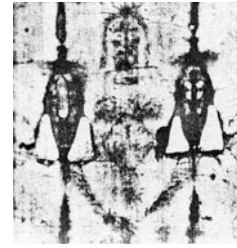


SHROUD NEWS

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



Issue No. 26

NOVEMBER 1984



Don Piero Coero Borga, Secretary of the Centro Internazionale Sindonologia, Turin, and Keeper of the Shroud Museum, shown with the original camera used by Secondo Pia in 1898 to take first photograph of the Holy Shroud.

EDITORIAL

This November issue of SHROUD NEWS is the last one scheduled for 1984. When I began SN twenty-six issues ago I made no commitment about its future or regularity but over the past year or so it seems that we have established a pattern of one every two months which I shall try to maintain in the future.

1984 has been a big year for the Shroud in Australia with the remarkable success of the Brooks Exhibit Tour of every capital city attracting more than 175,000 people to see it and confront the evidence. An adjunct to the exhibition has been the considerable publicity it generated in all media which has further expanded public knowledge of and about the Holy Shroud of Turin. The exhibition will certainly be in New Zealand by next April/May in conjunction with a major international photographic tour being organised by the Brooks Institute of Photography, California, and plans are still under way to get the exhibit to Hong Kong and Japan although it is now unlikely that this will happen until after New Zealand.

During the year I was invited to join the Association of Scientists and Scholars International for the Shroud of Turin (ASSIST) an American inspired but internationally composed group to promote peer review of research work, translation of work from one language to another with greater immediacy than at present and to prepare its own proposals for future testing programmes on the Shroud. I managed to attend one meeting of the ASSIST Board of Directors in New York. I am aware of at least three groups which have already prepared detailed proposals for future testing. These are ASSIST, the British Society for the Turin Shroud and STURP which did the tests in 1978. There is no doubt that the Italian scientists are also preparing their proposals.

In my travels I have maintained contact with sindonologists all over the world and propose to continue this as my itinerary allows. One of this year's highlights was to attend the conference in Durham, North Carolina with several researchers and to renew acquaintance with Shroud giants Rinaldi and Otterbein.

1984 has seen the publication of some major papers on Shroud research such as the extensive summaries of evidence by members of STURP published under their various disciplines. There has also been some fascinating new work such as the foldmark study (reported in this issue), the work of Scheuermann in Germany and Benson in America

Editorial (contd)

on image formation by lightning; the correlation between the Oviedo facecloth and the Shroud; the proposal that there is evidence of a modesty cloth over the body and a Jewish phylactery on the forehead. We have also seen a larger number of new books on the Shroud than usual and it seems that this trend will continue.

Sindonology has become, in the last few years, a major discipline in its own right in world knowledge and it becomes increasingly difficult to keep up with all that is being published. There have sprung up groups of scholars in numerous places all over the world as knowledge of the Shroud spreads.

I have been most grateful for the frequent expressions of gratitude to me from those who visited the exhibition in Australia and from readers of SHROUD NEWS here and abroad. My part in the Shroud story is very insignificant and very second-hand but it has certainly become a 'passionate hobby' of mine since I first saw the Shroud in August 1978 and I am fortunate that my understanding of it has been enriched by meeting, over the years, so many of the experts from so many countries.

In 1985 there is likely to be a major conference in the United States which I hope to attend and I shall also make my way again to Turin to catch up with the indefatigable Don Piero Coero-Borga and the Italian researchers at the International Centro.

As 1984, which began with a worldwide resurgence of comment on Orwell's prognostications, some of them fulfilled, others, thank God, not, now draws to a close, one does not perceive particularly a happier world. If anything it is considerably more miserable as wars, mostly religion-based, wage in several parts of the globe; as international and domestic terrorism has become, it seems, an accepted part of human life; as minorities believe they can go about massacring leaders and forcing their ways on a world which increasingly encourages those with nothing useful to say or do to exert their questionable or reprehensible influences on mankind.

It is as well, then, that positive and gripping areas of study like the Holy Shroud of Turin are there to divert us from some of the horrors of the late twentieth century. The very existence of the worldwide circle of sindonologists itself exhibits the capacity for men and women of all nationalities, religions and backgrounds to meet with a common aim: the solution of the mystery of the Holy Shroud.

