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PALESTINE ARCHAEOLOGICAL MUSEUM

A SHORT GUIDE TO THE EXHIBITION
ILLUSTRATING THE
STONE AND BRONZE AGES
IN PALESTINE

BY
J. H. ILIFFE

Second revised edition

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GOVERNMENT OF PALESTINE
DEPARTMENT OF ANTIQUITIES
JERUSALEM

PALESTINE ARCHAEOLOGICAL MUSEUM GUIDES

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THE STONE AND BRONZE AGES

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NOTE

THIS GUIDE is merely a brief introduction to the history and civilization of each epoch, to help those who are not primarily archaeologists to follow the sequence of cultures intelligently. It should be used in conjunction with the Gallery Book.

The reader of this edition will note that it is not intended to take into full account the mass of material and research work accumulated since the first edition was printed in 1937. As the scientific results of the most recent work are either not yet fully digested or still far from being stable, particularly with regard to prehistoric terminology and chronology, we have felt bound to restrict ourselves, for the time being, to minor additions. Those readers who are desirous of the most up-to-date information on archaeological discoveries and problems are referred to the revised bibliographical note at the end of this booklet.



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THE STONE AGE (S. GALLERY, BAY 1)

The present sketch is concerned with the first two chapters of the existence of man on the earth—the Ages of Stone and Bronze—in the region we call Palestine to-day. Obscure as both these chapters still are, compared with sixty years ago our knowledge of them has increased out of all recognition. It is a bare century since the existence of Prehistoric Man has been generally admitted by science. To-day the question is rather, 'Where did he first originate and what was he like?' Palestine has contributed as richly as any other country in the world during the past twenty-five years to our knowledge of this subject.

Previous to 1925, although archaeologists knew of the existence of palaeolithic implements and tools collected as surface finds all over the Judaeian hills,¹ and although such implements and the remains of extinct animals had been excavated in the caves of the Lebanon, no remains of Stone Age Man himself had actually been found in this country. In that year part of a fossil human skull, of Neanderthal type, was found during excavations in a cave in Galilee. It is on exhibition in Case C (No. 33). Its discovery marks the beginning of a period of rapid development in our knowledge of the Stone Age in Palestine. This Age is represented in Bay 1 of the South Gallery.

The length of time during which cave deposits have been forming, and the relative position of human fossil remains in them, may be illustrated by the formation of the deposits in the Magharat ez-Zuttiyeh, the cave which yielded the Galilee Skull; Fig. 1 shows a diagrammatic section through the deposits in this cave at their deepest point.²

The total depth was about six metres. The Galilee Skull was found at about two metres below the surface, below some fallen rock near the base of the Palaeolithic level, as marked in the diagram, that is, it coincided approximately with the lowest traces

¹ One of the largest and best known of such collections is that made by the late Mr. Herbert E. Clarke, now in the possession of the Y.M.C.A., Jerusalem.

² Adapted from F. Turville-Petre and Miss D. M. A. Bate, *Researches in Prehistoric Galilee*, Pl. XVI. Description of cave also from Miss Bate.

of man's occupation. Below this level, however, lay three or four metres of water-laid deposits: first, a sandy layer with many fallen rocks; then, a layer of tufaceous phosphates; and thirdly, at the bottom, various clays.

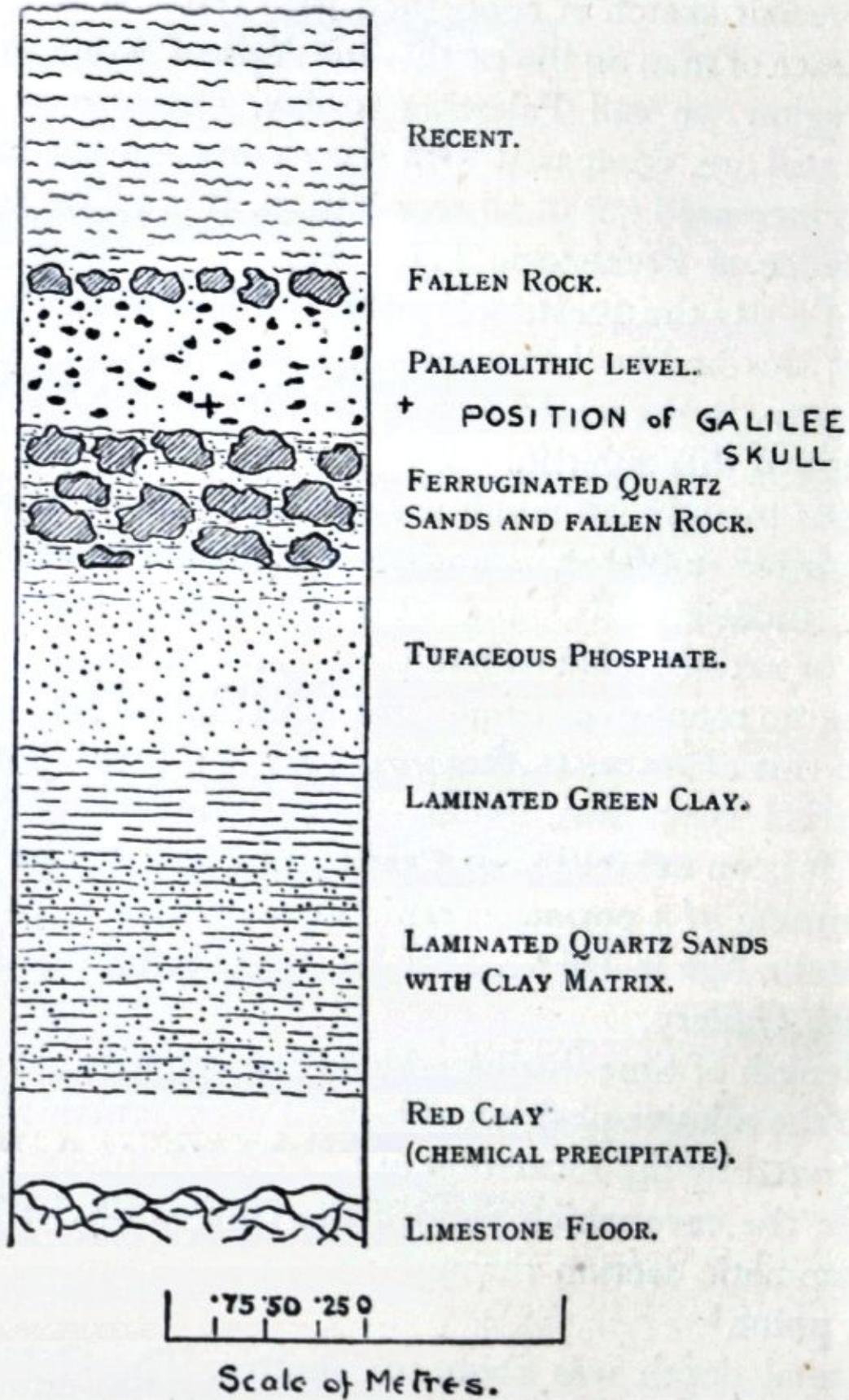


Fig. 1

Magharat ez-Zuttiyeh. Section through Deposits at Deepest Point

All these lower layers are geological or pre-human. The top-most, of sand and rocks, contained many animal bones; the lower ones were strongly impregnated with phosphates, probably

deriving from the animal remains above. It is possible to read in this succession of layers, *inter alia*:

1. The original excavation of the cave by running water;
2. Periods of deposition in still water, when the flow of the stream had ceased, alternating with
3. A renewal of the stream's flow, causing a detritus sediment;
4. The alternation of wet and dry periods in the history of the cave;
5. The existence of animals in the period corresponding to the sandy and rocky layer immediately underlying the Palaeolithic;
6. The deposition of the lowest levels apparently before the existence of any kind of animal life that has left its trace.

Thus without pretending to estimate, even approximately, the duration of any of the periods represented by these layers, we have in them an excellent illustration of the order of geological and pre-historic events in one typical instance. By comparing and combining many such sections in one area, it is seen that the geological phases correspond; it is possible also to determine at approximately which phase man first appears.

I. THE PALAEOOLITHIC OR OLD STONE AGE (BAY I) (200,000(?) to 12,000 years ago)

The Old Stone, or Palaeolithic, Age includes the vast extent of time from man's earliest beginning until about 12,000 years ago. Naturally, with such little evidence as we have to go upon, there is much uncertainty as to the length of time to be allowed for the duration of the period. Some authorities assign the most primitive remains of Prehistoric Man which we have to as long as 200,000 years ago; others give 100,000 years as a more likely figure. If we think of a time some 100,000 to 200,000 years ago for our earliest man we shall probably not be far out; and in any case, the difference between 100,000 and 200,000 is of little significance when such astronomical figures are in question.

The Old Stone Age is usually divided into two parts, called the Lower Palaeolithic and the Upper Palaeolithic. (Some prehistorians re-divide Lower Palaeolithic into two, calling the later stages

Middle Palaeolithic.) In the Lower Palaeolithic the remains of man and his tools are primitive; in the Upper Palaeolithic both of them show a striking development: in fact, in the skeleton of an Upper Palaeolithic Man we can recognize our own ancestor, and it is to this period that the well-known cave drawings and paintings of France and Spain belong. This division of the Old Stone Age is followed in the present exhibition. During the whole of the Palaeolithic period man lived as a hunter, in caves or other ready-made shelters, using tools and weapons of flint or other stone. Weaving, pottery-making, the use of metals, agriculture, the domestication of animals or a settled existence in houses of human construction were unknown. The different industries or cultures are named after the sites in France or Spain where they were first found.

