FIFTH EDITION

IN THE BEGINNING AN INTRODUCTION TO ARCHAEOLOGY BRIAN M. FAGAN



BRIAN M. FAGAN & University of California, Santa Barbara

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AN INTRODUCTION TO ARCHAEOLOGY

Fifth Edition



LITTLE, BROWN AND COMPANY Boston Toronto

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Library of Congress Cataloging in Publication Data

Fagan, Brian M.

In the beginning.

Bibliography: p. 558

Includes index.

1. Archaeology—Methodology. 2. Archaeology—History.

I. Title.

CC75.F34 1985 930.1'028 84-7887

ISBN 0-316-25988-8

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Library of Congress Catalog Card No. 84-7887

ISBN 0-316-25988-8

9876543

HAL

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

Printed in the United States of America

Cover photo: Courtesy of Jane Roos Neville.

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TO THE READER

Many people think of archaeology as a romantic subject, a glamorous pastime spent with pyramids, mysterious inscriptions, and buried treasure. This stereotype originated in the nineteenth century, when both archaeologists and the ancient civilizations they uncovered became legendary. Today, more than 150 years of archaeological investigations have turned archaeology into a meticulous scientific discipline. But the excitement is still there, in the many diverse and highly detailed reconstructions of life in the past from finds that sometimes seem trivial. Archaeologists have established the direction of the wind during a bison hunt on the Great Plains about 8000 years ago, learned which plants made up the wreaths created for Tutankhamun's funeral, and even examined the garbage produced in modern urban America. In this book I describe how archaeologists make and study such finds to illuminate the human past.

In the Beginning introduces the history and methods of archaeology and its significance today. I discuss archaeological concepts and procedures, and show how archaeologists describe cultures as part of time and space to interpret the prehistoric past. One objective in this book is to provide a comprehensive summary of the field for people who have little or no experience with it. A second objective is to alert you to a major crisis facing archaeology in the 1980s. All archaeological sites are finite records of the past; once destroyed they can never be replaced. But treasure hunting by individuals and an explosive increase in construction of buildings, roads, dams, and the like have destroyed thousands of archaeological sites all over the world. Without access to intact sites, we cannot possibly complete a picture of the human past. The crisis of site destruction is, in its way, as important as the ecological crisis we face. In the Beginning is meant to arouse you to the need for living responsibly with your cultural heritage.

Archaeology has been struck by a knowledge explosion and must rely more and more on sophisticated systems models and apply quantitative methods. But this relatively small book and the necessity for providing an overall view of the subject prevent me from considering too many technical nuances of contemporary archaeology. I hope you will pursue the topics that interest you in more advanced and specialized archaeology courses or in the many excellent books and articles listed in the Bibliography and Suggested Readings at the back of the book or in the Guide to Further Reading following each chapter.

The chapters open with previews highlighting the major themes and concepts. Whenever practicable, drawings and photographs illustrate the subjects the text describes in words. I use specialized terminology as little as possible and define every new term when it first appears. In addition, a glossary at the back of the book provides definitions of the words used in the book as well as of some words you may encounter in other reading.

I have written this book from predominantly English-language sources for two main reasons. First, my reading in the vast archaeological literature has been necessarily selective and mostly in English. And, second, for most of you English is your native tongue. Although linguistic abilities and time have thus biased this volume toward the achievements and writings of English-speaking archaeologists, archaeology is indeed a global activity, conducted with great energy and intelligence by every nation and in every corner of the world.

B. M. F.

TO THE INSTRUCTOR &

When I started writing the first edition of this book in 1968, I had no idea that I would be revising it for the fifth time fifteen years later. In the Beginning has been in print during a period of profound change in archaeology. One has only to glance through the first edition and then through this one to see just how much it has changed in the 1970s and early 1980s. Hundreds of instructors have assigned the first four editions, and thousands of students have used them. A few respected teachers have even told me that they were introduced to archaeology by In the Beginning, which indeed reflects the passage of years. They and many others have helped improve the book by writing to me with suggestions, criticisms, even reprints of their own work. Of course, the fifth edition also reflects my own perceptions of contemporary archaeology and of the way in which the discipline is evolving. Archaeology's many traits, interacting variables, and different forms of feedback make it almost as much a cultural system, evolving multilinearly, as the many cultures it studies.

The fifth edition of *In the Beginning* reflects a number of important trends in archaeology in the past five years. These include:

- An explosion of archaeological data from all over the world, resulting from a vastly expanded community of archaeologists everywhere. This growth has led to a mountain of archaeological literature in dozens of languages, making the task of keeping up to date even more challenging.
- A growing emphasis on regional studies, cultural resource management, and nondestructive ways of investigating the past.
 Remote sensing and computers are increasingly important in archaeology today, for destructive excavation is now seen as a strategy of last resort in many areas.
- Renewed emphasis on multidisciplinary research, especially in the general area of geoarchaeology, placing human activities within an environmental context.
- Vastly increased use of instrumentation and highly scientific approaches to the past. Almost no archaeological research is carried out in this day and age without a battery of equipment and scientific instruments. These sophisticated tools can include remote sensing devices like side-scan radar, lasers, and electron

microscopes. Thus, the cost of archaeological research is rising. Quantitative methods are now common, with computers applied to create huge banks of data on local, regional, state, and even national archaeology.

Quickened interest in site-formation processes, and "middle-range theory." Interpretation of the archaeological record is now

a major theoretical debate.

