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REMARKS ON MIDDLE MINOAN CHRONOLOGY

If one looks at the various dates suggested by different scholars for the beginning of Middle Minoan I, one salient feature strikes the observer. The dates have become lower and lower. Pendlebury heads the list by dating Middle Minoan I from 2200¹, other scholars propose c. 2125², 2100³, 2050⁴, 2000⁵, 1950⁶, 1900⁷ or 1850⁸. Indeed, the dates show a certain resemblance to athletic records. This tendency towards down dating is quite understandable and inevitable, since the absolute dates for the Minoan periods depend on synchronisms with the Egyptian and Mesopotamian chronologies. Drastic revisions of both these chronologies, made in recent times, have caused a real avalanche effecting Aegean dates too, although

¹) The Archaeology of Crete, London, 1939, pp. 122, 301; Studies presented to D. M. Robinson, vol. I, St. Louis 1951, pp. 188 ff.

²) V. Milošević, Chronologie der jüngeren Steinzeit Mittel- und Südosteuropas, Berlin 1949, p. 36 (the chart indicates a date before 2100); cf., however, BSA XLIV, 1949, p. 299, fig. 11 (2100).

³) A. Evans, The Palace of Minos, vol. I, London 1921, p. 202.

⁴) F. Matz, Die Ägäis, Handbuch der Archäologie, 2. Textband, München 1954, chart on p. 180; cf., however, idem, Kreta, Mykene, Troja, Stuttgart 1956, p. 275 (2000 B. C.).

⁵) D. Fimmen, Die kretisch-mykenische Kultur, 2. Aufl., Leipzig und Berlin 1924, p. 210; F. Schachermeyr, Die ältesten Kulturen Griechenlands, Stuttgart 1955, p. 218; N. Platon in Chr. Zervos, L' Art de la Crète, Paris 1956, p. 512; Sp. Marinatos, Kreta und das mykenische Hellas, München 1959, chart after p. 63; S. Weinberg in AJA LI, 1947, p. 181, and in R. W. Ehrich (ed.), Relative Chronologies in Old World Archaeology, Chicago 1954, p. 100.

⁶) R. W. Hutchinson in Antiquity XXVIII, 1954, p. 164.

⁷) P. Åström, The Middle Cypriote Bronze Age, Lund 1957, pp. 257 ff. Cf. N. Aberg, Bronzezeitl. u. früheisenzeitl. Chronologie, Teil IV, Stockholm 1933, p. 275: «Wahrscheinlich hat wohl die Periode (d. h. die ältere Palastzeit) das ganze 18. Jahrhundert und vielleicht auch das 19. Jahrhundert umspannt».

⁸) D. Levi in La parola del passato LXXI, Napoli 1960, p. 121; V. G. Childe, The Dawn of European Civilization, 6th ed., London 1957, p. 22.

I fear that the full consequences of these revisions for Minoan dates have not yet been faced. Professor Hanns Stock has reduced the initial date for the first Egyptian Dynasty to about 2830 B.C.⁹, Professor Wolfgang Helck places the Hyksos or Second Intermediate Period between 1650 and 1542¹⁰. Professor Albright and others have radically lowered Mesopotamian dates¹¹. The Khorsabad list, giving the regnal years of the Assyrian kings, and the archives from Mari have caused that revision. It has been established that Shamshi-Adad I of Assyria, Zimri-Lim of Mari and the great Hammurabi are contemporary. According to Albright Hammurabi reigned 1728-1686¹². Other scholars defend higher or lower dates than Albright¹³, but Albright's chronology seems to me to be the most probable and workable one. He has established a likely synchronism between Mesopotamian and Egyptian chronologies by showing that the prince Yantin-ammu of Byblos, who sent Zimri-Lim a gold vase, is mentioned in Egyptian texts under the name Antin or Entin as a contemporary of pharao Neferhotep c. 1730 B. C.¹⁴ The one reliable carbon 14 date for the accession of Hammurabi suggests 1581 ± 133, which favours Albright's chronology and is incompatible with higher dating¹⁵.

⁹) H. Stock, *Studia Aegyptiaca II, Die erste Zwischenzeit Ägyptens* (Analecta Orientalia 31), Roma 1949, p. 103.

¹⁰) Mitt. d. Deutsch. Arch. Inst., Abt. Kairo, Band 17, Wiesbaden 1961, p. 110.

¹¹) Cf. e. g. F. Cornelius, *Die Chronologie des Vorderen Orients im 2. Jahrtausend vor Chr.*, in *Archiv für Orientalforschung XVII*, 1956, pp. 294 ff.; R. T. O'Callaghan, *Aram Naharaim* (Analecta Orientalia 26), Roma 1948, pp. 6 ff.

