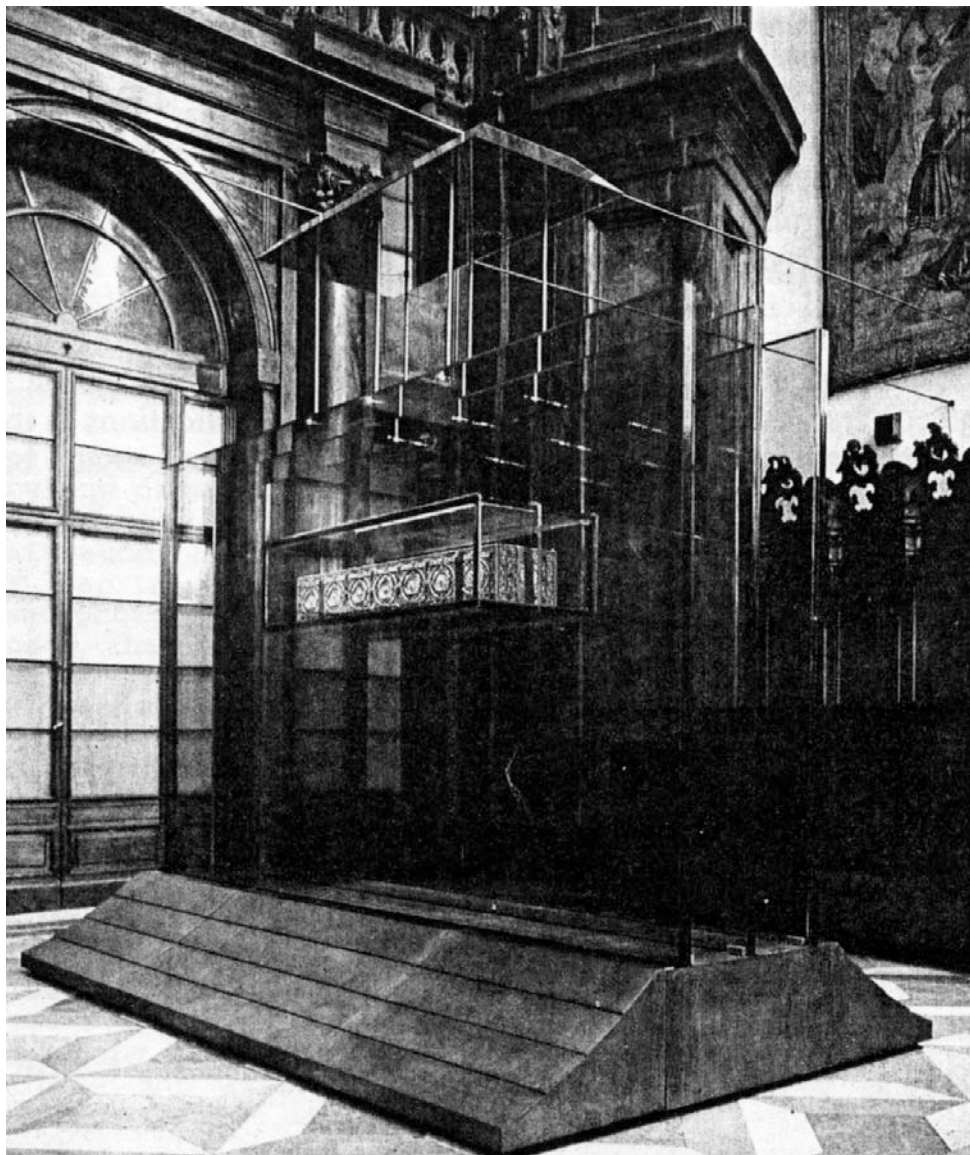


A NEWSLETTER ABOUT RESEARCH ON THE HOLY SHROUD OF TURIN
published in Australia for Worldwide circulation
edited by REX MORGAN, Author of several books on the Shroud
Issue Number 87 **FEBRUARY 1995**



The Holy Shroud in its silver casket now displayed in Turin Cathedral in this glass case during repairs to the Guarini Chapel built for it in 1578
[Pic: Centro Internazionale di Sindonologia, Turin]

EDITORIAL

Our first edition for 1995 contains a major article by the Russian scientists Ivanov and Kouznetsov. It was Kouznetsov who caused worldwide interest with his description of this work given in Rome in 1993. It sets out to show reasons for the C14 testing of 1988 being completely incorrect. The article is an important part of the Shroud research record but is pretty heavy going for the non-scientist. Also in this issue Bro. Michael Buttigieg of Malta rebuffs the South African claim last year that the image is a photograph and historian Professor Dan Scavone's review of the book by Picknett and Prince appears to demolish their claim that it was a painting by da Vinci. It is an interesting sidelight that in the advertising brochure for *Turin Shroud - In Whose Image?* (Picknett and Prince) the photograph of the negative image has been printed backwards. Also in this issue from the pen of Scavone is an important historical article about the Shroud's French period.

I have only recently noted that in his excellent book *Sindone O No* one of Italy's most eminent sindonologists, Professor Pier Luigi Baima Bollone makes the comment that there are numerous Shroud publications in the world ranging from properly printed magazines to simple home-made bulletins. He then lists the 6 principal journals as:

1. *Sindon* (Turin)
2. *Shroud Spectrum International* (USA)
3. *Newsletter of the BSTS* (UK)
4. ***Shroud News*** (Australia)
5. *Collegamento pro Sindone* (Rome)
6. *Emmaus* (Rome)

And finally for this month a cynic said to me the other day that by the time they agree on how to conserve the Shroud they'll open the casket to discover a deteriorated cloth with no image on it and then hold a conference on how to conserve the photographs of it...

REX MORGAN

REVIEW OF LYNN PICKNETT AND CLIVE PRINCE, *THE TURIN SHROUD: IN WHOSE IMAGE?* (NEW YORK: HARPER COLLINS 1994). Daniel C. Scavone, University of Southern Indiana.
October 8, 1994

It is commonly agreed both by sindonophiles and many sindonoclasts that no ancient or medieval artistic technique is known by which the human figure on the Turin Shroud could have been manufactured. Moreover, nearly all accept that, judging from early artistic output on cloth, no ancient or medieval artist could have produced this unique, anatomically correct image by ordinary artistic means. This includes the authors of this book. The image is very faint, superficial (it is known that the image on the Turin Shroud resides only on the peaks of the fibers) and lacks artists' pigments and brush strokes.

All this is implied in the title of this book. The authors provide an answer: Leonardo da Vinci was genius enough to have done it. On this point it is difficult to disagree, judging from the work and notebooks of Leonardo and Vasari's high praise of his genius. They go further: Only Leonardo could have done it. This is probably not true, as other artists are known to have studied anatomy, experimented with *sfumato* technique, and as alchemists worked with vegetal chemicals. The authors' next conclusion is one that does not follow by the rules of logic or history: Because Leonardo could have done it, therefore he DID do it. He did, moreover, not by any method of conventional art, but by means of photography.

Leonardo's notebooks have revealed an incredibly fertile scientific curiosity and creativity. All would agree in a casual way that if anyone could have invented a rudimentary method of photography in the Renaissance, he is that one. But the authors make another *non sequitur* leap in concluding that, since he could have, therefore he DID invent photography, and the Shroud is proof of it. This thesis presupposes that the Shroud is not a painting and in fact is a reproduction from an actual human body: considerable admissions from the sindonoclast camp. It was similarly admitted by Dr. Michael Tite of the British Museum, who made the official announcement of the medieval C14 date.

