

SHROUD NEWS

A NEWSLETTER ABOUT THE HOLY SHROUD OF TURIN
edited by REX MORGAN, Author of several books on the Shroud
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CHRIST PANTOCRATOR, KARANLIK KILISE, GOREME, CAPPADOCIA

EDITORIAL

In keeping with what is happening throughout the informed Shroud world, this issue contains another onslaught by contributors to the debate upon the C14 result of 1988 and the comparison of its widespread acceptance at the time by a gullible and cynical world media with the facts as we know them. I am more and more amazed that since my own paper of comment on the matter *World Reaction to Carbon Dating a Farce*, (SN 49), there have been numerous articles of a similar thrust written all over the world but each one uses a different approach and different information, some of which is only now coming to light.

Perhaps I should state my position again in this 60th issue of *Shroud News*: I have been intrigued and fascinated by the mystery of the Holy Shroud since I saw and photographed the Shroud itself in Turin in 1978; I have read almost everything published in English about it and a good deal in other languages; I have written three books on the subject and edited sixty editions of this publication; I have an enormous library of books, press cuttings, articles, learned papers, journals, photographs, transparencies, sound tapes, videos and objects associated with the study of the Shroud; I have been involved in many conferences, symposia and meetings in several countries; I have lectured and broadcast many hundreds of times on the subject and have made or contributed to many television programmes in several countries; I have shown the Brooks Institute Photographic Exhibit to more than 600,000 people in five different countries; I continue to be open to any convincing proof of the Shroud's being a forgery, or a painting, or a figment of someone's imagination, or, indeed, proof that it is anything other than what people have believed it to be for 2,000 years, namely the burial cloth of Jesus Christ. I do not personally want or need it to be: I am quite ready to be convinced that it is not. But those who claim it is not have yet to persuade my (hopefully) reasonably intelligent mind that they are right and the majority of Shroud scholars and experts are wrong.

And it seems to me, as I judge the situation from a world perspective, that the thrust of evidence and argument is far greater for authenticity (or at least non-fraudulence) now that the famous carbon dating test of 1988 has been done. If only the scientists involved in it had been meticulous and scientific and had not left themselves wide open to question and criticism their case would have been much more plausible. But before the test was ever done there was a long period of political fooling around with attendant spiteful, personal, vitriolic, subjective and unscientific bickering. People with a known vested interest in denouncing the Shroud (such as Sox who in the 1970s tried to "obtain" [shall we say for

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politeness] the Raes sample for McCrone) were somehow allowed to infiltrate the process. A laboratory like Zurich, with its documented unreliability, (and, it would seem, a very special relationship with Sox) was allowed to take part. And then there were the press leaks, the delays, the incompatible statements of the participants and finally the foolish deductions by the media from the pathetic declarations of the Archbishop of Turin and the smug cynicism of the British Hall and Tite. Then came the revelations, many and contradictory, of what actually happened on the day of the sample-taking, incompletely documented, and in the laboratories afterwards, not documented at all, and therefore any of which procedures could have been tampered with and manipulated to serve the purposes of vested interests. As the title of one article in this *Shroud News* says, the case is not closed. Yet another article sums it all up as conundra.

So, yes, this is the 60th issue of *Shroud News*. In some human activity this calls for a Diamond Jubilee celebration but, fortunate to be here at all, I say let's get on with the work. I do promise, though, if I'm able, to make the 100th issue very special. Indeed, I idly said at dinner the other night, "I wonder what the Shroud situation will be when I produce the hundredth *Shroud News*?" My good wife, for many years a tolerant Shroud listener, said with considerable prescience, I should think, "Don't worry, dear, they'll all still be squabbling."

And I expect she'll be proved right. After all, the hundredth issue is due only six and a half years from now.

REX MORGAN



THE CASE IS NOT CLOSED!

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JUNE 1990

by Stefano M. Paci

After the sentence, the appeal. Discrepancies over how much the pieces of the Shroud that were tested weighed, concern about the unscientific attitude of scientists, doubts about the accuracy of the carbon-14 dating process. Claims of an anti-Catholic plot. Meanwhile, in the Vatican, a secret file on the case has been opened



Its image was known and venerated throughout the

nations of the world. The last public display of it had drawn more than 3 million to Turin during just a few weeks in 1978. But on October 13, 1988 the most precious relic of Christendom, the linen which according to tradition had wrapped the body of Christ after his crucifixion and had held him until his resurrection, was de facto pointed out, by the cardinal of Holy Mother Church charged with "watching over" it, as the greatest forgery in history.

During a singular press conference, the archbishop of Turin, Anastasio Ballestrero, seated next to his scientific advisor Luigi Gonella and the director of the Vatican Press Office, Joaquin Navarro-Valls, who had come from Rome to highlight the importance of the event, announced, before journalists from around the world, the sentence given by the three laboratories which had been entrusted with the task of dating the Shroud by carbon-14 testing. That day the Shroud was demoted from sacred object to a simple medieval curiosity. Or worse. For, if that linen is not the funeral cloth of Christ but a medieval imitation, it does not have even the right, despite the words of Cardinal Ballestrero, to be considered an icon

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of Christ which one can still venerate. On the contrary. It has been proven that it is not a painting. Within that cloth, according to experts and scientists, a man was wrapped, a man who died after undergoing all the phases of the passion recounted by the evangelists, from the crown of thorns to the flagellation, from the crucifixion with nails to the piercing of the lance in the side. And so, if it is not the shroud of Christ, the only reasonable hypothesis is that it once enfolded the body of a poor wretch inhumanly martyred to create a lucrative forgery to pass off as a relic. In short, the Shroud would be a criminal object which would arouse horror, certainly not an icon to venerate.

Now new evidence has cast doubt on that medieval dating. This has led some to ask that, now that science had handed down its verdict (judged, contrary to every scientific attitude, "definitive") on the Shroud, the Shroud's defenders should be given a chance to appeal the verdict. The new evidence comes principally in two new works. One, by Brother Bruno Bonnet-Eymard, was recently published in France by *Les Editions de la Contre-reforme*. The second, recently published in Italy, is entitled *La Sindone, an enigma alla prova della scienza (The Shroud: An Enigma Faces the Test of Science)*. The book is co-authored by Orazio Petrosillo, Vatican correspondent for the Rome daily *Il*

Messaggero and Emanuela Marinelli, coordinator of an International Center for Documentation on the Shroud.

The evidence the two works present is startling. It suggests that there was a considerable lack of professionalism in the testing process and thus raises doubts about the validity of the results. These new works present us with mocking and dishonest scientists, with samples of the Shroud which in the research laboratories weighed twice what they weighed when they were cut from the Shroud, with evidence that carbon-14 tests can be anything but trustworthy. The books argue that the hypothesis of an anti-Catholic conspiracy — an accusation made by Gonella following the publication of the dating results — now must be viewed with greater attention. "There are those who speak of a Jewish-Masonic conspiracy," Petrosillo and Marinelli write. Indeed, the Vatican's Secretariat of State has itself opened a dossier to examine whether allegations of such a conspiracy have any basis in fact.

