

'The Turin Shroud – past, present and future', Turin, 2-5 March, 2000 – probably the best-ever Shroud Symposium

By far the most important development since the last Newsletter has been a special International Symposium on the Shroud, 'The Turin Shroud, past, present and future', held at the superbly located Villa Gualino Turin from 2-5 March of this year. This was by invitation only, the various specialists attending numbering 19 from Italy and 20 from outside Italy, one of these latter your Editor. Although a well-informed report, by Rome-based journalist John Follain, appeared in the *Sunday Times* on March 12, no press were actually present at the Symposium, Follain's information deriving from press releases and interviews

A great source of surprise was the choice of those invited. While the list included some regular Shroudies, such as Dr. Alan Adler, Dr. John Jackson and Dr. Alan Whanger, others were not of this ilk, having been only peripherally associated with the subject on occasion. Among the latter were: X-ray specialist Dr. Ron Jenkins of Pennsylvania; textile specialist Dr. Jan Cardamone; spectroscopy experts Frank De Blase and Samuel Pellicori; French radiocarbon dating specialist Dr. Jacques Evin; also Dr. Robert Otlet, former head of the Harwell radiocarbon dating laboratory, who has since founded his own laboratory, called Radiocarbon Dating, at East Locking, near Wantage. (Dr. Otlet was the only 'Brit' participant, apart from myself and one of the interpreters.) Among the Italians there was even a very vocal dissident to the Shroud's authenticity in the person of Dr. V. Pesce Delfino. Chairman of the overall proceedings was Professor Silvano Scannarini, assisted by Professor Piero Savarino, both of whom proved excellent.

In his introductory address the amiable Don Giuseppe Ghiberti, who has been maintained by incoming Archbishop Poletto as right-hand man on Shroud matters, expressed the Symposium's ethos by stating that its intention was not to rake up the past. Instead the purpose was to look to the reality of the Shroud as it exists today, and consider what should be done for the future, and by whom.

Dr. Flury-Lemberg and New Textile Findings

The first speaker was Dr. Mechthild Flury-Lemberg, a former curator of the Abegg Foundation textile museum, Switzerland, whose theme was 'The Shroud fabric, its technical and archaeological characteristics'. It was Dr. Flury-Lemberg who, immediately prior to the 1998 exposition, had the task of preparing the Shroud for its display and housing in the new three ton Italgas container constructed for it, working side by side with Sister Maria Clara Antonini of the Poor Clares. Because the plate for the new container had been made slightly too small, Dr. Flury-Lemberg gained permission to remove the blue surround that had been sewed on in the 19th century. The intention behind this surround had been to save the Shroud from the repeated handling at the edges to which they had been subjected throughout the long centuries when it was the custom to hold it up before the populace. However, the surround had ever since prevented examination of the same edges, thereby hindering totally

accurate calculation of its dimensions. Now the dimensions have been authoritatively determined by Dr. Flury-Lemberg as 437 cm long by 111 cm wide.

By far the most important information to come from Dr. Flury-Lemberg, however, concerns how the Shroud had been woven and finished. As she pointed out, looms in antiquity, particularly those in Egypt, could be up to 3.5 metres wide, enabling them to turn out continuous lengths of cloth far longer and wider than the Shroud. The high quality of the Shroud's weaving strongly suggests it to have been made on a 'professional' loom of this kind. The explanation of its side-strip would therefore seem to be that at the time of its manufacture it formed part of considerably wider cloth which was then cut lengthwise into at least three pieces, two wide, and one narrow, this latter being the side-strip, which retains selvedge along its length, just as does its opposite number. With the central section removed (and now lost without trace), the wide and narrow pieces were very expertly joined up to form the Shroud as we know it today, this thereby clearly having been made to conform to specific dimensions.

But even more importantly, Dr. Flury-Lemberg found the cloth's finishing, at its hems, and in the joining seam to have been done using an unusual type of stitching very nearly invisible on one side, and as such closely resembling that of ancient Jewish textiles as found at Masada, the Jewish palace-fortress that was overthrown by the Romans in AD 73, never to be occupied again. This alone, therefore, constitutes powerful evidence against the carbon dating result of 1988. As Dr. Flury-Lemberg told the *Sunday Times* 'In my opinion the Shroud is not a mediaeval fake. The parallels I have found indicate that it could have existed at the same time as Jesus Christ and in what is now Israel.'

