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The Development of the Middle Bronze Age Pottery
in Palestine

by
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MIDDLE BRONZE POTTERY

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IN PALESTINE

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PREFACE

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ABSTRACT

The importance of the study of pottery has long been recognized in the archaeological world, for many reasons which are fully explained in the text, but primarily for assisting in the establishment of chronologies of excavated sites in the absence of written material and other dateable objects like scarabs and seals.

In this dissertation, the writer has selected one important phase in the cultural history of Palestine, and has sought to establish as close a relative chronology as possible, derived from the pottery forms current in the first half of the second millenium B.C., and the detailed treatment of the changes which these vessels underwent from one decade to the other through the era.

After a careful study of a number of pots coming from various sites in Palestine, conclusions are drawn as to the special importance of the first half of the second millenium B.C., generally called the Middle Bronze Age, from the aesthetic and technical points of view, and the light they throw on the ethnic groups concerned, and who were responsible for this. It is hoped that this thesis, if published, will give some assistance and guidance to new excavators in the field.

C H A P T E R I

THE IMPORTANCE OF CERAMICS IN ARCHAEOLOGY

Archaeology was formally introduced into the Holy Land with the foundation of the Palestine Exploration Fund in 1865. Among the first problems facing the Palestinian Archaeologists was the establishment of a comprehensive chronology for the dating of the different levels of any given site or tell. The problem, unlike Egypt and Mesopotamia, was mainly due to the lack of written material in ancient Palestinian sites. It was to remain unsolved until 1890 when Sir Flinders Petrie, "The Patriarch of Near Eastern Archaeology",¹ found a clue to the problem.

Petrie had previously worked in Egypt for several years where he introduced his famous sequence dating and systematic recording of all items discovered in excavations for dating purposes, thus converting archaeology from a hobby of the rich into a regular science.² In Egypt however, as well as in Mesopotamia, the problem of establishing a chronology was not such a difficult task, due to the fact that many inscriptions and reliefs - from a very early date - indicated the name of the king or chief which was found written on some artefacts among various objects unearthed in any

¹Wright, Ernest, Biblical Archaeology, p. 24.

²Baramki, D.C., Phoenicia and the Phoenicians, p. 70.

level. When Petrie opened up excavations at Tell-el-Hesi in Southern Palestine, he sank vertical trenches of varying depths, and recorded meticulously every single find, including pot sherds and noted the exact level at which each item was found. While doing so, Petrie observed two important facts. One was that the forms and the workmanship of pottery varied in the different levels of the tell. Secondly, that some types of pottery discovered at Tell-el-Hesi were quite similar to other types he had previously discovered in Egypt and which he was able to date with the help of inscriptions discovered in the same level. These facts and observations led him to the conclusion that a study of the ceramic industry was most significant. He also observed that each period had its own typical pottery and that an attentive observer could in time and with practice, distinguish the differences between the various types of pottery of a given level and those of an earlier or later level. He was thus able by comparing some types of pottery of Tell-el-Hesi with the corresponding types he had discovered in Egypt to establish a more or less rough chronology for the level which produced the type concerned.

Many archaeologists of the time refused to accept the view that the changes in pottery types can be used as a criterion for dating the different levels, but the method received more support, when J.F. Bliss followed Petrie in excavating at Tell-el-Hesi. He found many scarabs with

inscriptions that confirmed Petrie's conclusions. However, Bliss failed to publish a correlation of Petrie's detailed treatment of sherds with his own stratigraphic results. The essential point was that the importance of pottery was already established.

Petrie's contemporaries did not agree with him primarily because of the fact that archaeology as a scientific field was still in its infancy; archaeologists were still groping in the dark; each one was trying to find a new or better method of digging, while disregarding the work of his colleagues. Added to that was the complication that ever since the spectacular finds of Schliemann in Troy in 1871,¹ and his discovery of the so called cup of Nestor, the main objective of archaeologists and those who financed expeditions, was to collect important artefacts to enrich museums and private collections.

The next important step in the development of scientific archaeology came in 1907 when for the first time systematic excavations were begun. In Jericho an Austro-German mission opened up excavations under the direction of Sellin and Carl Watzinger, assisted by a staff of architects, excavations went on down to 1909. The results were published in 1913 with accurate plans and photographs, and the pottery was adequately published with drawings and photographs.²

¹Shliemann, Heinrich, Ilios, the city and country of the Trojans, p. 26.

²Wright, op.cit., p. 33.

In 1908, excavations were started at Samaria under the direction of George A. Reisner and C.S. Fisher. The expedition was adequately staffed with trained people and had ample funds at its disposal to carry on the excavations. Every find was meticulously recorded and elaborate architectural plans were made of the areas excavated. Reisner, like Petrie had worked in Egypt before coming to Palestine and had evolved a new system of archaeological excavation. This method was a combination of the methods of Petrie, Dörpfled and Koldewey. However, the results of the excavations of Samaria were not published until 1924, when archaeologists for the first time could fully appreciate the importance of systematic digging and accurate recording.

By 1920, excavations in Palestine reached their zenith, for the British Mandatory Government set up for the first time a Department of Antiquities headed by an able and experienced archaeologist, Dr. John Garstang. Excavations of the different sites went on feverishly until 1936, after which archaeological expeditions almost stopped, due to the troubles in Palestine between Arabs and Jews, followed in 1939 by World War II. Following the Second World War, Palestine was once more in turmoil. The struggle between Arabs and Jews was resumed which ended in the partition of the country. Consequently, archaeologists were not able to resume their work in Palestine on a large scale until 1949, when Dr. Kelso of the American School of Oriental Research

assisted by Dr. D.C. Baramki opened up excavations at Tell Abu Al Alayiq near Jericho.¹

The importance of the study of pottery for dating purposes and correlating finds in order to establish relative chronologies was, as we have seen, started in the nineties of the last century. The basic principles which eventually led to the use of the pottery as a criterion for dating were five-fold:

First of all, clay was discovered by man at a very early stage in his civilization. It goes without saying that it took innumerable years of trial and error before man was able to produce suitable pots. When and how pottery was discovered is still a mystery to us. Pottery or terra cotta most probably was accidentally discovered, as a result of a conflagration. In Palestine the first evidence for the use of pottery, comes from the Jericho Pottery Neolithic A, period circa 5500 B.C.² The types found were crude in shape and workmanship and were handmade. A few other sherds were found in Palestine; one in a cave at Tell-ed-Duweir, and two others at Wadi Rabah on the west slopes of the central upland zone, near the headwaters of the Yarkon River.³ At Jericho, archaeological evidence indicates that this pottery was brought

¹AASOR Vol. XXIX-XXX. Kelso, James L. & Baramki, D.C., Excavations at New Testament Jericho and Khirbet-en-Nitla, 1949-51, et seq.

²Kenyon, Kathleen, The Archaeology of the Holy Land, p. 62.

³Ibid., p. 63.

in by a new people who had already discovered the technique of pottery making elsewhere. Schaeffer discovered sun-dried or slightly baked vessels in the Middle Neolithic level at Ras Shamra (level VB.)¹ At Jericho clay figurines were discovered belonging to the Pre-Pottery Neolithic. The figurines depicted the Mother Goddess in the typical conventional attitude.²

Secondly, clay is a cheap material to use and is always available; when not actually found on the surface, it takes little digging to find it. It did not need, like metals, a long and difficult processing that required a high degree of technical knowledge and ability. Unlike metals, ceramics are durable objects and water and air have almost no effect on them; accordingly they are easily preserved in the soil, and if discovered broken they can be easily mended.

People use pottery vessels more than any other material for their daily domestic use such as water containers, storage jars, dippers, oil flasks, bowls, lamps and for burials as at Tell-el-Ghassul³ and Byblos during the Chalcolithic age.⁴ At Megiddo in Stratum XI, large storage jars were cut into two and were used as funerary urns.⁵

¹AAS Vol. VIII et IX. Schaeffer, Claude. Nouvelles Découvertes De Ras Shanra 1958-59, et seq.

²Kenyon, Kathleen. Digging up Jericho, p. 59.

³Published privately in circulars.

⁴BMB Vol. XIII. Dunand, M. Rapport Préliminaire Sur les Fouilles De Byblos En 1955. Pl. II & III. Byblos I Pls. CXXXX-CLXXI.

⁵Shipton, Geoffrey M. Notes on the Megiddo Pottery of Strata VI-XX. p. 19.

Thirdly, techniques of pottery making have changed from age to age, and can thus be used as a criterion for dating in the absence of datable objects; in fact for some of the early periods, the use of pottery as a criterion for dating is imperative, because of the lack of written material. Dr. Kenyon in her report on the Jericho excavations stresses the importance of the use of pottery for establishing the chronology of the first 600 years of the Early Bronze Age in Palestine. She states that: "Any relative chronology for Palestine in this period is basically dependent on a firmly established pottery typology."¹

Fourthly, pottery, moreover, could help in retracing the movements of a given group of people, the place of their origin, the route of their advance and the new home in which they finally settled. For instance when the beautiful so-called Khirbet-el-Kerak ware with its striking highly burnished finish was first discovered at Khirbet-el-Kerat - at the southern end of the Sea of Gallile, by Maisler Mazar in 1944, it was obvious that the ware was intrusive. The ware was traced by Sir Leonard Woolley through North Syria and Anatolia to the Caucasus its original home. The appearance of the Khirbet-el-Kerak ware in Palestine was not accompanied by any signs of disturbance, which could only mean that the people who manufactured this type of ware, had either infiltrated peacefully

¹Kenyon, Kathleen, Digging up Jericho, p. 167.

into Palestine, or had established trade relations with Palestine. The Khirbet-el-Kerak ware appears on other sites in Palestine, but fewer examples are found such as those in Megiddo levels XIII and XI and at Beth Shan, South-West of the sea of Galilee. The appearance of the ware of Kerak in Syria however, was accompanied by disturbances, which suggests that there was an actual invading group. The sites at which the largest number of Kerak ware has been found are Beth-Shan and Khirbet-el-Kerak, both of which lie on the route crossing the Jordan from Syria. Examples of this ware steadily decrease further west and south as Lachish in Early Bronze III levels.¹

Finally pottery can be used as an index of the artistic taste of the people who made it, and the degree of their technical ability. For people provided by nature with good taste, generally produce exquisite forms in their household utensils, and people with unrefined tastes produce hideous forms.²

Sir Flinders Petrie and the veteran archaeologists of the early decades of the twentieth century used the following criteria in determining the relative chronology of the ceramic industry of the country.

First of all there is the ware. This usually describes the texture of the vessel, whether it is very coarse, medium or very fine. The texture is primarily influenced by the

¹Kenyon, Kathleen, Archaeology of the Holy Land, p. 127.

²Duncan, Garrow, Corpus of Palestinian Pottery.

inclusion of nonplastics, their amount, grain size, grading and shape. Nonplastics are used as a temper. Tempering has proved to be one of the most useful technical features by which to identify pottery. It often gives a clue as to the source of trade wares, and indicates the relationship between types. At the very beginning of pottery making, straw was used as a temper, later on grits of different sizes were used of limestone, quartzite, flint or other similar materials. Second we have the criterion of colour. The colour could be white, buff, pink, orange or red. However Miss Anna Shepard, the expert on pottery does not believe that the colour of pottery is important. She believes that the primary causes of pottery colour are the composition of clay and the atmosphere and secondly the temperature and duration of firing. Clay is coloured principally by impurities, the chief classes of which are iron compounds and carbonaceous matter. The common iron compounds are converted to oxides in firing, if they are not in that state already and become a permanent colorant of the pottery. The amount, particle size and distribution of iron oxide, together with the characteristics of the clay determine primarily whether clay will be white, buff or red when it is fired to a condition of full oxidation. Carbonaceous matter colours pottery only when there is lack of insufficient oxidation. The proportion of oxygen in the atmosphere, the length of firing and temperature, all affect the rate at which carbonaceous matter burns. Thus when the firing is inadequate, carbon may be burned only from the surface of pottery, the core of the vessel wall remaining dark gray.

If the firing atmosphere is neutral or reducing, carbonaceous matter may be charred, intensifying the gray colour, but carbon and its colour effect are unchanged.

Fired clay in general attains its clearest colours when fully oxidised. It turns grey because of the carbon and the lower oxides of iron. Carbon may be derived from carbonaceous matter in the clay or it may be deposited from the smoke of smouldering fuel, and the iron oxide may originally occur in its lower state of oxidation or in the form of ferric oxide which may be reduced in firing.¹

Firing is an important criterion and we have already seen how it affects the colour of the ware; but it is also the final stage in the process of pottery making and is the most crucial stage. According to C.F. Bins it is "the pivot upon which the art of the potter turns".² For firing determines the serviceability of the ware; bad firing may turn out soft or unusually brittle or porous vessels.

Another important criterion in the classification of pottery types is the study of vessel shapes which is interesting both from the standpoint of function and aesthetics. The purposes for which this vessel or that was needed tells us something of the activities and the customs of the people who used it. The aesthetic aspects of vessel colour and proportion is an index of the taste of the people who made it.

¹Shepard, Anna O. Ceramics for the Archaeologist. p. 102 et seq.

²Bins, Charles F. The Potter's Craft. p. 111.

In considering the shape of a vessel, we must first note the rim which may be either plain, flared, inverted, everted, rolled or pinched. Secondly the body may be globular, squat, elongated, caliciform, cylindrical, piriform, carinated or conical. Thirdly we have to note the base, which may be rounded, flat, ring or disk, concave, trumpet or ogee, or stump base.

Finally the application of handles may be classified according to two categories namely the type and the position on the vessel. Handles may be cord-eyed as is generally found during the Early Bronze Age, or the so-called lug-handle common in the Chalcolithic Age, loop-handles, wish-bone handles, or ledge-handles. The handle is placed anywhere from the rim to the shoulder, differing with the period, or it may be placed entirely on the shoulder, as is the case with the small globular jars of the Late Bronze Age, the Mycenaean pyxis and decanters.

The treatment of the surface of the vessels varies greatly with each age, and may fall under one or other of the following categories:

1. Wet-smoothing. This is a method in which the surface of a vessel is rubbed with a wet hand or with a wet cloth before firing, in order to produce a smooth surface.

2. Slip consists of clay mixed with water to about the consistency of a thick cream, and is then applied as a coating to the surface of the vessel before firing. The clay

of the slip may be, as in most cases, either of the same colour as the clay used in making the vessel, when it is known as a self-same slip or at other times of a different colour.

3. Wash is a layer of colour, thinner in consistency than the slip and is applied to the surface of the vessel after firing.

4. Burnish, is a more or less permanent shiny surface finish, produced by polishing the surface of the vessel with a smooth hard implement, like a shell, bone or pebble. This could be done by hand either when the vessel is static as in the Early Bronze Age, or when it is revolving on the wheel.

5. Painting. The surface of vessels may be decorated in various ways. Painting either in monochrome or polychrome, ranges from simple geometric designs, to the elaborate metopes and friezes depicting animals, birds or fish of the Philistines circa 1150-1000 B.C. Another type of decoration is the punctured or pin-pointed design, so popular during the Hyksos period and which I shall discuss later in detail.

6. Incisions. Finally, there is the incised decoration which consists of scratches that have been made on the vessel before firing, and when the pottery is still in a leather-hard state.

The final criterion used in dating is the locus of a vessel in a given level or stratum, and its proximity to other datable objects like inscriptions or inscribed seals, when these are found.

CHAPTER II

THE HISTORICAL BACKGROUND

The Early Bronze Age is one of the outstanding ages in man's history; for it was during this period that urban centers arose in the Near East, Empires emerged for the first time and writing became more developed, thus ushering the historical age. These achievements were in large measure due to the improvements in agricultural techniques, which became so advanced, that excess food was produced in large quantities in certain areas. Before reaching this state, man had to clear jungles, to dry swamps, dig canals and build dams in order to regulate the irrigation of his fields. This great task involved organization, collective efforts and the direction of a central authority and thus led to the establishment of the earliest form of government.

As a result of the production of surplus food urbanization developed and specialization in skills became possible. Records were needed in order to keep track of the amount of foods produced, the amount consumed, the seeds loaned, the debts repaid, and so writing was invented. A calendar was also introduced in order to record important events and to note the agricultural cycle. Most of these developments took place in the alluvial valleys of the Nile on the one hand, and the Tigris-Euphratees valleys on the other.

The Early Bronze Age is divided into three phases. Phase I, circa 3000-2800 B.C., corresponds to the two Thinite Dynasties of Egypt more or less, and to the first phase of the Early Dynastic Period of Sumer. Phase II, circa 2800-2600 B.C., corresponds with the first part of the Old Kingdom of Egypt including the Third and Fourth Dynasties, and to the second phase of the Early Dynastic Period in Sumer which includes the illustrious First Dynasty of Ur. Phase III, circa 2600-2300 B.C., corresponds to the second phase of the Old Kingdom of Egypt including the Fifth and Sixth Dynasties. In Mesopotamia the period corresponds to the Third Phase of the Early Dynastic Period, and includes the Dynasties of Lagash and Erech, as well as the classical period of the Kingdom of Sumer and Akkad. The period also witnesses the arrival of the Hattians in Anatolia who, it is generally thought, introduced the Khirbet-el-Kerak ware.¹

Palestine was also undergoing a period of urbanization during the Early Bronze Age. However no important states or empires developed here. Agricultural surplus was not excessive, as the town lands produced enough food to satisfy the needs of the local community, but could never produce a great amount of surplus food which would allow the concentration of wealth and power in the hands of the local leaders.² Consequently no chief could establish hegemony over other chiefs. Each town

¹Woolley, Sir Leonard, Forgotten Kingdom, p. 31 et seq.

²Kenyon, Kathleen, op.cit., p. 103.

then had its own chief, who indulged in petty warfare with his neighbours, thus weakening the country and making it an easy prey to foreign conquerors. The country became a subject of Egypt at an early date. For soon after the establishment of the Old Kingdom, Egypt became strong enough to extend her power over her immediate neighbours.

Egypt, like other "alluvial cradles of civilization"¹ was dependent on imports for many of her raw materials needed for her urban industries and other necessities. Though Palestine could offer but little to Egypt, yet it was important to Egypt, because of its geographic position. Like Syria and Phoenicia it formed part of the martial highway between the great empires of the past, and a bridgehead connecting Egypt with Phoenicia and the rest of the then civilized world.

Nomads from the desert, some of whom dwelt near the copper mines of Sinci, posed a constant threat to the Egyptians, who sent frequent military expeditions to keep them pacified.² It is most probable that the Egyptians held some kind of control over towns and settlements that fringed the route connecting their country with Asia. The route passed up the Palestine coast, and then inland by the plain of Esdrael, which breaks the central range and forms a connection between the coastal plain, the Jordan valley and the uplands of Transjordan. This was the principal and easiest route between

¹Child, Gordon What Happened In History, p. 140.

²Ibid., p. 141.

the two tips of the Fertile Crescent.¹

By 2300 B.C. The Early Bronze Age civilization in the whole Near East was disrupted by the invasion of barbaric tribes from the Syrian Desert. The nomadic dwellers of the desert always sensed any weakness in the central authority of Egypt and took advantage of this to carry predatory raids on both Egypt and her satellite states.

In Egypt the central power of the pharaoh was shaken by the nomarchs or local governors of the provinces, whose property and offices have by now become hereditary. They stopped respecting the Pharaoh's authority and indulged in internecine wars among themselves, in order to extend the boundaries of their various nomes. This weakened Egypt considerably so that it fell an easy prey to the attacks of nomadic invaders from the Syrian Desert, known as Amorites.

In Mesopotamia, the empire inherited by Naram-Sin from his great grandfather Sargon, was disintegrating. For between 2301 and 2247 B.C. Naram-Sin was kept busy quelling rebellions. Those rebellions though smashed, weakened the country so badly that by the time of his successor Shargalisharri, the Gutti were able to invade the country and wreak destruction everywhere. They looted and plundered wherever they went and plunged the country into chaos for about a century until 2100 B.C. Eventually Semitic Amorites established themselves in the country and founded the First Dynasty of Babylon.²

¹Kenyon, op.cit., p. 27.

²Baramki, D.C. The Might and Splendour of the Near East, p. 55.

Palestine was also overrun by the nomadic Amorites. The Amorites destroyed many of the cities reducing most of them to villages and decimating the native population. Archaeological evidence amply testifies to the fact that though they destroyed existing towns, they did not bother to build any of their own, but lived on the ruins of the existing cities. At Jericho the Amorites settled in large numbers; they occupied all the slopes of the mound and a considerable part of the adjoining hillside. The only evidence of their settlement, for a considerable time was their pottery sherds mingled with occupation debris. There is in fact a thick layer of 2.75 meters of silt that accumulated in the W-shaped ditch, forming part of the last Early Bronze Age wall, before the Amorites started to build houses.¹ Buildings of the new age discovered at Jericho were very different from those of the Early Bronze Age. A very noticeable feature is the greenish colour of the bricks, not found at any other period. Another characteristic is the very unsubstantial nature of the walls, which are almost always only a single brick course thick. Walls are nearly always leaning out of the vertical, and were thus very liable to collapse. Set in the floor are some hollowed out stones, presumably used for grinding and a small brick-lined bin set against the corner of the room.²

At Ajjul there are no traces of occupation on the tell. At Tell Beit Mirsim, architectural remains are very scanty in

¹Kenyon, Kathleen, Digging Up Jericho, p. 192.

²Ibid., p. 191.

Strata I and H and there is no town wall. At Lachish there was a settlement in Area 1500,¹ covering an area about 500 square meters north-west of the tell. Traces of occupation were found in pits and caves, and the remains of only one poorly built house were found, which might belong to the period.

Our best evidence of Amorite occupation comes from tombs of which they left many. In contrast with the practice of multiple burials current during the Early Bronze Age, the Amorites buried their dead in individual tombs, a fact which throws a great deal of light on their beliefs and practices. The tombs fall into five different categories. Miss Kenyon calls them the Dagger Tombs, the Pottery Tombs, the Square-shaft Tombs, the Outsize Type Tombs and the Bead Type Tombs.² Miss Kenyon explains this variety of tombs as evidence of a number of tribal groups each with its own customs, coming together in the same period as a loose tribal confederation. Though the five types of tombs differ in detail, yet they all consist of a vertical shaft, of varying depths and sizes, from the base of which a very small opening usually blocked by a single stone leads to the burial chamber. Inside the opening there is almost always a drop of a foot or a little more to the flat floor of the chamber. The room is approximately round, with a roof curving down from the entrance to the sides.

