

Cambridge University Press  
978-0-521-01109-9 - The Archaeology of Seafaring in Ancient South Asia  
Himanshu Prabha Ray  
Frontmatter  
[More information](#)

---

## **The Archaeology of Seafaring in Ancient South Asia**

Prior to European expansion, communities of the Indian subcontinent had a strong maritime orientation. In this new archaeological study, Himanshu Prabha Ray explores seafaring activity, religious travel and political economy in this ancient period. By using archaeological data from the Red Sea to the Indonesian archipelago, she reveals how the early history of peninsular South Asia is interconnected with that of its Asian and Mediterranean partners in the Indian Ocean region. The book departs from traditional studies, focussing on the communities' maritime history rather than agrarian expansion and the emergence of the state. Rather than being a prime mover in social, economic and religious change, the state is viewed as just one participant in a complex interplay of social actors, including merchants, guilds, boat-builders, sailors, pilgrims, religious clergy and craft-producers. It will be welcomed by scholars and students of archaeology and ancient history, particularly those interested in South Asian studies.

HIMANSHU PRABHA RAY is Associate Professor at the Centre for Historical Studies, Jawaharlal Nehru University.

Cambridge University Press  
 978-0-521-01109-9 - The Archaeology of Seafaring in Ancient South Asia  
 Himanshu Prabha Ray  
 Frontmatter  
[More information](#)

---

CAMBRIDGE WORLD ARCHAEOLOGY

---

*Series editor*

NORMAN YOFFEE, *University of Michigan*

*Editorial board*

SUSAN ALCOCK, *University of Michigan*

TOM DILLEHAY, *University of Kentucky*

STEPHEN SHENNAN, *University College, London*

CARLA SINOPOLI, *University of Michigan*

The Cambridge World Archaeology series is addressed to students and professional archaeologists, and to academics in related disciplines. Most volumes present a survey of the archaeology of a region of the world, providing an up-to-date account of research and integrating recent findings with new concerns of interpretation. While the focus is on a specific region, broader cultural trends are discussed and the implications of regional findings for cross-cultural interpretations considered. The authors also bring anthropological and historical expertise to bear on archaeological problems and show how both new data and changing intellectual trends in archaeology shape inferences about the past. More recently, the series has expanded to include thematic volumes.

*Books in the series*

A.F. HARDING, *European Societies in the Bronze Age*

RAYMOND ALLCHIN AND BRIDGET ALLCHIN, *The Rise of Civilization in India and Pakistan*

CLIVE GAMBLE, *The Palaeolithic Settlement of Europe*

CHARLES HIGHAM, *Archaeology of Mainland South East Asia*

SARAH MILLEDGE NELSON, *The Archaeology of Korea*

DAVID PHILLIPSON, *African Archaeology (second revised edition)*

OLIVER DICKINSON, *The Aegean Bronze Age*

KAREN OLSEN BRUHNS, *Ancient South America*

ALASDAIR WHITTLE, *Europe in the Neolithic*

CHARLES HIGHAM, *The Bronze Age of Southeast Asia*

CLIVE GAMBLE, *The Palaeolithic Societies of Europe*

DAN POTTS, *The Archaeology of Elam*

NICHOLAS DAVID AND CAROL KRAMER, *Ethnoarchaeology in Action*

CATHERINE PERLÈS, *The Early Neolithic in Greece*

JAMES WHITLEY, *The Archaeology of Ancient Greece*

PETER MITCHELL, *The Archaeology of Southern Africa*

HIMANSHU PRABHA RAY, *The Archaeology of Seafaring in Ancient South Asia*

TIMOTHY INSOLL, *The Archaeology of Islam in Sub-Saharan Africa*

PETER M.M.G. AKKERMANS AND GLENN M. SCHWARTZ, *The Archaeology of Syria*

Cambridge University Press  
978-0-521-01109-9 - The Archaeology of Seafaring in Ancient South Asia  
Himanshu Prabha Ray  
Frontmatter  
[More information](#)

---

CAMBRIDGE WORLD ARCHAEOLOGY

---

THE ARCHAEOLOGY  
OF SEAFARING IN  
ANCIENT SOUTH ASIA

HIMANSHU PRABHA RAY  
*Jawaharlal Nehru University, New Delhi*



**CAMBRIDGE**  
UNIVERSITY PRESS

Cambridge University Press  
978-0-521-01109-9 - The Archaeology of Seafaring in Ancient South Asia  
Himanshu Prabha Ray  
Frontmatter  
[More information](#)

---

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE  
The Pitt Building, Trumpington Street, Cambridge CB2 1RP, United Kingdom

CAMBRIDGE UNIVERSITY PRESS  
The Edinburgh Building, Cambridge, CB2 2RU, UK  
40 West 20th Street, New York, NY 10011-4211, USA  
477 Williamstown Road, Port Melbourne, VIC 3207, Australia  
Ruiz de Alarcón 13, 28014 Madrid, Spain  
Dock House, The Waterfront, Cape Town 8001, South Africa  
<http://www.cambridge.org>

© Himanshu Prabha Ray 2003

This book is in copyright. Subject to statutory exception  
and to the provisions of relevant collective licensing agreements,  
no reproduction of any part may take place without  
the written permission of Cambridge University Press.

