

Reading the isotopic clocks If you need ^{14}C dates come to the experts

For the reliable data and custom service that your research demands, come to Teledyne Isotopes. Our labs have the staff, the equipment, the *experience* to handle all your research needs in radiocarbon and related analyses.

Reliability of data is assured through:

- Sample analysis done in modern, efficient labs
- Inter-calibration with major university and government labs
- Use of N.B.S. standards and other internationally recognized reference materials

For all your age determination needs, contact the *experienced* company...

 **TELEDYNE ISOTOPES**

50 Van Buren Ave., Westwood, N.J. 07675
(201) 664-7070 • Telex 134-474



Exploring Iowa's Past A Guide to Prehistoric Archaeology

Lynn Alex's book unlocks the story of Iowa archaeology, buried for more than a century in technical journals and obscure publications. An authoritative and intriguing introduction to Iowa's prehistory and the methods of archaeological data collection and interpretation, it appeals to both the layman and the professional.

180 pages. Illustrated. Paperbound, \$7.95.



University of Iowa Press, Iowa City, Iowa 52242

The Daykeeper

The Life and Discourse of an Ixil Diviner

Benjamin N. Colby and Lore M. Colby

Few daykeepers are left among the societies descended from the pre-Columbian civilizations of Mexico and Guatemala. This book provides a rare view of the life of a modern Mayan holy man. An important vehicle for understanding a culture that is a direct descendant of the high Mayan civilization of the past. \$25.00

Harvard University Press

Cambridge, Massachusetts 02138

JOURNAL OF ETHNOBIOLOGY

The *Journal of Ethnobiology* is a professional journal devoted to the interdisciplinary study of anthropology and biology which provides a long needed forum for publications of original research by ethnobiologists and other specialists. The journal will consist of papers covering a broad range of topics including ethnotaxonomies and folk classification, ethnobotany, ethnozoology, cultural ecology, plant domestication, zooarchaeology, archaeobotany, palynology, dendrochronology, and ethnomedicine. Volume 1 Number 1, to be released in May 1981, will consist of the proceedings of the Second Conference on Ethnobiology held in Flagstaff, Arizona, April, 1979. Volume 1 Number 2 will consist of proceedings from the Fourth Conference on Ethnobiology held in Columbia, Missouri, March, 1981. The journal will be published semi-annually in 1981 and 1982 with current plans to expand to a quarterly journal by 1983. The journal will begin soliciting for articles on original research in September, 1981.

SUBSCRIPTION RATES

Institutional \$22.00
Regular \$15.00

JOURNAL OF ETHNOBIOLOGY

P.O. BOX 1145 / FLAGSTAFF, AZ 86002

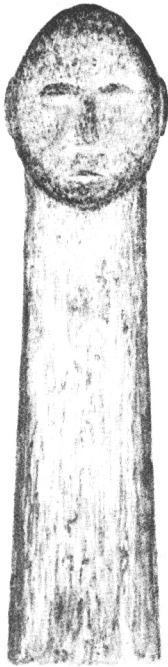
JOURNAL ORGANIZATION

Steven D. Emslie and **Steven A. Weber**, Co-Directors; Center for Western Studies, Inc. Flagstaff, AZ.

Steven D. Emslie, Editor.

EDITORIAL BOARD:

- Brent Berlin**, Language Research Laboratory, University of California, Berkeley; ethnotaxonomies, linguistics.
Robert A. Bye, Jr., Department of Environmental, Population and Organismic Biology, University of Colorado, Boulder; ethnobotany, cultural ecology.
Richard S. Felger, Senior Research Scientist, Arizona-Sonora Desert Museum, Tucson; arid land ethnobotany, desert ecology.
Richard I. Ford, Director, Museum of Anthropology, University of Michigan, Ann Arbor; archaeobotany, cultural ecology.
B. Miles Gilbert, Adjunct Research Associate, Division of Vertebrate Paleontology, University of Kansas, Lawrence; zooarchaeology.
Terence E. Hays, Department of Anthropology and Geography, Rhode Island College, Providence; ethnobotany, ethnotaxonomies.
Richard H. Hevly, Department of Biological Sciences, Northern Arizona University, Flagstaff; archaeobotany, palynology.
Eugene Hunn, Department of Anthropology, University of Washington, Seattle; ethnotaxonomies, zooarchaeology, cultural ecology.
Harriet V. Kuhnlein, Division of Human Nutrition, University of British Columbia, Vancouver; ethnonutrition.
Gary P. Nabhan, Meals for Millions Foundation, Tucson; cultural ecology, plant domestication.
Darrell A. Posey, Center for Latin American Studies, University of Pittsburgh; ethnoentomology, tropical cultural ecology.
Amadeo M. Rea, Curator of Birds and Mammals, San Diego Museum of Natural History, ethnotaxonomies, zooarchaeology, cultural ecology.