¹²) See *Bulletin of the American Schools of Oriental Research* 69, 1938, pp. 19 ff.; 72, 1940, pp. 20 ff.; 88, 1942, pp. 28 ff.; 99, 1945, pp. 9 ff.; 144, 1956, pp. 26 ff.; Albright in R. W. Ehrich (ed.), *op. cit.*, p. 32.

¹³) B. Landsberger: 1900-1858; A. Goetze (*Kleinasien*, München 1957, pp. 3, n. 1, 64 n. 1, 69, n. 2): 1848-1806; S. Smith (*Alalakh and Chronology*, London 1940): 1792-1750; Poebel (*Journal of Near Eastern Studies I*, 1942, pp. 247, 460): 1715-1673. M. B. Rowton earlier placed the accession of Hammurabi in 1728 B. C. (*JNES X*, 1951, pp. 184), but he dates it now to 1792 (*JNES XVII*, 1958, pp. 97 ff.).

¹⁴) *Bulletin of the American Schools of Oriental Research* 99, 1945, pp. 9 ff.

¹⁵) *JNES XVII*, 1958, p. 97. A less reliable C 14 date, based on a contaminated sample, is 1757 ± 106.

The date of Hammurabi has played an important rôle in Middle Minoan chronology. As everyone knows, a cylinder from the time of Hammurabi, or slightly earlier¹⁶, was found in tomb B at Platanos¹⁷. The tomb is in Evans' terminology not later than the mature Middle Minoan Ia phase¹⁸. When Sir Arthur Evans first dated the Middle Minoan I period, the accession of Hammurabi was put at 2123 B. C.¹⁹ Believing that the cylinder must have been in circulation for some time before it was buried, he dated it round about 2000 B. C. Had Evans argued in the same way to-day, when Hammurabi's reign is dated from 1728, he would have been obliged to admit that the cylinder could have been placed in the tomb c. 1600 B. C.

As soon as the date for Hammurabi's reign had to be lowered, the cylinder in the Platanos tomb became a stumbling block for scholars dealing with Minoan chronology. To avoid the difficulties it was suggested that the cylinder was intrusive in the tomb²⁰, but Professor Levi retorted with the following words: «introdotta forse di soppiatto, scavando in un complesso tombale apparentemente omogeneo e indisturbato, da qualche satanico burlone per irrisione alle sudate fatiche degli archeologi?»²¹ We must accept the natural explanation that the cylinder belongs with the material in the tomb. Pendlebury stated in *Aegyptiaca* that there were Early Minoan III-Middle Minoan III sherds from the tomb²², but in *The Archaeology of Crete* he only mentions Middle Minoan I vases²³.

¹⁶) Cf. *JNES* XVII, 1958, p. 99, n. 21; A. Parrot, *Archéologie mésopotamienne*, Paris 1953, p. 398.

¹⁷) St. Xanthoudides, *The Vaulted Tombs of Mesará*, London 1924, pp. 116 f. For another cylinder, found 40 cms. beneath a Middle Minoan II stratum, see Evans, *op. cit.*, vol. IV, p. 423; *Archiv Orientalní* XVII, 2, 1949, p. 210; *Annales de l'École des Hautes Études de Gand*, t. II, Gand 1938, p. 50, n. 2; Milojevic, *op. cit.*, p. 35.

¹⁸) Evans, *op. cit.*, vol. I, pp. 186, 198, n. 5.

¹⁹) *Op. cit.*, p. 198. The reign of Hammurabi was dated 2123-2080 by Kugler in 1912, cf. Parrot, *op. cit.*, pp. 334 ff.

²⁰) Matz in *Historia* I, 1950, pp. 173 ff., 182.

²¹) *Annuario della Scuola Archeologica di Atene* XXXV-XXXVI, N. S. XIX-XX, 1957-1958, p. 159, n. 4.

²²) J. D. S. Pendlebury, *Aegyptiaca*, Cambridge 1930, p. 35.

²³) P. 121. In *The Middle Cypriote Bronze Age*, p. 258, n. 1, I omitted Platanos Tomb B from the discussion, since Pendlebury said that there were Early Minoan III-Middle Minoan III sherds in it. It is, however, likely that Pendlebury was wrong in his classification in 1930 and later

