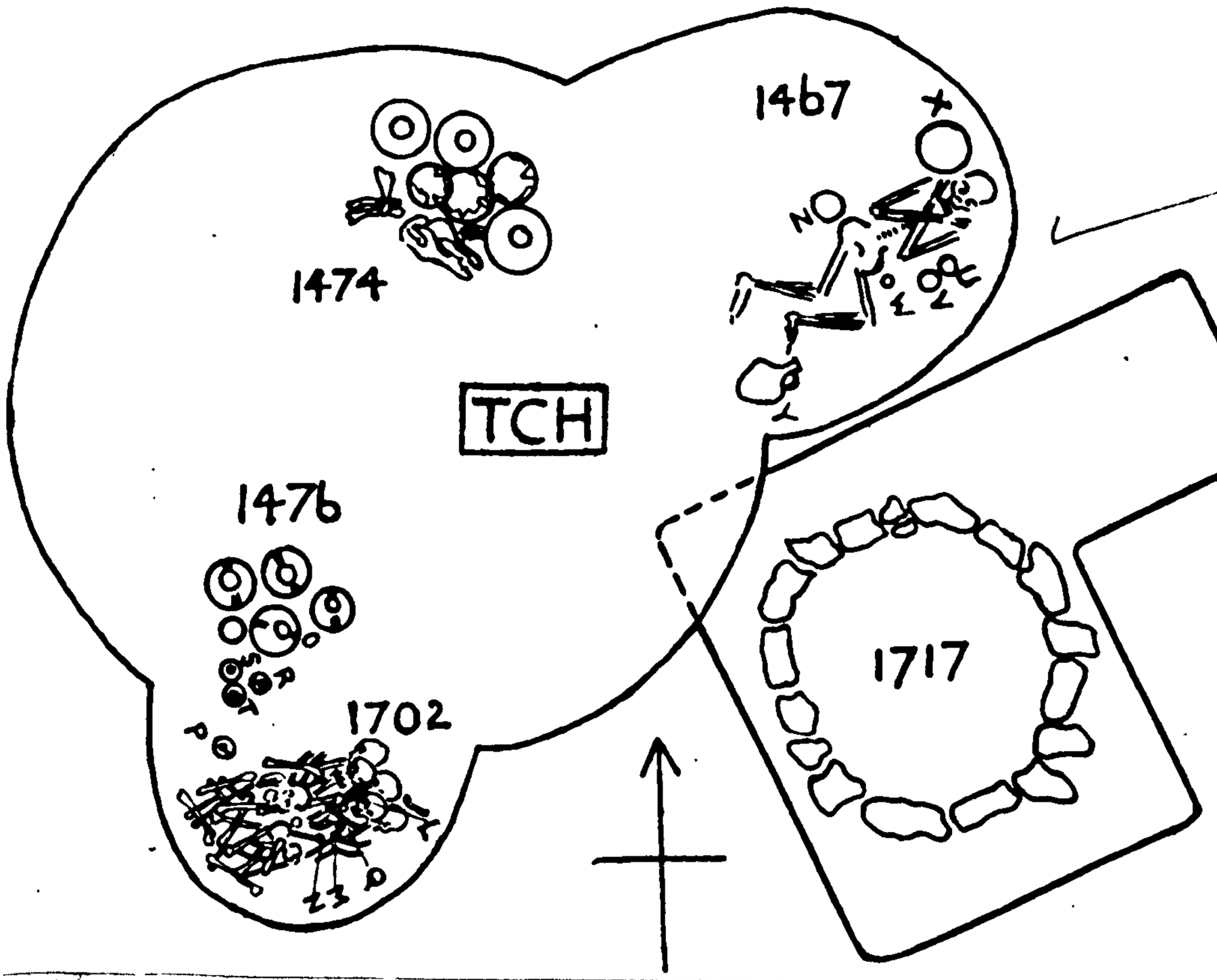
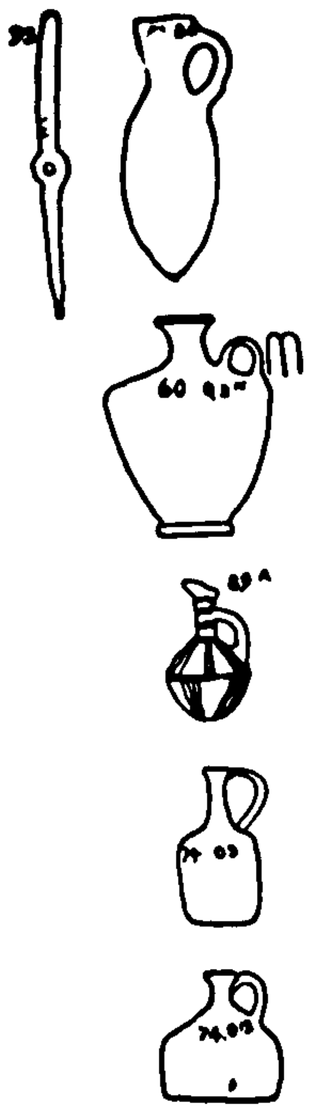
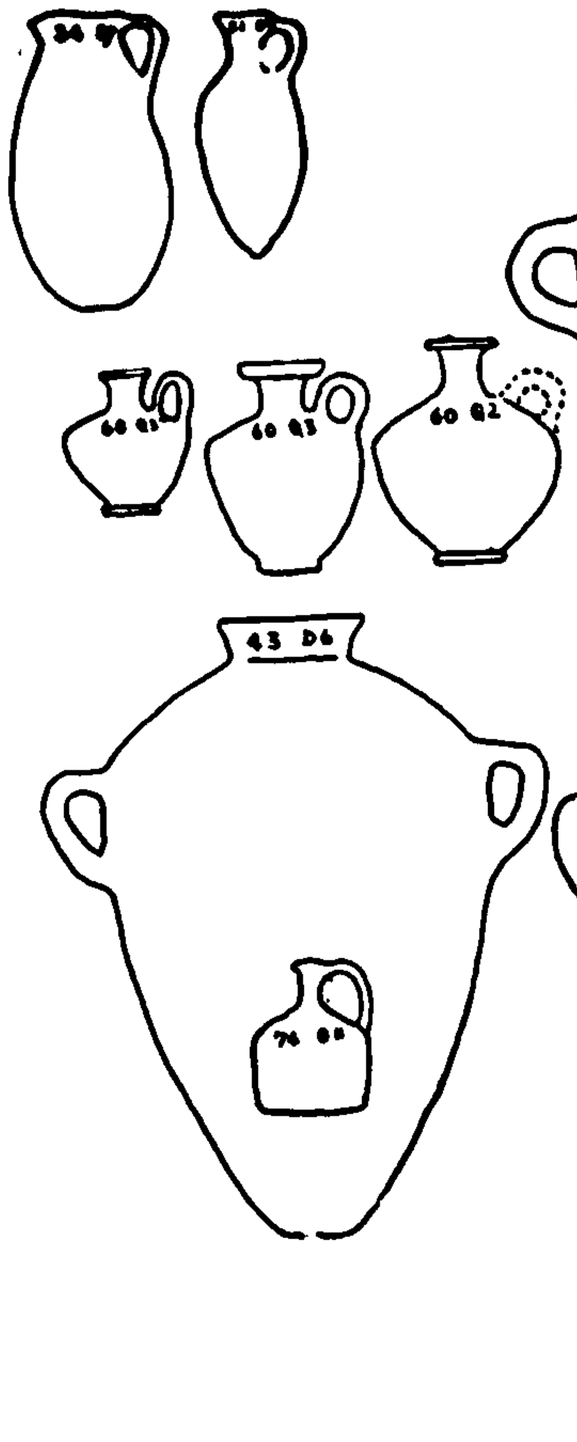


