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Project Gallery

Excavating Andersson: unlocking forgotten treasures in the Museum of Far Eastern Antiquities (MFEA), Stockholm

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This project investigates archaeological material collected from north-west China in the 1920s and housed at the Museum of Far Eastern Antiquities, Stockholm. Finds and archival materials are examined and catalogued to learn about prehistoric cultural interactions and to reconnect discoveries with the original excavation contexts and excavators.

Keywords: North-west China, Sweden, history of archaeology, museum research

Introduction

The Museum of Far Eastern Antiquities (MFEA) in Stockholm holds a unique collection of archaeological finds from Neolithic and Bronze Age (*c.* 3000–600 BCE) sites in north/north-west China assembled by the Swedish geologist Johan Gunnar Andersson and his Chinese colleagues in the early twentieth century (Figure 1). Andersson worked in China helping establish the Chinese Geological Survey but soon became fascinated with archaeology. This led to the first collaborative archaeological project in China, resulting in the discovery of more than 50 prehistoric sites. These excavations are celebrated as the beginning of Chinese archaeology, and some of the finds were exported to Sweden with the agreement of the Chinese government to build the founding stock of the MFEA. Nevertheless, little is known about the full range of sites discovered during this fieldwork, and the Chinese members of Andersson's team are rarely mentioned.

In recent decades, the prehistoric groups of north-west China and their role mediating the transfer of goods and technologies between Central Asia and China have received increasing attention. Yet, none of this research has made use of the extensive MFEA

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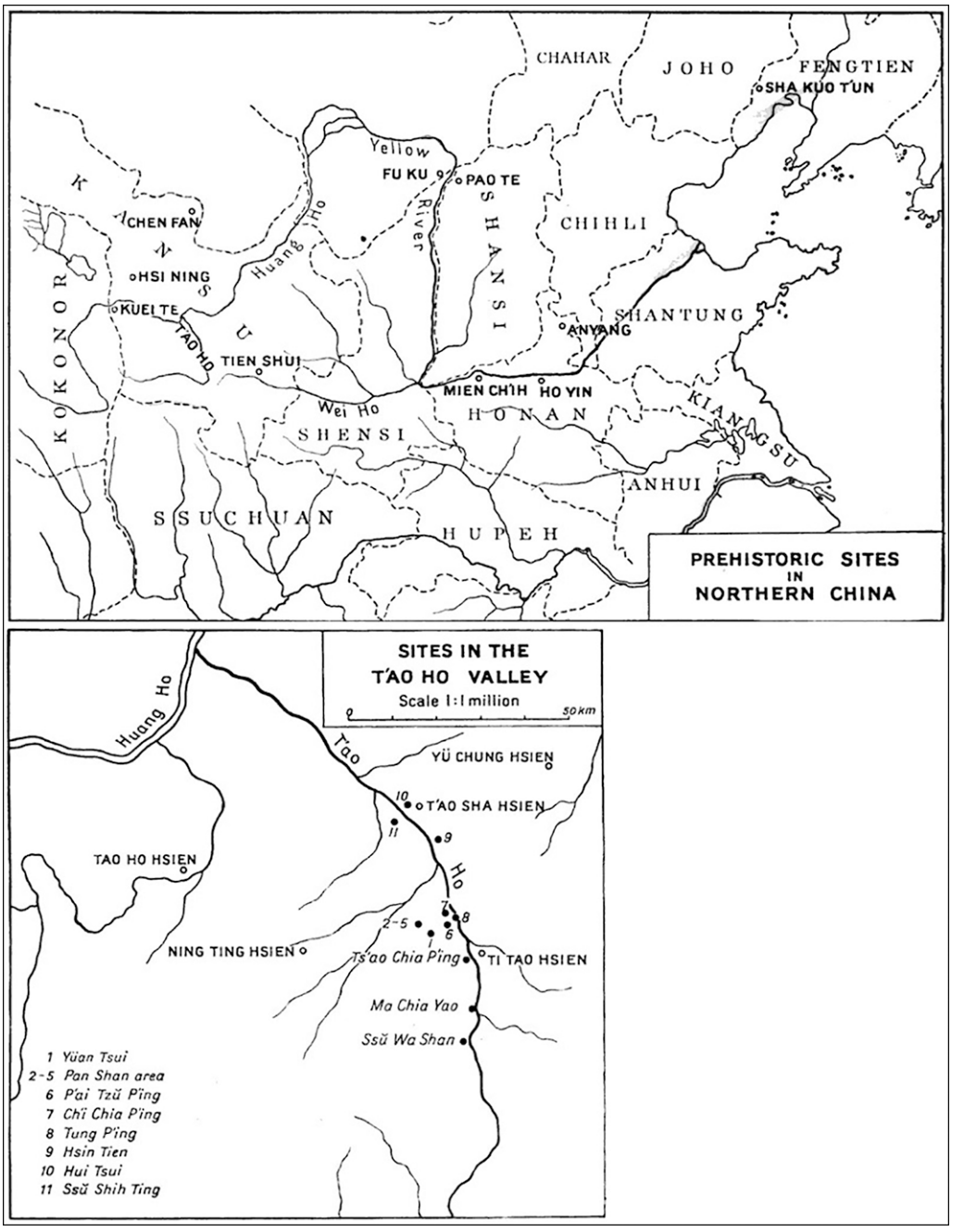

