

A NOTE ON THE LONG BONES OF CHALCOLITHIC AGE FROM YÜMÜKTEPE

Dr. MUZAFFER SÜLEYMAN ŞENYÜREK

Professor of Anthropology and Chairman of the Division of Palaeoanthropology
University of Ankara

In a recent study on the Chalcolithic crania from Yümüktepe I had left out of consideration the long bones, a few of which I had restored.¹ In this study I concluded: "*The morphological as well as metric comparison between the Combe-Capelle skull of Upper Palaeolithic Age and the Yümüktepe skull of Chalcolithic date clearly shows that the rugged and primitive Euraffrican type, as already pointed out by Fleure and Buxton and Rice is a modified descendant of the Upper Palaeolithic Combe-Capelle type.*"² In view of the implications of this conclusion on the racial affinities of the Chalcolithic inhabitants of Anatolia, I subsequently decided to go over more carefully the long bones from this site, most of which were unnumbered, but a small proportion carried level markings. Since then I have restored some more long bones, some of which, in some sections, carry the level marks.

Among the postcranial bones from Yümüktepe there is the fragmentary shaft of a robust left femur and an intact right ulna. The femur fragment, which clearly represents a male individual, is hyperplatymeric (index platymericus = 71.42) and possesses a high index pilastricus (113.55). The right ulna, which is also that of a male, has a maximum length of 280.00 mm., which, according to Manouvrier's tables,³ corresponds to a stature of 174.26 cm. in the living. That is, this ulna belongs to a tall individual. As these two bones, unfortunately, carry no level marks it is not known to which level, or levels, and to which burial, or burials, they appertain. In addi-

¹ Şenyürek, M. S. *A note on the skulls of Chalcolithic Age from Yümüktepe.* Belleten, Vol. XVIII, No. 69, 1954, pp. 1-2.

² *Ibid.*, p. 11.

³ See Martin, R. *Lehrbuch der Anthropologie*, Vol. 2, Jena, 1928, p. 1069.

tion to these, there are a number of long bones, which probably belong to one individual, with the epiphyses open or partly closed. These bones belong to an individual of about 16 years of age. As none of these bones are marked, again it is not possible to attribute them with certainty to a level or burial, although there is a fragmentary calva of a girl of 16-18 years of age from level XIX.⁴

Among the marked bones there are a few bones from the right and left hands and a second right metatarsus carrying the level mark XXIV. The epiphyses in all these bones are closed. As according to Garstang the female skeleton from Level XXIV lacked her right hand,⁵ it is possible that at least part of these bones may have belonged to the male individual from room 271 at this level.⁶ Besides these, there is the shaft fragment of a left humerus, a right ulna, a broken left ulna, a broken right radius, a left femur, a broken left tibia, a left patella, part of a right fibula, a left astragalus and a left calcaneus⁷ carrying the level mark XIX.⁸ In all of these bones from level XIX the epiphyses are closed. In only the right ulna and the left femur among these long bones, the maximum length could be measured.

The right ulna is nearly intact having only a small chip off the dorsal surface of the shaft at the lower extremity of the bone, just above the capitulum ulnae. This is a robustly built bone that very probably belongs to a male individual. The maximum length of this ulna is 249.00 mm., which according to Manouvrier's tables⁹ corresponds to a stature of 161.90 cm. in the living. The greatest part

⁴ Şenyürek, *op. cit.*, p. 4.

⁵ Garstang, J. *Prehistoric Mersin. Yümük Tepe in Southern Turkey*, Oxford, 1953, p. 54.

⁶ *Ibid.*, pp. 53-54.

⁷ The left calcaneus has no level mark but as it fits the left astragalus, it certainly belongs to the same individual as the latter.

⁸ In addition to these there is the fragment of a right clavicle with broken acromial extremity, a fragment of a right humerus, a fragment of a right radius, upper half of a right femur, part of a right tibia, a fragment of a left fibula, a right astragalus, a right calcaneus that fits the astragalus, and three metatarsal bones without any level marks. In all of these bones the epiphyses are closed. With the exception of two first metatarsal bones, one right and one left, the astragalus and calcaneus, these unnumbered postcranial bones are not complete.

⁹ See Martin, *op. cit.*, p. 1069.

of the left femur, which is in five pieces that fit each other, is also preserved with the exception of trochanter major and condylus medialis. This femur is robust by modern standards (length-thickness index is 20.53, robusticity index is 12.94 and the robusticity index of caput femoris is 21.54) and probably belongs also to a male individual. This femur is moderately platymeric (index platymericus=81.21) and its linea aspera is not formed into a pilaster (index pilastricus=98.51). This femur possesses a moderately developed crista hypotrochanterica and a weak fossa hypotrochanterica. The maximum length of this femur is 419.00 mm., which, according to Pearson's formula for males,¹⁰ gives a stature of 160.07 centimeters. The stature obtained from Dupertuis and Hadden's general formula for males¹¹ is 162.86. That is, the stature of the individual represented by this femur is in the lower part of the medium category accepted for males. The left tibia, of which the upper extremity is missing, is mesocnemic (index cnemicus=66.19).