¹Lachish IV, p. 253, et seq.

²Kenyon, op.cit., p. 194.

Though the offerings varried, yet with almost all the male interments there was a dagger or a spear. The daggers were simple blades made of copper. They were long and narrow with nearly parallel sides; they had a slight midrib and a square tang, with rivet holes for the attachment of the hilt which was made of wood.¹ Parallel tombs were discovered at Ajjul in cemetry 1500² and at Megiddo.³

The newcomers brought with them a slow-moving wheel worked by hand. They made the necks and rims of jars and jugs with the slow-moving wheel, and attached them to the body that was done by hand. Their pottery is called californiform, because of its resemblance to the calyx of flowers.⁴

The pots were generally tall, with an ovoid body, a flat base and flaring rim. Small pots had lug-handles at the neck, and the bowls were either slightly waisted or barrel-shaped. The ware was brittle and in general badly fired. The walls of vessels were remarkably thin, and the surface was neither burnished nor painted, in contrast to the general practice during the Early Bronze Age. The typical decoration consisted of incised straight and wavy lines combined, or of a series of stabs.⁵ In spite of the introduction of the wheel and the remarkably thin walls of vessels the period was marked by a general degeneration in the ceramic industry.

¹Albright, W.F. The Archaeology of Palestine, p. 80.

²Ancient Gaza II, p. 2.

³Megiddo II: Tomb 24, pp. 48-50, Tombs 233-34, 247, 251, pp. 55-59.

⁴Albright, op.cit., p. 80.

⁵Kenyon, Kathleen, The Archaeology of the Holy Land p. 136.

The new pottery repertoire is only very faintly reminiscent of the Early Bronze Age forms. Though the ledge handles were popular during the Early Bronze Age yet it was completely different from its opposite number of the Intermediate, which was folded over like the flap of an envelope and hence is now called the envelope-ledge handle. The other Intermediate forms on the other hand are completely different from those of the Middle Bronze Age.

The caliciform pottery first appears in Syria, in Hamath on the Orontes, where Ingholt was able to differentiate four successive phases of this ware, dated roughly to the last centuries of the third millennium.¹

The Intermediate period was one of general unrest. The nomads were restless and constantly on the move. This state is clearly reflected in the Egyptian Execration Texts of the twenty-first and twentieth centuries B.C. The Execration Texts were vessels and statuettes inscribed with imprecations, in extremely cursive hieratic, with the names of neighbouring peoples or their chiefs who threatened the security of Egypt. The Egyptians believed that they had only to break those statuettes or vases, while performing a special magical ceremony and pronouncing a magic formulae and the rebels would in the same way be smashed.

The Amorite movement was one of the important Semitic

¹Albright, op.cit., p. 80.

invasions of the Near East. Some but not all scholars believe them to be the future Aramaeans who dwelt in the hill-country of Palestine and in Transjordan. This is further ascertained by the fact that some of the names in the Egyptian Execration Texts, designating the inland areas or their chiefs are Amorite.

Shortly after 2000 B.C. a number of Amorite states were established all over the Near East. At Mari, Harran and Qatna among others.¹ Babylon became the capital of an Amorite state ruled from about 1792 to 1750 B.C. by Hammurabi.

In Egypt the period of chaos came to an end around 1990 B.C. Amenemhat I the founder of the Twelfth Dynasty was perhaps a vizier to Sankhkara Mentuhetep II, the last pharaoh of the Eleventh Dynasty. His major task on assuming the throne was to reduce the rights and privileges attained by the powerful nomarchs whose status was now adjusted and who were once again brought under the control of the central authority. Amenemhat I also re-set the boundaries between the nomes. By doing this he ushered in an era of peace, security, prosperity and general contentment. Trade routes were re-opened and commercial activities were resumed between Egypt and her neighbours to the North and South. Trade relations were also established with Middle Minoan Crete. Many of the autobiographical inscriptions of the period are full of eloquent praise for the achievements of Amenemhat, and once such inscription praises him in the following manner:

¹Wright, op.cit., pp. 42-43.

"He eliminated wrong... and restored what he found in ruin and what one city had taken from its neighbour. He caused one town to know its boundary with another; he established their boundary stones as firmly as the sky, for he knew their irrigated domains according to what was in the writings; they had been checked according to what was in the ancient records, in as much as he loved justice."¹

The period of the Twelfth Dynasty is called the Dawn of Conscience or the Age of Enlightenment, because for the first time in history, the pharaohs took the interest of their subjects to heart. They attempted to improve the condition of the farmers and labourers. Amenemhat I opened a canal connecting the Nile with the Red Sea, thus anticipating the work of Ferdinand de Lesseps by 3840 years.² Amenemhat III reclaimed the swamps in the Fayum; he built dykes and canals in an attempt to regulate the flow of the Nile. He set up Nilometers along the course of the Nile, in order to observe its rise and fall, predict its inundation and take adequate measures for averting disaster. Great stress was laid by the pharaohs on justice and equity as we learn from the autobiographical texts recovered in the tombs of the Age.

In Palestine the Middle Bronze Age is marked, like the preceding ages by the coming of a new people, who rebuilt the derelict cities and restored town life. They brought with them

¹Baramki, op.cit., p. 104.

²Ibid., p. 105.

several new developments. Their pottery was made completely on a fast wheel except for the crudest types of cooking pots. Their ceramic repertoire was totally new. However their most important contribution was the use of bronze for some weapons, vessels and ornaments, for they had already reached a high degree of proficiency in metallurgy before arriving in the country. The forms of their weapons were distinctive. The daggers were short and broad-shouldered, with a short rivet, hilt plate and elaborate multiple ribs on the blade. Another type was a narrow-sided axe head with shaft-hole and nick, presumably to help bind the head to the shaft, and a socketed spear.¹ The newcomers are called the Torque-wearers by Professor Schaeffer. This name is applied to them because of a characteristic ornament - the torque, which consisted of an open circular ring with two eyelets as terminals. Other ornaments characteristic of this group of people was the toggle-pin with a swollen head and pierced with a hole below the neck, bronze beads biconical in shape and often mixed with carnelian or quartzite beads, and bronze spirals.²

The new culture has close parallel in the north. The earliest level in which the torques appear at Ras Shamra is the second level (Ugarit Moyen 1 circa 2100-1900 B.C.)³ Byblos is another centre where torques were worn. The votive jar

¹Kenyon, op.cit., p. 164.

²Schaeffer, C. Ugaritica II, p. 49.

³Schaeffer Stratigraphic Compare, p. 25, et seq.

below Batiment II contained bronze objects similar to those of Ras Shamra. Many were in a half finished stage, and were probably locally made.¹

It is most probable that the original home of the torque-wearers was somewhere in Asia Minor. As we have seen, the main contribution of the newcomers, apart from the new pottery forms, was the introduction of a highly developed metallurgy. While Syria, Phoenicia and Palestine were in a state of retrogression during the Intermediate Age, circa 2300-1900 B.C., as a result of the Amorite invasions, we find that in Asia Minor, the Caucasus region and the Iranian Plateau there were many highly prosperous cities, with an already highly developed metal industry. In Troy Level II Schlieman discovered in 1873 the remains of a very prosperous city with the so-called "Treasure of Priam". Other rich finds belonging to the same period that falls between 2300-2100 B.C. were discovered in the tombs of Alaça Hüyük including among other things, gold vases, and at Alishar level IB.² In the Caucasus region we have during the same period the treasures of the Kourgan tombs of Maikop, and those of Tepe Hissar and the Astrabad tombs in the Iranian Plateau.³

Towards the end of the third millennium B.C. the whole area of the Near East including Asia Minor, the Caucasus and

¹Ibid., p. 61, et seq.: Byblos I. Pl. LXVII to LXXII.

²Schaeffer, op.cit., p. 314, et seq.

³Ibid., pp. 537-539.

the Iranian Plateau suffered a severe blow. The metallurgic industry almost disappeared abruptly. In the Caucasus the civilization dominated by the great chiefs buried in the Kourgan tombs disappeared. Relations with the Orient, from where precious metals were brought, were cut. In the Iranian Plateau the rich cities of Tepe Hissar and Turang Tepe quickly disintegrated.

In Asia Minor Troy II ends in disaster. Archaeological evidence of Level III shows every sign of a violent destruction accompanied by a conflagration. The streets are full of fallen stones and carbonized matter. Thick layers of ash and burnt wood cover the level. In the rooms, vases and other domestic objects are strewn around hearths, conclusively demonstrating that the people had to leave in a hurry. The disparity between the richness of the Troy III settlement and the meagre remains of the ensuing Troy IV is striking.¹ The same signs of a violent destruction are observed at Tarsus Level III. There the damaged walls have an inclination of about 45°. At Alishar Level III (circa 2100-1950 B.C.), remains are clearly less pretentious than those of Level IB of the preceding period. The brilliant civilization of Alaça Huyuk, vividly illustrated by its rich tombs is suddenly destroyed.²

The same catastrophe that hit Asia Minor and the Caucasus also reached Phoenicia, Syria and Palestine. Here

¹Ibid., p. 226, et seq.

²Ibid., pp. 318-321.

the effects were less brutal. Ras Shamra was partially destroyed and the site was abandoned. Chagar Bazar Level III was demolished. In the nearby Tell Brak the palace founded by Naram-Sin between 2280-2223 was totally destroyed.¹ In Palestine Tell-Beit Mirsim Stratum J was subjected to destruction and conflagration and a new people settled on the site. The same happened at Lachish, Gaza, Jericho and Beisan.

Dr. Schaeffer believes that all this destruction was due to a series of severe earthquakes. The center of the earthquakes he believes was somewhere in Asia Minor and the Caucasus region. The people there, ceised with panic or cut off from their mineral resources, left their country destroying other cities and settling there.² Some groups journeyed South-West and settled at Ras Shamra other groups went further South to Byblos and Palestine and probably settled at Jericho, Megiddo, Gaza and Tell Beit Mirsim and elsewhere. Some tombs containing the characteristic pottery and bronze objects of the so-called torque-wearers were discovered as far South as Abydos and Kahun in Egypt. Further groups still went West to Eastern Europe and settled in Hungaria and Bohemia. From there other groups who possessed the same metallurgic industry reached as far as Alsace in the North-West.³ Whether those people left their homes on account of earthquakes or

¹Ibid., pp. 90-94.

²Ibid., p. 545 et seq.

³Ibid., p. 546.

other causes is irrelevant to our hypothesis. The principle issue is the fact that those people left their homes carrying their metallurgic lore with them to various parts of the Near East especially to Syria, Phoenicia and Palestine and to Eastern Europe.

In Syria, Phoenicia and Palestine the Torque-wearers lived side by side with the Amorites eventually fusing together to produce the Canaanite civilization which was to last, in spite of many political upheavals down to 1400 B.C., when another major invasion took place, namely that of the Habiru, which was followed two centuries later by the invasions of the so-called "Peoples of the Sea", consisting of the Aegeans and their kindred folk who were living in the Aegean Basin and who were ousted from their homes by the Dorians. The arrival of the Aegeans in Phoenicia resulted eventually in the rise of its city-states, and ushered in the "Golden Age" of Phoenicia. In Palestine, as Philistines, the Aegeans settled in the plain of Philistia and entered into a struggle with the Israelites.¹

Soon after the establishment of the Twelfth Dynasty Egypt once more extended its dominion beyond its borders. Dr. C. Schaeffer in his excavations at Ras Shamra and Sir Leonard Woolley in his excavations at Alalakh-(Tell-Atchana) found evidence that an Egyptian Pharaoh, either Senusert I or Senusert II, conquered all Syria and that the local kings

¹Baramki, D.C. Phoenicia and the Phoenicians, pp. 8-10.

became vassals of Egypt. Our clearest evidence comes from Byblos where excavations have conclusively demonstrated that during the Nineteenth Century and part of the Eighteenth, Byblos was a vassal of Egypt. Amenemhet III and Amenemhet IV sent valuable gifts to their vassals Abishemu and his son Ipshemuabi, their contemporaries at ^BByblos, in exchange for cedar wood.¹ Egyptian dominance was so strong at Byblos that Sinuhe, the Egyptian fugitive, did not enter the city for fear that he may be captured and sent back to his country. In fact at one time, Byblos seemed to lose its independence completely and was governed by an Egyptian prince. For in one of the tombs two scarabs were found with the name of Medjet-tebit-Atef and his wife Sat-ousir.² Furthermore, we learn from hieroglyphic texts found in Gibelite tombs, that the Egyptian pharaohs ordinarily designated Syrian and Palestinian kings by the word "ur" grandee or "hiq" chief.³

There is no record actually indicating that the kings of the Twelfth Dynasty undertook an expedition against Syria, Phoenicia and Palestine, except for the expedition against Sekmen better known as Schechem. The execration Texts of the Eleventh and Twelfth Dynasties mention both Ashkelon and Shechem as enemies of Egypt. From the stelae of Sabekkhu one

¹Barmaki, D.C., op.cit., p. 21.

²Montet, Pierre, Byblos et l'Egypte, p. 278.

³Ibid., p. 271.

of the warriors of Senusert III, we learn that the pharaoh travelled north to overthrow the Amurru, who no doubt were the Amorites, because they constantly raided the Sinai mines at Wadi-el-Maghara, and reached the region of Schechem.¹

The Amorites and Habiru frequently appear in the early texts at Mari and elsewhere. They figure in various ways, as raiders, mercenary soldiers, government employees, rebels, slaves and tradesmen. In time of peace they worked in different capacities for the settled communities. In periods of anarchy they might raid the urban areas or hire themselves out as soldiers to the highest bidder.² Mr. E.A. Speiser believes that the term Habiru does not apply to a people of any particular nationality, religion or language but rather to a group of people with a separate social or legal status.³

Albright and other scholars believe that the Amurru or Habiru were only tradesmen and donkey drivers.⁴ There is a very important source of information on the cultural history of Palestine, Syria and Phoenicia in the Antobiographical texts and literature of the Twelfth Dynasty. Among these is the famous story of Sinuhe.

¹Gardiner, Sir Alan, Egypt of the Pharaohs, p. 132.

²Wright, Ernest, Biblical Archaeology, p. 41.

³AASOR. Vol. XIII. Speiser, E.A., Ethnic Movements in the Near East in the Second Millennium B.C. p. 13, et seq.

⁴BASOR. No. 163, Albright, W.F., Abram The Hebrew: A New Archaeological Interpretation. p. 36. et seq.

Sinuhe was an Egyptian courtier during the reign of Amenemhat I. At the death of the latter Sinuhe, for one reason or another fled to the "Wall of the Prince" built to repel the Setetiu,¹ from whence he slipped across the frontier. He roamed from one country to the other until he reached Qedem in the region of Kadesh. There he met the chief of Upper Tenenu, known also as Retjnu, Ammi-enshi. After proving his prowess in a single battle with a mighty man of Tennenu, the chief gave him his daughter in marriage and some of the best lands in the frontier region of Yaa.² A land that was to him of "Milk and Honey". He says:

" It was a good land. Figs were in it, and grapes. abundant its olives. Every fruit was on its trees. Barely was there, and emmer. There was no limit to any cattle. Bread was made for me as daily fare, wine as daily provision, cooked meat and roast fowl....."³

Sinuhe talks about the customs of the nomads and boasts that he, like them, urged his guests to stay with him as long as they wished. Furthermore, he set the lost on the road, he rescued those who had been plundered and gave water for those who thirst. When the nomads were at war with the chiefs of the land, he drove them from their pasture lands and wells, and carried off their herds as spoil.

¹Setetiu, was one of the names designating the Desert Tribes.

²Olmstead, A.I., History of Palestine and Syria, p. 36.

³Pritchard. J.B., Ancient Near Eastern Texts., pp. 19-20.

When Sinuhe grew old, he started yearning for his homeland. The main reason for this was the fact that the burial customs of the Amu, which were simple and consisted of wrapping the bodies of the dead with goat skins, seemed abhorrent to him in comparison with the elaborate rituals of embalment and burial practices in Egypt. Senusert I granted him permission to return to Egypt; whereupon he shaved his beard and shed off his nomadic clothes. Once more he could enjoy a real bath, scented with myrrh, other ointments and such luxuries. He was treated as a courtier by the Pharaoh.

" A load (of dirt) was given to the desert, and my clothes (to) the sand-Crossers. I was clad in fine linen and anointed with prime oil. I slept on a bed. I gave up the sand to them who are in it, and wood oil to him who is anointed with it. I was given a house which had a garden, which had been in the possession of a courtier."¹

The story of Sinuhe reveals also the close links that existed between Egypt and Syria, Phoenicia and Palestine. The Egyptian language was spoken by the Amorite chiefs or people associated with them. Another interesting source of information on the Amorites is a contemporary relief depicting an Amorite family, that of Abisha \bar{t} .² The family is composed of thirty-seven persons. They are shown entering Egypt. The people

¹Ibid., p. 22.

²Olmstead., op.cit., p. 88.

have long straight noses; the men have beards and their hair is short, while the women have long hair, held in place by a band. The clothes of the men consist of short skirts and sandals; the women wear long dresses fastened by a single shoulder-clasp. The clothes of both are made of elaborately-coloured woollen material. Their weapons include the spear, composite bow and mace. One of the men carries on his back a skin water-container and in his hands an eight-stringed lyre. Their beast of burden is the donkey.¹

During the Nineteenth Century a whole new era began in Palestine. The towns grew in size and numbers. The quality of the material culture increased rapidly. Most of the sites in Palestine show that the period was one of great prosperity coupled with many intertribal wars. At the beginning of the period, not all towns were as yet fully developed. At Jericho the town developed only slowly at the beginning of the Middle Bronze Age. No tombs of Middle Bronze I were discovered. The comparatively poor amount of finds belonging to the period, indicate that the settlement was of short duration.²

At Hazor there are no signs of occupation, and it seems that the town remained unoccupied during the Middle Bronze I, and occupation was resumed intensively during the Middle Bronze II.

¹Wright, op.cit., p. 46.

²Kenyon, op.cit., p. 169.

Excavations show that Gezer was a great city, situated in the foothills bordering the coastal plain southeast of Jaffa. It was surrounded by a strong city wall; the walls were built in the Egyptian style. Many Egyptian statuettes and other objects dating from about 1900 B.C. were found there by Macalister. They indicated that the city may have been an Egyptian outpost early in the period.¹

Other Middle Bronze I sites which show closest association with the coastal regions of Syria and Phoenicia are in the South of Palestine. At Ajjul (Ancient Gaza) similar pottery types were found in a number of burials in the area designated as the Courtyard Cemetery; other examples were discovered in tombs at Ras el Ein and also in Strata C and F at Tell Beit Mirsim.²

The best remains of a typical town of the period comes to us from Tell-Beit Mirsim Strata G and F. The city was surrounded by a great vertical wall, about 10 feet thick, reinforced with solid towers at regular intervals; the walls go back to the period between 2200 to 1800 B.C. The wall had undergone several additions and repairs. In Stratum F part of the wall and the tower to the East were strengthened by an inside buttress wall. The wall was laid in roughly regular courses of comparatively small stones, sometimes left without

¹Wright, op.cit., p. 48.

²Kenyon, op.cit., p. 166.

any attempt at squaring, and sometimes they are hammer-dressed. The town itself was laid in an orderly manner and was closely built up. Some houses were built closely against the wall at the back to give it more stability. A characteristic house of the period seems to consist of a large covered hall, supported on a line of pillars and with a series of smaller rooms opening off it. The walls set in a matrix of screened earth sometimes set with ashes, mixed with chopped straw and kneaded with water. On this substructure stood a wall of adobe brick.¹

Another important city of the period was Megiddo; this city guards the pass through Mount Carmel from the plain of Sharon to the great plain of Esdraelon. Strata XV-XIII of this city was a period of massive building activity. Before discussing the buildings erected during the period covered by these three levels it is necessary to say a word or two about the haphazard method with which the city was excavated. Though Stratum XV can be assigned to the intermediate age circa 2300-1900 B.C. yet it also contains Middle Bronze Age pottery. This indicates that stratum XV was composed of more than one level but the fact was overlooked by the excavators.

Three megaron type buildings, believed to be temples, are the dominant feature of the city. All three temples are strikingly similar. Each of them consist of a portico with

¹AASOR., Vol. XVII., Albright, Excavations of Tell-Beit-Mirsim. The Bronze Age V II., pp. 17-22.

columns in front and a rectangular room at the back, which must have contained the statue of the deity worshipped or other objects; in addition there was a subordinate room opening off the altar-chamber. The colonnaded porches enclosed between the lateral walls recall the megara style usually associated with but not confined to the Mycenaean-Aegean world. The crowded side by side arrangement of the temples recalls similar groupings of megara in Troy II.¹

The Middle Bronze Age phase II circa 1750-1550 B.C. was marked by the invasion of the Hyksos. The origin of these folk is most controversial. Some Scholars maintain that the term Hyksos means "rulers of foreign lands". Sir Alan Gardiner believes that the word Hyksos is derived from the expression "hik-khase" which means "Chieftains of a foreign hill-country". This term was used during the Middle Kingdom in Egypt to designate beduin Sheiks.²

In order to unravel the mystery of the origin of the Hyksos, it is necessary to go back to the period covering the end of the third millennium and the beginning of the second when we find both literary and linguistic evidence of a number of different groups of people from the Caucasus and the Armenian Highlands on the move. Among the groups some were of Turanian stock and others of Indo-European origin. These folks eventually settled in the upper valleys of the

¹Megiddo II, p. 78, et seq.

²Gardiner, op.cit., p. 156.

Tigris and Euphrates. A century or so later they appear to have penetrated into Syria and brought many of the Semitic or Amorite states under their suzerainty. They captured Aleppo, Alalakh (Tell-Atchana) and Ras-Shamra among other cities in Northern Syria and then moved south into Phoenicia and Palestine shortly after 1750 B.C.¹ The majority of the newcomers who settled in Syria and Palestine were Hurrian, for during the first half of the Fourteenth Century B.C. many of the names of Palestinian chiefs mentioned in the Tell-el-Amarna letters were Hurrian, in an area which was previously dominated by chiefs with purely Semitic names.² Many Hurrian names are also found in Egypt during the period of the Eighteenth Dynasty.

