

RADIOCARBON

Announces the Publication of the Following Special Issues:

**Radiocarbon After Four Decades:
An Interdisciplinary Perspective**

*Special Hardcover Edition Published by Radiocarbon and
Springer-Verlag, New York
\$89.00 List Price; \$66.25 for Subscribers to RADIOCARBON*

Here, for the first time, are collected accounts of significant achievements and assessments of historical and scientific importance. **Radiocarbon After Four Decades: An Interdisciplinary Perspective** commemorates the 40th anniversary of radiocarbon dating and documents the major contributions of ^{14}C dating to archaeology, biomedical research, earth sciences, environmental studies, hydrology, studies of the natural carbon cycle, oceanography and palynology.

All of the 64 authors were instrumental in the establishment of – or major contributors to – ^{14}C dating as a revolutionary scientific tool. The 35 chapters provide a solid foundation in the essential topics of ^{14}C dating and include: The Natural Carbon Cycle; Instrumentation and Sample Preparation; Hydrology; Old World Archaeology; New World Archaeology; Earth Sciences; Environmental Sciences; Biomedical Applications; and Historical Perspectives.

Radiocarbon After Four Decades: An Interdisciplinary Perspective serves as a synthesis of past, present and future research in the vastly interdisciplinary field of radiocarbon dating. It is offered outside of our regular issues; *Radiocarbon* subscribers are eligible to receive a 25% discount off the \$89.00 list price and pay only \$66.25.

CALIBRATION ISSUE 1993

Volume 35, No. 1, 1993 @ \$40.00

Calibration Issue 1993 (CAL93) is an update of the **Calibration Issue 1986 (CAL86)** (Volume 28, #2B, 1986), one of our most frequently ordered issues. It contains new papers with $\Delta^{14}\text{C}$ data sets, that extend and refine the most widely used source of radiocarbon age calibrations. A copy of version 3.0 of the PC-based calibration program by Stuiver and Reimer is available with CAL93. This program allows for calibrations from “conventional radiocarbon years” to calendric dates for the past 18,500 ^{14}C years. The editor for this issue is Minze Stuiver.



RADIOCARBON 1993 PRICE LIST

New Calibration Issue (Vol. 35, No. 1, 1993)	\$ 40.00
Proceedings of the 14th International Radiocarbon Conference (Vol. 34, No. 3, 1992)	\$ 65.00
Proceedings of the International Workshop on Intercomparison of ¹⁴ C Laboratories (Vol. 32, No. 3, 1990)	\$ 40.00
Proceedings of the 13th International Radiocarbon Conference (Vol. 31, No. 3, 1989)	\$ 60.00
Proceedings of the 12th International Radiocarbon Conference (Vol. 28, Nos. 2A & 2B, 1986 – available separately at \$30.00 each)	\$ 60.00
Proceedings of the 11th International Radiocarbon Conference (Vol. 25, No. 2, 1983)	\$ 50.00
Proceedings of the 10th International Radiocarbon Conference (Vol. 22, Nos. 2 & 3, 1980)	\$ 60.00
Vol. 35, Nos. 1–3, 1993 (includes NEW Calibration Issue)	\$105.00/vol. Inst.*
	\$ 73.50/vol. Ind.
	\$ 36.75/vol. Stud.**
Vol. 34, Nos. 1–3, 1992 (includes Proceedings)	\$105.00/vol. Inst.
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Vol. 33, Nos. 1–3, 1991	\$ 94.50/vol. Inst.
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Vol. 31, Nos. 1–3, 1989 (includes Proceedings)	\$ 90.00/vol. Inst.
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NOTICE TO READERS AND CONTRIBUTORS

Since its inception, the basic purpose of *RADIOCARBON* has been the publication of compilations of ^{14}C dates produced by various laboratories. These lists are extremely useful for the dissemination of basic ^{14}C information.

In recent years, *RADIOCARBON* has also been publishing technical and interpretative articles on all aspects of ^{14}C . We would like to encourage this type of publication on a regular basis. In addition, we will be publishing compilations of published and unpublished dates along with interpretative text for these dates on a regional basis. Authors who would like to compose such an article for his/her area of interest should contact the Managing Editor for information.