The affair began to take on elements of a detective story from the day when the laboratories were chosen to carry out the carbon-14 dating tests. Many scholars had expressed opposition to a carbon-14 dating, given the trauma and

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contaminations the cloth underwent over the years, including a fire that fused the silver container where it was preserved with its searing heat. The carbon-14 test, which was conducted on a minuscule fragment of the cloth, is extremely sensitive, and it does not take much for it to be rendered completely misleading. Michael Winter, a specialist on the subject, has written: "If a dating by carbon-14 confirms our theories, we put the results in plain view in the main text; if it contradicts them, but not entirely, we relegate the results to a footnote; and if the dating contradicts our theories completely, we hide the fact from everyone." But one does not always succeed. The journal *Science* in December 1988 revealed that some shells of snails, though still alive, when tested by carbon-14 methods were dated to 26,000 years ago. The geographical periodical *Antarctic* recently reported that a newly killed seal was judged by carbon-14 tests to have been dead for 1,300 years. The journal *Radiocarbon* has written that the skin of a mammoth that lived 26,000 years ago was judged by carbon-14 tests to be only 5,600 years old. Such errors are not uncommon. Recently the British Research Council gave 38 laboratories around the world objects of a known age to be tested. Only seven laboratories gave results judged acceptable by the organizers. Perhaps the laboratories chosen for the examination of the Shroud were more trustworthy? The Director of the

laboratory of Zurich, one of the three that in the end succeeded in obtaining the samples, had attempted to date the linen handkerchief of his mother-in-law, certainly no more than 50 years old. The carbon-14 test indicated an age of 350 years for the handkerchief. "The fault of detergents," was the explanation ... That is nothing in comparison with the Tucson laboratory, which was able to succeed in dating a Viking horn to the year 2,006 A.D.!

Scientists doubtful about the carbon-14 test did not express their perplexities with much force at the beginning. It seemed, in fact, a certainty that the carbon-14 dating would be only one of the tests, inserted into a context of multi-disciplinary examinations. The Shroud had already been subjected to a battery of tests, with remarkable results. Investigations over decades had discovered that different types of pollen had, over time, fallen onto the Shroud's surface. Studies of these pollen types showed that the Shroud had been exposed to the pollen of areas ranging from Palestine to Turin and including all the places in between where tradition maintains that the cloth once was. Francis L. Filas, a professor at Loyola University of Chicago, had found evidence of the imprint of coins placed over the eyes of the man of the Shroud — as was the burial custom in Palestine. The coin inscriptions, he maintained,

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dated from the period of Pontius Pilate, from between 29 and 32 A.D. Traces of aragonite, a rare mineral present in the grottoes of Jerusalem, had been found. The traces of hemoglobin found on the Shroud had been examined and had enabled scientists to identify the blood type of the man who had been wrapped in the cloth and to estimate that he had been buried for about 36 hours. Tests had revealed that the close contact that the coagulating blood had established between the cadaver and the cloth had been interrupted without the stains being altered and prior to the beginning of the putrefication process. With these scientific results, the Shroud of Turin Research Project (STURP), a group of 40 American scientists who already in 1978 had brought to a conclusion important interdisciplinary studies on the Shroud, in October 1984 presented to Cardinal Ballestrero a new plan of research, called Phase II. In Phase II, the STURP team proposed to seek answers to 85 questions related to the formation of the image (to this day a complete mystery), its preservation and its authenticity.

It was at this point that a bitter struggle began. The objective of the group of scientists who eventually conducted the carbon-14 tests, according to the authors of the new works, was to prevent any interdisciplinary research on the Shroud, as

the STURP team proposed, and instead to entrust the verdict on the Shroud to the carbon-14 dating test alone. Moreover, the carbon-14 tests were to be conducted, not by the seven laboratories proposed, but by the smallest possible number of laboratories. The tests would be performed with as little interference as possible from the Turin archdiocese and the Pontifical Academy of Sciences. Two figures who were allegedly key players in this campaign were the Episcopalian priest David Sox and the scientist Harry Gove. Sox, secretary of the British Society for the Turin Shroud, had for years been in the forefront of calls for the dating of the Shroud. Beginning in 1976 he had contacted a number of laboratories and interested them in the project. In 1977 he contacted Harry Gove, one of the pioneers of carbon-14 dating. Gove in turn contacted two Oxford scientists, Robert Hedges, initially lukewarm, and Edward Hall. These last two would be the men who years later would present the results obtained by the three chosen laboratories (Oxford, Zurich and Tucson) to a press conference held in London on October 14, 1988. Together with them was Michael Tite, director of London's British Museum, which managed to remain the sole coordinating institution and "guarantor" of the examinations. On the blackboard behind them the three

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scientists had written the medieval dating they had arrived at, followed by a large exclamation point. This behavior showed a lack of impartiality and scientific neutrality that perplexed many of their colleagues, the authors of the new books argue.

Sox, who would later resign from the British Society for the Turin Shroud, in January 1981, published a book entitled *The Image on the Shroud* in which he writes that he gives full credit to the discovery of Walter McCrone. McCrone, a chemist from Chicago, had said he had the proof that the Shroud was a painting. His affirmations would later be contradicted by other studies.

McCrone's critics argue that he simply mistook a slide of another fabric for one of the Shroud — that he was actually not looking at the Shroud at all.

This mistake did not affect the relations Sox maintained with the group of radiocarbonists to whom the analyses would later be entrusted (according to some, on the contrary, his "profession of faith" in the falsity of the Shroud reinforced those relations). The relations were so close that on May 8, 1988, Sox would enter the laboratory at Zurich at the head of a BBC television crew, watching and filming the phases of the carbon-14 test, including the opening of the cylinders containing the samples to be dated, in open contradiction with the secrecy that had been asked of the laboratories. Sox eventually would

publish, in October 1988, a few days after the announcement of the medieval dating of the Shroud, a volume filled with unpublished information. The text of *The Shroud Unmasked: Uncovering the Greatest Forgery of All Time* had been prepared long before the results had been made public. The introduction, presumably the last part of the text composed, is dated August 1988. Gonella, Cardinal Ballestrero's scientific adviser, would comment: "I realized only at the end of the tests that there was a veritable radiocarbon mafia."

