# **SHROUD NEWS**

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

## ISSUE NO. 31

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FATHER PETER RINALDI, DOYEN OF SHROUD STUDY AND RESEARCH, CELEBRATES HIS FIFTIETH ANNIVERSARY AS A PRIEST NEXT MONTH. SINCE HE FIRST SAW THE HOLY SHROUD IN 1933 HE HAS DEVOTED HIS LIFE TO ITS STUDY. HE WAS THE CHIEF INTERMEDIARY BETWEEN THE AUTHORITIES AND THE SCIENTIFIC INVESTIGATION TEAM IN TURIN IN 1978. THIS PICTURE WAS TAKEN WHEN FATHER RINALDI WAS IN MELBOURNE, AUSTRALIA, TWO YEARS AGO AT THE SALESIAN HOUSE, STANDING BY A STATUE OF ST JOHN BOSCO.

#### **EDITORIAL**

As this issue goes to press at the end of October we have suffered a major postal strike in New South Wales which has virtually stopped passage of interstate and international mail and seriously delayed local mail. There must therefore be a great deal of Shroud related material I haven't received in the last month. If I have not replied to personal correspondence from you this may be the reason. I must also say that there is much before me that I have not dealt with on account of much immediate agenda but I hope to catch up in the next few weeks.

This issue brings you a resume of my recent 'Shroud Odyssey' with a few of the photographs generated then and what may well become a controversial report on the work of Sister Damian, OCD, published for the first time.

Being prepared for the December issue for 1985 is a report on the Lier copy of the Shroud which I saw in August together with some photographs of this rarely seen cloth which has considerable significance in Shroud studies. We shall also have more photos from Europe and America and further information gathered on my recent trip such as a report from the Trondheim conference on carbon dating.

An event of great significance in the Shroud world will take place in New York on 23rd November this year. Father Peter Rinaldi will celebrate his fiftieth anniversary as a priest and celebrations have been organised which will command wide attention. Father Rinaldi is the world's greatest authority on the Shroud and he has been actively involved in bringing scholarship, science and religion together in the quest for knowledge about this mysterious object for most of his life. I'm sure I speak for all readers of SHROUD NEWS, whether they know Rinaldi or know of his work, and from whatever point of view they read this little newsletter, when I wish the "Grand Old Man" of sindonology every happiness on the occasion he is about to celebrate and many more years of active involvement in a discipline in which he has been responsible for bringing together thousands of people in a common interest, always with a kindly and generous attitude, always with a keen appreciation of the technicalities and the implications, always with a benign saintliness which so characterises this great man of God.

Father Peter, we salute you!

REX MORGAN

#### ANOTHER SHROUD ODYSSEY

Those who have subscribed to SHROUD NEWS for some time will be aware that from time to time I take the liberty of reporting a series of Shroud-related meetings as a continuous narrative in the hope that up to date information and comment will be of interest. Accordingly I adopt that method to describe a trip around the world taken since the last issue.

#### Hong Kong

Having ensured that the Photographic Exhibition was safely packed in Auckland, New Zealand for return to Australia and having also completed your August issue of SHROUD NEWS I went to Hong Kong for a meeting with the local Exhibition Committee under the chairmanship of William Meacham, Shroud scholar and archaeologist. Together with Hong Kong's Father Martin we confirmed many of the details of the Exhibit's proposed visit to Hong Kong during 1986. It will be exhibited for a week on Hong Kong Island at the Landmark Centre which I inspected. The following week the exhibit will move to the other major centre of Hong Kong life, Kowloon, where it will be displayed at the Silvercord Centre. An official opening ceremony will take place on Sunday 2nd March 1986 and a number of local companies have made donations of funds or services to support the considerable local costs involved in getting the exhibit before the public. Chinese captions for the items are being made and Runciman Press will be publishing a Chinese version of my SHROUD GUIDE for the occasion. Meacham is arranging a Shroud mini-symposium and expects such sindonologists as Wilson (UK), Gonella (Italy), Heller (USA) and Rinaldi (USA and Italy) to attend. The formal meeting followed with general Shroud chat including reference to Meacham's own set of proposals for future testing which he has submitted to the Turin authorities. One of his main arguments is the difficulty of using old samples for C14 dating due to contamination causing isotopic changes which can lead to questionable results of several hundred years plus or minus. He cited an interesting case where a carbon tested sample indicated a date in the future.

