

WORLD PREHISTORY

A Brief Introduction

BRIAN M. FAGAN

University of California, Santa Barbara

LITTLE, BROWN AND COMPANY

Boston Toronto



Copyright © 1979 by Brian M. Fagan Copyright © 1978, 1977 by Little, Brown and Company (Inc.)

All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means including information storage and retrieval systems without permission in writing from the publisher, except by a reviewer who may quote brief passages in a review.

Library of Congress Catalog Card No. 78-73830

9 8 7 6 5

TZBN 0-37P-5P000-5

Published simultaneously in Canada by Little, Brown & Company (Canada) Limited

Printed in the United States of America

Artist: Dick Sanderson

Cover and part opening illustrations: Courtesy Professor Murray Schoonraad, University of Natal, and South African Archaeological Society.

Portions of the text and illustrations are drawn from the author's Archaeology: A Brief Introduction, 1978, In the Beginning: An Introduction to Archaeology, Third Edition, 1978, and People of the Earth: An Introduction to World Prehistory, Second Edition, 1977, Little, Brown and Company.

CREDITS

The author would like to thank the publishers, authors, photographers, and illustrators for granting permission to use the following illustrations:

FIGURE 1.1: F. Peron; FIGURE 1.2: Cambridge University Press; FIGURE 1.3: Published by permission of the Danish National Museum.

FIGURE 2.1: From Urbanization of Teotihuacán, Mexico, v. 1, pt. 1, The Teotihuacán Map: Text by René Millon, all rights reserved; FIGURE 2.2: Peabody Museum, Harvard University, photograph by A. L. Smith; FIGURE 2.3: Carl Frank, Photo Researchers; FIGURE 2.5: Courtesy J. Tuck, Memorial University.

TABLE 3.1: Adapted from Glacial and Quaternary Geology by R. F. Flint, © 1971. By permission of John Wiley & Sons, Inc., and Dr. Julius Büdel.

FIGURE 3.3: From Invitation to Archaeology by James Deetz, Figure 5. Copyright © 1967 by James Deetz. Used by permission of Doubleday & Company, Inc.; FIGURE 3.5: Redrawn by permission of Glencoe Press from James W. Smith, Foundations of Archaeology, Copyright © 1976 by James W. Smith; FIGURE 3.6:

WORLD PREHISTORY

After J. G. D. Clark, Star Carr, Figure 8, London: Cambridge University Press, 1954.

FIGURE 5.3: By permission of Elwyn L. Simons, Yale Peabody Museum, New Haven, Connecticut; FIGURE 5.4a-b: Redrawn with permission of Macmillan Publishing Co., Inc., from The Ascent of Man by David Pilbeam. Copyright © 1972 by David Pilbeam; FIGURE 5.4c: Redrawn from Monkeys and Apes by Prue Napier. Copyright © 1972 by Grosset & Dunlap, Inc. Reprinted by permission of Grosset & Dunlap, Inc., Publishers; FIG-URE 5.5a: STS 5 is housed at the Transvaal Museum, Pretoria, South Africa; FIGURE 5.5b: Photo by R. Campbell and A. R. Hughes. By kind permission of P. V. Tobias; FIGURE 5.6: National Museums of Kenya; FIGURE 5.7: Cambridge University Press; FIGURE 5.8: Life Nature Library/Early Man, redrawn from Lowell Hess, Time-Life Books, Inc., publisher; FIGURE 5.9: Adapted from Olduvai Gorge, Excavations in Beds I and II, by M. D. Leakey. © 1971 Cambridge University Press.

