

Cultural Similarities between Archaeological Assemblages

based on the ROCEEH ROAD Database

Middle Paleolithic & Middle Stone Age

Mapping approach

These maps show the technological and cultural similarities between time-overlapping archaeological assemblages throughout the Pleistocene. The lines represent the similarities as estimated with the Jaccard Index from 32 attributes comprising, for example, lithic and organic tool groups, symbolic artifacts, and combustion and burial features. We used a weighted function based on Euclidean distance and the similarity measure to visualize the cultural links. Brighter colors indicate higher similarities and higher densities of connections.

The ROAD database is one of the largest collections of archaeological data integrating sites, assemblages, chronologies, artifacts, human remains and environmental indicators from 3,000,000 to 20,000 years ago. This study, as of Nov. 2021 comprises ~16,000 assemblages from ~2,100 sites. However, the resulting maps presented here should be treated with caution, because data collection from published literature in many languages is still ongoing and the archaeological record continues to grow. We present the results from two cultural periods in the main map (Middle Paleolithic and Middle Stone Age), as well as a selection of nine technocomplexes in the side maps.

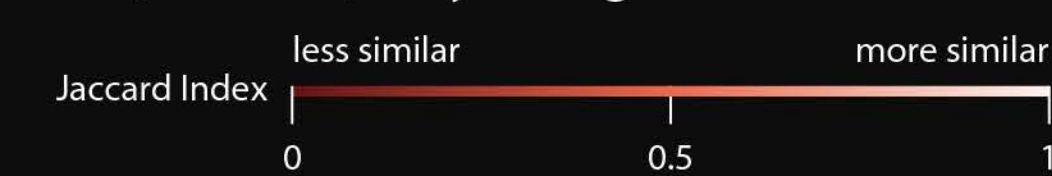
Middle Paleolithic

350,000 – 40,000 years ago

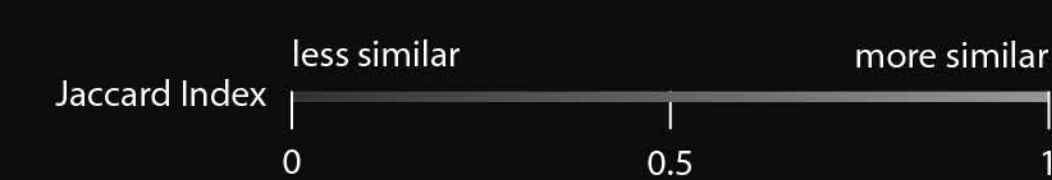


Middle Stone Age

300,000 – 30,000 years ago



Similarities between Middle Paleolithic and Middle Stone Age



0 kilometres 1,000
Scale 1:22,000,000 when printed at A0

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Projection: Winkel Tripel centered at 60°E
 Datum: WGS 1984
 Data source: ROCEEH Out of Africa Database (ROAD, www.rocee.net) as of 2021-11-16;
 Continents: naturalearthdata.com
 Reproducible code: <https://doi.org/10.5281/zenodo.6873723>
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THE ROLE OF CULTURE IN EARLY EXPANSIONS OF HUMANS