Shroud "politics" aside, Leonardo as author of the Shroud is a wonderfully exciting idea. The real support for it will have come from the science of radiocarbon (C14) dating, which in 1988 proclaimed, with 95% certainty, that the Shroud was produced in the late Middle Ages between 1260 and 1390. Sadly for the premise of this book, Leonardo was not born until 1452 (died 1519). The C14 labs, however, also reinforce the message of confidence in their dates by adding that they are 99.9% certain the Shroud was produced between 1000 and 1500, making it chronologically possible for Leonardo to have made it.

The Leonardo connection loses virtually its entire scientific underpinning, however, when one notices that the labs are thus only about 5% certain of the extended time span and only 2.5% certain the Shroud could be as late as 1500. They are, after all, 95% certain it was made 1260-1390. Period.

REVIEW - Scavone (cont'd)

The authors further believe that the face of the man on the Shroud is a self-photograph of Leonardo, one that closely resembles his self-portrait done faintly in red chalk and sketching in only the salient highlights of his features. Meanwhile, they suggest that the body on the Shroud is that of one of the cadavers Leonardo is known to have studied. So history's first photo is a clever composite. In fact, the face on the Shroud does seem on sight to be disembodied, owing to the absence of image where the Shroud was stretched over the collarbone.

Though prior measurements of the height of the Shroud man range between 5'10" and 6', the authors determined his height to be 6'8" to 6'10". They thus note that the head, at 1/9 of the body instead of the average 1/8, is actually too small. So after extolling the genius of Leonardo throughout her pages, Picknett writes, "... From our calculations the face belongs to a man who was between 5ft 10in and 6ft tall. But if the image as a whole is so brilliant, what artist in his right mind would get the head so wrong? Could he have done so deliberately?"

This question leads the authors to another assertion: Leonardo was a member of a secret society called the Priory of Sion, which esteemed John the Baptist over Jesus. Therefore, the apparent disembodied head visible on the Shroud man was Leonardo's cipher for the decapitated Baptist. The coup (de tete?) of the "too-small head" deliberately contrived seems to have reference to the space between head and body, making the Shroud man seem too tall.

Leonardo's use of his own photo, they argue, was owing to his inordinate vanity, the same that prompted him to encode his own face in his famous portrait of Mona Lisa, wife of Francesco de Giocondo. This theory was confirmed by Lillian Schwartz of Bell Laboratories and Dr. Digby Quested of London, who discovered that it matched up perfectly with the major lines of Leonardo's face in the above-mentioned self-portrait at age sixty. Picknett writes, "Leonardo was capable of subtly building his own image into that of his masterpieces; if he had done so with the Mona Lisa, why not with the Shroud?" (It should be noted that Dr. Alan Whanger, retired from Duke University, has matched the Shroud man's face in some 170 points of congruence with the face of Jesus on a sixth-century icon residing in St. Catherine's Monastery in Mt. Sinai.)

The construction of the Leonardo-photography hypothesis has been as thoroughly thought through as possible. It is unfortunate that, as the authors assert, Leonardo found his discovery too "hot" to mention anywhere in writing. It thus lacks any documentation.

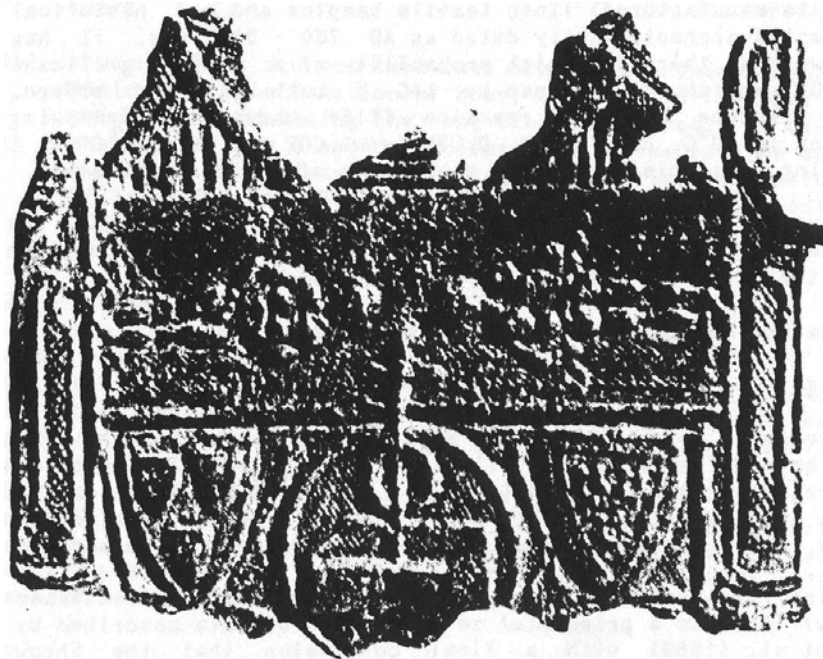
Finally, an illustration of the burial of Jesus in the Hungarian Pray manuscript, firmly dated in the early 1190s, depicts him with hands folded exactly as on the Turin Shroud; below it on the same page a drawing of the Resurrection clearly bears a configuration of four tiny circles which perfectly reproduce four apparent "poker

REVIEW - Scavone (cont'd)

holes" on the Turin Shroud. A drawing of the Shroud from the year 1516 (prior to the well documented fire of 1532 which caused the major burn marks still visible on the Shroud) in Lierre, Belgium also bears this very configuration. The reviewer finds this sequence sufficient to negate the hypothesis of this interesting book.



Illustration from the Hungarian "Pray" manuscript (1192 - 95). The hole marks have been emphasised in this diagram [Attrib: Fr Albert R. Dreisbach]



The Pilgrim's Medallion from the Seine
(see article p 19)

BIOPHYSICAL CORRECTION TO THE OLD TEXTILE RADIO CARBON DATING RESULTS

Andrey A Ivanov and Dmitri A Kouznetsov, Russia

ABSTRACT

A well-known data reported by Damon et al. in 1989 (*Nature*, v.337, 611 - 615) are under theoretical and experimental re-evaluation.

Since theoretical model of radiocarbon dating described by Stuiver & Polach (1977) and accepted by Damon et al. (1989) does not take into account biofractionation of C-isotopes by living flax, it seems that a normalization standard of $\delta^{13}\text{C} = -25\text{‰}$ which has been used in their calculations is inappropriate.

An alternative normalization standard has been developed in the present study with a special correction for linen textile manufacturing technology (flax spinning) and experimental data on the intermolecular order of heavy C-isotopes non-random distribution in flax stems.

Besides, the conventional approach of radiocarbon dating of the Shroud of Turin demonstrated by Damon et al. (1989) has been criticized because of the absence of any efforts, theoretical or experimental, to take into account a possibility of changes of ^{14}C and ^{13}C - content in the Shroud as a result of temperature-induced reactions of isotopic exchange (RIE) between gas (CO/CO_2) and solid phase during a famous historical fire in the middle ages.

As a result of model experiments with a modern (up-to-date-manufactured) linen textile samples and old historical linen samples archeologically dated as AD 760 - 840 yrs, it has been shown that there is a high probability of a very significant (up to 40%) enrichment of linen by ^{14}C , both old and modern, during an isotope exchange reaction (RIE) under the following conditions: $+140^\circ\text{C}$, $20\text{ g/m}^3\text{ H}_2\text{O}$, 0.03% (w/w) CO_2 and $60\text{ }\mu\text{g/m}^3\text{CO}$ of the surrounding artificially created atmosphere of the closed chamber.

