

PUBLICATIONS (1)

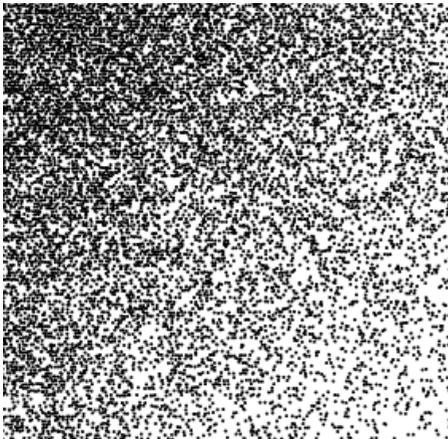
**COMPARISON AMONG THE SHROUD BODY IMAGE
MECHANISMS BY THE LINEN FIBRILS DISTRIBUTIONS**

G. Fazio, V. de Leo, F. Curciarello, G. Mandaglio
in the *Journal of the Textile Institute*

**THE MYSTERIOUS COEXISTENCE OF BLOODSTAINS AND
BODY IMAGE ON THE SHROUD OF TURIN EXPLAINED
BY A STOCHASTIC PROCESS**

G. Fazio, Y. Clement, G. Mandaglio
in *Mediterranean Archaeology and Archaeometry*
Review by **Hugh Farey**

These two papers were published in quick succession, and are both developments of an earlier paper, *A Stochastic Process to Explain the Turin Shroud Body Image Formation*, which was discussed in last December's newsletter. They are an attempt to explain how variations in the perceived darkness of the image are caused not by any difference in the actual darkness of the discoloured fibres of the Shroud, but by their relative frequency, in any particular area, with respect to the other fibres. The picture below illustrates this. From a distance the top left corner appears darker than the lower right, but in close up we can see there are no shades of grey, simply an increasing density of black dots.



However, having established the fact of this distribution and given a mathematical expression relating the darkness of the image to a putative distance of the body from the shroud at any particular point, neither of which are original, the authors fail

here, as they did in their first paper, to establish any mechanism by which this effect could be caused. The best they can manage is to suppose some kind of unspecified low energy radiation, making contact with the cloth at the very threshold of image-making intensity, such that which fibres discolour and which do not is largely random, with the proviso that the more the radiation, the more fibres become discoloured in a particular area.

The first paper looks at three other possible image forming mechanisms (Garlaschelli's painting, Fanti's coronal discharge and di Lazzaro's UV laser pulses) and rejects them all, on largely questionable grounds. Garlaschelli's chemical and thermal treatment, we learn, "does not distinguish the fibrils which must be coloured from the ones that must retain the background colour." I have no idea what this means. Coronal discharge is rejected because of the unlikelihood that a dead body could produce such a discharge, because it supposes another image on the other side of the cloth which Fazio denies, and because the STuRP scientist Ray Rogers dismissed it. High intensity UV laser pulses are rejected as a mechanism also because dead bodies do not produce them, although apart from that the authors do admit a grudging respect for the accuracy of the effect obtained. Needless to say, the conclusion is that "the sole formation mechanism of the body image on the Shroud of Turin is the stochastic one."

The second paper largely restates the argument of the first, but this time at last proposes a mechanism by which the stochastic distribution of discoloured fibres might be achieved. It is argued that as a result of extreme suffering a body generates lactic acid in the superficial cells, "which would have reacted with the oxygen in the air yielding free radical singlet oxygen that releases their excess energy into the fibres of the linen and turning back into ordinary molecular oxygen." This was first proposed by Knight and Lomax (*The Second Messiah*, 1997), but owes nothing to physiology and was roundly refuted by Nicholas Allen two years later (*The Shroud of Turin and the Singlet Oxygen Fallacy*, Interdisciplinary Science Reviews, 1999).

PUBLICATIONS (2)**THE ORIGINS OF THE SHROUD OF TURIN**

**Charles Freeman
in History Today**

History Today is a widely read popular magazine, so any controversial article it publishes receives a good deal of attention, and Freeman's article was immediately reported on by the Guardian, the Daily Mail and the Catholic Herald, although the latter included a rebuttal by Barrie Schwartz, and arthistorynews.com simply yawned: "Turin Shroud debunked (again)."

