Dynamic Coastlines and Human Prehistory: The DISPERSE Project Investigations in the Southern Red Sea

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1. INTRODUCTION

The exploitation of coastal landscapes and resources in human prehistory has long been a subject of debate, particularly in assessing the conditions and timing of global dispersals of modern humans from Africa, but also in the diversity of Holocene hunter-gatherer lifeways. Coastal landscapes may provide highly attractive concentrations of different marine and terrestrial resources, yet current discussions into Pleistocene and early Holocene coastal exploitation are hampered due to submergence of previous coastlines by mid-Holocene sea level rise. Interdisciplinary approaches that integrate prospectivity work both on land and underwater, and that integrate the dynamic nature of coastlines driven by sea level change, are desperately needed. The ERC-funded DISPERSE project is undertaking interdisciplinary investigations into the prehistoric occupation of the Southern Red Sea, on land and underwater.

2. BROAD-SCALE MAPPING

Over 3000 shell mounds, dating from 6,500 to 4,500 cal. BP (Figure 3a; Meredith-Williams et al. 2014b) have been surveyed on the Farasan Islands, illustrating intense past marine resource exploitation. DISPERSE’s programme of excavation, coupled with bioarchaeological analysis of the shells, has given new insights into the subsistence strategies that drew on these environments.

3. HOLOCENE SHELL MIDDENs

Shell mounds are closely associated with palaeoshorelines (Figure 3b) and earlier mounds may have been submerged by subsequent sea level rise. DISPERSE has carried out a programme of shallow-water diving in areas where submerged shell mounds may have been preserved (Figure 4a, b).

5. SUBMERGED LANDSCAPES

Multi beam bathymetry, coupled with side scan sonar survey, was carried out by the R/V Aegaeo in targeted locations across the continental shelf of the Farasan Islands. This high-resolution characterisations of the submerged landscape and its potential attractiveness to hominin populations, e.g. areas with access to rivers and lakes (Figure 8).

5. CONCLUSIONS

The research carried out by the DISPERSE project has produced a unique dataset of information on archaeological spanning up to two millions of years associated with the coastal regions and islands of Southwestern Saudi Arabia. Offshore survey and terrestrial geomorphological mapping and survey has allowed this long-term record to be placed in the context of a dynamic landscape, both onshore and now-submerged, and has highlighted numerous routes for further research to explore the potential of this region. It is only through interdisciplinary research programmes that the major unconscious challenges associated with tracing the prehistory of coastal regions around the world can begin to come over the horizon.

REFERENCES


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The coastline of the Haraz Al Birk lirka fields, Asir Province, contain fossil coral and marine terraces at present-day sea level (Figure 6a, b). It is only through interdisciplinary research programmes that the major unconscious challenges associated with tracing the prehistory of coastal regions around the world can begin to come over the horizon.