FIGURE 6.1: Cambridge Museum of Archaeology and Anthropology; FIGURE 6.2a: Adapted from Olduvai Gorge, Excavations in Beds I and II, by M. D. Leakey. © 1971 Cambridge University Press; FIG-URE 6.2b: Redrawn from Figure 26.3, The Swanscombe Skull: A Survey of Research on a Pleistocene Site (Occasional Paper No. 20, Royal Anthropological Institute of Great Britain & Ireland). By permission of the Institute; FIGURE 6.3: From Mankind in the Making by William Howells. Copyright © 1959, 1967 by William Howells. Reprinted by permission of Doubleday & Company, Inc., and Martin Secker & Warburg Ltd.; FIGURE 6.4: From Mankind in the Making by William Howells. Copyright @ 1959, 1967 by William Howells. Reprinted by permission of Doubleday & Company, Inc., and Martin Secker & Warburg Ltd.; FIGURE 6.5b: Adapted from The Old Stone Age by F. Bordes. Copyright © 1968 by McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Company, New York, and Weidenfeld & Nicolson Ltd., London; FIGURE 6.6: Adapted from Tools of the Old and New Stone Age by Jacques Bordaz. Copyright © 1970 by Jacques Bordaz. Copyright © 1958, 1959 by The American Museum of Natural History. Reprinted by permission of Doubleday & Company, Inc.; FIGURE 6.7a: Adapted from The Old Stone Age by F. Bordes. Copyright © 1968 by McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Company, New York, and Weidenfeld & Nicolson Ltd., London; FIGURE 6.7b: Adapted from Tools of the Old and New Stone Age by Jacques Bordaz. Copyright © 1970 by Jacques Bordaz. Copyright © 1958, 1959 by The American Museum of Natural History. Reprinted by permission of Doubleday & Company, Inc.; FIGURE 6.8a (left and center): Adapted from The Old Stone Age by F. Bordes. Copyright © 1968 by McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Company, New York, and Weidenfeld & Nicolson Ltd., London; FIGURE 6.8a (right): Adapted from Le Paléolithique supérieur en Périgord, 1960, Denise de Sonneville-Bordes, Directeur de recherches au Centre national de la Recherche scientifique, Institut du Quaternaire, Université de Bordeaux I, France. FIGURE 6.8b: H. Breuil; FIGURE 6.9: © Jean Vertut; FIGURE 6.10: After J. G. D. Clark, Star Carr, Figure 35, London: Cambridge University Press, 1954; FIGURE 6.11a: Life Nature Library/Early Man, redrawn from Lowell Hess, Time-Life Books Inc., publisher; FIGURE 6.11b: Adapted from The Old Stone Age by F. Bordes. Copyright @ 1968 by McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Company, New York, and Weidenfeld & Nicolson, London; figure 6.12: Préhistoire de l'art occidental, d'André Leroi-Gourhan, Éditions d'Art Lucien Mazenod, Paris, photo © Jean Vertut.

FIGURE 7.3: South African Archaeological Society; FIGURE 7.4: M. Shostak, Anthro-Photo; FIGURE 7.5: Reprinted by permission of Faber and Faber Ltd. from The Archaeology of Early Man by J. M. Coles and E. S. Higgs; FIGURE 7.6: Redrawn from The First Americans by G. H. S. Bushnell, Thames and Hudson Ltd., London; FIGURE 7.7: After W. K. Moorehead, The Stone Age in North America (Boston: Houghton Mifflin, 1910) in Prehistory of North America by Jesse D. Jennings. By permission of McGraw-Hill Book Company.

FIGURE 8.2: Jericho Excavation Fund and British School of Archaeology in Jerusalem; FIGURE 8.3: Courtesy Professor H. T. Waterbolk and Cambridge University Press.

FIGURE 9.1: From Early Mesopotamia and Iran by Max E. Mallowan, Thames and Hudson Ltd., London: FIGURE 9.2: Hirmer Fotoarchiv München; FIGURE 9.3: Ashmolean Museum, Oxford; FIGURE 9.5: Courtesy of the Smithsonian Institution, Freer Gallery of Art, Washington, D.C. FIGURE 10.2: Redrawn from Prehistory of North America by Jesse D. Jennings. Copyright © 1968 McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Company; FIGURE 10.3: Museum

of New Mexico; FIGURE 10.4: Courtesy of Junius Bird, The American Museum of Natural History; FIGURE 10.5: Courtesy of the Trustees of the British Museum; FIGURE 10.6: Courtesy of Betty J. Meggers; FIGURE 10.7: From Gordon R. Willey, An Introduction to American Archaeology, vol. II, South America, © 1971, p. 120. Reprinted by permission of the author and Prentice-Hall, Inc., Englewood Cliffs, New Jersey; FIGURE 10.8: George Holton, Photo Researchers. FIGURE 11.2: Hirmer Fotoarchiv München; FIGURE 11.3: Dr. Georg Gerster, Photo Researchers; FIGURE 11.4: Woolaroc Museum, Bartlesville, OklaTo Jan,
former student and friend —
who learned, came back, learned again,
and grew more than us all

To qualify as human, a hominid has, so to say, to justify himself by works; the criteria are no longer biological so much as cultural.