Freeman's contention is that the Shroud was created as a theatrical prop for use in a medieval liturgical re-enactment of the discovery of the empty tomb by the holy women, a ceremony known as "Quem Quaeritis" after the first words spoken by the angel they meet: "Whom do you seek?" For reasons unspecified, but possibly connected with a miraculous event associated with the cloth, it was adopted by the church at Lirey as a genuine relic, before being quickly suppressed by the Bishop of Troyes, only to resurface, again as genuine, a hundred years later in the hands of Margaret of Savoy. The evidence produced in support of this argument is quite varied, and has received considerable criticism from Shroud scholars.

Freeman begins with a review of a number of engravings made of public expositions, in particular one by Antonio Tempesta, made in 1613, which shows the Piazza del Castello, in Turin, and the Shroud displayed high on a roughly oval covered dais, like the frontispiece of a balcony, with seven or eight mitred clergy standing behind, and a bishop beneath a baldachin and surrounded by troops processing towards it through the crowd. Freeman contends that Tempesta was a stickler for accuracy, and that his representation of the Shroud is a true likeness as it was at the time. The image is very clearly delineated, in stark contrast to the barely

Freeman's next argument concerns the rather sudden appearance of blood in scenes of the Crucifixion during the middle of the 13th century, epitomised by the illustrations in the Holkham bible of about 1350. He attributes this to a "new fascination with mining the Old Testament for prophesies of the Passion", every nuance of which was reflected in depictions of Christ's suffering and death. The bloodflows on the Shroud, maintains Freeman, firmly place it within the artistic traditions of its time.

He next turns his attention to the Shroud itself, and the scientific evidence discovered by the STuRP team and others in the last 40 years or so. Sadly, although paintings on linen are referred to in abundance throughout the medieval period, they are now vanishingly rare, so there is little to compare it to, but the evidence stands on its own. Both Walter McCrone and the STuRP team found traces of paint, and the Shroud is uniformly covered in 'calcium', mostly as calcium carbonate, which was the principal component of northern European gesso (the other being a proteinaceous binder such as rabbit skin collagen) which was thinly applied to linen as a base. Furthermore, the linen itself, with its Z-twisted thread and its requirement for a four-heddle loom to produce the 3/1 herringbone weave, fits far better into the cloth-making industry of medieval Europe than the 1st century Middle East.

Finally, says Freeman, the body on the Shroud is too incorrectly proportioned to conform to any possible 'natural' image formation from a dead body. The arms are too long, the head misplaced on the shoulders, the hair is painted as if the body was upright rather than lying flat, and the two body images are in different poses and of different heights.

Nevertheless, Freeman does not think the Shroud was a deliberate forgery. It would have been quite unnecessary to produce an image on a fake Shroud, and furthermore, even after Pope Clement VII had accepted that it was a reproduction, he permitted its exposition as an object of veneration. There were many such objects in the medieval church; not relics as such, but associated with one, or a miracle of some kind which gave them spiritual accreditation. Perhaps the Shroud, originally created

