

## Contents

<b>List of Figures.....</b>	<b>xi</b>
<b>List of Tables.....</b>	<b>xix</b>
<b>Abbreviations .....</b>	<b>xx</b>
<b>Notes on Transliteration .....</b>	<b>xxi</b>
<b>1. Introduction.....</b>	<b>1</b>
1.1. Aims of the Book and Research Questions .....	1
1.2. The Study of Boats and Ships .....	2
1.3. Methodology .....	3
<b>2. Sewn Boats of the Indian Ocean.....</b>	<b>7</b>
2.1. Archaeological Evidence of Sewn Boats in the Indian Ocean.....	7
2.2. Textual Sources .....	15
2.3. Iconography .....	21
2.4. Experimental Reconstruction Projects .....	24
2.5. Ethnographic Studies .....	28
2.6. Conclusion.....	33
<b>3. The al-Balid Timbers.....</b>	<b>35</b>
3.1. The Site of al-Balid .....	35
3.2. The Planks .....	37
3.3. Additional Fastening Methods .....	56
3.4. Other Maritime Remains.....	60
3.5. Decoration .....	63
3.6. Tool Marks .....	63
3.7. Recycling and Modification .....	67
3.8. Materials .....	68
3.9. Dating the Timbers.....	76
3.10. Conclusion.....	79
<b>4. The Qalhat Timbers.....</b>	<b>81</b>
4.1. Archaeological Context.....	81
4.2. The Timbers .....	81
4.3. Conclusion.....	84
<b>5. Structure and Forms of Medieval Indian Ocean Sewn Vessels .....</b>	<b>87</b>
5.1. Planking.....	87
5.2. Ship Beams.....	93
5.3. Frames .....	96
5.4. Keel .....	100
5.5. Stem and Stern Posts .....	103
5.6. Rigging Block Sheave .....	104
5.7. Forms of Medieval Indian Ocean Sewn Vessels .....	106
5.8. Decoration .....	110
5.9. Carpentry Tools .....	112
5.10. Conclusion.....	116
<b>6. Fastening Methods of Medieval Indian Ocean Watercraft.....</b>	<b>117</b>
6.1. Sewing Techniques.....	117
6.2. Dowels.....	127
6.3. Hole Plugs .....	130
6.4. Luting .....	132
6.5. Frame Lashing.....	133
6.6. Through-beam Fastening .....	135
6.7. Sewing Tools.....	135

6.8. Coating and Antifouling.....	138
6.9. Repairs.....	140
6.10. Nailed-plank Construction .....	143
6.11. Conclusion.....	147
<b>7. The Use and Trade of Materials in the Indian Ocean .....</b>	<b>149</b>
7.1. Timber .....	149
7.2. Sewing material.....	153
7.3. Luting, Coating and Antifouling Material.....	154
7.4. Material Trade in the Indian Ocean: New Light on Material Suppliers.....	156
7.5. Origin of the Vessels .....	158
7.6. Material Recycling .....	159
7.7. Conclusion.....	162
<b>8. Conclusion .....</b>	<b>165</b>
8.1. Indian Ocean Medieval Sewn Vessels.....	165
8.2. The Multidisciplinary Approach .....	166
8.3. Future Directions in the Study of Indian Ocean Medieval Vessels.....	167
<b>Glossary .....</b>	<b>169</b>
<b>Bibliography .....</b>	<b>175</b>
<b>Index.....</b>	<b>189</b>

Appendix – this can be accessed online at <https://doi.org/10.30861/9781407360577-Appendix>