There has been some considerable discussion as to how far it is legitimate to apply the names of industries and cultures originally distinguished in Western Europe to industries resembling them in other parts of the world. The following remarks of Monsieur R. Neuville seem adequately to state the case:

‘Personne ne peut plus nier la présence, sur cette dernière partie de l’Ancien Monde, de cultures nettement paléolithiques, mésolithiques et néolithiques *sensu lato*; il est de même certain que les industries chelléennes, acheuléennes et moustériennes sont analogues en Asie et en Europe occidentale. “La marche du progrès était alors assez lente, les étapes de la civilisation, chiffrées par milliers d’années, assez longues pour qu’à une époque donnée, sans préjuger de son origine simple ou multiple, la même ait à la fois régné sur tout l’Ancien Monde. Il y a donc eu véritablement une succession Chelléen-Acheuléen-Moustérien-Paléolithique supérieur-Néolithique, avec des enjambements, réels certes, mais négligeables en comparaison de l’immense durée des périodes de culture uniforme.” (Vaufrey, R., “Le paléolithique italien”, *Archives de l’institut de Paléontologie humaine*, mémoire 3, 1928, p. 160.)

‘Il n’en est pas de même en ce qui concerne les différentes industries du Paléolithique supérieur, dont les faciès varient d’un point à un autre, notamment sur le continent asiatique, où les influences aurignaciennes et capsiennes semblent se le disputer. La multiplication des races, les besoins nouveaux de populations intellectuellement supérieures, l’aggravation peut-être des conditions de vie, se sont traduits dans l’industrie par l’apparition de nouveaux outils, par de nouvelles inventions.

'Dans l'état actuel de nos connaissances on peut donc adopter, pour le Paléolithique inférieur et moyen de l'Asie antérieure, les mêmes grandes divisions qui, en Europe, ont fait leurs preuves, évitant ainsi la création de termes nouveaux, avec les doubles emplois éventuels et les confusions qui en résultent.' ('L'Acheuléen Supérieur de la Grotte d'Oumm-Qatafa', *L'Anthropologie*, XLI, 1931, pp. 46-7.)

A. THE LOWER PALAEOLITHIC PERIOD

(200,000(?) to 50,000(?) years ago)

This period includes, in Palestine, the *Chellean*, *Acheulean*, *Tayacian*, *Levalloisian* and *Mousterian* industries. To the *Chellean* belong the oldest well-characterized stone tools made by man. These are lumps of flint or other stone, roughly flaked all over, and known as 'hand-axes'. Chellean tools have been found on the surface of the ground in many parts of Palestine (and there are strong reasons to suppose that they are *in situ* at Upper Baka'a, Jerusalem). Upper Chellean implements have also been reported *in situ* at Bair Wells in the Syrian Desert (Transjordan).¹ The Chellean industry is more primitive in type and probably of more remote origin than either the Acheulean, Tayacian, Levalloisian or Mousterian, all of which occur in Palestine. Some characteristic specimens of Chellean tools are shown in Case B.

With the *Acheulean* technique the hand-axes continue and develop, being better made and more regular in shape than before. To this stage belong the open-air station or surface site of Abl, at the north end of the Huleh Basin, the cave deposit of Umm Qatafa, in the Wadi Khareitun, south-east of Bethlehem, and Magharat et-Tabun, in the Wadi Maghara, Mount Carmel, near Athlit, of which a section is shown in a large-scale photograph exhibited in Bay 1, marked with different levels in which varying industries were found, from the bed-rock upwards, as well as a general view of the cave.

Of the above the Chellean and Acheulean are 'core' industries, that is, the tool consists of the original lump of flint, more or less trimmed into shape; there seems little doubt that this is how flint tools originated. After a time, as we should expect, man saw that

¹ Henry Field, 'Early Man in North Arabia', *Natural History*, XXIX (1929), pp. 33-44.

the flakes chipped off in the process of making his 'hand-axes' could by a little trimming be fashioned into useful tools themselves. This new technique, which embraces what we refer to as the 'flake' industries, superseded the 'core' technique entirely from the beginning of the Upper Palaeolithic Period onwards. At which stage in Lower Palaeolithic it first came into fashion is a question which is still under discussion. Formerly it was assumed that the sequence of industries was, approximately:

Chellean	}	Core industries
Acheulean		
Mousterian	}	Core and flake industries mixed
Aurignacian, etc.		
(Upper Palaeolithic)		Flake industries

This, however, is too simple. There were flake industries before the Mousterian, for example, the so-called Clactonian, *Tayacian* and *Levalloisian*, as they have been named in Europe.¹ The last two of these, as above mentioned, have been found in excavations in Palestine, Levalloisian in large quantities. Both occur in levels earlier than Mousterian, and Tayacian is definitely stratified, for example, at Umm Qatafa and Magharat et-Tabun, below the Acheulean levels. Hence it is clear that in Palestine certainly some flake industries preceded some typical Acheulean core industries. We must therefore, on our present evidence, regard the core and flake technique—after perhaps the first clumsy experiments of the Chellean—as having followed a parallel and interwoven development: and many of the earlier flake industries must be contemporary with and even prior to the Acheulean. Reference to the chronological diagram (Fig. 2) will make this clear.

The *Mousterian*² industry is very fully represented in Palestine; during the period of its existence, contemporary in part with

¹ Those who are interested in the subject will find further guidance in R. Neuville, 'La Préhistorique de Palestine', *Revue Biblique*, XLIII (1934), pp. 237 *et seq.*

² The nomenclature of this period is at the time of writing in a state of flux. The 'Lower' or 'Middle' Mousterian of Miss Garrod is regarded by R. Neuville as Levalloisian, leaving only the 'Upper' Mousterian as classic Mousterian. In a recent communication Miss Garrod regards this whole industry as Levalloiso-Mousterian. We await with interest R. Neuville's complete publication of his excavations at Umm Qatafa and Jebel Kafzeh. In the circumstances in which we write, with views changing and knowledge increasing so

INDUSTRIES				Blades, Points, etc.
Years	Period	Flake	Mixed	Core
200,000	PALAEO-LITHIC (OLD STONE AGE)	TAYACIAN	ACHEULEO- LEVALLOISIAN	CHELLEAN
50,000		LEVALLOISIAN 1 associated with PALESTINE FOSSIL MAN (<i>Palaeoanthropus Palestinensis</i>)	LEVALLOISIAN CORE INDUSTRIES	ACHEULEAN 1 2 3 4
50,000 10,000	LOWER	MOUSTERIAN <i>associated with</i> PALESTINE FOSSIL MAN (<i>Palaeoanthropus Palestinensis</i>)		
10,000	UPPER			
5,000	MESOLITHIC			
5,000 3,000	NEOLITHIC AND CHALCOLITHIC			
3,000 2,000 B.C.	BRONZE AGE			
				AURIGNACIAN
				NATUFIAN 1 2 3 4
				KEBARAN
				TAHUNIAN 1 GHASSULIAN 1 (Chalcolithic) 2 (Chalcolithic) 2
				EARLY BRONZE (CANANEAN)

Fig. 2
Table of Prehistoric Cultures for Palestine (based on R. Neuville)

Acheulean, as we have seen, the land must have been comparatively well populated. The Mousterian falls into three stages, *Lower*, *Middle* and *Upper Mousterian*. In the *Lower Mousterian* of Palestine hand-axes are still abundant, but are accompanied by large numbers of tools and weapons, such as skin-scrapers, spear-points, knives, chisels and the like. In the *Middle Mousterian* of this region hand-axes have become very rare, and the most characteristic feature is the 'Levallois Flake', a broad flint flake, either oval or triangular in shape, struck from a specially prepared core. From these flakes are fashioned skin-scrapers and spear-heads of a more delicate type than those of the Lower Mousterian. Associated with the Middle Mousterian in the cave-deposits of Palestine are bones of hippopotamus and of an extinct species of rhinoceros. In the *Upper Mousterian* the scrapers and points are more delicate than in the preceding stage, and the big pachyderms have disappeared, giving place to deer and gazelle.

Some Mousterian Sites Excavated

The *Magharat ez-Zuttiyeh* (Cave of the Robbers), near the north-west shore of the Sea of Galilee, contained Lower and Upper Mousterian layers, but these were not well defined, and the separation of the two periods here is based on typological grounds.

The *Magharat et-Tabun* (Cave of the Oven), at the mouth of the Wadi el-Maghara, near Athlit, contains a deeply stratified section, in which the whole range of Lower and Upper Mousterian is represented. Miss Garrod now calls this industry, as a whole, Levalloiso-Mousterian. A photograph of this cave is shown in Bay 1; and also another showing a section through its different levels. Fig. 3 shows in diagrammatic form a combined section (by Miss D. Garrod) of the three caves at Wadi el-Maghara.

In this diagram ¹ all the periods from the Tayacian of the Lower rapidly, the visitor or student must be referred to the current periodicals for the latest opinions, see Bibliography at the end of this booklet.

At Bethlehem and Jisr Banat Ya'qub fossil remains of prehistoric animal, for example, elephant, have been excavated; at Jisr Banat Ya'qub these were associated with Lower Palaeolithic tools, including Acheulean hand-axes of basalt.

¹ Reproduced, by permission, from Miss D. Garrod's article in *Bulletin of the American School of Prehistoric Research*, 12, May 1936, pl. XV. The Upper Aurignacian in Palestine is sometimes called Atlitian, see Miss D. Garrod, *The Stone Age of Mount Carmel*, I, 1937, pp. viii and 113.

Palaeolithic down to historical times are shown in their relative positions, giving the most complete prehistoric sequence so far found in Palestine.

An important cave in *Jebel Kafzeh* (two kilometres south-east of Nazareth), excavated by R. Neuville, has so far yielded portions of seven fossil human skeletons, several being found in the lowest Levalloisian layers, and extremely primitive in type, though showing differences from the skeletons of Magharat et-Tabun.

