

Melissa M Ritchey, Ph.D.

CURRICULUM VITAE

Postdoctoral Research Associate
Department of Anthropology
Washington University in St. Louis

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Appointments

2025 - present **Postdoctoral Research Associate and Lab Manager**
Laboratory for the Analysis of Early Food-Webs (LAEF)
Washington University in St. Louis – St. Louis, Missouri, USA

Education

2025 **Doctor of Philosophy, Anthropology – Archaeology**
Washington University in St. Louis – St. Louis, Missouri, USA

2021 **Master of Arts, Scientific Anthropology**
Washington University in St. Louis – St. Louis, Missouri, USA

2019 **Master of Arts, Historical Archaeology**
University of Massachusetts Boston – Boston, Massachusetts, USA
Honors: Academic Distinction

2017 **Certificate in Field Data Mapping & GIS**
Cosumnes River College – Sacramento, California, USA

2015 **Bachelor of Arts, Anthropology with Distinction**
Sonoma State University – Rohnert Park, California, USA
Honors: Cum Laude

Grants

2022 - 2024 National Science Foundation Doctoral Dissertation Research Award
Grant # 2230527, \$27,127

2023 Rich Smith Dissertation Travel Fund, Washington University in St. Louis,
\$2,500

2022, 2023, Summer Dissertation Research Grant, Washington University in St. Louis,
2024 \$5,000

2022 Throop Endowment, Washington University in St. Louis, \$1,500

2018 Professional Development Grant, University of Massachusetts Boston, \$400

2018 Dr. Robert W. Spayne Research Grant, University of Massachusetts Boston,
\$1,500

Honors & Awards

2025 Dean's Award for Teaching Excellence, Washington University in St. Louis

2024 Robert W. Sussman Award, Washington University in St. Louis

2019 Academic Distinction Award, University of Massachusetts Boston

Publications

Journal articles (peer reviewed)

- 2025 Haiming Li, Xin Jia, Guozhu Bai, Zeli Wang, Shangrongjie Dong, Dongsheng Zhao, Zhujun Hu, **Melissa M. Ritchey**, Zhiping Zhang, Xinyi Liu
The cropping systems reflected by weeds in the Eastern Jianghuai region during the late Zhou period. *Archaeological and Anthropological Sciences*. 17, 180 doi: [10.1007/s12520-025-02302-7](https://doi.org/10.1007/s12520-025-02302-7)
- 2024 **Melissa M. Ritchey**, Tang Li, Petra Vaiglova, Hongliang Lu, Yufeng, Sun, Michael Frachetti, Xinyi Liu
Into Thin Air: prehistoric intensive crop management in high altitude western Tibet. *Frontiers in Environmental Archaeology*, 3.
doi:[10.3389/fearc.2024.1398209](https://doi.org/10.3389/fearc.2024.1398209)
- 2024 Yufeng Sun, **Melissa M. Ritchey**, Hua Zhong, Liya Tang, Elena Sergusheva, Tao Shi, Jixiang Song, Haiming Li, Guanghui Dong and Xinyi Liu
Variation of millet grain size and cooking techniques across Asia between the late fourth and first millennia BC. *Antiquity* 98, 401–416.
doi:10.15184/aqy.2024.31
- 2022 Tian Duo, Yufeng Sun, **Melissa M. Ritchey**, Tongyuan Xi, Meng Ren, Jian Ma, Jianxin Wang, Zhijun Zhao, Xue Ling and Xinyi Liu
Varying cultivation strategies in eastern Tianshan corresponded to growing pastoral lifeways between 1300 BCE and 300 CE. *Frontiers in Ecology and Evolution*. 10:966366. doi: [10.3389/fevo.2022.966366](https://doi.org/10.3389/fevo.2022.966366)
- 2022 Jordan B. Brock, **Melissa M. Ritchey**, Kenneth J. Olsen
Molecular and archaeological evidence on the geographical origin of domesticated *Camelina sativa* (L.) Crantz. *American Journal of Botany* 7:1177-1190. doi: [10.1002/ajb2.16027](https://doi.org/10.1002/ajb2.16027)
- 2022 Haiming Li, Yifu Cui, Nathaniel James, Fengwen Liu, Junna Zhang, Shanjia Zhang, Gang Li, **Melissa M. Ritchey**, Minmin Ma, Guanghui Dong.
Spatiotemporal variation of agricultural patterns in different geomorphologic and climate environments in eastern Loess Plateau, north-central China during the late Neolithic and Bronze Age. *Science China Earth Sciences* 65: 934-948.
doi: [10.1007/s11430-021-9879-x](https://doi.org/10.1007/s11430-021-9879-x)
- 2021 **Melissa M. Ritchey**, Yufeng Sun, Giedre Motuzaitė-Matuzevičiūtė, Shinya Shoda, Anil Pokharia, Michael Spate, Jixiang Song, Li Tang, Haiming Li, Guanghui Dong, Petra Vaiglova, Michael Frachetti, Xinyi Liu
The Wind that Shakes the Barley: the role of East Asian cuisines on barley grain size. *World Archaeology* 53.2 (2021): 287-304. doi: [10.1080/00438243.2022.2030792](https://doi.org/10.1080/00438243.2022.2030792)
- 2020 Baoshuai Zhang, Xiaotong Wu., Anchuan Fan, Yufeng Sun, **Melissa M. Ritchey**, Yuanyuan Zhang, Ge Yu
Complex Raw Materials and Supply System: Mineralogical and Geochemical Study for the Jade Artefacts of Longshan Culture (2400~2000BC) from Sujiaacun Site in Coastal Shandong, China. *Archaeometry*, 63(1), 1-18.
doi: [10.1111/arc.12634](https://doi.org/10.1111/arc.12634)

