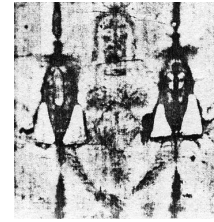


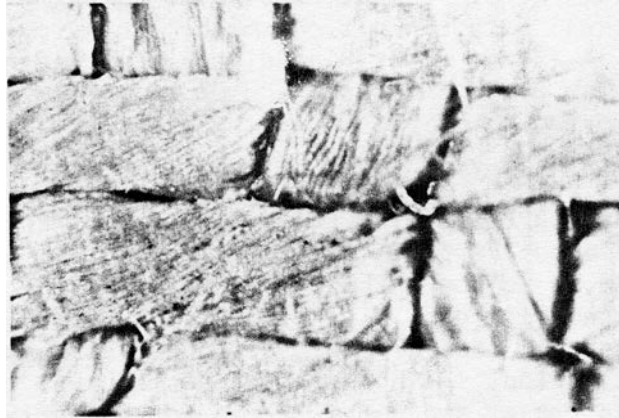
SHROUD NEWS

A NEWSLETTER ABOUT THE HOLY SHROUD OF TURIN
By REX MORGAN - Author of PERPETUAL MIRACLE



Issue No. 9

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HIGHLY MAGNIFIED FIBRILS OF THE SHROUD CLOTH SHOWING
DISCOLORATION THROUGH CELLULOSE DEGRADATION

Photo: Brooks Institute, California

"FOR NOW, WE KNOW THAT THE SHROUD WAS NOT A PRODUCT OF ANY HUMAN CHICANERY. BUT WAS IT THE ACTUAL BURIAL CLOTH OF CHRIST? OUR RESEARCH HAS NOT BEEN ABLE TO PROVE THAT WEIGHTY CONCLUSION, NOR PERHAPS WILL SCIENCE EVER BE ABLE TO SAY. BUT AT THE SAME TIME, SOME OF THE MOST EXHAUSTIVE RESEARCH EVER CONDUCTED ON ANY RELIC, OBJECT OF ART OR ARCHAEOLOGICAL ARTIFACT IN NO WAY HAS ELIMINATED THAT POSSIBILITY"

SAMUEL PELLICORI
OPTICAL PHYSICIST, STURP

EDITORIAL

The main article in this issue of SHROUD NEWS is based on interviews with Samuel Pellicori which I made in Santa Barbara, California, earlier this year. Pellicori is one of the principal investigators of the STURP team and I expect to follow this article with further instalments of the many tapes I made during that visit.

Recent letters from Father Adam Otterbein indicate the tremendous success of the Visual Data Exhibition which is now touring the United States. Father Peter Rinaldi has now returned to Turin after he, Otterbein, Dr John Jackson and Dr Larry Schwalbe visited King Umberto in Portugal and presented the STURP team interim report to him and to the Cardinal Archbishop in Turin.

When I was writing PERPETUAL MIRACLE in 1979 I had access to a copy of a book of about 70 pages entitled THE WINDING SHEET OF CHRIST by Father W. FREAN, a Melbourne based Redemptorist who also ran, in conjunction with the legendary Miss Freda Fraser, the Holy Shroud Information Centre. At that time I made enquiries about the Centre but all my investigations led nowhere. It seemed that the Centre had died with Miss Fraser and Father Frean in the early seventies.

It was very gratifying, therefore, to hear from Revd Father MICHAEL J. HOGAN, of Oxford Park, Queensland, the good news that The Winding Sheet of Christ ran to seven printings up to 1972 and that he, also a Redemptorist, is planning to re-publish the work with an up-to-date appendix. He has also sent me a copy of the 1972 printing of Frean, a valuable addition to my extensive Shroud library and some biographical notes on Frean which I shall be able to include in my next book on the Shroud, now in preparation. I hope to bring news of Father Hogan's work to readers of SHROUD NEWS from time to time.

