Hominids’ Taxonomy.
Three Levels Of Discussion

Paleoanthropology plays a significant role in the study of man and the research of his past. As we all know, the anthropologists in the last century followed the alternative trends of multiplying and reducing the number of taxonomic names. The present paper presents three different levels of taxonomic discussion concerning fossil hominids. These levels belong to different orders: empirical, theoretical and psychological, and they do not exist in isolation from each other. On the contrary, they are connected and interdependent. It shall also be argued that taxonomic controversies described below arise from both objective and subjective factors.

Introduction

One of the major concerns of paleoanthropology consists in reconstructing the process of hominisation. In pursuit of this aim, paleoanthropologists excavate bone fossils, examine them and interpret their own findings accordingly. The results of such endeavours are reflected in the form of scientific taxonomies. As is well known, anthropology in the nineteenth- and the twentieth- centuries was marked by successive trends of multiplying and reducing the number of taxonomic units. (Tab. 1) Oftentimes, the examination of the same samples led to divergent conclusions, and the same material was differently classified. One can also ask another important question in this context: What are the chances of closing the perennial debate which concerns the classification of fossil hominids, for instance the Neanderthal or Homo erectus? In order to address these issues, we first need to point out briefly the most important reasons for taxonomic controversies.
Five Sources of Taxonomic Debate

Certainly one of the most significant factors in this respect is the fragmentary character of bone fossils. The richer and more complete the evidence available, the more substantial conclusions can be drawn from it, and, consequently the ways of classifying such material must also appear more reliable. Numerous episodes in the history of anthropological taxonomy were often caused by the fragmentary nature of the fossils under examination. One can recall, for instance, the story of Davidson Black who in 1927 classified the left lower molar found in Zhoukoudian as belonging to a new taxon, *Sinanthropus pekinensis*, but his hypothesis was soon called in doubt on account of scarce fossil material (Black, 1926; 1927). John Robinson's (1953; 1954) proposal to include the remains of *Meganthropus palaeojavanicus* in the family *Australopithecinae* was likewise rejected due to 'the extreme fragmentariness of the finding' (Koenigswald, 1953; 1973).

Another reason behind taxonomic controversies are the problems involved in intra-species differentiation of fossil hominids. Dealing with such differences, one needs to take into account the possibility of sex dimorphism, inter-population differentiation, i.e. polytypism, as well as the occurrence of more than one form within an inbreeding population, i.e. polymorphism. Whoever ignores any of the above listed regularities will hastily look for species- or generic differences where in fact there are none. The story of the Hadar findings stands here as a perfect illustration of our point: Although the material excavated over the years 1974 -79 was originally classified into three groups: robust Australopithecus (A.I. 166, 188), gracile Australopithecus (A.I. 128, 288) and genus *Homo* (A.I. 199, 266), Donald Johanson and Timothy White (1979) argued soon after that the remains belonged to one species marked by strong sex dimorphism: *Australopithecus afarensis* (McHenry, 1992; Leakey, 1995). Another example worth recalling in this context was the debate concerning the australopithecine from East Africa (Olduvai) and South Africa (Swartkrans, Kromdraai), where the disagreement had to do with the problem of inter-population differentiation: i.e. polytypism (Leakey, 1976; Walker & Shipman, 1996). Let us shortly recall here the fact that the skulls from both East and South are characterised by weak prognathism, the areas around glabella are relatively massive; the temporal lines joined in the central part of the forehead, forming a formidable sagittal crest; zygomatic arches, set widely apart, from a considerable temporal foramen of app. 1350/1775 mm2. But there are important differences as well. The supraorbital torus in the skulls from South Africa are strongly arch-shaped and glabella is situated below the middle part of the torus, whereas the skulls from the East are characterized by rather straight torus (Rak, 1983; Grine et al. 1988; McKee,