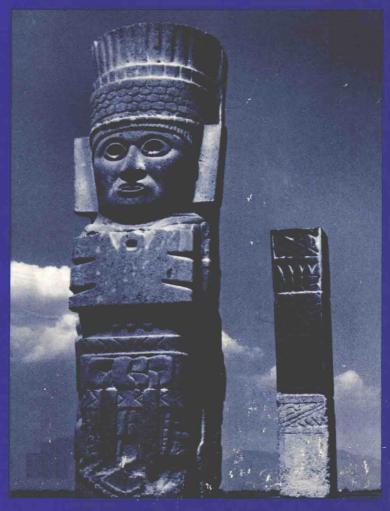
ARCHAEOLOGY

A BRIEF INTRODUCTION

SECOND EDITION



BRIAN M. FAGAN

ARCHAEOLOGY A BRIEF INTRODUCTION

SECOND EDITION

BRIAN M. FAGAN

UNIVERSITY OF CALIFORNIA, SANTA BARBARA



LITTLE, BROWN AND COMPANY BOSTON TORONTO

Library of Congress Cataloging in Publication Data

Fagan, Brian M.

Archaeology: a brief introduction.

Bibliography: p. 183 Includes index.

1. Archaeology. I. Title.

CC165.F28 1982

930.1 82-12751

ISBN 0-316-25991-8

Copyright © 1983 by The Lindbriar Corportion

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 No. 82-12751

B-16652-97E-0 NBZI

9 8 7 6

ALP.

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

Printed in the United States of America

Produced by Ron Newcomer & Associates

COVER PHOTO: Toltec warrior figure with an *atlatl* and a bag of incense, one of the roof supports of the Temple of Quetzalcoatl, Pyramid B, Tula, Hidalgo, Mexico. Photograph by Lesley Newhart.

Credits for illustrations appear on pages 190 –191.

Lucia, Karen, and other friends at Whittier College who gave me the idea for this book.

And, as usual, to the formidable felines Catticus Rex and Hercules Gryptype-Thynne, who were as subversive as ever. They did everything they could to prevent me from revising the manuscript. As you can see, they failed!

TO THE READER

Archaeology always seems an exciting and romantic subject, especially when you read about the magnificant tomb of the golden pharaoh Tutankhamun or the imposing Maya temples of the Yucatan. Most archaeological sites are less spectacular and are excavated on a far smaller scale. But that does not make them any less fascinating for archaeologist and nonarchaeologist alike. This book is designed to give you some idea of how archaeologists go about studying human behavior of the past. We cover the basic concepts and methods of archaeological research—excavation, survey, analysis of artifacts and food remains, and such topics as dating and the dimensions of time and space. Archaeology: A Brief Introduction ends with a look at career prospects in archaeology and at ways individuals—like you—can help save the past for future generations. References for more detailed reading are given at the end of the book.

I hope that this short text will give you new insights into the fascinating world of the past. Good luck with your adventures in archaeology!

TO THE INSTRUCTOR

This book is designed as a brief introduction to the fundamental principles of method and theory in archaeology. It begins with the goals of archaeology, goes on to consider the basic concepts of culture, time, and space, and discusses the finding and excavation of archaeological sites. The last four chapters summarize some of the ways archaeologists order and study their finds. Throughout the book, I emphasize the ethics behind archaeology. We end with the vital question of how nonarchaeologists should relate to the finite resources that form the archaeological record. In my experience this subject is often neglected in introductory anthropology courses.

Our assumption is that this small book will act as supplementary reading for a general course in anthropology, and that your students will spend two or three weeks on the subject matter. Every attempt has been made to keep technical jargon to a minimum. Inevitably, a book of this length and scope glosses over many complex problems or smoldering controversies. I have proceeded on the assumption that a positive overstatement is better than a complex piece of inconclusive reasoning, at this stage in learning. Errors of overstatement can always be corrected in class or at a more advanced stage.

If there is a theme to *Archaeology*, it is that the patterning of archaeological artifacts we find in the ground can give us valuable insights into human behavior in the past. In pursuing this theme, I have attempted to focus on the basic concepts of archaeology. I leave you to impose your own theoretical viewpoints on the various chapters that follow. My assumption is, too, that you will fill in such additional details you feel your students need. For this reason, I have drawn again and again

X TO THE INSTRUCTOR

on a few well-known sites from New and Old World archaeology, such as Olduvai Gorge and Teotihuacán, rather than distracting the reader with a multitude of site names.

