

# Considering social network analysis: A Black Sea case study investigating trade dynamics in the ancient Greek world.

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## Abstract

Understanding trade dynamics through exclusively material culture can be problematic, but analysis of its embedded role in networks offers crucial new perspectives to further knowledge of ancient interaction. This research investigated the contribution of network approaches when exploring past interaction and connectivity within trade, using Greek transport amphorae data. Using social network analysis (SNA), a tool used to investigate social structure, static amphorae distributions are brought together in a relational and dynamic way. A specific dataset generated from amphorae data collected from sites around the Black Sea, between the seventh and first centuries BCE, was used in the SNA. The Black Sea was an integral part of the protoglobal ancient world, however, for historical reasons, this region has been secondary to the interests of western scholars. Using the Black Sea as a case study not only revealed patterns in trade dynamics in this region, but also served to bring Black Sea studies to the foreground when studying the ancient Mediterranean. SNA was conducted over three case studies, applying bipartite and co-occurrence network approaches. This approach transformed small and disparate datasets into a cohesive body of evidence, helping to reveal dynamic patterns within the network. This research has provided a proof of concept for SNA as a tool that can be used to reveal, and thus allow archaeologists to visualise, patterns in trade dynamics through transport amphorae distributions. The results help to understand nuances between methodological approaches to material culture networks investigating ancient trade. Patterns revealed using SNA encourage researchers to ask new and valuable questions about archaeological data.