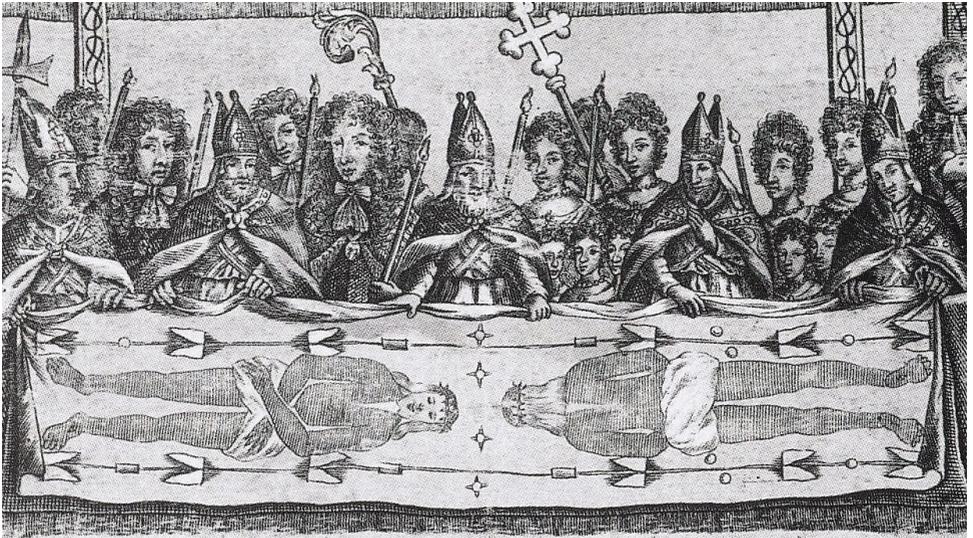
for something quite different, crossed the profane/sacred barrier for some such reason. But what was the original reason for its creation?

The Quem Quaeritis ceremony emerged as early as the 10th century and lasted till the 17th as part of the ritual for Easter. Three clerics representing the three Marys approach a tomb in a side chapel, where a man dressed as an angel asks "Quem quaeritis?" On learning that they are looking for Jesus, he invites them to look into the tomb, observe nothing but the cloths in which Jesus had been wrapped, and to return to the altar of the church, displaying the shroud for all to see. Throughout Europe, for hundreds of years, linen shrouds were displayed every Easter, and yet not a single one, with the possible exception of the Shroud of Turin, remains. Nevertheless, it requires no stretch of the imagination to envisage a long thin sheet, marked with the imprint of the Saviour's body, held by the three clerics in front of a high altar as a witness of the resurrection.

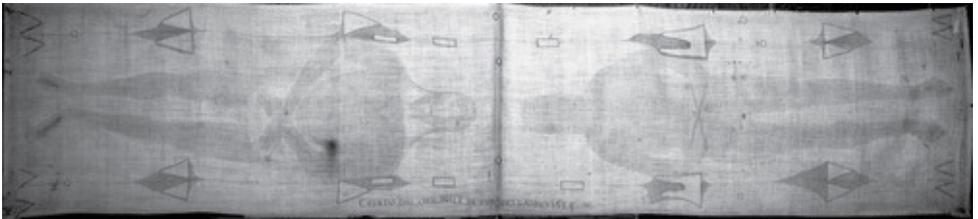
This is Charles Freeman's argument, and at first reading, it seems very convincing, but, as Barrie Schwartz pointed out in the Catholic Herald, it does have flaws which damage its credibility, possibly irretrievably. To start with, the "Quem Quaeritis" hypothesis has been examined before, by no less than the godfather of Shroud studies in the English speaking world, Ian Wilson. In his 1986 book, *The Evidence of the Shroud*, Wilson devotes an entire chapter (Chapter 5: The Case for the Shroud Image being the Work of an Artist) to the possibility that the relic may be a medieval forgery, giving fair hearing to the idea that it might be a reproduction by Leonardo da Vinci, or derived from the gory visions of St Bridget of Sweden, or a "stage prop" as described by Freeman, for the Quem Quaeritis ceremony. "There can be no doubt" says Wilson, "that in some, the 'shroud' was of a very substantial size" and that "the topicality of the Veronica story may well have inspired other churches to commission 'shrouds' with imprints, to be thought out precisely in terms of the sort of impression a crucified human body would have made on a full-length cloth." So fair-minded is this chapter that, in spite of Wilson's clearly expressed belief that the Shroud is in fact authentic, it is difficult to find objections to it, although a few pages later Wilson re-examines Walter

McCrone's red ochre findings, which seem too pure to be paint particles, and which may be better explained by some kind of precipitation from the water in which the flax of the linen was originally retted.