Carbon dating scientists 'over-confident, over-bearing'- archaeologist Bill Meacham

Besides Dr. Flury-Lemberg, another of the proceedings' great stars was Hong Kong archaeologist Bill Meacham. Back in 1986, two years before the Shroud radiocarbon dating, Meacham warned 'There appears to be an unhealthy consensus approaching the level of dogma ... that C14 will settle the issue [of the Shroud's authenticity] once and for all. This attitude sharply contradicts the general perspective of field archaeologists and geologists, who view possible contamination as a very serious problem in interpreting the results of radiocarbon measurement.' To the Symposium, speaking as a working archaeologist who had been using radiocarbon dating laboratories for many years, Meacham called the 1988 Shroud dating a 'fiasco'. He pointed out that it was virtually unique in archaeology for radiocarbon dating laboratories to act as interpreters of their own results, yet that was precisely what happened in the case of the three laboratories who worked on the Shroud, a situation worsened by 'the extremely over-confident, over-bearing and haughty attitudes on the part of most of the C14 lab directors who were involved'.

Meacham argued that the sampling of just one small section of the cloth, and without any kind of ancillary chemical analysis, had been particularly ill-advised: 'Alan Adler and I urged, pleaded, cajoled and literally begged for extensive chemical screening of

the samples before being dated, and for at least two sites on the Shroud to be sampled.' Further, he stressed that even in the best of circumstances rogue dates are common in archaeology. In the case of more than one hundred C14 dates that he had personally asked for on objects ranging from Neolithic to early historical times, 78 he considered credible, 26 he rejected as unreliable and a further 11 he regarded as problematic. It was simply 'not on' to put radiocarbon dating in the position of being an 'ultimate arbiter'. But it was also misguided of Shroudies to suppose that the Shroud had yet been vindicated in the eyes of the world at large. Only a fresh, altogether better formulated carbon dating had the potential for achieving this.

Similarly critical of the Shroud radiocarbon-dating, though from a quite different field of expertise, was an otherwise very withdrawn and unforthcoming Russian Dr. Andrei Ivanov, a former colleague of the controversial Dr. Dmitri Kouznetsov. Via a variety of digressions, including allusions to the radiation that accompanied the mysterious Tunguska fireball which hit Siberia in 1908, Ivanov broadly argued for the 'fire model' version of how the Shroud dating might have been skewed. Taking the opposite stance, Dr. Jacques Evin of the Centre de Datation par Le Radiocarbone, Université Claude Bernard, Lyon, stoutly defended radiocarbon dating's general reliability. Likewise Britain's Dr. Otlet, who gave a valuable account of the history of the science of radiocarbon dating from its first development by Dr. Willard Libby, though he was cautiously sympathetic to possible spurious C14 of unknown cause having somehow affected the Shroud linen. Despite the radiocarbon dating papers having been scheduled for the Sunday morning, Archbishop Poletto made a special point of attending all of them, and made obvious the deep impression that Bill Meacham's presentation, in particular, had made on him.

The Shroud was definitely in Israel – Professor Danin

A third 'star' of the proceedings was Professor Avinoam Danin, who carefully itemised the plants of Israel that he had found represented on the Shroud both via pollens and via actual images, doing so with particularly impressive confidence after his having studied the latter at close quarters directly on the Shroud itself only 48 hours earlier (of which, see more below). One of the plants that he had been able to see directly on the Shroud, on the frontal shoulder area, was *Gundelia Tournefortii*, the same plant featured on the cover of Newsletter 50. And Danin reiterated the astonishing finding, based principally on the studies of his palynologist colleague Dr. Uri Baruch, that 29% of the pollens that have so far been identified on the Shroud derive from this same Middle Eastern plant. Powerfully indicating that actual *Gundelia* plants have to have been laid directly on the cloth to cause such a concentration, Danin showed how if distribution maps of *Gundelia* and two other Middle Eastern plants represented on the Shroud are superimposed, then the conclusion is unmistakable that the Shroud has to have been in the environs of Jerusalem at some time in its history.