In preparation **Melissa M. Ritchey**, Xinyi Liu, Giedre Motuzaitė Matuzeviciute
Investment in plant cultivation at the Bronze Age site of Chap, Kyrgyzstan.
Journal of Archaeological Science

In preparation **Melissa M. Ritchey**, Xinyi Liu, Michael D. Frachetti, Paula Doumani Dupuy
Plant stable isotopes reveal changing cultivation strategies from the Bronze to
Iron Ages at Tasbas, Kazakhstan. *Antiquity*

Book Chapters

In preparation **Melissa M. Ritchey** and Heather Trigg
Chapter 11. “The Plant Remains” in *The Long Settlement of Viking Age and
Medieval Skagafjörður, North Iceland*. Steinberg, John, Douglas Bolender,
Guðný Zoëga, and Kathryn Catlin, eds. Oxford: Oxbow, under contract.

Book Reviews

2023 **Melissa M. Ritchey**
Book Review: Scarry, Margaret, C., Dale L. Hutchinson, and Benjamin S.
Arbuckle, editor. *Ancient Food Ways: Integrative Approaches to Understanding
Subsistence and Society*. Gainesville, Florida. University Press of Florida.
Journal of Human Ecology

Theses

May 2025 **Melissa M. Ritchey**
Fields Under the Hoof: characterizing plant cultivation and labor strategies of
agropastoralists in Bronze and Iron Age Central Asia (3000 BCE - 1000 CE).
Doctoral Dissertation. *Washington University in St. Louis*.
Committee: Xinyi Liu, Michael Frachetti, Natalie Mueller, Tristram. R. Kidder,
Jing Zhichun

2021 **Melissa M. Ritchey**
The Wind that Shakes the Barley: grain size and plastic responses to eastern
culinary traditions and environments. Master’s Thesis.
Washington University in St. Louis
Committee: Xinyi Liu, Michael Frachetti

2019 **Melissa M. Ritchey**
Regional Variation in grass, sedge, and cereal cultivation during the Viking Age
in Skagafjörður, North Iceland. Master’s Thesis.
University of Massachusetts, Boston.
Committee: John Steinberg, Douglas Bolender, Heather Trigg

Student Mentoring

2022-present *Laboratory for the Analysis of Early Food-Webs, Washington University in St.
Louis*: Ari Rapalino, Kenneth Yen, Gabe Fortress, Morasha Rabinowitz
Paleoethnobotanical methods, Kazakhstan: Азам А., Сакмаган Б., Аяткали
Н., Адилет Т., Емилиля К., Жамиля В., Дианна М., Шамиль О.