When the Hurrians settled in Palestine and Syria, they caused a considerable upheaval that set other groups in motion. Among those were the Habiru, who as we have already seen, were groups of nomads from the Syrian Desert, who in times of peace worked in various capacities for the settled communities, and turned into rebels at the first sign of weakness of the central authorities. They carried their predatory raids on the settled communities and sold their services as mercenaries to the highest bidder. So it follows that the Hurrians with Semitic conscripts or mercenaries became strong enough to break across the desert barrier into

¹Baramki, op.cit., p. 110.

²Kenyon, op.cit., p. 182. Abd-Hiba; The King of Jerusalem is a case in point.

the Nile Delta. Manetho calls them Hyksos in his "Aegyptica".

That the Hyksos were able to subdue Egypt with comparative ease was due to the fact that at the time Egypt was divided into two kingdoms ruled by the weak kings of the Thirteenth and Fourteenth Dynasties, who were no match for their attackers and were hardly able to put up a fight against them.

Another more important reason was the introduction of the horse and horse-drawn chariots in warfare. The horse was introduced into Mesopotamia from Iran by the Hurrians around 2000 B.C.¹

The Hyksos at first were content to have an Egyptian Pharaoh to rule as a figurehead. But later on one of them felt strong enough to pose as the legitimate pharaoh. They had their capital at Avaris, which was found about 1730 B.C.² Their chief God was Sêth, the storm god "enemy and murderer of the good god Osiris",³ but the Hyksos ignored that aspect as has been done in the area from the earliest times. The Hyksos Sêth was Asiatic in character, in contrast to the native Egyptian. His clothes and head-dress show close resemblance to those of the Semitic Ba'al.

It was during this period of weakness in Egypt that Hammurabi succeeded in wresting North Syria from Egypt. He captured Yamkhad (Aleppo), Alalakh, Ras-Shamra and other cities.

¹Baramki, op.cit., p. 112.

²Gardiner, op.cit., p. 165.

³Ibid., p. 164.

But his successors were unable to retain their hold on this area, from which they were eventually ousted by the Hurrians who were in turn evicted by the Hittites.¹

Many historians and Biblical scholars believe that with the occupation of Egypt by the Hyksos the "Children of Israel" entered into the land of "Goshen". Others Like G.E. Wright maintain that the "Children of Israel" were already settled in Egypt at the time of the Hyksos invasion and probably settled there during the Amorite invasion of the Intermediate period. However the first theory appears to be the more likely. The move of Abraham first from Ur of the Chaldees into Harran and later into Palestine maybe part of this widespread Semitic movement of the Amorites. From Harran, Abraham may have accompanied the Hurrians into Palestine. On the other hand it may be that Abraham was fleeing from the odious rule of the Guti, in his flight from Ur to Harran, and was seeking a new home among his Amorite brethren in Palestine. As Abraham's date is uncertain it is difficult to connect his movements with known historical events.²

Accounts of the destructions wrought in Egypt by the Hyksos as related by Manetho are probably exaggerated. From the few remains of the Hyksos kings we can clearly see that on the contrary they tried to conciliate the Egyptians and they imitated the pharaohs in every possible way. They adopted the

¹Baramki, op.cit., p. 109.

²Baramki, op.cit., p. 112, et seq.

hieroglyphic system of writing, and they also gave themselves names compounded with that of Re the sun god. The tales of Manetho are probably exaggerated like those of Hatshepsut, Sekenenre and Apophis. Parallel stories are also found later under Tutankhamen, Merenptah and Rameses IV.¹ This exaggeration, in the account of the destructions by the Hyksos, was due probably to two facts; On the one hand the Hyksos as foreign rulers were hated as such, on the other, the Egyptians by exaggerating the vileness of the Hyksos, would automatically make the work of those pharaohs who expelled them more glorious. Furthermore the lukewarmness of the Egyptian nobles to the war cry of Kamose lends further support to the contention that Manetho's and the other accounts are exaggerated.²

The Hyksos introduced the horse and horse-drawn chariot into Egypt. This innovation in the methods of warfare played a large part in the later history of the country. They also introduced a new type of fortification and numerous types of weapons that will be discussed in due course.

During the Seventeenth Century B.C., Palestine was the center of the empire controlled by the Hyksos from their capital at Avaris, in the North-Western corner of the Delta. The scarce monuments of the period supply us with the names of only a few kings, three Pepis and one Khiyan, the most powerful king of the Hyksos. Historians have strong reasons to believe that he

¹Gardiner, op.cit., p. 170.

²Ibid., p. 289.

reigned over both Lower and Upper Egypt. His scarabs and monuments have been found as far afield as Baghdad in Mesopotamia and Knossos in Crete.¹ His successors were weak and were not able to maintain their control on both Upper and Lower Egypt. A new Egyptian dynasty was soon established under their suzerainty in Upper Egypt, and in due course the Egyptian Pharaohs defied the authority of the Hyksos and regained their independence. The expulsion of the Hyksos from Egypt marks the end of the Middle Bronze Age in the Near East.

The towns of the Middle Bronze Age in Palestine reveal that the period was one of great development and prosperity. Most towns excavated so far appear to have been rebuilt several times within the period, and each suffered several destructions, due as stated before, to the intertribal wars. In spite of this fact there was still a continuity in the culture. The reason for the prosperity during the Middle Bronze II circa 1750-1550 B.C. in Palestine was due to the fact that Palestine had become a high road of trade between Asia and Africa. The preponderance of Egyptian ornaments and weapons suggests that much of this wealth was brought back from Egypt, probably by the Semitic mercenaries who accompanied the Hyksos into Egypt.

The culture of Palestine remained basically the same. Excavations of the different sites in Palestine show that town planning and domestic architecture were basically the same as those of the previous Middle Bronze I period circa 1900-1750 B.C.

¹Baramki, op.cit., p. 114.

Pottery forms also remain the same. There are no new forms, and the descendants of types introduced at the beginning of the Middle Bronze I continued throughout. However superficial treatment of the various vessels changes considerably.

At Jericho enough parts of the Middle Bronze II city has been recovered in order to give a clear picture of its layout. The plan represents the last of several building stages during the period. Two streets 6 feet 6 inches wide have been traced; they climb by means of steps up the mound in a succession of wide cobbled stones. Below them there were well-built drains. A series of closely packed houses with small rooms opened on to the streets. The rooms of the ground floor seem to have been shops and stores. They consist of single-room booths, not connecting with the rest of the building. Rows of jars full of carbonized grain were found in some of these rooms. The houses were two-storied. However the upper floor of most houses were found collapsed due to the fire that destroyed the town. These rooms were probably the living quarters, but they seem to have served industrial purposes as well. Great quantities of clay loom-weights were found in one of the buildings suggesting that weaving had been practised. Fifty-two saddle querns and many rubbing stones were found in another building indicating that most probably a corn milling industry was probably carried on there, as the number of querns were far in excess of the requirements of a private house.¹

¹Kenyon, op.cit., p. 187.

At Tell-Beit-Mirsim there were at least four general destructions and at least four partial ones between 1800 and 1550 B.C. The town plan in Stratum D is more cramped and most houses are generally smaller than the previous level. One house is outstanding. It was considerably larger than any other house on the tell. A wide doorway opened into a large courtyard with a basin in its center. Along one side of the courtyard there were a series of rooms, that served as store rooms and possibly as stables. The upper floor consisted of living quarters. The house produced two interesting finds that throw an interesting light on the life of the people. One is a portion of a stela of a serpent goddess. The other is the inlay from a gaming board and a set of playing pieces. The game is of Mesopotamian origin, but it became widespread in the Orient. One side was played with conical pieces, the other with pyramidal pieces of blue faience.¹

Many other such similar buildings were discovered on other sites in Palestine. The largest so-called palace comes from Tell-el-Ajjul, described by the excavators as Palace I. It covers the period from the Seventeenth to the Sixteenth Centuries B.C. It occupied about half an acre, and was built of mud-brick on a high stone socle. This feature is a characteristic of the period. The exterior wall was two meters thick.² Other similar palaces were found at Megiddo and Bethel

¹Ibid., p. 185.

²Albright, W.F. The Archaeology of Palestine, p. 92.

besides the building of Jericho. All these palaces indicate that a sharp social division was developing. A few members of the society were getting richer at the expense of the majority of the population.

The most interesting feature of the Middle Bronze II cities of Palestine are the fortifications. These are completely different from the Egyptian vertical walls and constitute together with the horse and horse-drawn chariot, the most important contribution of the Hyksos to the civilization of the Near East.

The walls were built on a substructure of massive polygonal masonry, generally known as cyclopean, in which great boulders of irregular outlines were set one against the other, and the chinks were filled in with small stone chips after which the outside face was roughly hammer-dressed. Some of the boulders are over two meters across. The inner face of the wall was vertical while the outer face sloped at a great angle. On the flat top of this sloping substructure, a vertical superstructure of mud-brick was added.¹

Jericho was surrounded by a great rampart, consisting of an enormous fill of imported material from earlier occupation levels. Trenches II and III contained a large amount of Neolithic Pottery B material. In trench I the revetment at the foot of the first scarp cut down into the Pre-Pottery Neolithic levels.² The rampart was faced by a thick layer of plaster, which was

¹Ibid., p. 88.

²Kenyon, Kathleen, Digging Up Jericho, p. 218.

keyed by a series of tongues into the fill behind. The foot of the rampart was reveted by a stone wall; from this the stones of the original line have been removed for subsequent rebuildings.

The best parallel to Jericho comes from Tell-ed-Duweir (Lachish) where we find a similar rampart containing material derived from earlier levels, faced by a smooth hard plaster slope. In addition, the Lachish wall was surrounded from the outside by a fosse, flat-bottomed with the outer edge only a meter high. This could hardly form part of the defences but was rather a cutting into the slope of the rock in order to give a steeper slope to the inner side.¹

At Megiddo Stratum X and Tell-Beit-Mirsim Stratum E there were ramparts of terre-pisé or beaten earth at the base of the town wall. However the most impressive site in Palestine to be surrounded by this type of defence was Hazor. The area enclosed by the wall was about 138 acres, and on the only side of the plateau on which Hazor lay that was not protected by natural slopes was the western side, where the plateau extended westward to the foot of the mountain ridge, a fosse was cut with an average depth of fifteen meters, in order to separate the plateau from the surrounding terrain. The rampart was chiefly composed of small stones and beaten earth or terre-pisé.²

¹Lachish IV, p. 45, et seq. Kenyon, Archaeology of the Holy Land, p. 180.

²Hazor I, p. 2, and p. 75.

Many scholars believe that this entirely new system of defence must reflect new conditions of warfare. Miss Kenyon states that "it is axiomatic in military history that new defence systems are the sequel to the appearance of new methods of attack." Chariots were used in the Near East only during the period of the Eighteenth Dynasty, so she finds that the most probable explanation is that the rampart was intended to impede the use of the battering ram, which it would be almost impossible to drag up the steep and slippery slope.¹ W.F. Albright on the other hand states that "a concomitant of the introduction of chariotry into warfare was the spread of the art of building the ramparts."² Chariots were only introduced during the Middle Bronze II and it is hardly plausible that the new system of fortifications was introduced because of the use of those chariots.

It is most probable that the new type of fortification was a development of an earlier form. The Hyksos before settling in the area lived in temporary settlements. Having set the area in turmoil they had to protect their temporary settlements and the easiest method was to build up earth ramparts which proved to be very adequate. Once they settled in the Near East they used the same system with more elaborate buildings methods. Such an earth rampart was discovered at Qatna.³

¹Kenyon, op.cit., p. 181.

²Albright, op.cit., p. 86.

³Buisson, du Mesnil, Le Site Archéologique De Mishrifé Qatna, p. 40, et seq.

Another peculiarity of the Middle Bronze II fortifications is the fortress gate with two or three gateways, 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 alignments. This type of gate first appeared in Mesopotamia in the great palace of Zimrilim at Mari during the eighteenth century.¹ The best examples in Palestine for this type of gate occur at Schechem and Megiddo. In general they seem to have been built with flanking towers, access to them was gained by a ramp leading up from the valley outside. The narrowest gateways were wide enough to allow a single chariot to enter without difficulty. The widest were wide enough for two chariots to go abreast in and out with ease.

The fact that an entirely new system of defence was introduced during the Middle Bronze II, while domestic architecture and the ceramic industry remained essentially the same as those of the Middle Bronze I, would lead us to believe that the Hyksos did not settle in large numbers, but that they overpowered the local people by superiority of arms especially the horse. Although the Hyksos ruled the country, yet they acquired the culture of the country. The culture of Palestine during the period was therefore largely individually Palestinian. The people who were mainly responsible for this culture were mainly the Canaanites and their culture may well have been started on the Phoenician coast. Miss Kenyon believes that by the beginning

¹Albright, op.cit., p. 89.

of the Middle Bronze II a distinctly Palestinian version of the culture had grown up, as can be judged from a comparison of the finds with those of Syrian coastal towns such as Ras Shamra. The pottery for instance is related but not identical.¹

The Middle Bronze Age is divided into two main phases on archaeological and historical grounds. Phase I covers the first 100 years roughly from 1900 to 1800 B.C. Phase II is much longer and extends over a period of 250 years, in which many developments took place by virtue of which it is possible to subdivide the phase into three sub-phases. While it is impossible to give a precise date for the beginning and end of each of these sub-phases, yet it is possible to establish a cultural sequence.

Miss Kenyon prefers a division into five sub-phases, allowing for a great deal of overlapping between them. To sub-divide the phase into three sub-phases only as I have done disposes of a great many of the overlaps.

¹Kenyon, op.cit., p. 192.

C H A P T E R I I I

POTTERY IN THE MAKING

A. Methods of Manufacture

Clay in its pure form consists of Silica, alumina and water in a state of combination and is thus known as hydrous aluminium silicate. Though clay is abundant yet it is rarely found in its pure state. Clays used for pottery making are sedimentary clays. They are usually water-borne and pick up various impurities in their travels.¹ Sedimentary clay consists of a clay base mixed with sand, with or without other impurities like lime, iron oxides or carbonaceous matter. The sand found in the clay could be pure quartz or it may be crushed rock of almost any composition. The former is known as quartz, the latter as feldspar.

For the making of pottery, clay has to have three properties, mainly: plasticity, porosity and vitrification. Clay possessing no plasticity cannot be shaped or made to hold together; plasticity is due to the clay base. The function of porosity, caused by the sand in clay, is to allow the water which causes the plasticity to escape. If the water cannot escape the clay warps and cracks. Porosity is the reverse of plasticity and the two properties must be

¹AASOR. Vols. XXIX, XXX. Kelso James L. & Thorley, J. Palin. The Potter's Technique of Tell-Beit-Mirsim is Stratum A. p. 87.

adjusted to balance each other. Finally vitrification, which is due to the feldspar or fusible sand, is that property which causes a clay to yield to the action of high temperature, so that the result is a ware more or less dense, which is hard durable and sonorous. With this there must be a certain amount of resistance to the action of heat so that pottery does not fuse or collapse during firing. The clay must yield to the fire but not totally.¹

The first step in making pottery is the weathering of clay; accordingly clay is exposed to the natural elements for a long period of time. Sun and wind dry and crack the clay. The rain beats into the crevices and soaks through, and it disintegrates the hard clay and frost would hasten this action.² During the period in which clay is exposed, it should be turned over ever so often, so that all the amount is exposed. Weathering helps in the disintegrating process by which the plasticity of the clay is increased. If the clay does not contain a large amount of impurities it can be moistened with lime-free water and kneaded by foot to the right consistency for throwing. When on the other hand, clay contains a large amount of impurities, it should be thoroughly dried, weighed and mixed with another clay that has undergone the same treatment. The two clays are then churned together with water and passed through sieves of varrying meshes. The

¹Binns, C.F. op.cit., pp. 17-20.

²Leach, Bernard, A Potter's Book, p. 47.

clean slip is allowed to settle, the water is drained off its surface and the soft clay is slowly dried to the consistency at which it can be kneaded for use. The chief impurities in clay are magnesia, potash, soda, iron and carbonaceous matter.

The most primitive method of making a pot is by hollowing out a cavity in a small ball of clay with the thumb and then squeezing it repeatedly with a regular pressure of the fingers in slow spiral movements in order to make the walls thinner. During the Neolithic period baskets were used as moulds into which clay was lightly smeared and pressed. The weave and shape of the basket used was of a kind that allowed the clay to come away easily when it dried and contracted. Some pots were even left in their baskets during the firing process when it burned, leaving the impress of the woven pattern on the pot. A third process for building a pot was the system of coiling ropes of clay. This technique was an imitation of the techniques of basket weaving. This last method was used mainly in making large pots and was soon discarded, because it falls short of the methods determined by clay.

During the Middle Bronze Age in Palestine all vessels were made on a fast and well developed wheel, except for the crudest types of cooking pots. In general, a potter's wheel consists of a turn-table set on a wheel-head or disk which revolves with considerable momentum, and is driven by hand or

foot. The momentum is obtained from either a heavy wheel-head or from a fly-wheel. In some cases the spindle is attached to the wheel and revolves in a socket of the base; in others the socket is in the centre of a hollow shaft attached to the lower part of the wheel-head and the spindle is fixed in the ground.

The primitive kick-wheel is turned by the direct action of the bare feet on the fly-wheel, but the more evolved type has a crank in the iron shaft, with a kick-bar attachment. Wheels were also driven by a belt from a large separate wheel, hand-turned by an assistant.¹

After the elaborate preparation of the clay, there follows the shaping of the vessels. A ball of plastic clay is firmly thrown on the centre of the wheel and throughout the work, the clay should stay in the centre, because it is only then that it becomes possible to overcome centrifugal force, which is the secret of the true potter's wheel. The wheel is turned rapidly clockwise or anticlockwise by the potter or his apprentice, and the wet clay is clasped with both hands, while the elbows are resting by the near edge of the box and pulled towards an unwavering central spin. The horizontal pressure of the hands causes the ball to rise into a cone, which is then depressed by the palm of the left hand while the right hand continues to pull the clay towards the centre. Thus it is the action of the centrifugal force upon the ball of clay, as it is modified by the fashioning hand of

¹Leach, op.cit., p. 69.

the potter that produces the shape.¹ After a thrown piece has dried to a leather-hard degree, it is replaced on the wheel and some of the clay was shorn off its sides with a cutting implement to make the vessel thinner and more delicate.

In Palestine, pottery was made for utilitarian purposes: Large numbers of pots were needed, because of their constant usage and fragile nature. Accordingly the potters tried to find many ways of quicker production. One such method or way was to allow less skillful throwers using cheaper clay to throw thicker bowls with heavy wide feet, when it became leather-hard it was turned down by shoring to the desired shape and thinness by the more skillful master. Another method was used in the making of "pinched off" juglets.² The usual practice was to take a separate piece of clay for the shaping of a single pot. With the pinched off technique, a large mass of clay was placed on the wheel and shaped into a tall cone. A juglet was then shaped on the tip of the cone and was then pinched off it with the fingers while the wheel was turning, and so on until the whole cone is consumed. The pressure of the fingers in pinching the juglet off the cone, forced the clay up slightly into the floor of the juglet.

The most common decoration for the finest wares in Palestine during the Middle Bronze Age was a slip. Ordinary slips were made of the finer portions of the same clay used

¹AASOR. Vol. XXI, XXII, op.cit., p. 69.

²Ibid.,^m p. 97.

for throwing; the best slips though were made of the finest levigated clay of a rich iron content, with the addition of red ochre at times, in order to heighten the percentage of iron and obtain a dark red slip. The vessel was either dipped into the slip or the slip was poured on the vessel, or it was applied with a rag or brush. If the clay slip had the same heat coefficient of expansion as the clay of the vessel, then the slip looks as if it were part of the clay of the vessel and does not chip or crack. The vessel was also burnished in order to heighten the effect of the slip and give it luster and sheen. While doing so the surface clay was pressed gently into the ware.

Burnishing was done for sealing the surface pores of the leather-hard clay by pressing the surface clay in which a pebble or a tool of metal or bone, the result is that the surface clay is pressed gently into the ware.

The best results were obtained with a slow wheel turning in the direction opposite to that used for throwing and turning.

After burnishing and applying the slip, the vessel is left to dry slowly and with an even protection from wind or draft. The air should be warm enough to absorb moisture from the pot, and should at the same time circulate enough so that fresh dry air can replace the moisture-laden air. When the ware is "white hard" it still contains 3% of the water of plasticity and is ready for the kiln.

Kilns used in Palestine were of the type in which the fire is in a lower chamber, and the pots are stacked on a floor through which flues penetrate from the combustion chamber beneath. This type was in use down to the Roman period.¹ At Hazor Kiln 9004 contained a few pots and sherds belonging to the Middle Bronze II.² The kiln possessed a narrow elliptical plan. The lower parts of the wall consisted of a few courses of undressed stone blocks. The north tapering part of the kiln was covered with large stones, so that under them a channel was formed with a vertical opening at its northern end for ventilation. This part had deep foundations and a vertical chimney may have been built over it. From the orientation of the kiln, it might have been intended to use the north-western winds for fanning the fire. Other kilns were also found at Megiddo, Tell-el-Ajjul (Ancient Gaza) and elsewhere. The packing of the kiln required special care for there was a variation of at least 100°C. in different parts of a small kiln and a larger variation in big kilns. A closely packed kiln gave a most even temperature for then the heat spread from one pot to the other by conduction rather than radiation. Accordingly, the ware requiring the most heat was placed closest to the fire and that needing the least amount of heat was most distant. The distribution of the weight of the ware had also to be considered, for thick heavy ware had

¹Kenyon, op.cit., p. 110.

²Hazor I, p. 115.

to be placed nearest to the fire.

