

A NEWSLETTER ABOUT RESEARCH ON THE HOLY SHROUD OF TURIN
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edited by REX MORGAN, Author of several books on the Shroud
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THE OFFICIAL LOGO ADOPTED FOR THE 1998 EXPOSITION OF
THE HOLY SHROUD IN TURIN
The design was approved on the day Rex Morgan was in Turin in May 1996

EDITORIAL

It is remarkable how much material continues to flood onto my *Shroud News* desk at a time when some would still pretend that there is no interest in the Shroud and others pretend that the C14 announcements of October 1988 put the Shroud out of contention for ever. As I predicted at the time we have now entered a period of intense speculation and renewed research as fresh evidence to suggest that the C14 tests were neither accurate nor conducted in a manner to avoid controversy becomes available from highly respected sources. As we move towards the next exhibition of the Shroud itself (in April 1998) we also have a spate of ideas about image formation: some plausible, some ridiculous but all interesting. I report briefly in this issue on a recent step in my own Catacomb research which will be more fully reported in my paper in New York at the end of August. There, at the magnificent Mount Alphonsus headquarters of the Redemptorist Order, a special Shroud Symposium will take place. Speakers who appear to be confirmed with their topics announced include Alan Adler, Robert Bucklin, Alan Whanger, Barbara Sullivan, Isabel Piczek, Dan Scavone, Dorothy Crispino, Kevin Moran, Joe Marino, Richard Orareo and Father Adam Otterbein who will be accorded a special tribute as he retires from Presidency of the Holy Shroud Guild after 60 years in the priesthood. He hands over to Fr Fred Brinkmann who has been seen by many of us as the natural successor to Father Adam.

More and more good material is now being published in many languages in many countries and this will doubtless reach a crescendo by 1998 especially when the current generation of media writers jumps on the bandwagon as they surely will.

On account of the enormous amount of important material I feel should be getting to my readers this year we are probably going to produce an extra issue of *SN* in September this year which will not prevent the usual October and December numbers. The only disadvantage (to your editor) is that number 100 will then be timed for February 1997. For what will surely be a milestone issue this is not a long lead-time. As happened for the 50th issue I shall hope for special contributions from Shroud writers and it may be that general readers will wish to contribute some comment for the publication.

REX MORGAN

THE EARLIEST PORTRAIT OF CHRIST

by **Rex Morgan**

As long ago as 1985 my book *The Holy Shroud and the Earliest Paintings of Christ* was published. This dealt with my research into the work of a little known Victorian English painter, Thomas Heaphy, who had spent time in the Roman catacombs when they were being re-opened and explored by a number of archaeologists and art historians in the mid-nineteenth century. Heaphy's consuming interest was the received likeness of Christ which occurs again and again throughout the entire 2,000 year history of Christianity. He found a number of paintings of Christ in the catacombs and copied them with the aid of candlelight and a good deal of perseverance in extremely difficult conditions. His work was later published in the form of etchings taken from his original paintings and at the turn of the century other researchers expanded the theories Heaphy had put forward concerning the great antiquity of some of the paintings he had found.

After his death a folio of Heaphy's original paintings was deposited in the British Museum Library (now the British Library) where they lay scarcely touched for more than a century. A few researchers during that time had sighted them, one or two of whom had published commentaries based on Heaphy's work. I came across them through a series of coincidences and became convinced that Heaphy had discovered and copied probably the earliest portrait of Christ ever painted and that it dated to the mid first century.

My 1985 book and subsequent papers on the subject were regarded with hilarity, scorn and derision by several of our contemporary experts on art history. They stated that no painting in the Roman catacombs dates earlier than about the end of the third century and one went as far as to proclaim more than once that Heaphy was a fraud and that I had been fooled by his fraudulence. A chamber has been named the Orpheus Cubiculum on account of a painting of Orpheus which faces the observer as one enters the room. Indeed, this early painting of Christ on the ceiling of the Orpheus cubiculum in the secret depths of the Catacomb of Domitilla, well away from public access, was claimed to be a figment of Heaphy's imagination. This portrait shows a bearded, long haired Christ very similar to the image of the man on the Shroud and totally unlike all the early portraits of Christ for the first three centuries which depict him as a beardless Roman youth or in artistic inventions as the Good Shepherd.

I have proposed the theory that if the portrait is very early then its remarkable similarity to that on the Shroud suggests that we have two likenesses of the same man: that in the catacomb probably painted by someone who had seen Christ in person or at the very least had from memory

THE EARLIEST PORTRAIT OF CHRIST (cont'd)

dictated and directed the painter who executed the work. It was not until after I had published much of this that I came into contact with Sylvia Bogdanescu of London who had, quite independently of me, not only researched the work of Thomas Heaphy but had, in 1979, visited the Orpheus Cubiculum and had discovered and photographed the painting reported by Heaphy more than a hundred years before.

Subsequently I took an expedition into the catacombs with Vatican permission in 1993 and took more photographs substantiating the work of Bogdanescu and giving the lie forever to fraudulence on Heaphy's part. This amazing portrait is still there, although somewhat damaged, and yet has never been published photographically in any known reference work including those which describe and illustrate the Cubiculum of Orpheus other than in Sylvia Bogdanescu's manuscript book and my paper given in Rome in 1993 about our joint research. My group currently cannot offer a cogent reason for this absence (or suppression) of publication unless it is that the authorities themselves realise that this may well be the earliest portrait of Christ and was executed in the first century by someone who had seen Christ and is therefore one of the most important artefacts in Christendom. One obviously does not want thousands of pilgrims tramping through the already severely damaged, deteriorating and dangerous catacombs to a "shrine" in the inner depths of those remarkable tunnels.

It was an interesting coincidence that, three years after the Rome Symposium conducted by the French Shroud group CIELT, the proceedings of that congress were published. Indeed on the very day I was leaving Australia for London to discuss with Sylvia Bogdanescu our proposed May 1996 catacombs expedition I received a copy of the book containing the Rome papers including my *New Evidence for the Earliest Portrait of Christ*. Despite the omission of the bibliography, many typographical errors (not in the original text supplied to the editors) and despite one of my three coloured plates being inverted, the French editor has kindly seen fit in his French language summary to describe the work as "revealing sensational evidence which not only establishes certain catacomb paintings as First Century but that at least one has been influenced by the image on the Shroud (sic) and has probably been painted from direct observation of the man or instruction from an observer." The book is a magnificently produced 428 pages including many coloured plates on quality art paper. Now that the world can read the theories of Bogdanescu and Morgan we await the further comments and reactions of the experts.

