

RADIOCARBON DATING

As most BSTS members are aware, any decision on carbon dating the Shroud awaits optimum technical advances in the new, small-sample dating techniques. Three laboratories have been tipped as most likely jointly to carry out the dating when the technical difficulties have been overcome. These are the Oxford University Research Laboratory for Archaeology and the History of Art here in England; the University of Arizona's Tandem Generator carbon dating facility at Tucson, Arizona; and an equivalent establishment in Geneva, Switzerland. In the case of Oxford, Dr Robert Hedges, in the course of a book review for *The New Scientist* published in the June 2 issue of this year, remarked that "the technique, as adapted to milligram samples of carbon, is still being perfected". But the Tucson, Arizona facility appears to be at a more advanced stage of development. However, Dr Walter McCrone has drawn our attention to the recent dating by the Arizona laboratory to 18 mgs of scrapings from the inside of the so-called Waukegan hunting horn - reputed to have been brought to America by Lief Ericsson's Vikings centuries before Columbus. Two runs of the dating equipment produced the following readings:

- 1) 1919 AD (plus or minus 172 years)
- 2) 2005 AD (plus or minus 149 years)

During the same experiment, wood from a tree-ring known to date from 1000 AD produced a reading of 1036 AD, plus or minus 326 years.

Such findings indicate a continued disquieting imprecision to the process. On the basis of the second reading, for instance, it could be argued that the cow responsible for the horn had not yet been born! Nonetheless, Tucson has effectively proved the horn's modern provenance, and as of now this laboratory should be able to distinguish between a first and a fourteenth century date for the Shroud. The recommendation remains, however, that the test should wait until all three laboratories are confident of reliable results.