

FROM THE EDITOR

In this issue, we round out the year 2003 and include the usual summary of known radiocarbon laboratories and their contact information. This issue contains several interesting papers.

The French group of Tisnérat-Laborde et al. discuss their improvements to bone chemistry using the methodology developed by Nelson et al. in 1991. Hatté et al. discuss an automated combustion system to convert organic material to CO₂, with various options. This system is an example of developments being undertaken in several laboratories, to use current computer technology to improve the repetitive processes in radiocarbon laboratory chemistry.

Fischer et al. studied food residues on pottery and found significant “reservoir effects”, presumably from the use of fresh fish used in cooking. These results indicate the reservoir effect might be 100–500 years in Denmark, so that dating using food residues from such contexts has an additional caveat, as well as the usual ones.

Hua et al. have studied the differences in the bomb ¹⁴C record in tree rings from *Pinus radiata*, from New South Wales. They compare these records to oceanic and other atmospheric data. They are able to derive estimates of the air-sea exchange time in the southern Pacific mid-latitudes based on these results. In a more oceanographic vein, von Rad and coauthors report on AMS ¹⁴C dating of a laminated marine sediment, which records Heinrich events 1 and 2. This allowed the authors to establish a floating marine varve chronology for this core.

Vandergoes and Prior discuss methods for concentrating pollen and successful AMS pollen dating, using a peat bog in New Zealand as the source of pollen, which had previously been difficult to date. The pollen ages are systematically older than other organic fractions, which leads these authors to conclude the organic fractions are contaminated by incorporation of younger humic materials.

In a note on the next radiocarbon intercalibration to be called VIRI, Scott et al. discussed the need for continued intercomparisons. In VIRI, ¹⁴C laboratories have a chance to determine how well their procedures result in ¹⁴C ages within the expected norms, or whether changes to their protocols are needed. The ¹⁴C intercalibration exercises have been most successful in the past, and indeed this successful model of blind intercomparisons is now being copied for other contexts.

Rasmussen et al. continue the earlier discussions in *Radiocarbon* about the accuracy of the dates on the Dead Sea Scrolls, a matter which surely will continue to generate interest. It also emphasizes the importance of good intercomparisons of protocols and measurements between laboratories.

Lastly, Solow presents a simple expression for the variance in the estimated age due to dating errors and bioturbation.

I trust everyone will enjoy a happy and peaceful New Year,

A J Timothy Jull