



ATES Session at EGU General Assembly 2025



On 29 April 2025, the Alliance for Trans-Eurasian Exchange and Silk Road Civilization (ATES) successfully hosted the thematic session titled "Climate and Environment Changes and their Impact on Trans-Eurasian Exchange and Civilization along the Silk Road" (CL3.2.9) at the 2025 General Assembly of the European Geosciences Union (EGU) in Vienna. This session showcased recent achievements in interdisciplinary research, engaging in an in-depth discussion on environmental change and human-civilization interactions along the Silk Road.

Co-convoked by Prof. Elena Xoplaki (University of Giessen, Germany), Dr. Haichao Xie, Dr. Shengqian Chen (Institute of Tibetan Plateau Research, Chinese Academy of Sciences), and Dr. Shanjia Zhang (Lanzhou University), the session brought together international scholars from fields including physical geography, environmental science, and historical archaeology. The session program included both oral and poster presentations, with special emphasis on providing early-career researchers a platform to disseminate novel findings.



During the session, experts from China, Germany, the UK, Switzerland and other countries engaged in topics on water resource variations, climate change mechanisms, and their impacts on Silk Road development. Using the remote sensing data, reanalysis products, archaeological discoveries, and paleoclimatic reconstructions, scientists examined the historical spatiotemporal patterns of water resources in Central Asian arid regions to qualify role of climatic and environmental changes in shaping the regional human activities.

First Evidence of Neanderthal-Linked Quina Technology in East Asia Revealed



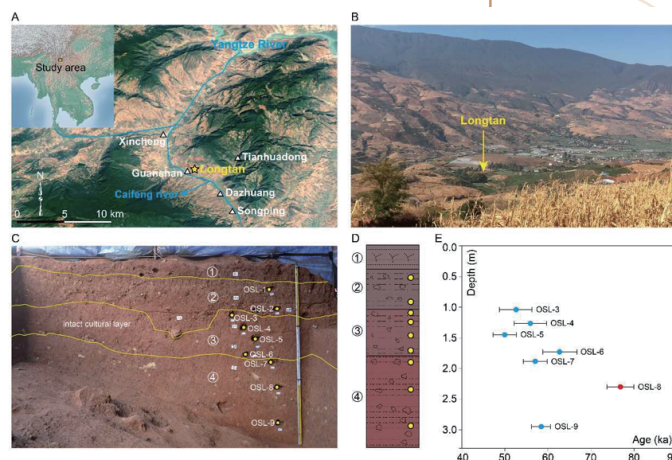
▲ Fig. 1. Distribution of Middle Paleolithic sites in Eurasia. Different colors and symbols indicate the geographical spread and chronology of Levallois, Discoidal, and Quina systems respectively. Each site was color-coded based on its earliest known age.

A multidisciplinary study led by researchers from the Institute of Tibetan Plateau Research (ITP), Chinese Academy of Sciences (CAS), and the Yunnan Provincial Institute of Cultural Relics and Archaeology has uncovered the first definitive evidence of Middle Paleolithic Quina technology in East Asia at the Longtan site in Heqing County, Yunnan, on the southeastern Qinghai-Tibet Plateau.

The quina technology, a lithic tradition previously associated with Neanderthals in cold, arid European environments (~70,000–40,000 years ago), represents a specific technological adaptation strategy employed by Neanderthals. This technology had not been conclusively confirmed in East Asia until now.

The discovery of Quina technology at Longtan raises questions about potential Neanderthal dispersal into Southwest China, adding new dimensions to the understanding of East Asia's complex evolutionary landscape.

The research findings were published in April 2025 in the Proceedings of the National Academy of Sciences (PNAS).



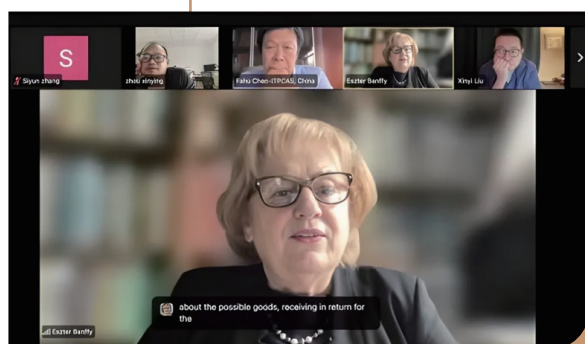
▲ Fig. 2. Products of Quina system at the Longtan site. (A–D) Quina scrapers, illustrations provide details on the transverse layout of the tools. Note that the innermost order of retouching scars shows convex outlier shape, while the outer orders often show concave shape. Also note that the large removal on specimen C (middle and right pictures) indicates the “Clactonian notch”. (E–G) Quina cores, illustrations highlight the acute angle between intersecting flaking surfaces. (H–J) Resharpening flakes showing Quina retouch at the proximal end of the dorsal face. (K) Small tool made on resharpening flake.