### <u>Turin</u>

Having missed my contact with Professor Emanuela Marinelli in Rome on account of the holiday season where the majority of the population consisted of tourists I moved on to Turin, home of the Holy Shroud.

Don Coero Borga was also on holiday so I missed an overdue session with him and the Turin scientists but was able to talk by telephone to Professor Luigi Gonella with whom I made arrangements to meet in England a few days later. A highlight at this time was to visit the great Shroud scholar Don Luigi Fossati who has contributed so much to the historical aspects of sindonology. He resides at a monastery in San Benigno about 30 miles out of Turin and I spent some time in Shroud discussion (in three languages) (each of us struggling with each other's and intermediate French) and in joining his superior and other priests for a lunch of a kind which can only be achieved in the magnificent Piedmontese region. Don Fossati honoured me with a copy of his out-of-print and rare work of 1961 LA SANTA SINDONE as I took my leave for my first visit to St John's Cathedral since I saw the Shroud in 1978. I was fortunate to be there at a time when the cathedral was open, as was the Chapel of the Holy Shroud where a Polish group were celebrating mass at the Shroud shrine. I was able to see the new photographic exhibition now permanently displayed in the side-chapel which includes a series of backlighted transparency display panels (in which you must insert lire to turn on the lighting) and an excellent fullsize positive transparency of the whole Shroud. I was pleased to arrange an order for the English SHROUD GUIDE to be sold in the Shroud bookshop in the cathedral.

#### **Belgium**

Having passed two days in Montreux and Gstaad on other business and having stayed with old friends near Liege and having read in the French newspapers about the JAL air crash I drove to Antwerp for several important Shroud contacts. I met Remi Van Haelst, the Belgian scholar who has contributed to SHROUD NEWS and who has just finished his own book on the Shroud in the Flemish language. We visited the Notre Dame Cathedral where I saw, for the first time, the da Vinci copy of the Edessa face-cloth painted on marble and the remarkable Rubens paintings of the crucifixion in which the nail wounds were shown by Rubens to be in the wrists. Our next stop was in the town of Lier where I had twice before made abortive attempts to see the copy of the Shroud attributed to Durer. I was extremely fortunate that Van Haelst and another sindonologist Josef Leysen had been able to persuade the authorities to display the Lier copy for my benefit. It had not been shown since 1965 and seems to be exhibited more rarely than the Shroud itself.

On this occasion two or three other sindonologists had been invited to be present as well as a press party. If space permits I shall include in this issue a translation of the newspaper article which ensued. The Lier copy is of special interest as it is dated 1516 and thus does not show the burn-marks or patches from the fire of 1532. It does, however, show the repeated group of small holes generally supposed to be from an earlier fire or 'ordeal' of hot pokers. What very few writers have realised is that on Durer's drawing these marks are bright crimson as if to represent blood and there is a view that they represented at that time bloodstains and not the marks of fire. Josef Leysen has been a strong promoter of the theory that they are bloodstains from the nails having been removed from the victim's body and laid upon the cloth at the time of wrapping in the Shroud. This is such an interesting and controversial debate that I hope to arrange for Runciman Press to produce a booklet containing Leysen's theory in English, which he has given me, together with Van Haelst's excellent scholarly article on the authenticity of the Lier copy. Both pieces make fascinating reading but are too long for inclusion in SHROUD NEWS. On the following day I spent several hours with another of Belgium's foremost sindonologists, His Excellency Baron F. H. Van der Straten Waillet, former Belgian Ambassador to several countries. A former Member of Parliament and minister in the Spaak government, he resigned after the war when the King abdicated. We spent some hours discussing Shroud matters and his library of slides and other materials. Following a three mile walk through his estate during which we frequently crossed the border between Belgium and Holland I was privileged to join the baron and baroness and some of their family for lunch.

My next appointment was with Van Haelst and Leysen at the latter's home in Mechelen where Leysen described in detail his unorthodox views about the Shroud and gave me much of his material which reflects a great deal of research in connection with the revelations of Anne-Catherine Emmerick and the markings on the Shroud, particularly the red marks on the Lier copy described above. Leysen also holds the view that the Lier copy was not done by Durer and has a letter from Prof Gilbert Raes who agrees with him that the small marks were not caused by burning. It is interesting to contrast this with STURP evidence that they were caused by burning pitch. Remi Van Haelst is an industrial chemist and as a hobby is an ardent scholar of ancient texts in Belgian archives relating to the Shroud and has much to contribute to our knowledge.