Space limitations prevent us from referencing the entire text. A short guide to further reading appears at the end of the book.

The second edition of *Archaeology* has benefited from the comments of dozens of instructors and students. The resulting changes are relatively minor. The sections on human culture, seriation, and sampling have been rewritten, some minor errors have been corrected, and sites and chronologies have been updated. We have changed some illustrations and brought the references up to date. In general, however, the book has stood the test of time well, for the basic principles it covers alter little from year to year. They provide the foundation for all the multifarious research projects that archaeologists carry out, as near home as California and as far away as Mongolia.

I am grateful to all those who criticized the first edition, sent me information, or read portions of the revised manuscript. My grateful thanks to Professors Charles Cecil of San Jose City College, Malcolm Webb of the University of New Orleans, and Claire M. Cassidy of University of Maryland, College Park, who reviewed *Archaeology* before revision. Any suggestions for improving future editions of this book would be greatly appreciated.

CONTENTS

ARCHAEOLOGY AS ANTHROPOLOGY

CULTURE AND THE ARCHAEOLOGICAL

24

26

27

2

Anthropological Archaeology The Goals of Archaeology

23

The Archaeological Record

33

Archaeological Sites

1.

2.

3.

Archaeology

RECORD

Human Culture

Cultural Systems

Cultural Process

Artifacts

Types of Archaeology Human Prehistory

Context	36	
TIME	38	
Relative	Chronology 40	
Artifa	cts and Relative Chronology 41	
Cross	Dating 45	
Relati	ve Chronology and the Ice Age 47	
Dating :	n Years (Chronometric Dating) 51	
Histo	rical Records and Objects of Known Age	51
Tree-1	ing Dating (Dendrochronology) 52	
	carbon Dating 54	
Early	Prehistory 57	
-	ium Argon Dating 57	

32

30

1

xii CONTENTS

4. SPACE 59

The Law of Association 61
Subassemblages and Assemblages 63
Households, Communities, and Activity Areas
Culture Areas and Settlement Patterns 67

5. PRESERVATION AND SURVEY 71

Preservation 72
Finding Archaeological Sites 76
Deliberate Archaeological Survey 78
Aerial Photography 82
Remote Sensing 84
Accidental Discoveries 86

6. EXCAVATION 89

Excavation 90 Research Design Types of Excavation 93 Vertical Excavation 96 Area Excavation Digging, Tools, and People 98 Recording 100 **Habitation Sites** 101 Hunter-Gatherer Campsites 101 Caves and Rockshelters 103 Mounds 104 Earthworks and Forts 105 Shell Middens 106 Ceremonial and Other Specialist Sites 106 **Burials and Cemeteries** 107

ORDERING THE PAST 111

Back from the Field 112
Classification and Taxonomy 113
Attributes 114
Natural Types 116

CONTENTS xiii

Analytical Types 118 Attribute Clusters 119	
Units of Ordering 120	
Larger Archaeological Units 123	
Explanatory Ordering 124	
Cultural Process 125	
Inevitable Variation and Cultural Selection	125
Invention 126	
Diffusion 127	
Migration 128	
Cultural Ecology and Cultural Process 129	

8. SUBSISTENCE 131

Evidence for Subsistence 132 Prehistoric Diet 133 Animal Bones 134 Animal Bone Analysis 135 Game Animals **Domesticated Animals** 136 Aging and Butchery Vegetable Remains 139 Birds, Fish, and Mollusks 142 Rock Art 145