Let us now examine other chronological evidence from the same tomb. According to Sidney Smith, who has carefully analysed the finds from the tomb, there are two Egyptian scarabs in it datable to the XIIIth Dynasty²⁴. A third scarab has no chronological value. It is worthy of note that Sidney Smith states that one of the scarabs has a design similar to many of the sealings from Uronarti²⁵. This is of great chronological importance, since the sealings from the fortress at Uronarti are all dated by Reisner to the XIIIth Dynasty and probably the first half of the Dynasty²⁶. The scarabs would then have been manufactured some time in the three last quarters of the 18th century B. C. But it would be fallacious to believe that they were deposited in the tomb at the same time as they were made. I would like to show by quoting some examples that one often has to reckon with a rather long interval between the manufacture of a scarab and its deposition in a tomb. In a tomb at Buhen the same skeleton had a scarab ring inscribed with the name of Amenemhet III as well as a plaque with the name of Neferhotep, giving a time interval between the two objects of up to c. 100 years²⁸. Another tomb at Buhen contained scarabs from the times of Sesostri I, Hatshepsut and Thothmes III²⁹. It has been said that the strata at Beth Shan in Palestine were dated one to two centuries too early by reliance on scarabs bearing Egyptian royal names and this is—in G. E. Wright's words³⁰—«a warning that apart from other evidence scarabs cannot be used for tomb chronology except to provide a date after which the death and burial took place». In stating that the scar-

corrected himself. A re-examination of the material from the tomb is desirable. Cf. *Et. Crétoises*, X, p. XII, n. 8.

²⁴) *AJA* XLIX, 1945, pp. 7 ff., the scarabs pp. 13 ff.

²⁵) *Ibid.*, p. 14.

²⁶) *Kush* III, 1955, p. 26; *Bull. Mus. Fine Arts* XXVIII, p. 49.

²⁷) Cf. E. Meyer, *Geschichte des Altertums* I: 2, 2. Aufl., Stuttgart und Berlin 1909, §§ 298 ff. (125 years for the XIIIth Dynasty, 1785–1660); Hayes in *JNES* XII, 1953, p. 38. According to R. A. Parker, *The Calendars of Ancient Egypt*, Chicago 1950, the XIIth Dynasty ends 1786 B. C., according to Wood 1778 B. C. W. Helck (n. 10 above) dates the beginning of the Hyksos period from c. 1650 B. C.

²⁸) D. R. MacIver & C. L. Woolley, *Buhen*, Philadelphia 1911, pp. 185 f.; T. Säve-Söderbergh, *Ägypten und Nubien*, Lund 1941, pp. 119, n. 7, 123.

²⁹) MacIver & Woolley, *op. cit.*, p. 162.

³⁰) *JNES* XX, 1961, p. 211.

abs in tomb B at Platanos are not later than 1750 Sidney Smith has not taken into account the probability that they may have been deposited later. They are only *termini post quos* for the dating of the tomb and may very well have been deposited round about 1700, 1650 or later at the same time as the Babylonian cylinder. The scarabs do not prove that the cylinder must be earlier than 1750 and it does not follow that Hammurabi on this evidence should necessarily have reigned between 1792 and 1750 as Sidney Smith maintains³¹.

Professor Bittel, who unlike most scholars dealing with early Anatolia follows Albright's chronology, has found, at Bogazköy, a stamp seal in the form of an ox' cloven hoof provided with an eyelet. Similar seals are found at Alishar and in Platanos tomb B. The stamp seal from Bogazköy is attributed to a layer which is dated by tablets to the time of Shamshi-Adad I, c. 1750-1700 B.C.³²

Summarizing the chronological evidence from Platanos tomb B we find that Egyptian, Mesopotamian and Anatolian synchronisms indicate a date in the 18th century for the making of several of its objects. As far as the cylinder is concerned, it could have been made even later than 1700. Since the objects are only *termini post quos*, the closing of the tomb may have taken place round about 1675 or later.

If anyone is shocked by such a date for Platanos tomb B, he may consider another piece of evidence pointing in the same direction. Professor Doro Levi has found a piece of carbonized wood belonging to the first protopalatial phase at Phaistos. This has been calculated by the C 14 method to be 3500 years old. Its date would then be 1540 B. C., but allowing a margin of error of 120 years, the date would be 1660 B. C.³³ Professor Levi admits that such a date would approximately correspond to the evidence from Platanos

³¹) Neither Ras Shamra nor Atchanah favour Smith's chronology in my opinion (cf. *The Middle Cypriote Bronze Age*, pp. 221 f., 264, 271). Mellaart's arguments in favour of Smith's chronology in *Anatolian Studies* VII, 1957, pp. 61, do not convince me. F. M. Tocci has followed Smith's and Parrot's chronology, but he does not find it quite satisfactory (*La Siria nell'età di Mari*, Roma 1960, p. 22).

³²) E. Bochringer (ed.), *Neue Deutsche Ausgrabungen im Mittelmeergebiet*, Berlin 1957, p. 96. Xanthoudides, *op. cit.*, Pl. XV, No. 1088.