First published 2003

Printed in the United Kingdom at the University Press, Cambridge

*Typeface* Trump Medieval 10/13 pt.    *System* L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> [TB]

*A catalogue record for this book is available from the British Library*

ISBN 0 521 80455 8 hardback  
ISBN 0 521 01109 4 paperback

---

## CONTENTS

<i>List of figures</i>	page x
<i>Acknowledgements</i>	xii
1 Historiography and the maritime landscape	1
1.1 The perspective	1
1.2 Historiography	10
1.3 The maritime landscape	19
1.4 Geographical knowledge of the Indian Ocean in antiquity	25
Archaeology of trade	27
The palaeoenvironment and location of Mahasthangarh	28
2 Fishing and sailing communities: cross-cultural contacts	30
2.1 Marine and coastal resources	30
2.2 Maritime communities: beginnings	37
2.3 Boat nomads	43
2.4 Piracy	46
2.5 Fishing communities: the historical record	47
2.6 Sailing communities	51
Tamil poems of love and war	53
Pearl fisheries of the Gulf of Mannar	53
3 <i>La longue durée</i> : transportation, boat-building technology and navigation	55
3.1 Archaeology of the boat	55
3.2 The stitched tradition	59
3.3 Early European response	64
3.4 The ethnographic evidence	66
3.5 Boat-building centres	70
3.6 Traditional navigation	70
3.7 Ownership of vessels	72
3.8 Organisation of shipping	74
3.9 Innovation and change	75

viii	<i>Contents</i>	
	3.10 Repair and maintenance	77
	3.11 Chronology of disjunction	77
	Maritime archaeology of the Indian Ocean	80
4	Maritime trade networks: the beginnings (third to second millennia BCE)	82
	4.1 Mesopotamian contacts	84
	4.2 The Persian Gulf and early maritime networks	87
	4.3 The Harappan civilisation	91
	4.4 The maritime regions of the Harappans	93
	4.5 Internal networks of trade	96
	4.6 Transition and change	98
	Instruments of trade	100
5	Regional integration (late second to early first millennia BCE)	103
	5.1 The Persian Gulf	105
	5.2 Socotra	109
	5.3 Peninsular India	111
	5.4 Sri Lanka	117
	5.5 Southeast Asia	120
	The megalith builders of peninsular India	125
	Arikamedu: changing paradigms	127
6	Consolidation of the political structure	129
	6.1 The setting	129
	6.2 Political concepts in early Buddhism: theory and practice	133
	6.3 Satavahanas and their successors	136
	6.4 Alliance as political strategy	145
	6.5 The early polities in Sri Lanka	147
	6.6 Political developments in early Southeast Asia	149
	6.7 Royalty and ritual	152
	Archaeology of early polities	152
	Royal inscriptions from peninsular India	155
7	The Greeks: adventurers, travellers and traders	165
	7.1 The explorers	168
	7.2 Hellenistic settlements	172
	7.3 The Nabataeans, Sabaeans and Gerrhaeans	175
	7.4 The maritime network	177
	7.5 Christian communities	182
	Indo-Greek coins	186

<i>Contents</i>	ix
8 The merchant lineage and the guild	188
8.1 Merchant communities: interaction with the state	188
8.2 Organisation of inland trade	193
8.3 The Indian Ocean network	198
8.4 Foreigners and trade networks	205
8.5 Money and the use of coins	208
The prevalence of writing	212
9 Craft production and trading networks: multiple meanings	214
9.1 The trading commodities	216
9.2 Textiles	217
9.3 Beads	227
9.4 Ivory	231
9.5 Metal artefacts	233
9.6 Organisation of crafts	235
Terracottas from the Deccan	235
Begram ivories: analogies with early Buddhist sites	237
10 Shared faith	245
10.1 Social base of early Buddhism	248
10.2 The worship of the stupa and the relics	251
10.3 Pilgrimage	253
10.4 Ritual and ceremony	255
10.5 Buddhism and maritime activity	258
10.6 Archaeology of monastic sites	260
10.7 Continuity and change	269
Details of relic caskets enshrined	272
11 Retrospect and prospect	275
11.1 In conclusion	275
11.2 Future research strategy	279
Land grants to brahmanas: beginnings of agriculture in peninsular India?	290
<i>Glossary</i>	292
<i>References</i>	296
<i>Index</i>	328

