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Early humans in East Asia: Insights into climatic influence on human evolution

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East Asia is a key area for probing into the interplay between Quaternary climate change and human adaptations to diverse terrestrial ecosystems. Integrated chronology based mainly on high-resolution magnetostratigraphy in conjunction with detailed biostratigraphy and high-precision isotopic dating of early humans and Paleolithic stone tools in mainland East Asia, western and southeastern Asia has provided insights into our understanding of climatic influence on human evolution in a variety of environments in the eastern Old World. For example, there is a prominent geographic expansion for early humans from low southern latitudes (e.g., tropical SE Asia and subtropical Yuanmou Basin and Bose Basin), through middle latitudes, to high northern latitudes (e.g., the Nihewan Basin). Especially, increased toolmaking skills and technological innovations are evident in temperate Nihewan Basin at the onset of the Mid-Pleistocene Climate Transition. The improved ability to adjust to diverse environments for early humans in East Asia has contributed to better understanding how climate change has shaped early human evolution.