Changes taking place in the vessel when it is in the kiln to be fired are caused mainly by the direct application of heat, and partly by the chemical action of some of the heated products of combustion, like the evaporation of water containing sulphuric acid the decomposition of organic matter and others.¹

Fire in the kiln is normally stacked slowly so as to evaporate the last 3 % of the water of the plasticity remaining in the "white dried" ware. At this stage the fire should be low smouldering with enough draft to carry off the vapours. The fire should be continued slowly until it reaches a temperature of 400° or 600°C. after which it can be rapidly augmented. The full fire or burning stage begins at about 900°C,² when the ware is said to be fired. If the fire is below 900°C. then the clay is said to be baked only, in other words it is just vitrified enough to bind the particles together, whereas the ware is only moderately hard and porous.

The firing process is complex and offers many complications, For example, heavy carbon content slows up the oxidation of iron compounds. Clay with a high alkaline content requires only low firing for if the temperature is too high the limestone would decompose and the gas thereby created would form blisters or "pock-marks" on the surface of the pot.

¹AASOR. Vol. XXI, XXII, op.cit., p. 110.

²Ibid., p. 112.

If clay is over-fired its colour becomes dark brown. If the temperature of a kiln is slowed down too quickly the ware would crack or spall.

When a vessel is brought out of the kiln it is ready for use except when a wash or painted design are to be applied on its surface.

B. The Chief Characteristics and Outstanding Forms of the Era

The ceramic industry during the Middle Bronze Age was totally different from that of the preceding periods. The vessels were entirely made on a fast and well developed wheel. Only the crudest types of cooking-pots were made by hand. The vessels were well fired and tempered with very fine grits. The forms were the most graceful ever produced in Palestine, both from the aesthetic point of view as well as from the point of technical ability. Furthermore, the repertoire of forms of the period was entirely ~~new~~. Miss Kenyon believes that not a single form can be traced through from one period to the other. She further believes that the most domestic vessel, the cooking-pot with a flat base, upright walls and an applied band, and holes pierced through below the rim is also probably a new form. Though some archaeologists claim that it was of Early Bronze Age origin, yet there is no sure evidence of this, while there is much evidence to show that the form does only appear in the Middle Bronze Age.¹

The bowls of the Middle Bronze Age Phase I, have in general sharply angular forms (pl. 9), while the jars of the same period have pointed bases and are provided with loop handles. On the other hand the dipper juglets have a piriform body a single handle and a pinched mouth. Jugs have double-strand handles sometimes attached wholly on the shoulder

¹Kenyon, op.cit., p. 163.

(Pl. 1 : 2), and at other times from the shoulder to the rim (Pl. 1 : 3). However the most important characteristic of the new pottery belonging to the Middle Bronze Age Phase I, is that bowls, jugs and juglets are generally covered with an intense red slip which is highly burnished. The vessels are in most cases finished on the wheel with very fine combing, even those vessels which are subsequently given a red slip and burnished.

The sharply angular forms of vessels, especially the carinated bowls, and the red burnished slip suggest metallic prototypes. No examples of metal prototypes have in fact been found in Palestine so far, because most probably they were frail and corroded easily in the soil. Two metal vessels though were discovered at Byblos.¹ The vessels were found placed in a jar set as a foundation deposit with a number of clay sealings dated to the end of the Twelfth Dynasty of Egypt, and the beginning of the Thirteenth. Dr. W.F. Albright suggests that the pottery in question originated in Syria, in imitation of metal vases of Mesopotamian origin, but the latter have yet to be discovered.² In the following volume Albright maintains his views. He says that at Tell Billah in Level 4 in Assyria, fully developed carinated pottery has been discovered. This pottery is parallel to the general class of bowls discovered at Tell-Beit-Mirsim, and he believes that the types of Billah 4

¹Montet, op.cit., Pl. LXXI : 605 in silver and 607 in copper.

²AASOR. Vol. XII, Albright, W.F., The Bronze Age Pottery of the Fourth Campaign, p. 15.

are "unquestionably as old if not older than our G pottery (Tell-Beit-Mirsim Stratum G) and it already exhibits an exceptionally wide repertoire of forms. An older Mesopotamian background is suggested by the bowls of Billah 6,¹ but since the latter belong to the beginning of the third millennium or slightly before, no direct connection can be established".² In the opinion of the present writer, there appears to be no connection between bowls of Billah 4 and 6 and the carinated bowls of Palestine.

Bowls: The carinated bowls of the Middle Bronze Age Phase I exhibit in most cases a combination of horizontal burnishing over a red slip (Pl. 1 : 9). The burnish was elaborately applied either by hand or on the wheel, to the inside or the outside of the bowl and very rarely on both sides. Most bowls have a grooved rim on the inside, as though to secure a lid. The disk bases preponderate during the period (Pl. 1 : 10, 12, 13); many have parallel strokes of an intense red burnished slip. This is another characteristic not repeated in later periods and was intended to give the bowl the appearance of a metal vessel.³ Side by side with the disc base there is also the flat-base (Pl. 1 : 12), but there are no concave bases as yet. Though the red slip was common, one carinated bowl with a small mouth was covered with a black slip, continuously

¹Museum Journal, Vol. XXIII, Pl. LI, LVI : 1-5, LVIII : 1, 3, 5 and LIX : 2-3.

²AASOR. Vol. XIII, Albright, W.F., Tell-Beit-Mirsim, The Pottery of the First Three Campaigns, p. 69.

³Ibid., p. 68.

burnished with horizontal wheel-strokes, and belongs to Stratum G at Tell-Beit-Mirsim.¹ A few other bowls have been found with a cream slip, which was more in vogue during the Middle Bronze Age Phase II. Other sites in Palestine which offer close parallels to the carinated bowls of Tell-Beit-Mirsim were met at Tell-el-Ajjul (Ancient Gaza) in the courtyard Cemetery,² at Lachish Caves 1504 and 1513³ and Megiddo Strata XIV-XII,⁴ During the same period there are three more types of bowls. The first is a shallow bowl, called platter (Pl. 1 : 13), with a ring base;⁵ the second is similar but has two handles attached on either side slightly below the rim (Pl. 1 : 12).⁶ Finally, there is the deep bowl with almost upright walls and disc base (Pl. 1 : 10).⁷

Jugs: The jugs of the period are of two types. One type has an ovoid body with a short narrow neck, a disc base and a pinched lip. It is provided with a single or a double loop-handle, attached either from the rim to the shoulder or only above the shoulder (Pl. 1 : 2).⁸ The second type has an ovoid body with a long and narrow neck. The loop-handle is

¹AASOR. Vol. XII, Albright, op.cit., Pl. 41:4.

²Ancient Gaza II, Pl. XXVIII: 25E₄; G₅; S; 28 P₃; 5.

³Lachish IV, Pl. 69: 537, 552.

⁴Megiddo II, Pl. 21:8-10.

⁵Megiddo Tombs, Pl. 23:10-11.

⁶Ancient Gaza II, Pl. XXVIII:21 M2.

⁷Kenyon, Kathleen, Archaeology In The Holy Land. Fig. 36:9.

⁸Megiddo II, Pl. 31:2, 4, 7. Pl. 16:1.

attached from the rim to the shoulder and the lip is pinched (Pl. 1 : 3).¹ Jugs are, like bowls, almost always covered with a red slip and burnished. The jugs of Middle Bronze I are almost identical with those from the end of the Twelfth and beginning of the Thirteenth Dynasties of Egypt. The types were found at Byblos in Tomb I contemporary to Amenemhat III and in Tomb II.²

Juglets: These have a more or less flat base which is very small. The body is piriform in shape, the neck is narrow, and the juglet is provided with a single or a double strand loop-handle; the mouth is slightly pinched.³ The earliest types have an almost flat base, with a long ridged neck. (Pl. 1 : 8).⁴

Dippers: Dippers have a loop-handle and a slightly pinched lip. They are very common and well known throughout the Middle Bronze Age. During M.B.I. dippers have a small flat base, an elongated ovoid body and a red burnished slip. The base at times ends in a kind of knob (Pl. 1 : 1).⁵

Painted Pottery: At Tell-Beit Mirsim Strata G-F, a few painted sherds belonging to the M.B.I. have been discovered with three types of designs. One of the sherds belongs to the upper part of a store jar with the characteristic rim of Strata G-F. Its surface has a white lime wash on which red paint is applied forming bands with a reticulate design between them.

¹Ibid., Pl. 25:12, No. 11 has an elongated body.

²Montet, *op.cit.*, Pl. CXVIII:800, CXLVII: 932.

³Lachish IV, Pl. 78:783, Megiddo II, Pl. 33:20.

⁴Megiddo Tombs, Pl. 28:41, 42.

⁵Megiddo II, Pl. 20:8-11. AASOR, Vol. XII, Pl. 42:12-14.

Traces of paint can also be detected on the rim.¹ The second example was discovered on a sherd forming the upper part of a large bowl covered with a cream slip, horizontally burnished and decorated with red painted bands.² The third example of painting was found on a sherd forming part of the shoulder and neck of a storage jar. It is likewise covered with a white lime wash on which are painted straight horizontal lines and bands alternating with wavy lines; all the wavy lines are in blue, while the straight lines are partly in blue and partly in red.³ The best parallel to this type of painting comes from Byblos where a foundation jar was discovered with similar designs. The surface of this jar is comb-faced in the same delicate manner as the pottery from Tell-Beit-Mirsim Stratum G-F. The painted design consists of straight and wavy lines alternating with zigzag bands, the whole painted in red. The Byblos vase dates from the first half of the Eighteenth Century or a little earlier.⁴ A second parallel comes from Mishrifeh (Qatna in Syria).⁵

The Second Phase of the Middle Bronze Age is divided into three Sub-phases, because though the forms of pottery remain basically the same, yet many minor changes occur in detail. The three Sub-phases are designated A, B and C in

¹ASSOR. Vol. XIII, Pl. 4:13, Pl. 22:1.

²Ibid., Pl. 4:15, Pl. 22:29.

³Ibid., Pl. 4:16, Pl. 22:10.

⁴Byblos I, Pl. LVII.

⁵Syria XI, du Buisson, Conte du Mesnil, Compte Rendue de la Quatrième Compagne de Fouilles à Mushrifé-Qatna, Pl. XXXII.

this paper. In Sub-phase A the pottery has directly developed from that of MBI. Though in general the vessels of the whole Middle Bronze Age are of the most beautiful forms and workmanship ever produced in Palestine, yet they reach their zenith during the Middle Bronze II Sub-phase A, towards the end of which they start to degenerate. The red burnished slip continues to appear at the beginning of the Sub-phase, but tends to disappear gradually and to be slowly replaced by a cream slip. In general carinated bowls have less sharply inclined walls, dipper juglets become more elongated and the base is pointed not flat. Large bowls with upright necks are common. Juglets have a button base instead of the small flat base of MBI. At Jericho a cylindrical juglet appears for the first time.¹ M.B. II, A corresponds to Megiddo Stratum XI, and Tell-Beit-Mirsim E.

Middle Bronze II Sub-phase B, corresponds to Megiddo Stratum X, Tell-Beit-Mirsim E₂ and Tell-el-Ajjul Palace I. It includes phases (ii) and (iii) of Miss Kenyon's Jericho Tombs. During this period the cream slip is preponderant, However the burnished slip in general is slowly giving way to wet-smoothing. The characteristic forms of the preceding phase continue, but in addition the flared carinated bowls and bowls with ogee or trumpet-foot base² make their appearance. At the outset the bowls with ogee-bases are plain, but later

¹Kenyon, op.cit., p. 170.

²Called also pedestal vases or goblets.

in the period they become decorated with a collar at either the neck or the base or both. Real lamps also appear for the first time; they consist of round saucers with a slightly pinched nozzle.

Cylindrical juglets rarely appear in M.B.I., they are completely absent in M.B.II. Sub-phase A, except for the one discovered at Jericho. They become abundant in Sub-phase B and very common in Sub-phase C when they totally replace the piriform variety.

M.B.II Sub-phase C corresponds to Tell-Beit-Mirsim Stratum D, Ajjul Palace I, Jericho Palace store-rooms and Megiddo IX-VII. During this period there is a tendency for the flaring carinated bowls and ogee-based bowls to become larger, a deep hemispherical bowl is relatively common.¹ Cylindrical juglets totally replace the piriform variety. The burnished slip completely disappears, and gives place to wet-smoothing. The forms by now are degenerate in comparison with those of the earlier Sub-phase.

Middle Bronze II A bowls offer a large variety of types. Each type in turn has many small changes. In this section it is proposed to deal with the different types, while the minor changes in each type will be fully described in section C.

Bowls: Bowls at the beginning of M.B.II are continuously burnished on a rich dark red slip. By Sub-phase B the cream slip is common and it totally disappears by Sub-phase C

¹Kenyon, op.cit., p. 73.

to be replaced by wet-smoothing. According to Dr. W.F. Albright the cream slip represents a modification of the red slip, with inferior paste and execution.¹

Among the different classes of bowls there is first the plain bowl or platter, with either a flat-base, a disc-base or a ring base. The rim is usually thickened, bevelled and inverted. Towards the end of M.B.II Sub-phase C, the red-burnished slip, slowly dies out to be replaced by the cream slip and the disc-base is changing to a slightly concave-disc.² Some of the plain bowls have three lobed feet.³ The second class of bowls and the most characteristic of the period is that of the carinated bowls. They are among the best vessels in quality, both from the aesthetic point of view and from the point of view of technical ability. At the outset they have a red slip and they are highly burnished; some carinated bowls have a combination of horizontal combing on the wheel with vertical burnishing. The class has many types : There is first the type with a short upper part and sharply angular curves; the rim is mostly inverted, the base is either a ring-base, a disc-base or a concave disc-base. Bowls of the type could be either small or large, shallow or deep.⁴ The second type of carinated bowls has a wide carination and sharply angular curves with a ring-base or three lobed feet,

¹AASOR. Vol. XIII, op.cit., p. 77.

²Hazor I, Pl. CXIV : 2-4, Megiddo II, Pl. 45:1-3.

³Jericho I, Fig. 148:7.

⁴AASOR. Vol. XII, Pl. 42:4-6, Lachish IV, Pl. 68:524-26, 529.

one type discovered at Jericho is decorated with two zigzag lines below the rim.¹ A third type is the flaring carinated bowl which first appears in M.B.II Sub-phase B. The base is either a plain or a recessed ring-base, a concave-base and towards the end of the Sub-phase a small ogee-base makes its appearance. The shoulders are either deeply marked with sharp curves, or with slightly rounded shoulders. The bowls may be either deep or shallow.²

The third class of bowls are the deep globular variety. These have a short neck and an everted rim; the base is flattened or it is replaced by a three-lobed foot. Sometimes a spout is added on the shoulder.³

Finally we have the ogee-based bowls, called also "goblets" or "high pedestal vases". They first appear during the M.B.II Sub-phase B. The pedestal vases are sharply carinated vessels standing on a high ogee or trumpet-foot with flaring shoulders and a wide mouth. At Tell-Beit-Mirsim a few of these are burnished; they are mostly wet-smoothed and none has a red-slip. At Jericho they are more or less sharply carinated, the curves are slightly rounded and many are covered with a burnished cream-slip, those of the later Sub-phase C are wet-smoothed and the ware is buff or drab in colour. The neck or base are sometimes decorated with a cordon or a collar.

¹Jericho I, Fig. 120:9.

²Hazor I, Pl. CXIX: 12-16. Megiddo II, Pl. 44:19, Lachish IV, Pl. 68:506-509.

³Megiddo II, Pl. 46:5-7. Jericho I, Fig. 115+10-11, Fig. 135:10.

Later on this decorative detail is applied on both the neck and the base.¹

Storage-jars, Store-jars of the M.B. II generally have a very graceful form. They taper symmetrically from the shoulder to the base which may be either rounded or flat and small. Some have four handles, others have two and others still have none; the handles are oval in section and are almost invariably thickened and prolonged at the lower end.² The store-jars are decorated with combing at the outset. Incised decoration in alternating straight and wavy line bands are often found on the shoulder.³ The rims are all thickened and rounded. Later on during the period the dominant decoration of the jars, consists of a plastic band or of a band bearing a herring-bone pattern incised on it.⁴ The bases tend to be more pointed. However, the main distinction between the store-jars of M.B. II Sub-phases A and B is that those of A tend to be more carefully made, the decoration is more original and the shapes are generally more graceful. The type continues down to the end of the M.B. II, but like other vessels, they also degenerate. They range in size from about 70 cm. to about a meter in height.

¹ AASOR., Vol. XIII, Pl. 107:11-21.

² AASOR., Vol. XIII, Pl. 6:1,2; Megiddo II Pl. 43:1-4, Hazor I, Pl. CXIII:1.

³ AASOR., Vol. XIII, Pl. 7:10,13, Pl. 4:13,15,16. Hazor I, Pl. CXVIII:6-8.

⁴ AASOR., Vol. XII, Pl. 41:13, AASOR., Vol. XIII, Pl. 24:22.

Jugs: The jugs of the Middle Bronze Age Phase II consist of elongated piriform or squat bodies. Those with a squat body have long narrow flared necks, are provided with a single, double-strand or triple-strand handle attached from rim to shoulder or on the shoulder only.¹ Elongated piriform jugs have a short wide neck, the mouth is sometimes pinched into a trefoil,² and the loop-handle is attached from rim to shoulder. At the outset the base is rounded, but later it becomes a disc-base and finally a ring-base. At the beginning of the period, in Sub-phase A, jugs are generally covered with a rich dark red slip, vertically burnished in continuous strokes. During Sub-phase B, the common slip is the cream slip, but already it starts to be slowly replaced by wet-smoothing.

Dippers: The dipper is one of the most characteristic vessels of the Middle Bronze Age. It shows no drastic changes and the transition is very gradual from the skillfully burnished dippers with a loop-handle and slightly pinched mouth, to the wet-smoothed elongated ones which become common at the end of the period. During M.B. I dippers have a small flat base or they are finished with a knob and the body is elongated or piriform. In MB II the body is elongated also but it has a pointed base.³ The red burnished slip is rare and when

¹Hazor I, Pl. CXX:1-3, Megiddo, Pl. 39:1-4.

²Hazor I, Pl. CXX:8.

³Hazor I, Pl. CXX:4-7, Megiddo II, Pl. 41:8-11, Lachish IV, Pl. 78:780.

present it is very badly applied. On the other hand wet-smoothing becomes the common surface treatment. Towards the end of the period, in Sub-phase C, the dippers become smaller, the base becomes rounded and the vessels are wet-smoothed.

Piriform juglets: There is a large variety of shapes and only the major changes in form will be described in this section. A more detailed description will follow in Section C. The most common type is the piriform juglet with a loop-handle attached from the rim to the shoulder; the handle is either single, double or triple-strand and at times it has a button applied at the top. The base shows the greatest variety it may be a ring, disc or button, pointed or rounded base. At the outset the body was more or less a regular piriform but it slowly becomes more elongated.¹ The juglets were either plain or decorated in the so-called Hyksos style.² The juglets with this type of decoration are mostly black or grey in colour. The surface is slipped and highly burnished. The decoration consists of dividing the surface into segments which were pricked and filled with white lime to emphasize the design. The type was very common during the Hyksos period.

Cylindrical juglets: Cylindrical juglets are common in MB II, Sub-phase B and very common in Sub-phase C when they totally replace the piriform juglets. cylindrical juglets have rather sharp angles at the shoulders, others are rounded

¹Megiddo II, Pl. 41:1-7. Hazor I, Pl. LXXI:1-11.

²Lachish IV, Pl. 77:727-729.

or slightly convex; all have flat bases. The loop-handles are attached from the rim to the shoulder and are either single, double or tripple. Some however, have a plastic button or pellet set at the point where the handle joins the rim.¹ A few of the type are decorated with the Hyksos pricked design.² The pin-point or pricked design also appears in Byblos, Tombs I and III.³

Cooking pots: These fall under two main groups. The first group of cooking pots are very crude handmade pots; the ware is coarse, brown, buff or grey in colour, the pots have upright walls and a flat base.. They are decorated on the shoulder with horizontal grooves or furrows, and are pierced with numerous holes below the rim.⁴ The holes are intended to allow steam to escape. At Hazor two sherds of cooking pots were found in sub-Area D3, the band below the rim is indented with a thumb and there are no holes below the rim.⁵ Other cooking pots are made on the wheel. They have an inverted rim. The bodies are carinated in the upper part. Some have handles attached on either side.⁶

Lamps: The lamps are rounded saucers, slightly pinched

¹ Lachish IV, Pl. 77:751-760. Megiddo II, Pl. 23:5-17.

² Lachish IV, Pl. 77:750. Megiddo Tombs, Pl. 28:40.

³ Montet, op.cit., Pl:144, et seq., Pl. CXLVI:914,917, Pl. CXLVIII:915.

⁴ AASOR, Vol. XIII, Pl. 5:4, Lachish IV, Pl. 57:69.

⁵ Hazor I, Pl. C:12, AASOR, Vol. XII, Pl. 44:10-13.

⁶ Hazor I, Pl. CVII:1-2, Pl. C:23.

to form a nozzle to hold the wick in place. They either have a circular base, a flat base, or a slight disc base.¹

Craters: Though craters are common during the Late Bronze Age, few examples appear towards the end of the Middle Bronze Age Sub-phase C. A few were discovered at Hazor and Megiddo. Craters are deep bowls with incurving walls, concave disc base, and they are sometimes provided with two or more loop-handles, vertically set from rim to shoulder. A few have a grooved rim.²

Chalices: Chalices like craters also appear towards the end of the Middle Bronze Age. Those are plain bowls set on a very high cylindrical stand.³

¹Hazor I, Pl. CXVIII : 1-4, Megiddo II, Pl. 47:18.

²Hazor I, Pl. CXV : 1-C, Megiddo II, Pl. 46:1-4.

³Hazor I, Pl. XCIII : 17, Megiddo II, Pl. 47:14, 15.

C. Typological Classification of the Middle Bronze Age Phase II

In this section, it is proposed to give a detailed description of each type of vessel made together with the changes which it underwent during the various phases and sub-phases of the Middle Bronze Age II. The description will be accompanied by illustrations after Kenyon's "Jericho I", with a few additions by the present writer that will be included from time to time.

BOWLS

By far the commonest type of vessel in the period is the bowl. Bowls may be divided into twelve main classes as follows:

Class I - Plain Bowls or Platters : Platters have four different types of bases.

