The validity of the 1988 Shroud sampling

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The samples, to be used to radiocarbon date the Shroud of Turin, were cut by Prof. G. Riggi, on April 21, 1988.

"From a strip of 7 x 1 cm were prepared 3 samples, each about 50 mg". These dates were published in : "Osservatore Romano"; Riggi's own report; the "Nature" report by Dr. Tite (February 16, 1989) and also in the "1988 Yearbook of ETH Zurich".

A jarring note was the statement of Gabriel Vial, who spoke about "A strip of 8 x 1.5 cm" (Lyon-Matin, May 8, 1988).

During the CIELT Symposium (September 7, 1989, Paris) Prof. Riggi and Prof. F. Testore, in contradiction each other, gave figure not in correspondence with the dat, given in Nature.

Both, Testore (October 26, 1989) and Riggi (October 28, 1989) corrected their "errors", following Testore "due to a to hasty translation."

The version of Testore : TWO samples of about 16 x 14 mm and ONE sample in TWO parts of 11 x 16 mm and 16 x 4 mm was confirmed by photo's taken by the three laboratories.

Gabriel Vial said in Paris: "I saw on the scale the pieces of cloth, that were passed to the laboratories. They were clean cut square. The rest is literature".

The contradiction between the descriptions of the samples given by the different parties reduces their value to zero.

The problem was solved by simply saying :"The Nature report has been written from memory".

Afterward (and of the record) Dr. Hedges declared: "Indeed, we should have given a better description of the samples".

In spite of these irregularities, scientists like Dr. Lindner and Miss Hilde Leynen used the photos of the samples, to support their own theories based on the authenticity of the samples.

Miss Leynen showed that a fold on the Oxford photo matches 4 fold on the Shroud.

Dr. Lindner reconstructed the Testore version, published in the Proceedings of the CIELT Symposium (Nice 1997) and his "Farewell Lecture" (1998).

The legend states :

I did the same, using the photos, published by Frére Bruno in CRC. But when one uses as a reference the center of the herringbone, the edges of the Oxford and Zurich samples do not correspond. It is impossible to place the Arizona smallest sample to match the other samples, as shown on drawning A & B (see fig. 1 and 2).

In note 25 of his booklet "Facing Reality" Dr. Lidner wrote : "By my optical documentation, the hypothesis of fraud can be regarded to be falsified once and for all".

Strangely, he did not use the photo documents published by Ing. E. Brunati (Proceedings Cagliari 1990, pp.119-121, O.Petrosillo-E.Marinelli (1990), CRC N° 238 (1991) and other. I made a composition of the photos published in CRC and I leave the conclusion to the reader. Figure A = Lindner; Figure B = Composition A + B; Figure C = Combination photos CRC. I marked the centre of the herringbone. If cut from the same sample, the TWO limits and the centre of the herringbone of the THREE samples should be in line.

To show how careful one should be, to use such "combinations" I placed a photo of the Raes sample in the Raes corner. Both photos do not match (see fig. 1 and 2).

As underlined, the contradiction between the description of the samples given in "Osservatore Romano", the " 1998 yearbook of ETH Zurich" and Nature, and the reports presented in Paris 1989, by the experts Riggi and Testore, reduces their value to zero.

One should NOT use such dates in further research.

The excuse of British Museum : "The report has been written from memory" is not acceptable. One may wonder, why the radiocarbon scientists were not surprised, to find samples of 14 x 16 mm instead of the expected 10 x 23 mm.

Stranger is the FACT, that the Arizona scientists did not react, when they found a sample in TWO parts.

I and several others have studied the photos of the samples, made in the laboratories and published by Frére Bruno in "Contro Reforme Catholique".

The centres of the herringbone on the Zurich and Oxford sample, as shown in the paper by Dr. Lindner, DO not match.

The Oxford sample is somewhat larger than the Zurich sample.

It is impossible to place the Arizona samples to match the other samples.

Strangely, Dr. Lindner does not place the SECOND Arizona sample on this reconstruction.

This irregular shaped sample appears not to be cut by an expert.

In Turin, I asked Dr. Lindner personally why he used the MIRROR image of the small Arizona sample.

I asked also Dr. Hedges of Oxford for his comment.

"Indeed, we should have given a better description of the samples"

 CONCLUSION

Dr. Lindner reached the same conclusion, I presented back in 1989.

Indeed, the results of the Chi^2 test, as published in Nature, do indicate that there are only 13 chances in 1000 that the three samples, cut from the same place, are homogeneous in C 14. But the results in Nature are REWORKED data.

A: At the request of the British Museum, the ORIGINAL 8 Arizona results were COMBINED into 4 data, eliminating the dates 540 and 574.

One did "forget" to note this in Nature.

B: The TRUE results 672-+13, $Chi^2 = 8.56$, % Sig. Level = 1.3 % were REWORKED to 689-+16, $Chi^2 = 6.40$, % Sig. Level =4.3 % by the arbitrarily enlarging of the Arizona error from 17 to 31.

C: Finally, the REWORKED weighted mean 689-+16 was replaced by the UNWEIGTIIED mean 691-+31.

D : The multiplying d-factor 1.96 was enlarged to 2.6.