THE EARLIEST PORTRAIT OF CHRIST (cont'd)

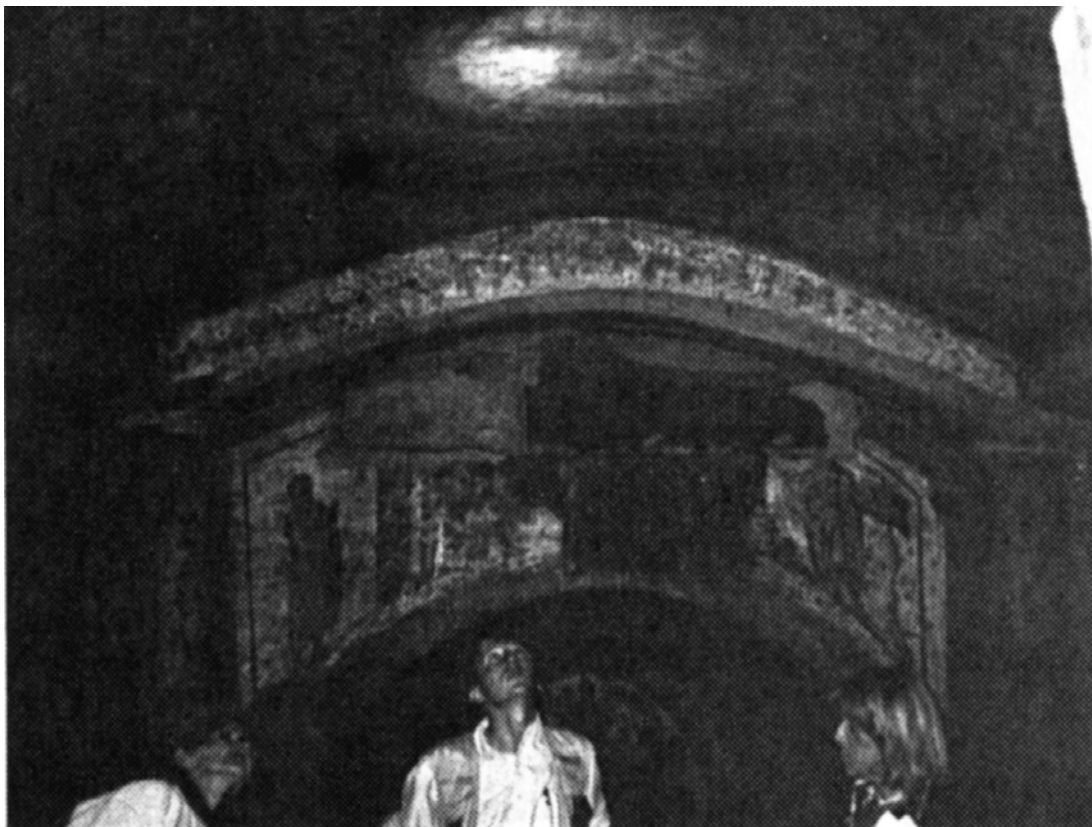
In the meantime I led a further expedition in May 1996 into the Orpheus Cubiculum, again with gracious official permission. We have studied and assessed much of the work of Bogdanescu which provides an enormous amount of circumstantial historical evidence for the age of the tomb complex. We have found, for example, that all existing maps of that part of the catacombs have been based on inaccurate previous maps with inaccuracies and elisions perpetuated. Bogdanescu's return to original sources has shown without doubt that the assumptions on which many of the dating premisses have been based were quite inaccurate. In fact there was almost certainly an earlier entrance to the cubiculum complex, later abandoned and lost, which seems to place it in the middle of the First Century and has no relevance to the entrances or routes used today to access the cubiculum and its immediate environs. Further evidence for this comes from art expert Isabel Piczek who was a valuable team member in May 1996 and we await her further deliberations based on the extensive observations she made of pigments, colours and technique when we were in Orpheus this year. She has already concluded that the work in that cubiculum is probably first century.

In the course of this year's observations when our team descended, armed with the most modern and non-harmful equipment, Christopher Morgan made the fullest series of serious photographs ever taken of the portrait and nearby paintings and environmental features including the use of infrared techniques. I made photographic and other observations in many of the nearby tunnels which C. Morgan has discovered converge at a now buried point where the original entrance probably existed and which has no relevance to the entrances used to gain access today or when the catacombs were rediscovered in the sixteenth and nineteenth centuries after being closed for a millennium.

I should add that our work has already been supported by such well-known researchers as Marinelli, Whanger, Piczek, Scavone, Manton and others. Christopher Morgan's monumental Site Report is almost completed and I am privileged to have been invited to give another paper on the current research at the Shroud Symposium in Esopus, New York in August 1996.

The outcome of all this is expected to be a new book based on the work of Bogdanescu, C. Morgan, R. Morgan and Piczek incorporating the fascinating data we have collected and the theories we have put forward. The conclusion is that we have exonerated the maligned Heaphy; we have discovered probably the earliest portrait of Christ in existence; it probably dates to mid first century; it was probably painted by a contemporary of Christ; it is almost identical to the man portrayed in the Shroud image and this adds to the claims for non fraudulence of the Shroud of Turin.

THE EARLIEST PORTRAIT OF CHRIST (cont'd)