PLATE IX

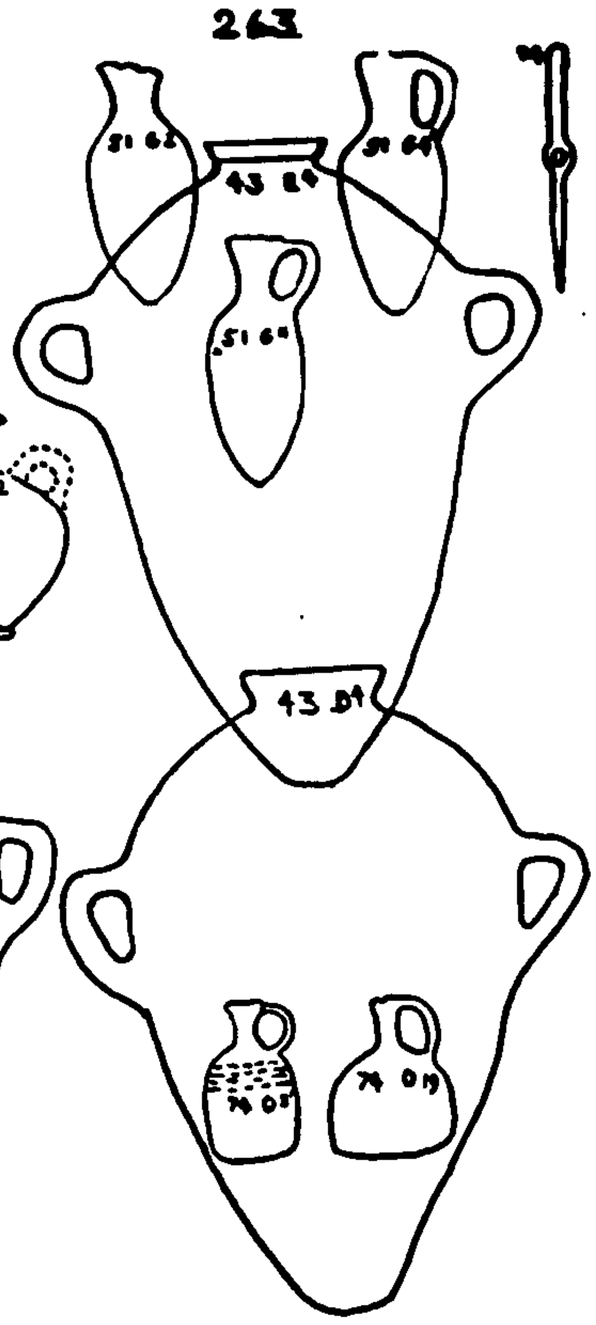
411

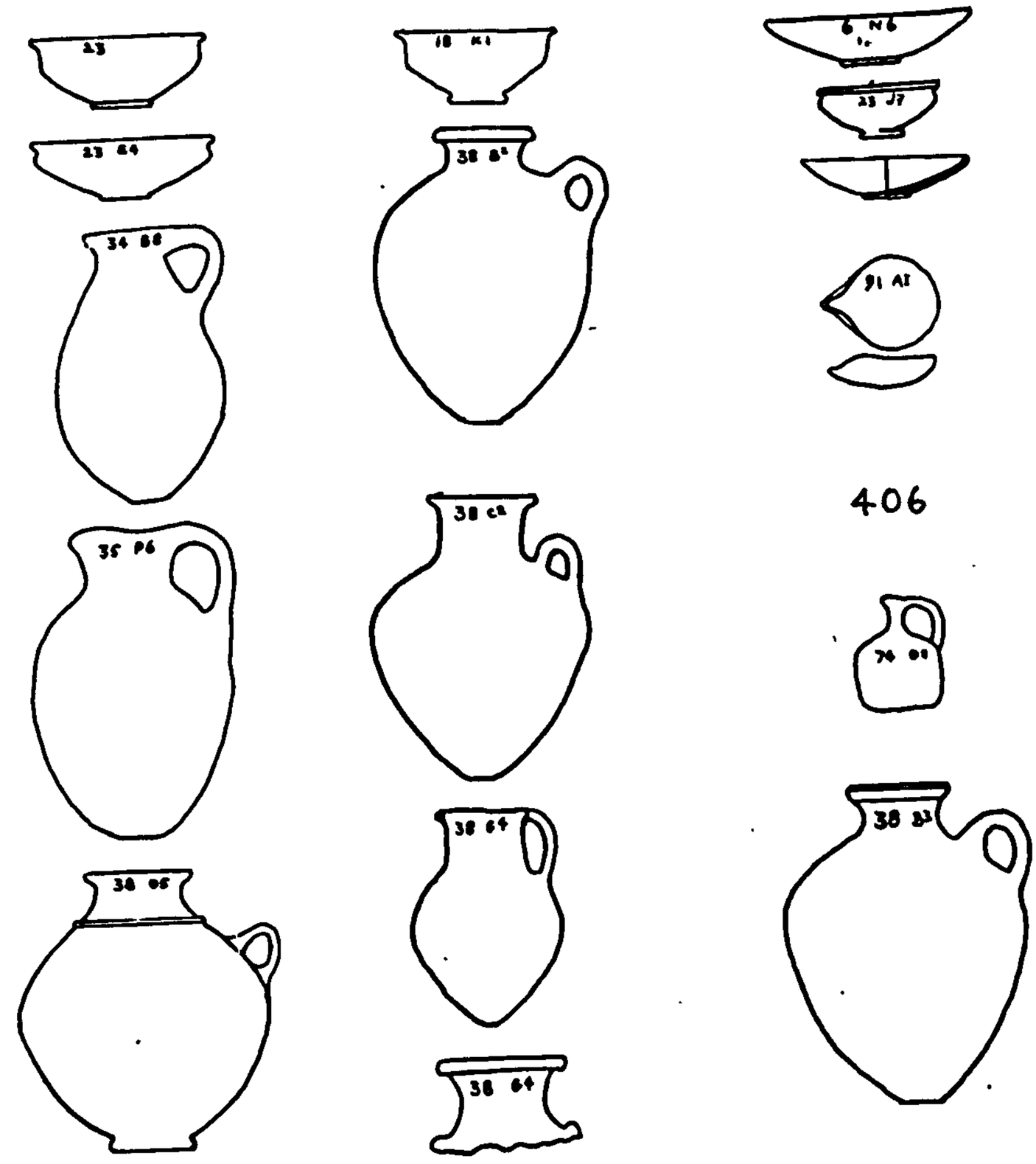


407



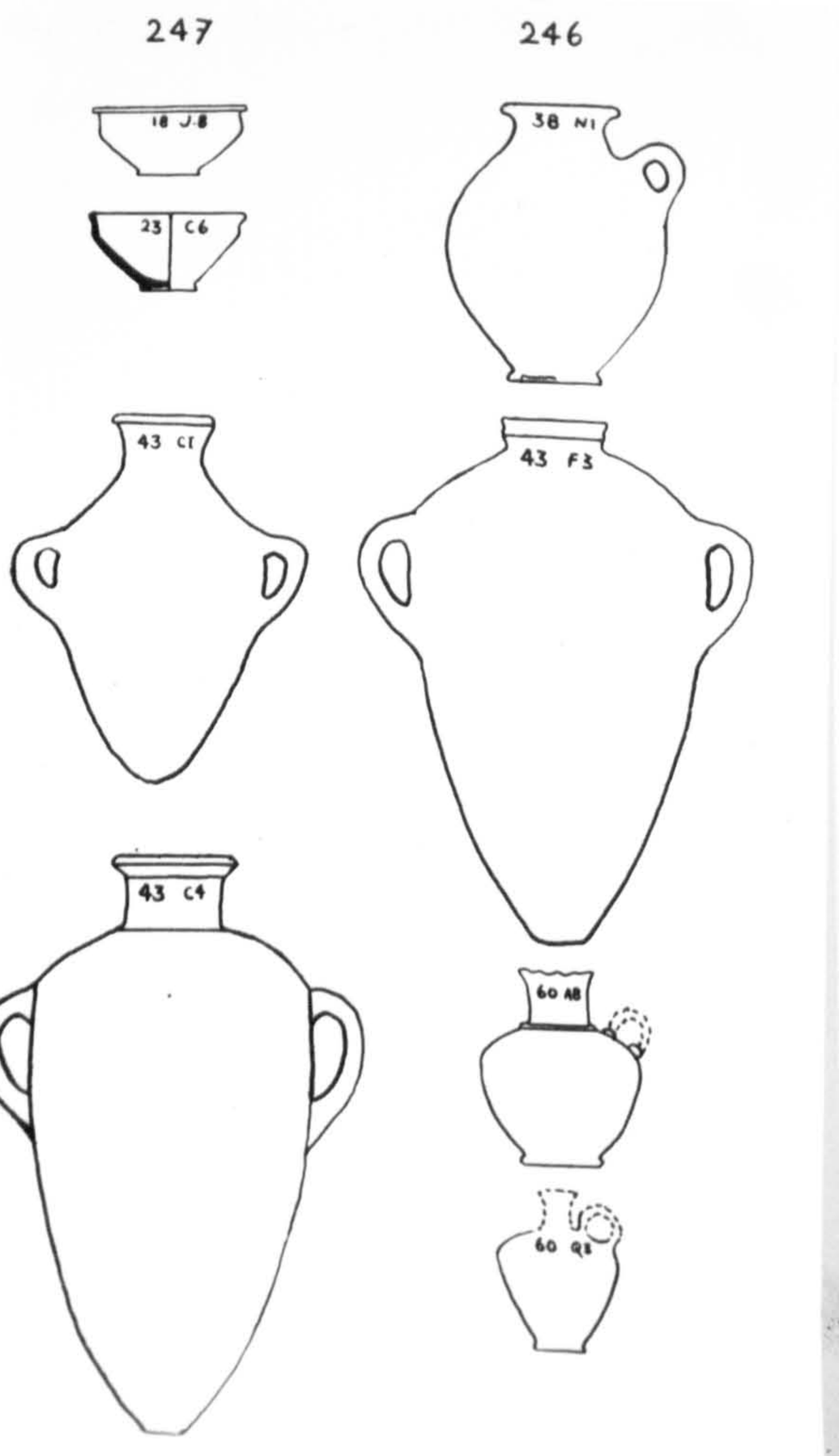