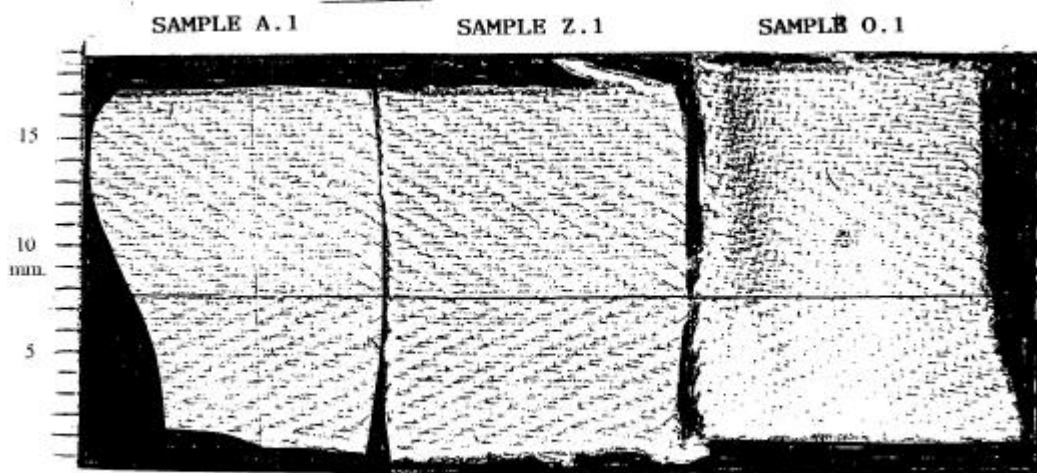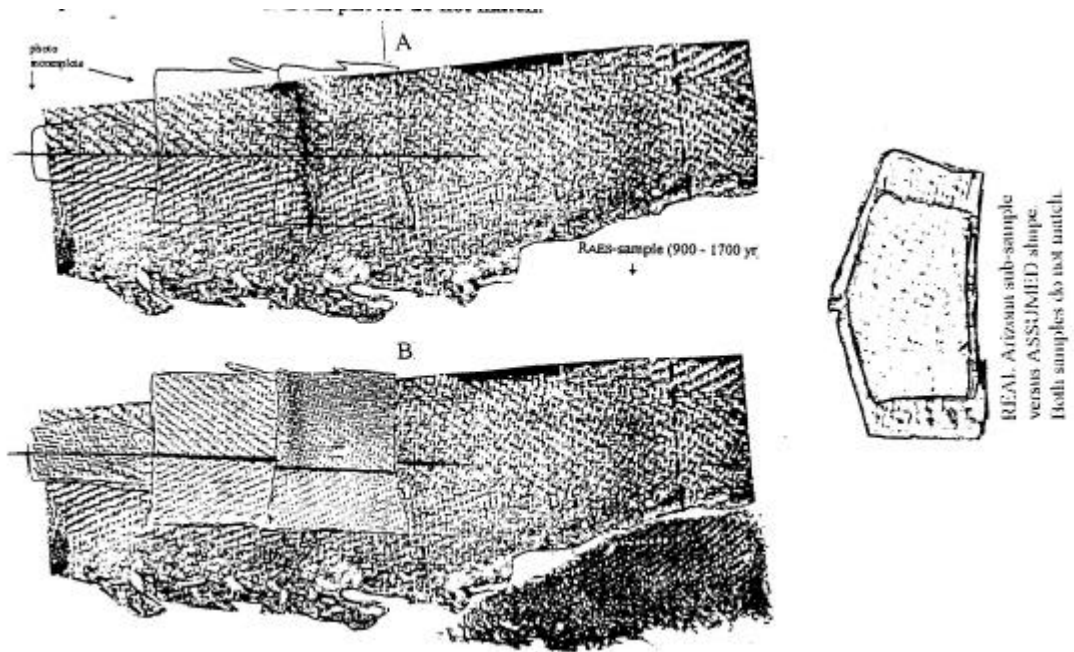Note : the d-factor for at least 120 AMS sub-measurements = 1. 96

And so the 95% confidence age range of 647-697 became 610-772

In vain, I have asked all involved for some explanations. But the OFFICIAL report has never been published or made available for scientific research.

Following Dr. Moven Leese (British Museum) the differences between our calculations were due to the use of different weighting systems
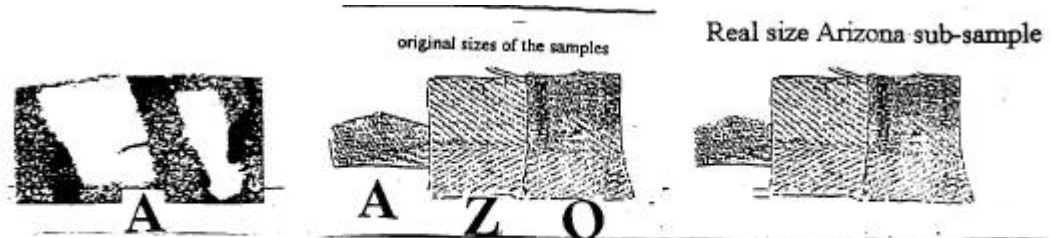
I used the Wilson-Ward method, as explained to me by the authors.

I like to ask Dr. Lindner a simple question : "Should You have "REWORKED' the statistics, to obtain a non existing 95 % confidence ?"

RAEs-sample (900 - 1700 yr)

REAL Arizona sub-sample versus ASSUMED shape. Both samples do not match.

SAMPLE A.1   SAMPLE Z.1   SAMPLE O.1

ARIZONA SAMPLE MADE UP AFTER THE SHAPE OF THE LARGEST ARIZONA PHOTO.

Figure 1

original sizes of the samples   Real size Arizona sub-sample

A   A   Z   O

THE REPRESENTATIONS OF THE SMALLEST ARIZONA SAMPLE DOES NOT MATCH.

Figure 2