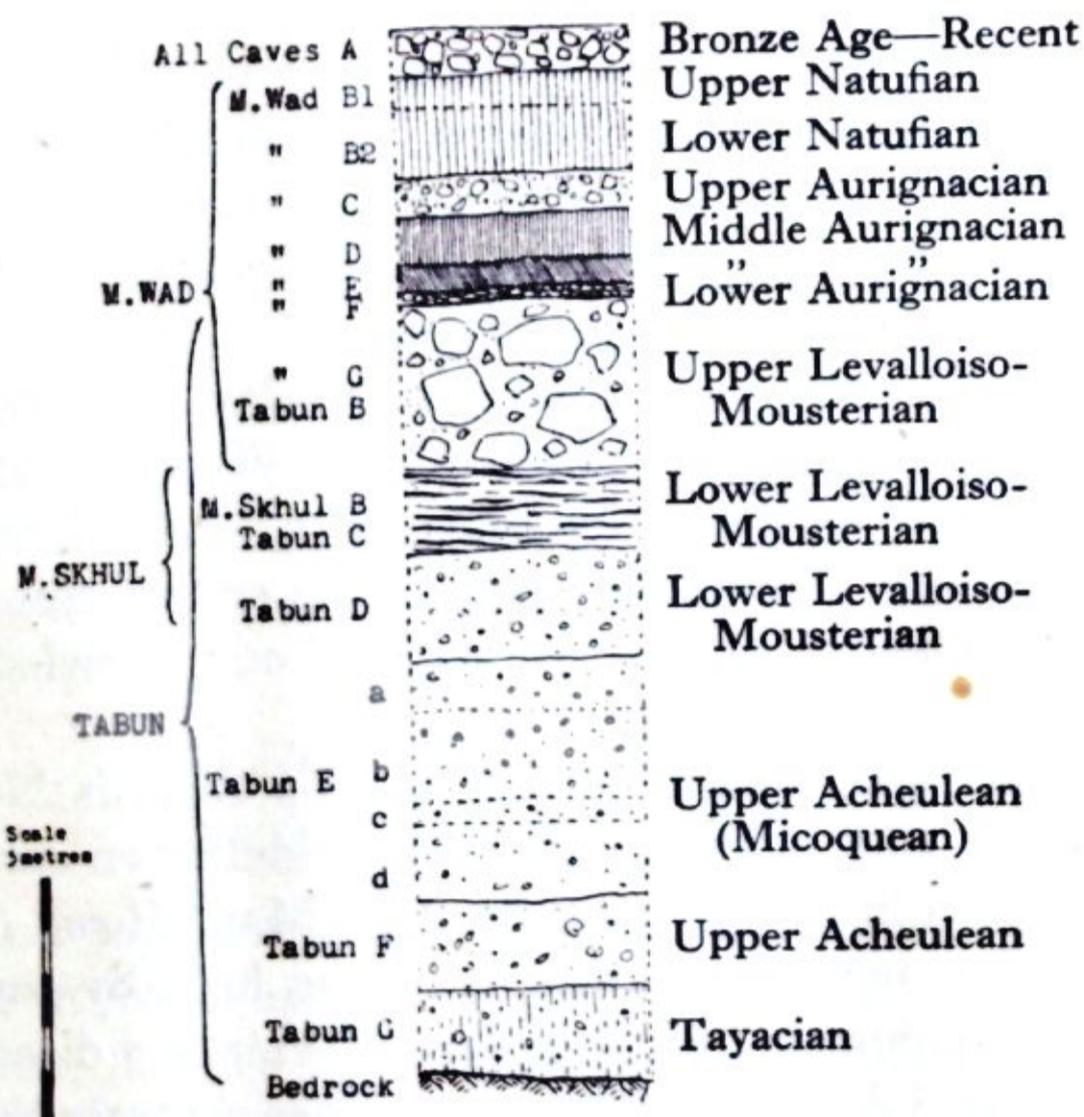


Fig. 3

Composite Section of the Layers in the Three Caves of Wadi el-Maghara

The cave of *Umm Qatafa*, in the Wadi Khareitun, south-east of Bethlehem, excavated also by R. Neuville, yielded a plentiful series of Acheulean and Mousterian levels.

Human Remains

In Europe the Mousterian industries are associated with an extinct species of man, *Homo Neanderthalensis*, or *Neanderthal Man*, differing markedly from Modern Man (*Homo Sapiens*) by his smaller stature, shuffling gait and heavy skull, strongly developed

**

brow ridges and chinless jaw. Recent discoveries at the Wadi el-Maghara have shown that the Mousterian man of Palestine, although related to Neanderthal man, differed from him in many important respects, and Sir Arthur Keith has proposed the name '*Palaeoanthropus Palestinensis*' for this newly discovered human type. The Galilee Skull, found in 1925 in the Mousterian layers of Magharat ez-Zuttiyeh (Case C, No. 33), should probably be referred to *Palaeoanthropus Palestinensis*, but as those portions of the skull which differentiate it from *Homo Neanderthalensis* are missing, it is impossible to be quite certain on this point. All the fossil human remains of the Lower Palaeolithic so far found in Palestine seem to be attributable to the flake industries of the Levalloisian or Mousterian. We do not know what sort of man it was who produced the core industries.

The preponderating view of scientists to-day, while admitting of very considerable variation on matters of detail, is at one in attributing to the human race a very long history, of gradual development and specialization. The books listed at the end of this guide will give the reader some idea of the state of our knowledge of this question.

Although the generally accepted opinion regards Neanderthal (and Palestine) Man as having become extinct at an early stage in the Upper Palaeolithic Age, and Modern Man (*Homo Sapiens*) as deriving from a separate branch, it is also held by some distinguished anthropologists that Neanderthal Man is a direct ancestor of Modern Man.¹ Apropos of this view it has recently been argued with cogency that in this fossil skeletal material from Palestine, in which Neanderthal and other more advanced characteristics are combined, we appear to have a glimpse of Modern Man in the making.²

However this may be, the existence in two nearby caves on Mount Carmel, Magharat es-Sukhul and Magharat et-Tabun, of fossil remains conforming to a general type, but exhibiting amongst

¹ Cf., for example, Aleš Hrdlička, 'The Neanderthal Phase of Man', *Journal of the Royal Anthropological Institute*, LVII, July-Dec. 1927 (the Huxley Memorial Lecture for 1927). Reprinted in *Smithsonian Report for 1928*, pp. 593-621 (publication 3002).

² Cf., for example, Summary of Sir Arthur Smith Woodward's Presidential Address to the Anthropological Section of the British Association, Norwich Meeting, 1935, in *Science Progress*, XXX, Jan. 1936, p. 514.



themselves such a wide diversity of characteristics, would seem sufficient evidence that human differentiation, or evolution, was there and then in progress (a skeleton from the former cave is exhibited in Bay 1). Mr. T. D. McCown, who excavated most of the fossil human remains in these caves, and Sir Arthur Keith write, 'Had the Mount Carmel people been discovered—not collectively, in one place, but separately, in diverse localities—each excavator would have been convinced that a new and separate form of humanity had been unearthed, so great does one Carmelite individual differ from another. . . . The Tabun type possesses many features which link it to the Neanderthal type of Europe while the extreme Sukhul type passes towards a Neanthropic form such as that found at Cromagnon. Between these extremes are intermediate forms.'¹ Yet they are all Levalloisian-Mousterian.

Much of the importance of the skeletal remains from Wadi Maghara lies in the fact that they are the largest group of fossil human remains from a single site in existence, and the provenance and association of each are exactly known.

B. THE UPPER PALAEOLITHIC PERIOD

(50,000(?) to 12,000 years ago)

Flake and core industries disappear during one of the glacial periods in Europe known as the 'Würmian'. The succeeding peoples seem to have shown a marked development and to have established themselves before the Mousterians finally disappeared. A decided change of technique is now visible: the broad flakes and triangular points of the Mousterian give place to narrow blades and to a great variety of scrapers and chisels made on blades or on small blocks of flint. In Western Europe this period is divided into three stages, the Aurignacian, Solutrean and Magdalenian, each marked by well-defined characteristics in the working of flint and bone. In Palestine, up to the present, only the Aurignacian appears to be represented, and there is a great scarcity of bone tools. In the Magharat el-Wad (Cave of the Valley), the largest cave of the Wadi el-Maghara group, three Aurignacian levels were found in stratigraphical position, resting on a deposit of Mousterian age.

¹ T. D. McCown and Sir Arthur Keith, *The Stone Age of Mount Carmel*, II, 1939, pp. 12 f.



The Upper Palaeolithic is everywhere associated with men of modern type (*Homo Sapiens*), but in Palestine, so far, skeletal remains of this period are scarce and very fragmentary. Two portions of skulls, not yet published, have been found by R. Neuville at Jebel Kafzeh. They are shown in Case E (Nos. 134, 135).

II. THE MESOLITHIC OR MIDDLE STONE AGE

(BAY I)

(About 10000–5000 B.C.)

The Mesolithic Age follows closely upon and is really a development of the Upper Palaeolithic. The first signs of advance towards civilization there discernible are continued, and its tempo increased. The improvements introduced during this age include:

- (a) The beginnings of agriculture;
- (b) The domestication of animals;
- (c) The possible use of textiles; or, at least, a large increase in the stitching of skin garments with bone pins and needles.

Man was ceasing to be a mere hunter, but he had not yet invented pottery. In Europe it is probable that the dog was first domesticated at this period; in Palestine the existence of quantities of flint sickle-blades and the bone hafts into which they were fitted is evidence that a primitive kind of agriculture was already practised, and numerous bone pins may indicate the use of textiles.

In Europe the industries of this age are the *Azilian* and *Tardenoisian*, but in Palestine these are absent, and their place is taken by a newly discovered culture of great interest, the *Natufian*, so named from the Wadi en-Natuf, near Shukba, a cave in the hills of west Judaea, where this stage was first identified. The characteristic flint implements of the Natufian culture are the sickle-blade, usually squared at both ends, and the microlithic lunate or crescent, which may have been used as an arrow-head, or set in wood as the barb of a harpoon (Nos. 170, 226, Case F). In addition there are a large number of bone objects, pins, fish-hooks, harpoons and pendants. The most striking feature of the Natufian, however, is its series of carvings in bone and stone. These include two complete or nearly complete sickle-blade hafts, with handles made in

the form of carved animal heads (No. 179); one complete carving of a young deer (No. 242), and two detached heads, probably broken from similar hafts (Nos. 178, 241); a small representation of a human head carved on a pebble of calcite (No. 235); and a remarkably fine statuette of a cervine animal, in limestone (No. 236). All these are shown in Case F.