The other protagonist of the affair, Harry Gove, appeared at the Radiocarbon Congress of Dubrovnik in June 1988 and presented himself as "the principal spokesman and coordinator for the dating of the Shroud." In reality there had been a bitter dispute going on between Gove and Gonella for some time. Already in 1986 Gove confided to his friend Carlos Chagas, president of the Pontifical Academy of Sciences, that Cardinal Ballestrero's scientific adviser did not respect him. A few months earlier Gove had declared that if the STURP group, the organization which had proposed the program of interdisciplinary research, was allowed to participate he would abandon everything. Further, in the first preparatory meeting of June 1986, Gove had proposed that Sox be present alongside the directors of the laboratories that would be chosen to carry out the carbon-14 tests. Gonella, who preferred that the STURP team

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participate in the investigation, wrote a private letter to Chagas. But the secretary and friend of the president of the Pontifical Academy of Sciences committed an enormous act of impropriety, revealing to Gove the contents of the letter, which was even published in Sox's book. In the letter to Chagas, Gonella accused Gove of trying to obtain funds from the National Science Foundation and for this reason wanted to present himself as the leader of the six laboratories (the number that at the time it seemed would carry out the test) to increase the prestige of Rochester, the laboratory he directed. From that time on there were two "camps," one led by Gove and Chagas, the other by Gonella and the STURP team. The first would prevail, even though in the end Gove's laboratory was not included among those which would carry out the tests (but Gove would be present, at the invitation of the director, at the testing carried out in Tucson). Among other things, since the tests able to be carried out with carbon-14 are of two types, one older and more tested, though there were protests from a number of scientists, three laboratories were chosen that used the same mode of dating, the AMS. One asks oneself how Gonella, who though he was hostile to Gove and favorable to multi-disciplinary investigations, who had the authority to decide between the various procedures, consented to the disconcerting pressures. This is how he justified himself in May 1989 during a conference: "The Church found herself faced with a challenge launched by a few persons who, with their requests, did everything they could to make us say no, in order to say that the Church was afraid of science. So, faced

with this danger, it was decided to proceed to the scientific examination at all costs, even with protests." And he added: "It was a matter of blackmail. They backed us against the wall with the threat of blackmail: either we would accept the carbon-14 dating tests under the conditions set by the laboratories or a campaign would be unleashed against the Church with accusations that the Church feared the truth, that the Church was the enemy of science...In any case, the laboratories acted very badly. I protest their absolute lack of scientific professionalism. I protest the base way they conducted the experiments. I have told them to their faces that they are *mafiosi*."

Gonella's position is disconcerting. How can one trust the results furnished by laboratories accused of "mafia-like" behavior, "unprecedented and unprofessional"? These strong words are further evidence of the incredible rivalry in which the entire affair has been carried on, very far from the neutral and detached attitude required of scientists of international reputation like those involved. But the height was reached, perhaps, by Edward Hall, the director of the Oxford laboratory who presented the results of the test during the press conference at the British Museum. In an interview published in *The Tablet* on January 14, 1989, after having affirmed "I certainly did not believe that the Shroud was the burial cloth of Christ" he added that he did not know whether the blood on the linen was that of a man or a pig. More than poor taste, the remark had the effect of

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poking fun at all those, from Popes to simple faithful, who have venerated the image for centuries.

Moreover, the tests to date the Shroud were supposed to have been blind tests. The pieces of the Shroud were supposed to have been sent to the laboratories together with two other anonymous pieces of cloth to avoid "tampering" or exchanges and to allow a control of the trustworthiness of the dating. But the man who at the end of the "battle" remained the sole overseer of the entire affair, Michael Tite, mailed the samples with an accompanying letter which revealed their precise date. This is incredible for a scientific test of such importance. Furthermore, the representatives of the laboratories had been able to see the Shroud, which has a very unusual weave, during the cutting of the samples in Turin. "They did not trust the cardinal and a whole group of them came to Turin," Gonella would later say. They were therefore perfectly able to recognize the Shroud fabric among the fabrics to be tested. The director of the Zurich laboratory joked in front of Sox's television camera: "All that you need to do is look at the photographs of the Shroud's fabric published in *National Geographic*. It is not difficult for me to recognize the Shroud's material: it is the sample marked Z1."

But that is not all. On April 21, at the end of the session where the three small pieces were cut and after the pieces had, in a private room, been mixed together with the control samples by Tite and Cardinal

Ballestrero, then closed inside steel cylinders, Gabriel Vial, an expert on ancient fabrics, took out of his pocket a piece of cloth dating from the medieval period. The cloth had been given to him by Jacques Evin who had been asked by Tite to find a piece of material as similar to the Shroud as possible dating from the medieval period. Evin had managed to obtain a fragment of the cape which had belonged to St. Louis of Anjou in the late 1200s. Tite had asked that the fabric be brought to London but Evin, fearing a delay if the fabric were mailed, had it brought to him in Turin. This sample, outside of the protocol of the tests, asked for and delivered in such a strange way — when Cardinal Ballestrero himself had left the room, judging the operation concluded — was also cut into three pieces and handed over to the laboratories. This last sample was not in steel cylinders but in little separate envelopes, easily recognizable. Almost no report, not even the semi-official one of that day, mentions this last sample. The age of that sample, so extraordinarily similar to the age eventually determined for the Shroud, almost as if it were its "twin," has led some to claim there was a substitution.

Increasing the uncertainty about the matter is the mystery surrounding the weight of the pieces of cloth cut from the Shroud. What was the total weight of the piece cut from the Shroud? In a lecture in Paris, Giovanni Riggi, who made the actual cut and coordinated the work that day, said it was 497 milligrams. But in the same talk, Riggi also mentioned the figure

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of 540 milligrams. In the film made of the cutting, the weight that appears on the scale is 478.1 milligrams. But there is a still more important discrepancy. The cloth expert Testore says that the piece cut from the Shroud was 12.96 centimeters square and that the fabric weighs 23 milligrams per square centimeter. That gives a weight for the piece cut of 298 milligrams — a little more than half of the figure given by Riggi.

In short, there are many unanswered questions. This has led some to speak of an

"anti-Catholic plot" aimed at making surviving traces of the visible presence of Christ disappear, aided by those who too easily discard the "signs" of the faith in the name of a "pure" religion that has very little to do with Christianity. And even though the new archbishop of Turin, Giovanni Saldarini, has "no intention whatsoever to begin new examinations," as a spokesman for the archbishop told *30 DAYS*, that Vatican dossier on the case is still being compiled — marked "Top Secret."



NEW ITALIAN BOOK

At last the very go-ahead Professor Emanuela Marinelli of Rome, author of many papers and driving force behind the Rome Shroud group, has written a book. With her co-author, *Il Messaggero* journalist, Orazio Petrosillo, the title *La Sindone: Un Enigma all Prova Della Scienza* has just been published (April 1990) by Rizzoli of Milan. It is a very well produced hardback of 270 pages with 16 pages of coloured plates including a set of the 1988 sample-cutting procedures. Half the book is devoted to an examination of the carbon-dating procedures and to an analysis of the many unsatisfactory aspects of the whole exercise. Marinelli and Petrosillo have spent nearly two years following up the carbon-dating by interviewing almost everyone associated with it. It is encouraging to note that there are many footnote references to material first published in *Shroud News* and duly acknowledged. This is another non-English book of such importance that it should immediately be translated and published in the English language.

CONUNDRAS 1990

Fr CHARLES FOLEY, DEVON, ENGLAND

Thursday October 13, 1988 Cardinal Ballestrero pronounced that radiocarbon dating had decided that the Holy Shroud was produced at some date between 1260 and 1390. It could not therefore be the actual Shroud in which Our Lord was buried.

