

RADIOCARBON UPDATES

Publication Received

West Virginia Archeologist 47(1&2), 1995. The Kentucky, Ohio and West Virginia Radiocarbon Database by Robert F. Maslowski, Charles M. Niquette and Derek M. Wingfield.

This publication contains 1919 radiocarbon dates for archeological sites and objects in Kentucky, Ohio and West Virginia. These data represent most radiocarbon dates available for the region up to August 1996. The database is presented in a tabular format in ascending order of radiocarbon age. The database includes site numbers, site names, components, time periods, lab numbers, ^{14}C age, sigma, calibrated age and references.

The publication is available from the Council for West Virginia Archaeology, P.O. Box 1596, Huntington, West Virginia 25716-1596 USA. Cost is \$12.00 + \$1.50 shipping and handling.

The database and bibliography are also available on disk from Charles M. Niquette, Cultural Resource Analysts, Inc., 143 Walton Ave. Lexington, Kentucky 40508 USA, for \$35 + 1.50 shipping and handling.

H. E. Gove 1997 *Relic, Icon or Hoax? Carbon Dating the Turin Shroud*. Bristol and Philadelphia, Institute of Physics Publishing: 336p. ISBN 0-7503-0398-0. [A review of this book is scheduled to appear in the next issue of *RADIOCARBON*.]

New Laboratory

Dr. Michael Buzinny informs us that his new facility in Kiev is currently operational and involved in environmental ^{14}C studies, at the following address:

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Retirements and Laboratory Relocation

We note Jerry Stipp's transition from Beta Analytic to an undisclosed commercial endeavor with more detail than the usual cryptic bare-facts comments, not only because he kindly provided a mini-autobiography, but also because he helped change the technology and the economics of radiocarbon dating. Jerry has been involved in radiocarbon dating since 1958. He worked with John Noakes and Murray Tamers on the development of the benzene synthesis for radiocarbon dating, essentially the same procedures now used by most β -counting labs. In 1979 he and Murray founded Beta Analytic, Inc., and saw it grow into the largest commercial radiocarbon dating laboratory. From 1968 to 1992 he was on the faculty of Department of Geology and the graduate Marine School at the University of Miami. "Retired" may not be the correct term. Stay tuned.

Dr. Roy Switsur has recently retired as Director of the Cambridge University Radiocarbon Research Laboratory and will be relocating as head of a ^{14}C laboratory that will be part of the Cambridge Environmental Research Centre at Anglia University (about a mile from the Godwin Institute). The new lab will be based on liquid scintillation spectrometry using Quantulus[™] and Packard[™] instrumentation. The facility will be available for collaborative research projects with other interested

institutions involving radiocarbon and tritium measurements in archaeological, geological or environmental studies. Commercial radiocarbon dating will also be available. The lab will maintain close contact with the Godwin Institute, Cambridge University (where Switsur has graduate students), for dendrochronology and dendroclimatology including investigations of stable isotopes in tree rings. Switsur noted that “retirement is in name only and the daily work goes on unchanged!”

Laboratory Closure

We learn from Dr. Harry Gove that the Nuclear Structure Research Laboratory at the University of Rochester no longer has the capability of making cosmogenic radioisotope measurements, and we therefore bid it farewell from our list of active radiocarbon laboratories. Dr. Gove provides us with this brief history of accelerator mass spectrometry at the University of Rochester:

The MP tandem Van de Graaff accelerator at the University of Rochester’s Nuclear Structure Research Laboratory ceased operation in the summer of 1995. From 1977 until 1995 it was employed about 20% of the time for accelerator mass spectrometry (AMS). In 1977 it was shown at Rochester that ^{14}C could be detected by AMS in milligram samples of carbon of organic origin using a tandem accelerator and that $^{14}\text{C}/\text{C}$ ratios could be measured to less than one part in 1015. Because carbon dating by AMS requires tandems with terminal voltages no higher than 2 MV, the use of an MP tandem with a terminal potential of over 12 MV for the detection of ^{14}C did not make sense and its use for this purpose at Rochester was substantially reduced. In 1978 the radioisotope ^{36}Cl was first measured at Rochester, and since then the main AMS work at Rochester has involved that isotope. The higher energies available from an MP tandem permit the elimination of interference from the stable isobar ^{36}S . It was at Rochester that ^{36}Cl was first measured in the nuclear bomb pulse in groundwater. Another radioisotope first measured by AMS at Rochester was ^{129}I . Both it and ^{36}Cl were measured extensively at Rochester in a wide variety of samples including soil and groundwater in the vicinity of nuclear fuel reprocessing plants until the MP tandem was shut down.