The Natufian culture can be divided into four levels:

(a) *Lower Natufian*: Natufian I. All the known works of art come from this level.

(b) *Upper Natufian*: Natufian II.
Natufian III.
Natufian IV.

In Natufian III and IV arrow-heads appear for the first time. No contemporary pottery has yet been found in any Natufian level. The *Magharat el-Wad* contained an interesting Natufian I level, but this stage is best represented at the *Magharat el-Kabara* near Zichron Jacob. Natufian II is found in the cave of Shukba, which is the type station for this culture. Natufian III and IV are well represented.¹

To sum up: In the oldest stages of the Stone Age there is no marked difference between Palestine and other parts of the world. Certain special features begin to appear in the later stages of the Lower Palaeolithic and develop through the Upper Palaeolithic. In the Mesolithic we have an industry unknown in Europe, accompanied by a remarkable local development of prehistoric art.

¹ More recently the subdivision of Lower and Upper Natufian into four levels has been dropped by some prehistorians, see, for example, Miss D. Garrod, *The Stone Age of Mount Carmel*, I, 1937, pp. 113, 117.

THE NEOLITHIC-CHALCOLITHIC AGE

(BAY 2)

(5000(?)—3000 B.C.)

The invention of pottery-making has been one of the three or four most eventful and far-reaching contributions to human civilization. We have now reached the period when that step forward was taken, probably sometime during the fifth millennium B.C. Together with the origin of the village settlement, it is one of the principal milestones in the bird's-eye view of Palestinian pre-history which is here set before the visitor. This period, known as the Neolithic or New Stone Age, is one of the most significant in the whole history of mankind, because during it were laid the foundations on which all his subsequent development has been based.

After the close of the Mesolithic the only remaining improvement in the manufacture of stone tools was to polish them. Accordingly, we find that Neolithic Man did this, and thus exhausted the possible methods of adapting that intractable material to his use. This is the age of polished celts, or stone axes, a type of tool which can still be observed in common use amongst the less developed races of mankind to-day. A contemporary (modern) specimen of such a tool—an adze from New Guinea, in its original hafting as used—is shown in Case L, No. 362.

The Neolithic-Chalcolithic Age was evidently one of a fairly dense population, to judge from the thick layers of this period which have been excavated at various places, for example, in Jericho, Tuleilat Ghassul, Beth-Shan, Affuleh, but equally in Transjordan, in Crete (Knossos), northern Greece, and even in Spain.¹ By reckoning backwards on the basis of a rough comparison of the thickness of Neolithic layers with others of known date, it seems probably that about 2,000 years is a reasonable estimate of its duration, thus taking back the beginnings of sedentary life in Palestine to at least 5000 B.C. The population apparently lived at peace among themselves, a state of affairs which lasted until

¹ For this last cf. *Discovery*, Aug. 1936, p. 233.



towards 1800 B.C., when it was interrupted by events connected with the arrival of the Hyksos. During its later phases there seem to be noticeable various slight indications of a first tentative experimenting with bronze, or some cupriferous substance. Hence the reason why the name 'Chalcolithic' has been often applied to it. This term means that copper (or bronze) and stone were both in use together. No considerable use of bronze or copper in Palestine is proved until nearly 2000 B.C. In recognition of the widespread use of this name, we employ it here to denote the more developed stage of this pre-Bronze Age, 'Neolithic' period, immediately preceding the culture which all Palestinian archaeologists know as 'Early Bronze I'.¹ In pottery, for instance—here as ever our principal measure of chronology—we apply the term 'Neolithic' to a very rough, hand-made and poorly fired type of ware, whose clay was mixed with bits of straw and grass to make it hold together (Case J, Nos. 251 to 255, and No. 271); the term 'Chalcolithic Ware', on the other hand, indicates pottery often lumpy and coarse but containing numerous small grits of limestone or quartz to give it consistency, and usually better fired (Cases J, K, L, Nos. 272 to 383). On a close examination, it will be found that the latter type invariably represents a distinct advance upon the former. Thus we have Stages I and II in the development of pottery-making, both attained before man had commenced seriously to utilize metals.

In regard to the hesitation of some authorities to recognize a 'Neolithic' in Palestine it should be understood that the term is to be considered, in the existing state of our knowledge, as a stage or level in the development of civilization and not as an 'age' or 'period' with exact chronological limits. Thus it is quite possible that the inhabitants of Jericho, or the Wadi Ghazzeh, were living at the Neolithic level of culture, while in other places the influence of metal and the improvements associated with it had begun to

¹ Cf. Miss J. Crowfoot's note on the analysis of some fragments resembling copper from Jericho ('Jericho: City and Necropolis', Fifth report. *Annals of Archaeology and Anthropology*, XXII, p. 174: 'Several small chunks of a green substance resembling copper ore have not yet been analysed. They may indicate some use of metal. (Professor Bannister reported that the sample 'consists of malachite or green carbonate of copper. This sample is not the product of atmospheric attack on copper or bronze but is the naturally occurring mineral, as shown by its vitreous lustre, fracture and hardness, and is a basic carbonate of copper $\text{CuCO}_3\text{Cu}(\text{OH})_2$ '.) The find-spot was Room 208 below 6th floor level 1.50 m.').

appear, that is, the Chalcolithic stage had set in. This is a normal phenomenon readily observable in Palestine to-day. At the time of writing, this Neolithic culture has been recognized at only two sites in Palestine, Jericho and Wadi Ghazze. It would be premature as yet to attempt to differentiate chronologically between the Neolithic and the Chalcolithic culture, since they appear to overlap; further research may enable us to assign either to more exact chronological limits. The pertinent fact that emerges from the discussion is that, with the material before us and the close similarities between it and the Neolithic culture of the Fayum and the Delta, there seems no reason for refusing to call it by the same name. Its significance in terms of racial connections or the migration of peoples is beyond the scope of this Guide; although it seems probable that the ordinary contacts of exchange and commerce with Mesopotamia would account for the knowledge of metals possessed by the Chalcolithic people of Palestine, without any actual transfer of population.

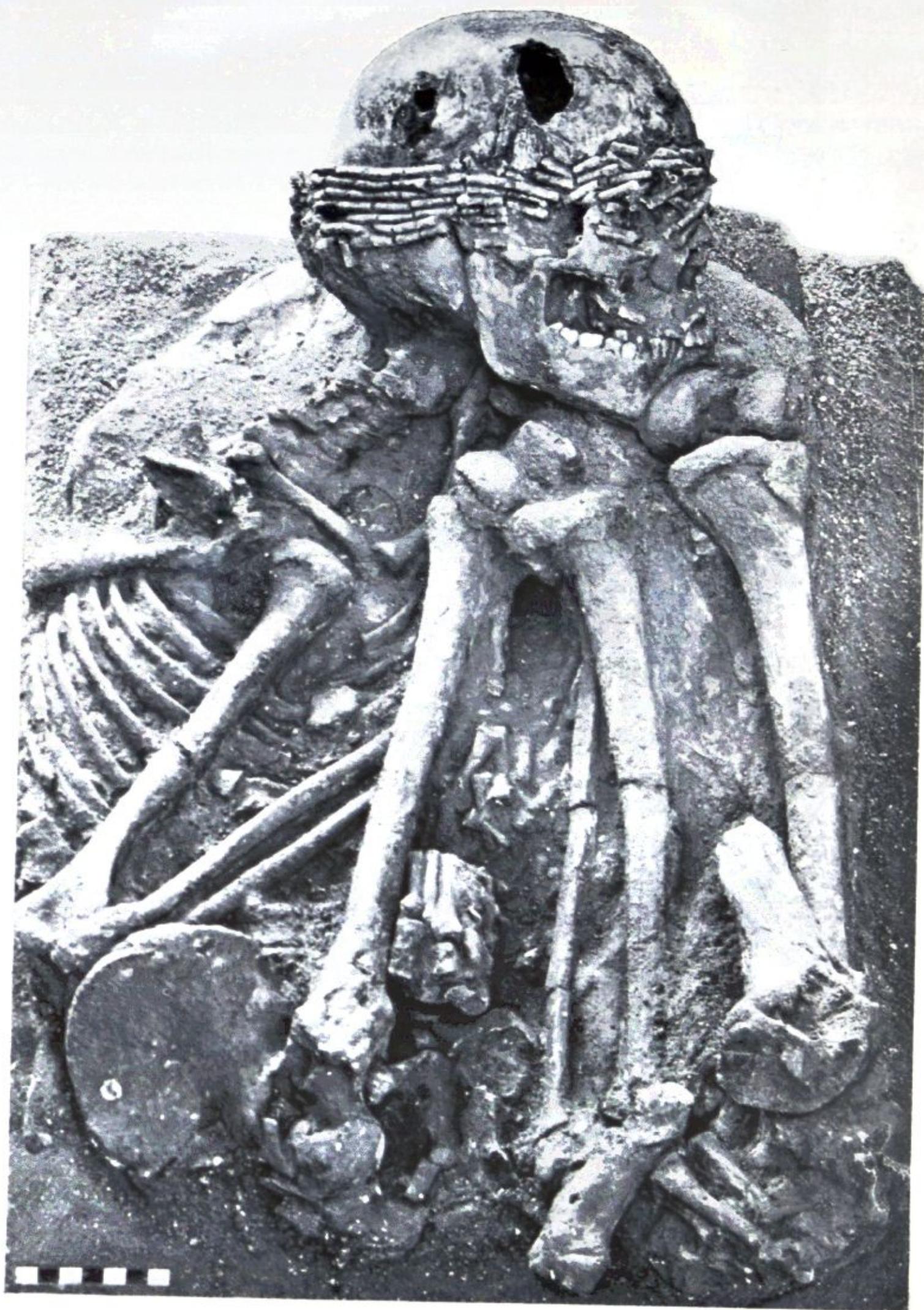
This epoch saw Man's earliest attempt to live in houses specially built by himself for that purpose, instead of caves in the hillside, which had been his principal habitation until now. In Case J is a fragment of a roofing material, just sun-dried clay pressed against a framework of reeds, such as can be seen in many houses in Jericho to-day. Quite recently, at Hedera in the Plain of Sharon, a burial ground of this period was partially excavated, and amongst other things was found an ossuary, or receptacle for the bones, quite clearly imitating the form of a house, having a pitched roof, and acroterion or gable decoration, a large doorway (apparently closed by a mat or curtain), three windows high up at the back, and painted decoration along the sides, the whole standing on four stout legs, as though to raise it above the wet or marshy ground. This model house (No. 307, Case K) gives us a very good conception of what a house was like in the fifth millennium B.C. in this region. Other fragments were found of the same general form, but differing in details; also a number of pots, some of which are shown alongside the model house in Case K (Nos. 300 to 305). Beside them is placed a pedestal vase or 'offering-table' of basalt from Tuleilat Ghassul, in the Jordan Valley, to show the similarity in shape.

