

**Note on the radiocarbon age of the Turin Shroud  
and on recent studies published in Archaeometry  
that will be presented on May 23, 2019 at the University of Catania**

The research results will be presented at the University of Catania on 23 May, by some scholars coordinated by Prof. Torrisi of the same University, where a statistical analysis was completed on the raw data of the radiocarbon age measurement carried out in 1988 on a flap taken from a corner of the Turin Shroud sheet. As is known, the three laboratories in charge of the radiocarbon measurement of 1988 obtained a dating between 1260 and 1390 AD, publishing methodology and results in the authoritative scientific journal Nature (<https://www.shroud.com/nature.htm>).

Thanks to a legal request on the right of access to administrative documents "Freedom of information Act," only in 2017, 29 years after the radiocarbon measurement, was it possible to access the raw results of the measurements in the possession of the British Museum. The radiocarbon raw data was found still not elaborated mathematically to obtain the average age, today analyzed by the Torrisi group with methods of statistical mathematics.

The results of Torrisi's statistical analyses have been published in the scientific journal Archaeometry (<https://doi.org/10.1111/arc.12467>). In a nutshell, the authors conclude that the data obtained from 1988 measurements are uneven to the point that they cannot be considered valid, let alone be considered "*the conclusive proof that the Shroud is medieval*" as recklessly stated in the Nature article.

The results published in Archaeometry confirm - in an authoritative way - thanks to the raw data provided finally available - previous statistical analyses carried out by other scholars who had highlighted both deficiencies in the statistical analysis of the data, see:

<http://www.acheiropietos.info/proceedings/VanHaelstWeb.pdf>, both anomalies due to failure dating of strips of Shroud cloth delivered for measurement and never used for the purpose, see <https://link.springer.com/article/10.1007/s11222-012-9329-5>. An informative summary of the complex affair of the radio-dating of the Shroud and the possible reasons for error can be read at web page <https://www.academia.edu/25550887>. These conclusions were widely presented and discussed on 4 and 5 May 2018 at the annual meeting of the Scientific Committee of the International Center of Studies on the Shroud held in Chambéry (<https://www.lastampa.it/2018/05/03/italia/dubbi-sulletdella-sindone-gli-esperti-riaprano-il-caso-WH63iQMzNoJL8TNas5T5fP/pagina.html>).

Even then, the members of the Commission underlined the fact that the statistical analysis is not capable of to establish "how much" the radiocarbon age measured in 1988 is wrong. The fact that the samples analyzed from the three laboratories in 1988 they are inhomogeneous means that the measure of age is not reliable, but it is not possible to estimate the "real" age. In cases where the statistics of the radiocarbon age measurement data proves unsatisfactory, it is necessary to repeat the measurement on other parts of the same object. In the case of It was not possible to repeat the measurement and consequently the three laboratories involved have however preferred to publish the results even if they are not homogeneous.

In an article published May 2nd in the weekly Catholic Herald,

<https://catholicherald.co.uk/magazine/new-research-reopens-the-turin-shroud-debate/>

the journalist Stannus summarizes the *vexata quaestio* of the radiocarbon age of the Shroud in the light of the latest results, reporting the opinions of various scholars, the vast majority of whom are in favor of a new radiocarbon measurement. The hope is that a new measure of radio-dating, with current technology, can definitively quantify the age of the linen sheet. Or, in the event that different parts of the bed sheet provide different ages due to contaminants accumulated over the centuries that preliminary cleaning of the samples fails to remove, take note that it may be impossible to get a reliable dating of the Shroud.

Today the need to measure on samples coming from different parts of the market is evident Shroud. Since the radiocarbon measurement is destructive, it is clear that this need conflicts with the imperative to keep intact an extremely important and delicate exhibit. In the article on Catholic Herald one of the interested scholars, Walter Kutschera, states that the problem of having a minimal impact on the cloth is resolved by the possibility of obtaining a reliable dating with "A few micrograms of material". Net of a possible printing or journalistic transcription error, this statement appears not to be shared. In fact, today more than 20

milligrams of fabric are required (more than 1 centimeter of square cloth) for the single measure of age radiocarbon of a textile sample. In 1988, 40 milligrams were required. If the Property decides to carry out a new radio-dating measure of the Shroud, yes consider it could be more effective and more respectful of the integrity of the Shroud sheet to evaluate the possibility of using the burnt wires already picked up in the 2002 conservative restoration operation. In any case it is necessary, also for the purpose of preserving the Shroud itself, which is the object of specific in-depth analyzes by the CISS, to first identify the possible causes of sample inhomogeneity.