#### England

Again the holiday season in Britain prevented me from some of the Shroud contacts I had planned to make but I spent a very good day with Ian Wilson, the historian who really put the Shroud on the popular map in 1978 with his THE TURIN SHROUD, and who has been the spearhead for Shroud studies in Britain ever since. Professor Luigi Gonella and his wife were staying with the Wilsons in Bristol and we had a fascinating mini-symposium. I heard some quite interesting anecdotes from Gonella about the 1978 STURP scientific investigation, Gonella being the scientific adviser to the Shroud custodians in Turin. He also lamented the dishonesty of the Italian press at the time in presenting all kinds of exaggerated reports during the tests which would in later years be regarded by researchers as facts. (Some sections of the media are the same all over the world). He also made the valid point that some non-scientific writers about the Shroud often choose what results they will write about and make non-scientific judgements about them. There, perhaps, (I thought) go I. Ian Wilson is now working on a new book in which he presents evidence to re-date the Exodus which, interestingly enough fits in with some of the ecological work one of my sons has been doing as an archaeologist in Jordan in recent years.

#### New York

My next engagement was a meeting of the Board of Directors of the Association of Scholars and Scientists for the Shroud of Turin (ASSIST) on which I sit as Australian Liaison Member. At the office of the County Medical Examiner (coroner) of Rockland County, Dr Fred Zugibe, who is ASSIST Chairman, I met again Paul Maloney and several other board members. ASSIST has many projects under way at the moment including a series of proposals for new testing at Turin and plans to publish translated works in English. We saw a series of new studies on slide of the microscopic samples taken from the Shroud in 1978 and it is astonishing how much more work there is to be done on these samples when you consider the number of scientific papers already published by members of STURP. A good deal of other routine agenda was dealt with at the meeting and ASSIST is considering ways to make sections of its membership accessible to a wider group.

Following the ASSIST meeting I had the pleasure of another contact with Father Adam Otterbein, President of the Holy Shroud Guild, who had driven over to meet me. We sat in what I regarded as somewhat bizarre circumstances at a picnic table under the trees in the grounds of the Rockland County Hospital. I suggested that for an obvious foreigner and a Catholic priest to be thus sitting alone with a tape recorder in sporadic rain and talking intently had all the potential for arrest on suspicion of espionage activity. This, happily, was not the case and we caught up on several months of Shroud activities and exchanged much news. Father Otterbein has a very extensive command of Shroud work all over the world at any given time. He was able to confirm that he had obtained all the material of the late Fr Francis Filas of Chicago as willed to the Guild and it is good to know that Filas's great work will be available for future researchers.

#### <u>Atlanta</u>

Another meeting with Father 'Kim' Dreisbach in Atlanta, Georgia was, as always, filled with interest and motivation. As reported earlier in SHROUD NEWS, Fr Kim has now given up active parish work as an Episcopalian priest and devotes fulltime work to the Atlanta Center. As I have described before this is probably the most comprehensive and spectacular Shroud exhibition in the world and I found Dreisbach and his team in the throes of moving the entire exhibit down to the ground floor of the Omni International Center where their new premises give better access to the public and will certainly be an improvement on their previously very good venue. A bonus during this visit was to meet the director of the Albany Shroud Center, Rodger Apple, who had come down from New York specially to meet me and to help Kim with the big move. Apple has been a Shroud enthusiast for forty years (i.e. longer than most of us) and is a well-known lecturer on the subject. He sports a chain around his neck with a superb face of Christ made by holograph which one can buy at the Atlanta Center. I was interested to note that the Center had sold out its supply of SHROUD GUIDE and that SHROUD NEWS had been honoured by the inclusion of two large spreadsheet frames of some of its articles in the document display section of the exhibition. Since my last visit Dreisbach has added much interesting and valuable material to the exhibition. He is aiming to build up a collection of items to aid the visually handicapped and already has solid skeletals of hands and feet with

nails through them as depicted by the Shroud image and plans to have Tom Goyne's forensic sculpture of the head installed shortly. The Atlanta Center's library of pictorial and documentary matter continues to grow enormously. Late at night Dreisbach, Apple and I discussed many Shroud matters of current interest. There is still talk from several quarters of an international conference in the not too distant future.