As for the relation of these long bones to the burials from the early part of the Middle Chalcolithic period at Yümüktepe, it is evident that these bones cannot belong to the child (Garstang's burial v)¹² and the cremated remains (Garstang's burial vi)¹³ found at level XX and attributed by Garstang to the overlying level XIX,¹⁴ nor to Garstang's burial iv (H.2) found in level XIX which belongs to a female of about 16-18 years of age.¹⁵ This leaves for consideration only Garstang's burial (iii) found in level XIX and attributed by Garstang to the overlying level XVIII,¹⁶ to which the adult male skull described by me belongs.¹⁷ As no other burials are mentioned by Garstang¹⁸ as having been connected with level XIX, it

¹⁰ See *ibid.*, p. 1070.

¹¹ Dupertuis, C. W. and Hadden, J.A., Jr. *On the reconstruction of stature from long bones*. American Journal of Physical Anthropology, Vol. 9, New Series, No. 1, 1951, table 20.

¹² Garstang, *op. cit.*, p. 111.

¹³ *Ibid.*, p. 111. See also Şenyürek, *op. cit.*, p. 7.

¹⁴ Garstang, *op. cit.*, p. 111.

¹⁵ Şenyürek, *op. cit.*, p. 4.

¹⁶ Garstang, *op. cit.*, p. 110.

¹⁷ Şenyürek, *op. cit.*, p. 8.

¹⁸ See Garstang, *op. cit.*, pp. 110-111.

is possible that at least some of the long bones carrying the level mark XIX may belong to this individual (Garstang's burial iii).¹⁹

In my earlier study I compared the skull of individual (iii) from level XIX - XVIII at Yümüktepe with the skull of Combe-Capelle man from the Aurignacian period of Dordogne in France and showed that in most of its traits the Chalcolithic skull from Anatolia came close to the Upper Palaeolithic example.²⁰ As is known the Combe-Capelle man is in the medium stature category accepted for males.²¹ In this connection it is of interest to note that the two long bones carrying the level mark XIX from Yümüktepe (right ulna and left femur) also give a medium stature. Thus this additional evidence further enhances the resemblance between this individual and the Combe-Capelle form of the Upper Palaeolithic Man.²²

¹⁹ For the sake of giving a complete inventory of the burials of Middle Chalcolithic period at Yümüktepe a few words should also be said about the burials from level XVII. Garstang's burial (i) found at level XVIII and attributed to level XVII (Garstang, *op. cit.*, p. 110) is described by Garstang as an "infant". Regarding burial (ii) found at level XVIII and attributed to level XVII, Garstang states (Garstang, *op. cit.*, p. 110): "In Area 223 at Level XVIII were found the leg bones of a skeleton which had probably lain on its left side in a contracted position; the left tibia was 37 cm. long." It should be noted that no arm bones are mentioned by Garstang. The sex of this burial and the method of measurement of the tibia are unfortunately not mentioned by Garstang. Taking Garstang's measurement for granted this tibia gives a stature of 166.57 cm., according to Pearson's formula for males (see Martin *op. cit.*, p. 1070) and one of 170.19 cm. according to Dupertuis and Hadden's general formula for males (see Dupertuis and Hadden, *op. cit.*, table 20).

²⁰ Şenyürek, *op. cit.*, pp. 10-11.

²¹ According to Boule and Vallois the stature of Combe-Capelle man is 166.00 cm. See Boule, M. and Vallois, H. V. *Les hommes fossiles*, Paris, 1952, p. 311.

²² It may be mentioned here that Houzé, in a paper published in 1903, had attributed a large dolichocephalic calva with a pentagonal contour from Yortan in western Anatolia to the Cro-Magnon race (Houzé, M. *Les ossements humains d'Yortan Kelembö*. Bulletin de la Société d'Anthropologie de Bruxelles, Vol. XXI, 1903, p. 108).

I have recently carried out a survey of the skeletons of Chalcolithic Age from Anatolia found to date and have observed the continuance of some Cro-Magnon or Upper Palaeolithic features in some of their skeletons. The relations of some of these early inhabitants of Anatolia to the Upper Palaeolithic and Mesolithic Men will be discussed in detail in my coming papers.