



## ABSTRACT SUBMISSION

# Bronze Age metallurgy at Qurayyah, NW Saudi Arabia: challenges and perspectives

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## Abstract

The prominent archaeometallurgical finds in the ancient site of Qurayyah, NW Saudi Arabia (Liu et al. 2015, Luciani and Alsaad 2018, Luciani et al. 2018, Luciani 2021) demonstrate the importance of the area in the production of copper-based artifacts during the Bronze Age (Late Third and Second Millennia BCE). However, technological features of metal production as well as the provenance of the ore used in the metallurgical processes still need to be investigated.

Lead isotope and chemical analyses for samples of mineralized sandstone found in Qurayyah indicate that their copper did not come from Feinan or Timna (Liu et al. 2015). On the other hand, one sample analyzed by Liu et al. 2015 has lead isotope ratios consistent with Arabian shield whole rock and galena.

All these raise the possibility of the occurrence of similar, yet unknown, copper and tin mineralization in the region that could have been exploited by ancient miners and metallurgists.

According to the Saudi Geological Survey, the region southwest of Qurayyah seems particularly rich in mineral occurrences. We plan to investigate 17 mines and occurrences NE of the Wadi ?Ayn?na in a geological and ancient mining reconnaissance of potential ancient workings of copper and tin.

## Keywords

Ancient Mining, Copper and Tin Mineralization, Lead Isotope Analysis, Archaeometallurgy, Bronze Age

## Session

3. Heritage and archaeology

## Workshop

A15745PS - NEOM, a land for the future of Arabian archeology: surveys, excavations and heritage management in North-West Arabia

## Type of paper