263

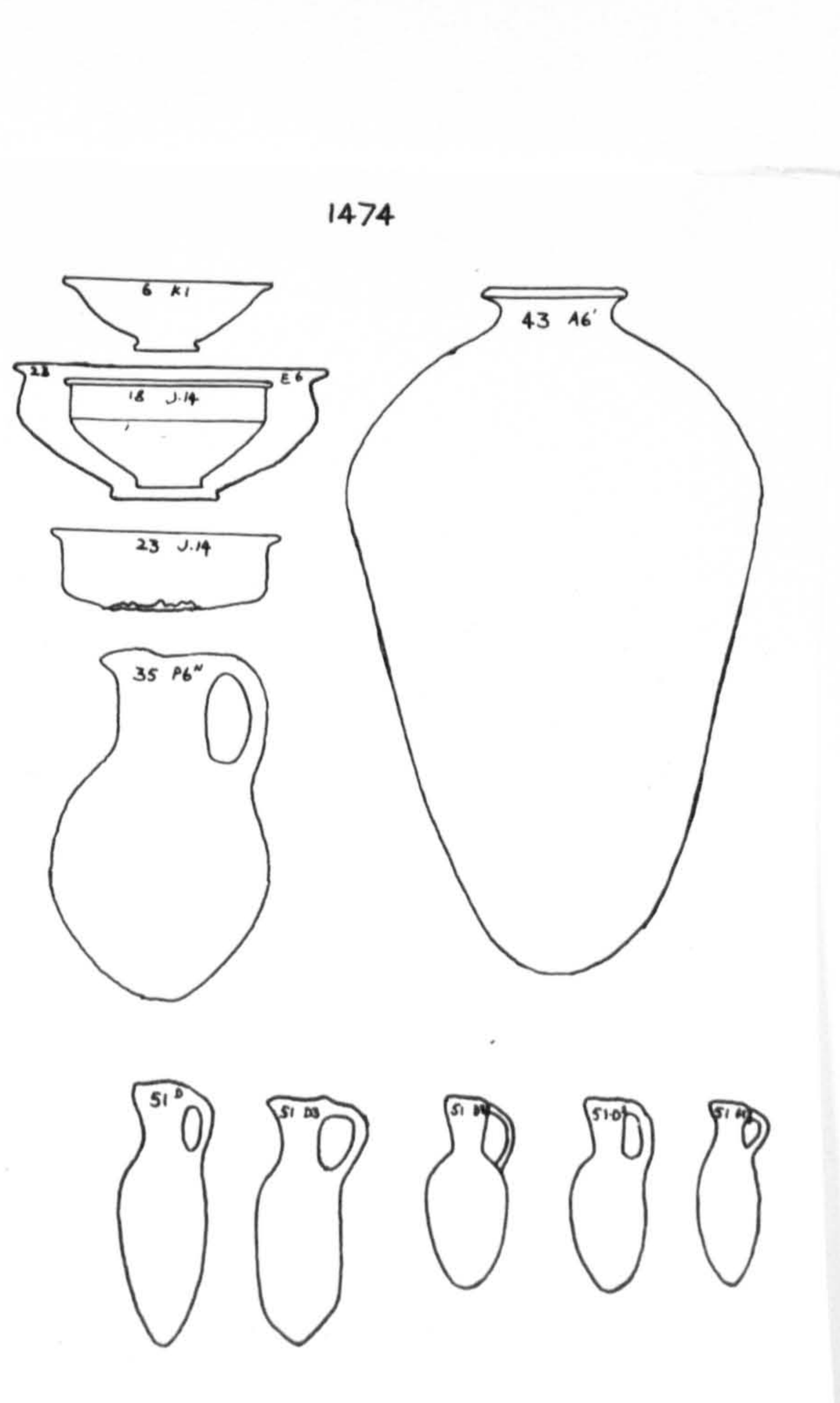




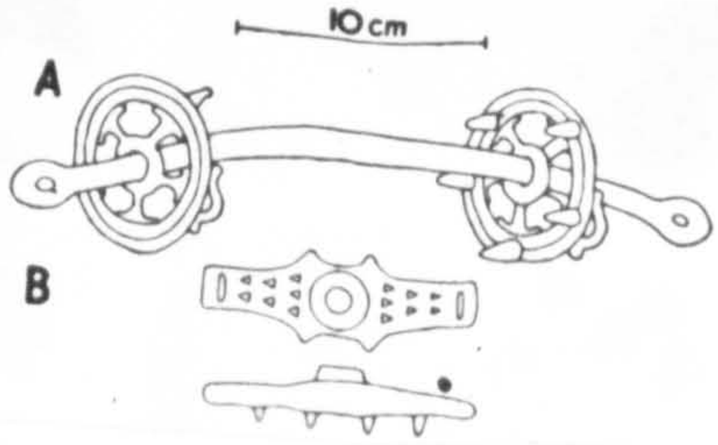
406

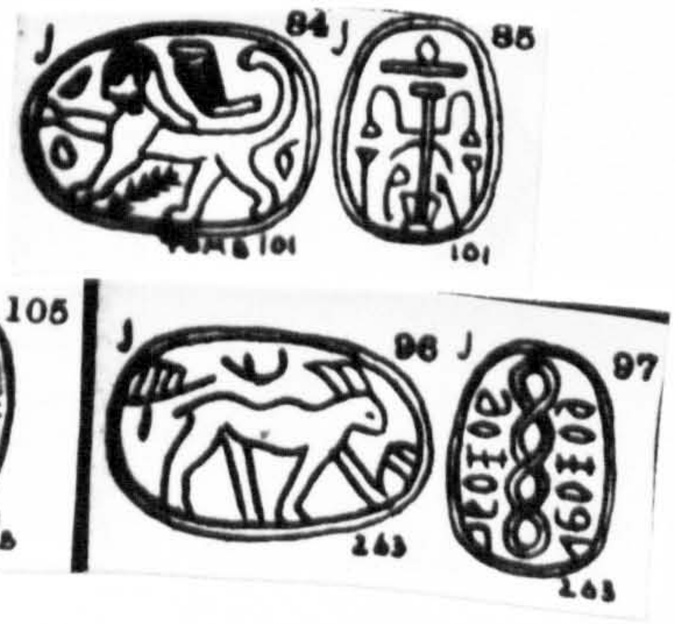
