
Late Pleistocene lithic transitions in Kachchh, Western India

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Résumé

While the African origins of our species is now generally accepted, and it is agreed that it evolved in Africa around 300kya (Hublin et al. 2017) and had reached Australia as early as 60 kya (Clarkson et al. 2017), the dispersal routes, the number of dispersal events out of Africa, and the timing of the dispersals continue to be contested. The most important debates revolve around whether the dispersals occurred around coastal routes or continental ones, if they took place before or after the Toba eruption event (~74kya), if there was one single dispersal or multiple ones, and the patterns of ecological adaptation and cultural change associated with the expansions of modern humans. (Mellars et al, 2013) (Mishra et al. 2013) (Petraglia et al. 2007, 2009) (Blinkhorn & Petraglia, 2017)

India is a critical region to address these questions due to its geographic position between Africa and Australia, extensive coastlines and continental riverine networks and a rich Palaeolithic heritage. This paper will examine Late Pleistocene lithic transitions in Kachchh, located in western India to the immediate east of the Indus delta and south of the Thar desert. Thus the geographic position of Kachchh is unique, with its closeness to the Thar Desert, large rivers, the North West Indian coast, and stretches of mangroves and hills. It is located at the edge of the monsoonal zone, and so small changes in monsoonal intensity may have more pronounced influence here.

While Middle Palaeolithic and Microlithic assemblages have been reported from the area, (Pappu & Ansari, 1972) (Blinkhorn et al. 2017), the nature of transitions in stone tool technology within the context of regional stratigraphic sequences is yet to be analysed. The present paper will review results of previous surveys in Kachchh from 2014/2016, and set out the results of new fieldwork focussing on the sites of Gada and Lakhond. It will also attempt an integration of archaeological and palaeoenvironmental records to permit an understanding of how climatic fluctuation may have influenced human societies at a regional level. These results will be used to assess evidence for the nature of transitions in stone tool technologies from the perspective of various contesting theories which have been proposed to explain the arrival of modern humans in India. (Groucutt et al. 2015)

Select Bibliography

Ansari, Z.D. & Pappu, R.S. *Stone Age in Kutch, Gujarat*, Bulletin of the Deccan College

*Intervenant

Postgraduate and Research Institute, Pune ,150 – 167 (1973)

Blinkhorn, J. & Petraglia, M. Environments and Cultural Change in the Indian Subcontinent: Implications for the Dispersal of *Homo sapiens* in the Late Pleistocene. *Current Anthropology* 58, no. S17, S463–S479 (2017)

Blinkhorn, J. et al. A geoarchaeological approach to assessing coastal dispersals of modern humans: Palaeolithic occupations near the north-western Indian Coastline in Kachchh, Gujarat. *Journal of Field Archaeology* 42(3), 198–213 (2017)

Clarkson, C. et al. Human occupation of northern Australia by 65,000 years ago. *Nature* 547, 306–310 (2017)

Groucutt, H.S. et al. Rethinking the Dispersal of *Homo sapiens* out of Africa. *Evolutionary Anthropology* 24, 149–164 (2015)

Hublin, J.J. et al. New fossils from Jebel Irhoud, Morocco and the pan-African origin of *Homo sapiens*. *Nature* 546, 289–292 (2017)

Mellars, P. et al. Genetic and archaeological perspectives on the initial modern human colonization of southern Asia, *PNAS*, Vol. 110 No. 26 10699–10704 (2013)

Mishra, S. et al. Continuity of Microblade Technology in the Indian Subcontinent since 45 ka: Implications for the Dispersal of Modern Humans, *PlosOne* 8, Issue 7, 1–13 (2013)

Petraglia, M. et al.. Middle Paleolithic assemblages from the Indian subcontinent before and after the Toba super-eruption. *Science* 317(5834),114–116 (2007)

Petraglia, M. et al. Population increase and environmental deterioration correspond with microlithic innovations in South Asia ca. 35,000 years ago. *PNAS* 106(30), 12261–12266 (2009)

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