A. The first is the disk-base. This type of bowl has a variety of rims namely:

1. Rims thickened and rounded internally. Pl. II:1,
MB II A-B.
2. Rims inverted flatly and bevelled. Pl. II:2,
MB II A-B.
3. Inverted rims, inclined up and bevelled. Pl. II:3,
MB II

B. The second type of bowls in this class has a flat-base. The type also has a variety of rims as follows:

1. Rims inverted flatly and bevelled. Pl. II:4,
MB II B.

2. Rims inverted with an upward incline. Pl. II:5,
MB II.

3. Plain rims slightly thickened internally. Pl. II:6,
MB II B.

C. Bowls with a ring-base. These also have a variety of
rims namely:

1. Rims inverted flatly and bevelled. Pl. II:7,
MB II B-C.

2. Inverted rims with an upward incline and bevelled,
Cf. Pl. II:3, MB II B-C.

3. Plain rims. Pl. III:2, MB II B

D. Finally a few bowls are provided with a trilobed base.

In this type the rim is moulded flatly and bevelled,
Pl. III:3 MB II B

Class II - The second and most common class of bowls is that
of the carinated type. Carinated bowls show a wide
variation in both the type of carination and other
minor details, hence it is necessary, in order to
give a clear picture of these to subdivide the
class into six sub-divisions:

A. Carinated bowls with sharp and angular curves, where
the carination occurs about two-thirds of the way above the
base. These bowls have a slight disc-base, Pl. III:4, MB II A. ✕

B. Carinated bowls with sharp and angular curves, where
the carination occurs around the middle of the bowl.

This type has several kinds of bases namely:

1. Slight disc-base. Pl. III:5. MB II B
2. Disc-base. Pl. III:6. MB II A-B
3. Concave disc-base. Pl. IV:1. MB II B
4. Oblique ring-base. Pl. IV:2. MB II A-B
5. Flat-base, the lower part of the interior of the bowl illustrated is ridged. Pl. IV:3. MB II B
6. Ring-base. Pl. IV:4. MB II B.

C. Deep carinated bowls with sharp and angular curves.

Here too the bowls are provided with several types of bases, as follows:

1. Concave disc-base. Pl. IV:5. MB II A.
2. Oblique ring-base, Cf., Pl. IV:2. MB II B-C
3. Low pedestal-base. Pl. IV:6. MB II C

D. Sharply angular bowls, rather shallow and provided with a concave disc-base. Pl. V:1. MB II B

E. Sharply angular bowls with the carination occurring in the upper part of the bowl; the bowl is rather wide and has a ring-base. Pl. V:2. MB II B

F. Carinated bowls with rather rounded angles and three different types of bases, namely:

1. Disc-base. Pl. V:3. MB II B Here too the lower part of the interior of the bowl is ridged.
2. Flat-base Pl. V:4. MB II B-C.
3. Oblique ring-base Pl. V:5. MB II B

Class III - Wide Carinated Bowls: There are two major groups in this class:

A. First there are the sharply angular carinated bowls with two types of bases as follows:

1. Ring-base. Pl. V:6 MB II A-B

2. Trilobed-base. The bowl illustrated is decorated with two wavy lines below the rim, the upper one is light in colour and the lower dark. Pl. MB II B

B. The second type of the wide carinated bowls has upright upper-walls with an oblique ring base. Pl. V:8 MB II B

Class IV - Flaring Carinated Bowls: The flaring carinated bowls are first encountered during the Middle Bronze II, Sub-phase B.

A. First there are the flaring carinated bowls with the shoulder not marked Pl. V:8

B. The second type has deeply-marked shoulders with three varieties of bases:

1. Pedestal Base. The one illustrated has on its base a potter's mark. Pl. VII:1 MB II B

2. Ring-base. Pl. V:1 MB II B-C

3. Umbilical ring-base with a recessed center.
Pl. VI:2 MB II C

C. The third type of flaring carinated bowls is deep with more or less rounded shoulders and four different types of bases viz:

1. Ring-base. Pl. VI:3. MB II B
2. Concave disk-base. Pl. VI:4. MB II B
3. Concave disk-base with a recessed center.
Pl. IV:9.
4. Disc-base. Pl. IV:8.

D. Flaring carinated bowls with marked shoulders and flat, the group has three types of bases:

1. Umbilical ring-base. Pl. VI:5. MB II B-C
2. Disk-base with a recessed center. Pl. VI:6,
MB II B
3. Ring-base Pl. VI:7. MB II B

E. The fifth group of flared carinated bowls has rounded shoulders with an almost upright wall. Pl. VI:8 MB II B

Class V - Deep Bowls with curved walls, inverted and ring-base.
Pl. VI:9. MB II B

Class VI - Wide Bowls with upright walls.

A. The first type has curved walls with a plain rim and a small ring-base. Pl. VI:10. MB II B-C. The rim may also be either inverted or everted.

B. The second type has a plain rim with angular walls. It is provided with a small ring-base or umbilical Pl. VII:2. MB II B-C.

Class VII - Deep Globular Bowls:

A. The first type has a short neck with two types of rims, namely:

1. Outcurved rim. Pl. VII:3. MB II A
2. Everted rim Pl. VII:4. MB II A

The bowl with the outcurved rim illustrated on plate VII:3 has a trilobed base.

B. The second group of deep globular bowls has a flattened base and shows two varieties of rims:

1. The first variety has a short-neck with an everted rim. Pl. VII:5. MB II A
2. The second variety has an everted rim and is provided with a spout at the shoulder. Pl. VIII:1. MB II B.

C. The third type of deep globular bowls has a short neck with an everted rim and a trilobed base. Pl. VIII:2.

Class VIII - Necked Bowls: The class of necked bowls includes four major types:

A. The first type has a tall straight narrow neck with a ring-base. Pl. VIII:3. MB II A-B.

B. The second type includes medium-sized bowls with a variety of bases, necks and rims, all belonging to the Middle Bronze II, Sub-phase B, namely:

1. Straight flaring neck with a ring-base. Pl. VIII:4.
2. Curved flaring rim with a ring-base. Pl. VIII:5.
3. Upright neck with a turned-over rim and ring-base. Pl. VIII:6.
4. Concave disk-base with an upright neck and an everted rim. Pl. VIII:7.

5. Bowls with a curved flaring rim and a low pedestal base. Pl. IX:1.
6. Bowl with a straight neck, everted rim and low pedestal base. Pl. IX:2.
7. Bowl with a short everted rim and low oblique ring-base. Pl. IX:3.
8. Bowl with an upright neck, everted rim and disk-base. Pl. IX:4.

C. The third group includes medium-sized bowls with wide mouths. The group includes two varieties:

1. The first has a ring-base, an everted rim and a flared neck. Pl. IX:5.
2. The second variety of bowls also have a ring-base a flaring neck and a plain rim. Pl. IX:6.

D. The fourth group includes small bowls with a ring-base and straight flaring necks. Pl. IX:6.

Class IX - Small Globular Bowls: There are four varieties of small globular bowls:

A. Bowls with everted rims and two types of bases:

1. Ring-bases. Pl. IX:7.
2. Disk-bases. Pl. IX:8.

B. Small globular bowls with a short neck and an outcurved rim. These also have two types of bases.

1. Ring-bases. Pl. X:1. MB II B
2. Disk-bases. Pl. X:5. MB II B

C. The third type has a slightly everted rim with a disk-base. Pl. X:4. MB II B.

D. Finally there are the small globular bowls with a wide mouth and a short neck, everted rim and a disk-base. Pl. X:6. MB II B.

Class X - Small Bowls: The class of small bowls includes two varieties:

A. The saucer-like bowl. Pl. X:2. MB II A-B.

B. The cup-like bowl with a disk-base and an everted rim. Pl. X:7. MB II B-C.

Plate X No. 9 is a bowl with a concave disk-base, upright walls with the rim pinched into a quatrefoil. This type of bowl occurs in very small numbers during the Middle Bronze Age and it becomes common during the subsequent Late Bronze Age. The type illustrated was discovered at Hazor in cistern 9024 Stratum IV (general Stratum V) with other vessels belonging to the Middle Bronze II Sub-phase C. The excavators of Hazor think it is the first of its type to occur in Palestine.¹

Class XI - Trumpet - Based Bowls: Though this type of vessel is included with the bowls by the present writer, yet some archaeologists prefer to place it apart and classify it as a "Pedestal Vase" or "Goblet". The trumpet or ogee-based bowls include three major groups:

¹Hazor I. P. 131 - Pl. CXIV:8.

I. Bowls With no collars or cordons

In the first group there are three types namely:

A. Trumpet-footed bowls with high and slightly rounded shoulders which occur with two types of mouths:

1. Narrow mouth. Pl. XI:1. MB II B.

2. Fairly wide mouth. Pl. XI:3. MB II B.

B. In the second variety the bowl or goblet has high sharply angled shoulders and a narrow neck. Pl. XI:2. MB II B-C.

C. In the third group the bowl has rounded shoulders and a fairly wide mouth. Pl. XII:1. MB II B-C.

II. Bowls Decorated With a Collar

at Both the Neck and the Base.

Here too there are three major groups:

A. Bowls with sharply angled shoulders and a narrow neck. Pl. XII:2. MB II B-C.

B. Bowls with high and slightly rounded shoulders. The neck is narrow. Pl. XI:4. MB II C.

C. Bowls with rounded shoulders and a narrow neck. Pl. XI:5. MB II C.

III. Bowls with the Collar only at the Neck.

These also occur in three varieties as follows:

A. Bowls with high and slightly rounded shoulders with two types of necks, namely:

1. Narrow Necks. Pl. XII:5. MB II B-C.

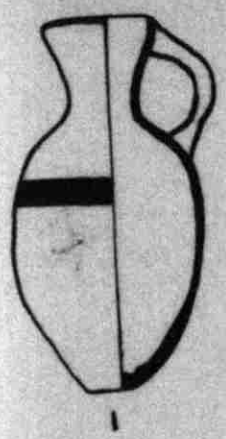
2. Rather shallow bowls with wide necks. Pl. XII:3.

MB II B-C.

B. Bowls with high and sharply angled shoulder and a narrow neck. Pl. XII:6. MB II C.

C. Bowls with rounded shoulders and narrow necks. Pl. XII:4 MB II C.

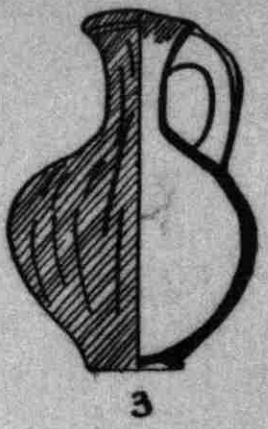
Chalices are a type of vessel that rarely appears in MB II. They are common in the Late Bronze Age. They are bowls provided with stands. Pl. IV:7.



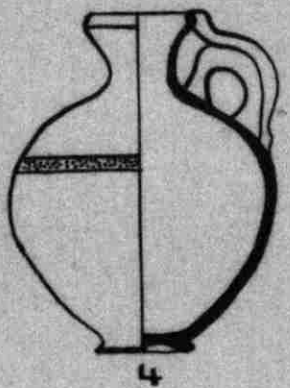
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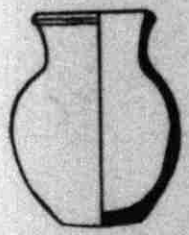
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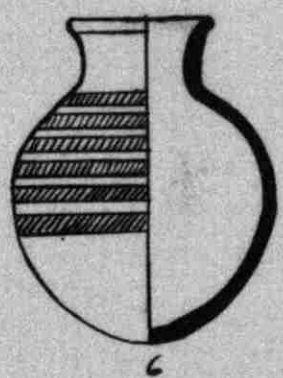
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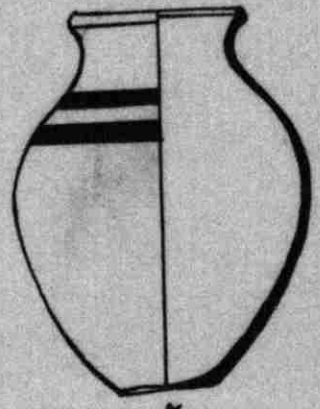
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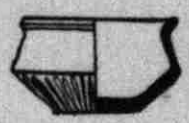
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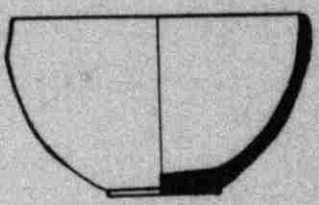
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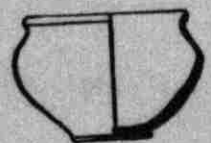
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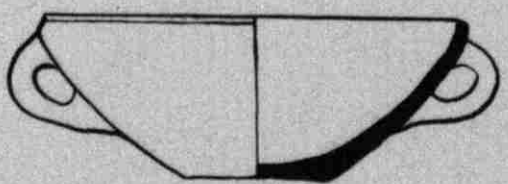
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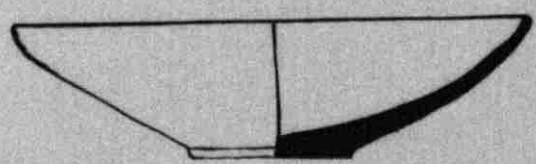
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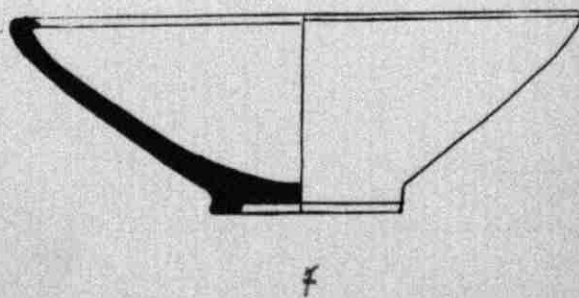
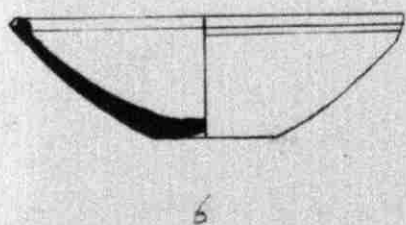
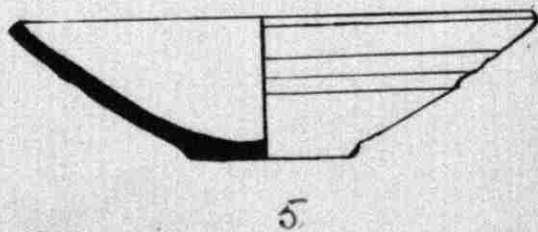
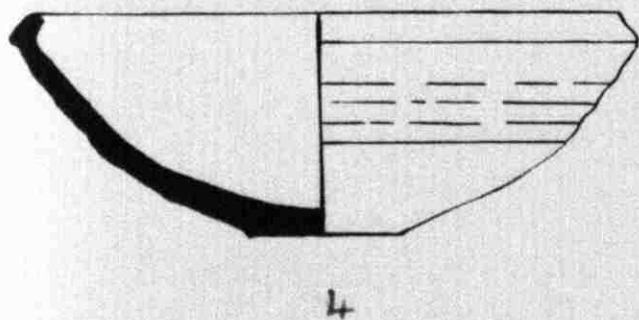
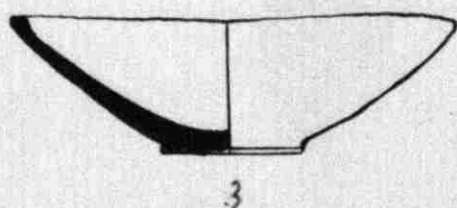
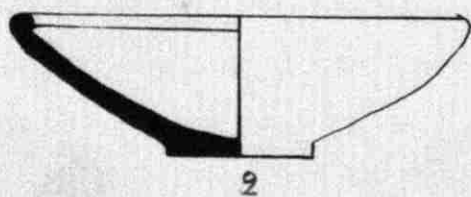
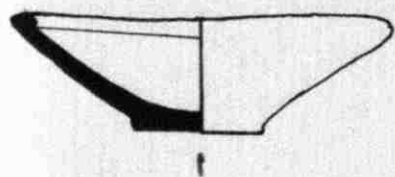
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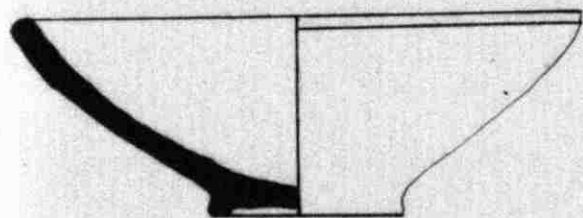


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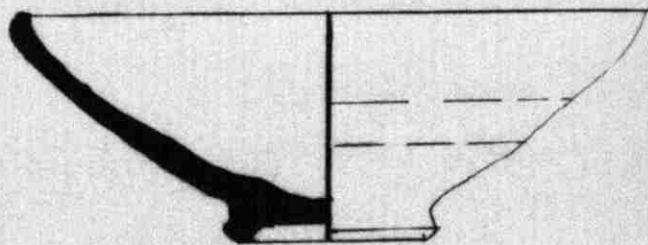


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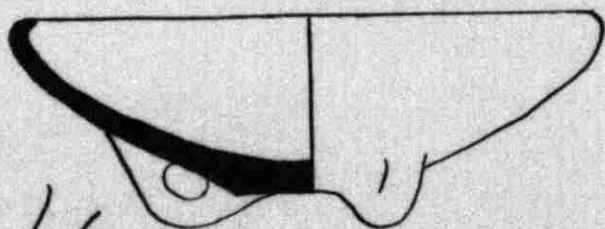