Having thus briefly glanced at the long duration of the Neolithic-





*The Galilee Skull; from Magharat es-Zuttiyeh
(p. 5; CASE C)*



*Crouched Burial: Mesolithic, from Magharat el-Wad
(CASE H)*

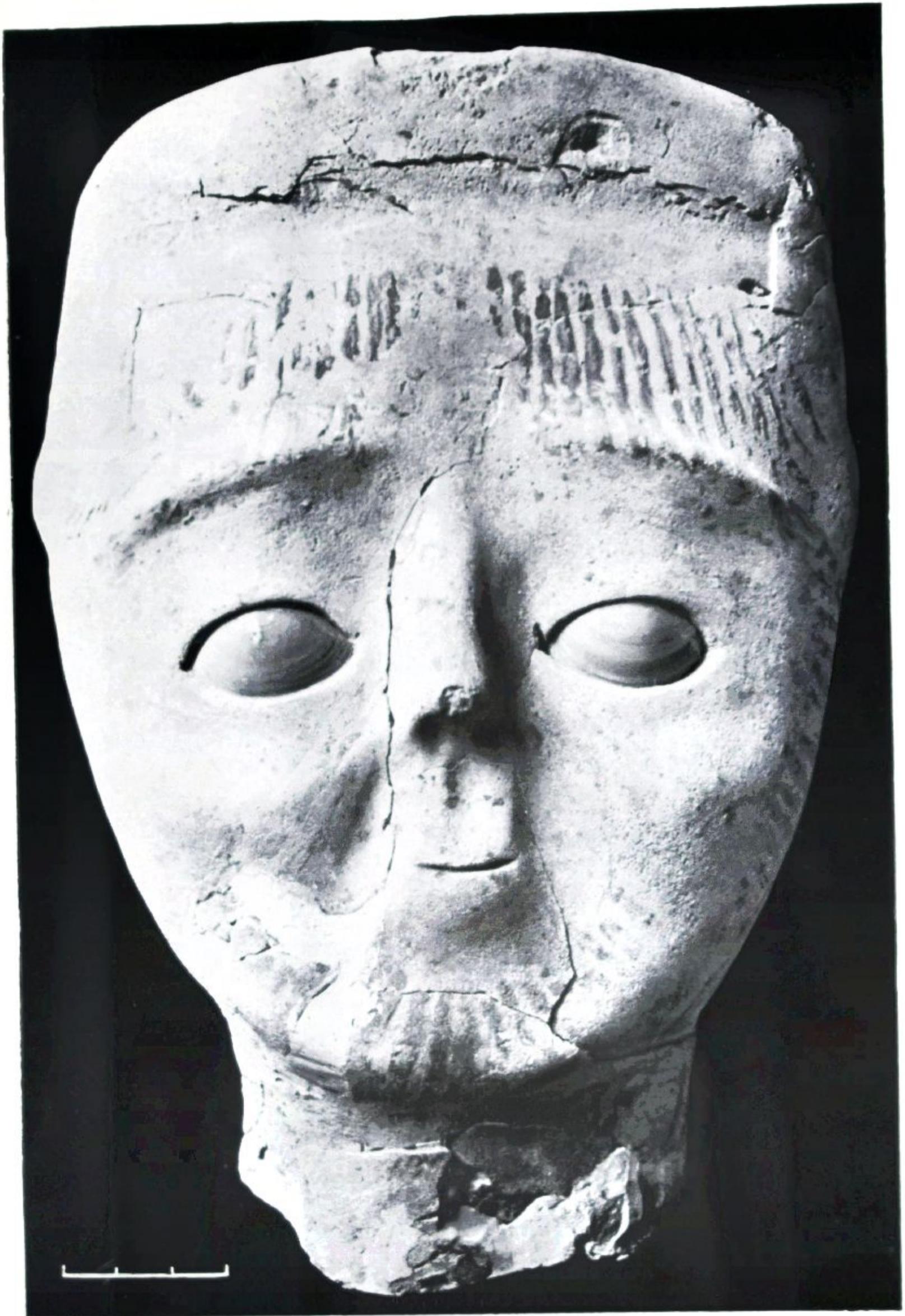


*Carved Bone Sickles: Mesolithic (Natufian), from M. el-Kabara
and M. el-Wad*

(pp. 16, 17; CASE F)



*Gazelle in Stone: Mesolithic, from Umm ez-Zuweitina
(P. 17; CASE F)*



*Head of Statue in Unbaked Clay; Neolithic, from Jericho
(CASE I)*



Ossuary in Form of House; Chalcolithic
(p. 20 ; CASE K)



Incense-Stand; Early Bronze Age, from Ai
(CASE O)

PLATE VIII

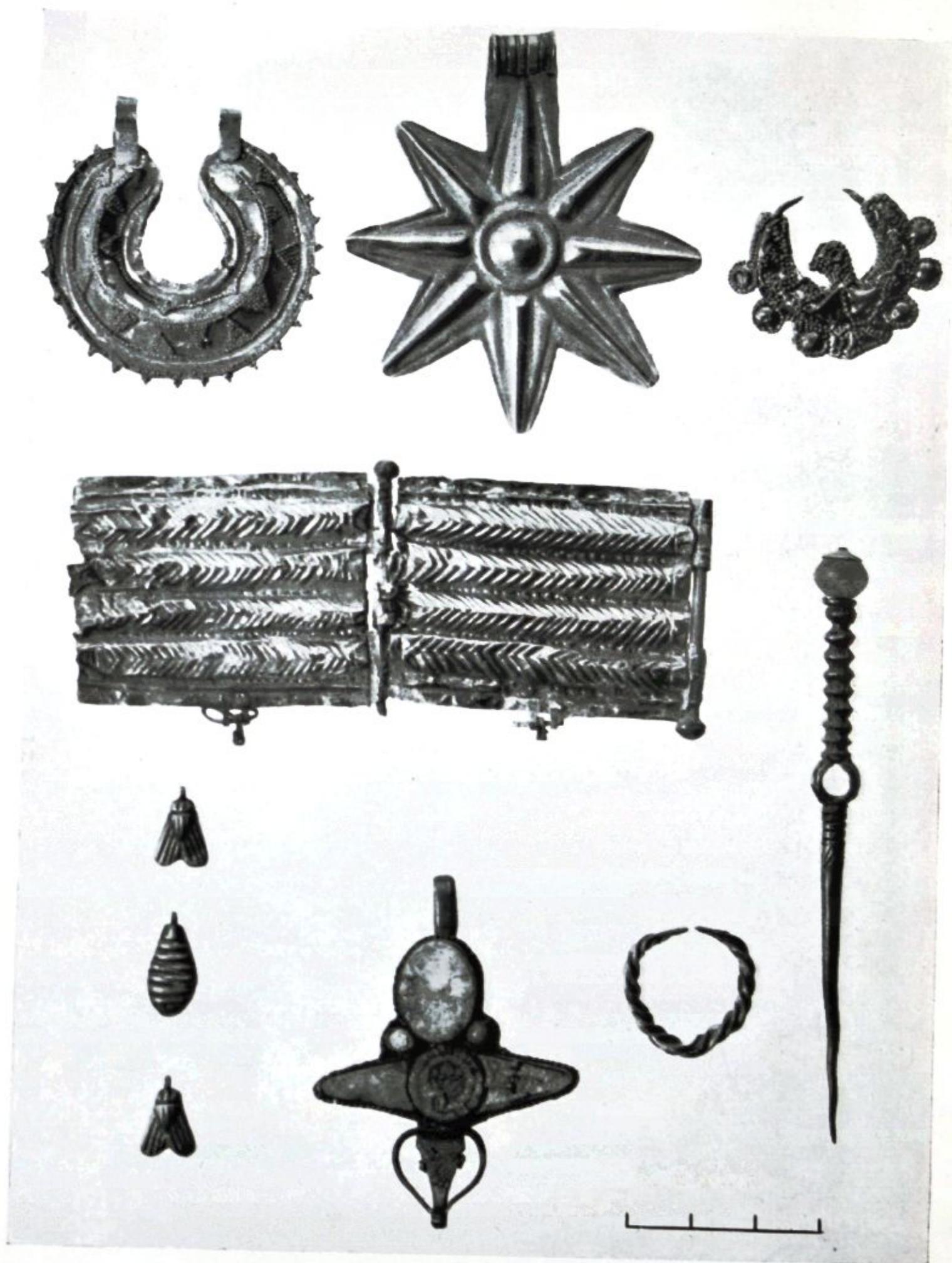


*Dagger Handle and Axe-Hammer; Early Bronze Age, from Ai
(CASE O)*



*Gaming Board, Playing Pieces and Die; Middle Bronze Age,
from Ain Shems and Tell Beit Mirsim
(CASE AA)*

PLATE X



*Gold Ornaments; Late Bronze Age, from Tell el-Ajjul
(CASE LL)*



*Daggers and Spears; Middle and Late Bronze Age, from
Megiddo, Ascalon, Tell el-Ajjul and Tell ed-Duweir
(CASES FF, DD and T)*

PLATE XII



Ivory Figurines; Late Bronze Age, from Tell ed-Duweir
(pp. 34, 35; CASE LL)



I



2

*Figurine and Human-headed Vase; Late Bronze Age,
1 from Gezer; 2 from Beth-Shan
(CASES HH and II)*

Chalcolithic period, and noticed one or two of its outstanding contributions to human civilization, we may now consider some of its different phases. Subsequent to the earliest (Neolithic) levels at Jericho, with their pottery mixed with straw, two principal (Chalcolithic) cultures have been distinguished; they are known as Tahunian and Ghassulian, after the Wadi Tahuneh, south-east of Bethlehem, and Tuleilat Ghassul, in the Jordan Valley north-east of the Dead Sea, where they were first identified. Though it has been thought that Tahunian preceded Ghassulian considerably, yet the inter-relation of these cultures is so close that the more probable view now seems to be that they were more or less contemporary; in any event, both had a very considerable duration. It should always be borne in mind that our knowledge of this period is comparatively recent, that is, since 1929-30, when the late Père Mallon began his excavations at Tuleilat Ghassul in the Jordan Valley on behalf of the Pontifical Biblical Institute.

