

## **Doubts on the age of the Shroud. Experts re-open the case**

Thirty years after the dating of the Shroud with the technique of radiocarbon, new doubts emerge on the reliability of that result, according to which the sheet that bears the image of the body of a man scourged and crucified as Jesus would actually be a fabric dating back to medieval times. It will be discussed at the annual meeting of the scientific committee of the International Center of Sindonology, May 5 and 6 in Chambéry, in Savoy, with international physicians, physicists, chemists, historians and biologists. Among these is Paolo Di Lazzaro, research director of the ENEA di Frascati, who in his speech will remember as "the calculation that transforms the number of C-14 atoms in the age of a tissue" present "greater uncertainties compared to other solid samples (bones, artefacts, etc.) due to the greater permeability of the textile sample to external agents (bacterial digestion, mold, dirt)."

It is no coincidence, Lazzaro explains, that Beta Analytic, one of the most renowned companies for C-14 dating, is now cautious about the reliability of tissue dating with this technique, "recognizing that textile samples need more precautions compared to other materials ». In particular, Beta Analytic states that "tissue dating is performed only in the context of multidisciplinary research", and that "samples taken from a tissue treated with additives or preservatives generate a false radiocarbon age". The Shroud has in the past been in contact with preservative and anti-moth materials, which could therefore have distorted the dating.

The ENEA scientist also challenges the determination with which, at the time, from the columns of the journal "Nature", the three laboratories involved in dating presented their research as "definitive proof": unusual words for a scientific article, given that « over the centuries, science has progressed by questioning previously acquired results ». The questions increase, explains Di Lazzaro, also because the three laboratories that carried out the dating 30 years ago "have always refused to provide the exact distribution of raw data. This is the only case to my knowledge in which the authors of an article refuse to provide data that can allow other scientists to repeat the calculation and verify if it has been done correctly ".

Here comes a second significant research, that of Marco Riani, a statistician and professor of research and data processing techniques at the University of Parma. Analyzing the data published in "Nature" he had discovered an age that anomalously "increases constantly as you move from one piece to the next", a fact that "suggests the presence of a contamination that may have false results." Riani also found that statistical analysis "provides consistent results only by distributing data on three of the four leaflets delivered to laboratories for measurements". This means that only three flaps of linen were dated in 1988, and one of the two flaps delivered to the Tucson laboratory was never actually dated. «As a consequence - explains Lazzaro - we discover that the false article is stated on Nature's article: it is not true that all the flaps have been dated». In December 2010, Riani's research forced Professor Timothy Jull, head of the laboratory in Tucson, to show for the first time the photo of one of the two Shroud strips received from his laboratory 22 years earlier, and never used.

"This fact alone - concludes Di Lazzaro - demonstrates more than a thousand words the lack of transparency and the poor professional deontology" with which the dating was performed. The Shroud of Turin, that image that nobody has yet managed to reproduce, therefore remains a mystery.