On Saturday March 25 1989 the newspaper, *Daily Telegraph*, reported that on the previous day, which had been GOOD FRIDAY the Oxford Laboratory and Professor Hall its head, had been presented with one million pounds by 45 friends for services, notably for having determined that the shroud was a mediaeval fake". The *Telegraph* added that this money would ensure the "Professor of Turin" a successor! This successor is now revealed as Dr Tite who played a leading role in the' unmasking of the fraud of the Shroud of Turin by co-ordinating and interpreting the results from the laboratories.

There were three laboratories involved in the radiocarbon testing.- Oxford University, ETH-Honggerberg Zurich, Arizona Geophysics laboratory. Each of them used pieces of the SAME sample, not samples from three places on the Shroud. Although results should have been precise, Oxford claimed that the flax was 720 years old, Arizona claimed 615, and Zurich 652 years of age. These results were issued by Tite after each laboratory had sent in to him the raw results which he had interpreted. The laboratories refused to allow any other carbon scientists (even the inventor of the method) [sic] to be present during the testing. None of the raw results have been published during the past twelve months though there have been many requests that this should be done and .opportunities to do so not infrequent.

The range of results as published in the journal *Nature* (16 Feb 1989) is four pages of difficult technical data, abstruse statistics and linking averages. Towards the end are the two sentences A "the results of the radiocarbon test give 95% of confidence " and B. "the results provide conclusive evidence that the shroud is mediaeval " This is clearly contradictory, as is clear, if said simultaneously "this object can be said with 95% probability to have been made between 1260 and 1390 " and "this object can be said with 5% probability not to have been made in that period". However that is not the only dubious error involved and investigations are in process with reference to the refusal of Tite to publish the laboratory RAW RESULTS; the interpretation which he has placed on those results; the criticism of the findings by the Colonetti Institute of Metrology mentioned in the *Nature* pages etc. The professional ethics of Science demand the publishing of the laboratory results before they have been doctored.

CONUNDRAS 1990 (Charles Foley) (cont'd)

The British Science and Engineering Research Council in 1989 commissioned a trial which compared the accuracy with which 38 laboratories around the world dated artefacts of known age. Only seven produced satisfactory results. The margin of error was two or three times greater than the technique claims. The errors have been traced chiefly to the inaccurate counting of the pulses of radioactivity from the sample, and also to "other unaccounted-for sources of error during the processing and analysis of sample," including atmospheric dust cleansing and sonic cleansing etc. The most serious unforeseen errors arise in the chemical pre-treatment of sample and the oldest techniques are gas proportional dating, and liquid scintillation dating. In both the sample is heated, but the residue is treated differently. The liquid scintillation and the latest technique called accelerator mass spectrometry involve most chemical pre-treatment. It was this latter which was used to date the Holy Shroud and Dr Baxter who was one of the directors of the trial says "it came out very badly in the survey since the laboratories which used it were 'way-out' when dating samples as little as 200 years old. Because so little material is used in the method, the effect of chemical pre-treatment is likely to be more serious. In the light of the results new quality control measures are to be adopted this year such as checking the accuracy of the machines with standard reference materials of known age.

Professional statisticians have voiced emphatic reservations about the manner in which the results of the analysis were statistically analysed. It would appear from the results entered in *Nature* (Table page 613 second column), and especially the values given by the χ^2 test for the three samples (6, 4 in column 1) that the samples are not homogeneous in radiocarbon dates, which being so, the ensuing statistical estimates are made void. The comments of Prof Bray of the Colonetti Institute concerning this specific point have been suppressed. It is essential that the results obtained by the Oxford laboratory and those of Arizona and Zurich, which diverge so much, be elucidated. Other scientists question the need for statistical calculations if, as claimed, the accelerator method is precise to a 'give-or-take' degree of 1°.

The Holy Shroud was folded in order to place it inside the metal reliquary and in that tightly enclosed space the dissolving C-14 would have been entrapped during the centuries in a 'build-up' of unusual quantities. The method of folding the Shroud in 1532 as deduced from the burn markings has produced 48 layers; the right foot area of the Shroud from which the sample of 1988 was taken, was not only at the 21st layer, but was also deep within the pile. The heat of the fire at

CONUNDRAS 1990 (Charles Foley) (cont'd)

that level was intense but the natural steam in the cloth was at superheat embedding any contaminants in the weave. The Zurich Laboratory (Zurich is the right place to unmask the Shroud" Dr Woelfli) during a dry run test was 'off' by one thousand years on one sample! Oxford has also admitted to errors in technique. If the contamination is within the fibres of a textile fabric the ultra sonic cleansing pretreatment is very difficult indeed. In the Chambery fire of 1532 the temperature inside the reliquary of the linen was 900° C at which silver melts, and any contaminants present would be dissolved and become molecularly reactive with the structure of the flax and become impossible to remove at least by surface actants or ultrasonic means.

Four pages of very statistical information in *Nature* journal are interesting but without a table of the crude results given by radiocarbon are of little real import. What is given are the averages of many results, but not exactly how many. Nor are we told how many nonsensical results were quite legitimately eliminated nor why statistical calculations were required at all in this so precise method. In fact the statistics as supplied are so much 'dust in the eye'.

The corner from which the sample was taken (it is A.1.d. on the official grid) was one of the most contaminated areas of the Shroud for during many centuries it was held by many hands in various parts of Europe during processions and expositions. Then also there was the accumulation of atmospheric fall-out of a thousand years. In the Chambery fire that was welded into the fabric at 900° C (melting point for silver). It would be impossible to cleanse that without destruction of the flax.

The Royal Greenwich Observatory scientists are accepted worldwide and Dr Maunder has given his name to the MINIMA such period as from 1645-1715 and the total absence of sunspots, with the violent see-sawing of C14 in the atmosphere. In Germany it has been proved that 5 similar long periods have occurred during the last two thousand years. Dr Eddy American Atmospheric Research Centre has pinpointed 12 major variations in sunspot activity with similar effects on C14 in the atmosphere. The solar magnetic fields which cause fluctuations reverse polarity in irregular cycles. Our earth's magnetic fields go into total reverse irregularly too. Moreover in 1987 after the Castle series of thermonuclear tests C14 in the Northern hemisphere was 80° above normal. The calibrations and evaluations and rectifications for dating have to cope with all these known and unknown surges. Which gives many scientists to think with a shake of the head.

CONUNDRAS 1990 (Charles Foley) (cont'd)

REPORT OF THE AMERICAN SCIENTIFIC GROUP. 1980.

1. No pigments, paints, dyes or stains have been found on the fibrils of the Shroud threads. X-ray fluorescence and microchemistry on the fibrils preclude the possibility of paint being used as a method of creating the images. U.V. AND I.R. evaluation confirm these studies.
2. Computer image enhancement and analysis by a device called a VP 8 image analyser show that the images have a unique, 3 dimensional information encoded in them.

HOW WERE THE IMAGES FORMED ?

Microchemical evaluation has indicated no evidence of any spices, oils, or any biochemicals known to be produced by the body, in life or in death.

For an adequate explanation of the images on the Shroud one must have an explanation which is scientifically sound from a physical, chemical, biological and medical viewpoint. At present this type of solution does not appear to be obtainable by the best efforts of the Shroud team.