Editorial (contd)

There is a remarkable spirit of friendship, indeed of love, which radiates between Shroud people whether they be scientist, scholar or layman and this is perhaps in no small part due to the influence of the very cloth itself. Shroud literature abounds in personal testimony of non-believers coming to believe; of believers coming to more fervent belief.

And so as the prospect of 1985 looms I am personally grateful that my book SHROUD GUIDE has met with worldwide approval and this has inspired me to press on with my next major book on the Shroud now in preparation. I hope, too, to continue with SHROUD NEWS what I hope is a reasonable balance of current news; of publication of important contributions to the discussion; of simple chat. The format and intention of SHROUD NEWS does not really limit one to any specific criteria of excellence (such as the academic and scholarly superiority of SHROUD SPECTRUM or SINDON) or, for that matter, accuracy. That the subscription list has increased very significantly during 1984 is a great encouragement and can only help to make the result better.

I thank all SHROUD NEWS readers for their support whether they be in Australia or overseas and I wish each one of you a very happy Christmastide and the prospect of a joyful and useful New Year.

REX MORGAN

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SHROUD SPECTRUM

The latest edition of SHROUD SPECTRUM INTERNATIONAL contains three valuable articles. Of great significance is Part I of a series of three to appear by Don Luigi Fossati, a Shroud researcher of many years standing. This series of papers deals with known copies of the Shroud and in this first article a detailed description of 26 copies which bear a date provide a valuable reference tool. Even more helpful is that 14 of them are illus-rated in full and another two pages show 15 faces of the man of the Shroud from various copies.

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SHROUD NEWS INDEX

In response to a number of requests we are pleased to say that a cumulative Index of SHROUD NEWS content will be sent free with the next issue of SN early in 1985.

FOLDMARKS ON THE SHROUD - A REMARKABLE PIECE OF NEW RESEARCH

Dr JOHN JACKSON, already acknowledged throughout the world as one of the foremost Shroud researchers is, perhaps, best known to the public for his original discovery, with Eric Jumper, of the unique three-dimensional characteristics of the image on the Holy Shroud. He has also spearheaded, as is known to Shroud students everywhere, most of the scientific research and discussion symposia in recent years and was scientific leader of the 1978 Shroud of Turin Research Project (STURP) investigation which took place at Turin, Italy. He has since written or co-authored many papers in scientific journals on various aspects of the work done on the Shroud.

It comes as a matter of considerable interest and importance to read his latest paper entitled **FOLDMARKS AS A HISTORICAL RECORD OF THE SHROUD OF TURIN** published in Dorothy Crispino's superb **SHROUD SPECTRUM INTERNATIONAL** number 11, June 1984.

In this paper Jackson raises the question whether an examination of the foldmarks present on various parts of the Shroud can be considered with a view to deducing anything of its history and in particular whether any of the foldmarks pre-date the 1532 fire at Chambery thus giving credence to Ian Wilson's well-known theory that the Mandylion and the Shroud were one and the same with the Mandylion being the Shroud displayed, folded into eights, showing only the face area of the frontal image. We know that if this were so the continuous existence of the Shroud of Turin could then be traced to well before the Middle Ages. Whilst, as Jackson points out, not every historian agrees with Wilson, many do not discount the possibility and many of us who have read a lot of the research in other areas see more and more evidence for the continued existence of the Shroud well back into the first millennium with the consequent inference that Wilson is, in all probability, quite right.

As is his way, Jackson leaves no stone unturned in his exposition to assure himself and his readers that his research is based on the most meticulous scientific method.

