

## THE FOLDINGS OF THE SHROUD IN 1532

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It is known that in 1532 the Shroud was being kept inside a silver reliquary in the Sainte-Chapelle in Chambéry, France. A severe fire broke out in the building, and the intense heat that was generated melted a corner of the reliquary and the molten silver burned through that corner of the folded linen within it, producing the now-familiar pattern of burns and scorches.

By using a model of the Shroud, it can be shown experimentally how it must have been folded and layered, forming a "package" inside the reliquary at the time of the fire, and where the melting silver fell onto it, causing the damage.

The burn holes and scorings can be graded in descending order of size from the top layer downwards. The Shroud appears to have been in 48 layers, and the area from which the 1988 test strip was cut would have been deep inside this package, 21 layers from the top.

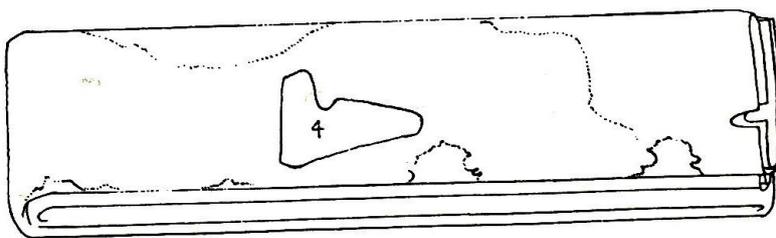
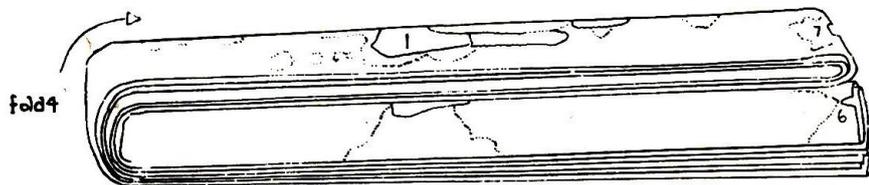
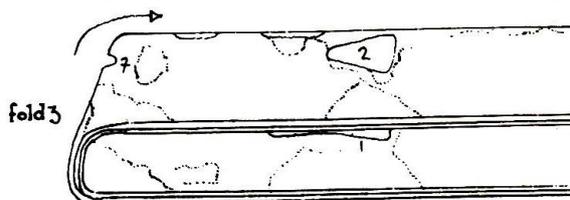
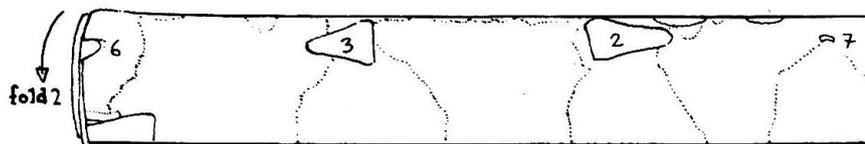
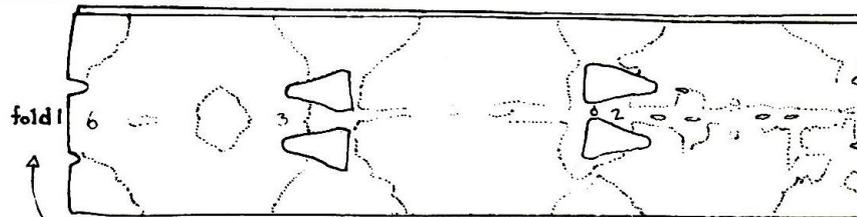
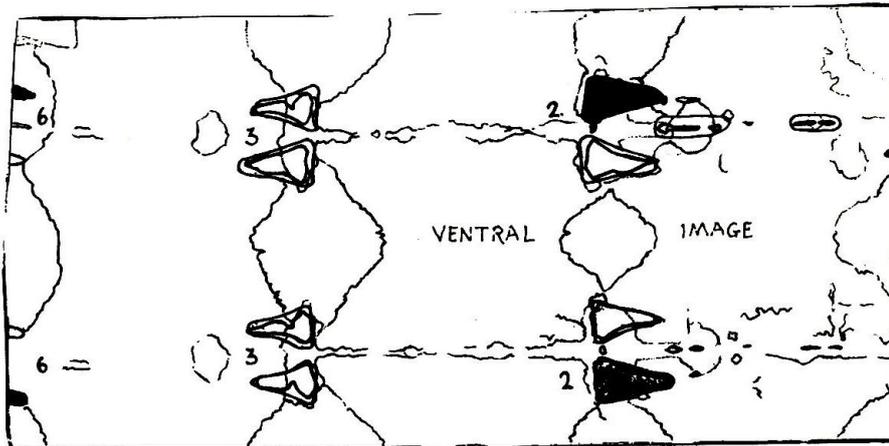
In addition, water stains have soaked through the layers, carrying tide markings that fit the same scheme of foldings, indicating that they are associated with the water used to douse the fire. It is interesting that these tide markings show up prominently on x-ray photographs, which suggests that they may have been caused by metallic rust, perhaps from an iron bucket or other vessel.

The foldings of 1532 can be reconstructed using a tracing of the Shroud marked with burn and water stains. With the frontal image on the left-hand side:

1. Fold lengthwise from the bottom to the top.
2. Fold from the bottom to the top again.
3. Fold the left end over the right end.
4. Fold the left over the right again.

Folds 5 and 6 continue as shown in the diagrams.

This series of foldings reproduces the form of the package that was inside the reliquary, and shows where the molten silver fell on one corner. The 1988 test strip may not have been directly touched by the water used to douse the fire, but capillary creepage into the fabric structure must have occurred, and the sample was taken from an area in the immediate vicinity of holes created by the molten silver.



reverse of fold 4