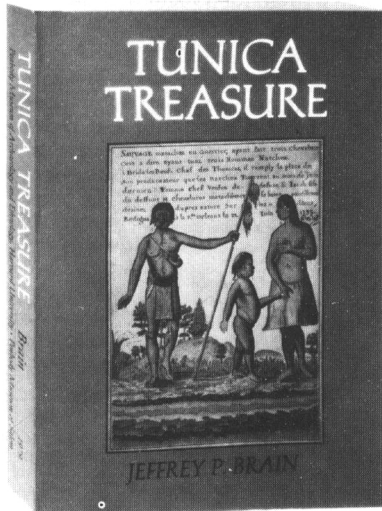
INDIAN ANTIQUITIES of the KENNEBEC VALLEY

Charles Clark Willoughby

This previously unpublished manuscript provides a human perspective on the foremost pre-World War II archaeologist of New England, and contains new scientific data. Willoughby began his professional career with this delightful summary of Maine Indian life and archaeology, and later rose to the Directorship of Harvard's Peabody Museum. The full-color plates demonstrate his stunning artistic talent.

Facsimile edition of 1891 manuscript. 160 pages. 22 full-color plates of artifact paintings. Notes and biographical introduction added.

Maine State Museum, Augusta, Maine 04333 \$22.00 plus \$1.00 handling



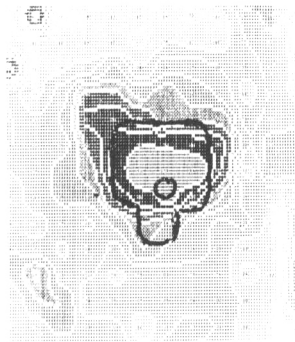
"Tunica Treasure is an outstanding example of ethnohistoric scholarship and a masterly piece of analysis, description, and presentation."

— Waldo R. Wedel

In *Tunica Treasure* Jeffrey P. Brain describes the discovery of and analyzes and interprets the remarkable collection of European trade items and Indian cultural objects from an eighteenth-century Tunica Indian site in Louisiana. February 1981, 329 pages, 845 illustrations, \$35.00. Distributed by Harvard University Press, Cambridge, MA 02138.

**PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY,
HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS 02138**

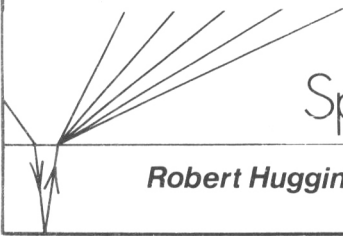
REMOTE SENSING FOR ARCHEOLOGY



-proton magnetometer surveys

-computer analysis and interpretation of magnetometer and resistivity surveys

-location of features and activity areas, delimitation of site boundaries and site assessment



Spectrum Geophysics

Robert Huggins, 2250 Lipscomb St., Fort Worth, TX 76110.
817-927-5582

THE ORIGINAL



VERMONTERS

 **NATIVE INHABITANTS:
PAST AND PRESENT** 



 **William A. Haviland
Marjory W. Power** 



Much misinformation about Vermont Indians—including the idea that there weren't any!—is rectified by this book. Aiming for synthesis rather than detail, the authors make available to general non-professional readers and scholars alike what anthropologists have learned, and are still learning, about Vermont's native inhabitants from the time of the region's first settlement down to the present.

A University of Vermont book. \$18.00

Recently published . . .

**Indian New England
before the Mayflower**

Howard S. Russell

"Should be required Thanksgiving Day reading"

—*Boston Globe.* \$17.50



**UNIVERSITY PRESS OF
NEW ENGLAND**

Hanover and London

Archaeology of the Rivas Region, NICARAGUA

Paul F. Healy

Recent research has revealed that Central America before the Spanish Conquest played a much more significant role in New World cultural history than was previously thought. Healy's study gives a detailed analysis of excavations and of artifacts recovered at seven significant prehistoric sites and documents cultural changes occurring over a 2,000-year period.

... a substantial example of what is needed as we build up and put together a chronological framework for Central America... [A] solid building block in the construction of a systematic Lower Central American archaeology.