There are no chemical or physical methods known which can account for the totality of the images, nor can any combination of physical, chemical, biological or medical circumstances explain the images adequately.

Thus the answer to the question of how the images were produced, or what produced the images, remains now, as it has been in the past, a mystery.

SUMMARY.

We can conclude for now that the Shroud images are that of a real human form of a scourged, crucified man. The Shroud is not the product of an artist.

The blood stains are composed of haemoglobin and also give a positive test for serum albumin. The images are an ongoing mystery and until further chemical studies are made, perhaps by this group of scientists, or perhaps by some group of scientists in the future the problem remains unsolved.

The radiocarbon tests have no answer to any of the paragraphs of that scientific report which was the result of three years work and by scientists using the most modern means and knowledge. Tite having been called upon to retract statements attributed to him in newspapers that the Holy Shroud has been shown to be a FORGERY has done so in a letter from the British Museum Research Laboratory dated 14 Sept. 1989.

CONUNDRAS 1990 (Charles Foley) (cont'd)

SUPPRESSIO VERI.

For the scientist who offers impartiality as the trademark of his profession, it is a serious accusation to be told that in order to buttress an insecure, unreliable exegesis, or maybe even a lesser motive, the truth has been suppressed, in part or in whole.

Prof. Riggi di Numana in cutting the sample from the Holy Shroud of Turin for the carbon 14 test records that he had to reduce it to 7 centimetres "due to contamination of the cloth with threads of different origin, which even in small quantities could cause variation in the dating due to their being of later addition".

In Oxford the microscopes found occasional fibres of cotton spun into the yarn; these were isolated and sent to P.H. Smith of Derby (Precision Processes (textiles) Ltd for identification. Prof. Raes of Ghent Textile Institute with a sample from the same area of the Shroud, established in 1970 that the cotton was 'eight-reversal-per-centimetre' Gossypium herbaceum. Because cotton is a tropical plant it is not grown in Europe now; or at any other time in the past. It is grown in the Near East, and at the time of Christ.

Because it is found in minute quantities in the Shroud linen, the loom which wove the linen must have previously been used to weave cotton. Since the Shroud has been in Europe since 1208, it can only have been woven before that date, and in the Middle East.

Because the gentlemen at Oxford had the cotton evidence in their hands:

- A. they knew the sample was contaminated with that;
- B. they knew the Middle East origin of the cotton and ergo the Shroud;
- C. they knew other contaminants were present from many centuries
- D. air pollution e.g. calcium and strontium; iron from the retting process;
- E. they knew their sample had been taken from a worn and repaired corner of the Shroud handled by many hands in every part of Europe over three hundred years;
- E. they also knew the effects of heat and steam from the Chambery fire (1532) which at the melting point for silver (900°C) would have dissolved any contaminants and forced them into the yarn construction, chemically reacting with the molecular structure.

ANY ONE OF THOSE ACCUSATIONS INVALIDATES THE C 14 TEST & TOGETHER DEMONSTRATE THAT THE TRUTH WAS SUPPRESSED BY ALL THREE LABORATORIES SINCE THEY SHARED THE SAME SAMPLE. THE TEST WAS A FARCE AND THEY KNEW IT.

CONUNDRA 1990 (Charles Foley) (cont'd)

"A very ancient and fish-like smell, a kind of not-of-the-newest poor-john."

Shakespeare.

If an *advocatus-diaboli* should examine this radiocarbon event there are some explanations required. There are the curious activities of certain individuals as far back as 1978 even though there were no cyclotrons which could properly perform the carbon 14 experiment. At that time the requirement was for two pieces of linen, pocket handkerchief in size, to be destroyed for the test run, and then no certainty of result. At the Turin International Conference 1978 it was stated from the rostrum that if two laboratories, with similar apparatus agreed to do the test, then it would be allowed. No laboratories took up the challenge.

The agitation continued but from non-scientific sources! In 1983 the novel method of mass accelerator spectrometry was invented by Gove of America and again although the method was not universally acceptable, and still in its unsteady infancy, pressure was applied to the authorities in Turin. In 1986 Oxford reported in the journal *Radiocarbon* that the source of errors in their procedures which amounted to one in five, was in their pretreatment removal of contamination. Zurich 1987 "One single date is no date". British Museum 'dry-run' 1986 had 6 laboratories using Egyptian cloth sample as preparatory test run for a Shroud test. Zurich was incorrect by 1,000 years; Wolfli in charge "the number of 64 investigative samples is too small to understand the disparity". Yet this expert now claims that he has dated the Holy Shroud with a single sample and that of a mere 40 milligrams!

The source of confidence of both Oxford and Zurich in dating the Holy Shroud is another mystery which needs explanation. Arizona laboratory asked to date a Viking Horn really did give the answer as 2006 A .D.! Manchester's 'Lindow Man' so called because he was buried in a peat bog sometime about 600-400 B.C. when dated by Oxford and Harwell was set at 50 and 400 A.D. They exchanged samples in irritation at so gross an error and still could not correct the error. Wolfli asked to date of linen came up with 350 years old! As a fact it was the corner of one of his mother's table cloths..., less than 40 years old.

However the chanting continued and at a conference of scientists it was decided that seven laboratories using the AMS and the Libby methods severally, the experiment should take place. Turin agreed. As soon as that was settled, the three AMS laboratories refused to work with any other scientist or laboratory! Foolishly the Turin Cardinal's representative submitted to that, arguing that he did not have the powers to stop further alteration, whereas of course he had the simple answer

CONUNDRAS 1990 (Charles Foley) (cont'd)

of refusing to participate. So having got the whole event into their hands another step was taken. Without any consultation with the Pontifical Academy of Science or anyone else for that matter, it was arranged that the three laboratories would not publish their results as individuals. In fact they would publish nothing. All the calculating was to be done by Dr Tite of the British Museum Research Laboratory. He alone was to be responsible for the transformation of the radiocarbon measurements in "real" age!

The next demand was that the heads of laboratories should be present in Turin at the taking of the samples and that Tite should oversee everything. Damon (head of the Arizona Laboratory) revealed that his laboratory (and he believes the other two as well) knew which piece came from the Shroud although according to protocol they were supposed not to know the origin of any sample "We saw the Shroud being cut. We could identify the cloth because of its distinctive herring bone weave." He continued "... sceptics had claimed that we could have been slipped cloth from the first century under the pretext that it was from the Shroud." Curious remark and insulting but not unexpected.