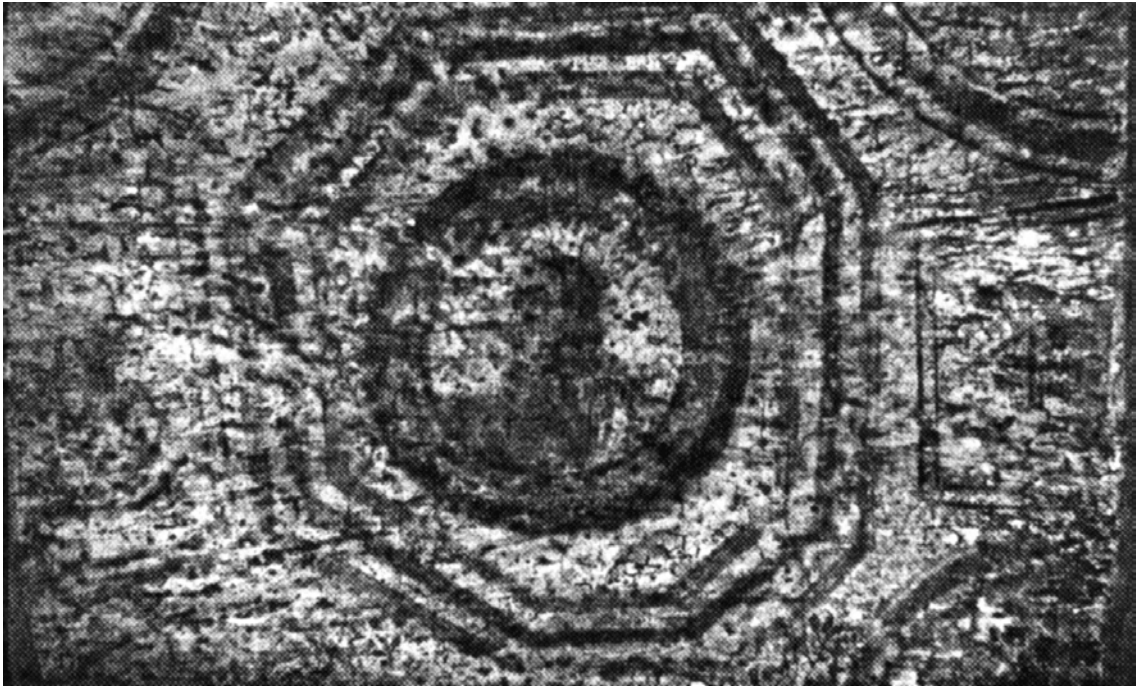


May 1996. For the first time in history the ceiling Portrait in Orpheus Cubiculum is studied briefly under (non harmful) floodlight.
L to r: Isabel Piczek, Christopher Morgan, Laura Ambrosia



The Orpheus Team 1996 dine with two Rome based experts to discuss their findings. L to r: Dr Isabel Piczek; Christopher Morgan; Prof Emanuela Marinelli; Prof Fr Heinrich Pfeiffer; Rex Morgan; Prof Laura Ambrosio

THE EARLIEST PORTRAIT OF CHRIST (cont'd)



Believed to be the earliest portrait of Christ.
Photograph confirming the earlier work of Bogdanescu and R. Morgan



American art expert Isabel Piczek studies paint in the Orpheus cubiculum

DELAGE AND VIGNON IN 1902

Daniel C. Scavone, American Professor of History and linguist, has made a remarkable translation of the *Official Journal of the French Republic*: 30 April 1902 which contains a letter from agnostic Professor Yves Delage concerning the famous paper he gave to the French Academy on 21 April that year

by Daniel C. Scavone

M. Delage gave a paper that departs from the field of studies of the Academy, and he asked indulgence; it concerns the "Shroud of Christ." M. Vignon, preparateur (editor? scholar?) of the Univ. of Paris, has been working to resolve this question: can a body wrapped in a shroud impress, by itself, its image, very fine and very perfect, on the cloth?

The response was positive. In certain conditions a cadaver can, over distance, let off vapors that will darken a cloth treated with a mixture of aromatics.

For this to occur, it suffices that the body be covered by pathological sweat in a cloth coated with oil and aloes. This sweat is rich in urea and carbonate of ammoniac, which emits a brown colorant, the principal color contained in aloes. This browning disappears in some days if the vapors continue to act and it persists if the mixture is, on the other hand, separated from the cadaver in time.

Now, M. Vignon has had in his hands some photos of the Turin shroud made by M. le chevalier Pia at the last ostension of the shroud in 1898. The imprints on the material represent negative of extreme fineness of detail. The positive photo made from the negatives shows two images, back and front, whose details permit one to suppose that the body in the cloth was that of Christ. One sees the traces of the crown of thorns, wounds, nails in the wrists and feet, blood-flows, etc. M. Vignon and M. Colson who collaborated on the photo research hold the view that thus one can authenticate the shroud of Christ now in the Turin cathedral and belonging since the 15th c. to the princes of Savoy.

The conclusions of M. Vignon do not look good. Meanwhile many academicians contest the validity of the reasoning, and the paper of M. Delage has excited not a little academic storm.

M. Delage has asked in closing that a commission be named to examine the work of M. Vignon and to solicit from the king of Italy an authorization to see the shroud close up in the cathedral.

This view has been rejected since these are not subjects for discussion by the Academie of sciences. Only M. Vignon's report of his physico-chemical research may be published.

HENRI DE PARVILLE

DELAGÉ AND VIGNON IN 1902 (cont'd)

Letter of Yves Delage of the Institute to M. Charles Richet 683-7

683 Dear Director,

Since I came to see you in your laboratory several months ago to present to you M. Vignon and the curious documents relative to the shroud of Turin, which we are studying, are you aware of the passionate quarrels that have risen in the press over a question that we have been discussing coolly, as we would discuss any problem of physiology? No, it is not the case. And later, when Vignon, assisted by Colson, found a scientific explanation for the formation of the image on the shroud, do you recall the profound joy that we experienced in finally having the answer to the riddle? Meanwhile, for weeks and months the spirit has remained bothered by this disconcerting contradiction between a material fact and the apparent impossibility of finding a natural explanation, giving joy to those who accept miracles, which my philosophical opinions do not wish at any price. And all of a sudden *voilà* comes a natural explanation, luminous in its simplicity, chasing away the miracle. Naively, we thought that believers, those at least whose religion was too strict to serve the spirit, would have been displeased at us. Besides, it was not our part to draw back. I have no religious faith, but it was not the same for Vignon, who is a believer. And it is to the honor of his character and of his intelligence that he has not retreated any more than I (at finding a natural and not a miraculous solution). And may I add that it is to the honor of my lab that men of the most diverse and opposing opinions have been able to be occupied with a subject that touches their most cherished philosophical opinions, and to discuss it with ardor without altering the cordiality of their relationships; and they have arrived at the same conclusion, which they proclaim because they believe it to be true, without allowing themselves to be influenced by the possible consequences. Yes, it is a spectacle to make one proud, especially when compared to what a certain press has given us, where people who have not given the problem even a dozen hours of reflection, who have little or no understanding of the documents, who show by their objections that they understand nothing of our arguments, shower abuse on our heads.

You may think these injuries leave me perfectly cool; my time is too precious to waste in responding to all that. But there is another category of persons whose opinions mean more to me and who in good faith have been able to believe, so much are the facts disfigured, all or part of which some journals have reported, that by lack of conscience or of scruples, I have betrayed science and lied about my stance as a free thinker. For those I want to re-establish the facts and I ask the hospitality of your journal.

684 I would not need to do it if the Bureau of the Academy had accepted for publication the explanations I provided in presenting the work of Vignon. But my paper was rejected by the secretary in charge that day, and it turns out as I have said, having taken part in a debate on the shroud, without anything written on either side to which I would be able to accept or deny the responsibility. (Toño: He was left totally defenseless by the Academy!!) A beautiful way to confuse matters! Let me thus briefly resume what

DELAGÉ AND VIGNON IN 1902 (cont'd)

I said at the Academy and add a few details about my attitude, in the debate, details that would have been out of place at the Academy meeting.

