

John Maddox and the Publication of the C-14 Test Report

Michael Kowalski

I'm sure that most members of the BSTS are aware that the 1988 radiocarbon dating of the Shroud was a deeply controversial project. It's been repeatedly claimed that this dating test fell short of accepted scientific standards, with flaws having been identified in every stage of the process from initial planning through to the analysis and reporting of the test results. Some of the main criticisms have pointed to the failure of those involved to adhere to the test protocols that were agreed during the planning stages, such as the need for blind testing of fabric taken from the Shroud and the control samples¹. However, perhaps the most serious criticism has been directed at the main conclusion documented in the test report produced by the British Museum and the radiocarbon laboratories. This claimed a 95% confidence that the linen of the Shroud of Turin dated to the period 1260 - 1390 AD but according to several scientific papers that have since been published, the results documented in that test report do not warrant that claim.

These criticisms of the test process and the test report appear to be well-justified, which raises the question of how the 1988 Shroud dating test report passed the review stage before its publication in *Nature*, possibly the world's foremost scientific journal. After all, any scientific papers submitted to *Nature* are carefully examined by scientists who have the relevant qualifications and experience needed to assess the quality of the research. They look for any oversights or mistakes in each paper that they review and if these cannot be adequately explained and addressed by the authors, the papers are rejected. The fact that the Shroud dating paper was accepted despite its apparent flaws clearly implies that either these flaws were much less significant than Shroud scholars have claimed, or that the paper wasn't adequately scrutinised during the peer review process.

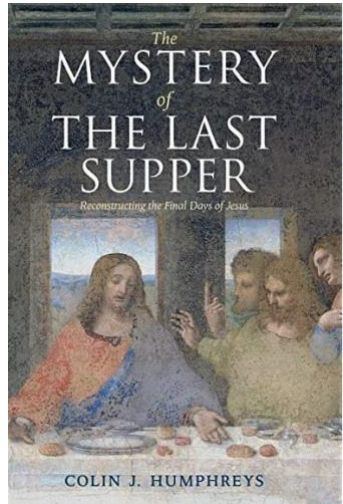
It's not surprising that within Shroud circles, there is a widespread belief that a much less rigorous review process was applied to the Shroud C-14 test report by the editors of *Nature*. The peer review process usually takes several months to complete and so the interval between initial submission of the paper and its publication is typically six months or more. However, the Shroud paper was submitted to *Nature* in December 1988 and published on 16th February 1989. Willy Wölfli, who was a director of the Zurich laboratory which participated in the Shroud test and was one of the signatories to the test report, appeared to confirm that the paper received favourable treatment. He

¹ Blind testing requires that those participating in the tests have no way of knowing which sample is being tested. This is to prevent that knowledge having any influence on those conducting the tests until after they have obtained results. The laboratories involved in the Shroud dating test were not only able to identify which sample was taken from the Shroud but they also knew the age of each of the control samples before running their tests.

stated during an interview that, “...you know I have published, or tried to publish many hundreds of papers. That’s the first paper in my life which has been accepted before one line was written.” [1]. This has encouraged speculation that the editorial decisions concerning this paper were driven by a desire to undermine belief in the authenticity of the Shroud and so those involved may have chosen to overlook any shortcomings when reviewing a scientific paper which claimed to have proved it to be a medieval forgery. However, another possible explanation is that the editors may simply have been motivated by the opportunity for their journal to profit from the worldwide interest that this dating test had generated.

Evidence of editorial bias

I assumed that we would never really know whether editorial bias was a factor in those decisions. However, in March last year, I unexpectedly began to get an insight into this matter when I tuned into a podcast about the resurrection on Radio Maria² which featured interviews with various guests, including two BSTS members: David Rolfe and Peter Wadhams [2]. They were joined by Professor Sir Colin Humphreys, an eminent physicist with a keen interest in bible studies, who had written a book about the dating of the crucifixion³. This book was based on a scientific paper that he had co-authored in 1983 with astrophysicist Graeme Waddington which claimed that they had accurately calculated the date of the crucifixion to be 3rd April 33AD. Their calculations were based on Jewish and Roman historical texts, Gospel accounts and some innovative computer calculations that they had used to reconstruct the Jewish lunar calendar and thereby allowed them to accurately calculate the date of Passover.



