Computational analysis of lead isotope ratios in artefacts and ores from China: tracing connections, quantifying ambiguity, and rethinking provenance

Wang, C.

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List of publications

Journal articles

Wang, C., De Ceuster, S., Eremin, K., Laursen, S. and Degryse, P. 2024. Exploring circulation dynamics in Han Dynasty China: insights from isotopic analysis of lead glazed pottery. Archaeological and Anthropological Sciences, 16, 189. https://doi.org/10.1007/s12520-024-02096-0

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Curriculum Vitae

Chen Wang 王宸 was born in Pingdu, Shandong Province, China, in 1998. She obtained her Bachelor's degree in Archaeology from Shandong University in 2020. During her undergraduate studies, she received systematic training in archaeological science, zooarchaeology, archaeobotany, and field survey methods. In 2019, she participated in the Sujiacun excavation project.

In 2021, she completed her Master's degree in Artefact Studies at University College London. There, she specialized in archaeological metallurgy, funerary archaeology, GIS, and material culture analysis.

In May 2022, she began her PhD at the Faculty of Archaeology, Leiden University, under the supervision of Prof. Dr. Patrick Degryse and Dr. Jason Laffoon.

From 2023 onward, her research centered on isotopic datasets. She first analyzed glass and lead-glazed pottery, applying Kernel Density Estimates (KDE) to model lead isotope distributions. In 2024, she expanded her work to a comprehensive dataset of Chinese lead ore deposits, critically reassessing conventional grouping strategies and comparative practices. She subsequently applied refined isotopic grouping methods to ancient Chinese artifacts.

In late 2024, two of her articles were accepted for publication in *Archaeological and Anthropological Sciences* and *Journal of Cultural Heritage*, both internationally recognized Q1 journals in archaeological science.

In 2025, she developed the Indistinctiveness Index to quantify isotopic ambiguity, which became a central methodological contribution of her dissertation. In the same year, she initiated a new research project on a group of lead-barium glass beads.

Alongside her research, she has actively participated in international academic exchange. In 2021, she presented at the Historical Metallurgy Society meeting (online), and in 2025 at the Society for American Archaeology Annual Meeting in Denver, USA. In 2024, she visited the Harvard Art Museums in Boston, USA, and in 2025 she contributed to the "Towards an Archaeological Science Toolbox in R (ASTR)" workshop at the Lorentz Center in the Netherlands, supporting the development of an open-source R package.

She is scheduled to defend her PhD dissertation at Leiden University on May 13, 2026.