Also in this issue is a review of the article which appeared in the Australasian Post and a news release about the further findings of Dr Max Frei, Swiss palynologist. Space does not allow us to print the latest release from the indefatigable Prof Francis Filas of Chicago in which he has made further advances with his coin identification.

Thank you all for continued support of SHROUD NEWS.

REX MORGAN

WHAT THE SCIENTISTS TOLD ME - I

THE FIRST OF SERIES OF ARTICLES FOR SHROUD NEWS BASED ON FACE TO FACE INTERVIEWS WITH SHROUD SCIENTISTS by REX MORGAN

Late in April 1981 the American SHROUD OF TURIN RESEARCH PROJECT (STURP) team mounted a remarkable exhibition of visual data from the work they had done initially in Turin, Italy in October 1978 immediately after the public exposition of the Holy Shroud.

The exhibit of photographs and other scientific visual data was a resounding success and its projected duration of opening to the American public at the Brooks Institute of Photography at Santa Barbara, California was extended from two months to five and we understand that the exhibition is about to tour the United States.

SHROUD NEWS readers have already had some reports of the exhibit and mini-scientific conference which took place at the time of the official opening which I attended (see SHROUD NEWS No 7).

I was able to interview several of the researchers at that time who amplified for me and other interviewers some of their new statements about the Holy Shroud which were made at the time of the exhibition.

SAMUEL PELLICORI, a member of the STURP team, is a research staff physicist at the Santa Barbara Research Centre. Among his special interests during his career in optical work has been optical remote studies of lunar surface properties and the design of optical systems for the American space missions Pioneer and Mariner. His particular contribution to the 1978 scientific study of the Holy Shroud was in the field of photomicroscopic analysis.

Pellicori has for several years been involved with the chief photographer of STURP, Vernon Miller of Brooks Institute of Photography, whose photographs SHROUD NEWS readers will remember from Weaver's article in the June 1980 National Geographic. Thus Miller knew the kinds of skills Pellicori could bring to bear on the tests planned for the Turin project. Pellicori, like so many other researchers, says that he had no special interest in the

What the Scientists told me -

Shroud but from the time he began to help Miller with one or two items his interest grew and he became much involved.

Closely assisted by MARK EVANS, Pellicori set about planning a programme of colour photomicroscopy, a technique which had never been applied to the Shroud. One recalls that the only times the Shroud itself, as opposed to photographs of it, had been available for scientific study was once in 1969 and again in 1973, on both occasions for Italian scientists reporting to a Commission of the Roman Catholic Church and in neither case employing the vast technological resources which were available in 1978.

In April this year Pellicori announced that the most important result of the 1978 study was that the body image appears not to have been painted by a forger as the image itself appears to be the result of a natural imprinting process.

The following report is based on taped interviews with Samuel Pellicori made at Santa Barbara this year.

Q: Have the tests proved that there is blood on some parts of the Shroud?

Pellicori: We are pretty much convinced that it really is blood, based on two independent types of tests we have done but it would be difficult to prove categorically that the blood is human but indications are that it resembles human blood.

Q: As a principal investigator for the STURP team, how do you think the image could have been made?

P: There have been several hypotheses generated throughout the history of the Shroud by people trying to explain its mystery. Four of them are worthy of mention. The painted artifact hypothesis; the one which says it was caused by a hot statue scorch; the flash of radiation hypothesis and the vaporgraph theory. The most recent one, which we tend to favour as a result of our tests is that it was due to a natural chemical process.

Q: The paint or pigment hypothesis, had it been proved, would have shown that the Shroud image is a forgery?

