RADIOCARBON DATING

Geology Archaeology



Pedology Hydrology

Radiocarbon dating services are available at competitive prices and short turn-around times. We support close client/lab liaison from the sample collection phase to final interpretation with our staff experienced in both earth sciences and archaeology. Please direct inquiries to the following for prices and other information:

Dr. L. David Arnold Environmental Isotopes Section Alberta Environmental Centre Vegreville, Alberta, CANADA (403) 632-6761 TOB 4L0

Invaluable References

A COMPLETE REFERENCE SOURCE...

RADIOCARBON DATING LITERATURE

The First 21 years, 1947–1968 An Annotated Bibliography

compiled by **Dilette Polach**

This book is the first extensively annotated bibliography on radiocarbon dating literature and its applications. The text facilitates access to the original literature on this important field by providing a comprehensive subject, author, and location index.

1988, 384 pages, \$49.50 ISBN: 0-12-559290-6

THE LATEST VOLUME IN THIS BESTSELLING SERIES!

THE MODERN WORLD-SYSTEM III

The Second Era of Great Expansion of the Capitalist World-Economy, 1730-1840

Immanuel Wallerstein

From the Reviews of Previous Volumes:

"This is an exciting and

highly intelligent book....
Wallerstein has produced a
splendid stimulant to our
historical imagination, and
deserves a wide readership."
—HISTORY

This is the third volume of Wallerstein's projected five-volume interpretation of the rise and spread of capitalism.

In Paperback:

\$17.50 (tentative) ISBN: 0-12-785926-8 Casebound: \$39.50 (tentative) ISBN: 0-12-785925-X December 1988, c. 394 pages

A UNIQUE CROSS-DISCIPLINARY APPROACH...

REGIONAL DYNAMICS

Burgundian Landscapes in Historical Perspective

edited by

Carole L. Crumley and William H. Marquardt In Paperback: \$39.95

ISBN: 0-12-198381-1 Casebound: \$95.00 ISBN: 0-12-198380-3 1987, 630 pages NEW INTRODUCTORY TEXT...

QUANTIFYING ARCHAEOLOGY

Stephen Shennan

This book introduces archaeologists to the most important quantitative methods, from the initial description of archaeological data to techniques of multivariate analysis. These are presented in the context of familiar problems in archaeological practice, an approach designed to illustrate their relevance and to overcome the fear of mathematics from which archaeologists often suffer.

NOTE: A co-publication with Edinburgh University Press, 22 George Square, Edinburgh, EH89LF, Scotland. For United States, Canada, and the Philippine Islands, this book is available only from the U.S. Office of Academic Press. For all other territories, contact Edinburgh University Press.

1988, 364 pages, \$34.95 ISBN: 0-12-639860-7



ACADEMIC PRESS

Harcourt Brace Jovanovich, Publishers

Book Marketing Dept. #14108, 1250 Sixth Ave., San Diego, CA 92101

Call Toll Free 1-800-321-5068

©1988 by Academic Press, Inc. All Rights Reserved.

Prices subject to change without notice, CB/SJ-14108

Reading the Isotopic Clocks.

our research in age determination and stable isotopes requires reliable data and custom service. Teledyne Isotopes has the expertise and experience to meet these requirements.

We have been pioneers in the industry since 1955 and are the only commercial laboratory that offers all major age determination techniques.

We can assure you of reliable data because of well-staffed and well-equipped labs, intercalibration with major universities and government facilities, and through use of N.B.S. and international standards.

For the most reliable reading of the isotopic clocks, come to the experts.

TELEDYNE ISOTOPES 50 Van Buren Avenue

50 Van Buren Avenue Westwood, NJ 07675 201-664-7070 Telex: 134474



The first comprehensive encyclopedia to deal with human and primate evolution and prehistoric archaeology and their geological, paleontological, and zoological contexts

ENCYCLOPEDIA OF HUMAN EVOLUTION AND PREHISTORY

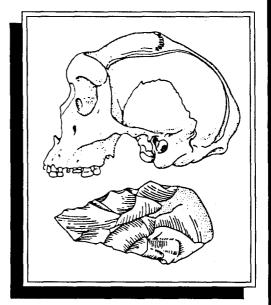
Edited by Ian Tattersall, Eric Delson, and John Van Couvering of the American Museum of Natural History

This one volume compendium for both lay persons and scholars covers all aspects of the 65-million-year story of human evolution. Over 750 articles, arranged alphabetically, vary in length from a paragraph to a 5000 word essay. They are the work of a large team of leading anthropologists, archaeologists, primatologists, and geologists, making the volume fully authoritative in all of the subject areas it covers.