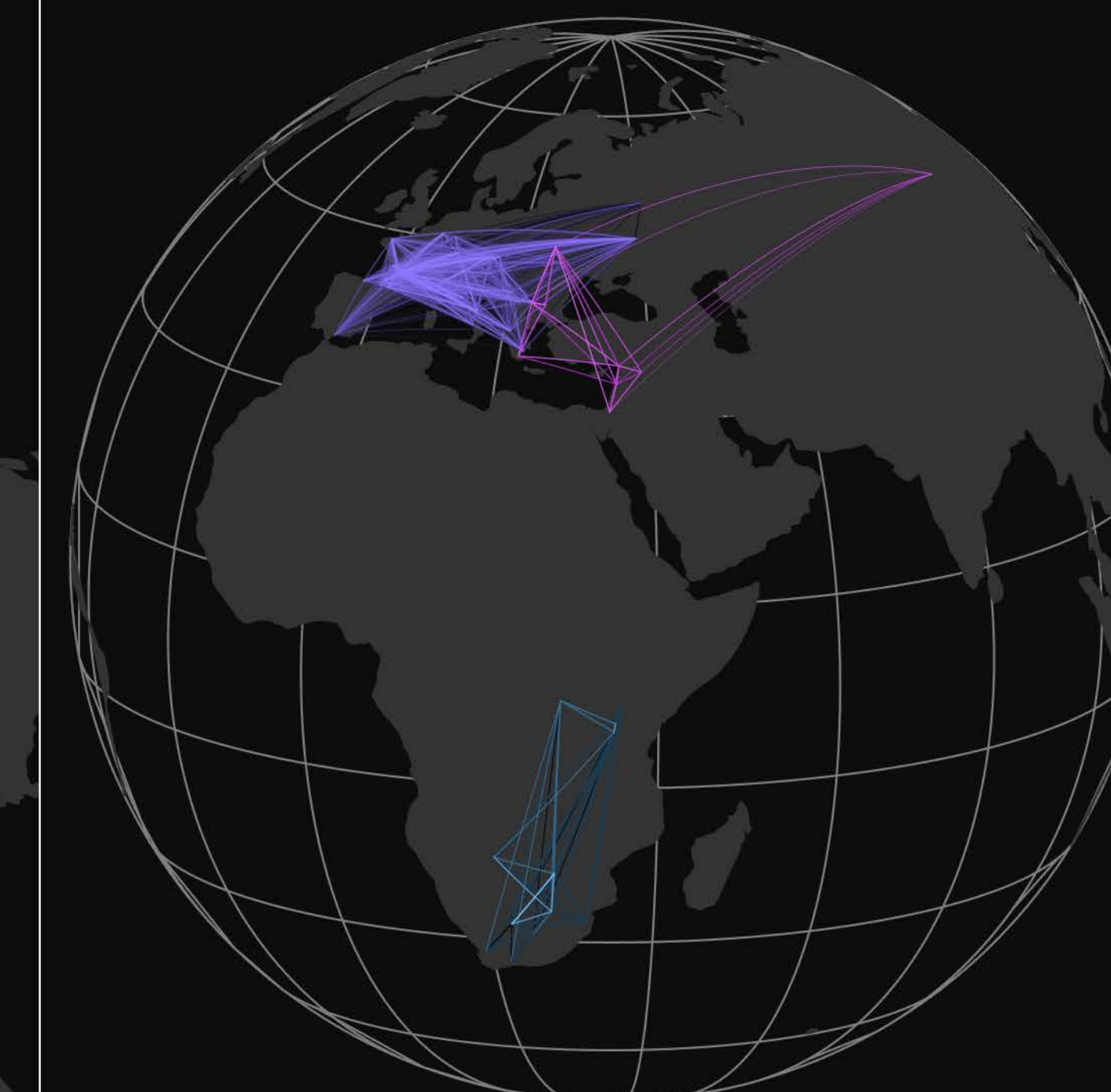


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Upper Paleolithic & Later Stone Age