First a short but necessary historical, artistic, and archaeological introduction to place the topic within the scope of the Academy of sciences, and to set the stage for scientific facts concerning physics, chemistry and physiology; I then will go on to a description of the shroud as it was understood in 1898, and I continue by reproducing the same paper I had intended for the Academy's *Comptes rendus* (Proceedings).

"Up to now it has been a matter of a relic which, from the scientific point of view, has no interest for us. But in 1898, at the centennial exposition of sacred art at Turin, the shroud was photographed, with serious guarantees, and two curious facts arose that posed the scientific problem to be dealt with today:

1. The image is a negative, that is, the parts in relief are inversely concave; 2. The negative of this image, in becoming positive in relation to the object represented, takes on an unexpected distinctness and causes an anatomic perfection and an aesthetic character that nothing heretofore led us to suspect. The body is correct and the head, rather shocking in the actual reproduction of the shroud, after the reversal of light and shadow, becomes superior to the great artistic Christ-faces of the Renaissance, according to authoritative painters. I have brought some representations by which you may judge.

"The question is to know how this image was made. The first idea that comes to mind is that the image is not an imprint that could give only a crude representation of the general form, but that it is a painting made as a pious fraud. But when one examines it with care, he sees that this hypothesis must be resisted for the following reasons.

1. The shroud being authentic since the 14th c, it is necessary, if the shroud was a painting by a faker, that there had existed at that time an artist capable of making a work of the quality of the great masters of the Renaissance and that he was unknown.

"This is already hard to admit for an imprint in positive. It becomes an incredible dream since it is a negative image, since it has no esthetic character in this form but takes its value only when one reverses the light and shade and rigorously respects their planes and values, a thing nearly impossible except by photography, unknown in the 14th c.; the forger painting in negative would have to put his lights and shades in perfect reversal so as to produce a figure that one could consider to be Christ; and that with a perfect precision, for we know how little is needed to modify a beautiful face in making a caricature."

I add here this argument whose importance we can sense if we wish to understand *Why this forger, if he was intent to realize a beauty that could be seen in his work only after reversing it, a thing not possible until now.* He was working for his

DELAGÉ AND VIGNON IN 1902 (cont'd)

contemporaries and not for the 20th c. and the Academy of sciences.

"The idea that the image could have been painted in positive but changed to negative, as occurred in certain paintings on cloth and certain frescoes, is contradicted by the fact that the image is a monochrome and thus could not undergo the twin modifications of light to shade and shade to light.

"2. The image results from a juxtaposition of graded colors, without outline. This process was absolutely alien to artistic conceptions of the 14th c.

"3. The image has an extreme realism, impeccable and without flaw. It only imperfectly agrees with tradition, has no part in schematization or convention, shares nothing with iconographic productions of this epoch."

I recall here to abridge, without confining myself, to reproduce exactly my paper:

a) The small amounts of blood not in the form of drops, flow directly from the wounds, in particular that of the forehead, with a striking realism; those of the forearms separated a bit from the wrist wound.

685 b) The whip marks in dumbbell shape as would be made by a Roman *flagrum* which had heavy and hard objects of the same shape, such as we can see in museums. It will be interesting to know if the people of the 14th c. knew this structure of the *flagrum*. And the convergence of these marks, descending on the back, transversal on the thighs, ascending on the calves, angling towards where the hand of the soldier would be! A forger would not dream of all this.

c) The buttocks, and perhaps the genital region, naked. The bishop who commissioned the shroud to an artist, monk or layman, would not have forgotten to require the *perisoma* around the pelvis; for it is necessary to identify the epoch in which the fraud was done: the shroud intended to warm the zeal of the faithful could not at the same time shock their sensitivities or scandalize them. In fact the loincloth has been added in certain copies of the shroud.

d) The hands are pierced in the carpal and not the metacarpal area, conforming to anatomic necessity but not to tradition.

e) The wound in the left side and not in the right follows the reversal of the image.

f) The character of the gradations is not what an artist would have dreamed, but accords with the image formation I will describe below, etc., etc.

"For all these reasons and other comes the conviction that the image is not a painting made by the hand of a man but obtained by a physical-chemical phenomenon. The scientific question is this: How a cadaver can give to the shroud an image reproducing its shape and visage in such detail?

The idea of an imprint by contact with a body soiled by sweat or blood, or artificially by a coloring substance must be rejected,

DELAGE AND VIGNON IN 1902 (cont'd)

for such a process gives only a crude image without esthetic value and very deformed in consequence of the stretching of the material. ... See the images obtained by Vignon by this process: One sees the effects of the deformation: the visage is enlarged, the eyes are sunk, etc.

"An attentive examination of the image permits us to recognize the law of its formation. See there: the image is an almost orthogonal projection, a little diffused, and the intensity of the color at each point varies inversely with the distance of the point to the corresponding point on the cadaver: the intensity decreases rapidly as the distance increases, and becomes nil at a few centimeters.

"The problem then becomes: What radiations or what substances can emanate from a cadaver, following the conditions of this law? How could the shroud or the substances which might have impregnated it receive and fix the impression?

"Vignon was put on the path to the solution by an experience of Colson communicated to him. A sheet of polished zinc placed in darkness opposite a photographic plate made an impression ... the zinc emits without heat vapors that are fixed on the plate; under the influence of the developer, it is oxidized and frees the hydrogen which reduces the silver. Unpolished zinc lined and fluted gives the image and the flutes. Vignon pushed the experience further and states that a medal powdered with fine filings of zinc gives a negative image having the main characteristics of that of the shroud.

"But on the cadaver there is no zinc; and the shroud is not a photographic plate. What is it that, in the conditions possible with a wrapped body, can take the place of the zinc and the plate?

"Consideration of physiological, chemical, and archaeological information gave birth to the following hypothesis> material impregnated with an emulsion of aloes in olive oil contain a thin bed of aloetine which darkens under the action of alkaline vapors; and these alkaline vapors can derive from the fermentation of abundant urea in carbonate of ammoniac in the febrile sweat emitted by the during torture. The hypothesis has been further corroborated by the following experience: we have covered the hand of a statue with a glove of suede, soaked this glove with a weak solution of carbonate of ammoniac or simply urine, stretched above a linen soaked in an oily emulsion of aloes. Next day there appeared on the linen an image of the hand presenting all the main features of the shroud. Here it is.

"I consider as highly suggestive and as evidence of the scientific character of this research, that the problem of the shroud has led to the discovery of two new processes of image formation, one foreseen, the other entirely unknown up to now.