He begins the paper by giving a full and interesting description of the characteristics of foldmarks in cloth generally and their generation and survivability. In great detail he explains what

Foldmarks on the Shroud (contd)

actually happens when a piece of cloth is folded:

"It is well known that if a fiber, such as cellulose, is subjected to a tension force for a period of time, the fiber will elongate by a phenomenon known as 'creep'. If this tension load is sufficiently small and applied for a short enough time, the fiber will relax back to essentially its initial length. If, however, the load is applied for a sufficiently long time, the fiber will relax back to a significantly longer length than before the tension force was applied. The reason for this phenomenon is the direct consequence of cellulose, the fiber-forming substance of flax (of which the Shroud is made), consisting of long repetitive molecular chains held together by molecular side bonds. As the fiber chains are stressed, the chains are straightened and the side molecular bonds between the chains are deformed, broken and restored into new configurations. Since this process takes place via laws of chemical kinetics, the fiber elongates over a period of time at a rate dependent upon temperature and moisture content (these factors tend to disrupt the restraining side bonds). When tension is removed from the fiber, the residual unbroken bonds pull the chains back towards their initial lengths rupturing some of the newly formed bonds. The final length of the chain depends upon how many and how stable are the newly formed bonds in relation to the residual, unbroken bonds. In general, this final length is longer than the initial one and permanent because a new molecular order has been created due to the long duration stressing of the fiber chains."



Dr JOHN JACKSON with
author REX MORGAN in
California

Foldmarks on the Shroud (contd)

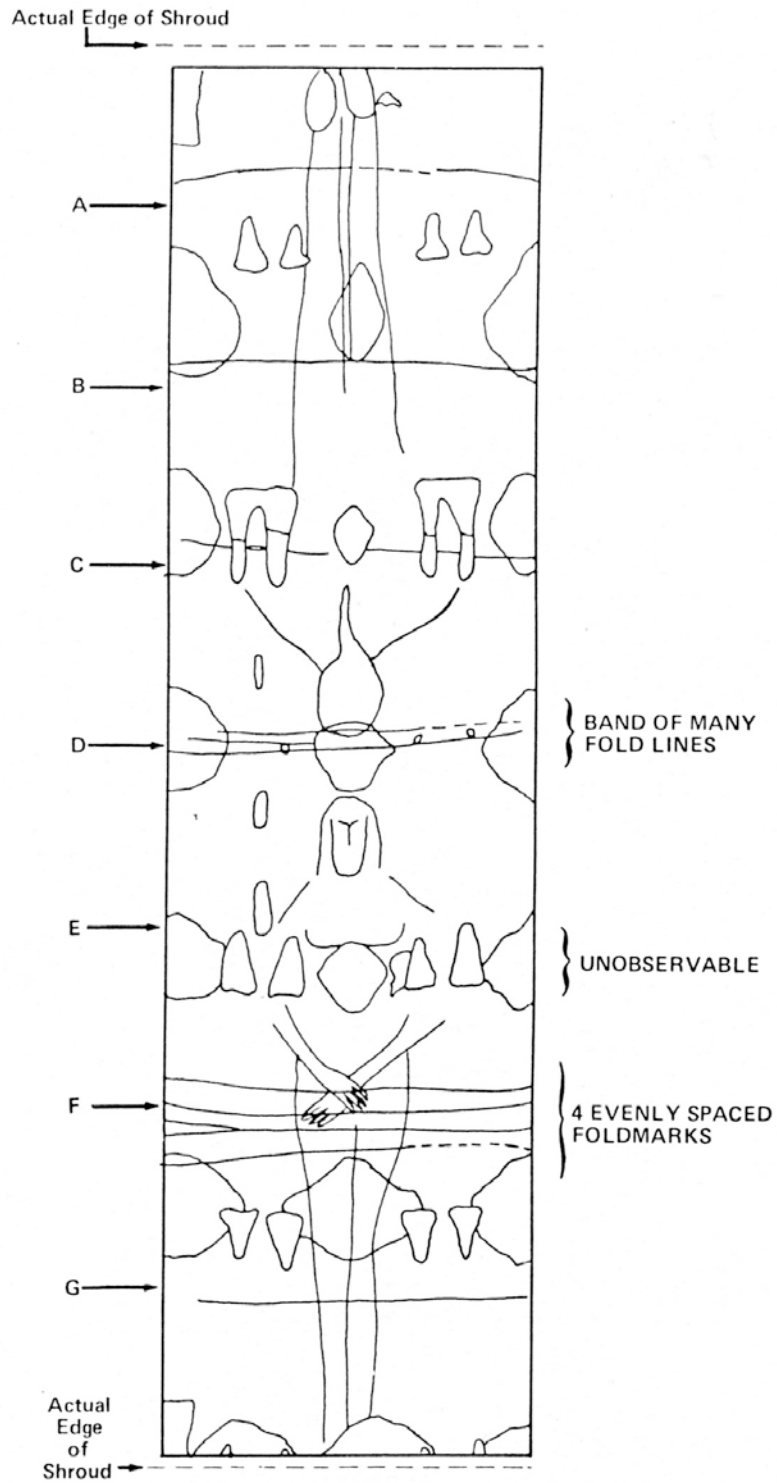


Fig. 1: Expected Mandylion foldmark locations (arrows) with corresponding foldmarks sketched from photographic data