'There is no microbiological coating' - Dr. Alan Adler

Rigidly as Professors Savarino and Scannerini kept all speakers to the time allotted to them - which they did, more successfully and to better effect, than has been achieved in any previous Shroud conference - record for the Symposium's longest speaking time has to go to a fourth 'star' of the proceedings, Dr. Alan Adler, a star than none of

us could be aware would be eclipsed so abruptly so soon after. Alan presented his mostly now familiar findings on the Shroud's body and blood images with his usual vigour, lucidity and erudite scientific terminology, reminding everyone, with great emphasis, of the considerable responsibility that he felt as an official scientific adviser to the Turin archbishopric on matters relating to the Shroud's conservation. Repeatedly during the proceedings he gave breathtakingly sweeping dismissals of scientific arguments that he disagreed with. This included early in the proceedings - and before radiocarbon dating had become the topic of discussion - his out of hand rejection of any possibility of the Shroud's radiocarbon date having been affected by microbiological contamination of the kind mooted by Dr. Leoncio Garza-Valdes and more recently by Professor Stephen Mattingly. This met with vigorous and repeated protests from me, including one particularly heated contretemps waged outside the meeting proper. These protests were prompted by Professor Mattingly having assured me, as a professional microbiologist, of the presence of microbiological contamination on Shroud samples that he had studied. Mattingly had in advance provided me with samples of fabric which he had artificially coated with his own cultured skin bacteria to a level of 57% contamination. These samples clearly show that such a high level of contamination can be present without being anything like as obvious as the non-microbiologist might expect. Dr. Adler was ultimately persuaded to co-operate with Professor Mattingly in joint experiments, my last message from him including the words 'Can now move ahead with Steve Mattingly', now sadly not to be..

The most prominent Italian to address the issue of bloodstains was Professor Pierluigi Baima Bollone, Director of Forensic Medicine at Turin University, who reiterated the essence of his findings, from his own exhaustive analyses of Shroud bloodstains, that 'there is no doubt that on the Shroud there are traces of blood belonging to a man, and that the blood samples taken from the foot areas have the AB property with regard to the ABO system'.

'DNA from several individuals' - Professor Canale

Inevitably it was important that DNA should be considered at the meeting, and it was Professor Marcello Canale who addressed this issue. He pointed out that there were signs of the presence on the Shroud of DNA from a variety of individuals, including women, hardly surprising in view of the Shroud's multitudinous handling over the centuries, including by the Poor Clare nuns in 1534, by Princess Maria Clotilde of Savoy in 1868, by more Poor Clare nuns in 1978, and of course, most recently by Dr. Mechthild Flury-Lemberg and Sister Maria Clara Antonini.

Missing Shroud portion relocated – Dr. Vercelli

A Taurinese textile specialist, Dr. P. Vercelli from a local company called Leotex, spoke on his study in the Turin University Chemistry Department, on 8 October 1997, of a 20 x 37 mm sample of the Shroud that had been made available to him on Cardinal Saldarini's authority. Although he did not explain it as such (and indeed proved unaware of it himself), it occurred to me that this could only be a hitherto unaccounted-for portion of the sliver of the Shroud that was removed for radiocarbon dating purposes by Professor Giovanni Riggi in 1988. At question-time I

duly received confirmation of this from those most closely associated with the Shroud's custody. Held back as superfluous to the C14 laboratories' needs, and marked 'R' for reserve in the chart reproduced here (also as fig 24, p.189 in my *Blood and the Shroud*), its whereabouts have always been a little uncertain. Now we positively know that it has remained in the Turin Archbishopric's care, and could be used in the event of any fresh radiocarbon dating. However, since it came from the very same section as the samples used in 1988, it might be more profitably studied for the microbiological contaminants that Dr. Garza-Valdes has argued to be particularly prevalent in this much-handled area of the Shroud.

In the 'History of the Shroud' section of the Symposium a variety of historical and art historical issues were discussed by Professor Karlheinz Dietz, Gian Maria Zaccone of Turin, Gino Zaninotto of Rome, the Gregorian University's Professor Heinrich Pfeiffer and myself, with Don Giuseppe Ghiberti reviewing the evidence for the Shroud in the gospels.

