
Hominin diversity and occlusal pattern variations: New insights from Early Pleistocene discoveries in the Shungura Formation (Ethiopia)

*Diversité des hominines et variation du patron occlusal : nouvelles perspectives
des découvertes du Pléistocène inférieur de la Formation de Shungura (Éthiopie)*

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Diversité des hominines et variation du patron occlusal : nouvelles perspectives des découvertes du Pléistocène inférieur de la Formation de Shungura (Éthiopie)

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- 1 Field missions conducted in the Shungura formation (Ethiopia) by the International Omo Research Expedition (IORE, 1967-1974) and the Omo Group Research Expedition (OGRE, 2006 to present) have yielded numerous fossil remains, including hundreds of hominin teeth. The most recent members, from H to L (1.89 to 1.09 Ma), deposited during the Early Pleistocene, have been little surveyed by the IORE. This time interval, documents the appearance of more derived species of *Homo*, such as *H. ergaster/erectus*, as well as the last occurrence of *Paranthropus boisei*. This study proposes the description of an unpublished sample of hominin teeth, discovered by the OGRE, providing new insights into the diversity and morphological variations of Early Pleistocene hominins from Shungura. Both qualitative and quantitative analyses were conducted for taxonomic attribution, including tooth size, occlusal patterns, enamel thickness and discrete anatomical characters. The results support the hypothesis of the presence of *Homo* cf. *ergaster* in the Omo Valley during the Early Pleistocene and confirm the occurrence of *Paranthropus boisei* in levels in which it had never been described previously in the Turkana Basin. Moreover, new methods of occlusal pattern analysis provided quantitative evidence of an enlargement of the occlusal basin in the genus *Paranthropus*, relative to a narrowing occlusal basin in the genus *Homo*. We anticipate

our results to be a starting point for more detailed analysis of the occlusal pattern variation in Eastern African hominins.

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