



## ABSTRACT SUBMISSION

# Tracing population dynamics in the Upper W?di az-Zarq?: the case study of Khirbat ar-Ru?ayfah during the Late Bronze Age

LIBERATI C.,<sup>1\*</sup>

<sup>1</sup> University of Rome "La Sapienza", Rome, Italy

\*Corresponding author

## Abstract

The adoption of computer modelling techniques has transformed the study of demographic and settlement dynamics in archaeology, providing new insights into the complex interactions between population, resources, and the environment. Through modelling tools, such as QGIS, we can now estimate the resources that were likely available within ancient cities. This estimate can be used to assess the population dynamics of an area and how communities adapted their settlement patterns in response to specific environmental conditions.

The case study of Khirbat ar-Ru?ayfah in the Upper W?di az-Zarq?, Hashemite Kingdom of Jordan, offers a detailed examination of both the potential and the limitations of this computational approach to reconstructing demography based on the carrying capacity of ancient territories. This approach helps us to understand whether and how resource accessibility may have shaped local settlement strategies and how these new methodologies enhance our understanding of the complex relationships between ancient communities and their landscape.

## Keywords

demography, settlement pattern, modelling techniques, resource availability, carrying capacity

## Session

2. Natural resources and anthropised landscapes

## Type of paper

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