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978-0-521-31560-9 - The Shorter Science and Civilisation in China, Volume 3

Colin A. Ronan

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THE SHORTER  
SCIENCE AND CIVILISATION IN CHINA

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COLIN A. RONAN

Project Co-ordinator, East Asian History of Science Trust

# The Shorter Science and Civilisation in China

AN ABRIDGEMENT OF

JOSEPH NEEDHAM'S ORIGINAL TEXT

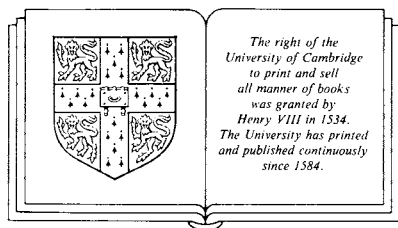
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## PREFACE

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In this, the third volume of the abridgement of Dr Joseph Needham's *Science and Civilisation in China* we look in some detail at the greatest contribution the Chinese made to physics – the discovery of the magnetic compass. We delve into its origins in divination and study its links with a form of proto-chess, then pass on to its application in navigation. This brings us to the fascinating subject of Chinese ships and shipping, and the voyages made to the West and even further afield at times that predate equivalent voyages from the Middle East or by mariners from the West. This volume therefore covers what is the last section of volume IV, part 1 of *Science and Civilisation in China* and the second half of volume IV, part 3. In doing so the abridgement does not therefore follow precisely the order of subjects in Dr Needham's original text, but it was felt that to depart from that arrangement would be more satisfactory from the point of view of the reader of this shortened version, who may wish to have certain related subjects grouped together in a single volume.

Yet again I have received much encouragement and help from Joseph Needham, whose advice has been invaluable and who has once more generously given precious time to preparing the bibliography. As in the previous two volumes, this is no new edition. However, it has seemed desirable in view of the increasingly widespread use of the Pinyin romanisation of Chinese to insert that system in square brackets after the modified Wade–Giles system used throughout the main work and in the previous two volumes of this abridgement. For reasons which will become obvious, Pinyin is not given on every occasion, though it appears usually once in every paragraph in which a romanised Chinese word appears in the modified Wade–Giles form. Only at those rare times when the romanisation is the same in both systems is no Pinyin equivalent given at all.

My warmest thanks are due to Commander Henry Hatfield, RN (ret'd) for reading through the nautical sections, to Professor David Davies and Susannah Perry for help with the Index, and to Dr Simon Mitton of the Press for his patience and my copy editor for his care.

Bar Hill, Cambridge  
August 1984

Colin A. Ronan