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Jane C. Waldbaum Archaeological Field School Scholarship Report

Kastrouli Project, Desfina, Greece



Thanks to the support of the Jane C. Waldbaum Archaeological Field School Scholarship, I was able to join the Kastrouli Project this past summer's season. This was my first field experience and I found it to be incredibly rewarding. I joined a diverse group of students and professors in excavating a Mycenaean Late Bronze Age site that we are now confident was once an urbanized hub.

I joined the excavation looking forward to gaining experience actually working in field archaeology, applying knowledge and research experience I had learned during the year to real hands-on situations during the summer. I also came to the project as one of its digital archaeology specialists; one of my goals in attending this excavation was to experiment with

different methods of making models out of artifacts, researching the impacts of different light levels on-site on model resolution and data acquisition. My choice to join this excavation was also highly influenced by the project's emphasis on archaeometry; my personal research has a heavy archaeological component and I looked forward to learning more analytical methods at the field school, which I did. At the end of the summer, I was able to come back not only with data relevant to my personal research in digital archaeology, archaeological imaging analysis, and my senior thesis on Late Bronze Age Mycenaean economics, but also with newly gained knowledge of chemical, bioarchaeological, and drone geomapping analysis methods.



Us about to extract organic residue from a freshly excavated potsherd.

Kastrouli lies near the cult site of Delphi, overlooking the Corinthian Gulf from the southern slopes of Mt. Parnassus. The site sits at the border of the provinces of Boeotia and Phokis. We are told by Homer that the cities in these regions sent ships to fight with the Achaeans at Troy, hinting at a thriving Bronze Age community here. Preliminary work carried

out in 2016 and 2017, which included survey and mapping along with targeted excavations, began to reveal a site fortified with Cyclopean masonry typical of the Late Helladic III period in the region, with the promise of large structures within. Nearby rock-cut chamber tombs with multiple burials, some containing perfume jars and gold foil ornaments, were in use from the Late Helladic IIIA2 to Late Helladic IIIC period. The excavation this summer was held at a part of the site near those chamber tombs, where previous magnetometry surveys indicated a high possibility of a large concentration of the remains of residences.

Over the course of the excavation, I very much appreciated the hands-on approach to learning that governed the way we students were taught. For example, in the actual fieldwork, we learned what all the terms, like bulks and deposits and floors, meant through experience rather than straight memorization of the meaning of the terms. We had lectures a few times each week, organized by both our professors and the Greek professors with whom we were collaborating. These lectures were given by not only by the professors working with us, but also by other professors from different institutions with specialist expertise on different archaeometric methods such as magnetometry, GIS, petrography and conservation of organic and inorganic material. The lectures were really engaging and gave us opportunities to process each day's work in the field and really understand the implications of what we were doing.



I helped clean and conserve these stirrup jar fragments.

This was helped along by analysis sessions, in which all the finds of a week, usually all ceramic sherds, were gathered up and analyzed as a whole after having been bagged and tagged throughout each day's work. The professors walked us through what the presence of certain pottery forms meant, what kinds of fabric there were, and how to interpret fragments to determine what kind of vessel they might have once been a part of. We received comprehensive teaching on the types of vessel forms we could expect to see, and on the weekends went to museums to see complete specimens of each of the vessel forms. Seeing the difference between museum specimens and the finds we were digging up was also an educational experience, as I grew to appreciate how much work must have gone into excavating the finds of even one of the museum at Delphi's wings.



Examining the finds of the week with one of our professors

helping us.



Us washing pottery at the end of a day.

Throughout my work at the excavation, I had opportunities almost every day to conduct the research I had intended to pursue at the beginning of the project: to explore the impacts of different levels of light in the field on modeling resolution and data acquisition. I have high levels of experience working with the Artec Spider, Artec Eva, and photogrammetry, and it was with these three methods that I set out to test my methodology workflows that I had developed for the field during the year. It was a very enriching experience. Getting to test my workflows in

an actual field environment led to adjustments that I am sure will be helpful in future digital archaeological analyses; for example, a particular collection I was interested in modeling was the excavated bones from the chamber tombs, for which the level of surface detail was absolutely crucial to its imaging analysis.



My jury-rigged modeling setup for

photogrammetry.

I found that if a scanner was not available, then modeling these bones with sufficiently high resolution could still be achieved through targeted photogrammetry, with the use of photogrammetric bars to ensure proper scale and measurements. I also found that it was possible to integrate hyperspectral imaging with modeling analyses and landscape analysis, and am currently working through the data now as I work on my senior thesis. I will be incorporating my research from over the summer at this dig not only in my thesis, but in an upcoming publication.



My using the bars and an iPhone to

create a high-resolution model of an ulna.

I would not have been able to attend this excavation without the help of the Scholarship, and I am deeply grateful for its enabling my participation in an experience that has impacted and will continue to impact my career and professional plans. The funds from the Scholarship went directly towards paying my field school tuition, which was the largest obstacle I faced in making my attendance at the Kastrouli Project a reality. I am grateful to have had this experience, and I am thankful to have met the people I worked with over the summer, some of whom I am still working with now during the academic year and who I now consider to be valued colleagues. I intend to pursue a terminal degree in archaeology after I graduate this year, and to establish myself as an archaeometrist, archaeologist, and hopefully an eventual expert in Late Bronze Age Aegean material culture.



At the site at 7am.



A photo taken by one of our professors of me and my trenchmates at the very end of the dig; each trench had one taken of them.