Geophysical Research Abstracts
Vol. 20, EGU2018-2446, 2018
EGU General Assembly 2018

The early exodus of Homo sapiens into Asia around 120-100 ka

Axel Timmermann (1) and Tobias Friedrich (2)

(1) IBS Center for Climate Physics, Pusan National University, South Korea, (2) IPRC, SOEST, University of Hawaii, USA

Combining paleo-climate model simulations, paleo-proxy, archaeological, anthropological and paleo-genetic data, we present supporting evidence for an early exodus of Homo sapiens into Asia around 120-100 ka. During MIS5e and 5c orbitally enhanced North African precipitation created green vegetation corridors in the Sinai and the Arabian Peninsula, which allowed early Homo sapiens to leave their homeland and venture out into Asia. In fact this MIS5 "into Asia" dispersal scenario is supported by recent genetic data compiled from indigenous populations in modern Papua New Guinea which show faint genetic traces of a migration wave prior to 70 ka and by archeological artefacts and fossil evidence from the Levant and China, respectively. This presentation also sheds new light on the climatic conditions that existed during the often-cited 60-70 ka (MIS4) Out-of-Africa scenario. We conclude that during this critical period, prevailing drought conditions and extended deserts in northern Africa would have effectively cut off exchange between Homo sapiens in Africa and pre-existing populations in Asia, thus challenging previous paleo-genetic studies.