



Environmental factors influencing the development of ancient farming in Central China: A case study around Songshan Mountain, Henan Province.

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The study on the distribution characteristics, evolution history and its influencing factors of the ancient farming is an important topic for understanding human-environmental interactions. As a region key to the origin of the agriculture and the development of Chinese civilization, the spatial and temporal pattern of early farming in the Songshan area is unclear. We collated archaeobotanical data to systematically study the subsistence strategies and spatial-temporal distribution of crops in the Songshan area from Neolithic to Bronze Age. We discussed the temporal characteristics of ancient farming and the factors influencing the development of agriculture at the regional and local level. Our results indicate that millet-based agriculture started during the Peiligang period in the Songshan area. Foxtail millet replaced broomcorn millet as the main crop in the region starting during the Longshan period. During the Bronze Age, crops include foxtail millet, broomcorn millet, rice, soybean and wheat. Rice had been planted in the region for each time period, but the quantity of rice fluctuates over time. Millet-based agriculture is predominately found in the hills and mesa landforms and rice farming is mainly found in the plain area. Our results from the Wadian and Haojiatai sites indicate that human selective pressures under different cultural traditions played an important role in the development of ancient agriculture.