Notas e Bibliografia

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MITHEN, S. *The Language Puzzle: How We Talked Our Way Out of the Stone Age*. London: Profile Books, 2024, capítulo 2.

Notas

1. Africa is the conventional source for the last common ancestor but has a scarcity of fossils within the critical time period of 8–6 million years ago. Europe has numerous ape fossils within this period, most recently a new genus called Anadoluvius, from the 8.7 mya site of Çorakyerler in central Anatolia (Sevim-Erol et al., 2023). This leads some to argue that the last common ancestor had evolved in Europe, with descendants dispersing into Africa.
2. See Blumenthal et al. (2017) for a consideration of aridity on the impact of hominin environments and evolution.
3. Villmoare et al. (2015) describe the earliest dated Homo specimen, part of a jaw from Afar, Ethiopia. This dates to between 2.80 and 2.75 mya.
4. See Lacruz et al. (2019) for the evolution of the flatter face in Homo, and how this strongly suggests that there are two distinct early Homo species, H. habilis and H. rudolfensis.
5. See Plummer et al. (2023) for the earliest known occurrence of Oldowan technology at 3.0 to 2.6 mya. See Harmand et al. (2015) for 3.3 mya stone tools from Lomekwi, Kenya, that lack the features of Oldowan technology.
6. A correlation between brain size, as measured by the ratio of the neocortex to the rest of the brain, and group size has been proposed by Dunbar (1992, 1995) and referred to as the social brain hypothesis. Aiello and Dunbar (1993) argued that the management of social relations in larger groups required enhanced vocalisations to supplement grooming, which they propose was the basis for language. Dunbar (1997) provides an extended account of their theory.
7. See Margari et al. (2023) for an extreme glacial event in Europe at 1.1 mya and its consequences for human occupation, and Lewis et al. (2019) for occupation at c. 900,000 years ago at Happisburgh, Norfolk, UK.
8. See Dennell (2018) for a review of the Acheulean in Asia.
9. For the possible role of fire and cooking in the evolution of the brain, and by implication language, see Wrangham (2009).
10. See Harvati and Reyes-Centeno (2022) for a review of the evolution of Homo in the Middle and Late Pleistocene.
11. See White et al. (2022) for the problematic taxonomic status of H. heidelbergensis owing to the extent of morphological and geographical variability and poor chronological resolution of the Middle Pleistocene Homo fossil record.

12. Roksandic et al. (2022) proposed Homo bodoensis to resolve the ‘muddle in the middle’.
13. Hu et al. (2023) used a new method of genomic analysis to project current human variation from 300 modern human genomes backwards in time to estimate the size of our ancestral population at specific points in the past. They identified that the severe population bottleneck had occurred between 930,000 and 813,000 years ago, and suggest this may have led to a speciation event. See the commentary on their arguments by Ashton and Stringer (2023).
14. See Ashton and Davis (2021) and Hosfield (2022) for hominin expansion in Europe indicative of behavioural change. See Hosfield (2020) for a review and interpretation of the earliest hominins in Europe, focusing on their adaptations to seasonal changes.
15. See Neubauer et al. (2018) for a study of the evolution of the modern human brain shape.
16. See Hublin et al. (2017) for the Jebel Irhoud fossils and discussion of their taxonomic status.
17. See Slimak et al. (2022) for a possible modern human incursion into France at 54,000 years ago. The case is largely dependent on the attribution of a tooth to H. sapiens rather than H. neanderthalensis, which remains to be fully validated.
18. See Froehle and Churchill (2009) for the energetic differences between Neanderthals and modern humans.
19. See Krause et al. (2007b) for the geographical extent of Neanderthals.
20. See Fabre et al. (2009) for the population distribution of Neanderthals.
21. The seminal publications for the Neanderthal and Denisovan genomes are Green et al. (2010), Reich et al. (2010) and Prüfer et al. (2014).
22. See Villanea and Schraiber (2019) for Neanderthal and modern human interbreeding.
23. See Ruan et al. (2023) for how climate change orchestrated interbreedings between the Neanderthals and Denisovans at c. 120,000 and 78,000 years ago.
24. See Harvati et al. (2019) for H. sapiens at Apidima Cave, Greece, and Hershkovitz et al. (2018) for H. sapiens at Misliya Cave, Israel.
25. See Boaretto et al. (2021) for the earliest appearance of Upper Palaeolithic technology as documented at Boker Tachtit Cave, Israel, between 50,000 and 48,000 years ago.
26. See Aubert et al. (2014) for the cave art, which comes from Sulawesi, Indonesia. This was dated by uranium-series dating of overlying speleothems, which is methodologically challenging and the dates require independent validation.
27. The earliest date of modern humans in Australia has been particularly problematic. Clarkson et al. (2017) present what appears robust evidence from Madjedbebe rock shelter in northern Australia for a date of 65,000 years ago, which they adjust to 59,000 as the most conservative estimate.
28. Among others, Liu et al. (2015) argue that moderns humans were present in Fuyan Cave in southern China between 120,000 and 80,000 years ago, but their dating evidence has been challenged by Michel et al. (2016).

29. See Slimak et al. (2022) for the modern human occupation at c.54,000 years ago at Mandrin Cave, France. I would like to see further validation of the evidence for a modern human presence, notably the attribution of the tooth to H. sapiens.
30. The ongoing genomic revolution is providing new insights into the population movements within Europe during the Upper Palaeolithic period and the early Holocene, demonstrating an association between genomically defined populations and archaeologically defined cultures. See Posth et al. (2023) for the most recent publication at the time of writing – more will no doubt follow.

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