

BOOK REVIEW

Turin Shroud's controversial conservator answers her critics....

Ian Wilson

In a magnificently presented new book, Swiss specialist in historic textiles Dr. Mechthild Flury-Lemberg has confounded those who criticised the conservation work she carried out last year, by revealing just how urgently the Shroud had been in need of conservation attention.

As is well-known, in 1532 the Shroud narrowly escaped destruction when fire broke out in the chapel in which it was being stored at Chambéry, high in the French Alps. Droplets of molten silver seared large, disfiguring holes into the fabric which 16th century nuns disguised by stitching the Shroud onto a specially prepared backing cloth, then sewing triangular-shaped patches over the worst of the holes. These historic conservation procedures undeniably served the Shroud well during the subsequent centuries, strengthening it, and enabling its presentability for popular view on the special occasions when it was publicly exhibited.

But over those centuries, hidden out of sight behind the patches, the blackened edges that surrounded each burn-hole repeatedly abraded with every fresh handling, releasing sooty deposits that, trapped beneath the patches, accumulated ever more thickly. Located at regular intervals across the cloth's surface, the patches effectively comprised pocket-sized bombs of potential discoloration. Had any one or more of these burst open from a drenching with water – as very nearly happened during a major fire at Turin Cathedral in 1997 – the released black 'dye' could only have been disastrous for the Shroud's so subtle and all-important imprints of a crucified body.

It was during a scientific scanning of the Shroud in 2000 that the first indications of the sooty accumulations became noticed, Pope John Paul II, as the Shroud's formal owner, dutifully being alerted to the problem by the cloth's official custodian, Turin's Cardinal Severino Poletto. This led to the internationally-respected conservator Mechthild Flury-Lemberg (who is a Lutheran), and Italian-born assistant Irene Tomedi being entrusted to carry out all necessary remedial procedures. Working in strict secrecy, the duo painstakingly removed the 16th century patches and backing cloth, becoming ever more surprised by the extent of the sooty deposits that they repeatedly uncovered beneath. To save all data of possible scientific value, they used a special, high-tech micro-pipette apparatus to vacuum every stray particle into containers carefully labelled to record each individual removal location. They similarly removed and saved brittle fragments of fire debris that still remained loosely attached to the surrounds of each burn-hole. The begrimed 16th century backing cloth, which they noted to have become marked with an imprint of each sooty burn-mark, they replaced with a new cloth of similar dimensions, sewed onto the Shroud with the finest silk thread. This replacement backing cloth was essential for the Shroud's stability whenever displayed in vertical mode during any future Shroud expositions. However they left deliberately uncovered the holed areas previously covered by the patches in order that the fullest amount of the Shroud should remain accessible for future study.

And in general thanks to Flury-Lemberg and Tomedi's conservation work the opportunities for further research on the Shroud are now better than they have been at any time throughout our present scientific era. Flury-Lemberg is strongly of the opinion that the hidden accumulations of soot may well have interfered with, and thereby skewed, the carbon of the famous carbon 14 test carried out in 1988, a test claimed as 'proving' the Shroud to be mediaeval. Amongst her other surprise findings is that the Shroud's large, lozenge-shaped water-stains, long assumed to be from attempts to douse the 1532 fire damage, cannot have been caused during this incident, and must have long preceded it. This is because the pattern of

how the Shroud was folded as indicated by the water stains, and that as indicated by the burn-holes, simply do not match.

Thus from the burn-holes it is readily demonstrable that when the Shroud suffered these in 1532 it must have been stored flat, neatly folded up in 48 folds, inside its elaborate silver container, a container that can be determined to have been rectangular, and measuring a little in excess of 75 cm by 29 cm. In the case of the water stains, however, whenever these were caused (and since there is no historical record, this must have been prior to 1532), the Shroud must equally demonstrably have been folded rather more loosely, and in an accordion-type arrangement. As noted by Flury-Lemberg, the closest parallel that she has found is a so-called *liber linteus*, or ‘linen book’, mode of folding fabrics that can be seen depicted on ancient Etruscan sarcophagi dating back to the 4th century BC.

Could this be important new evidence that the Shroud may genuinely date back to the time of Jesus? With regard to this possibility, the noted Turin photographer Aldo Guerreschi has independently suggested that such a loose, accordion-type folding, together with the water stains’ observable behavioural characteristics, may indicate the Shroud’s one-time storage upright in a large rounded, earthenware jar. Looking around for the type of jar that might have been used, Guerreschi has alighted upon tall Jewish earthenware jars from around the time of Jesus that were found at Qumran, near Jerusalem, some of them used as storage containers for the famous Dead Sea Scrolls. Obviously this suggestion cannot of itself prove that a Qumran-type jar was the container used, or that the Shroud genuinely originated in Israel and dates from such an early time. But now that the water stains are known definitely to pre-date 1532 might there be microscopic elements peculiar to them which could be matched to the environment of Israel? Any such finding would neatly complement scientific claims from the highly respected Jerusalem botany professor Avinoam Danin that pollen dust from the Shroud can be traced to the flora of Israel and its environs. Opportunities for further, future Shroud research certainly abound....

Lavishly illustrated in full colour, Mechthild Flury-Lemberg's book *Sindone 2002: Preservation* has a succinct, very accessibly-written text in English, Italian and German, and is accompanied by a definitive, large-scale pull-out colour photo of the Shroud front and back, marked up with a grid to provide a reference point for any and every tiny detail. A must for every serious student of the Shroud, it will undoubtedly provide an essential reference tool for the subject for many generations to come.

Mechthild Flury-Lemberg, *Sindone 2002, L'intervento conservativo, Preservation, Konservierung*, Editrice ODPF, Torino, 2003. Enquiries to purchase copies should be directed via e-mail to sindone@tin.it.