The sample was cut after a long discussion about the exact place from which the piece was to be taken. This was followed by a protest from Dr Riggi who wielded the scissors, namely that the piece being cut would be contaminated by threads used in 1973 to repair sample taken then for Dr Raes the Belgian textile expert. Finally the 7 X 1 cm was snipped out. There followed an extraordinary hiatus! The Cardinal and Tite took the sample into a separate room out of sight of the video cameras and everyone else, snipped it into three small and one large piece ... the three smaller pieces were tucked into metal tubes and the larger piece retained as reserve. They then came back and the tubes were given to the Heads of Laboratory. WHY did they disappear at that unfortunate stage? The accusation has been made that during that time Tite manipulated the sample ... as indeed he could have done. Certainly the Cardinal would not have done so, if for no other reason than that was the very last thing he wanted! Tite on the other hand on the 12 February 1988 had requested a "sample perfectly resembling the Holy Shroud" from the scientist M. Evin. He said so at the Paris meeting. It was to be about 6 square centimetres, it was to be of linen, and dated to within 50 to 100 years of the 13/14 centuries, preferably the 14th. He had also asked others for the same sort of sample cloth. He had two control samples when he arrived in Turin, and then he was presented with a third from a mediaeval vestment called a cope ... This third one he said he put into envelopes (not into the metal tubes) and so gave them to the laboratories who tested them although this was

CONUNDRAS 1990 (Charles Foley) (cont'd)

neither foreseen or spoken of in the various reports and Interviews which followed. I do not understand what purpose was served by having a third sample... or any sample when each laboratory knows the one from the Shroud., the samples have no purpose, and introducing this new 13 /14 century complication, and away from the witnesses who were there to prevent such activity.

The next event to be recorded is that Tite and Hall (head of the Oxford Laboratory) call a Press conference FOUR MONTHS AHEAD of the Official (and agreed) publication of results, in which they together stamp the word FAKE on the Holy Shroud. The date they give is similar to the sample which Tite requested. It is not merely a matter of discourtesy. Tite refuses to accept responsibility for the word 'forgery' which he pretends is a 'newspeak', he says it implies a deliberate intention to defraud " and the radiocarbon dating clearly provides no evidence in support of such a hypothesis". It is a clever sidestep.

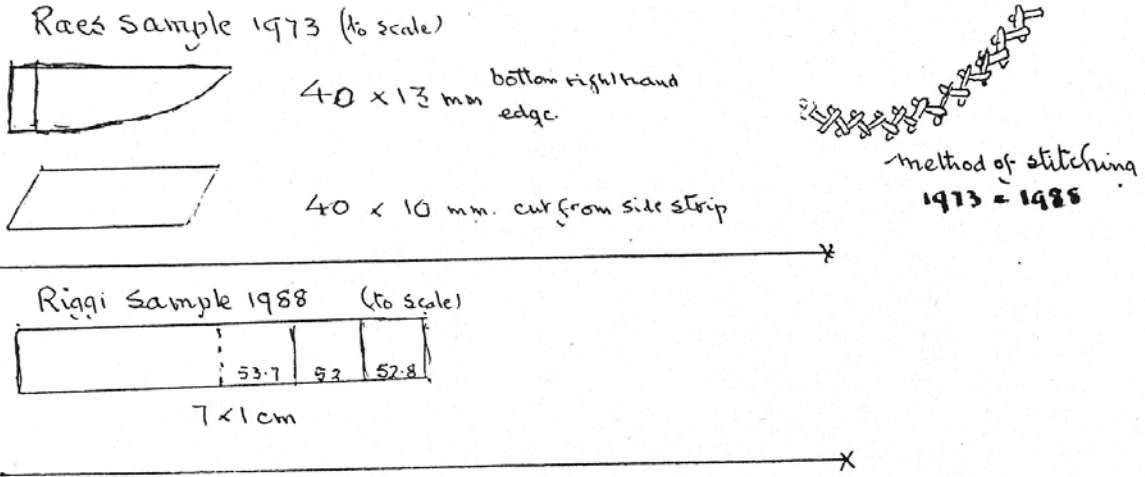
Then there is the stubborn refusal to allow other scientists to examine the laboratory results. We are given four pages in '*Nature*' as a Collective Report which is concerned with difficult technical detail giving lengthy description of mechanical and chemical cleaning of samples. Averages but not the ESSENTIAL RAW RESULTS FROM EACH LABORATORY. What we have so far are time wasters.

The deliberate announcement on GOOD FRIDAY March 24 1989 that one million pounds had been handed over to Prof. Hall for having "determined last year that the shroud of Turin was a mediaeval fake" and that the money would ensure "the Professor of Turin's " succession makes it obvious where the money came from! We are to have a chair of archeological science at Oxford which will be filled by Dr. Michael Tite research director of the British Museum, who also played a leading role in unmasking the fraud of the Shroud of Turin."

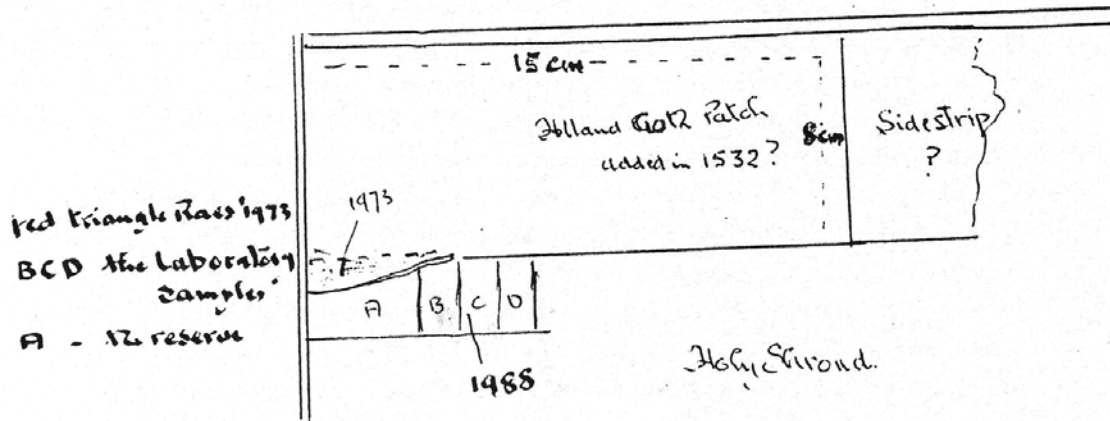
It now remains for the Turin and Roman authorities to give permission for an in-depth investigation of the carbon date method, or better still, to hand the whole subject over to the Pontifical Academy of Sciences, which has at least five Nobel Prize winners in its ranks, and have Science declare itself with clean hands and heart.

The C14 test has proved to the satisfaction of everyone that the Holy Shroud is at least 600 years old BUT NOTHING OTHER THAN THAT. It has not and cannot prove that the linen may be older than that, nor can it deny the fact. However within the past week (May 1990) the devoted pages of '*Nature*' have carried woeful news for Hall, Hedges, Sox and Co. Science has reared up and struck back forcefully by rejecting the fundamental principle of radiocarbon dating.

CONUNDRA 1990 (Charles Foley) (cont'd)



Sketch - Prof. Riggi 21 April 1988
 located on official grid A1d.



CONUNDRAS 1990 (Charles Foley) (cont'd)

THE REJECTION OF RADIOCARBON DATING.

The injection of varying amounts of C 14 into the troposphere has been going on since time began. The sun is not merely a still and immutable source of supply for a pleasant afternoon's cricket match. Solar flares display force and explosive energy beyond understanding; radiation, particles, and sunspots all show the same variability in waxing and waning in eight and fifteen random cycles of years. To which must be added the Maunder minima, those periods of almost total absence of sunspots and the consequent violent see-sawing of C14 production in the earth's atmosphere.