Extensive illustrations, with many new drawings and photographs prepared especially for this book, allow users to appreciate to the fullest the essentially visual materials that document the long story of primate and human evolution and prehistoric archaeology.

Among the subjects covered:

- General Terminology (e.g. Anthropology, Paleobotany)
- Evolutionary Biology (Adaptation, Cladistics, Evolution, Ontogeny)
- Behavioral Biology (Ecology, Primate Societies, Sociobiology)
- Genetics (Chromosome, Molecular Clock, Population, Race)
- Numerical Approaches (Morphometrics, Numerical Taxomony)
- Morphology including Bodily Systems and Function (Teeth, Skeleton, Skull, Locomotion)
- Systematics (Nomenclature, Taxonomy, Genus, Species)
- Primate Taxa (Anthropoidea, Hominoidea, Apes, Monkeys, Plesiadapidae, Tarsiers)
- Human Fossils (Australopithecus, Homo habilis, Homo erectus, Homo sapiens)
- Geology, Paleontology, Stratigraphy, Chronology (Plate Tectonics, Extinction, Time Scale, Miocene)
- · Overviews of Continental Regions
- Fossil Localities (Olduvai Gorge, Neanderthal, Jinniu Shan)
- Archaeology (Aurignacion, Domestication, Middle Paleolithic, Paleolithic Image, Stone-Tool Making)
- Biographies of Significant Scientists (Arambourg, Darwin, Leakey)



A comprehensive system of cross-indexing, embracing over 1,200 topics, enables readers to rapidly locate material that they wish to consult, even where it is spread among several articles.

640 pages 8 1/2 x 11 illustrated \$87.50 ISBN 0-8240-9375-5 H768



GARLAND PUBLISHING

136 Madison Ave., New York, NY 10016 • Tel. (212) 686-7492 • To order call toll-free 1-800-627-6273

New from Cambridge University Press

The Collapse of Complex Societies *Joseph A. Tainter*

This book develops a new and far-reaching theory that accounts for collapse among diverse kinds of societies, evaluating the model and clarifying the processes of disintegration by detailed studies of the Roman, Mayan and Chacoan collapses.

New Studies in Archaeology

\$39.50 hardcover

Quantifying Diversity in Archaeology Robert D. Leonard and George T. Jones, Editors

The contributors to this volume examine what we mean by diversity, review the methods of measurement and formulae we can apply, and assess the pitfalls that exist.

New Directions in Archaeology

About \$42.50 hardcover

Problems in Neolithic Archaeology Alasdair Whittle

Drawing on both processual and post-processual approaches, this book reaffirms the central role of theory and interpretation while accepting as permanent the uncertainty that makes the testing of archaeological hypotheses difficult or even impossible.

About \$47.50 hardcover

The Anasazi in a Changing Environment George J. Gumerman, Editor

This book outlines a thousand year chronicle of environmental and cultural history that provides an experimental basis for explaining broad patterns of interaction between humans and their environment.

Contributors: Jeffrey S. Dean, Robert C. Euler, George J. Gumerman, Richard H. Hevly, Thor N. V. Karlstrom, Fred Plog, Shirley Powell

School of American Research Advanced Seminar Series

About \$39.50 hardcover

Archaeology and Language

The Puzzle of Indo-European Origins

Colin Renfrew

\$29.95 hardcover

"The time-scale, the geographical spaces, the questions and methods of inquiry adduced in this concise book, are vast. Colin Renfrew's argument embraces the entire sweep of the languages which are today classified as Indo-European...Renfrew is pursuing a single, utterly fascinating puzzle: who are we Europeans, where do the languages we speak really stem from?"

—George Steiner, The London Sunday Times

At bookstores or order from

Cambridge University Press

32 East 57th Street, NY, NY 10022

Cambridge toll-free numbers for orders only: 800-872-7423, outside NY State.

800-227-0247, NY State only. MasterCard and Visa accepted.

Maya Iconography Edited by Elizabeth P. Benson and Gillett G. Griffin

This volume presents recent work on Maya iconography from practitioners in a variety of fields: archaeology, anthropology, art history, linguistics, astronomy, photography, and medicine. The time period discussed runs from the last centuries B.C. through the great Maya Classic period, with some discussion of later eras and of regions outside the Maya area.

The papers are placed in an order that most clearly brings out the emerging themes: the book shows how certain Maya beliefs grew over time, and for the first time makes connections between Preclassic and Classic iconography.