PLATE X


247
246
18 J.8
38 N1
23 C6
43 C1
43 F3
43 C4
60 A8
60 Q8


1474
6 K1
18 J.14
E6
23 J.14
35 P6"
43 A6'
51 D
51 D3

L
76
1165


10 cm
A
B


J
84
85
101
L
105
411 D
96
97
263

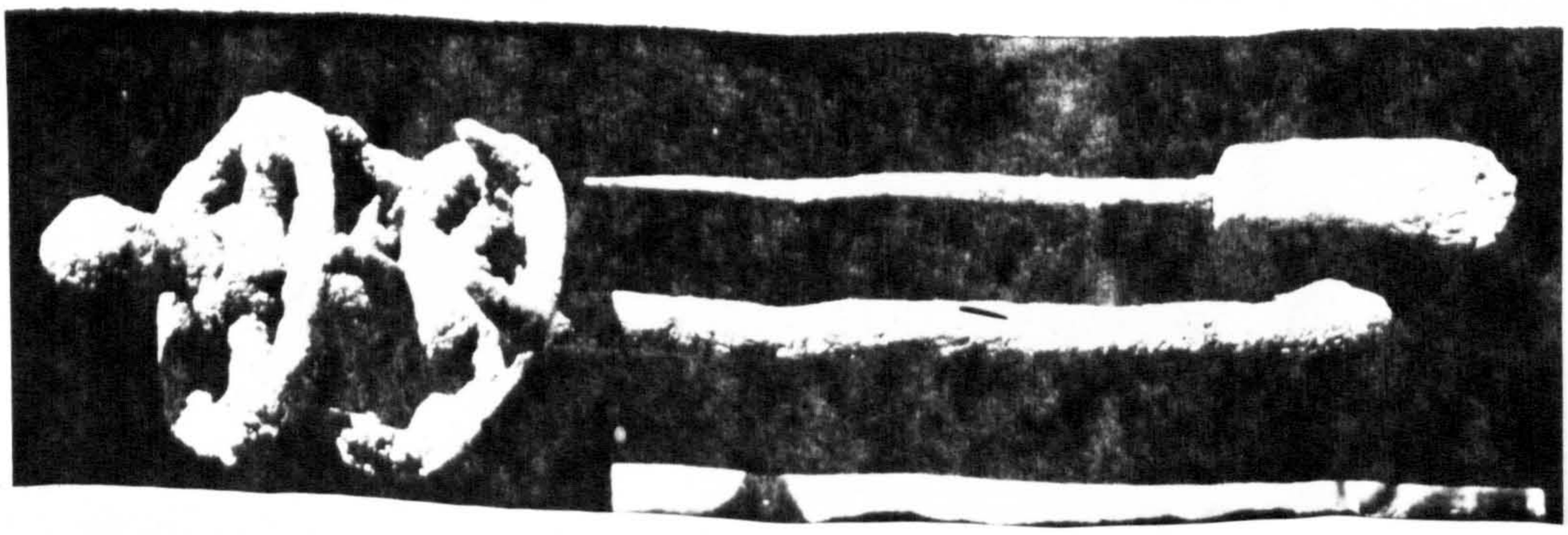
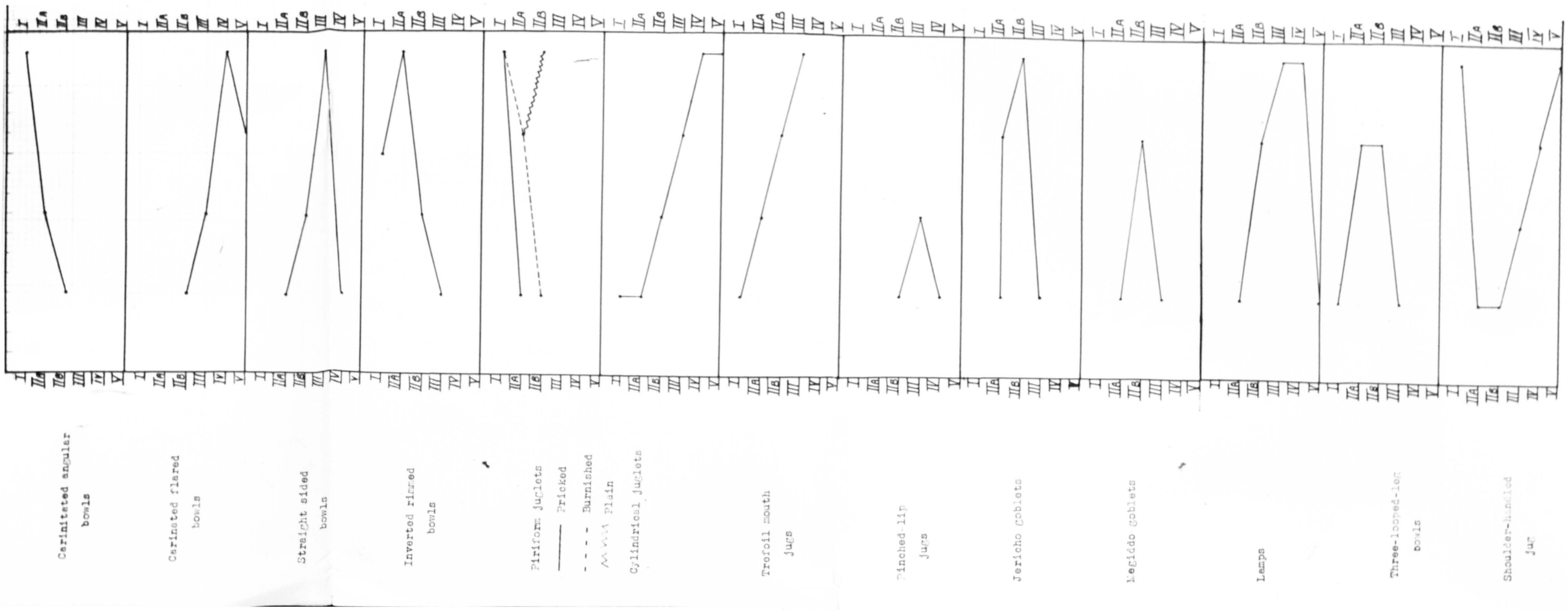