"Thus the idea of Vignon to which I entirely subscribe, is that the cadaver of a tortured man was placed on the shroud of

DELAGÉ AND VIGNON IN 1902 (cont'd)

which half was upon the body; that this body was covered with a febrile sweat rich in urea; that the urea fermented in carbonate of ammoniac, which emitted, in a calm atmosphere, vapors more and more diffused with the distance from the emitting surface; that the shroud was impacted by an emulsion of aloes that darkened under the influence of alkaline vapors, and given a color more intense the nearer the surface was to the body; thus the negative image.

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"Must I speak of the personage who gave his image to the shroud?"

I recognize that I am delving outside the mission of the Academy. The only justification is the interest it seems to have taken in my paper evidenced by the fact that the secretary was still taking notes at the end of the session.

"On the one hand we have the shroud, probably impregnated with aloes, which places us in the orient, but not Egypt, and a crucified who was whipped, pierced in the right side and crowned with thorns; on the other hand we have a narrative of history, of legend, and of tradition, which shows us Christ having undergone in Judaea the different treatments that we read on the shroud's image.

"Is it not natural to compare the two series as reports of the same object? We add that for the image to be produced and not later destroyed, it is necessary that the cadaver remain in the presence of the linen at least 24 hours, time required for formation of the image, and at most some days, after which putrefaction supervenes which destroys the image and finally the shroud. Now it is precisely this that the tradition (more or less apocryphal, I very much wish) says happened to Christ, dead on Friday and disappeared on Sunday.

"If it is not Christ, then it is a common criminal. But how to reconcile the noble face here with that of a criminal?"

I add that we have coincidence of five circumstances (orient outside Egypt, wound in right side, crown of thorns, duration of contact with cloth, and the physiognomy, to cite only the main points, that are quite exceptional. Suppose that for each there is one chance in 100 that it had happened to another person: the chance would be 1 in 10,000,000,000 (milliards) that all the elements happened to another person. I do not at all suggest that these numbers have any precision, but as a figure intended to show the unlikelihood of a concurrence of all the conditions in another personage.

In all, those who attribute the shroud to another person are in the same conditions as we with regard to other difficulties, with one difference: their personage is a pure invention, having no reference in history, tradition, or in legend. Their hypothesis is gratuitous. ...

I recognize willingly that none' of the arguments given,

DELAGÉ AND VIGNON IN 1902 (cont'd)

whether to prove the image is not a painting made by a forger, or to show how it was produced, or above all to identify the personage, produces an irrefutable demonstration; but one must recognize that in the ensemble there is a high level of probability bordering on proof. ... It is for the adversaries to refute. It is they who impose upon a question purely scientific a religious question. If it was a matter of Sargon, Achilles, or a pharaoh, nobody would be found to oppose it.

In refusing to admit my note in the Proceedings, it has been forgotten that many other hypotheses have been admitted with more fragile arguments than we have given. The difference is that here it touches religion.

We are reproached for not having seen the shroud, but only photos, made in conditions that make loyalty very probable. But we have never hidden this and have made every effort to examine the shroud itself. In concluding my paper before the Academy I proudly declared that, much needed to be done and conclusions were tentative. I asked the Academy to name a committee that would seek authorization to examine the shroud. It is not my fault that the request was refused--but not by the Academy, which was never consulted, and which might have decided otherwise.

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Do I hear from somebody that I should abstain from all research from photos alone? How much work has been done from reproductions of documents? What's wrong with that, when the original document cannot be viewed, and when one honestly says so? Or the case of a fossil kept by the emperor of China, available only in pictures?

I did not intend here to go into every detail of the shroud. I know the objections that have been raised: the admission of the artist, photography by transparency, the 39 shrouds found around the world, the facsimile of the Bibliothèque nationale, the positives giving direct negatives because they were drawn in red (!!); The space of two centimeters between the two images and the necessity of a space of a meter, etc., etc.; I knew most of these before reading my paper at the Academy, and I know what they are worth. It is to Vignon that goes the right and the pleasure of overturning that frail scaffolding.

I wanted only to establish on a piece signed by me the parts I wish to be responsible for, and not be judged on the banter in which one confuses the persons and facts.

Nothing in the matter of the shroud provides anything like a mathematical demonstration. But there is a collection of considerations for and against which one has the right to weigh. I rest here, convinced that the shroud's image is not a painting by a forger, that it is not an imprint, that it is a natural reproduction of the cadaver wrapped in it, by a physico-chemical phenomenon similar on general lines, if not identical in all points to that invoked by Vignon. Was there an intervention of an artist,

DELAGÉ AND VIGNON IN 1902 (cont'd)

not to paint the image, but merely to retouch the image, at a time more or less recent--either the shroud or the photos? The man in me says no, but the scholar who must distance considerations of the moral order, says he must wait until he can examine the shroud itself. As for identifying the man as Christ, I believe that the reasons for admitting it are stronger than those for refusing it, and until proof to the contrary, I will accept it as established ... I believe that others can judge otherwise. Unfortunately, I do not see definite proof coming one way or the other.

In any case, I feel my work has been truly scientific and in no way--clerical. I beg pardon for this word, but cannot think of a synonym short and convenient, for persons whose convictions I respect if I do not share. Clericalism or anticlericalism have no part in this affair as far as I am concerned. For me Christ is a historical personage and I do not see why one is scandalized that there may exist a material trace of his existence.

As far as knowing if he was God and son of God, if he resurrected on Easter to rise to heaven, etc., I have nothing to say. Those who wish to know my feelings on the matter can see my work on Heredity....



Dr Daniel C .Scavone,
Professor of History
University of Southern Indiana

THE VINLAND MAP

This article "Voyage of the Vikings" by Simon Jenkins appeared in *The Times* of 2 March 1996. It shows that the Vinland Map claimed by Walter McCrone to be a fake has now been shown to be genuine. Can the conclusion, "the new evidence unequivocally validates the map" be applied to the Shroud, also claimed by Walter McCrone to be a medieval painting?

Voyage of the Vikings

Authentication of the Vinland map vindicates Leif Ericsson

by Simon Jenkins

Who really discovered America? We need to know because money is involved. Under American law, anybody who can prove he or she is one-sixteenth descended from the Eskimos who trekked through the Edmonton gap ten millennia before Christ can build a tax-free casino in Connecticut and become a millionaire. Political correctness declares this compensation for the fact that anyone with title to property in Manhattan once seized by 16th-century Dutch settlers can become Donald Trump. Who says history is bunk?