Ghassul is to-day in a practically waterless region, just north-east of the Dead Sea. Since the Chalcolithic period, however, some 6,000 years ago, it is probable that the climate of this area has somewhat deteriorated. The only close resemblances to this culture known come from the Delta of the Nile, where a flourishing Neolithic-Chalcolithic civilization, of the Predynastic age, or approximately the fourth millennium B.C., has been known for some time.

The visitor who wishes to go further into the subject will consult the various works of Sir Flinders Petrie and others on the Badarian, Tasian, Amratian and other phases of this culture. A useful summary is given in Childe, *New Light on the Most Ancient East* (London, 1934).

We may therefore conclude that Palestine was, during the fifth and fourth millennia B.C., united in a single culture province with the Delta of Egypt. The type of culture is what is known as an irrigation culture: towns built in alluvial plains; rectangular houses built of reeds plastered with mud, standing on some kind of firm supports, and with pitched roofs; polychrome frescoes as wall-decoration, with animal and geometrical designs, of a strange character (for example, the 'star' fresco from Tuleilat Ghassul, now in the Palestine Archaeological Museum, not on show); and pottery of comparatively good quality, sometimes showing the use



of the (slow) wheel. Agriculture had reached a developed stage, and the dead were buried sometimes in ossuaries, sometimes in a 'crouched' position, with the knees bent up under the chin (as, for example, Case K, No. 311, from Jericho).

Of the race or origin of these Chalcolithic people we know nothing. The culture covers a region extending from at least Hedera in the Plain of Sharon down to the Wadi Ghazze on the western seaboard, and from Galilee down to Tuleilat Ghassul and across to the Judaeian wilderness south-east of Bethlehem in the Central Range-Jordan Valley area.

Our knowledge of the Tahunian culture is more sketchy. With the possible exception of the low levels at Jericho, it has only been found in surface sites and open-air stations. The association of pottery with it is not yet quite certain. Its flint tools differ radically from the Ghassulian ones.¹

After the Ghassulian phase we can next discover a continuation of the Chalcolithic civilization in the lowest levels of the city mound of Beth-Shan and at Affuleh. The pottery from these sites has several similarities to Ghassulian, for instance, the raised thumb-impressed bands, but differs in its forms. Rounded bricks of sun-dried mud (Beth-Shan) and plano-convex baked bricks (Affuleh) are also common to both cultures. Specimens of the latter are shown in Case L (Nos. 380, 381). In the lowest but one level at Beth-Shan the dark grey burnished ware is first found; this ware is characteristic of the end of the Chalcolithic Age and the beginning of Early Bronze, that is, round about 3000 B.C. It occurs also at Megiddo and Affuleh. The same level also yields the first ledge handles, a type of handle which continues all through the Early Bronze Age, being very frequent indeed. Apsidal houses also make their appearance at this period.

¹ See further, R. Neuville, *Revue Biblique*, 1934, pp. 255 ff.



THE BRONZE AGE (BAYS 3-6)

(3000-1200 B.C.)

NOTE ON NOMENCLATURE

It has been customary to divide the Bronze Age into three parts, Early, Middle and Late, a division which since 1922 has been recognized by mutual agreement between the various archaeological societies operating in Palestine. There is probably a certain symmetry achieved by this; but the visitor should not regard these divisions as being hard and fast, or interpret them too strictly; rather they are merely useful mental props, or pigeon-holes, enabling one to place things in order, in the absence very often of fixed dates. These accepted—if artificial—divisions are:

Early Bronze Age: 3000-2000 B.C.

Middle Bronze Age: 2000-1600 B.C.

Late Bronze Age: 1600-1200 B.C.

For greater accuracy these three periods have been again subdivided, Early Bronze into three (or four), and Middle and Late Bronze each into two approximately equal parts. The non-specialist, however, will hardly need to remember these. For those interested, they are given, with the proviso that the divisions of Early Bronze are somewhat vague:

<i>Contemporary Events</i>	<i>Period</i>												
Pyramid Age	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Early Bronze I</td> <td>3000-2600 B.C.</td> </tr> <tr> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Early Bronze II</td> <td>2600-2300 B.C.</td> </tr> <tr> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Early Bronze III</td> <td>2300-2000 B.C.</td> </tr> </table>	}	{	Early Bronze I	3000-2600 B.C.	}	{	Early Bronze II	2600-2300 B.C.	}	{	Early Bronze III	2300-2000 B.C.
}		{	Early Bronze I	3000-2600 B.C.									
}		{	Early Bronze II	2600-2300 B.C.									
}	{	Early Bronze III	2300-2000 B.C.										
Early Dynasties of Ur													
Age of Abraham and Hammurabi	Middle Bronze I 2000-1800 B.C.												
Hyksos Age	Middle Bronze II 1800-1600 B.C.												
Egyptian Empire over Palestine and Syria	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Late Bronze I</td> <td>1600-1400 B.C.</td> </tr> <tr> <td style="font-size: 3em; vertical-align: middle;">}</td> <td style="font-size: 3em; vertical-align: middle;">{</td> <td>Late Bronze II</td> <td>1400-1200 B.C.</td> </tr> </table>	}	{	Late Bronze I	1600-1400 B.C.	}	{	Late Bronze II	1400-1200 B.C.				
}		{	Late Bronze I	1600-1400 B.C.									
}	{	Late Bronze II	1400-1200 B.C.										



So much for the current scheme.

As a result, however, of the past quarter of a century of exploration and excavation in this country and Syria, it has become possible to form a conception of the civilization and dominating characteristics of each period which is in several respects much clearer and better grounded than was possible in 1922. Foremost among the larger questions on which the views of authorities have been modified or expanded are two whose scope may be briefly resumed thus:

(a) The basic homogeneity and unity in culture of the third millennium B.C. (= Early Bronze Age); the sharp distinction between it and the succeeding period; its virtually complete lack of copper or bronze tools and weapons so far discovered, and its consequent use of flint for this purpose.

(b) The close continuity of culture during most of the second millennium B.C. down to about 1200 B.C. (= Middle and Late Bronze Ages), in particular during the 17th and 16th centuries, which include the traditional division between Middle and Late Bronze; the striking and complete change from the preceding Early Bronze culture at the beginning of Middle Bronze.

In other words, there is one critical division in culture recognizable during the Bronze Age, that is, between the third and second millennia approximately. An inspection of the Bronze Age Gallery is sufficient to confirm this. While, therefore, it has seemed inadvisable—at least at present—to depart from the accepted terminology, which has the convenience of being applicable also to the prehistoric chronology of the Aegean region, the above consideration will ensure that it is not interpreted more strictly than it merits.¹

The term *Bronze Age* does not imply that other metals were not known, or even in use: thus, gold, silver, lead were certainly known and used from the beginning of the Middle Bronze Age onwards, and to some extent before that, for example, at Megiddo and Kh. el-Karak. It means that, in distinction to all previous periods, when stone and flint had been the chief material for tools

¹ A full discussion of the whole period, together with the Neolithic-Chalcolithic, will be found in Albright, 'Palestine in the Earliest Historical Period', published in the *Journal of the Palestine Oriental Society*, XV, 1935, pp. 193 ff.



and weapons, copper or bronze now become the principal material for such implements. As already explained, this does not at present seem to be strictly true in the Early Bronze Age, at least in Palestine; yet the presence here of the various improvements usually associated with the advent of the 'Bronze Age', for example, the quality of pottery, or the development of architecture, as well as close relations with the neighbouring bronze-using empires of Egypt and Sumer (Mesopotamia), make the description 'Bronze Age' perhaps not unreasonable. It should be remembered, however, that flint and stone appear still to have been, in Palestine, the principal materials for tools and weapons during most of the Early Bronze Age. Objects of bronze and other metals existed, but remained comparatively rare and costly, even down to the Middle Bronze Age. This is only to be expected at the beginning of a new culture. Iron was indeed known during the Bronze Age, mainly, if not wholly, of meteoric origin, but was too rare to be used for the purposes above-mentioned. Although many of the first 'bronze' weapons are found, on analysis, to consist of natural copper, without any artificial admixture of tin or other substance, yet this hardly warrants the use of a special term 'Copper Age', as some archaeologists have done. It was only to be expected that the metal would be first employed as found, the improvements due to alloying being a somewhat later discovery, made in the course of use. The established term 'Bronze Age' refers to all the aspects of the civilization, not merely to the details of the composition of its weapons, although this latter is naturally an item of considerable interest.

I. EARLY BRONZE AGE (BAY 3)

(3000-2000 B.C.)

The principal sites from which our knowledge of the Early Bronze Age in Palestine is derived are:

Beth-Shan

Megiddo

Ai (Et-Tell)

Jericho

Tell ed-Duweir

Tell el-Ajjul



- Tell en-Nasbeh
- Ophel
- Gezer
- Tell Beit Mirsim
- Kh. el-Karak

All these have been in part excavated, and material from all of them is shown in the cases.