I hadn’t been listening too intently during the Colin Humphreys segment of the programme but my ears pricked up when he told the interviewer, “I’m going to tell you something that I’ve never told people before because it’s an extraordinary story”. He continued:

We submitted our paper to Nature and the Physical Sciences editor came back to me and he said, ‘I sent this out to four referees and I’ve never had referees’ reports which are so positive’. He sent me the referees’ reports and I’ll tell you

² An internet-based radio station broadcasting Christian music and teaching.

³ This book, *The Mystery of the Last Supper*, was briefly discussed in BSTS Newsletter Issue 95, page 17.

who the referees were: one was a bishop of Birmingham at the time who was called Hugh Montefiore, who was a great scholar... one was Ormond Edwards who was a chronologist, one was David Hughes who's an Astronomer at Sheffield, a great historical astronomer.

Humphreys recalled that the paper was accepted without the need for any changes, which was extremely unusual. The Physical Sciences editor had also indicated that this would be the cover story and that the cover would feature an image of the crucifixion taken from a stained glass window. However, shortly before the journal was due to be published, he contacted Humphreys with some disappointing news.

He got back to me just before the publication date and he said John Maddox was then the editor of Nature and he was a militant atheist, well-known for being that, and he tried to stop it all. And he said we can't have this published in Nature, so he changed the cover at the last moment. ...He tried to stop the article being published but the Physical Sciences editor said, 'Look, we've got these incredible referees reports. You can't stop it', and so the paper was published.

According to Humphreys, his difficulties with John Maddox continued even after the paper had been published.

He phoned me and he said, '...We have this huge correspondence from your paper in Nature and people have just shot it down; they say it's nonsense. I'm going to publish their letters.' I said, 'Can I reply?' and he said 'Yes of course you can reply. I'll select the best letters that really shoot down this paper'. So he sent me these letters and I sent back a reply through the Physical Sciences editor. They were going to have four pages in Nature of the letters to me and our replies. But we could respond to all these comments; the comments themselves weren't right. This all landed on Maddox's desk and the Physical Sciences editor got back to me and said 'John Maddox has said we're not going to publish all this because it shows you're right'. So they actually had the layout of four pages of correspondence in Nature but Maddox said, 'We're not publishing it'.

I've never told that story before but it's an extraordinary story. It shows the lengths that atheists can go to, to try and suppress evidence about the crucifixion.

The journal *Nature* was of course the same scientific journal which had published the Shroud radiocarbon test report. With the help of a quick *Google* search, I was soon able to confirm that Maddox, who was the editor of *Nature* in 1983 when the Humphreys incident occurred was still occupying that role in 1989 when the Shroud paper was published⁴.

⁴ John Maddox (1925 – 2009) was editor of *Nature* from 1966 to 1973 and from 1980 to 1995.

Colin Humphreys' account of how the "*militant atheist*" John Maddox had opposed the publication of his research and then attempted to undermine it by publishing letters which criticised his paper certainly indicates that his personal bias could also have been a factor in the decision to publish the Shroud test report. It seems quite plausible that after receiving a research paper which had concluded that the Shroud could not be authentic, Maddox would have been prepared to remove any obstacles to its publication.

The Benveniste Controversy

The name John Maddox was already familiar to me from having watched a memorable BBC documentary back in the 1990s [3]. The documentary covered his direct involvement in a controversy that effectively ended the career of an eminent French immunologist named Jacques Benveniste who led a team of forty technicians who performed research into allergies.

When one of Benveniste's researchers showed him some remarkable test results which appeared to support the principles of homeopathy⁵, he was extremely sceptical but decided to ask one of his best technicians to repeat the experiments. This gave the same positive results and these were consistently reproduced throughout a subsequent five-year, in-depth research programme, in which Benveniste and his team were apparently able to validate these extraordinary findings.

Benveniste submitted a paper covering this research to *Nature* which went through the usual peer review process. The feedback from all the reviewers was that the work was very impressive but that the findings were difficult to believe. John Maddox initially refused to publish the paper because in his view, there was no scientific basis for the results claimed by this research. However, after Benveniste vigorously objected to this decision, he agreed to publish it on condition that a committee led by Maddox would be allowed to visit the laboratory to see the data and validate the research. Benveniste agreed to this condition and the paper was published in June 1988.