#### Salt Lake City

Having once before visited Salt Lake City, Utah, in less than favourable circumstances it was extremely pleasant to find that the currently prodigious temperatures over most of the USA had become more temperate for my two days there (it was down to about 100°F). One of the great highlights of this odyssey was to meet Sister Damian of the Cross (formerly Dr Eugenia Nitowski) who was (and surely is) the world's greatest authority on rolling stone tombs. SHROUD NEWS readers are familiar with her work. She is currently the leader of the Environmental Study of the Shroud, in Jerusalem (ESSJ) group planning to conduct actual experiments next year in the environment of a tomb in the same rock face in Jerusalem as the traditional tomb of Christ. Sister Damian is a charming and erudite woman who now lives as a Carmelite novice at the foot of Mount Olympus, Utah where she can devote time to her Shroud studies and plans for the Jerusalem expedition. During an eight-hour session with Sr Damian and her associate Sr Mary Joseph I had the opportunity to learn at first hand of the plans for 1986. It was also an exciting day since I arrived on the day after which her first experiment on image-formation had proved to be successful and so I was the first person in the world to see the results of what she had done. Sr Damian's thesis is contained in an article she has written exclusively for SHROUD NEWS which appears in this issue. Later in the day I also met her collaborator, Dr Joseph Kohlbeck, regarded as one of the USA's foremost crystal photographers and who works for the Pentagon. The work proposed by ESSJ deserves serious attention and the group needs support from wherever it may come.

#### Santa Barbara

My main purpose in visiting Santa Barbara again was to accept the invitation graciously extended to me to give the Commencement Address (graduation address) at the Brooks Institute of Photographic

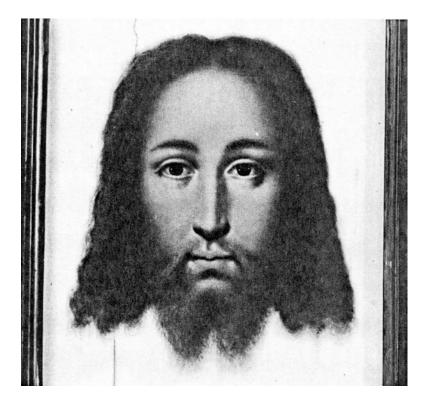
Science. Readers will be familiar with the fact that it was the photographers from Brooks Institute who formed part of the STURP scientific investigation team on the Shroud in 1978 and that Brooks is the foremost university of photographic science in the world. In addition it is the Brooks Exhibition of Shroud photographic material which I have had the pleasure to direct during its tour of Australia and New Zealand. I met again for Shroud-related talks with Vernon Miller, the chief photographer of STURP, whose 1978 photographs have appeared in publications all over the world and with Ernest Brooks, President of the Institute and also a member of the 1978 team. Having given my address to the graduates during the imposing ceremony on a magnificent Southern Californian morning no-one was more surprised and humbled than I was to be awarded an Honorary Master of Science degree by the university, and in the name of the authority of California, in recognition of my work over the years in education and for work on the Holy Shroud. I regard this as a great honour for Australia.

So another Shroud odyssey was over and although, as usual, I missed some of the people I had planned to see, I have returned with a great deal more material which I hope to distil for readers of SHROUD NEWS in the next few months.



REX MORGAN

REX MORGAN WITH ERNEST BROOKS II AFTER RECEIVING AN HONORARY DEGREE AT BROOKS INSTITUTE, SANTA BARBARA, CALIFORNIA



THE COPY OF THE EDESSA FACE-CLOTH BY LEONARDO DA VINCI, PAINTED ON MARBLE AND DISPLAYED IN THE TREASURE ROOM OF NOTRE DAME CATHEDRAL, ANTWERP BELGIUM



BELGIAN SHROUD HISTORIAN, REMI VAN HAELST, WITH BELGIAN MASTER PRINTER AND SHROUD RESEARCHER JOSEF LEYSEN AT MECHELEN, BELGIUM



SISTER DAMIAN OF THE CROSS, OCD, WITH DR JOSEPH KOHLBECK IN SALT LAKE CITY, UTAH, DISCUSSING THE ESSJ PROJECT [Rex Morgan]



RODGER APPLE, Director Albany Center Turin Shroud; Fr ALBERT R. DREISBACH, Director Atlanta International Center; and FATHER DREISBACH's daughter AT THE ATLANTA CENTER, AUGUST 1985

