

SCIENTIFIC AND THEOLOGICAL REFLECTIONS

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I congratulate you on the appearance of Issue No 100 of *Shroud News*.

A symbolical image of your very good decision to start this periodical in 1980 may be expressed, perhaps, by the logo which you have chosen for the letterhead of your writing paper: seen at very close range (this may be comparable to your knowledge in 1980), one can recognise only the herringbone pattern of the Shroud's material; but at a certain distance the face of Jesus Christ appears very clearly; that may be the situation in 1997 when the 100th issue appears. (The logo in the top right hand corner of *Shroud News* does not show this difference as impressively as in the letterhead).

This illusion may be explained more precisely. In 1980 (when the first volume appeared) the results of the analyses (which were made after the exposition of the Shroud in 1978) were not yet published and the chemical nature of the body image was not known; today we know that these traces are formed by a degradation of cellulose, consisting of conjugated carbonyl and double bonds. The traces of the coins on the eyelids must be caused by an electrically sparking discharge, as proved by simulation experiments of OTTO SCHEUERMANN(1). These two effects (traces of coins and the body image) must have been caused by an *electron radiation*, and this is not possible except by the bombardment of a very great quantity of electrons on the surface of the body. There exist several indications for this assumption; one of these is the following: An electron radiation emerges perpendicularly from the surface and passes in parallel through the air, being sufficiently absorbed in short ranges to give a three-dimensional and very clear, not distorted image.

In December 1988 the 50th issue of *Shroud News* appeared. This was just the time when the research of the Shroud was hit by a great shock. The radiocarbon age seemed to be only 600 - 700 years. There are many indications that these analyses were executed correctly; I would underline the following:

* *Impurities and contaminations* distort an amount of more than 55% to give an error of 1300 - 1400 years; this can be regarded as impossible

* *Errors, faults* during the analyses can be excluded because 12 analyses with different pretreatment methods in three independent institutes correspond to each other

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* We must accept that in 1988 the samples of the Shroud were indeed analysed. This can be proved by photos which were taken in Turin on the one hand, and in the three institutes on the other, i.e. in different places and independently of each other: They correspond exactly in all details e.g. threads, angles of the herringbone pattern; they even agree with a fold of the linen. (2)

What might be the reason for these great discrepancies between the real age and the analysed radiocarbon age? Explanations for these abnormal results by KOUSNETZOV (a carboxylation or an accidental distribution of C14 between proteins and cellulose in the flax fibre) are not convincing; his ' hypotheses are disproved by SALET and SAILLARD (3), because these phenomena may explain differences only of several years but not the gap of centuries. One must consider that very often unexpected results have been obtained in the history of science. I would give three examples:

* KARL ZIEGLER (he was my own supervisor under whom I obtained my doctorate) concluded by an abnormal result of an experiment that there must be an influence of an unknown catalyst; therefore he sought and found the real reason: it was the chemical element titanium; Ziegler was rewarded for his discovery with the Nobel Prize. By means of these "Ziegler catalysts" it is possible to polymerize ethylene to polyethylene.

* Contradiction between the laws of the radiation of "black holes" and the well-known rules of energy led to the discovery of the "quantum theory".

* The emitted electrons in the course of neutron - proton - transformations were charged with different amounts of energy; this was a violation of the energy laws; therefore, an unknown particle was postulated which was charged with the missing amounts of energy. Indeed about 25 years later these particles were discovered and called "neutrinos".

I think that the results of the radiocarbon analyses of 1988 should be accepted. An augmentation of radiocarbon, however, can be effected by a nuclear reaction. It is known that a neutron flux can transform the isotope C13 (1.1% of carbon in the flax) into C14. *Indeed, I have simulated an augmentation of C14 in flax fibre by a neutron flux, and thereby I obtained a "rejuvenation" of the radiocarbon age in this material.*

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By the results of the analyses of 1988, we already have a very impressive indication for a neutron flux: an inhomogeneity between two positions where the analysed samples were located in the grave (perhaps a distance of only about 5 cm). This also corresponds to calculations which I have already published (4). But this inhomogeneity is only confirmed with a probability of 95.7% according to the Pearson test (5). On account of calculations (which I have published, see note 4) a neutron flux of about 10^{16} cm² must have occurred in the grave of Jerusalem.

Where could be the origin of such great amounts of neutrons and, probably, also the same amounts of electrons? One supposes they have come from the surface of the corpse which was depicted. A setting free of such great amounts of these elementary particles seems to be only possible if we assume that God, in His incomprehensible power, has let fall into "nothingness" by a unique phenomenon only the protons of the surface of the corpse. The remaining electrons have caused the body image and the traces of coins on the eyelids, the neutrons have caused a "rejuvenation" of the radiocarbon age.

