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A workshop in Glasgow on the Intercomparison of Radiocarbon Laboratories was hosted by the University of Glasgow, Scottish Universities Research and Reactor Centre and the NERC <sup>14</sup>C laboratory at East Kilbride. The scientific program of the workshop covered previous and current intercomparison studies among radiocarbon laboratories, as well as plans for accuracy improvement in this field. This issue contains papers and discussions and is part of the 1990 subscription.

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## 14C14

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#### CALL FOR ABSTRACTS

The date of the 14th International Radiocarbon Conference, May 20-24, 1991, is fast approaching. Participants who wish to present a paper(s) should submit an abstract(s) before September 15, 1990. The abstract(s) should be double spaced and should not exceed 200 words. Margins should measure 1.5in or 3.5cm on all four sides. Please include the title, author(s) and full address(es) at the top and provide telephone, telex, fax numbers and e-mail address in the cover letter. Send your abstract(s) to Dr. Austin Long at the above address.

Abstracts will be considered for inclusion in one of the prescribed sessions. Please indicate the session most suitable for each submitted abstract. Also indicate if you prefer to present your paper(s) in poster form:

- --Isotopic Indicators of Global Change
- -- Environmental Sciences
- --Archaeometry and Archaeology
- --Geologic, Extraterrestrial and Atmospheric Studies
- --Groundwater Modeling of 14C Data
- --Solar Variations and Cosmic-Ray Effects
- --Accelerator Mass Spectrometry
- --Beta-Counting Techniques
- -- The Intercomparison Study
- --Other General Topics

Specialized pre-conference workshops or short courses may include:

- --Liquid scintillation counting
- -- Prospects for Temporal Extension of Radiocarbon Calibration
- --Paleoenvironments of the Eastern Mediterranean

Please note our slightly revised timetable. The second circular will be sent in October, 1990 instead of May 1, 1990 and revised abstracts and registration will be due December 15, 1990. The second circular will contain full instructions for registration and hotel reservations.

The registration fee will be \$175 before December 15, 1990 and \$200 afterwards. The banquet will cost an additional \$30 (credit cards accepted).

The conference will be at the Westward Look Resort, 245 East Ina Road, Tucson, AZ 85704. Tel: (602)297-1151; Telex: 165518; Fax: (602)297-9023; Toll-free numbers: Out-of-State (800)722-2500, In-State (800)624-5317.

The rate will be \$60/room - single or double - plus tax (credit cards accepted). The same rate will apply 4 days before and after the conference. Every room has a refrigerator and wet bar. Full information and reservation packets will accompany our second circular.

Evening and social activities will include a conference reception and banquet, a trip to the Arizona Sonora Desert Museum and Old Tucson, laboratory tours, an optional trip to Kitt Peak National Observatory, companion tours and post-conference tours to the Grand Canyon and the Murray Springs Clovis site. Alternative tours are being planned.

Please note that air fares into Phoenix are generally lower than into Tucson. We are arranging a direct shuttle from both Phoenix and Tucson airports to the hotel.

Remember - Abstracts are due September 15, 1990

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# **QUATERNARY SCIENCE REVIEWS**

The International Review and Research Journal

Editor-in-Chief: **DAVID Q BOWEN**, Institute of Earth Studies, UCW, University of Wales, Penglais Campus, Aberystwyth SY23 3DB, UK

Quaternary Science Reviews caters for all aspects of Quaternary science, and includes, for example, geology, geomorphology, geography, archaeology, soil science, palaeobotany, palaeontology, palaeoclimatology and the full range of applicable dating methods. The dividing line between what constitutes the review paper and one which contains new original data is not easy to establish, so QSR also publishes papers with new data especially if these perform a review function, or can be so adapted for a wider perspective, for example, as in methods of dating.

All the Quaternary sciences are changing rapidly and subject to re-evaluation as the pace of discovery quickens; thus the eclectic and comprehensive role of *Quaternary Science Reviews* keeps readers abreast of the wider issues relating to new developments in the field.

A Selection of Papers

V MARKGRAF (USA), Palaeoclimates in Central and South America since 18,000 BP based on pollen and lake-level records.

K-E BEHRE (FRG), Biostratigraphy of the last glacial period in Europe.

A-M LÉZINE (France) & J CASANOVA (Canada), Pollen and hydrological evidence for the interpretation of past climates in tropical West Africa during the Holocene.

N EYLES, C H EYLES (Canada) & A M McCABE (UK), Sedimentation in an ice-contact subaqueous setting: the mid-Pleistocene 'North Sea Drifts' of Norfolk, UK.

J P BRADBURY (USA), Late Quaternary lacustrine paleoenvironments in the Cuenca de México.

Indexed/Abstracted in: Curr Cont ASCA, Chem Abstr Serv, Geo Abst, Geo Bib & Indx, INSPEC Data, Curr Cont Sci Cit Ind, Curr Cont SCISEARCH Data

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#### NOTICE TO READERS AND CONTRIBUTORS

Since its inception, the basic purpose of *RADIOCARBON* has been the publication of compilations of <sup>13</sup>C dates produced by various laboratories. These lists are extremely useful for the dissemination of basic <sup>14</sup>C information.

In recent years, RADIOCARBON has also been publishing technical and interpretative articles on all aspects of <sup>14</sup>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 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 as are advertisements.

Manuscripts. Papers may now be submitted on both floppy diskettes and hard copy. When submitting a manuscript on a diskette, always include two hard copies, double-spaced, or wait until the final copy is prepared, after review, before sending the edited diskette. We will accept, in order of preference, WordPerfect, 5.1 or 5.0, Microsoft Word, WordStar or any major Macintosh or IBM word-processing software program. ASCII files, MS DOS and CPM formatted diskettes are also acceptable. The diskettes should be either 3½" (720K or 1.44 megabytes) or 5¼" (360K or 1.2 megabytes). Radiocarbon papers should follow the recommendations in RADIOCARBON Style Guide (R, 1984, v 26, np. 1, p 152–158). Our deadline schedule for submitting manuscripts is:

For	Date
Vol 33, No. 1, 1991	Şept 1, 1990
Vol 33, No. 2, 1991	Jan 1, 1991
Vol 33, No. 3, 1991	May 1, 1991

Half life of <sup>14</sup>C. In accordance with the decision of the Fifth Radiocarbon Dating Conference, Cambridge, 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 <sup>14</sup>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, v 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, 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.

Meaning of  $\delta^{14}$ C. In Volume 3, 1961, we endorsed the notation  $\Delta$  (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  $\delta^{14}$ C that entered the calculation of  $\Delta$  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  $\delta^{14}$ C as the observed deviation from the standard. At the New Zealand Radiocarbon Dating Conference it was recommended to use  $\delta^{14}$ 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 8th Conference on Radiocarbon Dating, Wellington, New Zealand, 1972). The Ninth International Radiocarbon Conference, Los Angeles and San Diego, 1976, recommended that the reference standard, 0.95 times NBS oxalic acid activity, be normalized to  $\delta^{13}$ C = -19%.

In several fields, however, age corrections are not possible.  $\delta^{14}$ C and  $\Delta$ , 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  $\Delta$  notations for samples not corrected for age.

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