

had been found, though the Acropolis, where sporadic specimens of stone implements had been found, was undoubtedly first peopled in the Bronze Age. The excavations of the Archaeological Society of Athens in the Ægean and the Peloponnese had so far brought to light no traces of a civilisation prior to that of the Bronze Age. Pile dwellings were not represented in Greece, their place being taken by fortified towns built of stone. After an allusion to the progress of palæontology in Greece and the founding of an anthropological museum at Athens, the author concluded his paper with a reference to the excellent work of the British School at Athens.

2. *Report on Archæological and Ethnographical Explorations in Crete.*
See Reports, p. 321.

3. *Preliminary Scheme for the Classification and approximate Chronology of the Periods of Minoan Culture in Crete, from the close of the Neolithic to the Early Iron Age.* By ARTHUR J. EVANS, D.C.L., F.R.S.

The accumulated results of recent Cretan discovery, and in a principal degree those of the Palace site at Knossos, have greatly added to the data for fixing the comparative chronology of the early Cretan civilisation. A preliminary attempt is here made to classify, and even to delimit within approximate chronological landmarks, the successive phases of culture that in Crete extend themselves between Neolithic times and the Early Iron Age. To this period as a whole it is proposed definitely to attach the name Minoan, as indicating the probable duration of successive dynasties of priest-kings, the tradition of which had taken abiding form in the name of Minos. It is proposed to divide this Minoan Era into three main periods, Early, Middle, and Late, each with a first, second, and third sub-period. The use of the word 'Mycenæan' requires radical revision, the Mycenæan culture being in its main features merely a late and subsidiary outgrowth of this great 'Minoan' style, when the fine motives of the last Palace period are already seen in a state of decadence. This decadence is already observable in the sherds found in the Palace of Tel-el-Amarna (c. 1400 B.C.), and even in somewhat earlier relics associated in Egypt, Rhodes, Mycenæ, and elsewhere, with cartouches of Amenhotep III. and his queen. The recently discovered cemetery at Knossos shows the less decadent forerunners of this style, though still later than those of the last Palace period, the end of which is thus carried back at least to the close of the sixteenth century B.C. The third Late Minoan Period may thus be roughly dated between 1500 and 1100 B.C.

The second Late Minoan Period receives its fullest illustration in the remains of the latest Palace period at Knossos. The fine 'Palace style' which had here grown up, with its strong architectonic elements, common to sculpture and wall-painting as well as to ceramic design, must itself represent a considerable period of development. Its latest stage shows a great correspondence in its artistic and other products with those associated with the Kefts and 'Peoples of the Isles of the Sea' on Egyptian monuments of the sixteenth century B.C., and the contents of the recently discovered royal tomb at Knossos include alabaster vessels belonging to the beginning of the XVIIIth Dynasty. The earlier phases of this style must go back at least a century before this. Middle Minoan II. may thus extend from about 1700 to 1500 B.C. This period corresponds with that of the shaft graves at Mycenæ, and to that period also belong the abundant Palace archives in linear script (Class B).

An earlier stage of the later Palace, marked off from the latter by an extensive catastrophe, has now been clearly made out, especially from the rich contents of the Temple repositories. It is an age of ceramic transition, and at the same time the period when naturalistic art reached its highest perfection in Minoan

Crete, as is shown by such masterpieces as the faience relief of the Wild-goat and Young. An earlier system of linear script was now in use (Class A). The alabaster lid with the name of the Hyksos King Khyan and a monument belonging to the close of the XIIIth Dynasty must be ascribed to this historic stratum, which may be approximately placed between 1900 and 1700 B.C.

The 'Middle Minoan' Age, which lies beyond the periods enumerated, is especially characterised by the development of the polychrome style of vase painting on a dark ground. This, too, is the period of the conventionalised pictographic script which precedes the linear. During the last division of this period—Middle Minoan III.—which lies about the end of the third millennium B.C., we see a certain falling off in the polychrome style, accompanied, however, with a greater naturalism, as shown in the moulding of reliefs and in the types of gems.

The second Middle Minoan Period is that during which this polychrome, or so-called 'Kamares' style, reached its acme, and the beginning of this stage is approximately dated by the painted sherds found by Professor Petrie in the rubbish-heaps of Kahun, dating from the time of Usertesen II. of the XIIIth Dynasty. Taking as a mean estimate Lepsius's calculation, this brings us to about 2300 B.C. If we accept the chronological calculations of Professor Petrie and others, the date would be nearly 2700 B.C. In any case, the Cretan evidence must be taken to exclude the extreme bringing down of the XIIth Dynasty date to the borders of the XVIIIth, which has lately found favour. Other proofs of XIIIth Dynasty contact are found on the seals of this period.

The Kahun deposit includes objects of the simpler style which belongs rather to the first Middle Minoan Period, and gives us, therefore, a *terminus ad quem* for this well-marked stratum. The influence of Middle Empire designs is already well marked on the seal stones of this time, which, unlike the latter, are almost exclusively cut on soft material. The ruder class of conventionalised pictographs is seen on seal impressions from deposits of this date. Allowing some time for the gradual development of the fine Middle Minoan polychrome style, the beginning of the first period of this great age may be reasonably thrown back at least to the middle of the third millennium B.C. Adopting the more liberal chronology, it would reach back nearly to the beginning of that millennium.

