



## ***Lost Worlds of the Stone Age in Travertine***

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### **Abstract Book & Excursion Guide**

Martin SABOL & Ondrej ŽAÁR (EDS.)

**NEW KNOWLEDGE ABOUT THE EARLY WOOLLY RHINOS**

Hao-Wen TONG<sup>1</sup> – Xi CHEN<sup>1,2</sup> – Bei ZHANG<sup>1,2</sup>

<sup>1</sup> Key Laboratory of Vertebrate Evolution and Human Origins of Chinese Academy of Sciences, Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences, Beijing 100044, China;

<sup>2</sup> University of Chinese Academy of Sciences, Beijing 100049, China

*Mammuthus primigenius*, *Coelodonta antiquitatis* and *Bison* div. ssp are the dominant taxa in the *Mammuthus-Coelodonta* faunal complex in northern Eurasia during the late Quaternary. But the ancestors of most of these taxa are from South Asia and Qingzang Plateau (Tibetan Plateau) and its surrounding area. The earliest fossil record of the genus *Coelodonta* was discovered in Tibet in recent years, which was named as *Coelodonta thibetana* and was dated as early as 3.7 Ma (DENG et al., 2011), the descendant of which is *Coelodonta nihowanensis* from the skirt of the Tibetan Plateau, such as Longdan in Gansu Province (QIU et al., 2004) and Nihewan in Hebei Province (TONG and WANG, 2014). The fossils of *Coelodonta nihowanensis* from Nihewan Basin resemble more like those of the true woolly rhino, *Coelodonta antiquitatis*, except its obviously slender limb bones. In Nihewan Basin, *Coelodonta nihowanensis* were usually associated with early *Mammuthus* and early *Bison* species. According to the current knowledge, *Bison* definitely originated in South Asia, but the richest fossil records of early *Bison* were discovered in North China. In recent years, much more fossils of *Bison palaeosinensis* were recovered in Nihewan Basin (TONG et al., under review). The early mammoth has nothing to do with the plateau fauna, but the steppe mammoth *Mammuthus trogontherii*, direct ancestor of *Mammuthus primigenius*, had its origin in Nihewan Basin (LISTER et al., 2005). Quite a number of new fossils of steppe mammoth were unearthed in Nihewan Basin in the past few years (TONG, 2012).

**References**

- DENG, T., WANG, X.-M., FORTELIUS, M., LI, Q., WANG, Y., TSENG, Z. J., TAKEUCHI, G. T., SAYLOR, J. E., SÄILÄ, L. K. & XIE, G.-P., 2011: Out of Tibet: Pliocene woolly rhino suggests high-plateau origin of ice age megaherbivores. *Science*, 333:1285-1288.
- LISTER, A. M., SHER, A. V., VAN ESSEN, H. & WEI, G.-B., 2005: The pattern and process of mammoth evolution in Eurasia, *Quaternary International*, 126-128: 49-64.
- QIU, Z.-X., DENG, T. & WANG, B.-Y., 2004: Early Pleistocene mammalian fauna from Longdan, Dongxiang, Gansu, China. *Palaeontologia Sinica*, New Series C, No. 27:1-198. [Chinese 1-156; English 157-198]
- TONG, H.-W., 2012: New remains of *Mammuthus trogontherii* from the Early Pleistocene Nihewan beds at Shanshenmiaozui, Hebei, *Quaternary International*, 255: 217-230.
- TONG, H.-W. & WANG, X.-M., 2014: Juvenile skulls and other postcranial bones of *Coelodonta nihowanensis* from Shanshenmiaozui, Nihewan Basin, China, *Journal of Vertebrate Paleontology*, 34(3): 710-724.