Grahame Clark, 1977

To the Reader

Prehistory is the story of human cultural evolution before the advent of written records. It comes as a surprise to many people that archaeologists have managed to piece together the story of humankind for hundreds of thousands of years before the world's first civilization in the Near East 5000 years ago. Some of the discoveries that have contributed to this exciting story are household names — like Olduvai Gorge, Ancient Troy, and Teotihuacán. But most prehistory is much less spectacular, a sober chronicle of cultural evolution over thousands of years of prehistoric time.

This book is a narrative summary of world prehistory from more than two million years ago up to recent times — a span covering the origins of humanity, the peopling of the world, and the beginnings of food production and urban civilization. I cover the basic concepts of archaeology in outline so you can gain some understanding of how archaeologists write world prehistory, then take you on a narrative journey through time. The emphasis is on what happened as much as on why it occurred. This story is incomplete and summary at best, but you will find three points that recur again and again, either explicitly or implicitly. These are:

- That anthropological archaeology shows how people have developed widely differing solutions to similar problems of survival.
- That literate civilization is not just an invention of the Near East, the Mediterranean basin, and western Europe.
- That many prehistoric societies have become extinct in recent times as a result of their contact with technologically more advanced societies.

x To the Reader

Referring to the chronological tables will help you understand the narrative. References for more detailed reading appear at the end of the book.

Few people who will read this book will become professional archaeologists, but I hope that you will visit famous sites and have many opportunities to enjoy archaeology. And you can help us all enjoy the past if you follow the ethical principles given on page 194 of this book.

To the Instructor

This book, a brief summary of the major developments in world prehistory, is designed as a supplementary text for basic anthropology courses. Part One deals with basic method and theory in prehistoric archaeology, as a basis for understanding the rest of the book. I then cover the origins of humanity, the peopling of the world by hunter-gatherers, the origins of food production, and the beginnings of literate civilization. I end with a capsule description of the end of prehistory, and of the destruction of prehistoric societies by Western civilization.

The book proceeds on the assumptions that your students will have but two or three weeks to cover world prehistory, and that technical terms should be kept to a minimum. By no stretch of the imagination can this book be called complete. Many fierce academic controversies lurk in these pages and are glossed over here. My feeling is that it is better to overstate the facts at this stage in learning rather than present an inconclusive piece of reasoning, which will tend to confuse the beginner. One can always correct errors of overstatement in class or at a later stage. Length restrictions prevent this book from being referenced. A guide to further reading appears at the end of the volume.

World Prehistory is written within a generalized evolutionary framework; however, I have tried to avoid encasing the narrative within a rigid theoretical framework. Every instructor has his own theoretical viewpoints that he or she will seek to impose on the chapters that follow. You will probably use your own case studies to illustrate the basic concepts of archaeology. For this reason, I

xii To the Instructor

have kept such examples to a minimum. My assumption is, too, that you will fill in additional details for your classes as you see fit, for each course situation is different.

Finally, I draw your attention to the statement on archaeological practices at the end of the text; I hope you will point it out to your students. Unless we educate people about the importance of respecting the archaeological record, and about living responsibly with the past, there may be no archaeology for future generations to study.

Several colleagues provided evaluations of the manuscript and helpful suggestions for change. Thanks especially to J. M. Adovasio, University of Pittsburgh; Lynne Goldstein, University of Wisconsin, Milwaukee; Dennis Lee Heskel, University of Utah; and William Turnbaugh, University of Rhode Island. Any comments or ideas for improving future editions of this book would be much appreciated.

