

**RESEARCH ARTICLES (3)****WEAVING THE SHROUD  
A REPRODUCTION BY RUTH GILBERT****Hugh Farey**

There can be no doubt whatever that whenever and wherever the cloth for the Shroud was made, it was an example of the finest, most difficult to make, and therefore most expensive linen sheet available. However, mere expense does not account for any cloth's particular design (except perhaps for the cheapest, coarsest tabby weave). Its several features must be the result of deliberate choices, influenced by the intended use of the cloth, so that to a certain extent the design of the weave on its own can be a guide to why it was made.

With that in mind, I think the following questions are relevant, although the answers are, to be frank, no more than guesswork at the moment.

1) Why is the thread so fine? Possibly merely to make the cloth more expensive, or possibly in order to make it lighter or more flexible than ordinary cloth.

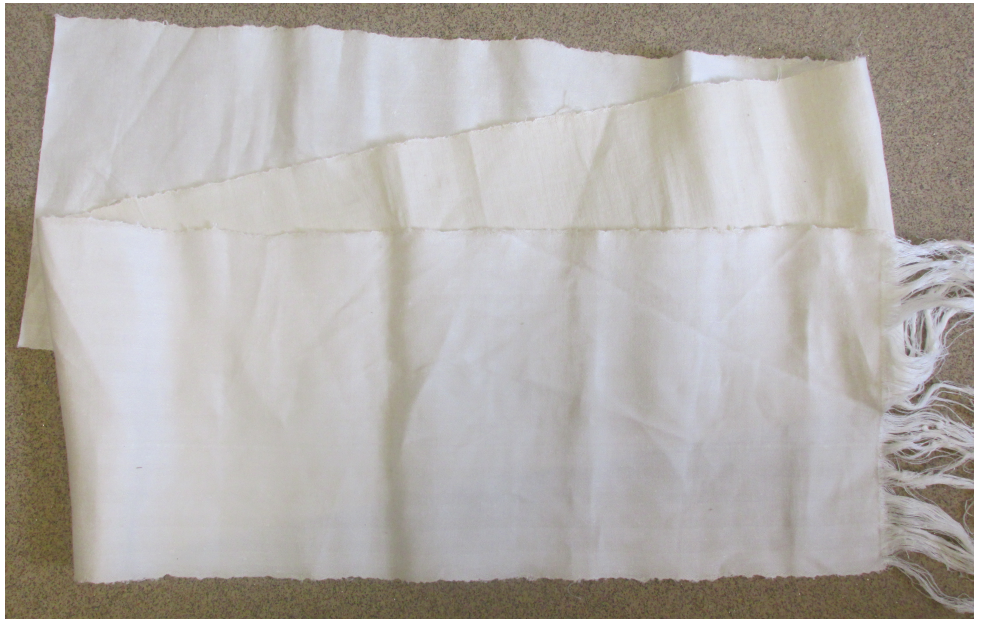
2) Why 3/1 twill? Twill cloth has the effect of concentrating the material of the warp and weft on opposite sides of the cloth, which, if they are different, leading to uniformity of material on each side, which is much better for receiving any paint or pigment that it may be intended for. 3/1 twill requires the use of an advanced design of loom with four lifting heddles, probably treadle operated.

3) Why herringbone? Twill weave has the effect of distorting the cloth in the direction of the twill, a distortion which can be eliminated by regularly reversing it.

As I say, I do not know why the material of the Shroud was made, except that it is excellent for flexible pictorial display material such as a flag. I do not think it could have been intended for making shrouds,

although, of course, if one was in a hurry and searching for a cloth in which to enshroud someone really important, dedicated shroud material would not necessarily be essential.

As I mentioned in the last newsletter, Ruth Gilbert has spent the last two years researching, designing and making me a sample of this material, and here it is. It is about 200cm long and 26cm wide, and has an



arial density of about 35mg/cm<sup>2</sup>. It is woven of two different threads, which make the two sides slightly different colours (which is equally true of the Shroud). Although I think it is an excellent copy, it is only fair to Ruth to repeat her own words, that “I make no claims for the similarity of this piece to the original shroud fabric, which I have not seen, that being the first reason. More importantly, the quality of commercially available linen is sadly wanting compared to the hand spun yard of the original.” Nevertheless, I believe this sample will behave forensically sufficiently similarly for sensible comparisons to be made.

