Carvel Construction Technique Skeleton-first, Shell-first

Fifth International Symposium on Boat and Ship Archaeology, Amsterdam 1988

edited by Reinder Reinders and Kees Paul

Published by Oxbow Books, Park End Place, Oxford OX1 1HN

© The individual authors 1991

ISBN 0 946897 34 4

This book is available direct from Oxbow Books, Park End Place, Oxford, OX1 1HN (Phone: 0-865-241249; Fax: 0-865-794449)

Payment may be made by credit card

Printed in Great Britain by The Short Run Press, Exeter

CONTENTS

Introduction

Addresses of authors

HISTORICAL DEVELOPMENT

1.	The Mediterranean shell to skeleton transition; A Northwest European parallel??	1
2.	PATRICE POMEY La construction à franc-bord dans l'Antiquité Méditerranéenne; Principes et méthodes	10
3.	EDOARDO RICCARDI Note on the construction of the Lazzaretto wreck, 4th century AD, Sardinia, Italy	11
4.	OLAF HÖCKMANN Roman Danube vessels from Oberstimm (Germany) as examples of 'shell-first' construction	14
5.	BEAT ARNOLD The Gallo-Roman boat of Bevaix and the bottom based construction	19
6.	Louis Th. Lehmann Variations in boatbuilding under the Roman Empire	24
7.	MAARTEN D. DE WEERD Gallo-Roman plank boats; Shell-first building procedures between 'sewn' and 'cog'	28
8.	OCTAVIO LIXA FILGUEIRAS Gelmirez and the reconversion of the W. Peninsular shipbuilding tradition (XIth-XIIth centuries)	32
9.	ALEYDIS VAN DE MOORTEL The construction of a cog-like vessel in the Late Middle Ages	42
10.	ERIC RIETH L'épave du début de XVIème siècle de Villefranche-sur-Mer (France): un premier bilan de l'étude architecturale	47
11.	JERZY LITWIN The first Polish galleon and its construction register from 1570-1572	56
12.	RICHARD A. BARKER Design in the dockyards, about 1600	61
13.	JEREMY N. GREEN The planking-first construction of the VOC ship Batavia	70
14.	ROB OOSTING Preliminary results of the research on the 17th-century merchantman found at lot E 81 in the Noordoostpolder (Netherlands)	72
15.	ALBERT J. HOVING A 17th-century 42-feet long Dutch pleasure vessel; A research into original building techniques	77

16.	JERZY H. GAWRONSKI The archaeological and historical research of the Dutch East Indiaman Amsterdam (1749)	81
17.	MORTEN GØTHCHE Three Danish 17th-19th-century wrecks as examples of clinker building techniques versus carvel building techniques in local shipwrightry	85
18.	THOMAS C. GILLMER The importance of skeleton-first ship construction to the development of the science of naval architecture	89
	LOCAL CRAFT	
19.	Kostas Daminiadis Planking up a carvel boat in the Aegean	97
20.	FERNANDO ALONSO Traditional clinker and carvel techniques in the northwest of Spain	103
21.	JERZY LITWIN Clinker and carvel working boats on Polish waters; Their origin, development and transformations	112
22.	LESLY D. HARRIS The development of the coble; Evidence from Maritime Anthropology	122
23.	MICHAEL McCaughan The enigma of carvel building traditions in Ireland	133
24.	John Patrick Sarsfield Master frame and ribbands; A Brazilian case study with an overview of this widespread traditional carvel design and building system	137
	SHORT REPORTS ON CURRENT RESEARCH	
25.	ERIC RIETH Traditions de construction monoxyle, monoxyle-assemblée et assemblée sur la rivière Charente (France)	146
26.	CARL OLOF CEDERLUND The find of a 700 year old cog at Oskarhamn, Sweden, and its documentation; A work and planning report	154
27.	SEAN McGrail & Steven Parry A flat bottomed boat from the R. Usk at Tredunnoc, Gwent, Wales	161
28.	GILLIAN HUTCHINSON The early 16th-century wreck at Studland Bay, Dorset	171
29.	WARREN C. RIESS Design and construction of the Ronson ship	176
30.	DAVID C. SWITZER An example of a carvel constructed colonial American shallop-type vessel	184
31.	Carlos Francisco Moura Portuguese caravelões	190