165 halftones, 195 line drawings.
Cloth: \$80.00 ISBN 0-691-03590-3



New fall books—

The Recovery of Meaning

Historical Archaeology in the Eastern United States MARK P. LEONE and PARKER B. POTTER, editors

This collection of original essays examines the past two decades of historical archaeology—decades marked by advances in analytical technique, and a vast increase in knowledge of the material life and culture of the past. Rich in data and provocative in theory, these essays show us new ways of listening to the archaeological record.

46 b&w illus., 13 tables, 17 line drawings 525 pp. Cloth: 0-87474-616-7 \$45.00 September 1988

Anthropological Society of Washington Series

Stylistic Boundaries among Mobile Hunter-Foragers C. GARTH SAMPSON

In this study of the valley-wide distribution of South African decorative motifs, the author pioneers a methodology for etching bandterritories out of the archaeological surface trace left by mobile hunter-forager societies. Using data gathered from 2,000 square kilometers, Sampson explores the role of decorative style as a means of signaling group identity.

92 b&w illus., 7 line drawings, 143 maps 192 pp. Cloth: 0-87474-838-0 \$31.50 November 1988 Smithsonian Series in Archaeological Inquiry

Call or mail your order to:

SMITHSONIAN INSTITUTION PRESS Blue Ridge Summit, PA 17294-0900 (717) 794-2148

(Please include \$2.25 for postage and handling.)

FROM THE SOCIETY FOR AMERICAN ARCHAEOLOGY

SAA Papers No. 1:

MODELS AND METHODS IN REGIONAL EXCHANGE edited by Robert E. Fry

SAA Members: \$5.95

Non-members: \$7.95

Non-members: \$24.95

SAA Papers No. 2:

MAN AND ENVIRONMENT IN THE GREAT BASIN edited by David B. Madsen and James F. O'Connell SAA Members: \$10.95 Non-members: \$14.95

SAA Papers No. 3:

THE STRUCTURE OF MATERIAL SYSTEMS: ETHNOARCHAEOLOGY IN THE MAYA HIGHLANDS

by Brian Hayden and Aubrey Cannon

SAA Members: \$17.95

Include payment with order to: Society for American Archaeology 808 17th St., N.W., Suite 200 Washington, D.C. 20006

54th ANNUAL MEETING SOCIETY FOR AMERICAN ARCHAEOLOGY

Atlanta Hilton Hotel Atlanta, Georgia

Wednesday, April 5-Sunday, April 9, 1989

Annual Meeting Chair: Kenneth L. Kvamme, Arizona State Museum, University of Arizona, Tucson, AZ 85721

See the April 1988 issue of American Antiquity for full details of the 1989 Annual Meeting.

CONTENTS

1988 SAA Distinguished Service Award 1985 Crabtree Award for Avocational Ar 1988 Crabtree Award for Avocational Ar		675 678 680
OBITUARY		
Augustus Ledyard Smith, 1901-1985	Gordon R. Willey	683
ARTICLES		
The Effectiveness of Subsurface Testing: A Simulation Approach Measurement of Archaeological Diversity	Keith W. Kintigh	686
and the Sample-Size Effect The Three Sides of a Biface The Archaeological Analysis of Plantation Society: Replacing Status and Caste with Economics and Power Sources of Archaeological Obsidian in the Southwest: An Archaeological,	David Rhode Robert L. Kelly	708 717
	Charles E. Orser, Jr.	735
Petrological, and Geochemical Study Patterns of Population Movement and Long-Term Population Growth in	M. Steven Shackley	752
Southwestern Cólorado	Sarah H. Schlanger	773
REPORTS		
Desert Ground Drawings in the Lower Santa Valley, North Coast of Peru The Penis-Headed Manikin Glyph An Alternative View of Sedentary Period Hohokam Shell-Ornament Production Use of a Falling-Weight Tester	David J. Wilson Michael P. Closs	794 804
	Deni J. Seymour	812
for Assessing Ceramic Impact Strength	Jonathan Mabry, James M. Skibo, Michael B. Schiffer, and Kenneth Kvamme	829
FORUM		
A Public Relations Primer	Gabriel DeCicco	840
CURRENT RESEARCH, edited by Tho	mas F. Lynch	
Greater Southwest, Mesoamerica, Central America		857
REVIEWS AND BOOK NOTES, edited by Susan C. Vehik		870
INDEX TO VOLUME 53		889

THIS PUBLICATION IS PRINTED ON ACID-FREE PAPER.