Teaching and Research Appointments

Spring 2025 **Instructor of Record**
What Makes a Meal: Anthropological explorations of food production,
consumption, and performance (300 level, undergraduate)
Washington University in St. Louis

- Fall 2023 **Instructor of Record**
Introduction to Cultural Anthropology (100 level, undergraduate)
Washington University in St. Louis
- Fall 2022 **Instructor of Record**
Introduction to Archaeology (100 level, undergraduate)
Washington University in St. Louis
- 2019 - 2023 **Assistant Instructor**
Paleoethnobotany and Ethnobotany, Culture and Environment, Introduction to GIS for Anthropologists, Warfare and Violence, Food, Culture, and Power
Washington University in St. Louis
- 2021 - current **HASP Crew Chief and Paleoethnobotanist**
Hólar University, Iceland
Fiske Center for Archaeological Research, UMass Boston
- 2017 - 2019 **Teaching Assistant**
Caribbean Societies and Cultures, Nutrition, Growth, and Behavior
UMass Boston
- 2017 - 2019 **Research Assistant**
Digital Archaeology Laboratory
Fiske Center or Archaeological Research, UMass Boston
- 2017 - 2019 **Field Technician**
Fiske Center for Archaeological Research, UMass Boston
- 2017 - 2018 **Crew Chief**
Skagafjörður Church and Settlement Survey, Iceland

Research Projects

- 2022 - 2025 **Fields under the Hoof: A comparative analysis of crop cultivation investment and labor strategies of communities in Inner Asia (3rd-1st mil. BC)**
Missouri, USA, Kazakhstan, Kyrgyzstan, Western Tibetan Plateau
Co-PI, Dissertation research project
- 2022 - 2024 **Archaeological Investigation of Site Form and Function during the Settlement Period**
Koken, Skagafjörður, Iceland.
Paleoethnobotany specialist, isotopic analyst, and crew chief
- 2021 - 2022 **Hólar Archaeological Survey Project (HASP)**
Hólar University, Iceland, Boston, USA, St. Louis, USA
Paleoethnobotany specialist, and crew chief
- 2017 - 2021 **Skagafjörður Church and Settlement Survey (SCASS)**
Skagafjörður, Iceland, Boston, USA, St. Louis, USA
Paleoethnobotany specialist, isotopic analyst, and crew chief

Conference Activity

Organized Symposia

- 2025 **Stable Isotope Analysis in Global History** with Sewasew Assefa. Society for American Archaeology 90th Annual Meeting. Denver, Colorado, USA.

- 2019 **Crisis and Opportunity: Probes into the Crisis-induced “New Normal(s)” of Subsistence Economies during Times of Change** with Yufeng Sun. Cambridge 5th Annual Student Archaeology Conference, Cambridge, UK.

Papers Presented

- 2025 **Barley at the Edge: Rethinking Early Farming in Viking-Age Iceland.** Association for Environmental Archaeology 45th Conference, Stavanger, Norway
- 2025 **Localized management of novel crops in the mountains of Central Asia during the Bronze and Iron Ages** with Xinyi Liu. Poster. International Symposium for Biomolecular Archaeology 11th meeting, Turin, Italy.
- 2024 **Savor your Subsistence: Foodways at Kotið, a small Viking Age dwelling in northern Iceland** with Grace Cesario. Poster. Society for American Archaeology 89th Annual Meeting, New Orleans, Louisiana, USA.
- 2024 **Grain Size Variation and Culinary Traditions: Insights into Prehistoric Food Globalization in Eurasia** with Yufeng Sun and Xinyi Liu. Paper. Society for American Archaeology 89th Annual Meeting, New Orleans, Louisiana, USA.
- 2023 **Cereal Cultivation in Pastoral Landscapes: stable isotope analysis of early wheat and barley in the Bronze-Age Inner Asian Mountain Corridor.** Paper. European Archaeological Association 29th Annual Meeting, Belfast, Northern Ireland.
- 2023 **The influence of pastoral cultivation strategies and novel cuisines on newly introduced crops in Inner Asia during the Bronze and Iron Ages.** Paper. Society for American Archaeology 88th Annual Meeting, Portland, Oregon, USA.
- 2020 **Multi-scalar paleoethnobotany: farmstead variation and regional trends in Viking and Medieval North Iceland.** Poster. Society for Historical and Underwater Archaeology 2020 Annual Meeting, 8th-11th January 2020, Boston, Massachusetts, USA.
- 2019 **Reconsidering Cereal Production and Consumption in the North Atlantic: A case study from Northern Iceland** with Heather B. Trigg. Paper. Society for American Archaeology 84th Annual Meeting, Albuquerque, New Mexico, USA