Foldmarks on the Shroud (contd)

Jackson then explains how these phenomena apply to a cloth such as the Shroud in order to cause permanent foldmarks over certain periods of time and reports on a series of experiments with a cloth containing foldmarks of known duration. Since direct experimentation on the actual foldmarks of the Shroud is impossible until it is next available for direct examination Jackson set up studies with the existing photographs of the cloth taken at various times and particularly in 1978.

Through the study of raking light photographs taken in 1978 and comparisons with the earliest photographs of Pia (1898) Jackson determined that most of the foldmarks which would be expected if the cloth had been folded into eights at an early date are, in fact, extant on the cloth today. He takes care to point out that the likelihood of foldmarks being created by the storage of the cloth in recent centuries is out of the question since the cloth has been rolled in its casket since 1694 and, indeed, for part of the time since the 1532 fire. He also describes experiments which show that rolling the cloth does not form foldmarks consistent with any on the Shroud.

By examining the characteristics of the foldmarks under the patches where the cloth was burnt through by means of reflected light and raking light photographic evidence available he shows that some of the foldmarks pre-date the 1532 fire and that the patches themselves do not contain foldmarks consistent with the pre-1532 folds in the cloth. These conclusions are further confirmed by an analysis of X-ray photos of the cloth taken in 1978.

In the conclusions to his paper Jackson adopts his typically cautious approach making no claim to have proved anything and suggesting that direct examination of the cloth must be effected to support his preliminary work through photographic evidence. As he puts it:

"No claim is made of having demonstrated Mandylion fold lines on the Shroud, only that certain features exist on the Shroud which, within the limited data available, seem consistent and perhaps suggestive of such an investigation." He then goes on to outline a full protocol of suggested further tests which should be carried out when next the Shroud becomes available.

Because I am not a scientist and am not bound by Jackson's necessity to remain, for the purposes of his paper, totally objective, I am perfectly happy to accept, on the evidence he so thoroughly presents,

Foldmarks on the Shroud (contd)

that he is dead right and that the foldmarks in the cloth clearly pre-date the 1532 fire and that they have been there long enough to show that the cloth was folded as Wilson has suggested. Jackson is content to allow his experiments and deductions to stand by themselves without mention of the further corroborative evidence of the foldmarks appearing in early paintings of the Shroud image, for example.

When I confront Jackson's impeccable (and modest) approach, which ought to be a lesson to all scientists putting forward their theories, and is in contrast to some who do, I am forced to ask myself, as have so many over the years, why does scientific proof need to be so tentatively approached? I for one, am inclined to accept Jackson's new theory as almost indisputable (like his earlier theories), not from blind faith, but because he has shown it to be so. When the layman looks at something it often takes the scientist to point out what then seems obvious. Equally often millions of people have seen the Shroud or pictures of it and they are able to say, without any scientific argument at all, since it is obvious and almost instinctive, "This is the face of Christ".

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SOME BOOKS AND PAPERS YET TO BE REVIEWED

MEACHAM, WILLIAM: The Authentication of the Shroud of Turin: An Issue in Archaeological Epistemology

ZUGIBE, FREDERICK: Death by Crucifixion

JUMPER, JACKSON et al: A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin

WILD, ROBERT: Shroud of Turin: Probably the Work of a 14th Century Artist or Forger

