



## ABSTRACT SUBMISSION

# An irrigation canal dated to the beginning of the Hafit period at Al-Arid (inland region of north-western Oman, end of 4th mill. BCE)

BROCHIER J. <sup>1</sup>, BERTRAND KRAJEWSKI J. <sup>2</sup>, BLOND N. <sup>3</sup>, CASTEL C. <sup>6\*</sup>, MARMARA M. <sup>4</sup>, RIVIERE F. <sup>5</sup>

<sup>1</sup> CNRS retired, Aix-en-Provence, France

<sup>2</sup> INSA, Lyon, France

<sup>3</sup> ENS, Lyon, France

<sup>4</sup> CNRS, Lyon, France

<sup>5</sup> associCNRS UMR 7044 ARCHIMEDE, Strasbourg, France

<sup>6</sup> CNRS-UniversitLyon 2, Lyon, France

\*Corresponding author

## Abstract

On the Al Arid settlement site in the Sultanate of Oman, excavations carried out since 2019 have revealed the presence of two main phases of occupation dated from the Hafit and Umm An-Nar periods (covering the entire 3rd millennium BC) on a low terrace on the edge of the Wadi Khuwaibah. In this arid region, where rainfall currently averages 80 mm/year, access to water is a major constraint, reflected in the existence of numerous sub-contemporary underground canals (aflaj), often abandoned nowadays. The discovery of a much older canal raised the questions of its origin and age. Its dating places it at the very beginning of the Hafit period. Although it has been possible to follow the canal over a distance of more than 300 m from the bed of the wadi, the question of the areas served by irrigation remains unanswered. Our presentation will present our findings at the intersection of archaeology, geoarchaeology and hydrology for what appears to be the oldest attested irrigation canal in Oman, if not in the Arabian Peninsula.

## Keywords

Canal, Irrigation, Arabian Peninsula, Oman, Hafit period

## Session

2. Natural resources and anthropised landscapes

## Type of paper

Oral presentation