

Atlantic Geoscience Society – Science Atlantic Speaker Tour

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Geospatial Technologies and the Archaeology of the Near East: Reflections, Challenges, Future Directions

Recent advances in geospatial technologies have had a profound impact on archaeological research. From ground penetrating radar to hyperspectral imagery to digital photogrammetry, these developments have changed how archaeologists detect sites, locate their trenches, analyze material culture, and present archaeological data to the public. In this talk, I reflect on how geospatial technologies have transformed the archaeology of the Near East over the past few decades, focusing especially on my experiences working on surveys and excavations in Jordan. I report on a range of challenges faced by archaeologists wanting to leverage geospatial technologies—for example, gaps in training, high cost of entry, policy impasses. Finally, I offer a few comments on the future trajectory of archaeological research in the Near East, and how archaeologists can both continue to profit from and contribute to developments in the geospatial sciences.



Biography:

I am an archaeologist specializing in the study of early states and empires in the ancient Near East. My research leverages geospatial technologies to better understand socio-political organization in the past. I am interested in answering big questions like how states expand and grow into territorial entities and empires, as well as more specific questions like why a watchtower was situated in a given location, or what routes people took when traveling between settlements. I completed my Ph.D. in Near Eastern Archaeology at the University of Toronto in 2019. My doctoral research used graph theory to examine patterns in the toponymy of the Ebla

texts, and used these patterns as a proxy for modeling settlement hierarchies in the northern Levant during the Early Bronze Age.

In 2020, I joined the Center of Geographic Sciences (part of the Nova Scotia Community College system) where I serve as the Faculty Lead for our post-graduate certificate program in Geospatial Data Analytics. I have worked on archaeological excavations and surveys in Cyprus, Turkey, Israel, and Jordan, where I started excavating in 2004. I'm currently a surveyor and field director for the Wadi Qusayba Project in northern Jordan, as well as an associate director of the Wadi ath-Thamad Project in west-central Jordan.