³³) *La parola del passato* LXXI, 1960, p. 118, n. 73.

tomb B, if the middle or low chronology for the reign of Hammurabi is accepted. We need more organic material from Minoan sites to check this C 14 date. Meanwhile, it is a serious warning that all that we have thought hitherto about Middle Minoan dates may be wrong.

In 1957, I examined in my book on the Middle Cypriote Bronze Age the evidence for Middle Minoan chronology and arrived at the conclusion that there was no evidence that Middle Minoan I started earlier than c. 1900 B. C., but it could well be later³⁴. Recent finds and a reconsideration of the subject has convinced me that 1900 is too high a date. Pendlebury compared an Egyptian scarab, found at Gournes in a pure Middle Minoan I deposit, with scarabs from Kahun³⁵. On the strength of this, Pendlebury dated the Gournes scarab to the early XIIth Dynasty, since Kahun was laid out for the workmen who built the pyramid of Sesostris II (1897–1879 according to Parker). The town was, however, also inhabited later. XIIIth Dynasty papyri were found in it as well as a scarab of Nefhotep of c. 1730 and a stamp which probably bears the name of the Hyksos king Apofis, and there is an XVIIIth Dynasty settlement in the town³⁶. There was probably a continuous settlement in Kahun from the XIIth to the XVIIIth Dynasty. Since no stratigraphical section of the town has been published, one cannot know if the scarabs from it are of the XIIth Dynasty or later. Designs similar to that on the Gournes scarab occur among the Uronarti sealings of the XIIIth Dynasty³⁷ and on scarabs from Tell el 'Ajjūl, probably of the XIIIth Dynasty or Hyksos period³⁸.

An important discovery was made by Dr. Alexiou in tomb I at Lebena. In a Middle Minoan Ia context he found an Egyptian scarab, for which the closest parallels according to Dr. Alexiou are from Uronarti, thus giving a date round about 1750 B. C.³⁹ Dr.

³⁴) *The Middle Cypriote Bronze Age*, pp. 257 ff.

³⁵) *Aegyptiaca*, p. 15, No. 18. *Arch. Δελτ.* IV, 1918, Pl. 5: ι.

³⁶) See my book *The Middle Cypriote Bronze Age*, pp. 212 f.

³⁷) *Kush III*, p. 57, fig. 5: 86, p. 58, fig. 6: 102.

³⁸) W. M. F. Petrie et alii, *City of Shepherd Kings*, London 1952, Pls. X: 136 and XLII.

³⁹) *BCH 1959*, pp. 743 f., fig. 14 bis, with reference to *Kush III*, 1955, p. 60, nos. 165–166. In a letter to me dated 6th September 1961 Dr. Alexiou writes: «Two more scarabs—still unpublished—were found in Tomb II excavated in 1959. They come too from the upper (MM Ia) strata. Hans

Alexiou therefore agrees with the views of Hutchinson and me that Middle Minoan I is later than the beginning of the XIIth Dynasty. Professor Doro Levi is also of the same opinion and dates the beginning of the first protopalatial phase at Phaistos corresponding to Middle Minoan I in the old terminology to c. 1850⁴⁰, but he admits that it could be later. The Platanos tomb B, the radio-carbon date and the Lebena tomb all indicate that Middle Minoan I is much later than has been thought hitherto. The Lebena scarab suggests that the period had probably started by c. 1750, although the scarab itself only affords a *terminus post quem*, and we cannot say if it started earlier. With some hesitation I suggest 1800 as the highest possible date for the beginning of Middle Minoan I; it may well have started later.

In doing so I reject the chronological validity of the Egyptian contexts, in which Kamares ware has been found. We must make a *tabula rasa* of these so-called synchronisms, which do not satisfy modern archaeological demands. I am not the first to throw grave doubts on those contexts⁴¹. I shall briefly examine them.

The chronological value of the Kamares sherds from Kahun⁴² is restricted, since the town, as I have said, was inhabited from the XIIth to the XVIIIth Dynasty and there is no stratigraphy published from it. It may be noted that the Kamares ware from Kahun was associated with Tell el Yahudiyeh ware which is not likely to have started before c. 1700 or, more probably, c. 1650 B. C.⁴³

At Harageh Kamares ware was found in a dump above a cemetery and according to the excavator the dump was brought there from elsewhere. It is thus not a sealed deposit and the fact that a limestone block with the name of Sesostris II happens to be associated with the sherds does not prove that the sherds were contemporary with that pharao. It is likely that the limestone block was thrown away during the XIIIth Dynasty or the Second Intermediate Period,

Stock who examined photographs thinks that they cannot be earlier than the XIIth Dynasty».

⁴⁰) *La parola del passato* LXXI, 1960, p. 121.

⁴¹) See *The Middle Cypriote Bronze Age*, pp. 212 f., 259 f.