#### ENVIRONMENTAL STUDY OF THE SHROUD IN JERUSALEM

#### <u>A PRELIMINARY REPORT ON IMAGE TEST 1</u> by Sister DAMIAN, OCD

#### [THIS REPORT IS FIRST PUBLISHED IN SHROUD NEWS]

On August 14, 1985 a small, three foot tall medical manikin was used to simulate a body which had suffered the trauma of crucifixion. The hollow body was filled with water heated to a temperature between  $110^{\circ}$  and  $115^{\circ}F$  \*. Blood was added and a colorless solution of 'sweat' composed of Normal Saline (0.9%) and distilled white vinegar (5%) to reproduce an acidic condition of both blood and perspiration. It was noted that the blood coagulated and fully dried within seconds after contact with the heat of the body. The prepared body was then wrapped in pure, untreated linen obtained from Belgium (Strathmore Natural #1290) which had been lightly dusted with pure calcium. The vinegar and calcium set up conditions for an acid-alkaline reaction which would be compounded by heat. The shrouded body was placed in a totally dark basement room which had a temperature ranging between 62° and 65°F and a relative humidity from 58% to 66%. A water mist was sprayed first on a plastic sheet containing powdered calcium before the body was placed on it, then the mist was sprayed over the shrouded body which was then left for a period of 30½ hours.

Upon examination of the cloth, image was obtained in the areas of the manikin's body which retained the heat the longest, namely the chest and back. Image was inhibited due to rapid cooling in the arms and legs, which have a much smaller relative area than those of an adult male. Image was also not obtained from the head because of structural supports which did not allow the even heating of that area. Clotted, dried blood transferred poorly, when it transferred at all. Only the area treated with unclotted, liquid

<sup>\*</sup> There should be an explanation as to why such high body temperature was chosen. The events leading up to the crucifixion which Christ experienced, the lack of sleep and rest, the lack of fluid intake, the scourging, combined with the severe physical exertion of crucifixion itself, could easily raise body temperature to  $108^{\circ}$ F. At death, a condition known as post mortem caloricity (or post mortem fever) is an elevation of the body's temperature  $5^{\circ}$  to  $6^{\circ}$ F above that maintained at death. Therefore  $110^{\circ}$  to  $115^{\circ}$  is not unreasonable.

#### <u>A Preliminary Report on Image Test 1</u> (contd)

blood penetrated the cloth. This gives further support to a necessity for disturbance in blood coagulation which prolongs clotting time or stops clotting entirely and could have resulted in a transference of non-coagulated blood which, after drying, liquefies immediately on contact with moisture as is present in the tomb.

One factor which was totally unexpected was the way both image and blood penetrated the cloth. The blood crusted on the outside of the cloth in a clearer manner than on the side next to the body. Furthermore, the image was also darker and more clearly defined on the outside of the cloth. Upon microscopical examination of fibers taken from the middle of the image area of the back, it was observed that not all the fibrils of the thread had the misty yellowing of image, but a good number of them were colorless, indicating an uneven penetration which we cannot explain at this time.

We now know that heat is the key to image formation. It has been the one element missing in all other tests (for example Dr Sebastiano Rodante who has worked with cadavers in limestone catacombs). Whether this process, which simulated the limestone (calcium) tomb, will produce an image comparable to that of the Shroud of Turin or not, will be tested fully in Jerusalem where exact conditions can be met without question. However, this darkening of the fibers caused by a very hot body in a cold tomb will have to be taken into consideration by those who study the Shroud itself, since we can now see that it is a natural result. The fact that not only blood, but also image penetrated to the other side of the cloth and that both were actually clearer on the outside which was not touching the body causes a tentative conclusion that perhaps in the case of the Shroud of Turin, we are really looking at the outside and not that side which was in contact with the body. The 'back' of the Shroud had not been seen since the fire of 1532, when it was covered by the Holland cloth backing. Even the STURP team of 1978 did not see the entire back clearly. The image is fading rapidly. Artists of centuries ago could clearly reproduce elements of the image which we can now only see through high contrast photography. It is possible that the image has now disappeared from the back, and that only the outside image remains.