There are other, more convincing, objections. In spite of the large number of engravings, from the 16th to the 19th century showing a clearly-depicted, loincloth-wearing Shroud, there are a number of direct copies of the Shroud, such as the Lier copy of 1516, the Guadalupe copy of 1568, or the Summit copy of 1626, which are both extremely faint and nude, and clearly resemble the Shroud of today much more than the purported painting of the 14th century. Either the engravings or the



1684 Exposition of the Shroud, Pietro Antonio Boglietto (theshroudofturin.blogspot.com)



1626 Copy of the Shroud now in Dominican convent, Summit, NJ (hollyshroudguild.org)



The Lenten Veil of Zittau, commissioned in 1472 to hang across the nave of the Church, hiding the Chancel during Lent.
(from the website of the veil at www.zittauer-fastentuecher.de)

paintings are wrong, and it is much more likely that the engravings, designed as they were for wider dissemination, were both more clearly delineated and more modestly portrayed than the “*extractum ab originale*” duplicates.

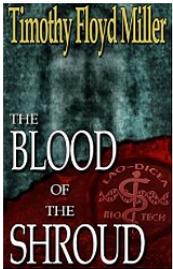
Another problem with the painting hypothesis is not simply that so much of the original pigment seems to have completely disappeared, but also that it seems to have done so extremely uniformly, which seems too good to be true. Although an even coating of gesso (if the calcium carbonate can be so explained) seems to have remained, there is no trace of the rabbit skin collagen binder which should have accompanied it, as only the blood stains gave positive tests for protein when examined by the STuRP team in 1978. As evidence of the fragility of painted linen, Freeman mentions the huge ‘*lenten veil*’ at Zittau (left), eight metres high and seven wide, which was badly damaged during the Second World War when it had been cut up and used to line the walls of a sauna. Parts of the veil have been almost completely lost, leaving only suggestive stains behind, but this is a far cry from the complete removal of observable pigment we see in the Shroud.

If the Shroud is medieval, then the suggestion that it is more likely to have been created as a liturgical prop than as a deliberate fraud has a lot going for it. It seems better designed as a display artifact than as an archaeological relic, and the fact that Pope Clement VII deemed it worthy of veneration in spite of an injunction to declare it a painting does not suggest dishonesty of intent. Nevertheless, the transition from stage prop to sacred relic is still inadequately explained, as well as the dichotomy between the bold, loin-clothed engravings of expositions and the faint, naked copies of the cloth itself, to say nothing of the inconsistent chemistry described by the STuRP team. There is more to discover.

PUBLICATIONS (3)

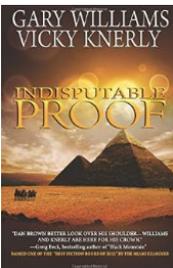
FICTION

Quotations accompanying the illustrations are from the blurb at Amazon.co.uk. Theft and the cloning of Christ are common themes...



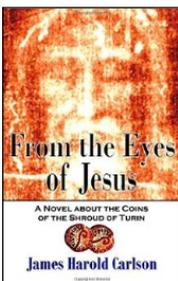
The Blood and the Shroud, Timothy Floyd Miller
Adj. Publishing LLC

“Navy SEAL and Biblical Archaeologist’s search for the shroud takes an unexpected turn when they meet up with the beautiful, golden-eyed Laurel Diane Coventry, deep in the jungles of the Amazon. ... It’s up to Levi and Aaron to figure out who has stolen the shroud, and much more importantly - why?”



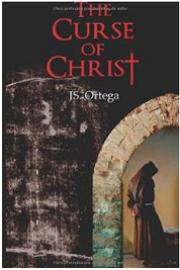
Indisputable Proof, Gary Williams and Vicky Knerly
Suspense Publishing

“When the Sudarium of Oviedo - the venerable cloth that once covered Jesus Christ’s face on the cross - is stolen from a cathedral in Spain, it sparks a series of grisly murders. Each victim is killed in a manner resembling the form of execution of one of the Apostles.”