The solar magnetic fields which produce the fluctuations, reverse their polarity from cycle to cycle each of which is remarkably irregular. Earth's magnetic field from time to time goes into total reverse, now repelling, then attracting various particles. In fact the whole nature of radioactivity can be summed up 'its existence and decay are both of a random nature' . That picture holds until 1945. The atom bombs were then tested and for the first time in geological history large amounts of artificially produced isotopes were released into the biosphere. Serious as these were they were insignificant by comparison with the effect of the H-bomb (thermo-nuclear) tests begun with the Castle series in 1954. By 1963 C14 in the northern hemisphere was 80 % above the natural background. Intractable contamination by C14 is inevitable everywhere outside an hermetically sealed environment. Each time such a new source of C14 is produced, whether naturally or artificially in the atmosphere there is a further overlay of radiocarbon which sets back the decay of what is already present falsifying it.

The AMS method asks us to believe that calibrations can 'off-set' such natural fluctuations in the air, that the calculations for the half life 'best figure', the various measures to record the isotope decays ... all are accurate down to 1°! We are asked to accept that the variety of cleansing methods- are effective and total without being destructive of the deepset radiocarbon contamination due to modern thermo-nuclear 'fall-out'... and so on and on.

CONUNDRAS 1990 (Charles Foley) (cont'd)

It has just been announced in the journal '*Nature*' which published the original findings of the carbon dating of the Holy Shroud by Hall, Tite and Co at Oxford that the theory and practice of radiocarbon dating is as unsound as it is out dated. The Geological Observatory of Columbia University in New York by the use of THORIUM-URANIUM; a new and very reliable method, has proved that radiocarbon dating is as unsound as it is an untrustworthy hypothesis. The C14 dates are in error by as much as 3.500 years in dating fossils, artefacts and events in the past 40.000 years, and the further back we go in time the greater the error. Dr Fairbanks of the Observatory staff suggests that since radiocarbon dating depends on the carbon 14 produced in the atmosphere by cosmic rays, any alteration of that production either by nature, the solar system, or by man-made interference (thermo-nuclear bombs) must cause the blundering collapse of the whole hypothesis. He quotes the significant underestimation of the age of ancient objects and that in a large number of tests C14 failed consistently, the samples being far older than the C14 finding. The difference between the two systems lies in the fact that uranium is not air-borne. It is part of the earth's crust and decays over a steady and known period into thorium. By measuring the ratio of the two elements the age of the sample can be calculated with precision.

It should be obvious, not only to scientists who have shaken their heads at C14 dating for some time, but also to any normal reasoning individual that the problems of the radiocarbon dating hypothesis are not superficial. They are fundamental, unstable, and untrustworthy. Meantime the 45 'friends' of Hall, Tite and Co who contributed a million pounds for their services should now demand their money back!



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CHRISTIAN ORDER

APRIL 1990

Medical Testimony of the Holy Shroud

EOIN Ó MÁILLE

IF it be conceded that the images (both frontal and dorsal) imprinted on the Holy Shroud of Turin, were executed by a finger-daubing (not using *paint*) medieval artist-forgery there remain a thousand difficulties still to be resolved. Fundamental Christians, both Protestant and Catholic, however, will reject this false "ecumenism". They will ask themselves is this Christ's Blood, or is it monkey's blood? Is it the blood of a "Saracen"?

Such an unidentified, laid-back medieval forger, apart from, being a maestro of pictorial artistic reproduction, in complete contradiction to contemporaneous iconographical (elongated) non-anatomical delineation of the human body, was affronting the innate modesty and mores of the Middle Ages, by depicting unashamedly complete nakedness, especially in the person of our Divine Saviour.

The thousand difficulties begin, when it becomes quite apparent that the forger (in his "hidden life") is infinitely *more* than a master-painter anticipating the photographic process by a few hundred years. Plainly, also, he is not a rationalist, "sending-up" Christianity—for he has adhered closely to the Passion and Death recorded in the Gospel story. Nevertheless, it seems that we are expected, by the forgery-advocates, to believe that this maestro of the 14th or 15th century issued a promissory note, not to be made payable until the 20th century!

The latest carbon-14-dating "right" result, from a

MEDICAL TESTIMONY (O Maille) (cont'd)

secular-humanist angle; and prefigured by a leak; is a retreat from forensic first principles, because it has been heralded, more revealingly, by an unscientific exclamation mark : "1260-13901" Let us now examine, without an exclamation mark, the multi-disciplines of a genius, to whom, if he ever existed, the pictorial art in all its consummate skill, was but a minute part. Let us consider the daring conceit of this starting point, viz, the incomprehensible blurred face-image in its negative state. As the honest French agnostic, Yves Delage, asked : How could such an artist "realise a beauty" at this complex starting-point, which would not be recognised in all its majesty until light and dark shades became reversed; and truly interpreted positively, by the photographic process after a few hundred years had passed by? How could any artist, in any epoch, produce an incomprehensible negative whose fulfilled positive beauty, *he himself could not see*? If the artist could not see, how could he ever rest on his (posthumous) laurels? Every artist works for reward and acclaim in the here-and-now. What was his *motive*? Would Michelangelo have left, for posterity, a pieta wrapped up in a riddle?

Secondly, and equally important as the amazing "ugly beauty" of the incomparable face, is the added and surprising bonus of the wound-detail, illustrated to perfection in the "print-out" of the *dorsal* region. A forger would have left this area severely alone.

Yes, the forgery theory (the "promissory note", payable after the death of the' unknown painter) apart from any embarrassing result to "superstitious" people, flowing from carbon-14-dating, *may* answer one question—but it leaves a thousand. This theory rests precariously now, mainly on the following disciplines, exact sciences, discoveries, and data, primarily medical, quite unknown and unforeseen in medieval times : photography; mathematical head-to-head alignment; photo-sculpture; image intensity; orthogonal projection; physics; surgery; complete anatomical accuracy; chemistry; archeology; blood circulation (before Harvey); blood constituents; blood serum "halo"; the difference between arterial blood and that of veins; the