Analysing all experimental data obtained in this study as well as taking into account a typical mathematical logic of radiocarbon dating, the following conclusions should be expressed:

- (a) the apparent calendar age of the Shroud of Turin estimated by Damon et al. (1989) is much smaller ("younger") than a real value of its age;
- (b) a conventional approach which has been used by Damon et al. (1989) should be modified by a special correction to biophysically-proven normalization $\delta^{13}\text{C}$ standard (-19‰ or -20‰ , -21‰ instead of -25‰) and to a possible rate of temperature-induced reaction of isotopic exchange (RIE) - a common consequence of a so called "fire models";
- (c) a practical application of both types of corrections mentioned above (b) leads to a principal re-evaluation of data described by Damon et al. (1989) with a final conclusion that the Shroud calendar age could be of about 1,900 - 2,000 yrs BP.

Perspectives of further research are under discussion.

BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

RESULTS AND DISCUSSION

As seen from the report by Damon et al. (1989), the radiocarbon ages were calculated using a known procedure suggested by Stuiver and Polach (1977), with normalization to $\delta^{13}\text{C} = -25 \text{‰}$.

Why did these authors prefer to choose exactly this value of $\delta^{13}\text{C}$ for a normalization standard, so critical and extremely important for their dating calculations?

The most probable answer is that this $\delta^{13}\text{C}$ value is a most common MEAN value for many plants including the long-fibred flax as it has been described in numerous studies carried out using a TOTAL HOMOGENATES as well as a samples of completely manufactured linen textile, old and modern [Ilves et al., 1974; Markov, 1986; Zimmerman, 1986; Lodish, 1992].

It means that a choice of $\delta^{13}\text{C}$ normalization standard suggested in research carried out by Damon et al. (1989) should be considered as a crude, i.e. very approximate, assumption because of at least two reasons:

(a) $\delta^{13}\text{C}$ and $\delta^{14}\text{C}$ parameters estimated in plants are very variable, their values depends on a number of flexible environmental factors like climate, chemical pollutions, mountains/valley location of growth, etc.; also these parameters depend on biological species and even subspecies of any living organism, plant or animal [Galimov, 1981; Lodish, 1992];

(b) these authors did not take into account a phenomenon of biological fractionation of heavy and light C-isotopes by plant cells including the long-fibred stem cells of coarse too, as well as a major peculiarities of the routine manufacturing of linen from this biological material (so called "flax spinning") [Galimov, 1981; Nesmeyanov, 1985; Lodish, 1992].

Why is that so important?

Answering to this question, it should be outlined that a choice of $\delta^{13}\text{C}$ normalization standard is critical to calculation of calendar age of old linen textile according to Stuiver & Polach (1977);

Besides, this radiocarbon approach assumes A PRIORI that in the initial point of time $t = 0$, i.e. is the time of manufacturing of linen of the Shroud, the value of $\delta^{14}\text{C}$ in the recently manufactured textile was equal to $\delta^{14}\text{C}$ of the flax stems which were a "biological source" of this textile (equation 1):

BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

Total fractions of DNA, RNA, polysaccharides (97% cellulose plus 3% dextrane-like compounds) as well as small traces of proteins, were isolated from the resulting deproteinized pool of biopolymers by HPLC procedure using a 15 X 220 mm column packed with Sephasorb-HP sorbent (Serve GmbH, Germany), 2,000 p.s.i., room temperature, effluent: 50 mM tris-acetate (pH 5.90) containing a linear 0.15 - 1.6 M gradient of guanidine chloride (LKB-20LX liquid chromatographer). All fractions isolated were then lyophilized.

Purity of all isolated fractions (total pools of proteins, DNA, RNA, polysaccharides) has been tested conventionally by their UV-and CD-spectra in Spectromom 300A (MOM, Hungary) and DS-400 (Varian Instruments, USA) spectrophotometers. respectively.

MEASUREMENTS

All textile samples tested were cleaned in petroleum ether at 48°C for 1 hour with a following incubation in an ultrasonic bath (25°C, 1 hour, 32.0 KHz).

A resulting clean textile samples as well as lyophilized fractions of all major biomolecules isolated from flax stems (see above) were combusted conventionally with copper oxide in sealed tubes, then converted the resulting carbon dioxide to graphite targets. Then, the ratios of all carbon isotopes were measured mass-spectrometrically in the M1-1201 isotopic mass-spectrometer (MEDTEKHNKA, Russia).

The content of heavy C-isotopes in CO/CO₂ fraction of the air ("fire model experiment") were measured after an aspiration of these gases through the gas-chromatographic unit of the M1-1201 mass-spectrometer containing the Unidex -600 gas universal sorbent.

The results of carbon isotope analyses were expressed as the $\delta^{13}\text{C}$ and $\delta^{14}\text{C}$ values calculated conventionally (Stuiver & Polach, 1977):

$$\delta^{13}\text{C} = \left[\frac{(^{13}\text{C}/^{12}\text{C})_{\text{exp}}}{(^{13}\text{C}/^{12}\text{C})_{\text{std}}} - 1 \right] \cdot 10^3, \text{‰}$$

$$\delta^{14}\text{C} = \left[\frac{(^{14}\text{C}/^{12}\text{C})_{\text{exp}}}{(^{14}\text{C}/^{12}\text{C})_{\text{std}}} - 1 \right] \cdot 10^3, \text{‰}$$

For the resolution of the equation system suggested, the FORTRAN program has been processed in the IBM-350 computer.

BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

Our experimental model deals with the different variants of radiocarbon dating of a known-age old linen textile sample looks like a good evidence for this statement (see Table 1).

"BIG FIRE MODEL"

One more important point should be taken into account in a critical re-evaluation of conclusion made by Damon et al. in 1989.

This is a historical fact of a great fire which took place in the Middle Ages and which definitely could be a very special reason to suggest that the Shroud has been incubated in conditions of high temperature and high concentration of carbon-containing gases, CO and CO₂, in a surrounding atmosphere.

This statement seems to be important and interesting in the light of a known data concerning the reactions of isotopic exchange (RIE), i.e. reactions of spontaneous re-distribution of isotopes of one and the same element between different phases of the substance (gas / solid phase for example), between molecules or even within one and the same molecule. As it has been shown earlier, the processes of RIE can be induced by high temperature; the optimal values of temperature depends on exact elements, these values are very variable (Gorkin et al., 1979; Lodish, 1992).

It means, it should not be excluded that the content of ¹⁴C in linen of the Shroud of Turin has been significantly changed as a result of the temperature - induced reactions of isotopic exchange between the Shroud and the CO/CO₂ gases during the fire.

In order to evaluate such a possibility, we have carried out the following experiments.

First, modern linen textile samples has been incubated +140° C for 1 hour in a closed thermostatic chamber connected with an isotopic mass-spectrometer M1-1201 (MEDTECHNIKA, Russia) by means of a computer-controlled aspiration/filtration system (Shimadzu LC-12XL; Japan) containing an artificially mixed atmosphere:

20 g/m³ H₂O; 0.03% (w/w) CO₂; 60)μg/m³ CO.

Then, ¹⁴C and ¹³C content were measured in linen (see Methods) as well as in CO/CO₂ gas fraction by solid-state and gas-analysing (gas-chromatographic) units of the M1-1201 mass-spectrometer.

BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

In a separate series of experiments, we have used a sample of old known-age historical linen textile (see Methods) for the same analytical ("fire model") procedure described above.

As result, we have shown that our experimental conditions imitating a fire (which could not destroy the linen physically leads to a real C-isotopes exchange between the textile matter and carbon-containing gases produced normally in any fire (see Figure 2 and Table 1).