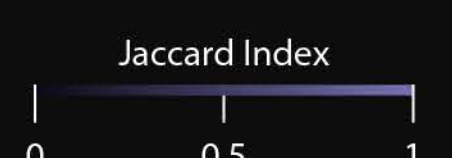
Initial Upper Paleolithic

47,000 – 40,000 years ago



Gravettian

35,000 – 25,000 years ago

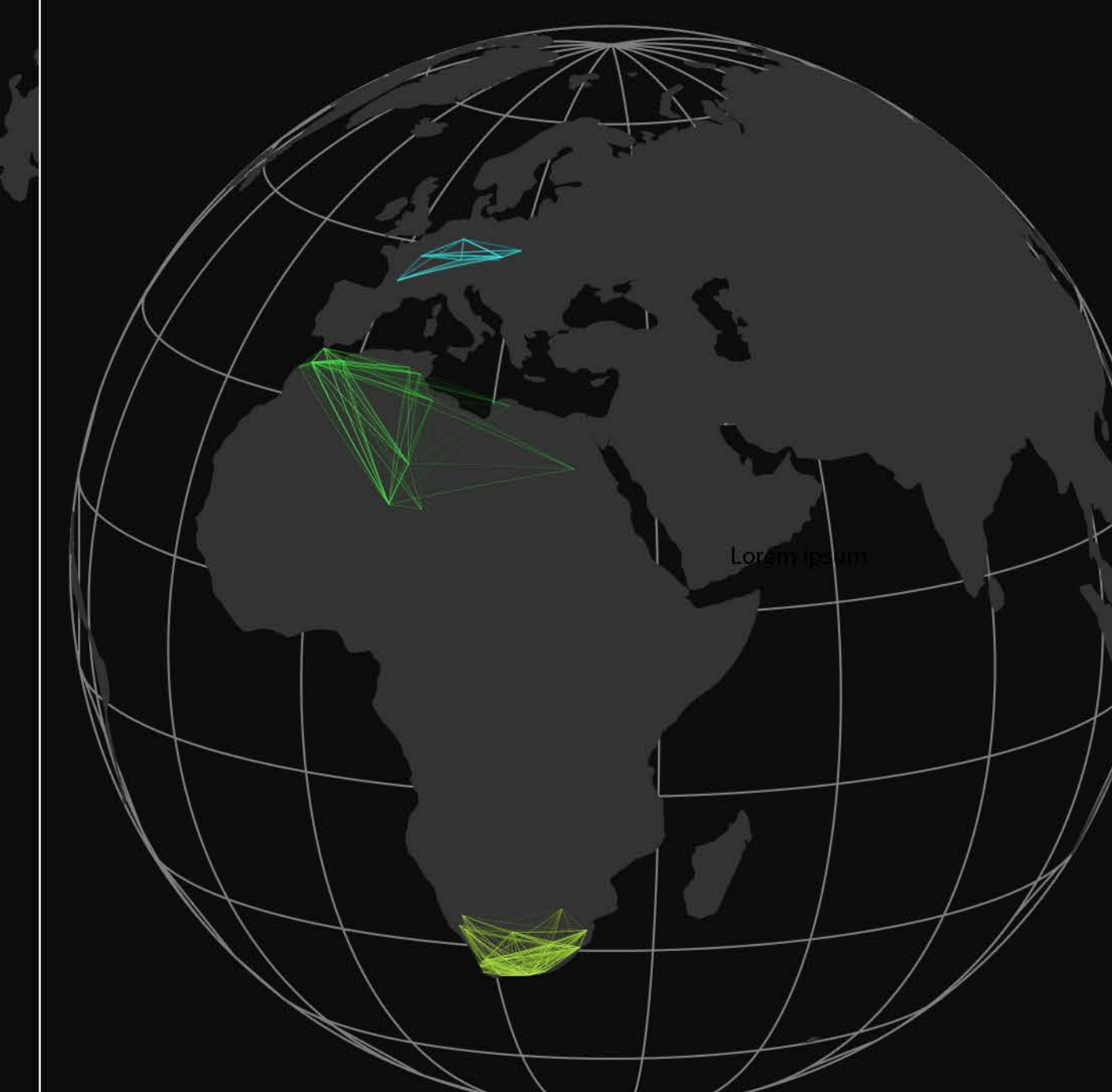


Early Later Stone Age

40,000 – 18,000 years ago



Middle Paleolithic & Middle Stone Age



Micoquian

130,000 – 40,000 years ago



Aterian

150,000 – 40,000 years ago



Howiesons Poort

66,000 – 58,000 years ago



Lower Paleolithic & Early Stone Age



European Acheulean

1,000,000 – 250,000 years ago



Levantine Acheulean

1,500,000 – 250,000 years ago



African Acheulean

1,800,000 – 300,000 years ago



Scale 1:70,000,000 when printed at A0.