

Doctoral grad demonstrates how bioarchaeological studies can provide insight into modern health challenges

By Mara Busch, ASU News
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Editor's note: This story is part of a series of profiles of notable [spring 2026 graduates](#).

When Akron, Ohio, native Julianne Stamer came to Arizona State University for her PhD, she had a lot of ideas about what to study but hadn't yet found a research site.

At the time, [Jane Buikstra](#), Regents Professor in the [School of Human Evolution and Social Change](#), was looking for students to go to Athens, Greece, to help with data collection. Having had previous experience doing research at the site of an ancient Greek colony, Stamer jumped at the opportunity to work with Buikstra on the project.

"I feel like everything really just fell into place," Stamer said.

The opportunity set the stage for her to find the site of her dissertation research: Phaleron, a cemetery from the Archaic period in Athens, between the 8th and 7th centuries B.C. Specifically, Stamer worked on the Esplanada — the largest mass grave at Phaleron. The Esplanada contains the remains of 79 men, most of whom were buried in metal shackles.

"While we don't know exactly why or how they died, it clearly was in a violent manner, perhaps as a punishment for a crime. But what we don't know is who were these people? What was their life like before their death and burial? My dissertation research is focused on these questions," Stamer said.

She sought to answer these questions through [analyzing the men's tooth enamel](#).

“By analyzing tooth enamel — a very hard mineral substance that, unlike bone, does not change or grow after early childhood — we can answer questions about what their early lives may have been like,” Stamer said.

While context around the way some of the individuals were buried (in shackles, face down) may provide insight into how or when they died, it doesn't tell us who they were or what their lives were like, she explained.

“Instead, my dissertation focuses on who they were in life,” she said.

After graduating from ASU's School of Human Evolution and Social Change with her PhD in anthropology this May, Stamer hopes to continue doing research on the ancient Greek world and expand her approach to studying diet and mobility in the past to better incorporate a health-oriented perspective.

“I'm especially interested in moving beyond more standard biogeochemical analyses to explore questions of physiological and nutritional stress, as well as how people in the past coped with these conditions,” Stamer said. “These issues were prevalent in the past but also continue to affect millions globally. Bioarchaeological research can provide a long-term perspective on modern challenges.”

In the below Q&A, Stamer talks more about how she became interested in the field of bioarchaeology and her time at ASU.

Question: What was your “aha” moment, when you realized you wanted to study bioarchaeology?

Answer: I knew during high school that I wanted to study archaeology. I loved learning about people in the past — how they lived and what they built. After my first year at Ohio State, where I did my undergraduate education, I participated in a field school in Trim, Ireland. There, I got the chance to actually work on an archaeological excavation of a medieval monastery. While the field school was not about bioarchaeology or osteology, I was most interested in studying the people themselves. It cemented my desire to start doing bioarchaeological research back at Ohio State.

Q: What's something you learned while at ASU — in the classroom or otherwise — that surprised you or changed your perspective?

A: I was able to participate in a transdisciplinary workshop on One Paleopathology in the summer of 2024. One Paleopathology extends the One Health framework, which emphasizes the connections between human, animal and environmental factors in health outcomes, into the past. This workshop changed my perspective on what it means to study health and disease, not only by highlighting our deep connection to the world around us, but also emphasizing that bioarchaeological studies of the past can contribute to (understanding) modern social and health challenges.

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Julianne Stamer's research was supported by [ASU Core Research Facilities METAL core](#) staff members [Gwyneth Gordon](#), [Natasha Zolotova](#), [Trevor Martin](#) and [Tyler Goepfert](#), who trained her on the usage of the core's state-of-the-art equipment and otherwise assisted her in conducting analyses.

Q: Why did you choose ASU?

A: I chose ASU because I was really interested in stable isotope analysis, and here at ASU, we have two really great labs for learning this technique: the Archaeological Chemistry Laboratory run by Dr. [Kelly Knudson](#) and the Metals, Environmental and Terrestrial Analytical Laboratory run by Dr. [Gwyn Gordon](#).

Q: Which professor taught you the most important lesson while at ASU?

A: My advisor, Dr. Jane Buikstra, taught me a lot about thinking through problems at a larger scale. I think when I got to ASU, I was really focused on the methods, but she taught me a lot about asking questions from a broader perspective. Understanding our past requires approaching it from the big picture.

Q: What's the best piece of advice you'd give to those still in school?

A: I think a lot of the time it feels like what you're doing doesn't matter or isn't good enough, but everything you do is part of doing the dissertation or degree. Nothing is a waste of time because it is all part of the learning process — even learning what *not* to do is really important.

This story originally appeared on [ASU News](#).

Main image



Julianne Stamer, courtesy photo