---

**FIGURES**

1.1	The Indian Ocean	<i>page 4</i>
1.2	Monsoon winds and currents in the Indian Ocean	21
1.3	Palaeoenvironment of Mahasthangarh	23
2.1	Marine shell resources and distribution networks	32
2.2	Location of Khok Phanom Di	42
2.3	Chaw Lay sites on Phuket island	45
3.1	Boats carrying pots in Ajanta paintings	65
3.2	Shell-built vessel on the Orissa coast	68
3.3	Skeleton construction on the Andhra coast	69
3.4	<i>Masulas</i> transporting cargo to the shore	79
3.5	Clay sealing from Chandraketugarh	80
4.1	Major areas in the third millennium BCE	86
4.2	Metal resources and distribution networks	89
4.3	Principal sites of the Harappan civilisation	92
5.1	Principal Iron Age sites in Oman	107
5.2	Archaeological sites on the island of Socotra	110
5.3	Archaeological sites in the Coimbatore district	112
5.4	Trade centres in Tamil Nadu	114
5.5	Archaeological sites in Sri Lanka	118
5.6	Metal Age sites in Indonesia	123
6.1	Sites with Asokan inscriptions	134
6.2	Sites of inscriptions in the Deccan	137
6.3	Façade of the cave at Nasik	138
7.1	The Erythraean Sea	171
7.2	Hellenistic settlements in the Persian Gulf	173
7.3	Location of Begram and other sites	178
7.4	Location of sites identified as Christian centres	184
8.1	Sites along the Red Sea	190
8.2	Buddha images at Kanheri	197



<i>List of figures</i>		xi
8.3	The Indian Ocean network from the third to sixth centuries CE	199
8.4	Inscription of Buddhagupta	204
8.5	General view of Arikamedu	207
8.6	Find-spots of Roman coins in India	211
9.1	Indian cloth from Southeast Asia	215
9.2	Painting from Ajanta	222
9.3	Painting of a ceiling from Ajanta	226
9.4	Beads in the trade network, from the site of Ban Don Ta Phet, Thailand	229
9.5	One of the Begram ivories	232
9.6	Terracotta from Ter	236
10.1	Stupa worship at Sanchi	256
10.2	Avalokitesvara from cave 90 at Kanheri	259
10.3	Buddhist sites in peninsular India	261
10.4	Asokan edict at Brahmagiri	262
10.5	Buddhist rock-cut caves at Kanheri	264
10.6	Stone bowl at Thotlakonda	265

---

## ACKNOWLEDGEMENTS

My involvement with research on boats began in September 1992 at the invitation of the Director of the National Institute of Science, Technology and Development Studies (NISTADS), Dr Ashok Jain. Over the years, I have benefited from hospitality provided by a number of scholars and institutions. The Centre Nationale de Recherche Scientifique (CNRS) awarded me a three-month Visiting Fellowship at the Maison de l'Orient Méditerranéen, Lyon, during May–August 1996 and the University of Lyon II invited me again in 2001 as Visiting Professor. I am grateful to Dr J.-F. Salles and Professor Marie-Françoise Boussac for the hospitality and for academically rewarding stays in Lyon.

A two-year fellowship from the Society for Indian Ocean Studies in March 1996 sustained my field-work in India, and it is with gratitude that I acknowledge the support from Professor Satish Chandra and his staff at the Society. At different centres within the country I have received support for field-work from Professor G. V. Rajamanickam and his team at the Tamil University; Professor V. N. Misra at the Deccan College; Professor V. H. Sonawane and Dr K. Krishnan at the Maharaja Sayajirao University, Vadodara; and Professor E. V. Gangadharan and Professor C. Somasundara Rao at Visakhapatnam.

A field visit to the Orissa coast early in 1996 was partially supported by a grant from the DSA Programme of the Centre for Historical Studies, Jawaharlal Nehru University. The discussions with other members of the team – Professor S. McGrail, Dr E. Kentley and Ms L. Blue – were useful, but I alone am responsible for the interpretation of the data used in this study.

As a Senior Visiting Fellow at the International Institute of Asian Studies, Leiden, from June to August 1997, I was able to utilise the extensive library collection of the Kern Institute. During my stay at Leiden I received valuable leads and suggestions from Professor J. G. De Casparis, Professor J. C. Heesterman, Professor G. Obeyesekere and Professor Karel van Kooij.

The most rewarding part of research was the joint co-ordination of two international conferences on the Indian Ocean. One was hosted by NISTADS in February–March 1994 in New Delhi, while the Maison de l'Orient Méditerranéen in Lyon supported the second in July 1996. This was followed by participation in three of the workshops in the series on 'The Indian Ocean: Trans-regional Creation of Societies and Cultures' organised by Professor David Parkin and Dr Ruth Barnes at the University of Oxford between 1998 and

*Acknowledgements*

xiii

2001. The scholarly discussions and interactions at these conferences have contributed greatly to the intellectual content of this work. It is with gratitude that I acknowledge my debt to the participants.

But perhaps the greatest debt that I owe is to Carla Sinopoli, who invited me to the Department of Anthropology, University of Michigan, Ann Arbor, on a Fulbright Visiting Lecturer grant in 2000. Together with Norman Yoffee, she then encouraged me to undertake the writing of this work. Cambridge University Press responded positively to my proposal and accepted its inclusion in the Cambridge World Archaeology series. Severine Sanz in Lyon and Uma Bhattacharya in New Delhi drew the maps and I am grateful to both for their help.

Over the years I have taught a course on Seafaring and Maritime Contacts of Ancient India to the postgraduate students at the Centre for Historical Studies, Jawaharlal Nehru University. The enthusiasm of the students has been rewarding and a constant source of motivation.

Finally, this study has only been possible through the consistent and ungrudging support provided by Chandan.

March 2002

H.P.R.