From the Eyes of Jesus, James Harold Carison
CreateSpace Independent Publishing Platform

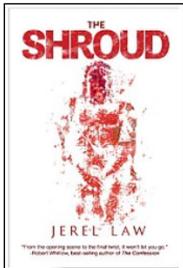
“This is the account of these coins as they passed from one hand to another through two millennia. ... The storyline is set against a backdrop of historical events. You will read about the persecution of Christians under Nero, Emperor Constantine’s conversion, the rise of the Knights Templar, the sack of Constantinople, and the painting of the Mona Lisa.”



The Curse of Christ, JS Ortega

Self-published

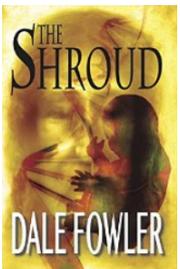
“In 1532, in the French town of Chambéry, an attempt to steal the Holy Shroud resulted in a tragic accident which nearly caused it to be destroyed in a fire. ... professor Mario Faberti discovers the secret which connects his friend to the man who, centuries ago, tried to get hold of the Holy Shroud.”



The Shroud, Jerel Law

Amazon Media

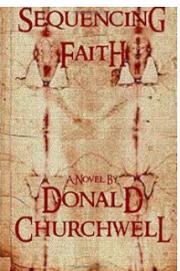
“Matthew Harkin ... uncovers a twisting plot that finally leads to the most revered relic in the world – The Shroud of Turin, the famed burial cloth of Jesus himself. It's missing, and the race to recover it puts Matthew in the middle of a brutal struggle for power and control.”



The Shroud, Dale Fowler

Venture Galleries

“The Catholic Church invites Dr Benders to work on The Shroud of Turin to help devise a plan to save the rapidly deteriorating linen cloth that wrapped Jesus in the tomb after his crucifixion. Taking blood from the holiest of Christian artifacts, he returns to L.A. and inseminates several women.”

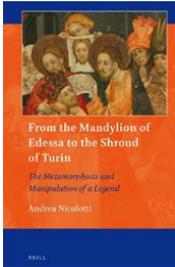


Sequencing Faith, Donald Churchwell

CreateSpace Independent Publishing Platform

“Why then would Miranda ... find herself at 41,000 feet over the Atlantic in a large, black private jet? Why is she seated next to a mysterious and handsome priest she has met a scant two hours earlier? Why has a shadowy Lebanese assassin accepted a 20 million Euro deposit to stop Miranda and the priest from completing their quest?”

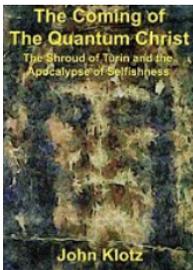
NON-FICTION



From the Mandylion of Edessa to the Shroud of Turin

Andrea Nicolotti, BRILL

“Nicolotti reconstructs the history and iconography of an ancient image of Christ, the acheiropoieton ("not made by human hands") Mandylion of Edessa. He refutes the theory that the Mandylion still exists and is known as the Shroud of Turin.”

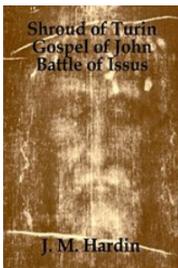


The Coming of the Quantum Christ:

The Shroud of Turin and the Apocalypse of Selfishness

John Klotz and Michael Lanzarone, Self-published

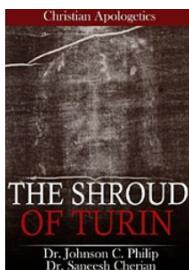
“The Coming of the Quantum Christ is the most exhilarating book ever written thus far on the investigations and the implications of the Shroud of Turin vis à vis the human condition. It is a clear and concise literary masterpiece, a must read for everyone.”



Shroud of Turin: Gospel of John - Battle of Issus, J.M. Hardin

Starry Night Publishing

“The Shroud of Turin and the Gospel of John are two independent artifacts with no possibility of collusion. The agreement found between them, that they support and testify for each other, means that both are accurate representations of events two thousand years ago.”



The Shroud Of Turin, Johnson Philip and Saneesh Cherian

Philip Communications

“Essentially it is the same information as that available on Wikipedia but written in a more consistent, and more coherent, style albeit with a few annoying typographical errors.”