— Gordon R. Willey, *Harvard University, in the Foreword*

412 pp., 128 figures, 20 tables, 13 plates
ISBN 0-88920-094-7 Cloth, \$13.50 (U.S.)

Order from:

Wilfrid Laurier University Press

Wilfrid Laurier University Press
Waterloo, Ontario, Canada N2L 3C5

ERRATUM

The pecked, quartered circle which illustrated the article, "The Shape of Time: Some Political Implications of a Four-Part Figure," (*American Antiquity* 45:727-739), and which appears on the cover of 45(4) was idealized by the artist and does not accurately represent the actual figure at Uaxactun, Guatemala. That figure is accurately illustrated and described, with others like it, in an article published in 1978 by Aveni, Hartung and Buckingham in *Science* 42(4365):267-279.

—Clemency Coggins

47th ANNUAL MEETING SOCIETY FOR AMERICAN ARCHAEOLOGY

The Hotel Leamington
Minneapolis, Minnesota
Wednesday, April 14–Saturday, April 17, 1982

Annual Meeting Chairperson: Payson D. Sheets, Department of Anthropology, Campus Box 233, University of Colorado, Boulder, CO 80309

GUIDELINES FOR CONTRIBUTIONS

The Executive Committee has ruled that the privilege of presenting papers at the annual meeting of the Society will be restricted to paid-up members of the Society. The Committee further decided that a person may not deliver more than one paper although (s)he may, at the same meeting, chair a session or serve as joint author of a paper presented by someone else.

Completed symposia proposals, long and short abstracts of papers, abstracts of contributed papers and of research reports must reach the program chairperson by October 15, 1981. All proposals and abstracts should be submitted on appropriate SAA forms which may be acquired by writing the Program Chairperson. Long abstracts of contributed papers and symposium papers will be used for evaluation by the Program Committee. Authors of contributed papers and symposia organizers will be notified of the Program Committee's decision as soon as possible. Short abstracts of all papers and research reports accepted for presentation will be included in the final program.

SYMPOSIA (2-hour, 4-hour)

A symposium consists of a group of papers on a common theme. The symposium topic and the individual papers within it will be reviewed. Changes, such as consolidation of two symposia or changes in the individual papers, may be recommended.

Symposia suggestions, including title of symposium and name, address, and telephone number of the organizer(s), must be received by September 15, 1981. As soon as possible, organizer(s) should request copies of *Guidelines for Symposium Organizers*.

Complete symposia proposals must be submitted as a package by the symposium organizer(s) and must be received by October 15, 1981. The package should include for every paper presented in the symposium: *long abstracts* of no less than 300 and no more than 600 words, double-spaced in clean, typewritten form (5 copies); *short abstracts* of 100 words or less of each paper with author(s) name and institution, typewritten on separate pages in the style shown in the sample below (2 copies); *request for audiovisual equipment* (type of projector, blackboard, etc.).

CONTRIBUTED PAPERS (20 minutes)

Contributed papers are to be distinguished from Research Reports in that they generalize, synthesize, or compare and are addressed to problems of theory, method, culture history, or culture process. Contributed papers will be reviewed, and changes may be suggested.

Contributed papers must follow the same format as the symposia papers, including short abstracts (2 copies) and long abstracts (5 copies), as well as 3 suggestions as to topical and/or geographical area to which the paper may be assigned (e.g., Plains Archaeology, Method and Theory, Ceramic Analysis).

RESEARCH REPORTS (10 minutes)

A research report is a description of the results of a recent field or laboratory research project. This year the research report section will be divided into oral presentation and poster session; the author may choose which form to use. The poster session is especially appropriate for research results that can be described graphically better than verbally. Research reports will be reviewed. If the number submitted exceeds the space and time available, they will be accepted in the order of submission.

Research reports must be received in the following form: *abstract* of 100 words or less (2 copies); *suggestions* as to topical or geographical area; *audiovisual equipment* required.

Sample Abstract:

Name of Senior Author (Institution) Title in Caps. Abstract in single paragraph form:

Smith, Jane J. (Arizona) THE ROLE OF ARCHAEOLOGY IN SOCIETY.

Archaeology's Role in Modern Society is discussed, with an emphasis on . . . (up to 100 words maximum for short abstract and 300–600 words for long abstract).

Junior Author(s) Name in the following form at bottom of page:

Jones, Peter J. (see Smith, Jane J.)

Brown, Susan (see Smith, Jane J.)

