
New perspectives on the Early Human Behavioural Adaptations in Asia—studies on the Nihewan Basin, North China

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Résumé

Our knowledge of human evolution and hominin behavioural adaptations is mainly derived from Africa, the East African Rift yielding long and high-quality environmental and archaeological records extending back to more than 2 to 3 million years ago. Early members of the genus *Homo* subsequently spread out of Africa, reaching the Nihewan Basin of China by ca. 1.7 million years ago. Yet, relatively little is known about the dispersal, behavioural adaptations, and survivorship of early hominin populations in Eurasia, including in Eastern Asia. Although early archaeological sites have been investigated outside Africa (e.g., Dmanisi, Ubeidiya), such sites are exceedingly rare, making it difficult to have a clear view about hominin adaptations outside Africa.

The Nihewan Basin of North China presents a significant opportunity to rectify significant gaps in our understanding of the earliest humans that first migrated out of Africa. The Nihewan Basin preserves a long sequence of archaeological sites ranging between 1.66 to 1.0 million years ago. In the recent studies, we summarized and described the lithic assemblages from Xiaochangliang (XCL) and Donggutuo (DGT), which are both important archaeological localities in the basin. The new studies showed that the XCL indicates the variable use of bipolar and freehand reduction methods, thereby indicating a flexible approach in the utilization of raw materials. Evidence for some degree of planning and predetermination in lithic reduction at DGT parallels technological developments in African Oldowan sites, suggesting that innovations in early industries may be situational, sometimes corresponding with adaptations to changes in environments and local conditions.

The recent new study on the Nihewan Basin will improve our understanding of hominin adaptations in East Asian over the long-term, examining the degree to which hominins were able to adapt to local circumstances and how their behaviours changed over the long term.

Mots-Clés: Early Pleistocene, Human Behavioural Adaptations, China, Nihewan

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