\* \* \* \* \* \* \*

What will all this mean? For some it will be the proof that the Shroud of Turin is a genuine burial cloth. For others, it may be a terrible blow to their convictions that the image was formed at

#### <u>A Preliminary Report on Image Test 1</u> (contd)

the moment of resurrection. Let me hasten to add, in no way is the resurrection or divinity of Christ threatened by this discovery. The fact is that the image had to be formed by a dead body, since no living person could sustain such high temperatures. Also, the body had to have been removed from the Shroud within three days or the cloth would have been defaced by decomposition. Most bodies are not buried while still warm (or actually hot, in this case) which lends support to the rushed burial of Christ before the beginning of the Sabbath. We could also say that burial shrouds are not taken from dead bodies, especially in the Jewish culture where anything coming in contact with the dead is considered unclean and therefore abhorrent. A natural explanation of image formation should not lessen one's view of the miraculous.

Why still go to Jerusalem? Actual tomb conditions will give us a better control for the study of the image process. To this point, no one has monitored the tomb environment and it will answer many more questions about the Shroud of Turin.

Sister DAMIAN, OCD, ESSJ, 5714 Holladay Blvd, SALT LAKE CITY, UTAH, 84121, USA



SISTER DAMIAN OF THE CROSS, OCD, FORMERLY ARCHAEOLOGIST DR EUGENIA NITOWSKI WITH HER FIRST EXPERIMENTAL IMAGE TEST CLOTH IN SALT LAKE CITY, UTAH, AUGUST 1985 [Rex Morgan]

# THIS ARTICLE IS REPRODUCED FROM SHROUD SPECTRUM INTERNATIONAL No 16 BY KIND PERMISSION

#### BRITISH PROPOSALS FOR A FRESH STUDY OF THE SHROUD OF TURIN

#### IAN WILSON

In the wake of the STURP scientific proposals for renewed study of the Shroud, submitted last year,\* a group of British specialists presented their recommendations to His Eminence Cardinal Ballestrero at an informal meeting in Turin on July 2nd of this year. The British proposals, translated into Italian, had been drawn together on behalf of the British Society for the Turin Shroud. They were warmly received by the Cardinal; he made clear, however, that the final decision-making in regard to any new access to the Shroud rested with Rome, and that patience was needed before fresh work on the Shroud might be allowed.

The British proposals have been prepared in full consultation with STURP and other groups, and in the spirit of Cardinal Ballestrero's plea for international collaboration and cooperation. They are intended to supplement, rather than to compete in any way with recommendations made by other groups. For instance, with regard to radiocarbon dating, the view was expressed to Cardinal Ballestrero that most of the interested persons in Britain regard this as the single most important element for any new work to be done on the Shroud. But the British proposals, which are for a series of individual, clearly delineated projects, do not include a specific radiocarbon dating project because British laboratories, fully endorsed by the British Society for the Turin Shroud, have been included in the recommendations made last year by STURP. There has been excellent U.S.-British consultation on this issue, and here in Britain we warmly support Dr. Robert Dinegar's careful methodology.

Accordingly, the British proposals have been designed, in the main, to bring to the subject expertise not represented or available to other groups; also to provide a fresh, independent approach in areas where there is a serious conflict of professional opinion.

One particular field in which Britain can offer a fund of specialist expertise is that of the archaeology of textiles, and the British Society has been fortunate to receive the willing involvement, in any fresh opportunity to examine the Shroud, of Dr. John P. Wild, Senior Lecturer

<sup>\*</sup> See "A Scientific Proposal for Studying the Shroud of Turin," *Spectrum* #13, December 1984. [Ed].

in Archaeology at the University of Manchester, and a close colleague, Gillian Eastwood, Manchester-trained specialist in Near Eastern archaeological textiles. Miss Eastwood and Dr. Wild would hope to give particular attention to a study of the edges of the Shroud, potentially valuable for clues to the Shroud's history and origins, yet by- passed by previous researchers because the edges are normally hidden by the Shroud's protective blue surround. Miss Eastwood remarks in her recommendations:

The existence or otherwise of some form of end or selvedge needs to be determined and properly documented. Similarly the published works concerning the Shroud make no reference to the type of seam used — an aspect of the subject in which I am particularly interested. Currently I am developing a typology of seams which were used in Egypt and the Near East. This typology stretches from the fourteenth century B.C. (the site of Tell el-'Amarna, Egypt), to the early sixteenth century A.D. (Quseir al-Qadim, Egypt). Although it should be stressed that any individual seam cannot be taken as conclusive evidence of origin, nonetheless it would be interesting to know whether the intriguing lengthwise seam to one side of the Shroud fits within this typology of Near Eastern seams and hems. In addition it would be important to determine the original function of this seam. It may have constituted an original extension, or it may derive from a later repair...

