

## LIBERAL ARTS

### Ancient Pottery Analysis: The Mysterious Use of Mica in Armenian Ceramics

Student researcher: Nicholas Davis, Junior

At the beginning of the Late Bronze Age (1500–1150 BC), human society in the fertile Tsaghkahovit Plain in the mountains of present day Armenia transitioned from groups of nomadic pastoralists centered around large burial mounds to a mixed agro-pastoral existence overseen by stone hilltop fortresses. This settlement change and resulting political arrangements is the focus of Professor Ian Lindsay’s work on Project ArAGATS (Archaeology and Geography of Ancient Transcaucasian Societies). Of the data collected by ArAGATS, some of the most useful archaeological data comes from excavated pottery fragments, through which numerous research questions spanning social structure to diet can be addressed. I am assisting in the investigation of Late Bronze Age pottery from the Tsaghkahovit Plain to discover why fragments that have been chemically sourced to sites on the south side of the Plain include a shiny mineral called mica; this trait is unusual since micaceous clay is only found in clay sources located near an important religious site on the opposite side of the Plain. Finding out why this special clay made it across the Plain is the focus of my Margo Katherine Wilke Undergraduate Research Internship under Professor Lindsay, in which I am quantifying the relative frequencies of mica content among fragments from Late Bronze Age fortresses. Did the non-local mica inclusions represent ritual, technical, or economic

advantages to people making and using these pots? Answering questions like this will reveal nuanced social information about ancient people occupying Armenia over 3,000 years ago.

*Research advisor Ian Lindsay writes, “This sort of hands-on work is vital for giving undergraduates a feel for how archaeologists use excavated materials to answer questions about culture and social life in the ancient past. While much of what is fun about archaeology revolves around being out in the field, it is often back home in the lab where important patterns in the data are revealed and you get those ‘Eureka!’ moments of discovery by studying the artifacts, radiocarbon analysis, and more.”*



A fragment of Armenian pottery examined in the study.