What the scientists told me - (contd)

Pellicori: Yes, it would have. This is the most obvious explanation and was the one we designed most of our tests to examine. We have, in fact, found no evidence of particulates or pigmented materials nor of binding material which would be associated with paint. Also if we say that a corpse in a state of decay would give off vapours which would interact with chemicals used to process the cloth and create an image we have the problem that these vapours would diffuse isotropically and destroy any detail of the image and yet the resolution we see on the Shroud is quite outstanding. Thus our tests would agree with the natural hypothesis. What we see the body image to be composed of is yellow fibrils. The cloth of the Shroud is mostly composed of linen and linen is composed mostly of cellulose. Cellulose is the most abundant natural organic material on earth. We know that it decays by yellowing, the same process which occurs with yellowing paper or cloth and that process involves dehydration, oxidation and multiple conjugation of bonds. Such multiple conjugation bonds absorb blue light and in other words give a darkened yellowish-reddish image, which is exactly what we see on the Shroud. Our spectral reflectance tests show that these characteristics are very much the same as those we can reproduce in the laboratory.

Q: There is some difference between your conclusions for the face and the rest of the body image, is there not?

P: The image fibrils in the face are exactly the same chemistry that exists all over the body. What does not hold in the face area is the hypothesis of direct contact. All I have explained so far is the chemistry of the image and not how it got there.

Q: Do you feel that you fully understand how the image got onto the cloth?

P: Some of our tests have suggested that direct contact was the mechanism by which the image was transferred from the body to the cloth. We now understand the chemistry of the image itself but just how the image got from the body to the cloth we do not fully understand. Direct contact has apparently been involved but there are other processes still under investigation which would have to account for the so-called contour information which the Shroud image possesses.

What the scientists told me - (contd)

Q: In your opinion, then, the natural changes in cellulose that occur in the linen produced the image on the Shroud. Do most of your colleagues feel the same way about this?

P: I think so. We are a multi-disciplinary team which means that each of us has a particular specialty and for an hypothesis to be acceptable to the group it would have to meet all the tests. Our cellulose degradation hypothesis apparently does meet all the tests so far.

Q: Why have you discounted the supernatural theory?

P: Supernatural or metaphysical hypotheses are not in the realm of science and our team is composed of scientists, so we stick with the science.

Q: Which of all the tests you have performed was the test that convinced you that the Shroud was authentic?

P: When we do scientific investigation we have to study a number of pieces of research. You have to put together a number of pieces and these have to be consistent in order to draw your conclusions and so any one test by itself is not really conclusive. I think that the chemistry done on the microfibrils might be the closest test to fall into that sort of category. We pulled microfibrils from the Shroud at various positions such as body image samples, bloodstain samples, water stains etc and these were then subjected to chemical tests to determine whether they contained protein or paint and conclusively we found no paint or binding material, only naturally degraded cellulose. Having secured the data in Turin in 1978 we then had to spend many hours in the laboratory reducing and evaluating the test data. The next step logically was to try to simulate what you have, in the laboratory and we have spent many hours making simulation tests.

Q: Could you tell me a little more about the latent image formation and this process of linen cellulose degradation?

P: My aim was to try to simulate the body image chemistry from my evaluation of the reflectance spectrophotometry tests made in Turin. I found that by accelerating the ageing of linen, which is

What the scientists told me - (contd)

mostly cellulose, I was able to reproduce the yellow colouring of the image. I then went on to apply foreign materials to the cellulose (this was modern linen) such as perspiration, olive oil and a number of other things and simulate their ageing. Also by the technique of baking at high temperature I was able to reproduce spectral information that we measured at Turin. What actually happens is that a multiple process takes place consisting of dehydration, oxidation and multiple bond conjugation in the molecular structure of the cellulose and that altered structure then has the property of absorbing blue light so that you get a stain or an image, a darkening of the cellulose which is very like the Shroud body image. So how would our findings really relate to the Shroud? What we found when we applied these four materials to the linen was that we could not see any image until it was baked. What we are saying is that there is an equivalence between time and temperature. What I did in the laboratory at high temperature in a matter of hours could have taken place at normal temperatures over many years so that a latent image not suddenly, but gradually, would develop into a visual image.

Q: If the latent image you are suggesting got onto the Shroud, let us assume, two thousand years ago, why is it that we have not found any other similar images on anything else, on any other artifact or any other piece of cloth?