PLATE XI

FREQUENCY

Nil | Rare | Frequent | Common | Abundant

1800-1750 B.C.
1750-1700
1700-1650
1650-1600
1600-1550
1550-



Carinated angular bowls

Carinated flared bowls

Straight sided bowls

Inverted rimmed bowls

Piriform jugiets
——— Pricked
- - - - Burnished
Plain

Cylindrical jugiets

Trefoil mouth jugs

Pinched-lip jugs

Jericho goblets

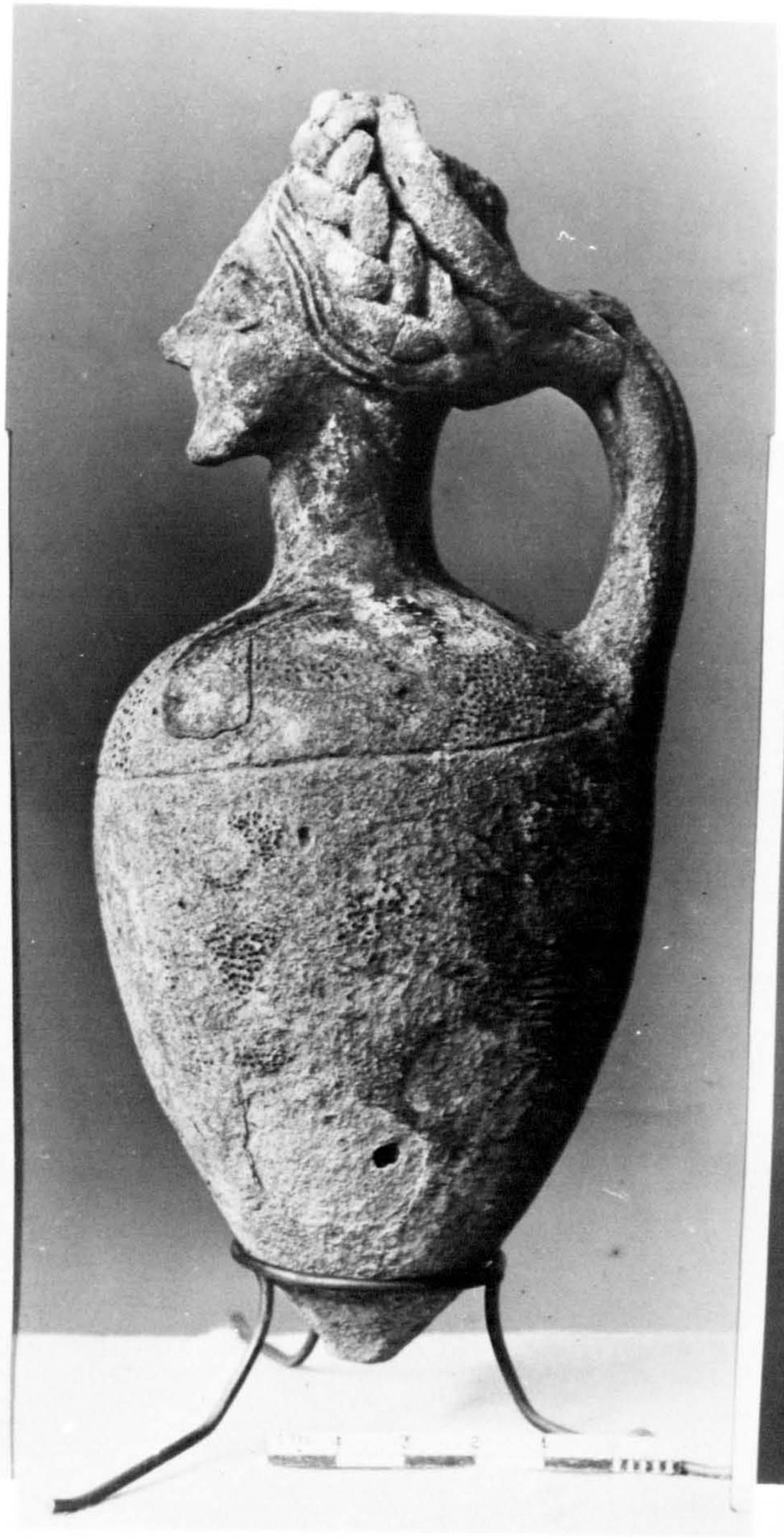
Beaker goblets

Lamps

Three-loomed-jar bowls

Shoulder-handled jar

PLATE XII



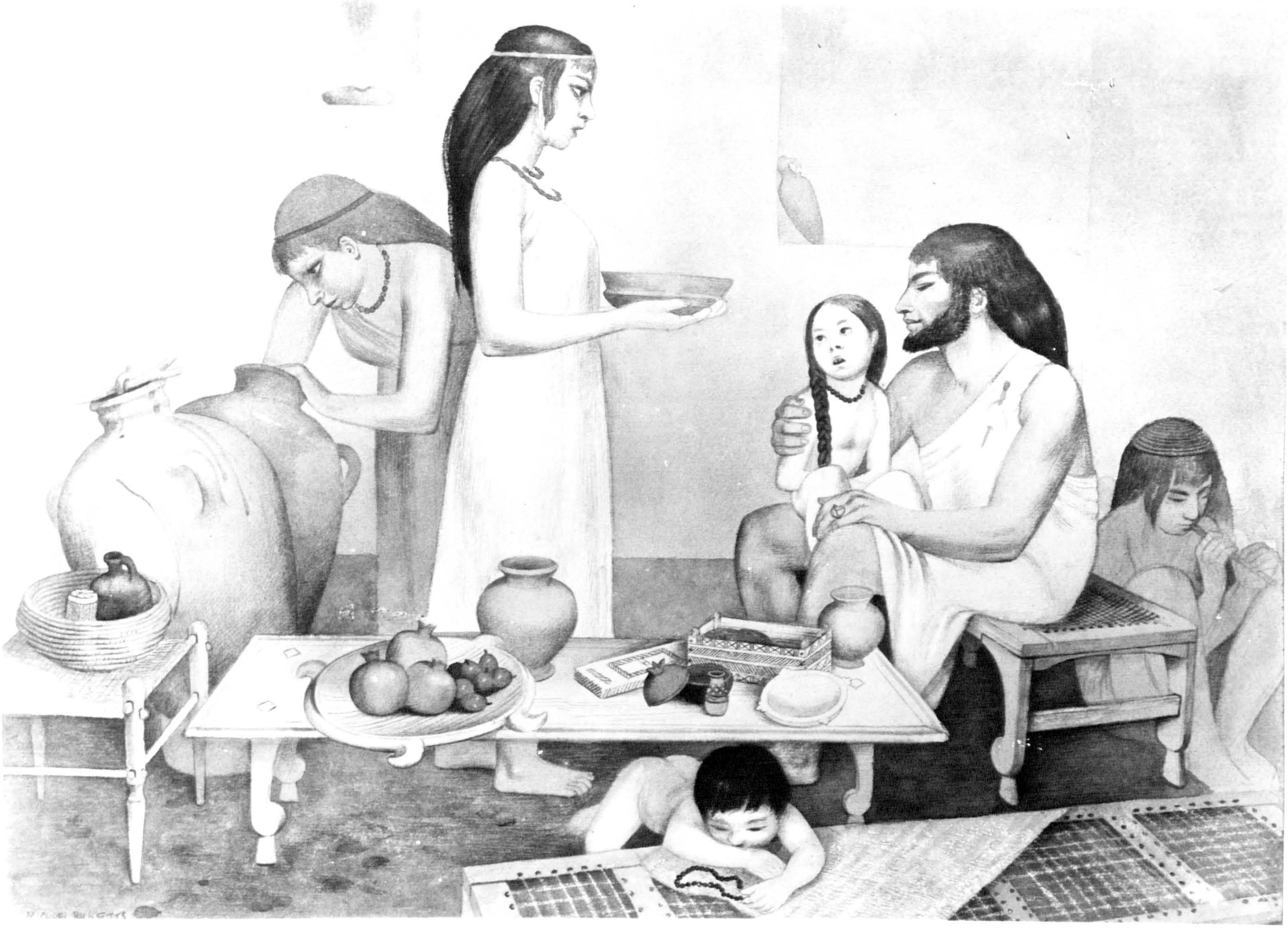
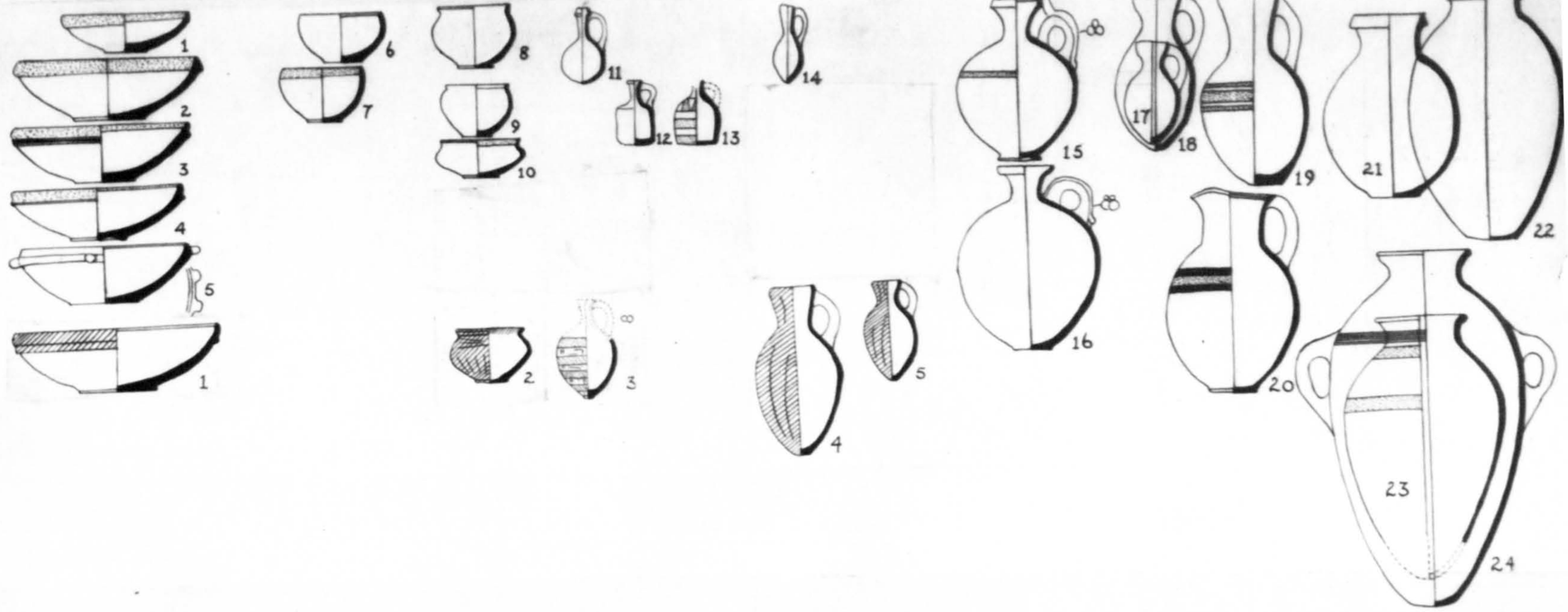


Chart I

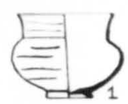
MEGIDDO
T 911
M.B.I.



