



# International radiocarbon dating experts confirm the Turin Shroud is a medieval fake

**25 March 2008**

The Oxford Radiocarbon Accelerator Unit, in collaboration with an international research team, has carried out further tests to examine the evidence for the authenticity of the Shroud of Turin, reputedly Christ's burial cloth. Professor Christopher Ramsey, director of the Unit that showed the cloth to be a medieval fake in 1989, was part of a team looking at a new hypothesis that could put the date much earlier.

Dr John Jackson, of the Turin Shroud Center of Colorado in the United States, put the new hypothesis forward. Dr Jackson suggests that the shroud might over time have been contaminated with carbon monoxide, which is naturally enriched in radiocarbon. What is significant in this particular hypothesis is that only a 2 per cent carbon contamination from carbon monoxide is needed to move the medieval radiocarbon date of the Shroud to the first century. However, initial tests show that in normal conditions there is no contamination at the level needed to alter radiocarbon dates at all. The researchers conclude the original radiocarbon date of 14th century is correct, based on current evidence, but they have yet to test whether there is anything in the specific storage conditions of the shroud which might affect this conclusion.

Dr Jackson was the leader of a 30-person scientific team from the United States that conducted a five-day scientific study of the Shroud in 1978. In this collaboration, the Colorado team was responsible for preparing test samples of modern linen exposed to carbon monoxide. The Oxford laboratory was responsible for determining if contamination actually occurred in the samples using mass spectrometry.

The research was carried out for an hour-long documentary *Shroud of Turin* by Performance Films commissioned by BBC2 for Easter 2008. It marked the 20th anniversary of the original carbon dating completed by the Zurich, Arizona and Oxford radiocarbon laboratories when all three labs gave a consistent, medieval date for the Shroud.

Professor Christopher Ramsey said: 'Further research on the Turin Shroud is certainly needed. It is important that we continue to investigate anything that might have affected the accuracy of the original radiocarbon tests. It is equally important that other experts critically assess and reinterpret all the evidence, which may point to an earlier date. Only by doing this will we be able to arrive at a coherent history of the Shroud, which takes into account and explains all the available information.'

## Notes for Editors:

For background go to <http://c14.arch.ox.ac.uk/shroud.html>

The Oxford Radiocarbon Accelerator Unit (<http://c14.arch.ox.ac.uk>) is a radiocarbon dating laboratory within Oxford's Research Laboratory for Archaeology and the History of Art (<http://www.rla.ox.ac.uk>), which is dedicated to the development and application of scientific methods to the study of the past. It is part of the University's School of Archaeology.