⁴²) W. M. F. Petric, *Illahun, Kahun and Gurob*, Pl. I. Cf. Levi in *Annuario XXXV-XXXVI*, 1957-1958, p. 161.

⁴³) We have only *termini post quos* for higher dates than the Hyksos period. Cf. *The Middle Cypriote Bronze Age*, pp. 237 ff.

not when the XIIth Dynasty was in power. Tell el Yahudiyeh ware also occurred in the dumps⁴⁴.

A Middle Minoan II vase was found in a tomb at Abydos, dated to the XIIth or XIIIth Dynasty⁴⁵. There were six shafts in the tomb, which yielded over one hundred objects, but only a preliminary report of the tomb was published: no plan or sections of the tomb were given and only a limited number of its contents have been illustrated. Under the circumstances the vase cannot be considered to be safely dated⁴⁶. The cemetery was in use in the Hyksos period, the objects of which are very difficult to distinguish from those of the immediately preceding and succeeding periods⁴⁷. Some of the types illustrated from the Abydos tomb occur in the Second Intermediate Period⁴⁸.

Returning to Egyptian finds in Crete we may now consider the diorite statuette found in the North-West area of the Central Court at Knossos⁴⁹. It is said to have been found in the lower part of a stratum which only contained Middle Minoan IIb pottery. The inscription on the statuette is from the XIIIth Dynasty⁵⁰. This would at first sight seem to indicate that Middle Minoan II started before 1650, in which case we shall have to reckon with an overlapping of Middle Minoan I and II, although Professor Levi has attacked such a view⁵¹. The date of the statuette gives, however, only a *terminus post quem* and it is possible to argue that a stone statuette reasonably had a longer life than fragile pottery. It is possible that the statuette, broken as it is, was thrown away long after it was made, at a time when the Hyksos period had already

⁴⁴) R. Engelbach, *Hara g e h*, London 1923, pp. 10 f.; Evans, *o p. c i t.*, vol. II, pp. 211 ff.; Aström, *o p. c i t.*, pp. 238, 259 f.

⁴⁵) J. Garstang in *Annals of Archaeology and Anthropology*, vol. V. Liverpool 1913, pp. 107 - 111. A publication with the name «Thousand Tombs of Abydos» by Garstang was promised but never published.

⁴⁶) The excavator's assertion that all the objects were of the XIIth Dynasty must be checked to-day in the light of new finds. Others have dated them later, cf. Aström, *o p. c i t.*, p. 260, n. 3.

⁴⁷) Cf. *Idem*, *o p. c i t.*, p. 209, n. 2.

⁴⁸) E. g. the stone vases, cf. *ibid.*, p. 221, n. 11.

⁴⁹) Evans, *o p. c i t.*, vol. I, pp. 286 ff.; vol. II, 1, pp. 219 f.

⁵⁰) J. Vercoutter, *Essais sur les relations entre Égyptiens et Préhellènes (L' Orient ancien illustré, No. 6)*, Paris 1954, pp. 75 ff.

⁵¹) *Annuario XXXV-XXXVI*, p. 161.

started. The stratification is, however, open to doubts, as Pendlebury and John Boardman have observed⁵².

A recent find of chronological importance was made by Mr. Sinclair Hood at Knossos⁵³. An Egyptian scarab was found in a context which is Middle Minoan II, «whether IIA or IIB is not entirely clear—if there is indeed a distinction», Mr. Hood informs me⁵⁴. There are similar designs at Uronarti of about 1750 B. C., but I feel that better parallels for the rather coarse design occur among Hyksos scarabs found in Palestine, as a perusal of Rowe's *Catalogue of Egyptian Scarabs in the Palestine Archaeological Museum* shows⁵⁵. I asked an Egyptologist about its date and his immediate reaction was: «Hyksos or XVIIIth Dynasty»⁵⁶. I would therefore date the scarab after 1650 B. C.⁵⁷.

Kamarens ware has been found at several sites in Syria, Palestine⁵⁸ and the Aegean⁵⁹. Only a few of the contexts are relevant for absolute dating. I omit the sherds from Byblos, since the clue to the stratigraphy of the site has not yet been published⁶⁰. At Ras Shamra a sherd, classified by Evans as Middle Minoan IIA was found in a pit of a tomb which had been reused later. Obviously,

⁵²) Pendlebury, *The Archaeology of Crete*, p. 143, n. 1 (not a sealed deposit). J. Boardman, orally.

⁵³) JHS, *Archaeological Reports for 1958*, pp. 19 f., fig. 32.

⁵⁴) In a letter to me dated 6/9/61.