A general view of the period reveals a comparatively rich and prosperous civilization during E.B. I and II, in close contact with Egypt commercially and perhaps politically. This contact is best exemplified at Byblos (Jebail) on the Syrian coast north of Beirut, where excavations have produced a rich material of Egyptian type. The bronze or copper axe (No. 507) in Case P is another important illustration of this connection. Probably the towns in the coastal plain were more affected by the Egyptian contact than those in the hill country, but nevertheless a very considerable degree of Egyptian influence is revealed, for example, at Ai (Et-Tell), near Ramallah, where the late Mme. Krause-Marquet discovered the Canaanite sanctuary containing the Egyptian alabaster vessels of the second and third dynasties and other objects shown in Case O. A seal of the first dynasty found in the Plain of Sharon is in the Clarke Collection of Antiquities at the Y.M.C.A., Jerusalem. Mesopotamian influence also permeated the country: an illustration is provided by the impression on jars of cylinder seals of well-known Mesopotamian type (Jemdet Nasr), which can be dated to the beginning of the Early Bronze period (Case P: Nos. 490, 491 from Megiddo). Architecture of no mean quality was practised: the most nearly complete building of the period is the palace at Ai, shown in a photograph in Bay 3. In this can be clearly seen the rectangular rock-cut bases for the (wooden?) columns which supported the upper storey(?) or roof, and the stout, well-preserved masonry of the long wall. A most remarkable stone foundation of a considerable building has lately (in 1945-6) been found in the course of excavations by the Jewish Palestine Exploration Society at Kh. el-Karak. The high quality of the pottery during this period—seen especially in the burnished black and red 'Khirbat Karak' ware of E.B. II (Cases P and R)—is an indication of the prosperity then enjoyed. This prosperity is probably an extension or reflection of the great wealth, commercial activity and building

enterprise of the Pyramid Age in Egypt and the powerful dynasties of Sargon and Naram-Sin in Accad (northern Mesopotamia).

In E.B. III a decline in civilization gradually set in. This seems to have been due to a great influx of nomadic tribes which overran all Mesopotamia during this period, and even reached Egypt. These rude nomadic peoples lowered the level of civilization for some centuries; they also appear to have started a new era of occupation in the hill country of Transjordan. It was possibly during the later stages of this movement of peoples that the Hebrew Patriarchs entered Palestine. The whole sequence of events is similar to what occurred half a millennium later, when the Hebrews came into Palestine; such incidents have characterized the history of the country at every period.

The civilization of this Early Bronze Age is what we mean by Canaanite. The Middle and Late Bronze Ages, also technically Canaanite, are much more cosmopolitan and permeated by influences from Egypt, Syria, Cyprus and the Aegean. Only recent excavations, particularly at Beth-Shan, Ai, Megiddo and Kh. el-Karak, have provided evidence for a rough chronological framework, and contributed greatly to our knowledge of the culture. From the selected material now shown here, a bird's-eye view of the interesting civilization achieved by these 'native', aboriginal¹ inhabitants of Canaan may be obtained. A whole poetical literature, written in cuneiform on clay tablets, has been found at Ras Shamra (the ancient Ugarit), on the Syrian coast just north of Latakia, by C. F.-A. Schaeffer. These poems reflect in considerable detail the civilization of this first Canaanite or Early Bronze Age, during which they probably first took form. They are as important for our knowledge of the time as the Homeric poems for that of the heroic period in Greece.

¹ Some authorities think that the use of metals was due to a wave of immigration which brought the 'Semitic peoples', including the Canaanites, into Palestine. For the present purpose these supposed immigrating peoples may be regarded as aboriginal, since we cannot pretend to trace racial affiliations back into the Stone Age. In a similar way the Welsh may be called the aboriginal inhabitants of England.



II. MIDDLE BRONZE AGE (BAY 4) (2000-1600 B.C.)

The Middle Bronze Age falls into two distinct parts: the first, during which the depopulation and decline in prosperity which had set in towards the end of the Early Bronze Age continued; the second, which saw a rapid reversal of conditions, involving the entry of a new race, the Hyksos, probably from the north or north-west, and the development under this feudal aristocracy, controlling a wide empire, of a high level of artistic production and commercial prosperity.

It will thus be seen that the end of the Early Bronze Age does not coincide accurately with the division of cultures; the declining civilization of Early Bronze III continues for about a century, affecting that of Middle Bronze I. For example, the flat-bottomed jars and ledge handles of the envelope form are still found, in their very last phase, along with new characteristics, for example, comb-markings. This period of transition from Early to Middle Bronze is so definite that a group of 'Early to Middle Bronze (E.-M.B.)' has been placed at the introduction to Middle Bronze (Case T). During the 19th century the tide turned, beginning in Syria, and spreading to Palestine. This rising wave was to lead up to the heights of Hyksos and Late Bronze Age civilization.

The first signs of the revival are seen in a fine, wheel-made type of pottery, with sharp angles ('carinated') reminding one of metal shapes. Bowls, cups and jars are found, generally covered with a rich glossy red coating or 'slip', the glossiness being due to polishing with a pebble, shell or similar instrument, a process usually known as 'burnishing'. Pottery of this kind has been found, for example, at Tell Beit Mirsim, Jericho, Megiddo and, most richly of all, Ras el 'Ain, near Lydda, in the course of excavation for the Jerusalem water supply. The beauty of the shapes and red burnished slip are seen best in Case W from Ras el 'Ain. This new style of pottery marks the climax of Middle Bronze I.

Shortly before the invasion of the Hyksos, or at least before they had commenced the construction of their typical fortifications and earth 'glacis' or ramparts, the more developed forms of this beautiful metallic pottery seem to have set in. The new develop-

ments include such characteristic and common shapes as the trim goblet with its easily recognized trumpet foot and flaring mouth, seen, for example, in Case X (Nos. 715-717, 719-721), and the extremely sharp-angled dishes of the same ware in Case X (Nos. 698, 710-711, 714, from Beth-Shan). These forms can be easily recognized by anyone. They are among the most attractive and beautiful pottery vessels ever made, in Palestine or elsewhere. They usher in the Middle Bronze II Age proper, the age of the Hyksos.

An event which may have taken place about this time is the foundation of Hebron. A Hebrew tradition (Numbers, xiii, 22) says that Hebron was built seven years before the Hyksos capital of Tanis (otherwise Avaris or Zoan) in the Nile Delta. The foundation of Tanis by the Hyksos is probably to be dated shortly before 1720 B.C.; so that, if the tradition were correct, we should have a date round about 1730 B.C. for the foundation of Hebron. Other evidence also points to a date not far from this for the event.

The Hyksos were a people of uncertain origin, perhaps non-Semitic. Several features in their culture, however, for example, their pottery, their fortifications with sloping glacis, and the use of hearths in their houses, seem to favour a northern origin, perhaps Anatolia or the highlands east of it. They had an important share in bringing the horse into Western Asia and Egypt. They fought with bows and fast chariots drawn by horses. Their domination in Palestine-Syria lasted longer than in Egypt. In the latter area their control probably dated from the latter part of the 18th century B.C. It lasted in Palestine-Syria until 1468-7 B.C., when Thothmes III finally defeated the Hyksos at Megiddo.

The civilization and culture which rose to its height during the Hyksos' régime is, so far, best represented in Palestine by the excavations at Tell Ajjul, Tell Beit Mirsim, Jericho, Megiddo and Jerisheh near Tel Aviv. It would seem that the Hyksos were not themselves the originators of this culture, but were rather the feudal aristocracy who provided it with a favourable environment wherein to develop. The culture itself remains Canaanite. At Tell Ajjul especially were found many splendid examples of building and smaller works of art, which include, besides the pottery above referred to, scarabs and seal-cylinders, gold and silver jewellery, faience, ivory and bone carving, and bronze weapons, often richly inlaid. Specimens of these will be seen, for example, in Cases DD

and LL. The standard of work was high, and not merely luxurious or over ornate, as happens when taste declines in the latter part of the Late Bronze Age. The civilization of Palestine under the Hyksos reached a level of sustained excellence rarely paralleled there since. An indication of the wealth of the country at the time is contained in the lists of the spoil captured at Megiddo and the three cities of the Southern Lebanon (Yenoam, Nuges and Herenkeru), near the seaward bend of the Litany river, by Thothmes III, when he eventually overthrew the Hyksos régime (Breasted, *Anc. Records*, II, p. 187). These lists, which are inscribed on the walls of his temple at Karnak, include the following:

FROM MEGIDDO

2,041 mares, 191 foals, 6 stallions, a chariot, wrought with gold, its pole of gold, . . . a beautiful chariot wrought with gold, . . . 892 chariots, . . . a beautiful (suit) of bronze armour, . . . 200 suits of armour, . . . 502 bows, 7 poles of (?) wood, wrought with silver, belonging to the tent of that foe . . . 1,929 large cattle, 2,000 small cattle, 20,500 white small cattle.

FROM YENOAM, etc.

1,796 male and female slaves with their children, non-combatants, . . . 103 men, . . . flat dishes of costly stone and gold, various vessels, . . . a large (two-handled) vase of the work of Kharu, . . . vases, flat dishes, various drinking vessels, 3 large kettles, 87 (?) knives, . . . *Gold in rings found in the hands of the artificers*,¹ and silver in many rings . . . a silver statue in beaten work . . . the head of gold, the staff with human faces; 6 chairs . . . of ivory, ebony and carob wood, wrought with gold; 6 foot stools . . . 6 large tables of ivory and carob wood, a staff of carob wood, wrought with gold and all costly stones in the fashion of a sceptre . . . all of it wrought with gold; a statue of that foe, of ebony wrought with gold, the head of which . . . with lapis lazuli; vessels of bronze, much clothing.

With the expulsion of the Hyksos Palestine is incorporated within the Egyptian Empire, to remain so for about 400 years. But before this the Middle Bronze has come to an end (1600 B.C.) and the Late Bronze Age begun.

¹ Cf. the gold and silver scrap from Tell Ajjul, in Case LL, Nos. 1121, 1138, 1140, etc. (Late Bronze). This includes rings and bracelets ready for melting down, to be re-cast. Similar scrap was found at Ras Shamra (Syria).

III. THE LATE BRONZE AGE (BAYS 5 AND 6) (1600-1200 B.C.)

The Late Bronze Age is also for convenience divided into two,¹ at 1400 B.C., thus:

Late Bronze I: 1600-1400 B.C.

