

A COMPARISON BETWEEN THE OLDUVAI HOMINIDES AND THOSE OF JAVA AND SOME IMPLICATIONS FOR HOMINID PHYLOGENY

P. V. TOBIAS AND G. H. R. VON KÖNIGSWALD

E. Vlček's question about the relation between the forms of *H. habilis* and the finds of *Pithecanthropus* and *Meganthropus* from Java was answered by Prof. von Königswald and Prof. Tobias.

The authors have published their opinion already and therefore we use only the conclusion of their communication (1964) and supplement the text by documentation as well (Ed.).

"During June 11–13, 1964, we enjoyed the unique opportunity of comparing directly a large selection of Javanese fossil jaws and teeth, as well as a small number of Chinese fossils, with the hominid material discovered by the Leakeys at Olduvai and Natron, Tanganyika. One of us (P. N. T.) had been working at Cambridge for some time on the original African fossils, through the courtesy of Dr. L. S. B. Leakey; the other (G. H. R. v. K.) visited Cambridge from Holland in company with a good number of the Asian fossil originals. Full and free discussion comparison and measurement took place for three days."

"It would seem to us that four grades of hominization can be recognized in the African and Asian sequence of the Lower and early Middle Pleistocene:

1st Grade: *Australopithecus* in South and East Africa; ? in Asia.

2nd Grade: *Homo habilis* in Africa; ? *Meganthropus* in Asia.

3rd Grade: Olduvai 13 and Swartkrens hominine ('*Telanthropus*') in Africa; the Sangiran B mandible and *Pithecanthropus* IV in Asia.

4th Grade: 'Chelleman Man' and *Atlanthropus* in Africa; the Trinil Beds hominid (*P. erectus* or *Homo erectus erectus*) and the Choukoutien hominid (*P. pekinensis* or *Homo erectus pekinensis*) in Asia.

There is as yet no general agreement as to the taxonomic status which should be accorded these grades. The 2nd grade is best represented by the Bed I *H. habilis* material, since no cranium or maxilla of *Meganthropus* is known for sure. One of us (G. H. R. v. K.) thinks that this grade should be accorded separate generic or subgeneric status; Leakey, Tobias and Napier have proposed separate specific status within the genus *Homo*; while yet others have proposed either in discussion or in writing that sub-specific status within the species *Homo erectus* should be accorded the *H. habilis* remains, that is, that they become *Homo erectus habilis*.

As for the 3rd grade, some have given the hominid represented by *Pithecanthropus* IV and Sangiran B separate specific ranking within the genus *Pithecanthropus* (*P. robustus* or *P. modjokertensis*). On the other hand, in one of the most recent clas-

sifications, it has been lumped into the same subspecies as the Trinil Beds hominid, that is, *Homo erectus erectus*.

We do not propose here to enter into a discussion of the taxonomy of the 4th grade of hominization.

Thus, from the 2nd grade onwards, there are remarkable parallels between the Asian and African

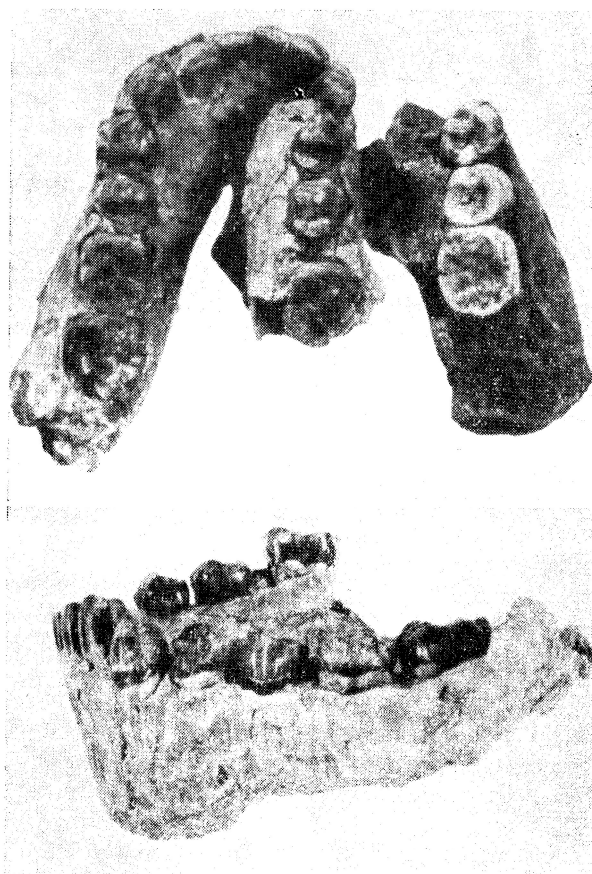


FIG. 1.

Mandible of the type specimen of *Homo habilis* from site FLKNNI, Bed I, Olduvai Gorge, compared with the type specimen of *Meganthropus palaeojavanicus* from Java.