Other sections recently added to our regular issues include NOTES AND COMMENTS, LETTERS TO THE EDITOR, RADIOCARBON UPDATES and ANNOUNCEMENTS. Authors are invited to extend discussions or raise pertinent questions to the results of scientific investigations that have appeared on our pages. These sections include short, technical notes to relay information concerning innovative sample preparation procedures. Laboratories may also seek assistance in technical aspects of radiocarbon dating. Book reviews are also encouraged.

Manuscripts. Papers may now be submitted on both floppy diskettes and hard copy. When submitting a manuscript, include three hard copies, double-spaced. When the final copy is prepared after review, please provide a floppy diskette along with one hard copy. We will accept, in order of preference, WordPerfect 5.1 or 5.0, Microsoft Word, Wordstar or any IBM word-processing software program. ASCII files, MS DOS and CPM formatted diskettes are also acceptable. The diskettes should be either $3\frac{1}{2}$ " (720 k or 1.44 megabytes) or $5\frac{1}{4}$ " (360 k or 1.2 megabytes). Radiocarbon papers should follow the recommendations in INSTRUCTIONS TO AUTHORS (R, 1992, vol. 34, no. 1, p. 177-185). Offprints are available upon request. Our deadline schedule for submitting manuscripts is:

<i>For</i>	<i>Date</i>
Vol. 35, No. 3, 1993	May 1, 1993
Vol. 36, No. 1, 1994	September 1, 1993
Vol. 36, No. 2, 1994	January 1, 1994

Half-life of ^{14}C . In accordance with the decision of the Fifth Radiocarbon Dating Conference, Cambridge, England, 1962, all dates published in this volume (as in previous volumes) are based on the Libby value, 5568 yr, for the half-life. This decision was reaffirmed at the 11th International Radiocarbon Conference in Seattle, Washington, 1982. Because of various uncertainties, when ^{14}C measurements are expressed as dates in years BP, the accuracy of the dates is limited, and refinements that take some but not all uncertainties into account may be misleading. The mean of three recent determinations of the half-life, 5730 ± 40 yr, (*Nature*, 1962, vol. 195, no. 4845, p. 984), is regarded as the best value presently available. Published dates in years BP can be converted to this basis by multiplying them by 1.03.

AD/BC Dates. In accordance with the decision of the Ninth International Radiocarbon Conference, Los Angeles and San Diego, California, 1976, the designation of AD/BC, obtained by subtracting AD 1950 from conventional BP determinations is discontinued in *RADIOCARBON*. Authors or submitters may include calendar estimates as a comment, and report these estimates as cal AD/BC, citing the specific calibration curve used to obtain the estimate. Calibrated dates will now be reported as "cal BP" or "cal AD/BC" according to the consensus of the Twelfth International Radiocarbon Conference, Trondheim, Norway, 1985.

Measuring of $\delta^{14}\text{C}$. In Volume 3, 1961, we endorsed the notation Δ (Lamont VIII, 1961) for geochemical measurements of ^{14}C activity, corrected for isotopic fractionation in samples and in the NBS oxalic-acid standard. The value of $\delta^{14}\text{C}$ that entered the calculation of Δ was defined by reference to Lamont VI, 1959, and was corrected for age. This fact has been lost sight of, by editors as well as by authors, and recent papers have used $\delta^{14}\text{C}$ as the observed deviation from the standard. At the New Zealand Radiocarbon Dating Conference it was recommended to use $\delta^{14}\text{C}$ only for age-corrected samples. Without an age correction, the value should then be reported as percent of modern relative to 0.95 NBS oxalic acid (Proceedings of the 8th Conference on Radiocarbon Dating, Wellington, New Zealand, 1972). The Ninth International Radiocarbon Conference, Los Angeles and San Diego, California, 1976, recommended that the reference standard, 0.95 NBS oxalic acid activity, be normalized to $\delta^{13}\text{C} = -19\text{‰}$.

In several fields, however, age corrections are not possible. $\delta^{14}\text{C}$ and Δ , uncorrected for age, have been used extensively in oceanography, and are an integral part of models and theories. For the present, therefore, we continue the editorial policy of using Δ notations for samples not corrected for age.

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