Late Bronze II: 1400-1200 B.C.

For the first 100 or 120 years the Hyksos were the dominant power in the land, and successfully challenged the authority of Egypt, until Thothmes III, as we have seen, finally crushed them at the battle of Megiddo. Thereby he re-established Egyptian control over Palestine and most of Syria; but, although the country remained nominally part of the Egyptian dominions until about the end of the 12th century, Thothmes' successors allowed their hold to relax on the open country (particularly the hills) and all but the principal towns. This laxity encouraged the restless groups of confederate tribes, usually known as the 'Habiru', from across the Jordan to constantly increasing activities in Palestine from about 1400 B.C. onwards. They crossed the Jordan and captured and sacked Jericho, perhaps soon after 1400 (or, in the opinion of some students, about a century later), but do not appear to have occupied it seriously themselves. Gradually they penetrated amongst the hill country, and gave rise to a condition of insecurity vividly reflected in the 'Amarna Letters', the correspondence from Canaanite princes, written in Babylonian cuneiform characters on clay tablets, which has been found in the records office of the King Akhenaten at el Amarna in Egypt. These letters mostly beg the king to send them help against the invading 'Habiru', who kept coming in successive waves, plundering the land and detaching officials and troops from their allegiance to Egypt. Their raids from beyond Jordan are mentioned on one of the stelai erected by Seti I at Beth-Shan in 1313 B.C. (South Octagon, No. 1). Towards the end of the 13th century they were already established in the country, since Merneptah on a stela in Cairo referring to a campaign into Palestine in 1222 B.C. says, 'Plundered is the Canaan, carried off is Ascalon, seized upon is Gezer, Yenoam is

¹ Cf. p. 23.



made a thing not existing, Israel is desolated and his seed is no more'. At the same time this inscription shows that Israel was only one of a number of communities settled in the country, for other cities and places like Gezer, Ascalon and Yenoam have a separate and independent existence. The Israelites would appear to have gradually penetrated into the hill country of Ephraim, from the north and east, occupying Bethel soon after 1300, and thereafter spreading slowly down towards the coastal area. We have much evidence of Rameses III at Beth-Shan, his name on the ivories from Megiddo, a cartouche of Seti II at Tell Far'a, and a rich late Ramesside material at Tell ed-Duweir. That King Rameses VI (1162-1159 B.C.) was in possession of Megiddo is indicated by a bronze statue base inscribed with his name (*Palestine Archaeological Museum, Inventory No. 36.1993*) found there in 1934. Archaeological evidence is accumulating in support of the view that the conquest was a slow infiltration spread over a long period, probably ebbing and flowing at different times, and that the Israelites did not 'possess the land' in any real sense until the time of David himself, about 1000 B.C. This is in accordance with the Old Testament narrative, which tells us that the Israelites left many large cities unconquered, and that, for example, Gezer only passed into their hands during the reign of Solomon, as a dowry which he received with his wife, a daughter of Pharaoh. It is but natural that Egypt had to retain her hold on cities like Lachish, Gezer, Megiddo and Beth-Shan, because they lay on the route of her armies to Syria, and secured her communications. This is why the excavations reveal a strong and enduring Egyptian influence in these cities and fortresses, even when it had ceased to be effective throughout the rest of the country.

Such is, in bare outline, the political history of this period.

Culturally and commercially, the age was one of cosmopolitanism and the unfettered interplay of styles and influences. Palestine and Syria enjoyed to the full their position as the commercial focus of the Near East, the 'Piccadilly Circus' of the Levant. At first the influence of Cyprus was predominant; many thousands of pots made in Cyprus were imported into Palestine-Syria, of which examples are shown in Cases FF and MM. Native potters also copied these foreign products and painted their vases in the new manner; thus a secondary imitative style grew up,

sometimes not easily distinguishable from the true Cypriote originals. Some examples of either class are shown in the cases. Thus, Nos. 1009, 1011, 1013, 1015, 1017, 1042, 1393-1395, 1401, 1406 and 1482 (Cases FF, HH, MM and PP) are actual imports from Cyprus; Nos. 1104, 1391 and 1486 (Cases II, MM and PP) are affected by Cypriote influence.

Perhaps the most typical Cypriote forms are the dark, hard-baked 'base-ring ware' vessels which ring when tapped, and the bowls and jugs covered with a white 'slip' or wash and painted with ladder patterns in black. The pilgrim flask arose also independently in Syria and Palestine; it is not possible to distinguish the foreign and native elements in its make-up.

From about 1400 B.C. the influence of Cyprus is subordinate to that of the Mycenaean civilization of the Aegean. Earlier, in the Middle Bronze Age, sporadic Cretan silver vessels had reached Byblos, and Cretan pottery the Orontes valley. From now on, Mycenaean imports are predominant. Cyprus itself, now largely Mycenaean in culture, is still in large measure the medium through which these Aegean objects reached the Syrian mainland, via the port of Ugarit, now known as Minet el Beida, or Ras Shamra, a site on the coast just north of Latakia and opposite Cyprus. This site has been now for some years excavated by the Louvre, under C. F.-A. Schaeffer, and has proved to be a meeting place of all the civilizations of the Levant, one of the chief entrepôts for goods, and clearly among the most considerable entries for Western products into Syria. Another principal route for commerce between the Aegean and Syria was the Orontes Valley, as Sir Leonard Woolley's excavations have recently shown.

Mycenaean culture, driven from its home on the mainland of Greece, and passing by way of Crete, established itself in Cyprus. Although it is difficult, if not impossible, at present to distinguish whether a given Mycenaean vessel is a product of Crete or Cyprus or even of Syria itself, yet the probability seems to be that the majority of these Mycenaean vessels which are found in Syria and Palestine originated in Cyprus. Like the imports of purely Cypriote style, they also were imitated locally in Palestine and Syria, apparently both in the typical fine ware with glossy paint and in a ware with a matt surface and a non-lustrous paint, cf. Nos. 1102, 1106, 1118 (Case II) and No. 1057 (Case HH). While the

matt ware imitations were certainly produced in Syria, it is not yet possible to identify with certainty the source of any particular specimen of the lustrous type.

Among the commonest designs on vases of the period are palm-trees, fishes, leaping animals and birds; human figures very rarely occur (two from Beth-Shan are shown in Case FF, No. 1000). The beginning of the period is continuous with the late Hyksos civilization of Middle Bronze. This is exemplified, for example, in the gold and silver jewellery and ornaments, and in a group of polychrome pottery, whose brilliant red is particularly noticeable, which favours St. Andrew's crosses, birds and fishes in panels, and a 'Union Jack' motif (see Cases EE, FF and GG).¹ The connection of this pottery in particular with the latest stages of Middle Bronze is so marked that a special class, of Middle to Late Bronze (M.-L.B.) has been arranged for it. The rarity of the human figure makes the two sherds from Beth-Shan (No. 1000, Case FF) of unusual interest; their resemblance to the features of the figures on the Warrior Vase from Mycenae has been remarked on.

A selection of scarabs of the period is shown in Case MM. The different styles and designs on the face can be seen in the mirror; the heavy mounts, of gold, silver or bronze, are for the finger or for suspension from, for example, a necklace, as well as to afford a convenient grasp for exerting pressure when using the scarab for sealing. Large scarabs, such as those exhibited in Cases MM and NN, were issued for special occasions. Thus, Amenophis III had an issue of these to commemorate his marriage (No. 1430, Case MM, is a specimen); another series was issued by him in celebration of his slaying of one hundred and two lions (Case NN, No. 1457).

At Tell ed-Duweir (probably Lachish) a small temple of the latter part of this period (15th-14th century B.C.) was excavated in 1935-6. It had been built across the disused Hyksos fosse, and was reconstructed twice, the place being somewhat altered each time. Along with much typical pottery of the period, which affords very useful material for dating in the second part of the Late Bronze Age, it yielded the group of small ivory figurines shown in Case

¹ For this class cf. W. A. Heurtley, 'A Palestinian Vase-Painter of the Sixteenth Century B.C.', in *Quarterly of the Department of Antiquities*, VIII, pp. 21 ff.

LL, the ivory bottle in the form of a standing woman (Case NN, No. 1468) and the important vase with a painted inscription on the shoulder in an early form of alphabetic script, intermediate between Egyptian hieroglyphs and early Hebrew (Case NN, No. 1470). A second vase as well as a pyxis lid, bearing similar characters, has also been found at Tell ed-Duweir (to be shown in the Inscription Gallery). These three inscriptions, which are dated to the 13th century B.C., along with a fourth found at Ain Shems (Beth Shemesh; *Museum Catalogue, No. I., 8664*), a fifth from Gezer now in the possession of the American School of Oriental Research, a sixth from Tell ed-Duweir, found on a 17th-century dagger after cleaning (No. 903, Case DD) and a seventh on a small relief from Shechem (*Palestine Archaeological Museum, Inventory No. 38. 1201*), help to confirm the view suggested by the sarcophagus of Ahiram and other finds, that the origin of the alphabet is much older than was previously thought.

Among the most important historical monuments of this period are the monumental hieroglyphic inscriptions excavated at Beth-Shan between 1923 and 1930. They are on view in the South Octagon and adjoining cloisters, together with the striking basalt panel, of North Mesopotamian style, depicting two phases of a struggle between a lion and a dog. One of the inscriptions (No. 1, South Octagon) is dated to the first year of Seti I, that is, 1313 B.C., and mentions the attacks of raiding tribes from east of Jordan on Beth-Shan, as well as the three divisions of the Egyptian army sent against them. The journey of Seti to repel the invaders is vividly represented on the walls of the Temple of Karnak. First he crosses the canal separating Egypt from the desert, and then pursues his long road across the sand to Raphia. A photograph is shown in Bay 6. The inscription is thus one of the most important historical monuments yet discovered in Palestine. The incursions of these confederate tribes, of whom the Israelites formed part, continued until they were numerous enough to overrun and occupy most of the hill country, and undermine the Egyptian power. But that is an episode the account of which belongs to the Iron Age.

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