Potentially most important, a profound change has occurred in archaeology itself. A decade ago, most archaeologists were academic scholars in universities, colleges, or museums. Today, most American archaeologists are involved with conservation and management, known as cultural resource management. We are now a more "professional discipline," undergoing a revolution that geology, for one, underwent some decades ago. This switch in our ways of thinking about and teaching archaeology is likely to affect us profoundly.

These are but a few of the fascinating trends in contemporary archaeology that form this edition of In the Beginning. This is an interesting time in archaeology, for the "new" archaeology of the 1960s and 1970s is no longer new. Then it set out some bold and promising objectives: imposing great scientific rigor, creating a body of archaeological theory, and searching for general laws of cultural behavior. At first the new archaeologists attacked every concept in archaeology. Today, the level of bombast has subsided, to be replaced by better-focused theoretical debate about everything from style and function to ethnographic analogy. But there is frustration, too, and a widespread feeling that the new archaeology has not delivered its promised advances; that some of its highminded objectives will never be fulfilled. In part, many of those who are disappointed feel that way because they believed that creating a new body of archaeological theory would be much easier than it has proved. It is also because the interpretative problems of much regional and spatial archaeology are obdurate, sophisticated, and difficult, especially when approached with borrowed concepts. Archaeology has spent two decades borrowing concepts like general systems theory and cluster analysis from other disciplines. These ideas have often proved inadequate or inappropriate for archaeological application, except in the most general way. At the moment, we are midway in a long period of transition, with archaeologists divided into a minority engaged in intensive theoretical debate, and the remainder carrying out the same forms of empirical

research, albeit in more scientific ways, as were commonplace before processual archaeology came along. Those who believe that this dichotomy will endure are false prophets! What is happening in archaeology has already happened in many matured sciences, and is still taking place in much of biology—the development of distinctive and scientific archaeological method and theory that not only enrich our understanding of the past but add something to the sum of Westerners' better understanding of themselves. We may hope that the short remainder of this century will see archaeology achieve this lofty goal; it depends on the work and cooperation of archaeologists of all theoretical and methodological persuasions. Please encourage your students to think of archaeology as one enterprise, not as dozens of unrelated activities!

I have changed about 40 percent of this edition, much of it by updating methods, theoretical approaches, and case examples. Parts I and II are little changed except for some minor updating. Part I covers the significance, goals, and current crisis in archaeology; Part II the early origins of archaeology and how it developed into the science it is today. Part III covers the basic concepts of archaeology. Here I have retained the format and coverage of earlier editions at the request of reviewers, as a good introduction to Part IV, which deals with the recovery of archaeological data. I have rewritten much of the survey chapter, incorporating renewed interest in survey and remote sensing as a major new archaeological tool. I have also reworked the sections on sampling and now pay more attention to processes of site formation than in earlier editions. Part V has revisions in the metallurgy sections and increased coverage of artifact classification, as well as added material on lithic wear studies and refitting.

The second half of *In the Beginning* retains its organization from earlier editions, but is substantially updated. New advances in taphonomy and zooarchaeology are incorporated, and the influence of Lewis R. Binford's *Bones: Ancient Men and Modern Myths* (1981) can be found throughout Parts V and VI. The most extensively changed chapter in the book is 15, completely rewritten to incorporate the latest thinking on analogy, middle-range theory, and approaches to interpretation of the archaeological record. Parts VII and VIII have been updated throughout, and Cultural Resource Management, Chapter 20, now reflects current thinking on CRM research designs.

Modern archaeology is so wide ranging and complex that one could easily write a 1000-page text on the subject. Thus I have had

to skate over some topics, such as population carrying capacity, in almost indecent haste. These topics are important, to be sure, but the limitations of space require concentration on basics rather than on the more experimental methodologies. I leave it to each of you to fill in details on topics you think are given inadequate treatment. I urge you, however, to give full coverage to one vital topic: the growing crisis of site destruction. This subject demands full factual and moral coverage in introductory courses, where many students arrive with the notion of finding buried treasure or collecting beautiful artifacts. Many of us have first-hand experience with treasure hunters and with tragically bulldozed sites. Every course in archaeology must place responsibility for preserving the past emphatically on the public. It is for this reason that the book ends with a stark statement of basic archaeological ethics for everyone.

In the Beginning is a comprehensive, introductory look at contemporary archaeology. With the very first edition, I decided not to espouse any one theory of archaeology, but to give each instructor a basis for amplifying the text with his or her own viewpoint and theoretical persuasion. This decision has turned out to be endorsed by many users. A reviewer said a couple of editions ago: "This is

the fun with the book." Long may it continue to be so.

Many people have assisted in preparing this fifth edition. Their comments have always been challenging and provocative. I only hope that my efforts to navigate between conflicting viewpoints and priorities meet with their approval. I am especially indebted to the wise advice of Margaret Conkey, State University of New York at Binghamton; Paul R. Fish, Arizona State Museum, The University of Arizona; Donald K. Grayson, Thomas Burke Memorial Washington State Museum, U. of Washington; and William A. Turnbaugh, University of Rhode Island.

My friendships within the College Division of Little, Brown extend back more than fifteen years and through no fewer than six anthropology editors. Brad Gray joins the list of those who have supported and encouraged *In the Beginning*. To him, and the production staff in Boston, my most grateful thanks. My association with Little, Brown has enriched not only this book, but also my life.

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