

QUESTIONS AND ANSWERS ON THE SHROUD'S WEAVE

by  
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----Summary:

The author replies to three questions which he has asked himself, and which concern the weave of the Holy Shroud. He is of the opinion that it is the weave which can date it as of the time of Christ. He refutes the view that the same weave was used in France in 1400.

Studies on the Shroud's weave by scholars call attention to the difficulties that arise and are above all due to the scarce information on the subject of the linen industry in ancient times.

Nevertheless, I have made my research and consultations from French and English references that concern the subject. I found nothing of particular interest in published works, nor may there be any wishful hopes on future archaeological discoveries in countries of the Middle East, for any fabric-piece that could serve as useful evidence---or eventually scientific proofs concerning the Sacred Linen, which might allow us to establish--with at least a certain nearness in time--the antiquity of the linen.

One can notice first of all that the same construction of the weave, that is--the "fishbone" pattern--conferred on the cloth a strength and sturdiness quite superior to plain-weaves "in linen". This is due to the better binding of the warp-threads to those of the weft. It was thus able to survive better to our times, in a fair state of preservation, despite its many hardships and ordeals, sustained in the course of centuries. These were fires, washings, foldings and rolling-ups, before and after its displays, travels and transfers from one place (one depository) to another.

There are three questions I hold that may be questions of substance, which may be posed to satisfy, at least partially, the curiosity of those interested in the subject. They are:

- 1) Looking at the Shroud's linen, what can one see and what type of weaving is it ?
- 2) In the period of Christ's death, was it already possible to weave a similar fabric?
- 3) Could it have been possible for the linen of the Shroud

V. Marchis/Questions and Answers on the Shroud's Weave, 1960

to have been a fabric woven in France many years afterward---and more precisely at the beginning of the 14th Century, from which time begins the documented history of the Sacred Relic's appearance in France?

And here in brief are my answers, according to my personal viewpoint.

1. The Shroud is a cloth of pure linen, somewhat irregular, seemingly, in the thread-spinning as in the web (weaving pattern). That was due to a handloom, which must have been very rudimentary, but by what it made, it would show the ancient origin of the fabric, even if it isn't possible to determine the precise period.

The same thread with which it is woven was hand-spun, because, even as very finely done, it nevertheless displays numerous irregularities in diameter, thicker parts, or budlike shapes. Also, the same pattern in the weave, a corn-row or "fishbone", is very irregular, interrupted and broken by mistakes in return-passes, or missing passages of rows and therefore, breaks in the spine-like design itself.

A similar design is still actually used in the linen-industry for linen hand-towels or dust-cloths, made with hemp and cotton. In comparing a sample, however, of such recent products, with the pattern on the Shroud's linen, as viewed from a photograph, there is a great difference clearly between the two weaves. We may be able to add further, from the results of Timossi's studies, that the Shroud's weaving-pattern was formed of lengthwise stripes---descending and ascending at the same time, each one of 40 threads, in width about 11 millimeters, making precisely the fishbone design. Also, the degree of the thread's fibers has to correspond to about a total of 50 threads (an English reference on linen) for the weft, and a total of about 30 for the warp, with 40 threads per weft, and 27 per warp, for a square centimeter.

2) As for the answer pertaining to the second question which has been posed, it was to see first of all if it were still possible--at the time of Christ's death, that another fabric similar to the Shroud's linen had then been woven.

Let us note, in the second item, that in order to obtain the effect of the fishbone pattern, it is necessary to have at one's disposal a weaving-loom, no matter how rudimentary, ~~which had to have at least four~~ <sup>four</sup> heddles (a lifting mechanism giving the needed movement for the warp-threads through the alternate passes of the weft-threads.) This is the arguing-point of the whole question, on which the opponents of the Relic's authenticity based their firm denials, that looms of that type (four-heddles) weren't in existence in New Testament times. They deny the existence of that type of hand-loom, with four heddles moved by footpedals, (in that time, 1st Century.)

In truth, we have no absolute proofs of that (knowledge), as all the examples and textile artifacts of ancient linens---which

V. Marchis/Questions and Answers on the Shroud's Weave

we may have and may be able to examine perhaps, in our Egyptian Museum at Turin, as in the British Museum in London, are plain-weaves in linen or tapestries. These were products that came from vertical and horizontal hand-loom, but without any heddles.

We may observe such looms in mural paintings, however, of those depicting Egyptian women engaged in the work of weaving. (These refer to periods much more earlier than the one in which Jesus lived, (2000 years previously.) It is not arbitrary to affirm that in the course of so many centuries that they could have made eventual improvements, in their textile skills, as in Syria or Egypt, the same regions bordering on Palestine, where the textile craftsman was more advanced. (Marchis may mean those craftsmen of Egypt, or Syria, the latter were considered more skilled in twills.)

WE may add lastly that from uncertain information--but still a certain sign, not without its own importance--comes something to be placed in the Shroud's favor. This particular sign is the structure of a semi-petrified or calcified cloth-fragment, discovered in the excavations of Pompei, (destroyed by a volcanic eruption, 79AD--Translator's note. WJD). This fragment shows a cloth with a twill or at least a pattern of so-called "Batavia", "diagonal" bone. It is certainly true that this fabric would seem to be of wool; yet, nevertheless, one can not refute the fact that such weaving-effects were possible to obtain with wool, and could be also obtained with linen.

We may also wish to say this: that such similarities had to be derived from hand-loom and foot-pedals, with at least four heddles, and that weavings made by such looms could have very well come through imported goods of the East.

3) The third question that we posed is more easily answered. Was it possible for the Shroud to have been woven in France, around the 1400s? It was not possible. The looms in that country produced a superior fabric, by many 14thC. examples we can show, whereas in the Shroud's case, such mechanical looms had yet to be invented,

There is still very much more to say on the subject of the Shroud's weave, concerning which I have only given brief signs. The Shroud remains with many unknowns, leaving many mysteries. Still, however, while there are no positive proofs in its favor, there are also none against its (authenticity. The door is open to all hypotheses as to all criticisms. The criticisms are welcomed if they can serve to enlighten and expose new ways towards research. It is necessary, however, that the same criticisms be founded on solid arguments, and not be dialectical exercises only, that depart from hypothetical concepts.

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