Thus, this temperature-induced isotopic exchange leads to approx. 40% enrichment of the linen by ^{14}C and to approx 25% enrichment of the linen by ^{13}C -isotope (Fig. 2).

Naturally, data like that should reflect such a parameter as a so called relative error of dating (η). This parameter could be estimated in different model experiments with an aim to correct any radiocarbon dating calculations taking into account a possibility of fire-dependent enrichment of linen textile by ^{14}C .

As for the possibility of this enrichment itself, our data presented in Figure 2 and Table I looks good enough to prove it.

So conclusions given by Damon et al. in 1989 should be corrected using a new, re-evaluated, $\delta^{13}\text{C}$ normalization standard and biophysically proven value of η obtained in model "fire-imitating" experiments with the linen textile samples (Figures 1 and 2).

For mathematical formalization of such a correction, we have proposed the following system of equations based on both general logic of radiocarbon dating and-data of our experimental models described above:

$$\left\{ \begin{array}{l} \delta^{14}\text{C}_{\text{exp}} / (\delta^{14}\text{C}_{\text{exp}} + \delta^{14}\text{C}_{\text{norm}}) = \frac{1}{\eta} \cdot T [1 - e^{-k}] \\ k = \ln 2 / t_{1/2} \quad \Leftarrow \quad t_{1/2} (^{14}\text{C}) = 5,570 \text{ Yrs} \\ \eta = \frac{\Delta T}{T} = \frac{1280}{T} \cdot \ln \left(1 + \frac{D}{P} \right) \\ T = \frac{1}{\lambda} \ln \left(1 + \frac{D}{P} \right) \\ D = P (e^{\lambda T} - 1) \end{array} \right.$$

η - relative error in dating; ΔT - absolute error in dating;
 T - calendar age; D - final number of nuclides; P - initial
 number of nuclides; λ - constant of radiocarbon decay,
 d.p.m./g carbon.

BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

An application of our correcting approach to the dating of old known-age linen sample before and after its treatment in our "fire-imitating" model experiments shows that biophysically corrected $\delta^{13}\text{C}$ normalization standard plus mathematical correction for parameter η leads to the obtaining of right calendar age values; on other hand, incorrect $\delta^{13}\text{C}$ standard as well as thermal treatment of the linen leads to the obtaining of such a calendar age values with much smaller (much "younger") than a real age of the sample tested (Table 1).

Everything stated above makes it possible to conclude that the correction approach we suggested is an efficient way to re-evaluate the measurement data obtained by Damon et al (1989) in their studies of the Shroud of Turin.

In spite of the fact that our approach in its present form is not ideal and that this approach needs to be improved and developed, we have recalculated the data published by Damon et al. in 1989 using our understanding about correct value of the $\delta^{13}\text{C}$ normalization standard, enrichment of the linen by ^{14}C during the flax spinning and then as a result of thermal/gas treatment in a famous Middle Ages fire (see above).

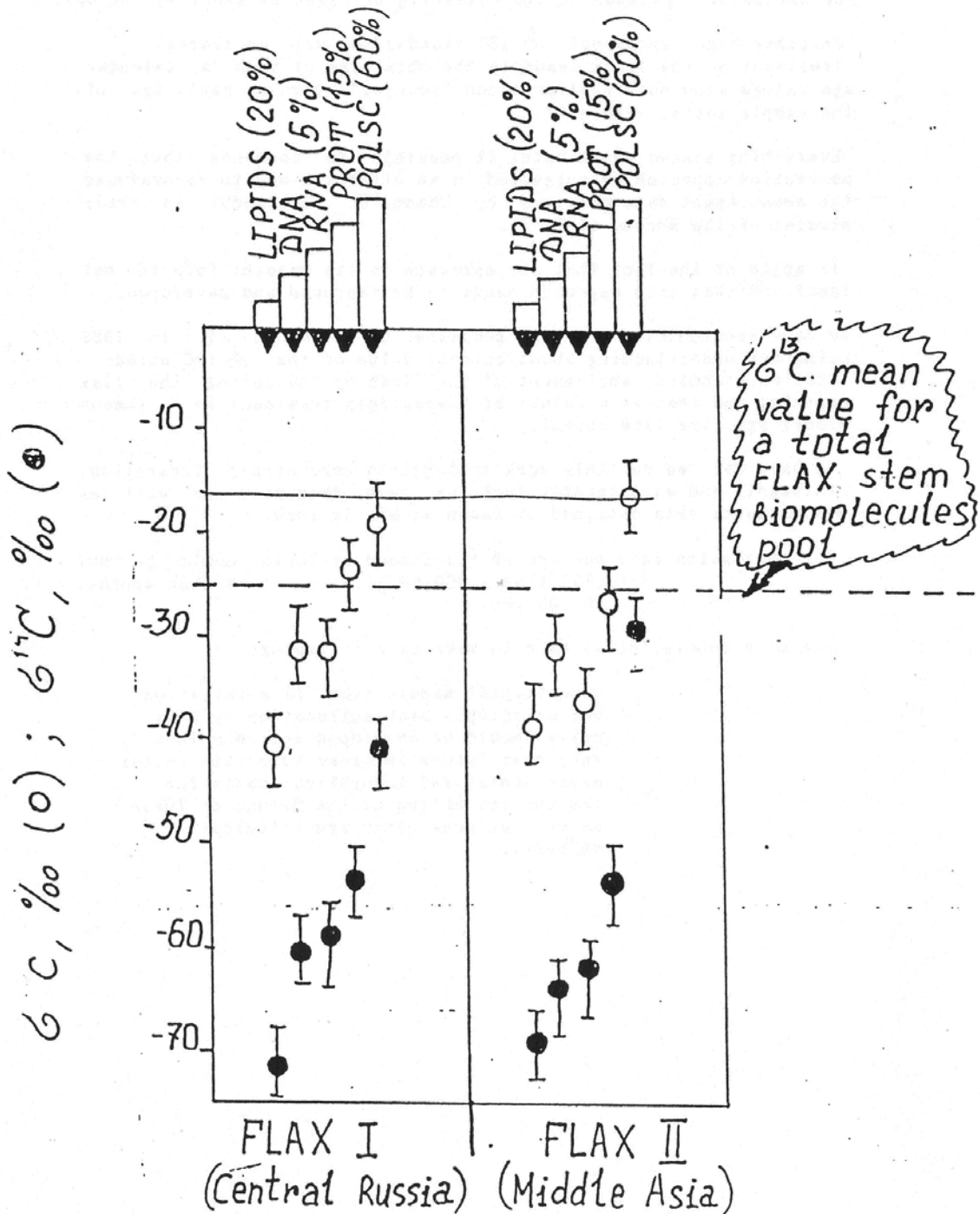
We have carried out this work taking into account all theoretical statements and experimental facts we have described as well as measurements data obtained by Damon et al. in 1989. Our conclusion is: the age of the Shroud of Turin could be NOT LESS than 1,900 BP (i.e. not less than approx. AD 100 yrs).

One more conclusion we have to make is a following:

Experimental models like "fire imitation" and C-isotopes biofractionation by flax cells should be developed actively in a very near future in order to create better experimental and theoretical basis for the correct dating of the Shroud of Turin as well as some other archeological objects.