Beyond this date lies another long cycle of nascent culture, included in the various phases of the Early Minoan Period. The prevailing decorative style is now geometrical, generally dark ornament on a light ground, but the dark glaze slip itself goes back to the confines of the Neolithic Period. The surface of the clay is often varied by a network of raised lines, irregular protuberances, and thorn-like projections—sometimes painted over with geometrical designs—and this raised decoration was largely combined with polychrome in the succeeding period. The vases have often a high neck, and the hand-moulding of many vessels is supplemented by paring with a knife. The old hand-polished, dark-faced ware of Neolithic times survives throughout, but is most frequent in the earlier phases of this period. We see, moreover, the taking over of incised designs of the older class in the painted decoration.

A section opened below the pavement of the West Court shows a distinct stratification of floor-levels belonging to this period. The lowest or sub-Neolithic stratum there brought out shows light-ground technique already beginning, as a consequence of the introduction of the potter's oven. The old black-faced hand-polished Neolithic class that survives beside this is also now better cooked within. The spiral now appears for the first time on steatite vessels and incised pottery, whence it is taken over in painted designs during the next period. Its introduction appears to be due to Cycladic influences otherwise traceable at this time.

This Early Minoan Period, like the succeeding, is characterised by its special class of seal stones—in this case presenting pictographic designs in their more primitive stage. Many seals show the adaptation of motives from a VIth Dynasty class of button seals. The forms of certain Minoan stone vases also take them back to the Early Dynastic Period of Egypt, and syenite and other vessels from the Palace site at Knossos are of Egyptian fabric, belonging to one or other of the first four dynasties. Whether or not black hand-painted vases found by

Professor Petrie at Abydos with Ist Dynasty remains were actually imported from Crete, their surface and texture so closely resemble those of the earliest Minoan or sub-Neolithic Period that we are justified in inferring a certain contemporaneity. These Egyptian connections show that it would not be safe to bring down the beginnings of the Early Minoan culture later than the middle of the fourth millennium before our era.

The section in the West Court of the Palace shows the earliest Minoan floor-level at a depth of 5·32 metres below the surface. Below this again are at this point 6·43 metres of Neolithic strata. Assuming that the average rate of deposit was fairly continuous, this gives an antiquity of about 12,000 years for the earliest Neolithic settlement at Knossos.

4. *Painted Vases of the Bronze Age from Palaikastro.*

By R. M. DAWKINS, B.A.

The resemblance of the series of styles found at Palaikastro with those found elsewhere in Crete makes it possible to use the terms used at Knossos, 'Minoan,' &c., in describing the successive styles of Bronze Age vases. A series of slides was shown giving first geometrically painted vases of the Early Minoan period, then polychrome vases of the Middle Minoan period, and lastly examples of the three phases of the Late Minoan period. This series of slides showed the development of the styles of design, from their geometrical beginning with patterns imitated from the earlier incised ware, through the freer style of the Middle Minoan to the naturalistic style of Late Minoan I, and then exhibited the process of formalisation, which ends with the rigid formal style of decoration that characterises vases of the Late Minoan III. time. At the same time it showed the growth of the light-on-dark polychrome style of the Middle Minoan, and its gradual change through the abandonment of subsidiary colours to the monochrome dark-on-light style of the later parts of the Late Minoan period. Throughout, attention was called to the painted patterns rather than to the shapes of the vases.

5. *Excavations at Heleia (Palaikastro) and Praisos in Eastern Crete.*

By R. C. BOSANQUET, M.A., F.S.A.

The British school again excavated at Palaikastro, the Minoan town which has yielded important results in two previous seasons, from March 25 to June 17 with the help of grants from the Cretan Exploration Fund (including a gift of 100% from Mr. George Macmillan), Emmanuel College, and the Fitzwilliam Museum. The expedition consisted of Mr. R. McG. Dawkins, Fellow of Emmanuel College, Cambridge; Mr. Heaton Comyn, architect; Mr. C. T. Currelly, of the Egypt Exploration Fund; Mr. J. L. Stokes, Scholar of Pembroke College, Cambridge; and the Director.

1. *Late Palace.*—The further excavation of Block Delta, the largest and best built of the *insulae* opened up last year, showed that this was the palace or Government House of the latest Mycenaean period. It has an imposing façade of huge ashlar blocks, and the general plan of the ground floor, broken up by light wells and other paved areas, can be recovered; but it has been much plundered, and many walls of this exceptionally fine masonry have been destroyed in recent years. Some well-preserved magazines yielded an important series of painted vases, and some terra-cotta figures of a goddess, in one case grasping a snake. Careful dissection of the lower strata, when they were not obliterated by the massive substructures of the palace, revealed remains of three earlier periods. The sequence of some early varieties of pottery was determined by Mr. Dawkins, and plans illustrating the stratification prepared by Mr. Comyn. Fragments of an ostrich-egg, found at a very low level, point to early intercourse with Africa.

2. *Other Work in the Town.*—The main street was followed in both directions, and two low hills to the west and south-west of it were excavated. On one of