P: I can't answer that question. The process of dehydration, oxidation and conjugation is a naturally occurring chemical process. It is the reason why paper and linen and cloth yellow with time. Now it could be that if one preserved or retained the burial cloths of other people that we would have images but we do not know of any other object like this with a human image on it.

Q: Mr Pellicori, is the Shroud of Turin a forgery?

P: The tests I have been involved in show it to be something other than a forgery.

This series to be continued

THE SHROUD IN THE AUSTRALASIAN POST

The AUSTRALASIAN POST is a weekly popular journal which this reviewer only ever sees occasionally, in grubby condition, in the barber's waiting room. It always has a swimming-dress clad girl on the cover, its advertisements press those of less intellect to part with their money on items such as tee-shirts, money-making schemes, metal detectors, special discount watches, bust enlargers and all that sort of thing; it contains nothing offensive and, one feels sure, does not pretend to appeal to anyone particularly intelligent.

Its July 30th 1981 issue contained, however, in prime position, an article THE CLOTH OF AGES by Peter Skinner who is the Public Relations Director of the Brooks Institute of Photography at Santa Barbara, California and an expatriate Australian journalist.

The lead picture in the story is of Father Adam Otterbein, President of the Holy Shroud Guild of New York and Rex Morgan at the Santa Barbara exhibition in April 1981 studying the coloured computer enhanced photograph of the head in the Shroud image. Coincidentally this picture (taken by JOHN LEWIS of Santa Barbara) was the one chosen for the cover of SHROUD NEWS No 7.

Skinner gives a good resume of the history and study of the Shroud and dwells on the new information released by the STURP team scientists this year. He reveals that Rex Morgan made overtures as early as April this year for the Visual Data Exhibition to tour Australia. Indeed, discussions took place between Morgan, Ernest Brooks - Director of the Institute and several other senior staff members there about the feasibility of the remarkable exhibit touring the Australian continent. Recent letters from Brooks to Morgan indicate that the issue is still very alive and more than 500 people a day have visited it in California during an extended season.

In Skinner's Australasian Post article he says:

Recently, and for the first time in the world, an exhibit of visual data collected during the 1978 investigation was opened to the public. This exhibit, at one of the world's leading universities of photography, Brooks Institute, has drawn thousands of people since it was opened.

The Shroud in the Australasian Post (contd)

One of the first overseas people to see the visual data exhibit was Australian Rex Morgan of Sydney who was invited to attend the official opening.

Mr Morgan, who has written numerous articles and authored a book on the Shroud, had no hesitation in declaring the exhibit "much more revealing than the actual shroud."

This sentiment was expressed by many who have seen both. So impressed was Rex Morgan that he was among the first to seek the exhibit to tour through Australia, bringing to millions of Australians the next best thing to seeing the Shroud itself.

It is good that popular articles such as this one continue to appear in popular journals thus bringing a knowledge of the Shroud to a considerable audience who might otherwise be unaware of its interest. The Australasian Post claims a readership of one million in Australia and New Zealand

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ELVIS PRESLEY AND THE HOLY SHROUD

A recent AAP Reuter wire story quoted the TIMES as saying that "Presley's mother fixation, his orgies, his drug-taking, his violence and the pathetic incontinence of his last days are described in scathing detail" in a Penguin Books release of a Presley biography by the American writer Goldman. Goldman, who spent three years researching the book on Presley's death said: "He was a hopelessly addicted junkie, a delusions paranoid and a bloated, dysfunctional and frequently sick man with a vast range of symptoms."

Presley's fans all over the world called him THE KING.

When he died mysteriously in his home in Memphis somewhere between 10 am and 230 pm on 16th August 1977 of a heart attack in a chair in his bathroom, the magazine NEW IDEA of 1st November 1980 tells us that he was reading Ian Wilson's THE TURIN SHROUD.