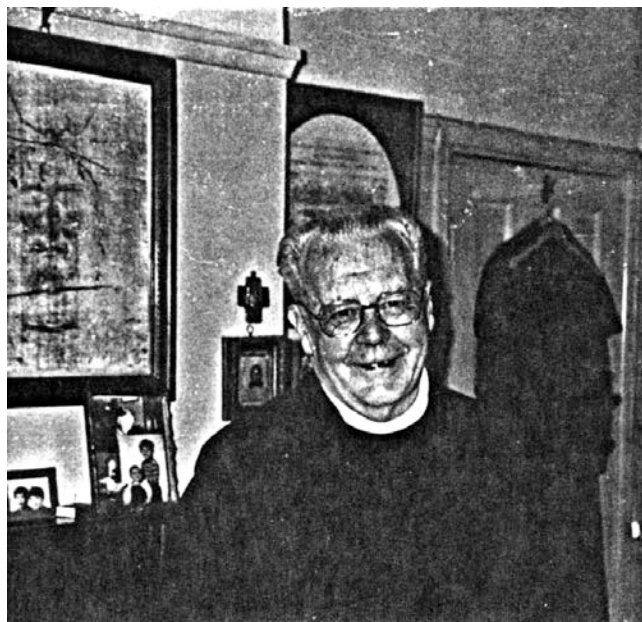
SMITH, DONALD F: The Letter

CARTER, GILES F: Formation of the Image on the Shroud of Turin by X-Rays

ZUGIBE, FREDERICK: The Cross and the Shroud

HELLER, JOHN: Report on the Shroud of Turin

FOLEY, CHARLES: The Holy Shroud, Mirror of Christ



CARBON¹⁴ DATING AND THE HOLY SHROUD

By CHARLES FOLEY

(Revd Charles Foley of Devon, England has made many contributions to the literature and discussion of the Shroud.

He has attended many conferences, written many articles and in 1978 published a book: THE HOLY SHROUD, MIRROR OF CHRIST. Shroud News printed his THE HEART OF THE PROBLEM OF THE HOLY SHROUD in issue number 19. The photograph of Father Foley, taken in

1984, belies his years (he is over 80). This article about some aspects of carbon dating was also published in SHROUD SPECTRUM No 1 early in 1982.

The Turin authorities (scientists of European reputation) refused to accept this experimental method of dating in 1978. Now four years later science itself has refused the results of the Libby test, and for the sake of clarity it can be said that up to 1981, not a single laboratory existed which could carbon date the Holy Shroud with accuracy.

To substantiate those statements:- Natural carbon is the result of interaction of cosmic ray neutrons with nitrogen atoms in the upper atmosphere. Small amounts of carbon 14 are produced which rapidly oxidise and disperse into the atmosphere. Plants take up the carbon dioxide in photosynthesis, together with a very minute quantity of radioactive carbon 14 and as this passes up the food chain, all living organisms take it in. With death the carbon begins to decay: the longer the organism is dead, the less carbon remains. Measure the amount of carbon using the known rate at which the isotope decays and you have the age of the specimen.

That is the theory. The facts are different. A carbon atom is about 20 millionths of an attogram (2×10^{-23} g), moreover its concentration

Carbon 14 Dating and the Holy Shroud (contd)

is very low (only one atom of carbon 14 for every million million of carbon 12 in living tissue). Secondly the decay rate of carbon 14 is a low energy process difficult to detect or monitor with accuracy. Then also the further difficulties of 'calibrations' to offset the natural fluctuations of carbon 14 production in the atmosphere, the half-life 'best figure' etc. Even the scale of the calibrations (by checking the tree rings of ancient trees) differs slightly, depending on the sample wood.

More formidable unreliability rises from the fact that the Sun does not radiate energy as uniformly as once was thought. On the contrary, solar flares display the explosive force and release of high energy radiation and particles. Sun-spots show the same variability in waxing and waning in eight and fifteen random cycles of years. Dr Maunder of the Royal Greenwich Observatory has drawn attention to the almost total absence of sunspots from 1645 - 1715 and the consequent violent see-sawing of carbon 14 production in the atmosphere. Further investigations have proved that there have been at least five long term periods, each of the order of 100 - 200 years with similar characteristics. In 1976 Dr Eddy of the American Atmospheric Research Centre pinpointed twelve major variations in sunspot activity in the past 5,000 years including a sunspot MAXIMUM period which began at about the time of Our Lord's birth. It is now known that the solar magnetic fields, which cause the fluctuations, reverse their polarity from cycle to cycle, each cycle being remarkably irregular. To that we must also add that our earth's magnetic field from time to time goes into complete reverse, at one time attracting and at another repelling the incoming particles. For these and a number of other reasons not all scientists by any means trust the results claimed for the carbon 14 test.