John Maddox then visited the laboratory with two associates to review Benveniste's work but none of this group were immunologists or research biologists with any relevant experience of the type of research performed in that laboratory. His 'committee' consisted of himself, a magician named James Randi and a chemist named Walter Stewart, both of whom had a reputation as so-called 'fraudbusters'. Maddox gave an explanation for this decision when interviewed for the documentary.

⁵ Homeopathic remedies are dissolved in water and repeatedly diluted and shaken vigorously until little trace remains of the original active substance. Benveniste's team found that after repeating these dilutions until not even a single molecule of the reagent would be present, the water that remained had the same effect as the reagent.

I'd talked this whole Benveniste problem over with some colleagues of mine in America who had been concerned with scientific fraud. They took the view that Benveniste was not a fraud but it could well be that someone in his lab was playing a trick on him.

They questioned the research team for several days but were not convinced that the research results were as good as had been claimed. According to Maddox,

What we found was that his whole team was playing a trick on itself. They very rarely made these measurements blind which meant that anyone who knew what he was looking for could bias his own counting to get the kind of answer he expected.

Maddox and his team then supervised one of Benveniste's experiments, in which they themselves played an active part, despite not having any experience of the processes involved. According to Benveniste, "it was a pantomime" with Randi performing conjuring tricks to the amusement of laboratory staff who were meant to be focussing on their tasks in that test. Unsurprisingly, the test failed to deliver a positive result and on the basis of that single test, the committee judged they had proved Benveniste's research claims to be false.



James Randi

On his return, Maddox published a damning article about this research in *Nature* with the headline 'High-dilution experiments a delusion' which destroyed the reputation of the previously highly-regarded Benveniste and effectively ended his career.

CSICOP and the Shroud of Turin

Whatever one's view may be of homeopathy, these actions by the editor of a scientific journal to disprove Benveniste's research were quite extreme. Like the Colin Humphreys account, this story clearly shows that Maddox was willing to go to considerable lengths to undermine any research which challenged his personal views. But perhaps the most surprising feature of his treatment of Benveniste was his choice of a magician, James Randi, to accompany him when reviewing the work of the research laboratory, rather than a distinguished scientist with relevant expertise.

James Randi was however not only a stage magician. He was also a founder member of a United States based organisation called 'The Committee for the Scientific Investigation into Claims of the Paranormal', or CSICOP [4]. This organisation was formed in 1976 with the aim of challenging any paranormal or pseudoscience claims.

Lee Nisbet, CSICOP's Executive Director, gave details of the Committee's position, saying: "*It's [belief in the paranormal] a very dangerous phenomenon, dangerous to science, dangerous to the basic fabric of our society... We feel it is the duty of the scientific community to show that these beliefs are utterly screwball*" [5]. There is little doubt that when John Maddox stated that "*I'd talked this whole Benveniste problem over with some colleagues of mine in America who were concerned with scientific fraud*", the colleagues that he was referring to were members of CSICOP. Indeed, both Maddox and Randi were later given the accolade of being made 'Distinguished Fellows' of CSICOP.

In 1987, scientist and author Carl Sagan, who was also a member of CSICOP, gave an interview in which he elaborated on some of the group's targets. The list was quite extensive and featured controversial topics such as 'Big Foot', the Loch Ness monster, crashed flying saucers, ESP, and the view that the Earth is really flat⁶. Also named in the list of CSICOP targets was the Shroud of Turin [6].

There's little doubt that Maddox's association with CSICOP, an organisation with an acknowledged intention to undermine belief in the Shroud, plus his atheist convictions would have made him keen to publish a research paper which concluded that the Shroud could not be authentic. The Humphreys and Benveniste incidents clearly illustrate that he was someone who was prepared to make full use of his editorial powers to get the outcome that he wanted.

Peer review of the C-14 Test Report

As we have seen, Shroud scholars have long suspected that the Shroud radiocarbon test report did not receive *Nature's* usual level of scrutiny but until recently, there hasn't been sufficient evidence available to determine whether those suspicions were justified. However, material released by the British Museum as a result of Tristan Casabianca's 2017 Freedom of Information request has provided an insight into the peer review process employed by *Nature* for the Shroud radiocarbon test report.