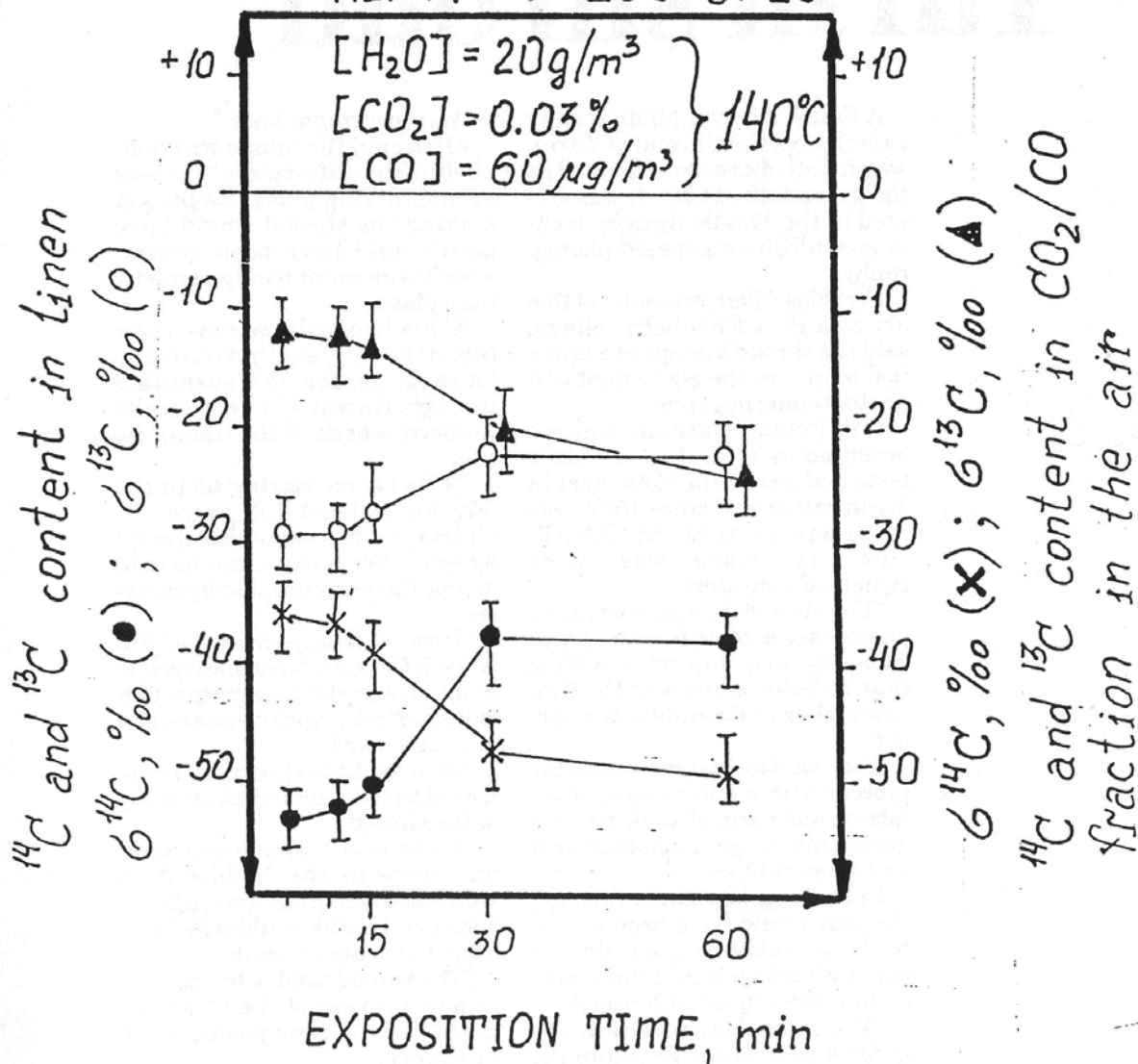
BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

¹³C - and ¹⁴C - INTERMOLECULAR ORDER
IN THE LIVING FLAX STEM CELLS



BIOPHYSICAL CORRECTION to C14 - IVANOV and KOUZNETSOV (cont'd)

TEMPERATURE - INDUCED REACTION OF ISOTOPIIC EXCHANGE (RIE) LEADING TO THE ENRICHMENT OF LINEN BY HEAVY C-ISOTOPEs



THE TIMES, FRIDAY, SEPTEMBER 16, 1994

New findings on Turin shroud

A South African photography expert says the Shroud of Turin, which Catholics once venerated as the gravecloth of Christ, was created in the Middle Ages by techniques which anticipated photography.

Nicholas Allen, professor of fine art at a Port Elizabeth college, said the shroud's image of a crucified man was the equivalent of a photographic negative.

The Roman Catholic Church accepted in 1988 that scientific tests had shown the cloth, kept in Turin cathedral since 1587, was made between 1260 and 1390 AD. How its image was made remained a mystery.

"The shroud acts as a negative photographic plate in every way," Allen said in an interview, adding that he believed he was the first researcher to formulate the theory.

Allen said he had replicated the process with a quartz lens, silver nitrate and natural sunlight, producing the image of a human bust on a piece of linen.

In making the Turin Shroud, the lens would have been placed half-way between the body and the cloth which would have been eight metres apart, Allen said.

"The technology was available at least two centuries before the shroud was made. Islamic scholars knew how to make silver nitrate in the 9th Century, and also proved in the 10th Century through pin-hole images that light travels in straight lines."

Allen said the image was definitely of a crucified man. "The lens or magnifying glass the person making the shroud would have used would have been quartz, which was more easily come by than glass.

"Coincidentally we now know this is the only lens that ultra-violet radiation can be transmitted through. It's actually a chemically induced scorch of the linen," he said.

"It has been staring us in the face for at least 100 years ... Unless you can make this shroud by any other means, you have to accept the photographic hypothesis.

"How could anyone in the 13th or 14th Century have managed to paint, dye or stain a photographically perfect negative image of a crucified man?"

Allen said his theory was supported by the anatomical accuracy of the shroud.

"There is no way you can make an image in the Middle Ages which is so accurate that pathologists in the 1930s could still determine the cause of death ...

"The shroud used to be the most important relic of the Christian faith, before it was pooh-poohed by science.

We should restore it to its rightful place, not because it is a religious artifact but because it is the earliest evidence of photographic technology," Allen said. (*Reuters*)

CHALLENGE TO ALLEN'S FINDINGS

Bro Michael Buttigieg, fsc, Malta

(Bro Michael Buttigieg is an eminent Shroud researcher and author)

Reference to the report (*Times* 16.9.94) on Prof Nicholas Allen's *New Findings on the Turin Shroud*. I am afraid Prof Allen has built his theory on dubious arguments which your intelligent readers would like to see clarified. I answer briefly.

1. He says: "The Shroud acts as a negative photographic plate in every way." This is correct but not a new finding at all. The report goes on: "He believed he was the first researcher to formulate the theory." How come! What about Dr Secondo Pia who, almost 100 years ago, in 1898, was allowed for the first time to photograph the Turin Shroud and, much to his amazement, found himself in the presence of a **negative reproduction** of the Shroud?

2. Prof Allen is reported to have said: "In making the Turin Shroud, the lens would have been placed **half-way** between **body** and **cloth** which would have been **eight meters apart**." This in reality means that the corpse was held at least 4 metres either side away from the Shroud! (The Turin Shroud is 4 metres long. It reproduced a frontal and dorsal image of a crucified man.) How can this be? How could a corpse stand (by itself? or be held and supported in the space and vacuum?) some 12 feet away from the Shroud? Science has proved beyond any shade of doubt that the Shroud was in direct contact with the body. In fact, science has detected on the Turin Shroud the presence of pre-death blood serum (the water and blood described by John the eye-witness of Christ's death?) (1); and post-mortem blood. Circulation of blood was discovered in 1628 by William Harvey, hence much later than the Middle Ages or when "Islamic scholars knew how to make silver nitrate in the 9th century".

