



Reconstructing the Initial Human Occupation of the Northern Tibetan Plateau

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We identified and dated 20 archaeological sites, many containing multiple occupations, above 3000 m on the north-eastern margin of the Tibetan Plateau (TP) during a decade-long Sino-American Tibet Paleolithic Project. The ages of these sites are controlled by 68 AMS radiocarbon dates, as well as associated luminescence age estimates. Together these sites suggest the initial occupation of the high northern TP occurred in two phases: 1) an early phase dating to ~16-8 ka, characterized by short-term hunting camps occupied by small groups of foragers likely originating from lower elevation, but relatively nearby, base camps; and 2) a later phase dating to ~8-5 ka, characterized by longer-term residential camps likely occupied by larger family groups also originating from nearby lower elevations. Whether or not these later family groups were full-time foragers or were pastoralists linked to farming communities remains under investigation. This pattern closely matches genetically-based estimates of rapid population increases. Both phases appear related to major climatic episodes: a period of rapid post-glacial warming, spread of higher elevation alpine grassland/meadow environments, and enhanced populations of larger herbivores; and a period of mid-Holocene warming that allowed farming/pastoralism to develop at higher elevations. We identified no sites dating to the LGM or earlier and genetic separation of Tibetan populations likely occurred on the lower elevation plateau margins. By ~5 ka essentially modern settlement/subsistence patterns were established.