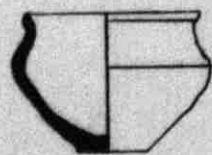
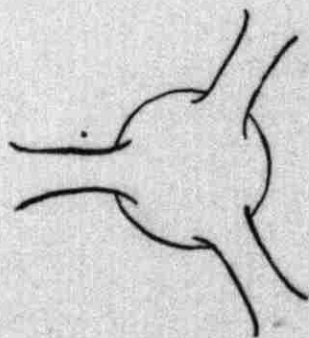
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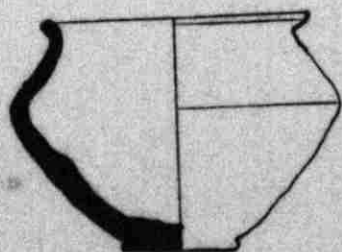
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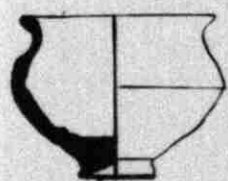
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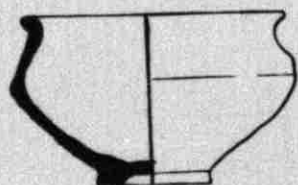
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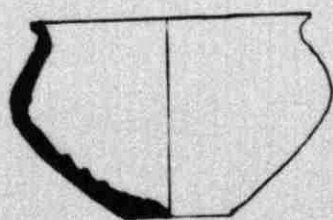
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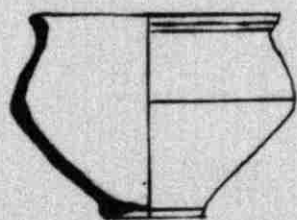
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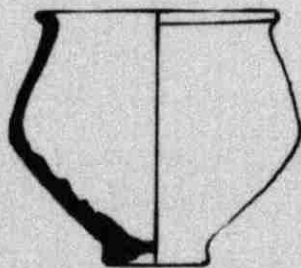
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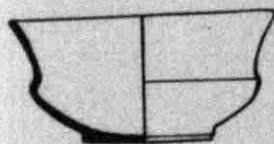
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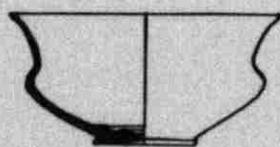
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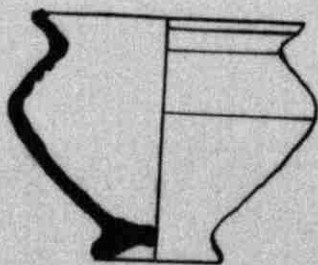
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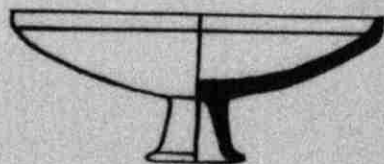
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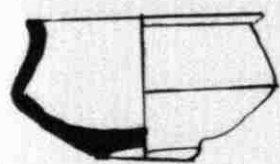
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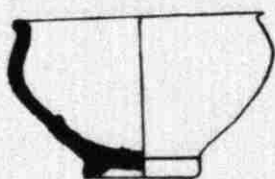
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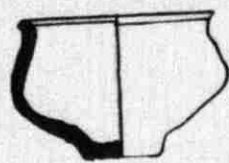
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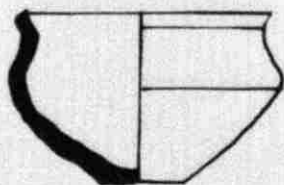
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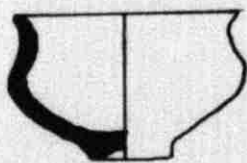
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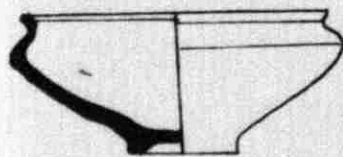
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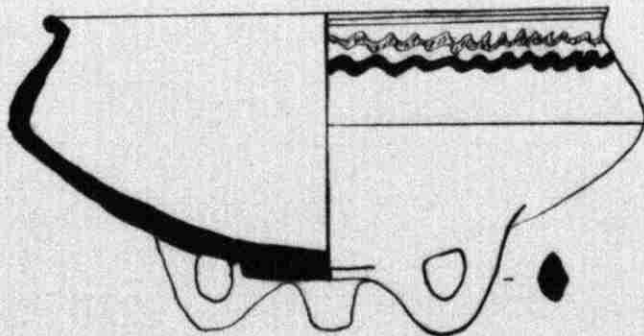
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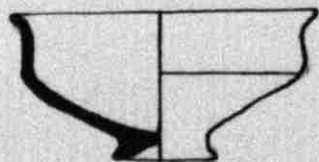
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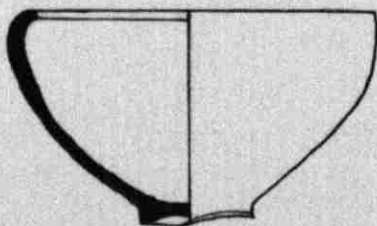
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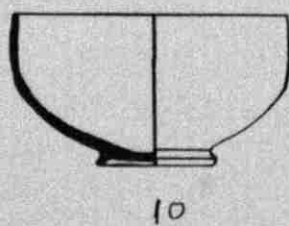
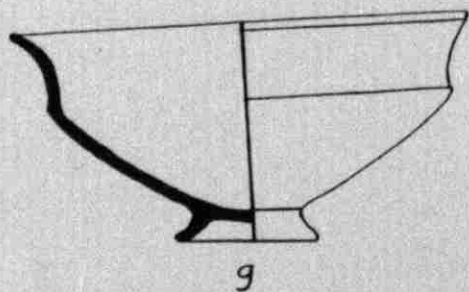
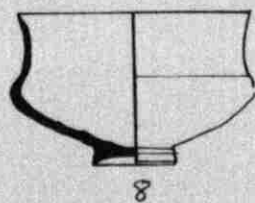
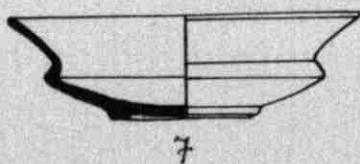
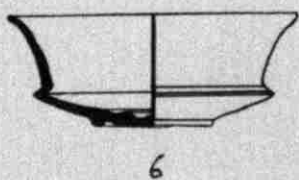
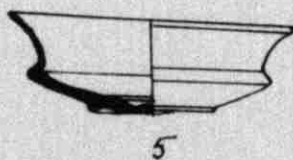
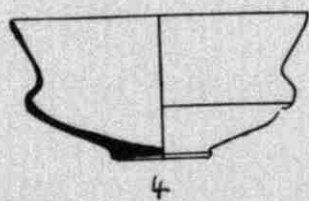
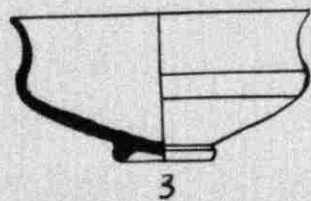
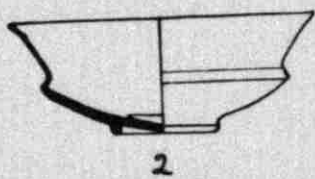
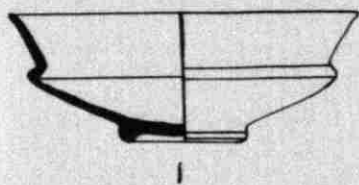
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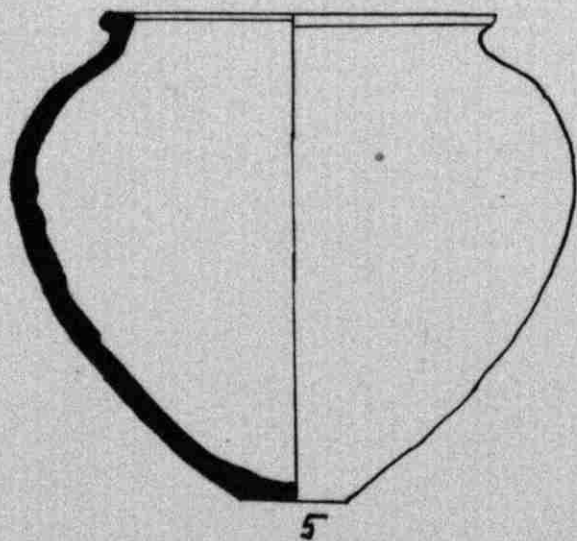
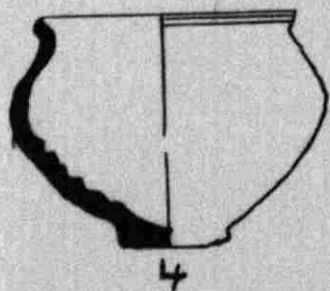
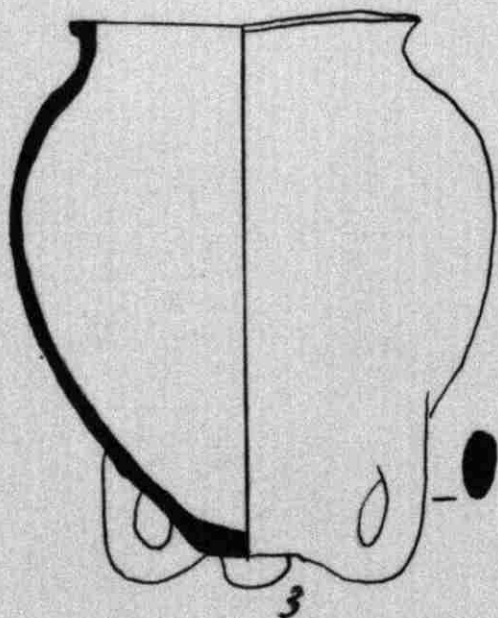
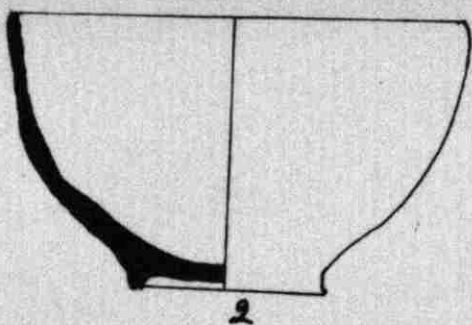
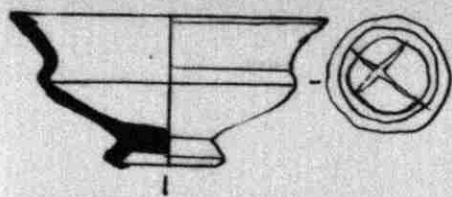


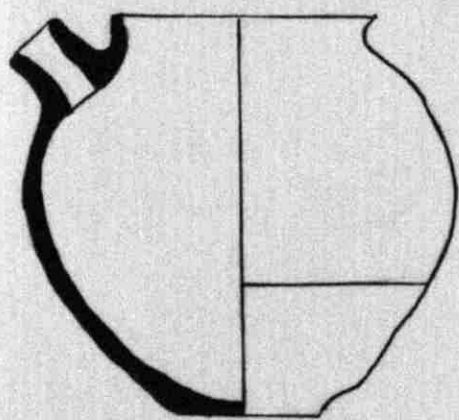
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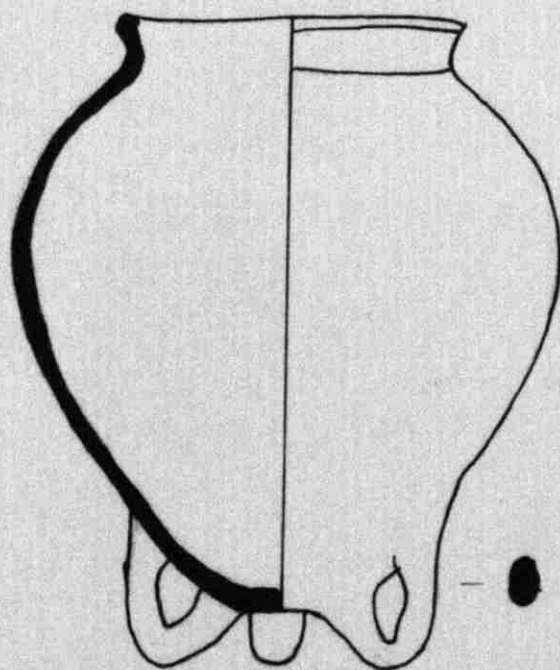
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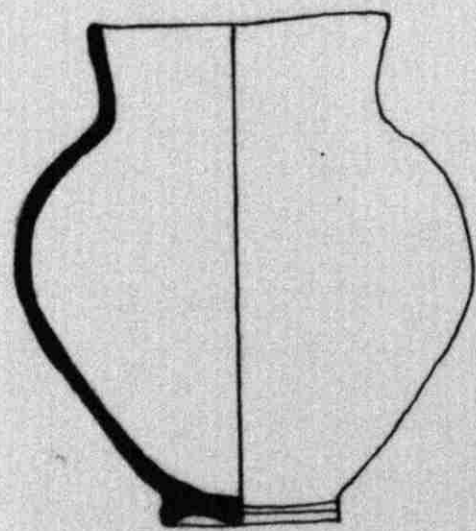




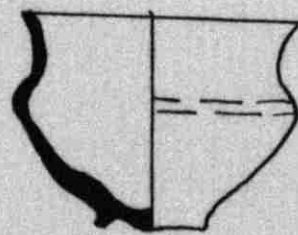
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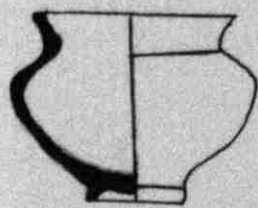
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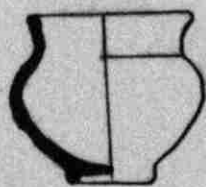
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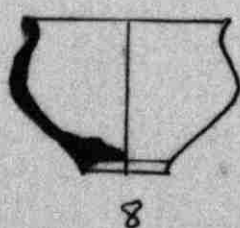
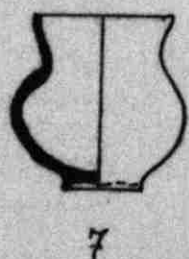
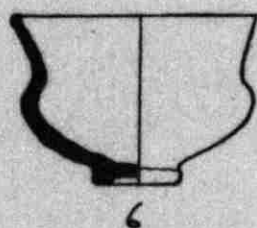
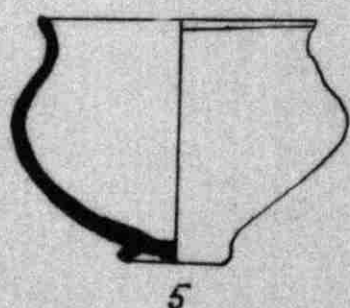
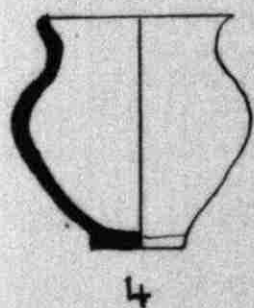
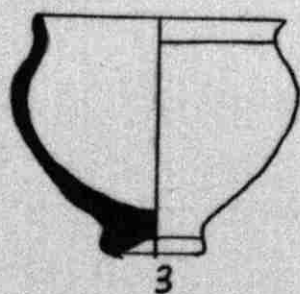
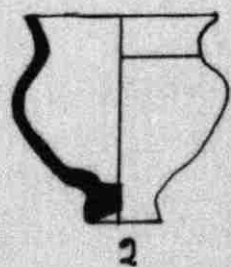
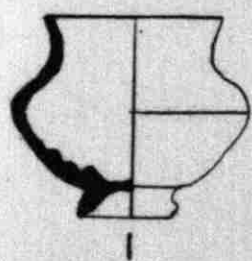
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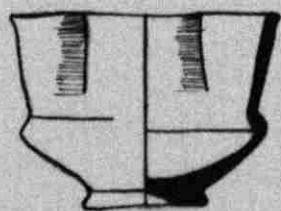
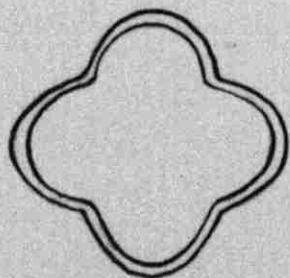
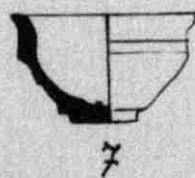
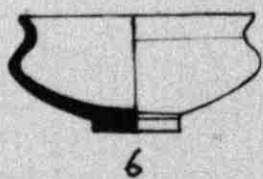
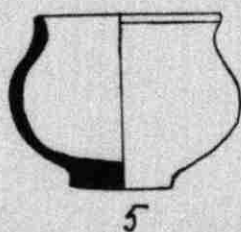
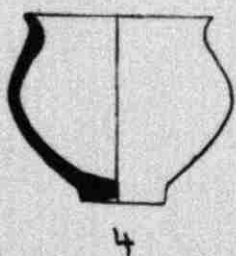
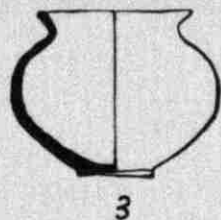
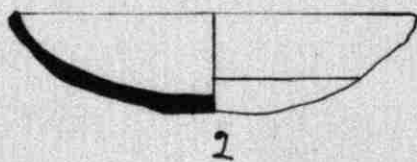
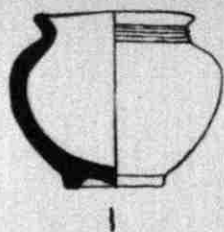


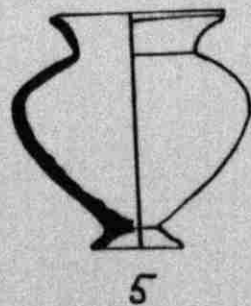
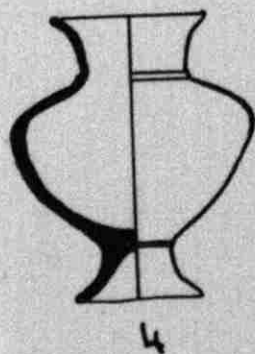
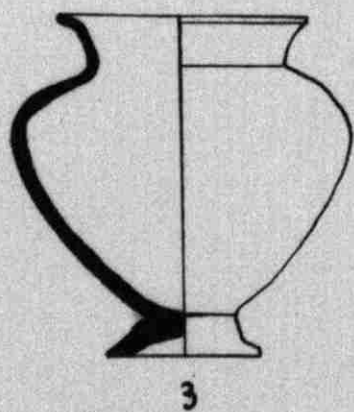
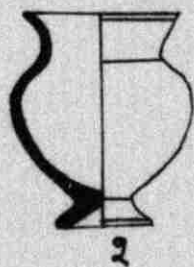
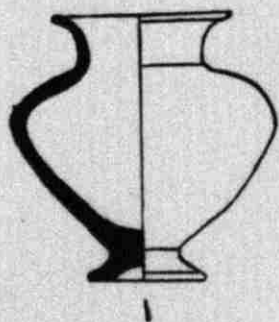
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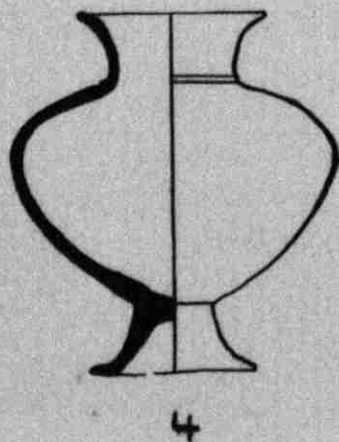
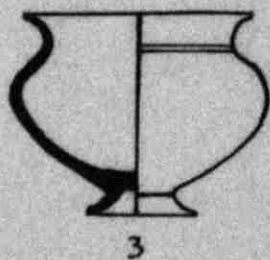
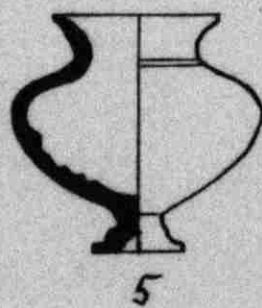
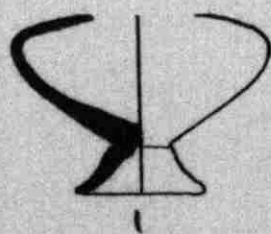
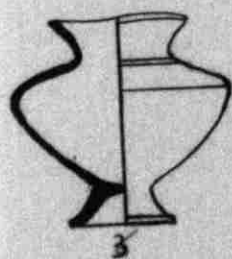
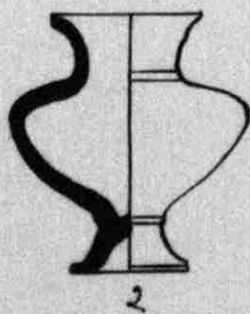
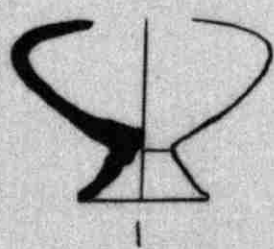


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Dipper-Juglets

Another common variety of vessels belonging to MB II are the dipper juglets, which may be grouped under nine different classes namely:

I. Plump Dipper-Juglets with a Rounded Body:

These occur only in one form; they have a slight stump base and the handle is attached slightly below the rim Pl. XII:1.

MB II A.

II. Dipper-Juglets with rather rounded body and slightly angular shoulders:

This type of dipper is provided with three different types of bases:

A. Low stump bases with the handle attached either immediately below the rim, Pl. XIII:2. MB II A-C, or slightly below it.

Pl. XIII:4, MB II B.

C. Button based dippers with the handle attached just below the rim. Pl. XIII:8. MB II B.

III. Dipper-Juglets with parallel sides, a slightly angular shoulder, and a pointed base; the handle is attached just below the rim. Pl. XIII:6. MB II B.

IV. Dippers with slightly angular shoulders and a tapering body:

The group has two types of bases:

A. A very slightly pointed base. Pl. XIII:7. MB II C.

B. A pointed base. Pl. XIII:9. MB II B.

The handle in both cases is attached just below the rim.

V. Dippers with wide angular shoulders and tapering sides:

A slightly pointed base. Pl. XIV:3. MB II B-C.

VI. Dippers with angular shoulders and parallel sides:

These generally have a lightly pointed base and the handle is attached just below the rim. Pl. XIV:2. MB II C.

VII. Dippers with angular shoulders and tapering sides:

The base is pointed and the handle is attached just below the rim. Pl. XIV:5. MB II C.

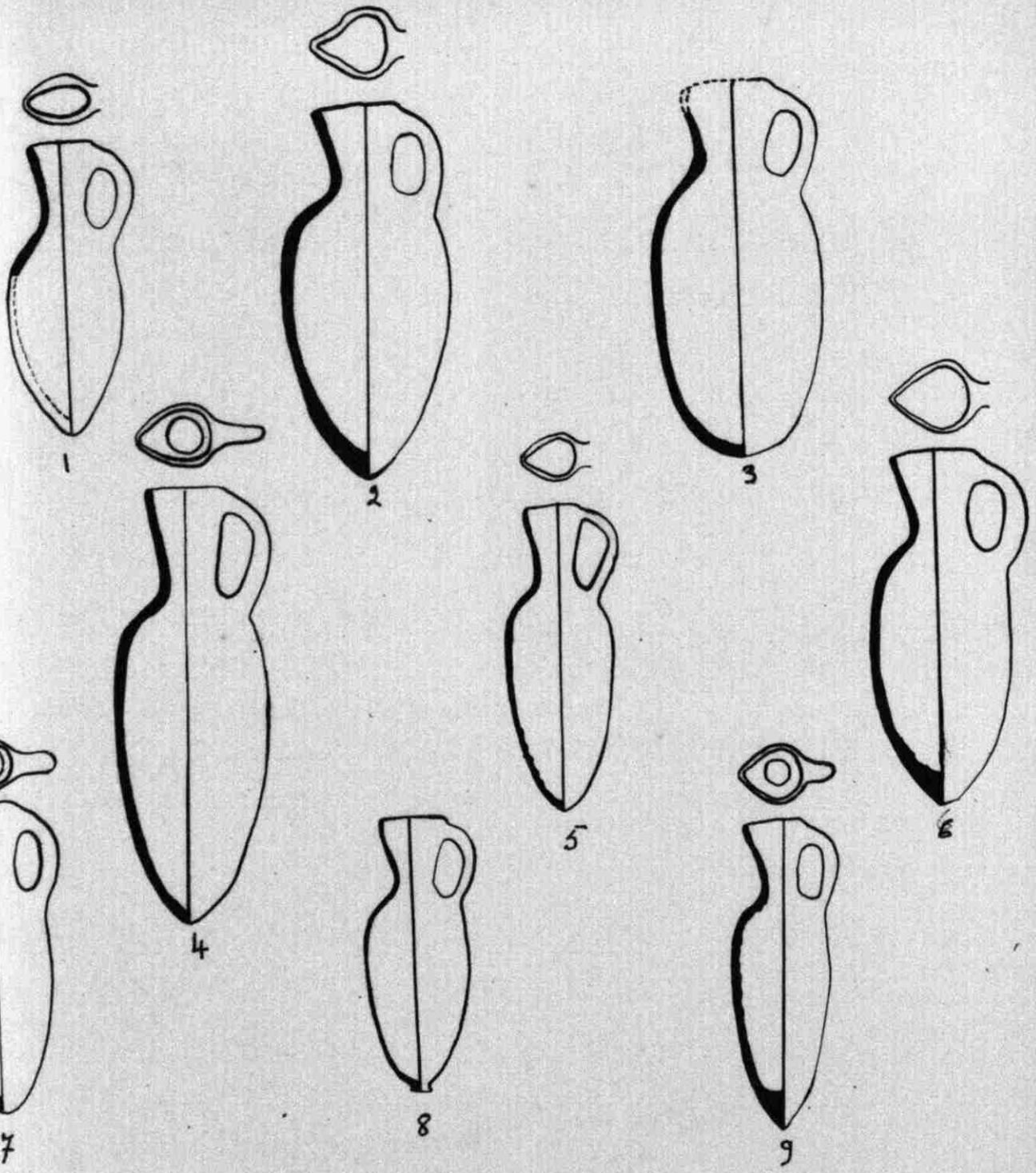
VIII. Dippers with angular shoulders and parallel sides:

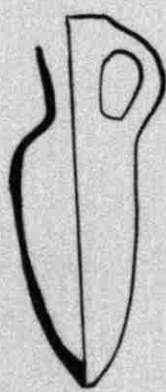
In this group the neck is wide and the base is slightly pointed. Pl. XIV:4. MB II C.