Not only is the Sun not the immutable time clock it was thought to be, not only is production of carbon 14 so variable, BUT it is inherent in the nature of radioactivity that its decay is of a random nature! Nor do the difficulties stop there, for individual counters have differing ranges in counting and dating; traces of radioactivity in the surroundings and materials (e.g. the 4-foot concrete shield for the cyclotron) all affect the results. The Berkeley Laboratory (foremost in the field of carbon 14 experiments) refused to date a 13th century fabric since once a cyclotron has been used for its dedicated purpose of atomic experiment, the chamber can never thereafter be free of atomic detritus, and false results must follow.

Carbon 14 Dating and the Holy Shroud (contd)

Then too the linen of the Holy Shroud will have accumulated during the long centuries, and the many public expositions, accumulated layers of carbon 14. The level of atmospheric carbon is nowadays 37% above the natural, and in 1963 it was above 93% above normal in the northern atmosphere!

These are some of the reasons why one should not consider the carbon 14 analysis to be sensitive enough (only one in every ten-thousand atoms of carbon input are recorded) or accurate enough for the task of dating the linen. Yet in that same year of 1978 two important decisions were made publicly at the International Congress.

1. The seventeen threads, and the two pieces of linen, which were removed from the linen of the Shroud for scientific examination in 1973, were not replaced in the main altar safe which is a sealed container with the Holy Shroud inside, only to be opened on extraordinary occasions. These were kept in the custody of the Chapel guardian until either the carbon dating process can be improved, or some other and more scientifically certain precise method has been discovered. These pieces can then be used for such experimental purposes. Obviously the process of removing more threads and pieces will not find favour with the owners of the Shroud.

2. Certain conditions were laid down for any future dating experiments. Two laboratories are to be involved, each using identical equipment. Each would be given three sample threads, which are equal in length and weight with a number to identify them. The key would be known to one person only, in Turin, until the test was over and the results made public. The threads would be from an ancient and date known linen; the second from a modern fabric; the third from the Holy Shroud. It remains to be seen when science will take up the challenge.

One of the fundamental problems in the established techniques of the carbon dating of the last twenty years or so, lies in the measurement over the period of weeks and months of the number of carbon 14 decay-events in the sample being dated. This means that only those atoms which fortuitously decay during the period of time are counted, but the bulk of the carbon 14 present in the sample remains uncounted. To overcome this it has been established, in theory, that it is possible to use a particle accelerator to measure by mass spectrometry the proportion of carbon 14 atoms present in an UNCONTAMINATED

Carbon 14 Dating and the Holy Shroud (contd)

sample without waiting for the decay to declare itself. In September 1979 the British Science Research Council made a grant of 425,000 to construct at Oxford, a dedicated isotope beam facility under the aegis of Dr E. Hall. In Arizona and for the geoscience laboratory, a similar accelerator is being prepared and it should also start up in a short time.

It remains to be seen whether the problems which are inherent in the whole theory can be overcome, and the many difficulties outlined above can be surmounted.

CHARLES FOLEY

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This fascinating portrait has been received from the Centro Mexicano de Sindonologia. It is a free interpretation based on the Shroud image made from metal and silk threads on a velvet background by a hospital patient.

LETTER TO THE EDITOR From PAUL SMITH, BLACKBURN, Victoria

In MEDICINE, MIRACLES AND THE SHROUD (SN March 1984) you referred to the question of the stigmata and the position of the wounds as seen on the Shroud. Fr McEvoy, OP, in his book THE DEATH IMAGE OF CHRIST devotes chapter XXII to the question of the stigmata.

Fr McEvoy points out that there are some three hundred holy persons and saints who have, in ecstasy, become subject to stigmatisation. He further notes. "The spiritual significance of stigmata does not at all require exactitude in correspondence with the Sacred Wounds. What is essential in stigmata is suffering with Christ in pity, in expiation." He points out the variety of shapes and sizes in the scars. Many have a wound on the right side of the body while in others it appears on the left side.