Please follow the form *exactly*. Incorrect or late submissions will only be considered if space and time allow. Submit 2 copies of short abstracts, 5 copies of long abstracts.

All other scheduling and room requests (organization or committee meetings, promotional booths, etc.) should be directed to Lucille D. Horn, 1703 New Hampshire Ave., N.W., Washington, DC 20009.

CONTENTS

| | | | |
|---|--|--|------------|
| EDITOR'S CORNER | | Dena F. Dincauze | 467 |
| Guest Editorial: On the Archaeology of the Absurd and Green Slimy Frogs: A Plea for Civility and Mutual Respect | | Richard Pailes | 468 |
| SAA Distinguished Service Award | | | 469 |
| Rise and Fall of Axum, Ethiopia: A Geo-Archaeological Interpretation | | Karl W. Butzer | 471 |
| A Column-Wise Approach to Seriation | | Michael Ester | 496 |
| Ritual Continuity and Transformation in Mesoamerica: Reconstructing the Ancient Maya Cuch Ritual | | Mary Pohl | 513 |
| The Location of Tayasal: A Reconsideration in Light of Peten Maya Ethnohistory and Archaeology | | Grant D. Jones, Don S. Rice, and Prudence M. Rice | 530 |
| Alluvial Geology and Archaeological Potential of the Texas Southern High Plains | | Thomas Stafford, Jr. | 548 |
| REPORTS | | | |
| Soil pH, Bone Preservation, and Sampling Bias at Mortuary Sites | | Claire C. Gordon and Jane E. Buikstra | 566 |
| Nearest Neighbors, Boundary Effect, and the Old Flag Trick: A General Solution | | Charles H. McNutt | 571 |
| The Radiocarbon Evidence for the Temporal Priority of Chavín de Huantar | | Richard L. Burger | 592 |
| The Incorporation of Small Contract Projects into a Regional Sampling Design | | Shirley Powell and Glen E. Rice | 602 |
| Preservation of Archaeological Sites Through Acquisition | | Mark R. Barnes | 610 |
| Holocene Mangrove Formations on the Santa Elena Peninsula, Ecuador: Pluvial Indicators or Ecological Response to Physiographic Changes | | Edwin N. Ferdon, Jr. | 619 |
| Downtown Survey: The Discovery of Sixteenth-Century St. Augustine in an Urban Area | | Kathleen Deagan | 626 |
| Child's Play: A Distorting Factor in Archaeological Distribution | | Gawain Hammond and Norman Hammond | 634 |
| COMMENTS | | | |
| The Emperor's New Clothes | | David B. Madsen | 637 |
| Settlement Data and Subsistence Systems | | Robert L. Bettinger | 640 |
| God's Truth in Great Basin Archaeology? | | David Hurst Thomas | 644 |
| Land-Use Changes in Owens Valley Prehistory: A Matter of Statistical Inference | | M. C. Hall | 648 |
| Sampling and Statistical Inference in Owens Valley | | Robert L. Bettinger | 656 |
| Comments on David Meltzer's "Paradigms and the Nature of Change in American Archaeology" | | Jay F. Custer | 660 |
| Paradigms Lost—Paradigms Found? | | David J. Meltzer | 662 |
| Some Problems in Applying Hodder's Hypothesis | | Dave D. Davis | 665 |
| Reply to Davis | | Ian Hodder | 668 |
| CURRENT RESEARCH | | | |
| Plains, Great Lakes Region, Northeast | | | 671 |
| REVIEWS | | | |
| The Reviewing of Archaeological Books | | George J. Gumerman | 704 |
| Stark: Prehistoric Ecology at Patarata 52, Veracruz, Mexico, Adaptation to the Mangrove Swamp | | Stanton W. Green | 706 |
| Harrison and Turner, II (editors): Pre-Hispanic Maya Agriculture | | Ronald B. Nigh | 707 |
| Soustelle: Les Olmèques: La Plus Ancienne Civilisation du Mexique | | David C. Grove | 709 |
| Lynch (editor): Guitarrero Cave: Early Man in the Andes | | Thomas C. Patterson | 710 |
| Goffer: Archaeological Chemistry | | Curt W. Beck | 711 |
| Gould (editor): Explorations in Ethnoarchaeology | | Stephen C. Saraydar | 713 |
| His Colleagues (editors): Analytical Archaeologist: Collected Papers of David L. Clarke | | Michael W. Graves | 714 |
| ERRATUM | | | 720 |