IX. Dippers with a bag-shaped body:

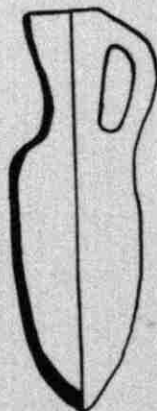
In this group the base is rounded and the handle is attached below the rim. Pl. XIII:3. MB II B.

All dippers of the Middle Bronze Age, Phase II have their mouths pinched slightly into an ovoid.

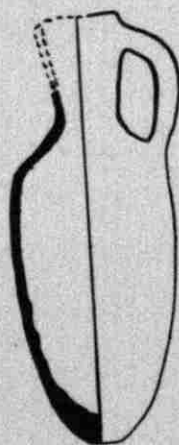




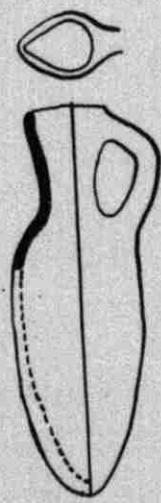
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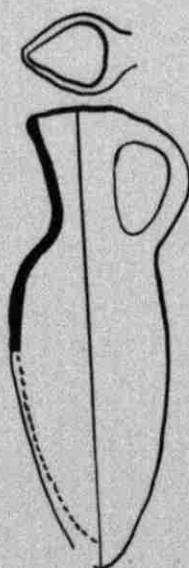
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Jugs

There are four major classes of Jugs:

I. Round Mouthed Jugs.

These may be classified into four different groups, namely:

A. Jugs with a small rounded mouth and a spherical body; the triple-strand handle is attached from the rim to the shoulder. Pl. XV:1. MB II A-B.

B. Jugs with a depressed spherical body; the handle is attached from the rim to the shoulder. The neck is narrow. Pl. XV:5. MB II B.

C. Jugs with a spherical body and a ring-base; the handle is attached above the shoulder. Pl. XVI:1. MB II B.

D. Jugs with squat piriform bodies and large mouths; the handle is attached below the rim. Pl. XV:2.

II. Trefoil Mouthed Jugs:

A. Jugs with the neck decorated with a collar and as wide as the body; they have a disk-base and a double-strand handle, attached from the rim to the shoulder. Pl. XVI:3. MB II A.

B. Jugs with the neck narrower than the body. Pl. XV:4 MBII B.

III. Ovoid Jugs:

Ovoid jugs fall under two major groups:

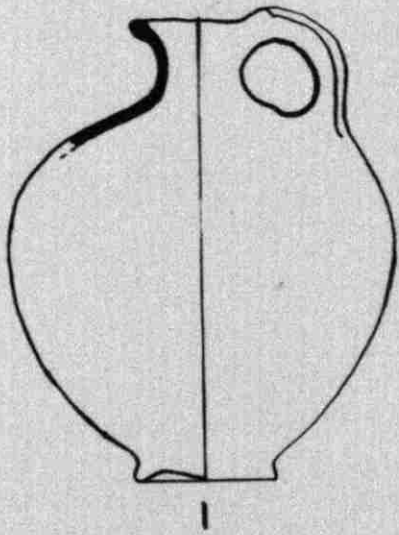
A. In the first group the mouth is rounded and the base is flat. Pl. XV:3. MB II B.

B. In the second group the mouth is pinched and the base is slightly flattened; the neck is tall and wide. The handle is

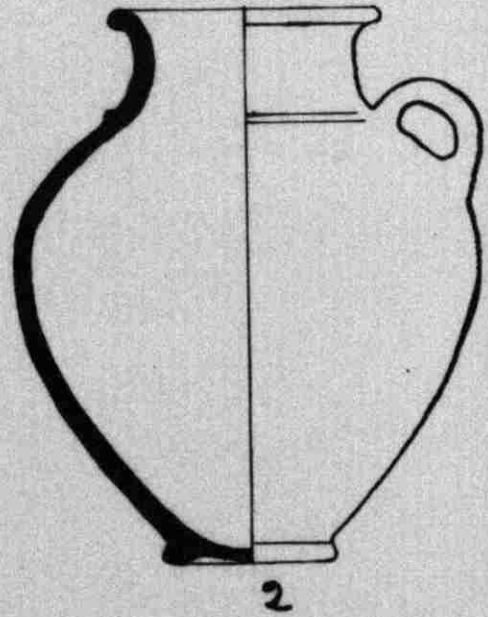
attached slightly below the rim. Pl. XVI:2. MB II B-C.

IV. Jugs with a Pinched Mouth:

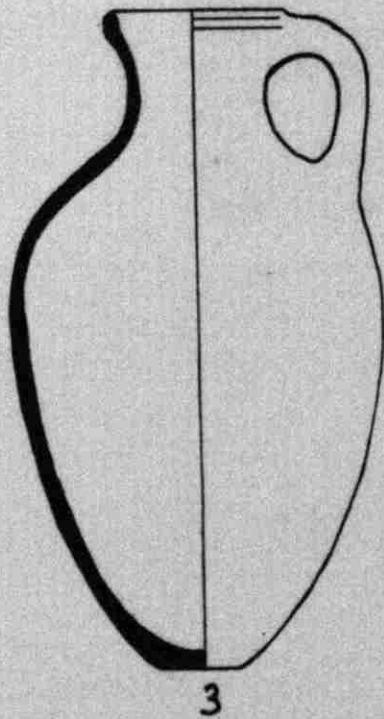
The Jugs of this group have a tall neck, rounded body and a disk-base. Pl. XVI:5. MB II C.



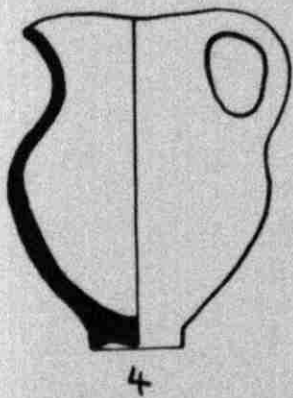
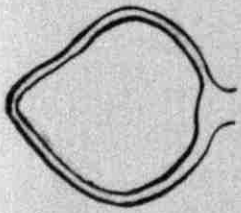
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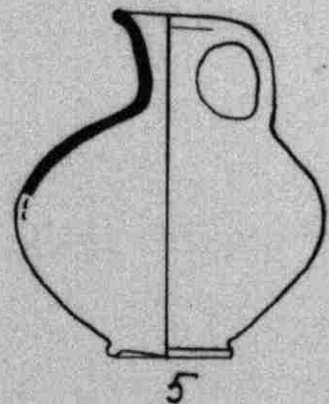
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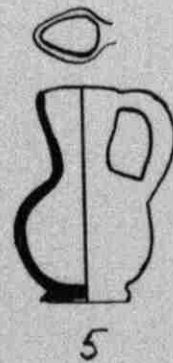
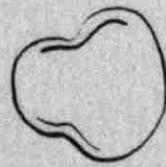
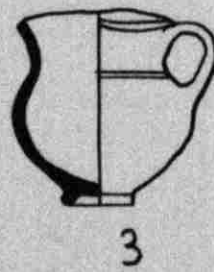
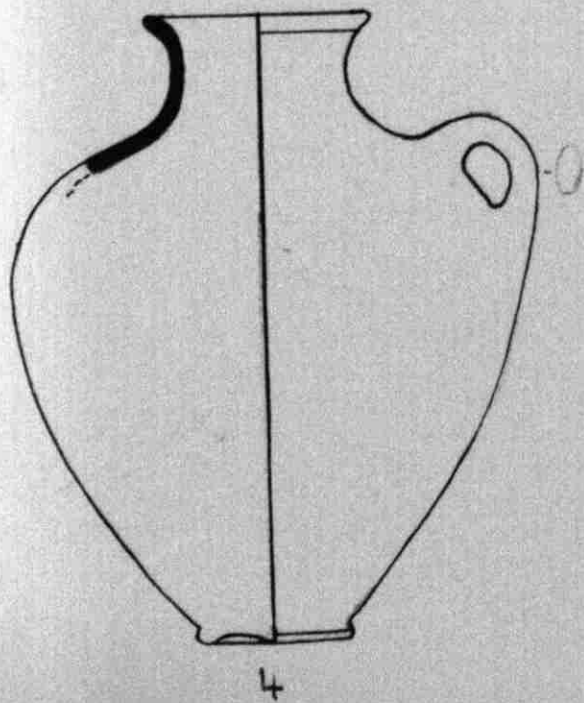
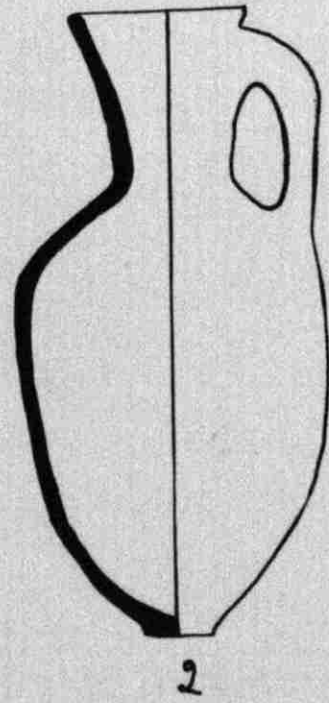
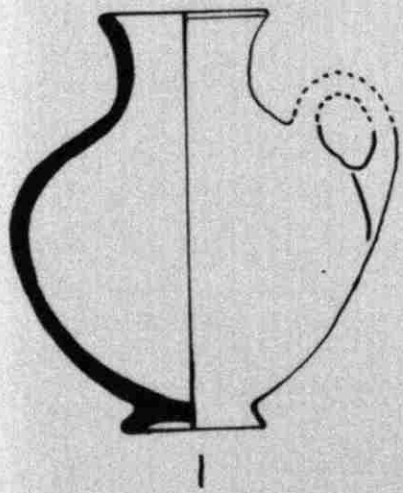
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Piriform Juglets

Piriform juglets are some of the main characteristic vessels of the period. They fall into nine major groups, namely:

I. Piriform Juglets with ring-base.

These may be divided into two categories:

A. The first category has a distinct shoulder with two types of handles.

B. The second category has a ring-base, a rounded body, and a double-strand handle. Pl. XVIII:6. MB II B.

II. Piriform juglets with a vestigial ring-base.

Juglets of this group have a marked shoulder with two varieties of handles.

A. Single handle. Pl. XVII:11.

B. Double-strand handle decorated with a pellet on top of the handle. Pl. XIX:10. MB II B.

III. Piriform juglets with a small flat base.

These consists of two varieties, namely:

A. Juglets with a marked shoulder and a single handle.

Pl. XVII:6. MB II A-B.

B. Juglets with a rounded body and a double-strand handle.

Cf. Pl. XV. Pl. XVIII:6. for body.

IV. Juglets with a pointed base.

The juglets of this group have marked shoulders with a single handle. Pl. XIX:7. MB II B.

V. Piriform Juglets with a slight button base:

These may be divided into two categories:

A. Piriform juglets with a distinct shoulder; they have four different types of handles as follows:

1. Single handle. Pl. XVII:3. MB II A-B.
2. Double-strand handle. Pl. XVII:10. MB II B.
3. Single handle decorated with a button or pellet at the top. Pl. XIX:4. MB II C.
4. Double-strand handle decorated with a pellet in the same position. Pl. XVII:1. MB II B-C.

B. Piriform juglets with a rounded body which occur with two different types of handles.

1. Single handle. Pl. XVII:9. MB II B.
2. Double-strand handle. Pl. XVII:2. MB II B.

VI. Juglets with a small button-base.

The class includes two major types:

A. Juglets with a marked shoulder which have four varieties of handles:

1. Single handle. Pl. XVII:7. MB II.
2. Double-strand handle. Pl. XVIII:3. MB II B.
3. Single-handle with a button or pellet on top of the handle. Pl. XVIII:7. MB II B.
4. Double-strand handle with a pellet. Pl. XVIII:5.

B. The second type of piriform juglets have a button-base and three varieties of handles, namely:

1. Single-handle. Pl. XIX:8. MB II A-B.
2. Double-strand handles. Pl. XIX:9. MB II B.

3. Double-strand handle, decorated with a button on the top. Pl. XIX:12. MB II B.

VIII. Juglets with a prominent button-base:

These fall into two major groups:

A. Piriform juglets with a marked shoulder, and with one or other of the following varieties of handles:

1. Single handle. Pl. XIX:5. MB II B-C.
2. Double-strand handle. Pl. XVIII:6. MB II B-C.
3. Single handle with pellet. Pl. XIX:3. MB II C.
4. Double-strand handle with pellet. Pl. XIX:2.
5. Tripple-strand handle. Pl. XIX:11. MB II B-C.

B. Piriform juglets with rounded bodies and with one or the other of the following two types of handles:

1. Single handle. Pl. XIX:13.
2. Double-strand handle. Pl. XVIII:4.

IX. Tell-el-Yehudiyeh ware:

The piriform juglets generally known as Tell-el-Yehudiyeh ware, fall into two major groups:

A. Juglets decorated with a pin-point or pricked pattern, all over the surface as follows:

1. Four zones of chevrons. Pl. XX. Pl. XX:4. MB II B.
2. Three zones of chevrons. Pl. XX:5. MB II B.
3. Pattern of stars radiating from the neck to the base. Pl. XX:6. MB II B.

B. Piriform juglets decorated with bands of pin-point. These fall into two groups:

1. Chevrons: Pl. XX:1. MB II B-C.

2. Ladder pattern. Pl. XX:2. MB II B-C.

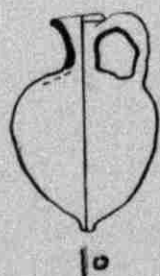
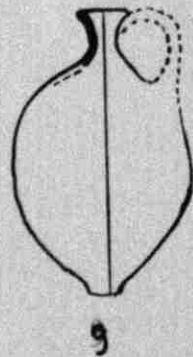
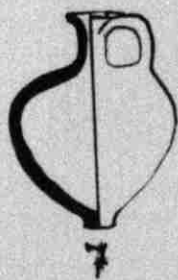
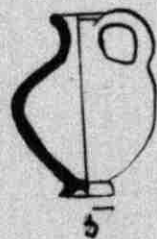
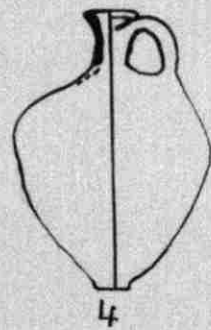
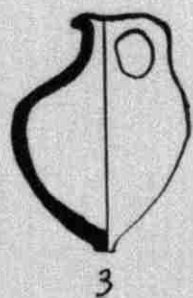
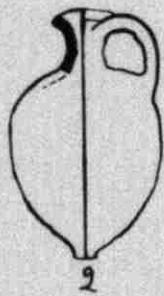
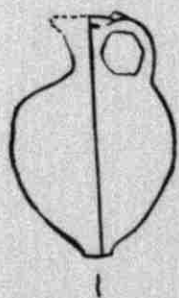
IX. Imitation of the Tell-el-Yehudiyeh ware:

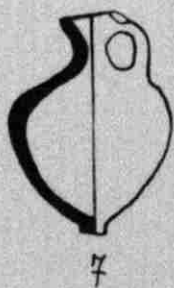
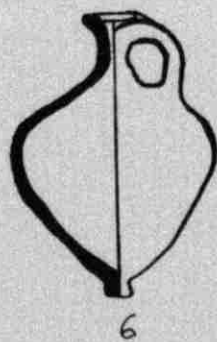
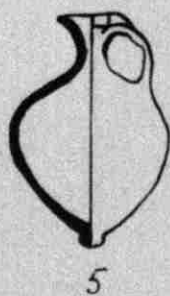
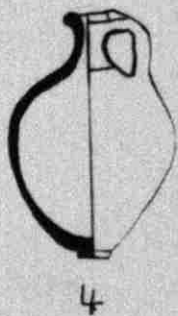
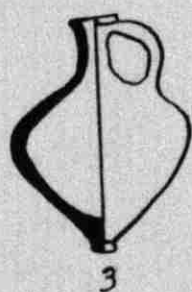
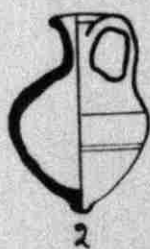
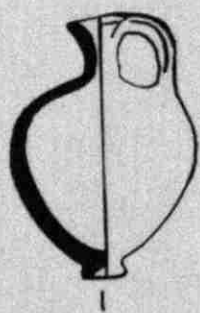
The Tell-el-Yehudiyeh ware was imitated in colour instead of the pin-point incisions. They may be classified under two headings:

1. Circles and Zigzags. Pl. XX:7.

2. A single band immediately below the handle. Pl. XX:3.

In shape, the Tell-el-Yehudiyeh ware, is like the piriform juglets, and may belong to any of the variations that have been described in sections I to VII.



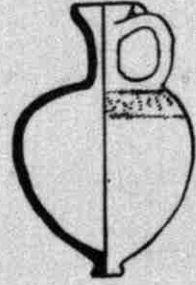




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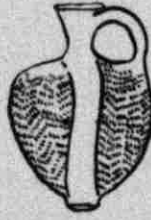
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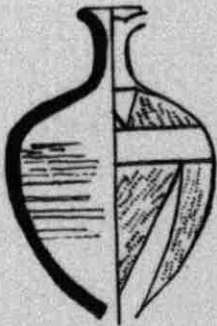
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Cylindrical Juglets

The cylindrical juglets fall into four major groups:

I. Cylindrical juglets with a rounded base with one or other of the following types of shoulders:

A. The rounded shoulder with a single handle. Pl. XXI:9.

MB II A.

B. The oblique shoulder with two varieties of handles.

1. Single handle. Pl. XXI:7. MB II B-C.

2. Double-strand handle, with a pellet. Pl. XXI:1.

MB II B-C.

II. Cylindrical Juglets with a slightly rounded base:

This group has also two types of shoulders:

A. The rounded shoulder with two types of handles:

1. Double-strand handle. Pl. XXI:4. MB II B-C.

2. Double-strand handle decorated with a pellet.

Pl. XXI:6. MB II B-C.

B. Oblique shoulder with two varieties of handles:

1. Single handle. Pl. XXI:5. MB II B-C.

2. Double-strand handle decorated with a pellet.

Pl. XXI:2. MB II B-C.

III. Flat-Based Juglets:

This group have one or the other of the following three types of shoulders:

A. Oblique shoulder with two types of handles.

1. Double-strand handle. Pl. XXI:8. MB II B-C.

2. Double-strand handle decorated with a pellet.

MB II C. for handle. Cf. Pl. XXI:2.

B. Square shouldered juglets with a double-strand handle.

Pl. XXI:3. MB II B.

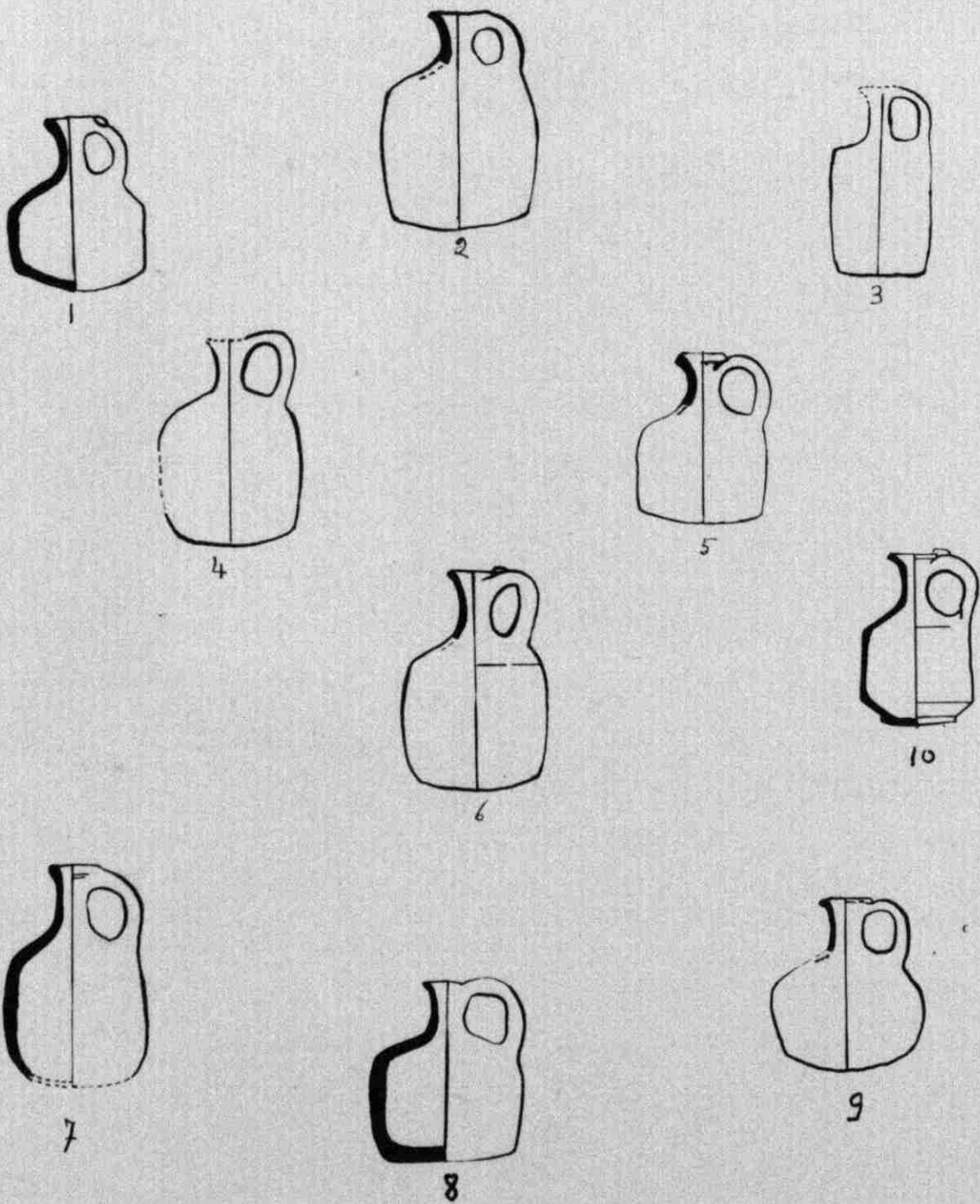
C. Juglet with rounded shoulder and a single handle

MB II C.