We now know that this test report was initially submitted to *Nature* by the British Museum on December 5th, 1988 and was accepted for publication on January 19th, just six weeks after submission. Unlike the Humphreys paper, which was scrutinised by four reviewers, each with a specific expertise which related to the different aspects of that paper, just two peer reviewers were selected to provide feedback on the radiocarbon test report. The review comments were quite brief, at just half a page each, but some of this feedback should nonetheless have caused the editors some concern [7]. One

⁶ It's interesting to note that at the October 1988 press announcement of the Shroud radiocarbon test results, Professor Edward Hall stated that "*Some people may continue to fight for the authenticity of the Shroud, like the Flat Earth Society, but this settles it all as far as we are concerned.*"

reviewer commented that *'It is extremely unfortunate that the original blind test protocols were not followed'* and criticised a statement in the report which read *'...it was decided to relax blind test procedures'*, stating that *'In fact, they were abandoned'*. Given that Maddox had cited the lack of blind measurements as a key reason for rejecting the results of Benveniste's research team, one might presume that this comment should also have caused him to doubt the results obtained by the laboratories which dated the Shroud. The same reviewer also added, *'I suspect that a statistician could raise some technical questions but that is not the point of the paper.'* This is quite an astonishing statement given that much of the paper was devoted to the statistical treatment of the results, which provided the basis for the paper's conclusion of a 95% confidence that the linen of the Shroud of Turin dated to the period 1260 - 1390 AD. One might expect that the reviewer's warning that there could be technical questions raised about the statistics would have triggered some additional validation of the report's statistical analysis but there is no evidence of any such action having been taken.

If Maddox had been consistent in his editorial decision making, the Shroud test report could have been rejected, or at least accompanied by an editorial comment expressing concern about the integrity of this test due to process failings. Had either of those actions been taken, it is unlikely that we would see the level of scepticism about the authenticity of the Shroud that exists today. Instead, the report was published without any adverse comments in February 1989, effectively giving *Nature's* seal of approval to the findings of the British Museum and the three radiocarbon laboratories.

John Maddox clearly allowed his personal beliefs to influence his editorial decisions and actions but he was generally considered to have been an excellent editor of *Nature*. He has been widely credited with transforming the Journal from its previous state of decline into possibly the foremost international showcase for new discoveries. Even Colin Humphreys acknowledged that he was a good editor, in spite of having reason to feel that he had been unfairly treated by him. As a result of his achievements in that role and his contribution to science, Maddox received a knighthood in 1995 and five years later was made an honorary Fellow of the Royal Society.

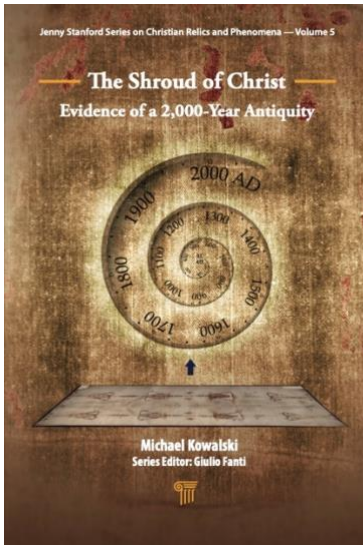
He was also honoured for his extraordinary contribution to the cause of scepticism. In 2011, CSICOP, which had been renamed 'The Committee for Skeptical Enquiry', included him in their 'Pantheon of Sceptics', a roster honouring late distinguished fellows of CSICOP which also includes James Randi and two controversial figures from the history of Shroud research, microscopist Walter McCrone and magician Joe Nickell [8].

John Maddox may have played a comparatively minor role in the history of Shroud research but there is little doubt that his decision to publish a flawed test report helped CSICOP achieve their goal of eroding belief in the authenticity of the Shroud. The Committee for Skeptical Enquiry must be very proud of him.

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Michael Kowalski is the author of *The Shroud of Christ: Evidence of a 2,000 Year Antiquity* published by Jenny Stanford Publishing. This book provides a comprehensive account of the dating evidence revealed by decades of scientific and historical studies of the Shroud.

Copies of this book are available via Amazon or can be purchased from Routledge via the link below:

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