⁵⁵) Kush III, p. 62, fig. 10: 238 ff., p. 64, fig. 12: 311 ff., p. 65, fig. 13: 316 ff. Rowe, *op. cit.*, *Le Caire 1936*, Nos. 119 (XIVth Dyn.-Hyksos), 123 (XIVth Dyn.-Hyksos), 255 (Hyksos), 333 (Hyksos). Cf. P. E. Newberry, *Scarab-shaped seals (Cat. gen. des Ant. Egypt. du Musée du Caire Nos. 36001-37021)*, London 1907, Pl. XI, 3rd row, especially 36730 (dated early XVIIIth Dynasty), 36547 (Hyksos), 36357 (XIIth Dyn. - Hyksos) - all dated either «12th Dynasty or Hyksos», «Hyksos» or «Early XVIIIth Dynasty».

⁵⁶) Dr. Jürgen Settgast.

⁵⁷) According to Helck's date for the beginning of the Hyksos period (above n. 10).

⁵⁸) Beth Shemesh (*Quarterly Statement of the Palestine Exploration Fund 1911*, p. 141).

⁵⁹) Pendlebury, *op. cit.*, p. 145, n. 4-5 (Aigina and Phylakopi). Lerna: *Hesperia XXV*, 1956, p. 159, Pl. 43; *XXVI*, 1957, p. 154, Pl. 43; *XXIX*, 1960, p. 299. Asine: O. Frödin & A. W. Persson, *Asine*, Stockholm 1938, pp. 275, 276, 278, 434. Dendra: A. W. Persson, *New Tombs at Dendra near Midea*, Lund etc. 1942, p. 15, fig. 6: 5. Other sites: Argos, Thera, Kythera, Cyprus and Schiza (Messenia).

⁶⁰) Cf. Aström, *op. cit.*, pp. 259, 260.

the pottery in the pit belonged to earlier burials, which Professor Schaeffer dated to the XIIIth Dynasty and Hyksos period⁶¹. This is not inconsistent with a date round about or after 1650 for Middle Minoan II.

At Qatna a Kamares sherd was found and dated by the excavator towards 1500 B. C.⁶²

Recently Kamares sherds have been found at Hazor in Israel⁶³. The sherds are generally dated to Middle Bronze II, c. 1750–1550 in the usual chronology. One of the excavators, Mrs. Trude Dothan, told me, that the sherds could be late in the period. In the same area and layer were found Cypriote monochrome sherds which are not earlier than 1600 B. C.⁶⁴

I would suggest that Middle Minoan II may not be earlier than round about the middle of the 17th century. Middle Minoan I ends at about the same time. If some doubtful evidence is accepted, Middle Minoan II may have started in the XIIIth Dynasty, say c. 1700 B. C., but in that case we must probably suppose overlappings of periods which I find unnecessary.

For Middle Minoan III there is one single object affording an absolute date, the alabaster lid inscribed with the name of the Hyksos king Khyan⁶⁵. Evans says that it was found in the mature stage of the earlier phase, a, of Middle Minoan III⁶⁶. Khyan's accession was dated by Weill from 1633⁶⁷, his reign was dated 1644–1604 by Winlock⁶⁸, 1605–1580 by Albright⁶⁹. The dates of the Hyksos kings must now be revised in the light of the new Kamose

⁶¹) *Ibid.* p. 260, n. 11. C. F. A. Schaeffer, *Ugaritica I*, Paris 1939, pp. 53 ff.

⁶²) Cf. Schaeffer, *Stratigraphie comparée*, London 1948, p. 117.

⁶³) Y. Yadin and others, *Hazor, II*, Jerusalem 1960, p. 91, Pl. CXV: 13.

⁶⁴) *Ibid.*, p. 90.

⁶⁵) Evans, *op. cit.*, vol. I, pp. 418 ff.

⁶⁶) D. Levi has recently suggested that sub-divisions of Middle Minoan III should be abolished, *La parola del passato LXXXI*, 1960, pp. 98 ff.

⁶⁷) Evans, *op. cit.*, vol. I, p. 420.

⁶⁸) H. E. Winlock, *The Rise and Fall of the Middle Kingdom in Thebes*, New York 1947, p. 99.

⁶⁹) *Bulletin of the American Schools of Oriental Research* 99, 1945, p. 17, n. 51.

stele which has not yet been finally published⁷⁰. A fixed date for Khyan's reign cannot be given at present, but as a consequence of Helck's lowering of the initial date of the Hyksos period to c. 1650 B. C.⁷¹, he may have reigned round about 1600 B. C. It follows that Middle Minoan III on this evidence is not earlier than 1600 B. C. I cannot find that the hitherto accepted date, c. 1700, has any justification⁷².