For many years this has left Leif Ericsson out in the cold. Son of Eric the Red, a Viking fugitive from Icelandic justice, Leif has reasonable claim to have beaten Columbus to be Europe's first "discoverer" of America. His excavated settlement of AD 1001 at L'Anse aux Meadows in Newfoundland will in five years have Norwegian nationalists celebrating in style. (The claim of Leif's precursor, Bjarni Herjolfsson, is moot: the saga of his earlier sighting of Canada makes no mention of a landing, although he told Leif of his discovery and sold him his longboat.) Leif's Vinland colony survived for two decades. Eskimo attacks, feuds and the onset of a mini ice-age forced its abandonment.

This has never qualified as "discovery" because no permanent colony was settled. There was no documented map and Viking public relations at the time were deplorable. Although a Bremen monk named Adam mentioned Vinland in a manuscript of 1070, his source was presumably the gossip of sea captains. To the American historian of exploration, Daniel Boorstin, Leif's colonists showed "physical but not spiritual courage. What they did in America did not change their own or anybody else's view of the world". Their astonishing voyages made no difference. To Boorstin, as to Renaissance Europe, it was Columbus not Ericsson who lit a candle over the Americas. Vikings, with their pagan gods and dreadful table manners, did not count.

Yet there was a map, and this month we are told it is authentic. In 1965 a "Vinland Map" arrived on the art market, apparently dated to half a century before Columbus. It showed a large island to the west of Greenland with inlets similar to those of Newfoundland, marked. *Vinlanda Insula*. The map, apparently drawn in Basle in about 1440, was bought and donated to Yale University. Its provenance, said to be a Spanish monastery, was obscure. The American dealer's source died suddenly of a heart attack in 1968 before he could reveal what had been an oath of secrecy as to the previous owner.

THE VINLAND MAP (cont'd)

This was suspicious. Worse was to come. Analysis by Chicago chemists declared the presence of titanium dioxide in the map's ink. This was claimed to indicate 20th-century ink. Though the parchment might be medieval, the map was a fake. The four original experts, two from the British Museum, who had authenticated the map were dumbfounded. The Vinland map seemed the cartographic equivalent of van Meegeren's Vermeer forgeries. Three of the four experts subsequently died. Leif Ericsson returned to the sagas.

Last month, the map was scientifically reinstated by the authorities at Yale. To the sole survivor of the four experts, the British Museum's George Painter, the Chicago discrediting of the Vinland map was nothing less than a "miscarriage of justice". More scientists have subjected the map to re-examination in a cyclotron, firing proton beams at it to yield precise X-ray measurements of its chemical particles. This has revealed that the amount of titanium in the ink is no different from that present naturally in other 15th-century inks.

Yale is now confident enough to republish the Vinland map, with an analysis of the controversy, in a new volume out this month. It is a masterly colloquium of the sciences — of geography, chemistry, linguistics, navigation, bibliography, even criminal detection — in pursuit of a single intellectual endeavour.

To George Painter, the new evidence unequivocally validates the map as "a major and authentic message from the Middle Ages on a hitherto unknown moment in the history of the world ... It is a true voice from the past". The Vikings' claim not just to have reached

America first but to have "discovered" it and disseminated the knowledge is now validated by more than the Norse sagas. As the book claims, Leif's expedition and its recording in map form "bridges the gap between two epochs of Atlantic discovery".

The Vinland map is a saga in its own right. It shows how temporary are the "proofs" of formal science. It shows the judgments of historians as of no account when a chemist with a test-tube says "it cannot be", only to be countered by a physicist with a cyclotron who says "yes it can". The saga also illustrates the long academic neglect of medieval Northern Europe. Vinland has always been a problem for Columbus enthusiasts. Their hero meant to reach China and believed he had. He took Chinese interpreters on his expeditions and sent them inland in Cuba to interview the Great Khan. He died convinced that Cuba was in the East Indies. Yet he did not "discover" a new continent. He bumped into the Caribbean islands on his way somewhere else.

Leif Ericsson discovered Labrador and Newfoundland after being told of land west of Greenland by Herjolfsson. He had set out on a true act of exploration, born of a desire to expand Norse commerce and colonisation. He did not pretend to have discovered anywhere but a new land at a similar latitude to Iceland. Only the lack of weapons and the return of ice to Greenland put an end to his colony.

News of Vinland reached not only the authors of the Icelandic sagas but the seagoing communities of northern Europe. Bristol opened trade with Iceland in 1424 and its merchants sent ships in 1480 to find reputed islands and even mainland

THE VINLAND MAP (cont'd)

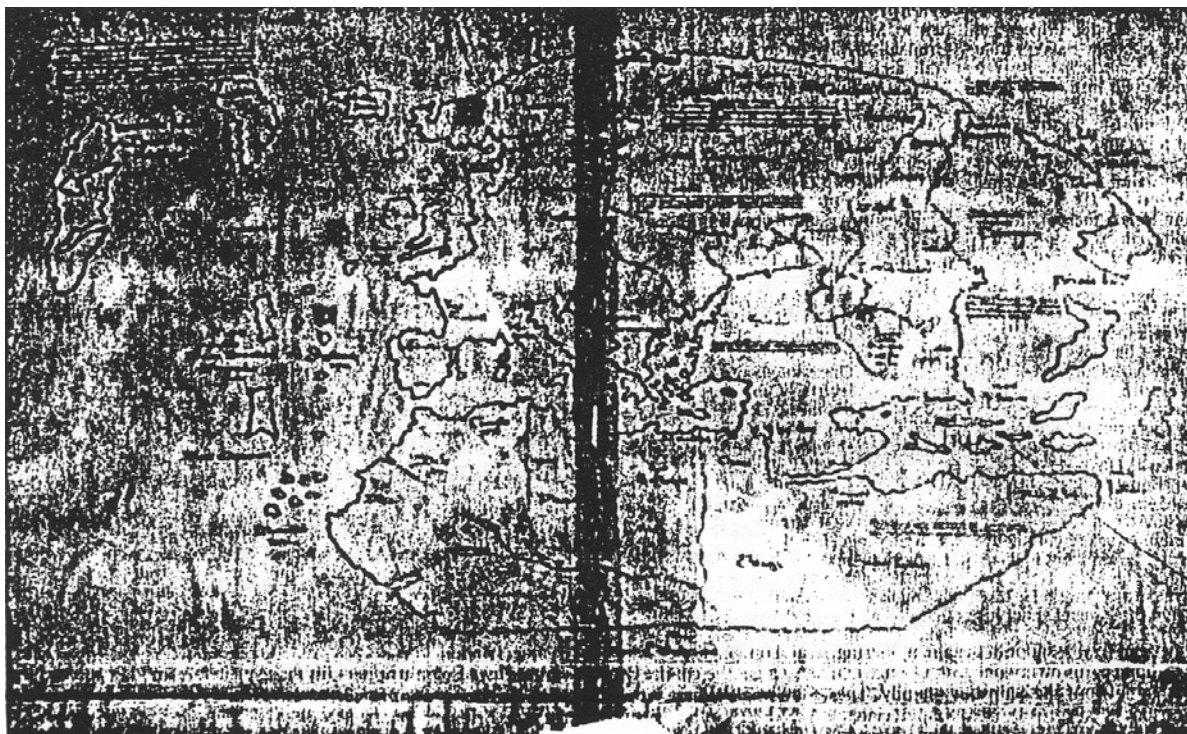
to the west of Ireland. It was their enterprise that persuaded the Venetian John Cabot to make Bristol his base for seeking a north-west passage to China in 1497.

