October 2024 Science Museum of Minnesota Mission Moment: Archaeology Field School

Field school gives rising researchers real life archaeology experience

For archaeology students, important learning happens in the classroom and in the lab. And for a lucky few, that learning comes to life in the field during Dr. Ed Fleming's Archaeology Field School.

As the Science Museum's curator of Anthropology, Fleming has hosted this four-week session for college students and recent graduates for the past fourteen summers, in partnership with the University of Minnesota. Held at various sites across the metro area, the field school's goal is to give students a chance to earn college credit while gaining real life experience and building skills they can use to make a living in STEM.

Many motivations, one field school experience
Field school students get a variety of hands-on practice using field methods — from mapping and orienteering to survey design to laying out excavation units. They observe and describe soils and soil changes, learn about artifact identification and recovery, and document findings as they're doing the work.

"Students apply to the Field School for different reasons," says Fleming. "Some are hoping to find work in the cultural resource management sector, so I teach methods typical of that industry. Other students are considering graduate school, and it's important for them to know how fieldwork is done and data is collected."

In addition to the practical skills it offers, the Field School can also be a great place for students early in their academic careers to get a sense of what's possible. "Some students are simply exploring," Fleming continues. "First- or second-year students are often not quite sure if they want to pursue cultural anthropology or archaeology or something else, and this is a good opportunity to find out what this work is all about before they move forward."

Caring for nature and cultural history
The Pine Needles site, which is located on Science Museum property a few miles north of its St. Croix Watershed Research Station, has been home to the field school for the past three summers. It is located right along a backwater of the St. Croix's main channel, where two spring-fed streams run year round on two sides of the site. "It's a protected platform, and it's no surprise that people have found it a lovely spot for thousands of years," says Fleming.

“Sites like these that haven’t been thoroughly surveyed for cultural resources and are in locations where you’d expect to find a very deep history are perfect for teaching field methods,” he continues. “There’s potential to find great information that can help us piece together what the area looked like in the past.” And according to Fleming, the students aren’t the only ones who benefit. “In addition to being good stewards of our natural environment, we have a responsibility to be aware of the cultural history of the area and of the properties the museum maintains,” he says.

2024 discoveries will contribute to a broader based of knowledge

During this summer’s field school, the team uncovered an upland location that contained pottery and some lithic flakes (byproducts from making stone tools). At a campsite down on the river, they found stone tools, animal bones, the remains of fire hearths with botanical evidence like charcoal and seeds, and multiple varieties of pottery that reflects interaction with both the north woods and the prairies. “When you look at a site like this,” Fleming says, “it’s very clear that the St. Croix was a highway that connected different cultures in the region.”

As with all field work, further analysis of the objects collected during the 2024 Field School season will help us understand who was interacting at the site and when, what they may have been eating based on the plant and animal evidence, whether their plant food sources were gathered or cultivated, and more. In addition to giving rising researchers meaningful experience that will shape their career paths, each item collected during the Field School has the potential to give us valuable insight into what life may have been like in our area hundreds — and even thousands — of years ago.

Field school season is brief, but for a few students, the exploration didn’t end at the site. As Anthropology Department volunteers, they are continuing their work this fall in the lab, processing the items they uncovered during this summer’s fieldwork and adding them to the museum’s collections.