

Bioarchaeological perspective on the expansion of Transeurasian languages in Northeast China

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Northeast Asia has been an important region where a wide variety of languages were spoken, including Japonic, Koreanic, Tungusic, Mongolic and Turkic languages, termed together as the Transeurasian language family. The linguist proposed that the spread of Transeurasian languages is driven by agriculture, which emerged in the Neolithic Hongshan Culture phase and played an increasingly important role in the means of subsistence and the population grew gradually in the northeast China.

To investigate this hypothesis, we used shotgun data from ancient populations lived between 12000-2300 years ago from the Amur River Basin in Northeast China, where the extant populations mainly speak Tungusic languages. We find evidence for some Early Neolithic contacts with other populations, and otherwise detect genetic continuity beginning in the Early Neolithic, spanning throughout the time series, and extending into the present day.

We also found that there is close genetic affinity along the populations living surrounding the Amur River Region, such as Mongol, Hezhe, Oroqen and Ulchi. This finding mirrors the linguistic evidences that populations who spoke Transeurasian languages share a higher genetic affinity.