"Tutto questo," says Prof. Baima Bollone of Turin Medical University, "prova e conferma che sulla Sindone vi sono effettivamente macchie di sangue veri e complete conservate nei suoi diversi componenti." (2) (All this proves and confirms that on the Shroud there are effectively real and complete stains of blood in its various components.)

Now, how could "the image (which) was definitely of a crucified man" ascertain Prof Allen - and this corresponds to the scientific proofs carried out earlier - if no crucifixion of men took place after the IV century when Emperor Constantine abolished this sort of human torture. Does Prof Allen want us to believe that someone crucified a man "in the Middle Ages by

CHALLENGE TO ALLEN'S FINDINGS - BUTTIGIEG (cont'd)

techniques which anticipated photography" (quotation his)? And, whoever crucified this man (a saint? or a criminal?) If it was a criminal would the Church have allowed the veneration of this Shroud? It would amount to a blasphemy; a serious scandal! If a criminal, who would have been able to interpret on the victim all the minutest details of torture indicated by the four Evangelists!

3. Recently, in June 1993, Prof Dimitri Kouznetsov, proved scientifically that the 1988 C14 dating results were incorrect. This "brilliant Russian scientist" awarded many years ago for his research into radio-carbon, the most important prize in the whole Soviet Union - the Lenin Prize (3) experimented on linens exposed to similar conditions as those of the Shroud during the 1532 fire in the Lirey church, and concluded his report stating, "the use of this modified method leads to the conclusion that the real calendar age of the Shroud of Turin could be close to the 1st or 2nd century AD (4). Interviewed, Prof Kouznetsov answered, "at the most the proof we scientists may be able to bring, can only turn out to show that the linen was used to wrap a contemporary of Jesus Christ and that he suffered exactly the same passion as that described in the Gospel" (5). It is significant that Prof Kouznetsov is not a catholic but a learned scientist.

Prof J Lejeune (who died only a few months ago) when interviewed by the same magazine, had shown that 'historically' the Turin Shroud existed before 1192. "This", he emphasised, "is a definite historic certainty. There can be no further discussion on that point." (6)

4. The statement at the beginning of the report under review is also incorrect when it says: "The Roman Catholic Church **accepted** (emphasis added) in 1988 that scientific tests had shown that the cloth was made between 1260 and 1390." The Church **did not** accept those results. Cardinal Ballestrero had to follow the protocol established. He read the report prepared for him by the London Museum Director Dr M Tite (who from a neutral co-ordinator of the three laboratories turned out to be a judge of the whole process) (7) But Ballestrero also added after the report, "Nel rimettere alla scienza la valutazione di questi risultati la Chiesa ribadisce il suo rispetto e la sua venerazione per questa veneranda icona di Cristo." (8) (While leaving it to science to evaluate these results the Church confirms its respect and veneration towards this revered image of Christ). Besides one cardinal does not make the Church.

And for that matter, Dr Joaquin Navarro Vals, Vatican spokesman, in 1990, after Pope John Paul II read the book *La Sindone: Un Enigma alla Scienza* by Petrosillo and Marinelli (9) made the following statement: "Il risultato della datazione veniva a costituire un punto singolare, anzi in contrasto, rispetto ai precedenti risultati, i quali non erano contraddittori con

CHALLENGE TO ALLEN's FINDINGS - BUTTIGIEG (cont'd)

una datazione risalente a 2000 anni fa. Si tratta di esami settoriali che son da integrare in un quadro multidisciplinare." (The result of the medieval dating has created a strange situation, one which contrasts with preceding results that, however, were not contrary to a dating going back to 2,000 years. This (medieval dating) is but one experimental result among others which having the validity and the merits of separate correlated tests should be integrated in a multidisciplinary complex."

Pope John Paul II, the Head of the Church, on April 28, 1989, said to the Vaticanist Dr Orazio Petrosillo: "Of course the Shroud is a Relic." Besides, "Since 1506, Pope Julius II assigned May 4, as the annual Feast of the Holy Shroud. Expositions thereafter were probably held annually on this day." (10) A proper office was also approved and a special Mass of the Sacra Sindone.

Let the intelligent and unbiased reader make his/her own judgement about how incorrect is the theory of Prof Nicholas Allen about the "New findings on the Turin Shroud."

References:

- (1) Jn. Ch 19 v 34. See also *La Sindone: Un Enigma alla prova della Scienza*, Milano 1990 p 178. (This book being translated into English for eventual publication)
- (2) Prof Baima Bollone in *Sindone O No* 1990 p 191
- (3) *30 Days* magazine No 9, 193 p 61
- (4) op cit. p 62. See also *A Progress Report on Research into the Textile Radiocarbon Dating Results - The Shroud of Turin* Dr Dmitri Kouznetsov SBRL 25-44 Menzhinski St Moscow 129327 Russia
- (5) Matthew, Mark, Luke and John
- (6) *30 Days* op cit p 63
- (7) *Sindone: Un Enigma* op cit p 54
- (8) *Collegamento Pro Sindone*, Sett-Ott, 1988 p 50
- (9) *La Sindone: Un Enigma* op cit p254 Eng Ed
- (10) *The Turin Shroud* Ian Wilson, 1978 p 224

PHILIBERT PINGON AND THE SHROUD OF TURIN

Daniel C. Scavone, Indiana, USA (Scavone is Professor of History at the University of Southern Indiana, a well known Shroud researcher and author, a meticulous historian and always a welcome contributor to *Shroud News*)

In the Feb.-Mar. 1991 special edition No. 271 of *Le Contre-Reforme Catholique au XX^e Siecle*, Bro. Bruno Bonnet-Eymard, the eminent historian of the Shroud of Turin, has called the Seine pilgrim's medallion *témoin éloquent* (eloquent witness) of the Shroud's presence in Lirey in absence of documents. The medallion was dredged up from the Seine in 1855 and on it can be seen the familiar twin image known from the Turin Shroud. Below the image in either corner of the medallion are the family blasons or shields of the Charnys (viewer's left) and Vergys, no doubt for Geoffroy I de Charny and his second wife, Jeanne de Vergy.

Bro. Bruno has interpreted the casket or reliquary represented on the medallion between the family crests as that in which the Shroud was kept during the lifetime of the first owners. It was itemized in 1418 by Marguerite de Charny, granddaughter of Geoffroy I, and her husband Humbert de Villersexel, comte de la Roche, in a receipt given to the Lirey canons for the relics of the collegial church which the couple had agreed to hold in the safety of their Montfort castle.

The theory of the present writer is that the medallion is indeed a witness to something significant in the Shroud's history: that it is intimately related to the fact of the marriage of Geoffroy I and Jeanne de Vergy.

In apparent contradiction of the present thesis, Bro. Bruno notes that the position of the Charny shield on the right side of the casket is the place of honor and evidence that the true owner was Charny and not Vergy. It may be responded, however, that the honorary position of the Charny crest may represent the gesture of homage and respect paid by a wife to her new husband.

Whatever the real significance of the positioning of the crests relative to the casket, it is probable that the reliquary depicted on the medallion is the same which housed the Shroud at the time it came to Geoffroy I and the house of Charny. This likelihood makes it essential to identify the significance of the crest alongside that of Charny--it is that of Jeanne de Vergy. It is not that of Toucy for Geoffroy's first wife. By any interpretation of the Seine medallion, *témoin éloquent*, the Toucy connection as source of Geoffroy I's acquisition of the Shroud seems utterly negated. The Shroud represented on the medallion is somehow tied to the relationship of Vergy and Charny. If the name of Vergy on the medallion is merely a reminder that they were married at the time it was struck, then it has too little significance to bother about.