An obvious indication for the *simultaneous* appearance of an electron radiation and a neutron flux is the image of the hair. The precisely depicted hair on the head must also have been caused by a electron radiation. However, the hair does not "stand on end" as electrically charged hair could. This is explained by the dematerializing of the protons and, as a consequence, the disappearance of the chemical bondings between the atoms. Then, only neutrons and electrons existed instead of the hair: a directed electron - radiation (which formed the traces of the hair) could occur by the principle of recoil because the mass of the electrons is about 1/2000 fold less than the mass of the remaining neutrons. Thus the electrons could push themselves off from the neutrons to radiate to the Shroud.

These are some remarks on our scientific knowledge at this time, when the 100th issue of *Shroud News* is to appear. I think my explanations concerning the body image, the traces of coins and the abnormal radiocarbon content are in accordance with chemical and nuclear laws, proved by many indications in the Shroud and simulated by several experiments. Moreover I have published (6) them: no one has yet disproved or contradicted these explanations. I would optimistically predict that this may not be possible. But these explanations were "hushed up" in all discussions. Why? The deeper reason may be that the acceptance of this explanation requires a *theistic* idea of God: His power and might over each elementary particle in the universe. This is beyond the thinking of today which can be characterized in the following manner:

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* In the sciences we have analytical and positivistic methods. Questions concerning God are left aside.

* In theology we have an existentialist way of thinking, religious feelings predominate. Analytical questions of God's activity in miracles, however, are bothering and, therefore, are put under taboo.

I think that the problems of the body image and the abnormal radiocarbon age can only be solved in combining natural and supernatural aspects and I feel that I am competent in both science and theology because I am a chemist and also a graduate theologian. Perhaps we will find greater consensus after new radiocarbon analyses are made: The C14 values will be expected which are no more possible in nature, as calculations of a prestigious neutron physicist show; I have already published(7) these results.

Today, confirmed by an overwhelming abundance of scientific results, we can already be sure that the Shroud really comes from the burial of Jesus Christ; but on account of the apparent contradictions of the first radiocarbon analyses (which were made according to the rules) contrary to all the other results, we can form the idea that the Shroud must be connected with the mystery which happened during the Resurrection about 2000 years ago. *This is our situation today when the 100th issue of Shroud News appears.*

I wish you, Mr Morgan, that in the period to come *Shroud News* can help to reveal the truth. I think that the importance of this periodical which was founded by your initiative would increase after new radiocarbon analyses: Today we can already foresee that the Shroud (where God has "burned in" by means of a unique occurrence the image of the corpse of Jesus Christ and caused an abnormal, inhomogenous radio carbon content) will serve as the "5th Gospel" to renew Christian faith in the Resurrection and in the Deity of Jesus Christ: with his "witness" of that important event in human history the Christian faith would be transformed from the biblical to the cosmic view of the world.

Great tasks await this periodical which you have founded! Good luck and success!

EBERHARD LINDNER

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NOTES

1. Scheuermann, Otto, *Das Tuch*, (Vorlag Fr Pustot, Regensburg, 1982)
2. Lindner, Eberhard, "Ipotesi su tutte le tracce della Sindone", *Collegamento pro Sindone*, Sett/Ott 1993, p 32
3. Salet, G., and Saillard, Yves, *La Lettre Mensuelle du C.I.E.L.T.* Nov 1993 to Feb 1994 and May to June 1994
4. Lindner, Eberhard, "L'Autenticita della Sindone di Torino per Mezzo di Analisi del Radiocarbonin", *Collegamento pro Sindone*, Roma, Marzo/Aprili 1991, p36/37
5. de Carbon, Phillipe B., "Remarques sur Particle intitue 'Radiocarbon Dating of the Shroud of Turin'", *Nature*, vol 337, *Le Lettre Mensuelle du C.I.E.L.T.*, Paris, March 1990
6. See notes 2, 4 and 7. I will try to publish the next future details of my experiments with a neutron flux of and with radiation of electrons
7. Lindner, Eberhard, "Ipotesi su tutto le tracce della Sindone", *Collegamento pro Sindone*, Roma, Nov/Dec, 1993, p 35

Dear Rex,

Thank you for your unflagging energy on behalf of the Shroud. Here is a paragraph for the 100th edition. Congratulations.

THE COINS IN THE EYES CONVINCED ME

I have been a reader of *Shroud News* for about 10 years now and have a strong science background with a Masters in Physical Chemistry and a Doctorate in Religion and Education. I was puzzled by the radiocarbon C14 result and set out to examine it. The more I went into its theory and practice I saw how fragile the approach was and was not surprised that it could be so unreliable and indeed invalid.

Then I turned to the evidence of the coins in the eyes discovered by Fr. Filas of Chicago and became engrossed in his evidence and the match with existing coins of Pontius Pilate. Here was the proof that the Shroud could be dated to that period. Then in the right eye a coin of Julia (there were three Julia's in the Roman royal families about that time) but one fitted the period of Jesus. Again proof that the Shroud could be dated to that period. Thanks to *Shroud News* my search was complete and my scientific and faith curiosity was satisfied. Thank you Rex Morgan

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