Another unexpected Italian participant at the Symposium, since most of us had not heard from him in over a decade, was Professor Luigi Gonella, who had been Cardinal Ballestrero's right-hand man from the STURP work of the late 1970s through to the 1988 carbon dating. As best he might, Professor Gonella defended some of the decisions he made for the 1988. But it was all looking back, not forwards. And this was a meeting with its sights firmly set on the future.

Digital imaging spectroscopy – the promise of a vast amount of new data

The meeting concluded with consideration of what scientifically should happen next. There was general agreement that the new science of digital imaging spectroscopy presented exciting opportunities for the Shroud to be recorded by this means. This would create a vast amount of new data for analysis, data which via CD-Rom could be made accessible to almost any accredited researcher. I personally urged the custodians' careful consideration of the digital imaging spectroscopy methods being developed by Professor Warren Grundfest of the Laser Research and Development Technology Laboratory, Cedars-Sinai Medical Center, Los Angeles, in association with Los Angeles photographer Barrie Schwartz.

A more thorny issue needing resolution was whether any fresh radiocarbon dating work should be carried out. The consensus was that any agreement to make fresh samples available would only occur in the wake of a much better understanding than at present with regard to what might have gone wrong with the 1988 work. Dr. Bob Otlet and Dr. Jacques Evin had prepared summary proposals specifically suggesting that any tests for what might have gone wrong might best be carried out on the remnant piece that Dr. Vercelli had presented to the Symposium. They declared: 'Only after the above [i.e. tests on the Vercelli sample] is complete and the results agreed (by appropriate peer group review) should the further radiocarbon measurements, detailed next, be made,' These 'further measurements' were suggested as being carried out : '1: On the same fragment of that already cut [i.e the Vercelli sample]; 2: On a sample of scorched material taken from under one of the patches; 3: On a sample of the thread used to sew together the lateral band [i.e. the side-strip] and the main Shroud piece; 4. On a newly cut sample from another corner, in order to verify that possible contamination is removed by pre-treatment.'

Most importantly those of us attending the Symposium were told publicly by Turin's Professor Bruno Barberis that there would be an open channel of communications - made easy via e-mail- whereby further ideas for research on the Shroud could be conveyed to the Shroud's custodians, and with every assurance that they would receive careful consideration. This was particularly welcome news, given rumours of heaps of proposals that had piled up, ignored, during the time of Cardinal Ballestrero.

'The body was washed' - Dr. Fred Zugibe

One individual whom it was a particular privilege to share this already so privileged viewing was Dr. Fred Zugibe, whom the longer-serving BSTS members may recall having given a particularly memorable lecture to the Society in October 1985. In 1973, the last occasion in which I had been able to see the Shroud free of glass, the cloth had been displayed upright, so that the bloodstains on the feet on the dorsal image were way above my head. Accordingly what I had failed to see then was now, in the clear lighting of this year's viewing, readily apparent, that all around these bloodstains there is a particularly clear yellowish 'halo, one previously only noted via ultra-violet photography. Dr.Zugibe, with his long professional experience of studying bloodstained bodies, was able to confirm this as typical of the way that the serum of such stains separates from the rest. He also explained how although it is natural for those of us without his forensic experience to suppose that the man of the Shroud has to have been washed prior to the burial, in fact he is convinced that the body was quickly sluiced prior to its being enshrouded. In his opinion the bloodstains that we see are typical of those he observes oozing from similarly sluiced bodies on morgue slabs.