Fr McEvoy concludes his chapter with these words: "The stigmata of the past are not, therefore, in conflict with the evidence of the Shroud and the findings of modern science which confirm its testimony. The Shroud is a historical record, the stigmata a private experience in prayer. And, as new scientific and photographic data in connection with the crucifixion receive recognition in pious literature, future stigmatists may be expected to evince a more exact approximation to the wounds as they appear on the Holy Shroud."

It might be noted that Fr McEvoy wrote these words in the early 1940s when Fr Herbert Thurston's influence, through his entry in the Catholic Encyclopaedia, had a stifling effect on the discussion of the historical and scientific evidence in favour of the Shroud appearing in the English-speaking part of the world. This was despite the fact that after much difficulty Dr Beecher in 1928 published his reply to the Rev Herbert Thurston, SJ.

Another booklet, THE HOLY SHROUD AND FOUR VISIONS by Rev Patrick O'Connell and Rev Charles Carty provides some information and seems to be the source of Dr Vaughan Davis's claims. It is published by Tan Books and Publishers, PO Box 424, Rockford, Illinois 61105. It is sub-titled, "The Holy Shroud and New Evidence Compared with the Visions of St Bridget of Sweden, Maria D'Agreda, Catherine Emmerick, and Teresa Neumann." It also says on the title page: "A Reply to the Parisian Surgeon Pierre Barbet, MD, Author of A DOCTOR AT CALVARY." Amongst other things it tells us that it:

Letter to the Editor (contd)

- describes the two images on the Holy Shroud - one positive and one negative
- shows how they were formed

and the latter claim (not substantiated in the text) is more than the scientists can make.

Having read the booklet and despite the fact that Dr Davis is a medical practitioner, I find Dr Pierre Barbet's evidence (especially his radiographs of a nailed hand) the more compelling evidence.

The book also says, "The stigmatists may have mental aberrations regarding the real stigmatization of Jesus and their wounds may have only a mystical value for themselves". Teresa Neumann said to one of her friends: "Do not think that Our Saviour was nailed in the hands, where I have my stigmata. These marks have only a mystical meaning. Jesus must have been fixed more firmly on the Cross." The evaluation of the Blessed Virgin St Bridget of Sweden (Bk 1 Ch. 10) says: "My Son's hands were pierced at the spot where the bone was most solid."

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THE MYSTICS AND THE SHROUD

SHROUD NEWS has received other comments about the correlation or otherwise about various reported visions and the Shroud evidence. It is clear that such reports do not form part of the dogma of the Catholic Church and that amongst the adherents of that Church there are widely diverse opinions. It is nevertheless an interesting part of the whole subject of the Shroud.

We have a substantial paper on this aspect by Frank C. Tribbe author of PORTRAIT OF JESUS? (reviewed in SN 25) which we hope to bring to readers in due course.

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THE BRITISH SOCIETY FOR THE TURIN SHROUD's October newsletter outlines two important lectures in England. On 26th October 1984 Manchester textile specialist John Tyrer and artist Ross Spencer' discussed the STURP X-radiographs taken in 1978 and on 7th December Dr Robert Bruce-Chwatt will lecture on JUDICIAL CRUCIFIXION - A CONSIDERATION OF SOME OF THE ANATOMICAL AND PHYSIOLOGICAL ASPECTS.

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 for a small circle of interested people in Australia. He didn't think it would 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 world-wide through Rex Morgan's extensive personal connections with what has recently been called the "Shroud Crowd".

Rex Morgan is a frequent overseas traveller and has the opportunity to keep well abreast of latest developments in Shroud matters. He was present at the preview of the Shroud itself in August 1978 in Turin 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 SHROUD GUIDE (December 1983) and is writing another major book on the subject.

Our list of subscribers continues to increase. We request a subscription rate in Australia of \$4 for four issues. Shroud News comes out approximately 6 times a year. Overseas postage is by negotiation according to country.

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

LECTURES

Rex Morgan is happy to lecture (free of charge) to any group interested in the Holy Shroud. Contact SYDNEY (02) 981 4633

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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