When this "British Columbus" reached Newfoundland, he believed it was the same "mainland" said to have been seen by previous Bristol navigators. Recent documents suggest that Columbus knew of Bristol's discovery of a North Atlantic mainland before he set sail, as he may even have known of Vinland during a reputed visit to Iceland in 1477. But he was off to China.

The authors of the new edition show how wide was the likely knowledge of Leif Ericsson's

discovery in medieval North Europe. If that knowledge could reach a Basle cartographer in the 1440s, it would have been familiar on the quays of Bristol long before Columbus. In taking his northern route to China, Cabot was not sailing blind. He was heading for an already discovered land. His landfall was to be the Norse America. As the 19th-century explorer Nansen said, the Vikings had set out "with conscious purpose ... and had found land on the other side." This was true discovery. The authentication of the Vinland map is a thrilling moment in the history of geography.

If my name was Ericsson I would hotfoot it to Newfoundland and seek a gaming licence right away.



The Vinland map, from *The Vinland Map and the Tartar Relation* by R.A. Skelton, Thomas E. Marston and George D. Painter (Yale)

VINLAND MAP UPDATE

(Published in Dr Walter McCrone's Internet home page)

For nearly 30 years, the Vinland Map and the Shroud of Turin have been objects of contention between those who believe both to be authentic and those who have analyzed them micro-analytically and found both to be fakes. It is time to present a "Shroud"/Vinland Map update. The situation has taken a turn for the worse and, as such, bodes no good for small particle analysis (ultramicroanalysis) in general and PLM in particular. With some great help from others in McCrone Associates back in 1973, I found the Vinland Map to be a fake. The perpetrator had simulated a yellow stain along the black ink lines because black lines would develop such a stain as the ink migrated along the fibers (a micron or so every 100 years) and became yellow with age. Not having 500 years to wait, he executed the map entirely with a yellow ink line then very skilfully added a black ink line down the middle of the yellow line. An obvious intent to fool anyone examining the map. Then, to compound the felony, he used a yellow pigment, titanium "white," that in the 1920s, when it was first produced as a very fine divided ink pigment, was yellow from iron impurities. That pigment, TiO_2 , was the newly invented (1917 patent) pigment averaging 0.3 μm in diameter and produced by a process of dissolving ilmenite, iron titanate (FeTiO_3) in concentrated sulfuric acid, hydrolyzing this to an amorphous gel and then calcining it to 0.3 μm anatase crystals at up to 800 C. An unlikely procedure for a medieval ink maker who wanted a black ink.

Tom Cahill et al. of University of California (Davis) in 1987 using submillimeter samples and trace analysis instrument (PIXE, a proton probe) found more titanium (PIXE identifies only elements, not compounds), in the Vinland Map (VM) ink lines than elsewhere on the parchment. He says "too little titanium" to explain the yellow color of the yellow ink. His sample is a large fraction of a mm^3 and he expresses his results as ng/cm^2 . We measured the titanium content of nanogram flakes of the yellow ink itself, no parchment, and found 5-45% by weight of the inorganic content to be titanium. We had no trouble detecting TiO_2 as 0.3 μm anatase by PLM and XRD. We also detected plenty of titanium in 21 different samples of the yellow ink using electron and ion microprobes.

In short, there is no possibility the VM could be medieval-yet on February 19, 1996, a symposium (to which I was not invited) was held at the Yale University Press to celebrate release of the second edition of "The Vinland Map" published by Yale University Press and authored by R.A. Skelton,

VINLAND MAP UPDATE (cont'd)

T.E. Marston, and G.D. Painter. Those invited were avowed believers in the map.

Some results of that meeting were published by the *New York Times*. Interviewed at the Symposium Wilcomb Washburn of the Smithsonian said "I think the evidence is clearly on the side of authenticity." On CBS that night, he said the inks in the "Tartar Relation" and the *Speculum Historiale* thought to have been bound with the VM also showed anatase. No one has found anatase in these two documents and we found 200 times less titanium (in any form) in those inks than we found in the VM. Cahill reported at the symposium by his trace analysis instrument that the VM ink contained on the trace amounts of titanium characteristic of all medieval maps-"none of the quantities were sufficient to be considered a purposefully added ingredient." How then did we find 200 times more titanium in the VM than in the other two texts and how were we able to obtain an X-ray diffraction (XRD) pattern characteristic of anatase and transmission electron micrographs of areas of the VM yellow ink showing 100 or more anatase particles? We did it by using ultramicroanalysis (subnanometer particle). These particles are unique and impossible to have been prepared in 1440, 300 years before titanium was discovered and nearly 500 years before the chemical synthesis of pigment titanium dioxide was developed and, with great effort and expense, perfected to yield 0.3 mm anatase pigment.

The situation with the VM now becomes the same as with the Turin "Shroud," another widely known and important relic that unfortunately I and my colleagues also found in the 1970s to be a fake. There we found, by identifying single submicrometer particles as the only colored matter in the "Shroud" image areas, two red pigments and a yellowed watercolor paint medium. The pigments red ochre and vermilion with the collagen tempera medium was a common paint composition during the 14th century; before which, no one had ever heard of the Shroud. The bishop of the diocese of the church where it was first exhibited in 1356 wrote to the Pope saying he knew the artist who had painted it. We decided, based on our particle approach in 1979, that the Shroud was painted in 1355. In 1987, eight years late, carbon dating at three prestigious laboratories confirmed this by agreeing on a best date of 1325+ 65 years. Up to now I've been able to maintain my equilibrium and even my sense of humor in the face of being ignored or being insulted- one post-card stated "Old man Walter C. McCrone is an incompetent senile old fart who belongs in the nuthouse. That old fraud fudges data on an unprecedented scale (signed) Citizens for Scientific

VINLAND MAP UPDATE (cont'd)

Honesty." I laughed when I was told the image was a result of the resurrection and even when Prof. Bollone typed my red ochre paint and found it to be type AB. My most recent laugh came when John Jackson and his wife suggested the 14 x 3 ft. Shroud linen was the tablecloth at the last supper.

