Exploring Sea Country: resolving early coastal landscapes and discovery of underwater cultural heritage

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- 2 million km² of territory was exposed around the Australian continental land mass at the peak of the LGM
- During this period some of the major transformations of early human history took place
  - Renewed human dispersals out of Africa into Europe and Asia,
  - Development of seafaring technology,
  - Dallaecuoconomic diversification and intensification including exploitation of marine resources
  - Entry for the first time into Australia at c. 65,000
Timing of arrival?
Location (entry point)?
Migration patterns?
A Strategy for Assessing Continuity in Terrestrial and Maritime Landscapes

Dampier Archipelago
Murujuga Traditional Owners
NW Western Australia
Erosional Sequences

Investigate material within a palimpsest surface

Tools > LiDAR & Done imagery
Dating > Radiocarbon methods
Constructional Sequences

*Investigate the presence/absence of cultural material contained within each beach ridge to establish periods of active use*

Tools > Ground Penetrating Radar
Dating > OSL & Radiocarbon methods

GPR Signal
Cemented Sequences

Investigate the presence/absence of cultural material contained within beachrock formations throughout the Dampier Archipelago

Tools > LiDAR & Drone imagery
Dating > OSL & Radiocarbon methods
3D Seismic Bathymetry
Offshore Waters

<table>
<thead>
<tr>
<th>Basin</th>
<th>Basin Area</th>
<th>3D Seismic Area</th>
<th>%Area Surveyed</th>
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<tbody>
<tr>
<td>Northern Carnarvon</td>
<td>386,412</td>
<td>170,764</td>
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<tr>
<td>Roebuck</td>
<td>92,724</td>
<td>19,573</td>
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<td>Browse</td>
<td>220,145</td>
<td>80,705</td>
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<tr>
<td>Bonaparte</td>
<td>341,920</td>
<td>53,011</td>
<td>0.16</td>
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<tr>
<td>Total</td>
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• Coastal Dune Ridge
• Coastal Barriers
• Estuarine Channels
• Tidal Flats
• Longshore Spits

• Suggests an extended interval of stable SL