The 8th ATES Silk Road Civilization Forum Held Online

The 8th ATES Silk Road Civilization Forum took place online on 26 March 2025. The invited speaker is Eszter Bánffy, Professor at the Institute of Archaeology, Research Center for Humanities, Hungarian Research Network (HUN-REN RCH), Member of the British Academy, President of the European Association of Archaeologists, with the presentation entitled “The Neolithic Transition between South East and Central Europe: New Results, Changes in Interpretation”. Through excavation and data collection at multiple archaeological sites in Southeast and Central Europe, Prof. Eszter Bánffy and her team accomplished a comprehensive neolithic study by utilizing multidisciplinary data and methods from fields of archaeology, environment, bioarchaeology and remote sensing.

Their research concluded that from 6000 to 5500 BC, Southeast and Central Europe functioned as a liminal zone for hunting-gathering and early farming, ultimately emerging as the birthplace and core area of the Linearbandkeramik (LBK) culture, a pivotal area for early Neolithic transition in Central Europe. The dynamic interactions between hunter-gatherers and early farmers demonstrated remarkable fluidity, variations in scale, duration and connectivity, thereby presenting the characteristic attributes of the Neolithic transition processes in this region.

Following her presentation, the invited commentators including Prof. Hassan Fazeli Nashl from Tehran University of Iran, Prof. Xinying Zhou from the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences, Dr. Xinyi Liu from Washington University in St. Louis, and Dr. Shanjia Zhang from Lanzhou University, shared their ideas, comments and research findings regarding to Neolithic transition in East Asia, and carried out an in-depth discussion with Prof. Eszter Bánffy.



Prof. Fahu Chen, Co-chair of ATES, facilitated the meeting and delivered an opening address, expressing gratitude to all participants for their great support of ATES. The Zoom meeting invited over 30 scholars and was live-streamed on the KouShare Platform with an audience of around 4600 viewers.

Upcoming Events

ANSO-MTA Silk Road Forum & The 3rd ATES Open Science Conference

• Background:

The Silk Road traverses complex terrains and landscapes across Eurasia, representing rich histories of human migration, early globalization, and vibrant exchanges in religion, culture, and technology. It offers unique insights into long-term nature-human interactions, requiring interdisciplinary approaches to understand environmental impacts on ancient routes and inform modern climate adaptation. Amid geopolitical complexities, the Association for Trans-Eurasia Exchange and Silk-Road Civilization Development (ATES) was established in 2019 under ANSO to foster cross-disciplinary research on environmental changes and Silk Road civilizations.



By collaboration with MTA, HUN-REN RCH, and ELTE, the "ANSO-MTA Silk Road Forum & 3rd ATES Open Science Conference" will be held in Budapest on September 9–10, 2025, celebrating MTA's 200th Anniversary. The conference will convene experts to share research on human dispersal, agro-pastoral development, and trade route evolution, aiming to strengthen dialogue on sustainability, cross-cultural cooperation, and digitalization—with Hungary serving as a bridge for Eurasian collaboration.

• Date and Location:

Date: 9-10 September 2025 **Location:** Budapest, Hungary
Venues: Hungarian Academy of Sciences;
Research Center for the Humanities, Hungarian Research Network

<https://conferences.koushare.com/ates2025>

• Themes and Topics:

Themes

The Silk Road: a corridor of innovation, civilization, migration, culture, art, science, technology, environmental and climate change

Topics

- 1) Paleolithic culture and human migration
- 2) The origin of agriculture and trans-Eurasian diffusion of early farming and herding
- 3) Evolution and development of the transport network and towns
- 4) Genetic History of Silk Road Populations
- 5) Human, environmental and climate interactions: past, present and future
- 6) Silk Road culture and language studies, and East-West exchange on science and technology

• Co-organizers:

- Alliance of National and International Science Organizations for the Belt and Road Regions (ANSO)
- Hungarian Academy of Sciences (MTA)
- Association for Trans-Eurasia Exchange and Silk Road Civilization Development (ATES)
- Research Center for the Humanities, Hungarian Research Network (HUN-REN RCH)
- Institute of Tibetan Plateau Research, Chinese Academy of Sciences (ITPCAS)
- Eötvös Loránd University (ELTE), Hungary
- Lanzhou University, China
- UNESCO International Decade of Science for Sustainable Development (IDSSD)

Looking forward to seeing you in Budapest, Hungary in September 2025.

Contact Us

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