MEDICAL TESTIMONY (O Maille) (cont'd)

concavity of meandering blood—drops on the forehead; the exactitude of the transfer of congealed body blood to the Shroud; erudation of infected lymph; numismatics and inscriptions on coins (as noted by Fr. Filas, S.J.); Justinian coinage; the properties, anticipating the space-age, as developed by Gabriel Quidor (another great Frenchman); "Nerat localisation" in the feet; post-mortem bleeding of the feet, pericardiac issue or evacuation of water and blood from the lance-thrust; asphyxia-tetanisation, tetanisation of the diaphragm; orthostatic collapse; gravity shock; pronounced epigastric hollow; broadening of the thorax; the small heart-shadow of the crucified; arched hypogastrium; muscular contraction; three-dimensionality (impossible to achieve from a *painting*); the Roman three-thonged dumbbell flagrum pattern—a negation of Jewish custom in scourging; the excess number of lashes—also a violation of Jewish custom; spasmodic muscular rigidity; capillary flow, and its absence; the ultra-modern concept of "weightlessness" (not yet fully understood, even in 1990) whereby the Body of Christ (not a "Saracen") lying in the linen soudarion in the tomb, has not blurred, nor obliterated — as one might expect — the most comprehensive array of wound-detail on the dorsal region; the physiological fidelity of apparent errors; the evidence that the V.I.P. Body had been prepared *for a Provisional Burial Only*; the faint mark of the umbilical cord severance; the fugitive or fading nature of the image—which to depict artistically — would have necessitated "long-distance" painting; the "brush" would have to be telescopically-handled (about 10-12 feet long) comprising only of one fibril (thinner than a single hair of one's head), to pick up gently from the palette, the colouring matter, and transpose it to the linen so delicately that the image would rest on the surface of the cloth, and not permeate. Alternatively, the artist, to overcome the fugitive of the "coming and going" images, would have to sprint, carrying his precious drop of colouring-matter, between "base" and his distant canvas, in order to *fix* his masterpiece finally.

To illustrate further anatomical proofs that the Holy Shroud is not a forgery, we can study the work of the

MEDICAL TESTIMONY (O Maille) (cont'd)

illustrious French Surgeon, Dr. Pierre Barbet. We can have recourse to the work of the brilliant Professor Alfred O'Rahilly from Ireland in, *The Crucified*. Paradoxically, rationalism alone, is enough to convince, when, and if, it is postulated that all Christian believers are without critical faculties in scientific matters.

On the cross, the left foot of the Victim was nailed over the right, slightly bent and curved, and thereby shortened in cadaveric rigor. This fact is shown clearly on the Holy Shroud. The right sole is shown in its entirety. There were two distinct blood-flows from the feet. Again, medical science has proved this to be so, and in accord with anatomical accuracy.

The arms were affixed to the cross by 'tails piercing the wrist (not the palms) through the "space of Destot", which caused the thumbs (hidden from view on the Shroud) to reflex back into the palms of the hands. The absence of palm-wounds is in variance with conventional medieval artistic expression. Dr. Barbet, by experimentation, has dealt with this apparent error. In this piercing, the median nerve was wounded, but not destroyed.

Proof piles upon proof: The eyelids were obscured by coins, whose motif and inscription can be read. The bridge of the nose is bruised. The cheeks are buffeted. The severe contusions on the shoulders, overlying the scourge marks, show where the heavy cross-piece rested and moved about agonisingly. When Christ rose up on his nailed feet, temporarily, in order to gulp more air, He had, of a consequence, the necessity of putting more pressure on, His nailed wrists. This "revolving" motion was indescribably agonising. Yet we have the marvellous symmetry of the recumbent figure, and the majestic beauty and serenity of the face (even without.. the eyes) which tell us, that this was a life *willingly* laid down. The list of proofs is striking, and growing under the most rigorous forensic' tests corroborated by modern anatomical advances.

WHY THE FACE ON THE SHROUD APPEARS SEPARATED FROM THE BODY

By Ian W Dickinson

Those who claim that the Shroud is a medieval fabrication, have for some time hoodwinked the media with superficial and bland theories; not to mention the incongruous calculations from a mass spectrometer, which have not even been interpreted correctly. Many claim artists can reproduce the Shroud image. Indeed, in recent years, some have made third rate 'copies' and this is their error, because no artist has understood what is actually there on the Shroud. Ironically, an historical trail has been left, of attempts to paint portraits from the Face as it is seen on the Shroud. This provides evidence that the original source i.e. the Shroud, existed at a very early date. Consequently, a particular 'error' has been faithfully copied through the centuries.

It is a well known observation that the Head of the image on the Shroud appears to be dislocated and separated from the body, and taking this at face value, it certainly is out of normal proportion. The reason why the Face image on the Shroud is separated from the body is this — the Face and underside of the chin are seen in the flat dimension; only when the cloth is actually folded under the chin and placed close to the neck, can any sense be made of the apparent errors on the cloth image. In other words, the image under the chin was created at right angles to the Face, but now it is viewed on the same plane as the Face. This has the effect of raising the head about 1.5 inches from the neck when the cloth is laid out flat. When this distance between the head and body is corrected, the Face moved down to where it should naturally be, a perfect anatomical balance is then revealed.

Evidence that the cloth has been wrapped under the chin is provided by the creases in the cloth, one large crease across the area just under the point of the chin and other creases around the Adam's apple. A repeat procedure can easily demonstrate what has happened. By placing a piece of crease-able material under a chin and pressing down with the chin, and at the same time pulling taut the material against the Adam's apple, the shape on the Shroud will be reproduced i.e. two converging lines, convex and concave around the Adam's apple. Thus, the Shroud accurately records the true image, and so did the portrait artists from c.6th century on, but they did not know the truth of the transverse crease across the neck area.

Also accounted for is the shoulder line on the cloth. When the head is put in its correct alignment, the shoulders fit accordingly to the correct location. The hair can also be seen on the anatomical left, flowing and bunching near the shoulder and crease area, the fold under the chin affecting the image recorded. Again, because the underside of the chin is now seen in the flat dimension, the chin support cloth is shown, which would have been at right angles 'in situ' and under the chin. This flattening out of the underside of the chin image accounts for the square effect on the photographic positive, giving a framed appearance surrounding the Face i.e. the image created by the piece of special linen bound around the head. Over across the top of the head can be seen a further large crease, which was produced when the Shroud cloth was wrapped around the top of the head.

So here is the true picture of Jesus; the cloth has accurately recorded an image of the chin support linen, the neck, the Adam's apple: the Face of Jesus on the Shroud is exactly where it should be.

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*) started putting together a few notes about current developments in Sindonology (the study of the Shroud of Turin) for a small circle of interested people in his home country of Australia. He didn't expect it to go beyond a few issues.

The bulletin now reaches subscribers all over the world and it is written and produced and the information disseminated more quickly than most news-sheets of a similar kind or the more prestigious Shroud publications. 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 and this has given 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 with numerous Shroud researchers in many countries. His quest for Shroud information became, as he described it, "a passionate hobby". He brought 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 Institute 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 member of the Board of Directors of the USA 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 (The Environmental Study of the Shroud in Jerusalem). He has made several original contributions to the research of the Shroud, has presented papers at international conferences, has written many articles and given numerous broadcasts and telecasts on the subject in many countries.

The list of *Shroud News* subscribers continues to increase internationally and the publication has been described many times as one of the best available. Its production is obviously privately subsidised as we still request a subscription in Australia of only \$6 for six issues posted. *Shroud News* comes out six times per year. The USA subscription is \$US 6 (posted surface mail) or \$US 12 (posted airmail). Postage to other countries varies. ALL back issues are available at \$1 (US or Aust) each plus postage charges except the famous 50th issue which is \$3 plus post.

Please encourage those of your acquaintance to take out their own subscription rather than borrow your copies since the more genuine subscribers we have the more we can improve the bulletin and the longer it is likely to survive.

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