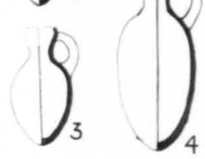
T5177

T3093

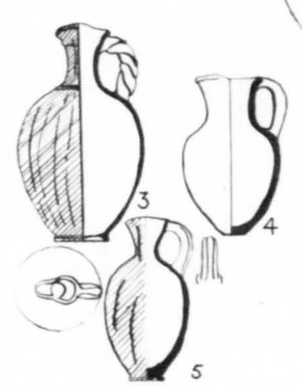
T3137



T3092

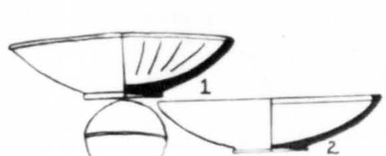


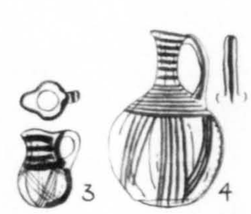
T2145



T3086
M.B.

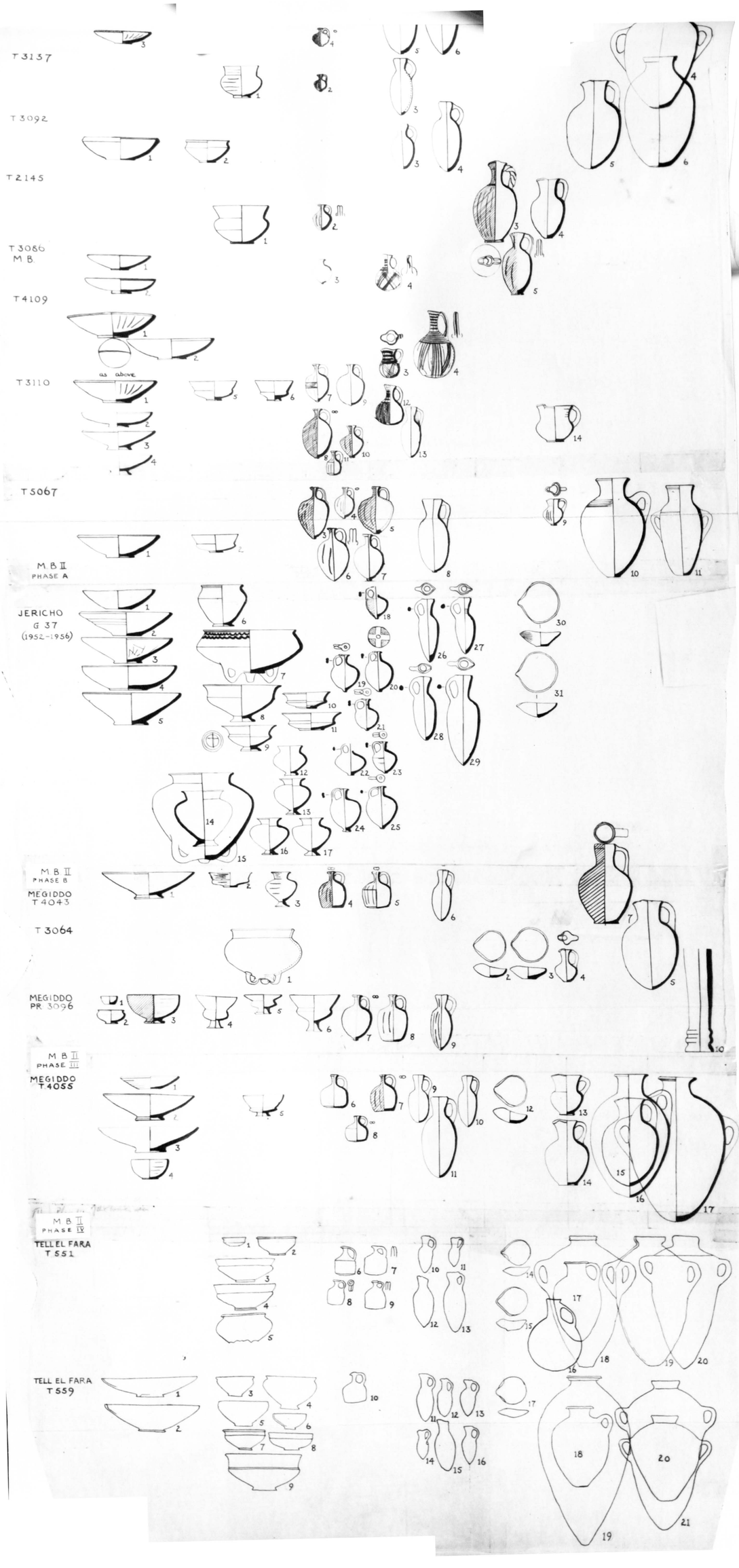
T4109





as above

T3110


T3137
T3092
T2145
T3086
M.B.
T4109
T3110
as above
T5067
M.B II
PHASE A
JERICHO
G 37
(1952-1956)
M.B II
PHASE B
MEGIDDO
T4043
T3064
MEGIDDO
PR 3096
M.B II
PHASE III
MEGIDDO
T4055
M.B II
PHASE IV
TELL EL FARA
T551
TELL EL FARA
T559