Other synchronisms for Middle Minoan III are not precise. Mr. Mervyn Popham has discovered two fragments of an unpublished, Cypriote White Painted Pendent Line Style jug from Zakro, which he has kindly permitted me to mention here⁷³. Its context is Middle Minoan III-Late Minoan I. The date for the Cypriote sherds is c. 1650-1550 in absolute terms⁷⁴. Of the same date is a jug of the Hyksos period found at Lisht in Egypt. It combines a Palestinian late Middle Bronze II shape with a punctured technique, typical of Tell el Yahudiyeh ware, and a decoration consisting of an imitation of Middle Minoan III dolphins⁷⁵.

It is difficult to date the transition from Middle Minoan III to Late Minoan I. Evans asserts that early XVIIIth Dynasty influence occurred already at the end of Middle Minoan III⁷⁶. If we used

⁷⁰) Cf. *Annales du Service des Antiquités de l'Égypte*, t. LIII: 1, Le Caire 1955, pp. 195-203; *La Revue du Caire* XXXIII. No. 175, Le Caire 1955, pp. 52 ff., 107, 111 ff.; *Kush* IV, 1956, pp. 54 ff.

⁷¹) Above n. 10.

⁷²) S. Smith, *The Statue of Idri-mi*. London 1949, says: «No one has yet doubted that the beginning of M. M. III falls about, or very shortly after, 1700». A doubt was expressed by Aberg, *op. cit.*, vol. IV, p. 275, later on by me in *The Middle Cypriote Bronze Age* (1957), p. 260, n. 13, and Levi in *La parola del passato* LXXI, 1960, p. 121.

⁷³) I also thank Mr. Popham for checking my English in this study.

⁷⁴) These sherds do not belong to the earliest variety of the Pendent Line Style, which was en vogue from the latter part of Middle Cypriote II to Late Cypriote IA, cf. Aström, *op. cit.*, pp. 27 ff., 169, 171, 190, 197, 212 ff.

It is possible that a Cypriote Red-on-Black sherd has been found at Mallia, from the second palace (*Études Crétoises* VI, Pl. XII, C), but I have not yet been able to verify this suggestion.

For other contacts between Cyprus and Crete, see Aström, *op. cit.*, pp. 217, n. 14, 246, 257, n. 1, 276, n. 3; *BCH* 55, pp. 108 ff.

⁷⁵) R. W. Ehrich (ed.), *op. cit.*, p. 14, fig. 4 A, B.

⁷⁶) Evans, *op. cit.*, vol. II, p. vii: «since objects from the «seismic» stratum already show the operation of early Eighteenth Dynasty influences,

that argument to-day, when the beginning of the XVIIIth Dynasty is dated c. 1552, the end of Middle Minoan III would have to be put c. 1525. Professor Schachermeyr has already observed that Evans' argument is not valid⁷⁷. The frescoes, to which Evans evidently refers, cannot be dated with certainty to Middle Minoan III or Late Minoan I and the patterns which Evans considered to be XVIIIth Dynasty also occur in the Middle Kingdom⁷⁸.

A sherd, classified by Sinclair Hood as probably Middle Minoan III, was found at Atchanah in Level V, dated 1550–1435 on Albright's chronology⁷⁹. This may be an indication that Middle Minoan III ends after the mid-16th century, perhaps about 1525 B.C.⁸⁰

To sum up: Middle Minoan I starts c. 1800, or perhaps, 1750, and ends at the middle of the 17th century. Middle Minoan II begins c. 1650 or 1700 at the highest, and ends c. 1600. Middle Minoan III lasts from c. 1600 to c. 1525 B. C.

If this chronology is right⁸¹, it effects Aegean and Cypriote dates too. Since Early Cypriote III B and, apparently⁸², Middle Cypriote I are contemporary with Middle Minoan I, their dates have to be lowered: Early Cypriote III B 1800–1750, Middle Cypriote I 1750–1700, Middle Cypriote II 1700–1650, Middle Cypriote III 1650–1575.

the date of the Earthquake itself can be hardly placed earlier than about 1570 B. C.». It is uncertain to which objects Evans refers. In *The Palace of Minos* he only mentions frescoes as showing XVIIIth Dynasty influence, cf. vol. I, p. 550, vol. II, p. 362, vol. III, pp. 30 ff., vol. IV, p. 874.

⁷⁷) *Archiv Orientalní* XVII, 1949, pp. 336 f.

⁷⁸) Ceilings with spiral decoration occur in the Middle Kingdom, cf. Steckeweh, *Fürstengräber von Qaw*, Pl. 9; Petrie, *Antaeopolis*, Pl. I; etc. See also Kantor in *AJA* LI, 1947, pp. 25 f.

⁷⁹) L. Woolley, *Alalakh*, Oxford 1955, pp. 71, 370. The excavator's date, based on S. Smith's chronology, is 1595–1447.