Figure 1. Map of sites discovered by Andersson's team (Sommarström 1956).

collections, some of which are from sites that are no longer accessible. The present project is 're-excavating' these materials from storage to make them accessible and answer questions about life along the proto-Silk Road, while also retracing the history of the 1920s fieldwork. The project aims to: 1) establish an inventory of the Andersson collections in a digital database; 2) reconnect artefacts with archival materials to establish original find locations and retrieval methods; 3) identify Chinese team members and their contributions; 4) map proto-Silk Road interactions and identities using ceramic petrography, use-alteration and residue analysis; and 5) investigate ancient foodways, changes in animal use and human impacts on local fauna using zooarchaeology.

Database and cataloguing

Beginning in 2017, the project team first resolved labelling and storage issues, moving collections from wooden containers to acid-free boxes. We then developed a database that allows for recording and linking: object finds, ceramic data, zooarchaeological data, archival materials and publications. The current interface is in English with entries including terms in Chinese and Swedish; the next step is to make it fully trilingual. All content is shared with the museum team who transfer non-sensitive data to their publicly accessible bilingual online catalogue.

By May 2025, we completed a general inventory of 680 boxes of material (ceramic sherds, stone tools, animal bones, small finds) from 67 find locations, 123 complete ceramic vessels and 87 boxes of archival records with thousands of pages. We have fully reconstructed excavation information for three sites, allowing us to pinpoint artefact find locations and archaeological contexts, for example at Machangyan (Figure 2). We are expanding this approach to other sites to recontextualise the entire collection.

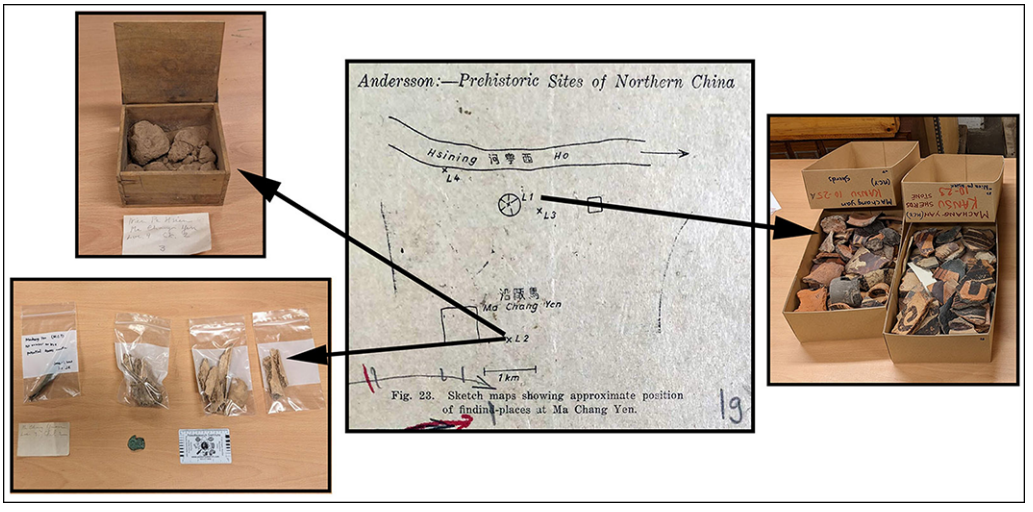

Figure 2. Sherds, bones and soil samples reassociated with archival documentation from the site of Machangyan (figure by authors).

Ceramics research

Ceramic technology

We have conducted macroscopic analysis on 651 ceramic sherds from 15 sites, dating them based on style and assessing production technique and raw material (see online supplementary material (OSM)).