Additional expertise on the Shroud's manufacture as a textile would be forthcoming from John Tyrer, textile analyst of Manchester, who is already known to Spectrum readers (see *Shroud Spectrum* #6, March 1983).

Where British specialists would hope to help clarify a particularly heated prevailing controversy is in the field of microanalytical study of the Shroud's body and blood images. It is well known that Doctors Heller and Adler of Connecticut identify the "body" stains (i.e., those of the face, beard, and other physical features) as deriving from some form of cellulose degradation, and that they identify the "blood" as genuine blood, determinable by some eleven different tests. It is equally well-known that the Chicago microanalyst Dr. Walter McCrone, working from the very same set of samples, has insisted that both types of image are composed of iron oxide in a gelatin binding medium, and are thereby the work of an artist. In Britain such contradictions have caused considerable confusion and uncertainty, and the task of determining the truth has been further complicated by Don Fossati's valuable historical studies (*Spectrum* 12 & 13), indicating that it was common practice for artists copying the Shroud to press their works against the original, thereby inevitably transferring misleading paint-dust to the Shroud's surface.

In view of the obvious need for independent appraisal, the British Society has been fortunate to receive the willing involvement, in any fresh opportunity to examine the Shroud, of Dr. Geoffrey Allen, visiting Professor of Chemistry at the University of Southampton and

senior scientific advisor to the Berkeley Nuclear Laboratories in Gloucestershire. At the Berkeley Nuclear Laboratories, Dr. Allen has access to extensive facilities for scanning electron microscopy (SEM), energy dispersive X-ray analysis (EDX) and electron microprobe analysis (EPMA), together with equipment for two new methods which he considers may be particularly valuable for Shroud studies: scanning auger microanalysis (SAM) and scanning ion microscopy (SIM). Britain's Central Electricity Generating Board has generously agreed to make all this equipment available for study of Shroud samples and, as pointed out by Dr. Allen, the samples required from the Shroud (from "body", "blood" and non-image areas) would be so small as to be all but invisible. These would be teased from the Shroud's surface with scalpel or fine needle, rather than by sticky tape, which is considered too unselective. Backing up Dr. Allen's analyses from the forensic viewpoint would be Professor James Cameron of the Department of Forensic Medicine at the London Hospital (and one of Britain's leading Home Office pathologists), together with a colleague, Dr. Patrick Lincoln, haematologist; also Dr. Graham Dival and colleagues at the Metropolitan Police Forensic Science Laboratory in London. As Dr. Allen remarked in his proposals:

The results obtained could be more definitive than those obtained hitherto because the chemical and physical properties of materials depend directly on their composition and structure at the microscopic level. The ability of the most modern techniques to probe the nature of such small areas of materials with high sensitivity and selectivity should greatly aid their characterisation of subtle surface variations.

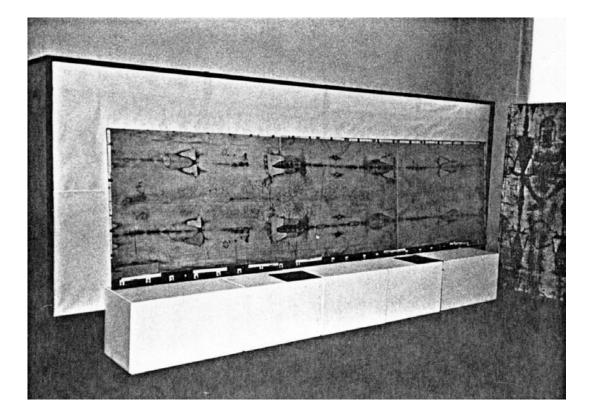
While the above recommendations are considered the most important elements in the British proposals, certain additional suggestions have also been included in the hope that they might disclose features or facets of the Shroud as yet unrealized. At London's Metropolitan Police Forensic Science Laboratory, one particularly useful method developed in recent years has been the diffused laser beam to study surfaces of interest. In criminal detection work, this has revealed otherwise invisible shoeprints, fingerprints, erased writing, differences in inks and paints, clothing stains, fibres, etc., often where all other methods have failed. The method is entirely safe and non-destructive of the object under examination, and although it was previously necessary to take items for study to a specialist laboratory, recent developments with a Neodymium Yag laser promise to make the technique portable, and therefore readily applicable to the Shroud. Mr. Kenneth Creer, the specialist in this technique at the Metropolitan Police Forensic Science Laboratory has kindly volunteered his services and equipment for any fresh study of the Shroud.