9. INTERACTION 147

Settlement Patterns 149 149 Structures Communities 151 Catchment Areas 153 Site Interactions and Distributions 156 Site Hierarchies 157 Central Place Theory 158 Trade 159 Social Organization 161 Artifact Patterning and Settlement Patterns 162 Religious Beliefs 164

xiv CONTENTS

10. ARCHAEOLOGY TODAY AND TOMORROW 168

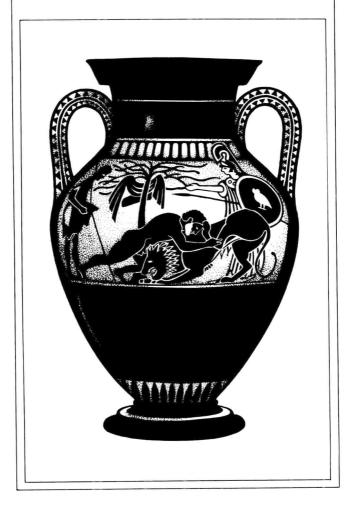
The Living Past 169
Comparisons 170
Living Archaeology 171
Experimental Archaeology 175
The Future of the Past 176
Archaeology and You 178

FURTHER READING 183

INDEX 193

1

ARCHAEOLOGY AS ANTHROPOLOGY



Archaeology is the special concern of a certain type of anthropologist.

JAMES DEETZ, 1967

ARCHAEOLOGY

"Archaeology is the science of Rubbish," wrote British archaeologist Stuart Piggott some years ago. His definition conjures up a pleasing image of archaeologists delving deeply into innumerable ancient rubbish heaps. Piggott is partly right. Many archaeologists do spend their time digging up long-abandoned rubbish, and sometimes even modern garbage. But the popular image of an archaeologist is somewhat more glamorous — the archaeologist as treasure hunter. Everyone has seen cartoons of the bearded, bespectacled archaeologist digging in the foundations of a mighty pyramid.

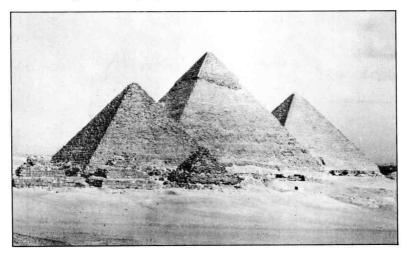
Then, too, our complex world is full of "unexplained" mysteries and hidden surprises. Many people believe that the archaeologist lives in the mysterious regions of our world, with grinning skeletons, "missing links", and long-lost civilizations. Enterprising authors and movie producers take us on fantasy rides into these strange territories of their specially selected archaeologists. From the comfort of our armchairs, via television, we can search for lost continents, reconstruct Noah's Ark, and trace the landing patterns of extraterrestrial astronauts' spaceships. Such searches for "lost mysteries" are not only fantasy fun but big business as well. Millions of dollars have been made from this type of

Archaeology 3

archaeology, though, unfortunately, this world bears little resemblance to reality.

The romance of archaeology has taken people all over the world in search of the past. Thousands of tourists visit the pyramids of Gizeh in Egypt every year (Figure 1.1). The Mexican government spent millions of pesos on a restoration of the ancient city of Teotihuacán in the Valley of Mexico to promote tourism. Most popular package tours abroad now include visits to an archaeological site or two (Figure 1.2). Many sites, like Stonehenge in England, are in danger of permanent damage from the sheer numbers of tourists that visit them. Any thinking person who visits an archaeological site faces the reality of the past, a vista of human experience that stretches back far into remote time. How, visitors may wonder, do archaeologists know how old a site is, and what do the finds made in their digs mean? It all seems very complicated to dig for the past. And the unchanging, incredibly ancient structures that surround one add to one's sense of romance and awe.

FIGURE 1.1 The pyramids of Gizeh in Egypt. "The romance of archaeology has taken people all over the world in search of the past."



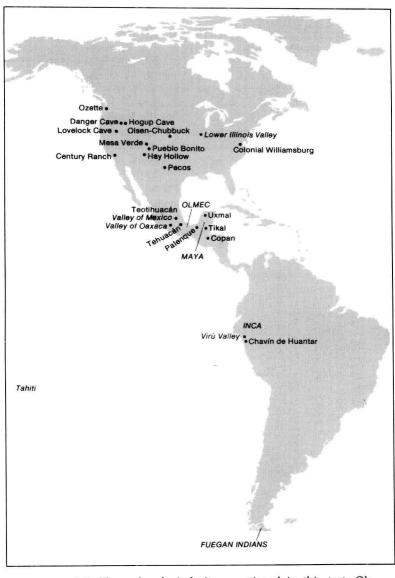


FIGURE 1.2 The archaeological sites mentioned in this text. Obvious geographic place names are omitted.