A pilot study combining portable x-ray fluorescence and thin-section petrography revealed considerable diversity in ceramic production (Hein & Stilborg 2019). Further analysis of 84 ceramic sherds from 10 sites showed inter-site variation in technological traditions despite outwardly similar wares, and diversification in raw-material choice and processing over time (Hein & Stilborg 2024). We also identified 'Double Wares', ceramics consisting of a fine-ware and a coarse-ware part (Stilborg & Hein 2021) and examination of 188 ceramic thin sections from four Neolithic sites showed how potting communities were connected across large distances (Dammer 2023). Further analyses are under way and results will be added to the open-access Ceramic Petrographic Database (https://doi.org/10.6078/M79Z930G).

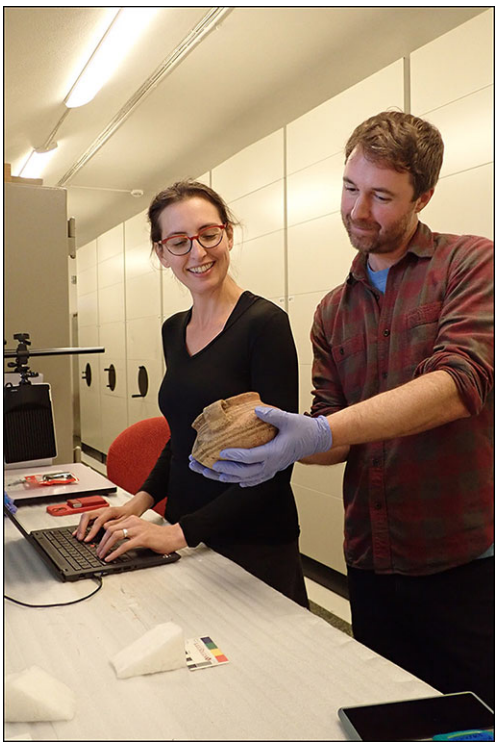

Figure 3. Authors Hein and Womack conducting use-alteration analysis (photograph by authors).

Vessel use

Analyses of residues (Figure 3) and food crusts were largely inconclusive (Keute *et al.* 2021). We abandoned residue analysis until more effective methods are available. Instead, we conducted production-trace and use-alteration analysis on 123 Middle Bronze Age (*c.* 1500–800 BCE) vessels noting variation in the use of similar vessel types between sites.

Zooarchaeology

To date, faunal remains from three or four sites from each period (Neolithic and Early and Middle Bronze Age) have been analysed, identifying taxa, skeletal elements and portions of bones present, age data and taphonomic markings (Figure 4, see also OSM). Domesticates are most common (cattle, pig, sheep, goat, dog); wild taxa are primarily deer, with some small carnivores, birds, rhinoceros and bovids. Non-diagnostic samples are

Figure 4. Authors Brunson and Ko studying animal bones at Stockholm University (photograph by authors).

currently undergoing ZooMS analysis (zooarchaeology by mass spectrometry). To investigate the genetic history of aurochs and cattle, samples have been selected for ancient DNA analysis and radiocarbon dating, which will further help contextualise the collections of worked bone artefacts, deepening our understandings of the non-subsistence use of animals, craftsmanship and local economy.

Archives

The MFEA holds extensive image and document-based archives related to Andersson's work. We identified documents containing information on Andersson and his team's fieldwork, the people involved and negotiations regarding splitting the collections between the MFEA and Chinese partners. These include field and personal diaries, letters, object and shipping lists, site maps, landscape sketches, object drawings, personnel lists, business cards and book-keeping documents. We are currently reconstructing the network of people and institutions involved in the fieldwork (Hein 2024) and have been able to establish that many sites were discovered by Bai Wanyu. Originally employed as cook and groom, he also contributed directly to the archaeological work, as did many locals (Figure 5). We are currently investigating these contributions and those by other individuals.

Future research

With the database built and a first inventory complete, we are turning to systematic recording, analysis and publication of materials from sites where find location and retrieval conditions can be reconstructed. We are combining this information with research on ceramics and animal bones, providing insights into ceramic production, subsistence patterns and food preparation and consumption. In the coming years, the database will be made trilingual and shared with scholars and the interested public worldwide. Our research will enable the MFEA to update the narrative around the history of the collection, highlighting the international nature of the 1920s excavations and giving full credit to the contributions of Andersson's Chinese colleagues.

Figure 5. Andersson, Mr Doodha and two assistants packing jars, Lanzhou, 1924 (MFEA image archives #280).

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Online supplementary material (OSM)

To view supplementary material for this article, please visit https://doi.org/10.15184/aqy.2026.10295 and select the supplementary materials tab.

Author Contributions: using CRediT categories

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