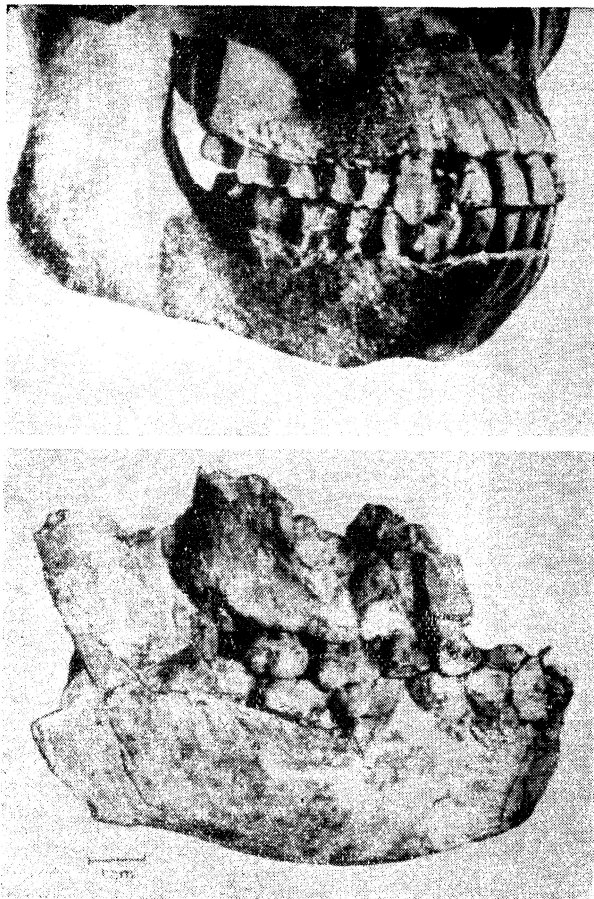


FIG. 2.

Part of the maxilla from Djetis Beds of Java of the *Pithecanthropus* IV and Sangiran B mandible and compared with part of the right maxilla and the mandible of the hominine (No. 13) from the lower part of Bed II, Olduvai Gorge.

sequences. However, we remain unconvinced that there is as yet any unequivocal evidence pointing to the presence in Asia of a frankly australopithecine grade of organization. Simons has suggested that the teeth designated *Hemantropus peii* are australopithecine. It is not impossible, too, that they may represent the 2nd (habiline or meganthropine) grade of post-australopithecine differentiation;

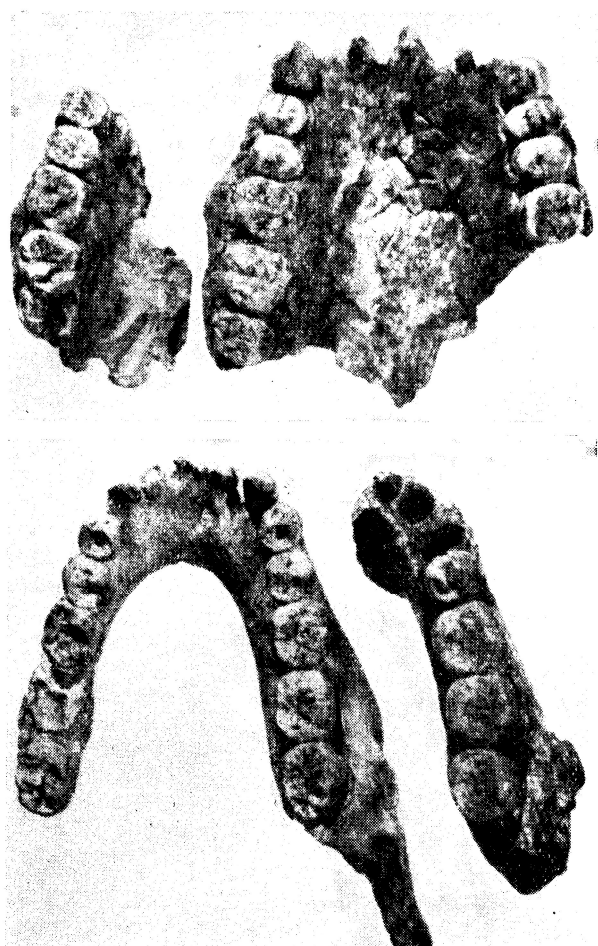


FIG. 3.

Right maxilla of Olduvai hominid 13, from the lower part of Bed II, compared with the *Pithecanthropus* IV (maxilla) from Java. Right mandible of Olduvai hominid 13, from lower part of Bed II, compared with the Sangiran B mandible from Java.

we should feel much happier to have such teeth in a mandible or cranium before accepting either proposition."

(From P. V. TOBIAS and G. H. R. VON KÜNIGSWALD, 1964: A comparison between the Olduvai hominines and those of Java and some implications for hominid phylogeny. *Nature*, Vol. 204, No. 4958, 515-518.)