Other logical choices that would define a meaning for the

PHILIBERT PINGON AND THE SHROUD OF TURIN - SCAVONE (cont'd)

Seine medallion--if it has a significance at all--might have been Charny-Villersexel (for Marguerite and Humbert) or Charny-Poitiers (for Marguerite's father Geoffroy II de Charny and Marguerite de Poitiers, his wife).

The notion (articulated in No. 271 and also in the September 1984 issue of *CRC*, English No. 171, pp.7-8) that the Shroud came to the Charny family through the marriage of Geoffroy I's older brother Dreux and Agnes de Charpigny, dame of Vostitza, a descendant of one of the great Franco-Greek families of the Morea, returns us to the old question: why of all the important knights of the great families was Dreux de Charny chosen (and by whom?) to receive a gift of the most significant relic of Christendom? It is a gratuitous denial of what both Geoffroy II and later Marguerite de Charny reported about their ancestor's acquisition of the relic: as a prize freely given to him for military service. This marriage of Dreux was first discovered by the Duc de Bauffremont and noted by Baron Joseph du Teil (*Au tour du Saint-Suaire de Lirey*, Paris 1902). (That the Duc was a descendant of the Charnys is no assurance that his discovery is decisive in the matter.)

Finally, reliance by Br. Bruno and, before him, by du Teil upon the testimony of Philibertus Pingonius, regarded as the first modern historian of the Shroud, is unfortunate and not a safe ground for reconstructing the early history of this precious relic. To put it briefly, if sadly, Pingon knew practically nothing of the Shroud's history before it came to the possession of the Savoy family, of which he was the official chronicler in 1581. (Philibert Pingonius, *Sindon Evangelica*. Turin: Bevilaquae 1581, rp. Turin: Derubeis 1777)

Since one does sense in the work of current historians of the Shroud any first-hand intimacy with Pingon's brief account, pages 8-20, let us see what he has to say about the transfer of the Shroud from East to West. Initially, pages 8-11, he indulges in the expected survey of the Gospel narratives of Good Friday. Page 11 is filled by Pingon still quoting Nicephorus Callistus and Lentulus for what they say of Christ's physical appearance. On page 12 he cites some "ancient coins of Christ still extant" ("*Christi quoque numismata antiquissima aliquot adhuc extant*"). This is illustrated by a drawing showing both sides of a coin having on the obverse Christ's head in profile with Hebrew legend, and on the reverse only Hebrew legend.

Pingon next quotes from the apocryphal gospel of Nicodemus dealing with the Passion, and from Juvenius. He adds on page 13 a discussion of shrouds claimed by Besançon, Lusitania, and Germany: indeed, he asserts, these do not violate the Gospels which, after all, mention several linens. In response to the objection leveled by some that the burial linens would by now no longer survive, Pingon cites some Psalms and Thomas Aquinas. Up to this point his narrative wavers between naive and studious.

PHILIBERT PINGON AND THE SHROUD OF TURIN - SCAVONE (cont'd)

Now, at the end of page 13, he comes to Abgar. For him, the inability of Abgar's outstanding painter to capture the shimmering Divinity of Christ and Abgar's fervent piety prompted Jesus to send him his miraculous portrait.

Huc attinet Abagari Edessenorum Principis his toria, qui eo, quo in Chris turn tenebatur desiderio, percussus, pictorem eximium ad eum misit, sed opus coeptum, quod non succedere potuerit, ipsa coruscans Divinitas impedimento fuit: favere nihilominus piis votis Christus voluit, & admoto capiti linteo, faciem ad vivum expressam reddidit, quam ad Abagarum Principem misit.

TRANSLATION.

"The history of Abgar, Prince of Edessa, applies here. Moved by his desire to meet Christ, he sent an outstanding painter to him. Having begun his work, however, he was prevented from completing it by the shimmering divinity: still, Christ wished to favor such pious sentiments and, applying a linen to his head, caused his living image to be impressed on it, and sent it to Prince Abgar."

Pingon cites for this passage Eusebius 1.13, who, however, never referred to the portrait but only to the letters between Abgar and Christ, *ex archivis civitat. Edessae* ("from the archives of the city of Edessa") and Nicephorus 11.7. His purpose in alluding to Abgar was to establish the genuineness of the Savoys' Sindon [top of page 14]:

Quemadmodum vero integra effigies hac in Sindone de Christi corpore expressa, ad Sabaudos Principes non immerito tandem pervenerit ... Cum igitur Petrus ... monumentum vacuum introire non extimuit, viditque Sindonem & linteamina, necnon sudarium, quis dubitet haec non neglexisse ...

TRANSLATION.

"In the same way [as the face on Abgar's towel] the entire form of the body of Christ was expressed on this Sindon which has come to the Savoy Princes ... And since Peter ... did not fear to go into the empty tomb where he saw the Sindon and linens as well as the sudarium, who can doubt that great care was taken of these objects."

Still page 14:

Hinc ad Hierosolymitanos reges pervenisse non ambigam, Chris tianissimos maxime ex Got tofredi Bollioni gente, qui Gallorum primus anno salutis KUNIII. Hierosolyrna expulsis Saracenis potitus ese, & ad Lusinianos Hugones, Guidones, Henricos, Janos, & alios kings cum Cyprio diademate transmisit. Cuius stirpis rex ultimus Johannes, Jani filius, sororem habebat Annam Ludovico

PHILIBERT PINGON AND THE SHROUD OF TURIN - SCAVONE (cont'd)

Sabaudiae Duci colloca tam, anno MCCCCXXXII., a qua Sabaudiae Duces sunt editi. Jbhanni item regi filia fuit unica, & heres Carlota, quae anno mcccc.v.u. nupsit Ludovico Ludovici Ducis filio ...

TRANSLATION:

And I do not doubt that [preserved by other rulers, the Savoy Sindon came] from them to the kings of Jerusalem, those most Christian men of the great French family of Geoffroy of Bouillon, who first in 1098 took over after the Saracens were driven out. And he sent it with the crown of Cyprus to the Lusignans: the Hugues, Guidos, Henrys, Januses and others. The last king of that line was John, son of Janus. His sister Anna was wed to Duke Louis of Savoy in 1432 from which union the Savoy dukes have issued. The only daughter and heir of King John was Carlota, who in 1457 wed Louis, son of Duke Louis

...

Jesus's Shroud, elsewhere than in Constantinople in 1098, is a fantasy, for documents attest it there. At the bottom of page 14 comes the passage upon which du Teil and Br. Bruno now depend for the theory that the Shroud left Greece in the possession of Agnes, Dame of Vostitza and Dreux de Charny. Pingon's Latin says:

... dum anno mccccLvili orientis Imperii sedes vi, & armis, a Mahumete Turcarum rege expugnaretur, caede omnia diriperentur, & vastarentur, Constantinus Palaeologus ipse truncatus capite regni simul, & vitae finem fecisset, nihil in Graecia, nihil in Asia, aut Syria tutum restaret, aufugerent omnes atrocissimi tyranni crudelitatem; illustris quaedam matrona Margarita a Carni nomine, sarcinis collectis, inter quas hanc raram Sindonem reposuerat, Graecia movere, coelumque mutare constituit, atque in Galliam proficisci

TRANSLATION:

"...then in the year 1458 [read 1453], the capital of the Eastern Empire [Constantinople] was overcome by military force of Mahumet, King of the Turks. Everything was ravaged and laid waste by slaughter. Constantine Palaeologus himself, his head cut off, lost both kingdom and life. Nothing remained safe in Greece, Asia, or Syria and everyone fled the cruelty of that most atrocious tyrant; a certain notable matron, Marguerite de Charny, having packed her bags, packed also this precious Sindon and decided to leave Greece and head for 'the better climate' of France."