MAX FREI - MASTER PALYNOLOGIST

In past issues of SHROUD NEWS we have made all too little reference to Professor Max Frei of Zurich, Switzerland. Readers of PERPETUAL MIRACLE and other contemporary literature on the Shroud will be aware that Max Frei was one of the foremost criminal forensic scientists in Europe. He was called in as an expert witness in 1973 simply to testify the genuineness of certain photographs which had been taken of the Shroud. His lifetime interest has been the study of pollens from which he has deduced vast amounts of information in connection with crime solution and when he was present with the Holy Shroud itself it occurred to him that there could be some interest in studying pollen samples from the surface of the cloth. He was given permission to take microscopic samples with sticky tape and then spent several years studying them.

As is reported in several books on the Shroud and in Rolfe's film SILENT WITNESS he was able to substantiate Ian Wilson's theories of the movement of the cloth in various parts of Europe and the Middle East over the past two thousand years. He is regarded as one of the foremost experts who have advanced our knowledge of the Shroud.

At the scientific congress held in Turin in 1978, when the most advanced tests every done on the Shroud were performed by mainly American and Italian scientists, Frei distributed to the delegates his list of 48 separate pollens he had identified up to that time. For SHROUD NEWS readers with a particular interest in this branch of science we shall publish the full list in a forthcoming issue. However in April of 1981 the following wire story was sent from NC Turin, Italy:

More than two years of pollen testing on samples taken from the Shroud of Turin proves that the cloth believed to be Jesus's burial shroud is authentic, a Swiss scientist said in a report to Cardinal Anastasio Ballestrero of Turin.

The report, presented to the Cardinal April 1 by criminologist Max Frei, confirmed Frei's earlier findings that the Shroud contains pollen from certain desert plants, now extinct, which had grown in Palestine and Turkey during Jesus's day.

Max Frei - Master Palynologist (contd)

For his tests Frei received permission to "dust" part of the Shroud and study the pollen. During his 40 years with the crime squad of Zurich, Switzerland, he often used pollen samples collected from clothing as evidence in court cases.

In his report to Cardinal Ballestrero Frei said he found 56 varieties of pollen on the shroud including several types found only in the area of the southeastern Mediterranean.

The pollen was more than 500 years old and had therefore been embedded in the Shroud before it was brought to Europe by the Crusaders, the report said.

Following earlier pollen tests Frei had concluded that the Shroud was about 2,000 years old and came from Palestine area.

"I have full confidence in the tests performed several years ago," said Frei after presenting the report.

The Swiss criminologist said he found no traces of paint or colouring on the Shroud and therefore dismissed the claims of critics that the image could have been painted on the Shroud in later centuries.

Frei also found traces of ointment made from a type of aloe plant which grows only on the island of Socotra, off the coast of South Yemen. Biblical texts say that ointment from Socotran aloe plants was applied to corpses before they were buried.

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WALTER McCRONE

Besides the famous tape of Dr Walter McCrone's lecture in London which sparked off the world-wide row about the presence or otherwise of artists pigment on the Shroud (lecture reviewed in SHROUD NEWS 2) we have at last received copies of McCrone's three articles on his findings published in the British Journal THE MICROSCOPE. These reports deserve careful scrutiny and we hope to review them shortly.

SUBSCRIPTIONS

Our list of subscribers is increasing and we welcome new readers to the circle. Subscriptions run at \$3 for batches of four issues. Current subscribers are financial to at least Issue 9.

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Please encourage those of your acquaintance to join our subscription list. In this way we can only improve the newsletter in the future. Our four-issue subscription does not over commit either the subscriber or the publisher. We do not anticipate the demise of the newsletter at the moment!

CONTRIBUTIONS

Please feel free to write to SHROUD NEWS with any comment about the newsletter itself or about the subject of the Holy Shroud. The Newsletter now goes beyond our circle in Australia to several other countries.

FUTURE ISSUES

We have in hand several more scientific reports as well as much information gained since the Santa Barbara congress. This will be published in the next few issues as well as latest information as it becomes available.

PUBLICATION

All information and opinion published in this newsletter is given in good faith to pass on to interested persons, matters concerning the Holy Shroud of Turin. It is edited (and mainly written) by REX MORGAN and is published by:

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