'There is Gundelia!' - Professor Avinoam Danin

But I also accompanied Professor Avinoam Danin into the Cathedral sacristy for the viewing of the Shroud - the 'surprise' element of which was maintained to the very last moment - and it was impossible not to be caught up in his enthusiasm as those who had entered before us gave way and we were able to view it close-to. Immediately Danin spotted on the cloth itself the *Gundelia* and other flower images, the presence of which he had earlier argued on the evidence of black and white photos. Such was his excitement that within moments he had caught the interest of Archbishop Poletto who, with Danin's retracted blue biro tracing the outlines only just above the cloth's surface, followed his explanations attentively. And as I too followed these (and Newsletter readers will have been well aware of my profound scepticism on the issue of flower images, as expressed in previous issues), I had to concede that the flower shapes that Danin was pointing out could not be dismissed as just quirks of photographic reproduction. During earlier conversations at Symposium meal-times Danin had very patiently explained to me that his ability to recognize flowers was a special gift that he had become aware of from childhood, and that this had directly led to his vocation as a botanist. And as he was now insisting with greatly increased confidence, the images of particular flowers of Israel with which he had acquired long familiarity were quite definitely represented on the Shroud's surface. For the first time I felt bound to bow to Danin's special gift and expertise, and accept that if Danin said

that these were Israeli flowers represented on the Shroud's surface, then that's what they probably were. Even if the difficulty of my accepting the ancillary objects that Dr. Alan Whanger sees on the Shroud remains as large as ever.

But emotionally and intellectually jangling as this was, perhaps the most moving moment of all came when at Archbishop Poletto's special request, the so prophetic 'Suffering Servant' passages from the Biblical book of Isaiah were read before the Shroud in Italian, in English, and in Hebrew. Inevitably it was Professor Danin who was chosen to read the Hebrew. The ecumenism of the moment was profound enough in itself, for here was a passage that Jews and Christians can thankfully share as part of their common heritage. But it was the immensity of the historical significance that had me very, very close to tears. For there we were, gathered in those so very Italianate Catholic surroundings, hearing words of Hebrew read by a very Jewish Jew, one who in his younger years had served as an Israeli soldier. And we were doing so before a cloth that it was my belief wrapped another very Jewish Jew of two thousand years ago who had read and talked about those same words to a very different group of hearers, and had fulfilled them with his very life blood. So could it be that this was the first time since those days that the Shroud had heard words of Hebrew?

The texts of all papers presented at the Symposium are currently in press. They should be published later this year, in both Italian and English. For those of us who attended the Symposium no 'oath of confidentiality' of any kind was imposed, the only restriction upon us being that photography was prohibited throughout the Symposium proceedings and during the showing of the Shroud in the Cathedral sacristy.

Turin's new Archbishop, Severino Poletto – Approachable and ready
to listen...

Overall the occasion also provided an opportunity to gain some impression of the Shroud's new custodian, Archbishop Severino Poletto, still, at the time of this Newsletter going to press, awaiting the cardinal's hat that is normally sooner or later awarded to the holder of the Turin archbishopric. During the Shroud conference held in Turin in 1978 I can vividly recall having just begun giving my paper when the proceedings were suddenly interrupted by the arrival of Archbishop Poletto's predecessor once removed, Cardinal Ballestrero. Immediately I was obliged to relinquish the platform so that the portly Cardinal could give a very platitudinous five-minute address following which he departed as swiftly as he had arrived.

Back in 1978 Ballestrero's interruption had not rankled with me since I readily recognize that princes of the Church are busy and important people. But what deeply impressed me about Archbishop Poletto in this year 2000 was his altogether different demeanour. Repeatedly throughout the symposium he would quietly arrive, pick up one of the excellent simultaneous translation earpieces, and unobtrusively take any vacant seat to listen attentively to the proceedings for periods of two or three hours at a time. He made no attempt to stand on ceremony, or keep his distance. On those occasions that he addressed the gatherings he did so very informally, and as if from the heart, emphasising that at this stage his personal objective was simply to listen and to learn.

Furthermore Archbishop Poletto was our most gracious host for a part of the proceedings that, while we might have quietly hoped for it, none of us had dared expect. Billed simply as a visit by coach to the Cathedral on the Friday morning, on our arrival the Archbishop ushered us into the Cathedral's temporary Sacristy where we found the Shroud to have been specially brought out of its conservation container, stretched out on the fabric that Dr. Methild Flury-Lemberg had provided for it, as if on an artist's easel, the only bar a low rope barrier.



*Archbishop Severino Poletto, shown left.
Photograph kindly made available, via
Symposium helper Sandra Milano, by courtesy
of the Commissione Ostensione Sindone of
Turin.*