It is clear that Pingon has NOT confused Marguerite with Agnes. He fully intended to name Marguerite de Charny (15th c.) and NOT Agnes de Charpigny, a lady of the 13th c. The passage knows nothing of Agnes or Dreux. But incredibly, Pingon did not

PHILIBERT PINGON AND THE SHROUD OF TURIN - SCAVONE (cont'd)

know who Marguerite de Charny was! He knew only that she it was who transferred the Shroud to the Savoys. On page 15 he writes:

Carnim autem denominatam puto, quod Carinae urbi Ioniae in Asia minori, dominaretur; aut Carnae Aolidis, sive a Carnae oppido Phaeniciae, quod ad montem Libanum reponitur. Burgundam alii ferunt, quod eius nominis illustris ibi fit familia, in Asiam illa migravit, sive ab Asia in Gallias deducta fuerit ...

TRANSLATION:

"I think Charny is named because they ruled in the city Carina of Ionia in Asia Minor; or in Aeolian Carna, or in the citadel of Phoenician Carna, which is near Mt. Libanus. Others say Burgundy, because there is an illustrious family of that name there. Either she migrated to Asia or from Asia into France."

As Edward Wuenschel noted in the margins of his copy of Pingon, the historian of the Savoys knew absolutely nothing about the Lirey history of the Turin Shroud. He knew nothing of the Charnys in France except that one Marguerite de Charny had been the owner of the cloth prior to the Savoys. And he makes her come, most likely, from the East, where everyone knew the Shroud had to be.

Pages 15-20 are devoted to the time of the Savoys' possession of the Shroud, from 1452 to 1562, the last date mentioned on page 20. Describing five miracles associated with the Shroud, Pingon concludes with its marvelous retrieval from the 1532 fire in Chambery Cathedral by Philibert Lambertus, the Duke's confidant, the smithy, Gullielmo Pussodo, and two Franciscans: *Illud equidem palam omnes vidimus (tunc enim aderam)*, "which we all clearly saw (for I was then present)."

Pingon is thus no historian to rely upon for information on the early history of the Shroud. A survey of his pages has revealed what he knew, or rather thought, about the history of the Shroud which was then in the hands of the Savoys.

What does all this mean? Pingon leapt from the year 1098 to 1432 in one sentence on page 14. He demonstrates no knowledge of the Shroud's career during that entire stretch of time. His knowledge of the Shroud virtually begins when it became a property of the Savoys in 1453.

The suggestion that the Shroud entered possession of the Charnys through Dreux, though attractive, seems refuted by the medallion. We may now ask why the crests on it are not Charny/Charpigny-Vostitza (for Dreux and Agnes). The suggestion seems doubly refuted by depending on Pingon, whose account is a dinosaur amidst more sophisticated histories, like depending on Jean de Mandeville for information about the life-forms in the Ocean Sea and on undiscovered continents.

PHILIBERT PINGON AND THE SHROUD OF TURIN - SCAVONE (cont'd)

Did the Shroud then come to Geoffroy I from Besançon through his wife Jeanne de Vergy? The medallion--*temoin eloquent*--supports this. Recall that the Shroud was in Lirey from the 1350s to 1389, "about thirty-four years," without the world's knowledge--until the d'Arcy Memorandum. Besançon claims the Shroud without adequate documentation, but with increasing circumstantial evidence. Is there a parallel between Lirey and Besançon?

Finally, even if Agnes had been the key to Charny ownership of the Shroud, it might still have had a sojourn in Besançon in time for the 1349 fire: She and Dreux had a daughter, Guillemette de Charny, who presumably brought the relic to her marriage, before 1335, to Philip de Jonville; their child, Agnes de Jonville, will have brought it to her marriage to Guillaume II de Vergy; on his death 1374, as Agnes de Vergy, she remarried Philip de Bauffremont, but no transfer of the Shroud was involved, since by this time the Shroud had begun its Lirey sojourn. The son of Agnes de Vergy and Philip de Bauffremont was the first husband of the Marguerite de Charny who transferred the Shroud to the Dukes of Savoy. (Above genealogical data from Anselme VII.41.)

So in the same generation, about 1350, Geoffroy I de Charny wed Jeanne de Vergy (before 1356) and Dreux de Charny's granddaughter wed Guillaume II de Vergy. In 1349 the fire in St. Etienne Cathedral in Besançon resulted in the supposed disappearance of an alleged shroud. Soon after this a Shroud appeared in Lirey. In 1377, about twenty-eight years after the fire, if we may believe Chifflet (Chifflet, Jean Jacques. *De linteis sepulchralibus Christi Servatoris crisis historica*. Antwerp: 1624, 67-69), the Besançon shroud--without any doubt an artist's copy of the true Shroud now at Lirey--"reappeared" in the cathedral. By this hypothesis it was another Vergy who mollified the outrage of the Bisontine people for their loss. For it would have been Bishop of Besançon Guillaume III de Vergy (1371-1391), who "confirmed" that it was the original that reappeared by using it to revive a corpse. One may well suspect a collusion with his relation, the wife of Geoffroy I.

Recently, at the Rome Shroud Symposium (June 9-12, 1993), Dr. Michel Bergeret proposed a variant of this Besançon hypothesis by which the actual Lirey Shroud was maintained quietly in the castle de La Roche during 150 years (1205-1350), in possession of the family of Othon de La Roche, knight of the Fourth Crusade and prince of Athens, which city most Shroud historians now believe possessed the Constantinople Shroud. From there, without the need or assistance of the fire in St. Etienne Cathedral 1349, he asserts, it came to Lirey in the "dowry" of Jeanne de Vergy.

Shroud News began in 1980 when Rex Morgan, author of three books on the subject of the Holy Shroud (*Perpetual Miracle*, *Shroud Guide* and *The Holy Shroud and the Earliest Paintings of Christ*) and editor of several others, began sending a few notes about current developments in the study of the Shroud of Turin (Sindonology) for a small circle of interested people in his home country of Australia. He didn't expect it to go beyond a few issues.

Today, the bulletin, now highly acclaimed, reaches subscribers all over the world and is written, produced and disseminated more quickly than any other Shroud publication in the English language. It contains information, news, articles and illustrations gathered from sources of Shroud study worldwide through Rex Morgan's extensive network of personal connections with what has been described as the "Shroud Crowd".

Rex Morgan is a frequent traveller overseas which gives him the opportunity to keep abreast of latest developments in Shroud study and research at first hand. He was present at the world media preview of the Shroud itself in August 1978 in Turin, Italy and has met and knows numerous Shroud researchers in many countries. His quest for Shroud information became, as he described it, "a passionate hobby". He took the world famous Photographic Exhibition created by Brooks Institute, California, to Australia, New Zealand, Hong Kong, Macau, and Canada and during those tours it attracted more than 600,000 visitors. The exhibition was subsequently donated by Brooks to the non-profit making organisation, The South East Asia Research Centre for the Holy Shroud (SEARCH) of which Morgan is President. He is also a Board member of the US based Association of Scientists and Scholars International for the Shroud of Turin (ASSIST) and was a member of the scientific team which conducted environmental experiments in a Jerusalem tomb in 1986 (ESSJ). He has made a number of original contributions to Shroud research has presented major papers at international Shroud conferences has written numerous articles and has given hundreds of broadcasts and telecasts on the subject in many countries.

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