In addition, fresh work in ultraviolet light photography has been proposed by Raymond F. Ruddick, photography specialist at the London Hospital Medical College Department of Forensic Medicine. And a proper, photographically documented survey of the underside of the

Shroud, using a urological endoscope to obviate the need for removal of the Shroud's backing cloth, has been volunteered by Professor John Blandy of the Department of Urology at the London Hospital Medical College.

As already stressed, the British proposals have been designed to supplement rather than to compete with the work of others. One project strongly urged on the part of other researchers is a check of the pollen analyses of the late Dr. Max Frei. While unfavorable remarks have sometimes been made about Dr. Frei's methodology, such remarks can only be considered unjustified and unsubstantiated without a replication of Dr. Frei's work on the part of some other acknowledged expert in the same field. We understand that ASSIST has procured the cooperation of one such specialist, Dr. Aaron Horowitz of the Tel Aviv University Institute of Archaeology. We warmly support this development.

It is to be hoped that a fresh study of the Shroud, when and as permitted by the ecclesiastical authorities, will be a true model of international understanding and cooperation.



#### LETTER TO THE EDITOR:

Dear Sir,

You are to be commended for your brilliant response to Denis Dutton's "Negative Evidence" (SN 30, August 1985). And it is quite apparent you exhibit an exceptional patience with the absurdities voiced by the American expatriate.

May I offer apologies to Australians and New Zealanders for another "ugly American" who brings shame to my country. These "authorities" should be viewed with the skepticism which they profess by their ignorance. Mr Dutton may be an expert in his field of art at the University of Canterbury in New Zealand but he should never be allowed to pontificate on that which is beyond his comprehension ("not made by human hands").

In my own devotion to that divine Image of the Holy Shroud, I am continually reminded of St Paul's admonition: "Your faith rests not on the wisdom of men but on the Power of God."

HAROLD B. NELSON, 534 Chamberlain Street, CORPUS CHRISTI, Texas, 78404, USA

PART OF THE BROOKS PHOTOGRAPHIC EXHIBIT ON DISPLAY AT THE NATIONAL MUSEUM IN AUCKLAND, NEW ZEALAND IN AUGUST 1985

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#### SHROUD NEWS

SHROUD NEWS began in 1980 when Rex Morgan, author of PERPETUAL MIRACLE-SECRETS OF THE HOLY SHROUD OF TURIN 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 Australia. He didn't expect it to go beyond a few issues.

The bulletin now reaches subscribers all over the world and because of its relatively simple method of production it can be written and produced and the information disseminated more quickly than most news-sheets of a similar kind. It contains information, news, articles and illustrations gathered from sources of Shroud study worldwide through Rex Morgan's extensive personal connections with what has been described as the "Shroud Crowd".

Morgan is a frequent overseas traveller and thus has the opportunity to keep abreast of latest developments in Shroud study and research. He was present at the world media preview of the Shroud itself in August 1978 in Turin, Italy and has since met with numerous Shroud researchers in many countries. His quest for information about the Shroud has become, as he describes it, a "passionate hobby" and he has since written the best-selling SHROUD GUIDE (December 1983) and is working on another major book about the Shroud. He is currently Honorary Director of the Brooks Institute Photographic Exhibition on the Shroud which is touring Australia, New Zealand and parts of the Far East. Morgan has been appointed to the Board of Directors of the USA based Association of Scientists and Scholars International for the Shroud of Turin (ASSIST).

Our list of SHROUD NEWS subscribers continues to increase. We request a subscription in Australia of \$6 for six issues posted. SHROUD NEWS comes out approximately 6 times per year. USA subscription for 6 issues is \$US 6 (posted surface mail) or \$US 12 (posted airmail). Postage to other countries varies. <u>All</u> back issues are available at \$1 (US or AUS) each plus postage charges.

Please encourage those of your acquaintance to take out their own subscription. The more we have the more we can improve the bulletin.

All information and opinion published in this newsletter is given in good faith. It is edited (and mainly written) by Rex Morgan and published by

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