⁸⁰) In the tomb of Senmut we have a certain synchronism between XVIIIth Dynasty Egypt and Crete in Late Minoan Ia. Vases, classified as Late Minoan Ia (Evans, *op. cit.*, vol. II, pp. 647 f., 736 ff.; Pendlebury, *op. cit.*, p. 222) are depicted in this tomb which dates from the 11th year of Thothmes III (Vercoutter, *L'Égypte et le monde préhellénique*. Le Caire 1956. p. 408, n. 5), c. 1479 in Helck's chronology (above n. 10).

⁸¹) I shall not defend it for the rest of my life, if new evidence or other considerations show that it is wrong.

⁸²) See a forthcoming article by Prof. J. R. Stewart in *Op. Ath.* IV.

EYZHTHEIΣ

M. S. F. Hood: The scarab from the south side of the Royal Road came from a deposit of what appears to be Middle Minoan IIB, not Middle Minoan IIA as stated at the time. J. E. S. Edwards and T. G. H. James of the British Museum were shown photos of the scarab and gave as their provisional opinion a date for it in the late 12th or 13th dynasty, in rough terms about 1700 B. C.

Doro Levi: Non solo ho ammesso a voce al dott. Aström che considero suscettibile di qualche rettifica la cronologia da me riassunta nella tabella del mio articolo sulla «Parola del Passato» (1960 p. 121), ma l'ho anche detto per iscritto. La data—che insistentemente definisco come approssimativa—della fondazione dei palazzi cretesi, è fissata all' inizio del XIX sec. a C. come il termine più alto possibile, qualora si accetti precisamente: a) la data più alta di tutte quelle proposte per il regno di Hammurabi; b) che il cilindro babilonese rinvenuto nella tomba di Platanos sia stato portato a Creta subito dopo la sua creazione; e c) che sia stato depositato nella tomba proprio alla fine della durata di questa. È immediatamente afferrabile la difficoltà che tutte queste tre condizioni si siano avverate contemporaneamente. E in una nota, infatti, aggiungo subito che, ammettendo invece che almeno una di queste condizioni non si sia verificata, si può arrivare alla data leggermente più bassa, proposta dal dott. Aström, e che è quella raggiunta con metodi scientifici, cioè mediante l' analisi col metodo del C. 14, da parte del Prof. Sangiorgi di Pisa, di un pezzo di legno bruciato.

Ma per conto mio ho già dato prova di un bel coraggio anche suggerendo le date più alte possibili, giacché anche così la grandissima contrazione che ne è risultata per la durata della civiltà minoica, ha suscitato sufficiente scandalo! Considero pertanto benvenute le necessarie modificazioni e precisazioni, di cui alcune di grande interesse sono quelle già subito presentate dal dott. Aström.

Nella mia tabella ho sottolineato come, ancor più che la data della creazione dei palazzi minoici, deve considerarsi provvisoria quella della loro distruzione attorno al 1400 a. C., cronologia tradizionale da me accettata solo perché non ho da suggerire elementi nuovi, risultanti da recenti ricerche personali. Ma facendo terminare la seconda fase TM (quella comunemente chiamata «micenea») attorno al 1200, risultano per molte località di Grecia delle impossibili lacune tra la fine di questa fase e l' inizio dell' età geometrica. L' incertezza nella cronologia di questa più tarda età deriva, da un lato dal non aver considerato il verisimile prolungarsi di aspetti della ceramica e in genere dell' arte micenea, per periodi più o meno estesi nelle varie località, in un momento per vero di gravi torbidi politici e di scarsa inventiva artistica; e dall' altro dall' aver basato la maggior parte delle datazioni sui risultati di antichi scavi in Egitto e in Palestina. Qui supposti abbandoni o distruzioni di città sono stati adottati come decisivi dai *ante quem*, o singoli oggetti di importazione come si-

curi dati ad quem. Così, per citare l' esempio più famoso, l' abbandono di Tel-el - Amarna da parte di Akenaton, ha fatto per lungo tempo fissare attorno all' inizio del XIV sec. tutta la ceramica micenea di quella città: già oltre trenta anni addietro ho cercato di dimostrare invece che la città può aver sopravvissuto a lungo alla morte del Faraone, e che la sua ceramica deve scendere fino a un'età assai più bassa; così spesso la distruzione di una città per avvenimenti guerreschi, non indica necessariamente il completo abbandono del luogo.

Perciò è augurabile che, alle nostre ricerche nelle stazioni minoiche e micenee di Creta e di Grecia, si aggiungano presto anche ricerche in Egitto, con metodi moderni di scavo e sistemi adeguati di critica. Ed è di grande incoraggiamento che scavi e ricerche per i nostri medesimi intenti si stiano eseguendo su larga scala pure in Anatolia, e già comincino a portare i loro preziosi frutti.