
# ABSTRACT SUBMISSION

# Flood Analyses as Part of the Heritage Conservation Strategy at Qurh / al-Mabiyat (al-Ula, NW Arabia)

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## Abstract

Interdisciplinary research (2022-24) at the site of al-Mabiyat (early Islamic Qurh), involved conservation, surface survey and archaeological excavations. The project by the German Archaeological Institute and the Royal Commission for AlUla (RCU) built upon previous archaeological research and conservation activities implemented within the settlement on excavated architectural features mainly consisting of earthen-based construction materials.

Recent heavy rainfall and flooding events in the area of Qurh significantly impacted the condition of the archaeological site and its exposed architecture. The risk of further flood-induced deterioration constitutes a major challenge for the site's long-term protection.

This paper presents the analysis of the flood risk and possible mitigation strategies embedded in the project's conservation framework developing sustainable protection measures for the site´s cultural heritage. On a landscape and site-level, a systematic hydrological study investigated the topography, catchment area, as well as anthropogenic and hydraulic elements, and conducted infiltration tests to determine soil permeability. The data was consolidated in a dynamic hydraulic-hydrological model to simulate centralized and decentralized flood protection approaches for the archaeological site of Qurh to facilitate discussions on implementation with stakeholders.

## Keywords

Site Conservation, Flood Analyses, Hydrological Study, Interdisciplinary Research, Risk Management

## Session

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