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Migration, Mobilities, and Changing Political Landscapes

Investigating Historical Climate Migration: How GIS Can Facilitate Multi-Scalar Archaeological Research

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The Late Bronze Age (LBA) (1600-1100 BCE) in the ancient Levant (modern-day Syria, Jordan, Palestine, and Israel) ended in what scholars have deemed a “perfect storm” of cataclysmic factors such as warfare, famine, earthquakes, invasion, and climate change. Paleoenvironmental data suggests regionally variant increases in aridity throughout the Levant between the 13th and 10th centuries BCE that undoubtedly contributed to some site destructions and abandonments. What is the connection between climate change and human movement during the Levantine LBA? Climate migration – the movement of people primarily driven by shifting environmental conditions - has been commonplace throughout history. Given its continuity, this paper advocates for increased cross-disciplinary and multi-temporal collaboration on climate migration research by explaining how climate migration occurring 3,200 years ago is archaeologically detectable and considering how lessons from the past can inform modern policymaking. I present a novel methodology for analyzing shifts in Levantine settlement patterns using GIS - a program capable of visualizing many environmental factors and data points mirroring the dynamism of migration and climate. When a regional-scale GIS analysis is coupled with a micro-scale comparison of archaeological evidence of LBA Levantine water storage and management methods, fascinating conclusions are revealed about ancient human resilience and adaptive capacities in the face of climatic shifts. Ultimately, I argue that the LBA Levantine climate migration process was a form of resilience, simultaneously contributing to cultural change and continuity. I conclude by highlighting the need for cross-disciplinary collaboration on climate migration, emphasizing the potential of historical inquiry to identify and examine examples of resilience that can empower modern communities by connecting them to past coping strategies with environmental shifts.