Invited Lectures

- 2025 **Resilient culinary traditions during food globalization in prehistory.** Cahokia Archaeological Society. Collinsville, Illinois.
- 2024 **Paleoethnobotany.** Archaeological Field School. Jacksonville State University, Alabama.
- 2024 **Unearthing the Past: Investigating Ancient Agricultural Practices through Paleoethnobotany and Stable Isotope Analysis.** Center for the Environment, Washington University in St. Louis
- 2023 **Plant Cultivation in Pastoral Landscapes: prevailing cuisines, labor strategies, and novel crops on the Tibetan Plateau.** ALMA - Laboratory of MicroArchaeology, Rutgers University.
- 2019 **Parallels in History: examining the role of production strategies in agropastoral societies from Iceland to Central Asia.** International

Symposium of Paleoethnobotanical Discoveries and Studies on the Tibetan Plateau and Surrounding Areas, Northwest University, Xian, China.

Public Engagement

- 2022 - present **Online blog** on [personal website](#)
- 2023 **Kíktu í Kotið**, Community open house, Skagafjörður, Iceland
- 2022 Interviewed for Semey TV, "[Арнайы репортаж](#)" [бағдарламасы](#)
- 2022 Interviewed for The Ampersand, "[Return to the Field](#)" by Rachel Sender
- 2019 [Boston's China Town Excavation](#), City of Boston Archaeology Program
- 2019 **Archaeology Geophysics Workshop**, 100th Anniversary of the Great Molasses Flood, City of Boston Archaeology Program
- 2018 **Flotation Workshop**, organized for the Skagafjörður Church and Settlement Survey Community Open House

Leadership and Service

- 2025 – present Reviewer – *Holocene*
- 2025 – present Reviewer – *npj Heritage Science*
- 2024 - present Reviewer – *Archaeological and Anthropological Sciences*
- 2024 - present Reviewer – *Journal of Archaeological Science*
- 2024 - present Reviewer – *Environmental Archaeology*
- 2023 - present Reviewer – *Human Ecology*
- 2022 - 2024 Graduate Student Committee of Three, Archaeology Representative, *Washington University in St. Louis*
- 2019 - 2020 Friday Archaeology Organizer, WUSTL
- 2019 - 2020 Anthropology Graduate Student Senator, *Washington University in St. Louis*
- 2018 - 2019 Northeast Environmental Archaeology Network
UMass Boston Student Representative
- 2018 - 2019 Society for Graduate Archaeologists Vice-President, *UMass Boston*
- 2015 - Present Lambda Alpha (National Collegiate Honors Society for Anthropology)

Professional and Pedagogical Development

- 2024 – present Member of Food Across Disciplines, *Washington University in St. Louis*
- 6/4 - 6/5/2024 American Center for Historic Preservation: The Section 106 Essentials for Students/Interns
- 03/2023 Open Educational Practices: Affordability Plus, University Libraries, *Washington University in St. Louis*
- 01/2022 - 05/2022 Professionalism in Anthropology Course, *Washington University in St. Louis*

01/2020 - Exploring Practices in the Classroom (EPRIC) Learning Community
05/2020 Certificate, *Washington University in St. Louis*

Languages

Basic Swedish, Russian, Spanish

Fluent English – native language

Program Skills

R, Jamovi, Oxcal, Tilia, Gimp, ArcGIS, Microsoft Office

References

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