IV. Cylindrical Juglets with a Disc-Base:

The type has an oblique shoulder and a double-strand handle decorated with a pellet or button on the top. Pl.

XXI:10. MB II B-C.



Lamps

The lamps of the period are made from various types of saucers which are slightly pinched in order to form a groove in which to place the wick and keep it in position. Lamps may be classified under seven groups as follows:

I. Circular Lamps with round base.

These may be divided into two major types:

A. Lamps with curved walls.

1. Small bowl used as a lamp. Pl. XXII:4. MB II A.
2. Lamps with an extremely slight folding at the nozzle. Pl. XXII:5. MB II B.

B. Lamps with slightly conical walls and with a fairly pronounced nozzle. Pl. XXII:1. MB II B.

II. Lamps with a round base and sides slightly flattened at the nozzle.

A. Curved walls with a slight folding at the nozzle.
Pl. XXII:9. MB II C.

B. Lamps with shallow walls slightly angular with two varieties of folding at the nozzle:

1. Slight fold towards the nozzle. Pl. XXIII: MB II
2. Fairly pronounced folding at the nozzle. Pl.
XXIII:2. MB II B-C.

C. Very shallow lamps with angular walls and a folding at the nozzle. Pl. XXII:2. MB II B.

III. Lamps with a round base and a marked flattening at the nozzle.

These occur in two types:

A. shallow lamps with walls slightly angular and with a pronounced folding at the nozzle.

B. Shallow lamps with a round base, front folded approaching squarely with a fairly pronounced nozzle. Pl. XXIII:1.

IV. Flat-Based Circular Lamps:

These have splaying walls with a slight angle and a slight to fairly pronounced folding towards the nozzle.

Pl. XXII:6. MB II B-C.

V. Lamps with a flat base, sides slightly flattened towards the nozzle.

This type of lamp has splayed sides with a slight angle and a fairly pronounced folding towards the nozzle. Pl. XXII:10.

MB II B-C.

VI. Lamps with a slight disk-base.

These have two different types of walls namely:

A. Curved walls with two types:

1. With a very slight folding at the nozzle. Pl. XXII:8.

MB II B-C.

2. With a slight folding at the nozzle. Pl. XXIII:3.

MB II B-C.

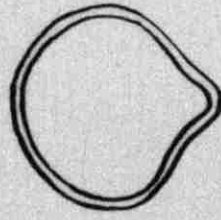
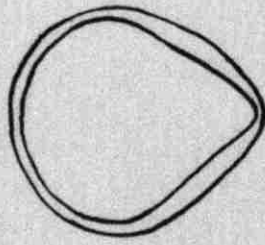
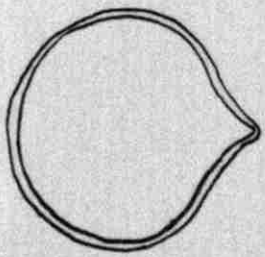
B. Lamps with angular walls and rather shallow with a slight folding towards the nozzle. Pl. XXII:3. MB II B-C.

VII. Circular lamps with a pronounced disk-base.

This group of lamps has two different types of walls:

A. Curved walls with a fairly pronounced folding at the nozzle. Pl. XXIII:5. MB II B-C.

B. Shallow lamps with angular walls and a fairly pronounced folding at the nozzle. Pl. XIII:4. MB II B.

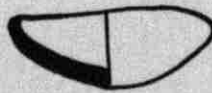
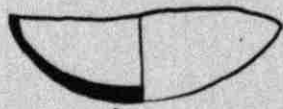
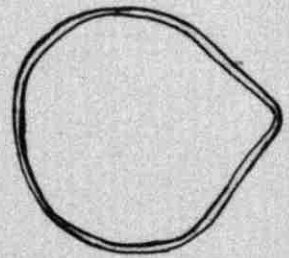
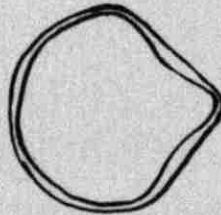
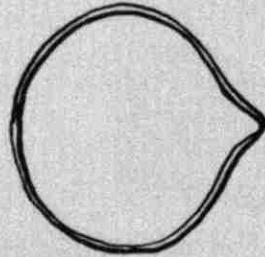
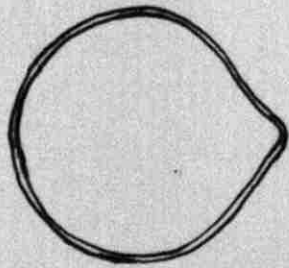


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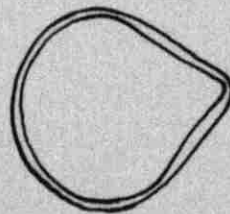
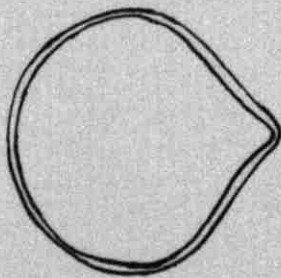


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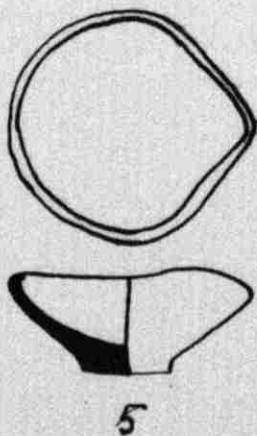
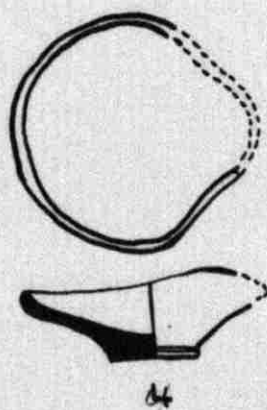
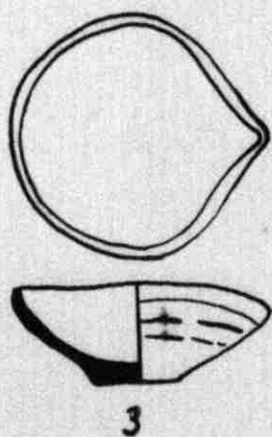
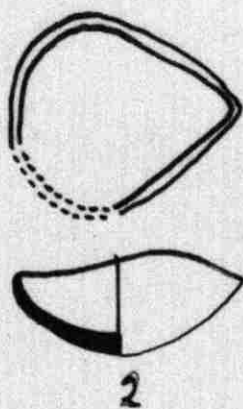
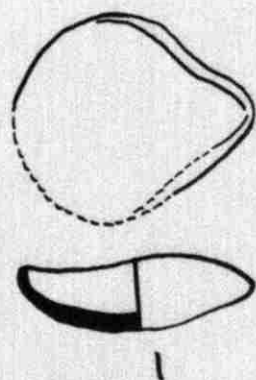
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Storage-Jars

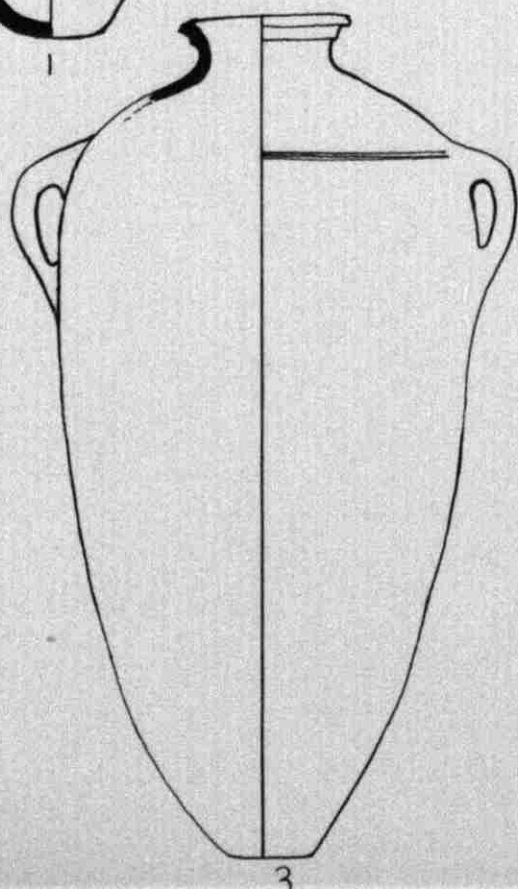
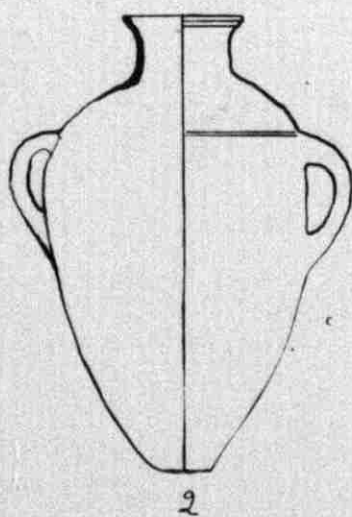
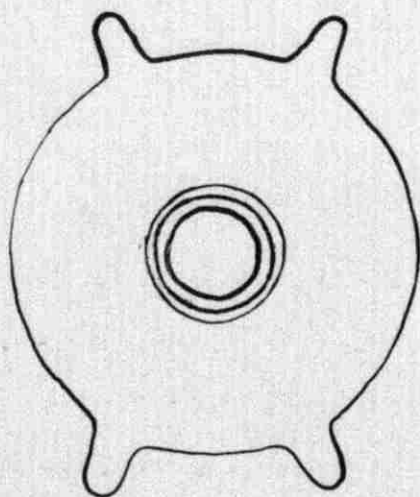
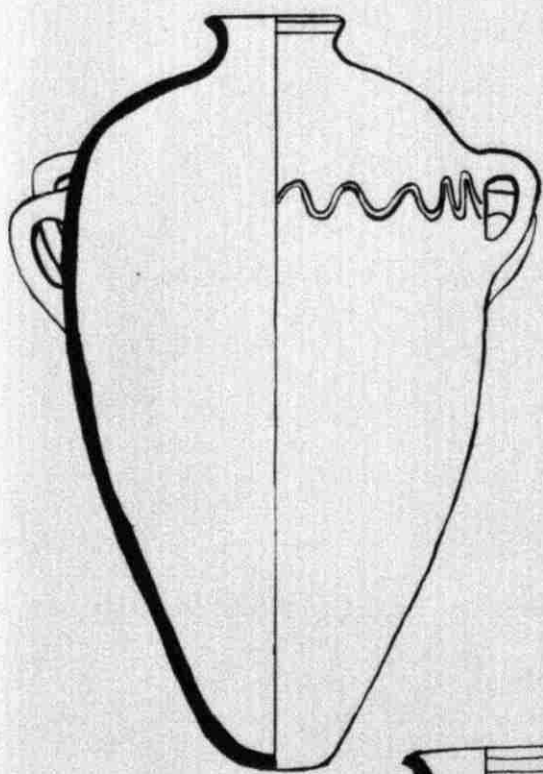
There are two major types of storage jars namely:

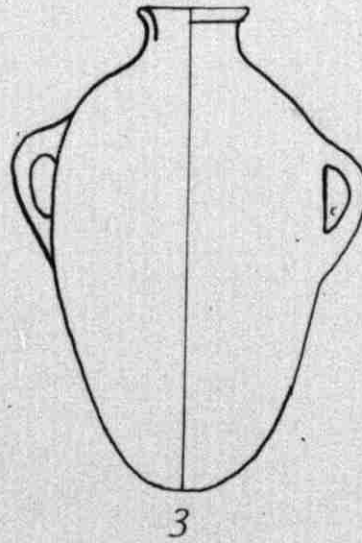
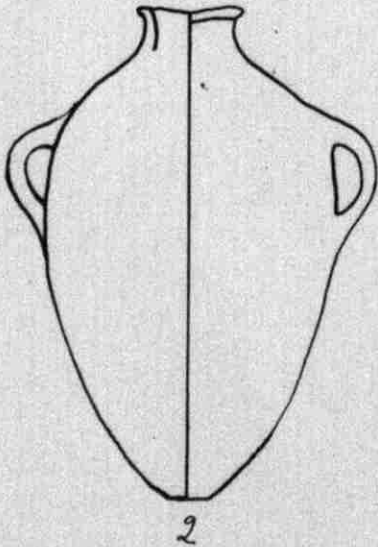
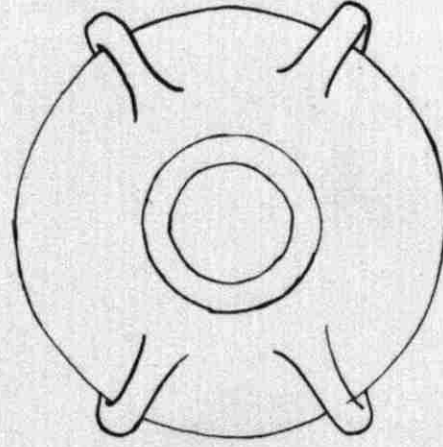
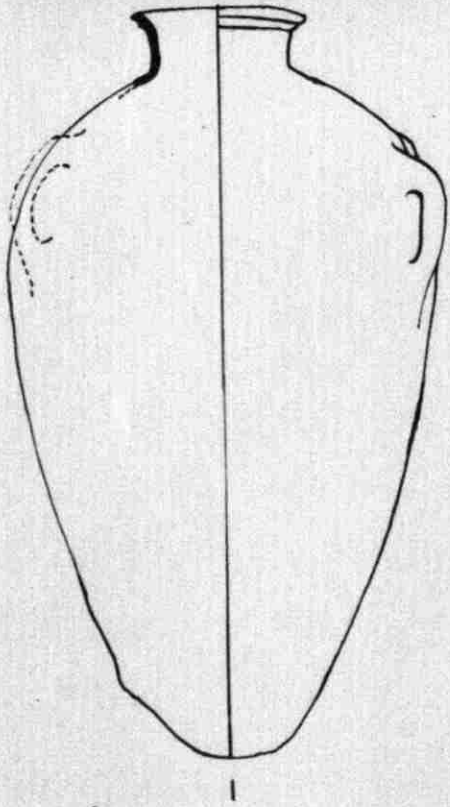
- I. Jars with a tall neck, and three different types of rims.
 - A. Double fold at the rim with two varieties of handles:
 1. Two handles. Pl. XXIV:2. MB II B-C.
 2. Four handles. Pl. XXV:1. MB II C.
 - B. Single fold at the rim with two handles. Pl. XXV:2.
 - C. Plain rim with two handles. Pl. XXV:3. MB II C.
- II. Short necked-jars.

These also have two types of rims:

- A. Double fold at the rim with two handles. Pl. XXIV:3.
MB II C.
- B. Single fold at the rim. Pl. XXIV:1. MB II B-C.

The one illustrated is decorated with a double zigzag band below the shoulder.





Cooking-Pots

Cooking-pots may be classified under two major groups:

I. Flat-Based cylindrical cooking-pots with upright walls.

These are hand-made and very crude in comparison with the other vessels of the Middle Bronze Age. They may be subdivided into two groups:

A. Cooking-pots peirced with holes immediately below the rim. Pl. XXVI:1. ¹

B. Pots decorated with a finger pressed band around the rim. Pl. XXVI:2. ²

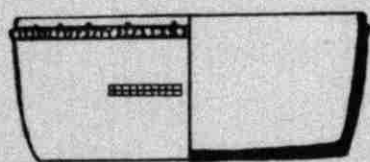
II. Wheel-made carinated cooking-pots:

These have a round-base and bevelled everted rim.
Pl. XXVI:3-4. ³

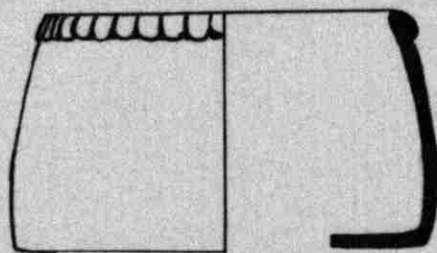
¹Illustration after Tell-Beit-Mirsim. AASOR. Vol. XII
Pl. 41:6.

²AASOR. XIII. Ibid., Pl. 13:5.

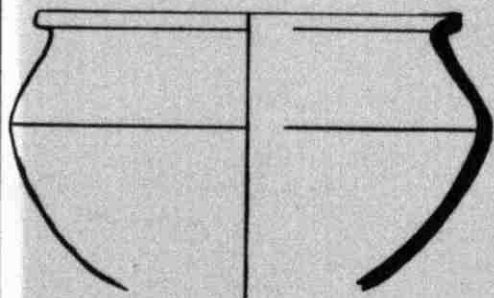
³After Hazor I. Pl. CXVI. IV:7 and 12.



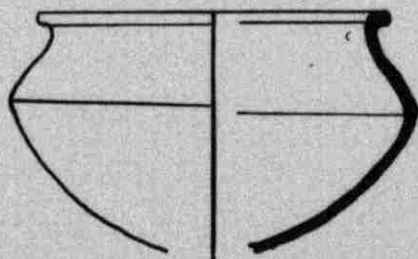
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CHAPTER IV

CONCLUSION

We have drawn attention in this presentation to the disturbances caused by the mass movements of people during the early part of the Second Millennium. Around 2000 B.C. or slightly earlier there was the infiltration of the so-called torque-wearers, whose original home was probably Asia Minor and who were probably Indo-Europeans.

The torque-wearers brought several innovations with them to Palestine. First they restored the towns and cities that had been destroyed by the Amorites during the first half of the Intermediate Period circa 2300-2100 B.C. such as Jericho, Gezer, Tell-Beit-Mirsim Strata G-F and Megiddo Strata XV-XIII.

Secondly, the torque-wearers introduced into Palestine, Syria and Phoenicia a highly developed metallurgy. Furthermore they introduced a fast and well developed wheel. Their vessels were entirely made on the wheel, unlike the preceding age when only the necks and the rims were made on a slow moving wheel. The most important factor is that the torque-wearers revived civilization and infused new blood into the wild Amorite tribesmen and ushered into Palestine a prosperous era as can be seen from their remains in the various sites in the country. Palestine again became the trade route and martial highway linking Egypt with the Valleys of the Tigris-Euphrates through Phoenicia and Syria.

About 1750 B.C. there was another infiltration into the country which brought in the Hurrians whose original home was in the Caucasus and the Armenian Highlands. The Hurrians among whom probably there were some of the ancestors of the Israelites, invaded Egypt where they came to be known as the Hyksos. The latter founded an empire whose capital was Avaris in the region of the Delta. They ruled Egypt for about 100 years, when they were evicted by the Egyptians.

The Hurrians introduced the horse and horse-drawn-chariot and a new system of defences and fortifications consisting of battered walls and triple gates. Plausible arguments have been presented to prove that the Hurrians came in small numbers and established themselves as overlords due to their superior weapons and culture. For though they introduced a new system of defence yet their domestic architecture remained the same. Furthermore the ceramic industry in general was the same except that the red burnished slip that was common at the beginning of the Middle Bronze Age, and which was probably brought in by the torque-wearers, was slowly replaced by the cream slip. At the beginning of the period now designated Middle Bronze II, cities in Palestine prospered further due to the fact that many of the Semitic mercenaries who accompanied the Hurrians into Egypt, returned laden with riches and loot.

Hazor which had been destroyed by the Amorites during the 23rd century remained unoccupied until Middle Bronze II

when occupation was resumed on an intensive scale. Jericho, which developed only slowly at the beginning of the period, was by Middle Bronze II intensely occupied. Cities were ruled by petty chieftains who indulged in constant petty squabbles with their neighbours and who surrounded their cities with elaborate fortifications. Several phases of destruction and rebuilding have been noted at the different sites such as Tell-Beit-Mirsim where at least four general and four partial destructions occurred between 1800 and 1550 B.C.

It has been demonstrated that the study of pottery was most important in following the progress of man's culture in the Near East. The ceramic industry of the Middle Bronze Age produced some of the most graceful shapes ever made in Palestine. At the beginning of the period the vessels were covered with an intense red slip; during the Middle Bronze II Sub-phase A the vessels reached their zenith in perfection, both from the aesthetic and the technological point of view. However the red burnished slip was being slowly superseded by the cream slip, which was of a lower quality. By Sub-phase B the cream slip entirely replaces the red slip; forms already start to degenerate. In Phase C the slip becomes very rare and starts giving place to wet-smoothing. By then the shapes of the vessels had deteriorated considerably. A sharp social division started taking root among the citizens in each of the principle urban centers. At Jericho, Ajjul and Tell-Beit-Mirsim among others there is a great discrepancy between the various houses which

shows the rise of a new social order. Most of the houses were mere hovels and no doubt belonged to the masses of the poor; while a few houses, like Palace I at Ajjul, were much larger, better built and more luxuriously furnished and belonged to the nouveaux riches.

Vessels degenerate in shape, pots were produced in large numbers in order to cater for a larger community. Quality was sacrificed in the interests of quantity and mass production. The potter seems to be interested only in producing large numbers of pots at the expense of form. He was interested in short circuiting his work so as to produce the maximum number of pots in the shortest time possible. A good example of this practice is the cylindrical juglet which is a degenerate form of its piriform counterpart. When a potter throws a lump of clay to turn a pot, the first shape that turns out is the cylindrical shape which is then changed into more graceful forms. The potter during Sub-phase IIC, was satisfied with the cylindrical form as it saved him much time and extra labour and allowed him to turn twice as many juglets in the same time. Another method used by the potters to reduce the time of work was the application of "the pinched off technique", where a large mass of clay was placed on the turn-table and shaped into a cone; a juglet is then shaped at the top of the cone and pinched off and so on until the whole cone of clay is used up; the usual method on the other hand was to use a separate lump of clay for each juglet.

Though the Middle Bronze Age witnessed large scale-movements of peoples, yet the culture did not change. Nevertheless by the Middle Bronze II Sub-Phase C, we notice that the culture was degenerating and continued to do so down to the end of the Middle Bronze Age as can be seen in the ceramic industry.

It is hoped that the classification that I attempted would be of help to new excavators, in recognizing the different trends in the ceramic industry current during the period. Furthermore the study would be of help for students of archaeology as there are no books written on the subject specifically, and excavation reports do not treat the subject fully and assume that the reader is already acquainted with the topic.

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