Lately and especially after the recent Yale Symposium, I find it more difficult to see the humor in these situations. From a scientific point-of-view, these two problems were not difficult to solve, especially if one uses PLM and other ultramicro techniques and instruments on tiny particle samples rather than trace analysis techniques on millimeter samples like PIXE, Cahill's instrument. No one other than McCrone Associates working on these two fakes used light and electron microscopes. Instead, others looked for traces using good but inadequate and inappropriate trace analysis techniques. These are not intended for problems like VM or the Shroud.

I had hoped solving these problems using PLM then using other proper ultramicroanalytical instrumentation for confirmation would help PLM recover its lost position in analytical chemistry. PLM has been cheated out of this recovery and is rapidly sliding into oblivion. This situation is now no longer funny, and I am looking for ways to redress this wrong. It seems to me to be a matter for the attention of the American Academy of Sciences. If a committee of scientists qualified in the physical methods of ultramicro particle analysis were appointed by the Academy, I am absolutely certain they would decide the VM and the Turin "Shroud" are masterpieces of art. If two different groups of presumably good scientists can be so wrong on the VM and the Shroud, what other important projects they work on may also be wrongly concluded. The situation, highlighted by the VM and Turin "Shroud," indicates a very serious problem in science today. Far more serious than either the VM and Shroud or any individual scientist, I hope something can be done to convince scientists to use the proper technique and instruments to solve today's analytical problems.

LETTERS TO THE EDITOR

From: Dr Vaughan Davis, Sydney

The editorial review of the book: *The Double Images on the Shroud of Turin*, N. Cinquemani (SN No.93, February 1996 p 22) raises an interesting question. The press photograph of a freeze frame from the video recording of the assassination of Israeli Prime Minister Yitzhak Rabin reveals the flash of light from the assassin's gun confirming the firing, but no change in the body language of Mr Rabin. The bullet is obviously in transit but invisible. If the Shroud image formation was associated with an electromagnetic energy flash from the revived body like a freeze frame of time, the body language speaks of death. However, a primary sign of body life is movement, especially respiratory movement. A sudden inspiratory gasp with revivification would move the head and chest. A lack of concordance between the directly applied blood from bodily wounds and their Shroud image would confirm this. The Shroud of Turin image would then be a freeze frame of the history in time of the earliest stages of the Resurrection of the Body.

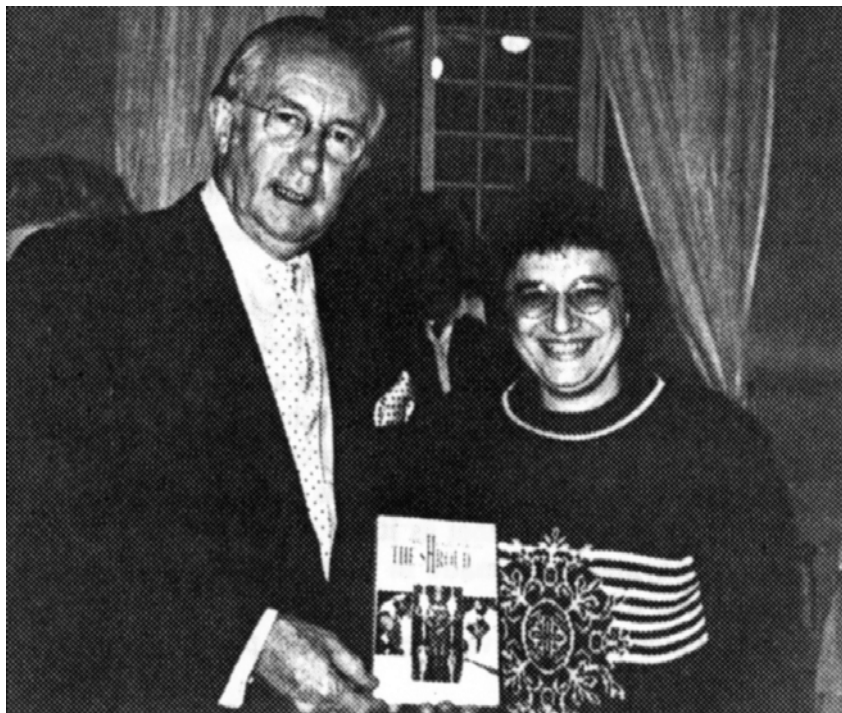
From: Mary McMahon, Australia

I have been very interested in the wonderful Holy Shroud of Turin not that the Roman Catholic Church needed this affirmation of Jesus Christ's Resurrection because it is an article of faith in our Apostolic Creed. If you don't believe in the Resurrection you cannot be a Catholic. I have been re-reading sister Mary of Agreda's third volume of *Mystical City of God* - "*The Transfixion*". I thought you might like to research this volume chapter XX Verse 633 where Sister Mary (who was dictated to by Our Lady) says "They placed also upon His sacred head a cap made of woven thorns, to serve him as a crown (John 19. 2)". So your findings are corroborated by Our Lady. The same chapter gives a vivid description of the scourging which Jesus suffered. He received 5, 115 lashes. The negative imprinted on the Shroud would have been burned onto the cloth when Jesus in His glorified state re-entered His body.

Heaven is a fire of love - the opposite to Hell. The heat of God's glory left the baby Jesus and his mother and "father" warm on that terribly cold night. God's Glory was also at the Transfiguration when Jesus shone with glory. It was the heat of his love which made him shine.



Pictured in 1993 at the Wuenschel Shroud Library at Mount St Alphonsus, Ephesus, New York, Rex Morgan with Revd Fr Adam Otterbein who this year celebrates 60 years as a priest. A special dinner is being held in Esopus in conjunction with a Shroud Symposium this month to mark his lifetime contribution to Shroud studies.



In Rome, May 1996, Rex Morgan with author Emanuela Marinelli, holding her only copy of the English translation of her important book (with Orazio Petrosillo) *The Enigma of the Shroud*. Although Morgan edited the English version he has yet to receive a copy.

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

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

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

The list of *Shroud News* subscribers continues to increase internationally and it has been described many times as one of the best available. *Shroud News* comes out six times a year. Its production is obviously privately subsidised as we request a subscription in Australia of only \$6 for six issues posted. The USA subscription is \$12 (posted airmail - there is no longer any surface mail from Australia). Postage to other countries varies. ALL back issues are available for \$1 (US or Aust) each plus postage. The famous 50th issue is \$3 plus post. Customers should note that as it costs us \$8 to negotiate each foreign cheque we request all payments be made in currency banknotes of your country or charge to Visa, Master or Amex cards.

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