A NOTE ON CHRONOLOGIES

The chronologies given in this book are based on radiocarbon, potassium argon, and tree-ring dates, as well as historical documents. While every effort has been made to make them accurate, many of them should be recognized for what they are — statistical approximations. I rely heavily on chronological tables to give the timescales of world prehistory, rather than interrupt the narrative with strings of dates.

The following conventions are used:

- Dates before 20,000 years ago are expressed in years Before Present (B.P.).
- Dates after 20,000 years ago are expressed in years Before Christ (B.C.) or Anno Domini (A.D.).

Please note that all radiocarbon and potassium argon dates should be understood to have a plus and minus factor that is omitted from this book in the interest of clarity.

Contents

To the Reader *ix*To the Instructor *xi*A Note on Chronologies *xii*

PART I STUDYING WORLD PREHISTORY 1

1. World Prehistory 3

Archaeology, History, and Prehistory 7 Archaeology and Anthropology 7 Goals of Archaeology 9 The Archaeological Record 12

2. Culture and Context 14

Human Culture 14
Cultural Systems 15
Cultural Process 16
Archaeological Sites 17
Artifacts 22
Context 23
Finding Archaeological Sites 24
Excavation 25

xiv Contents

3. Time and Space 28

Time 28 Relative Chronology 28

Artifacts and relative chronology | Cross dating | Relative chronology and the Pleistocene Chronometric Dates 36

Historical records and objects of known age | Tree-ring dating (dendrochronology) | Radiocarbon dating | Potassium argon dating | Chronometric dating and world prehistory

Space 43

Space 43
Some spatial terms

4. Models for World Prehistory 48

Cultural Evolution 48
Geniuses and Diffusion 49
Data and Modified Diffusionism 51
Evolution of Social Organization 52
Bands | Tribes | Chiefdoms | State-organized societies
Cultural Ecology 55
Systems Theory 57
The Present Framework 59

PART II HUNTER-GATHERERS

61

5. The Origins of Humankind: Apes and Humans 63

Apes and Humans 63
Ramapithecus 66
Bipedalism and Toolmaking 66
Behavioral Evolution 70
Australopithecus 71
Lothagam, Omo, Laetolil, and Koobi Fora 74
Olduvai Gorge 77

6. Homo erectus and Homo sapiens 83

Homo erectus 83
Technology and Life-Styles 85
Big game hunting and fire
Early Homo sapiens 90
Homo sapiens neanderthalensis 90
Neanderthal customs | Toolkits
Homo sapiens sapiens 96
European Hunter-Gatherers 96
Upper Paleolithic Art 102

7. Peopling the World 104

Africa and the Near East 105 Southeast Asia 108 Northern Latitudes 110 Siberia and Northeast Asia 111 The First Americans 113

PART III LATER PREHISTORY IN THE OLD WORLD

8. Old World Food Production 121

The Origins of Food Production 123
Animal Domestication 125
Crop Domestication 126
Near Eastern Farmers 127
European Cultivators 130
Egypt 132
Tropical Africa 133
Asia and the Pacific 134

9. Early Civilizations of the Near East and Asia 136

The Origins of Civilization 137
Cultural Systems and Civilizations 141
Mesopotamia 143
Ancient Egypt 146
Harappan Civilization 148
Early Chinese Civilization 149

xvi Contents

PART IV LATER PREHISTORY IN THE NEW WORLD 153

10. New World Civilizations 155

Tehuacán 157
Early Farmers in North America 159
Southwestern United States | Eastern United States
South American Farmers 161
The Emergence of Mesoamerican Civilization 163
Teotihuacán 167
The Maya 168
Toltec and Aztec 169
Early Civilization in Peru 170
Huari and Tiahuanaco 172
The Inca 173

PART V THE END OF PREHISTORY 177

11. Civilization and the End of Prehistory 179

Babylonians and Hittites 179
Minoans 181
Mycenae, Troy, and Homer 182
Classical Greece 184
Barbarian Europe 185
Etruscans and Romans 188
African Kingdoms 189
Christianity and Islam 190
Western Civilization and the End of Prehistory 190

An Important Archaeological Note 194

Further Reading 195

Index 201



STUDYING WORLD PREHISTORY

PART I