

The Shroud of Turin and the Sudarium of Oviedo

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Readers of this newsletter will be no doubt be familiar with the Shroud of Turin but may perhaps be less well-acquainted with the Sudarium of Oviedo, a heavily bloodstained piece of linen measuring 84 x 53 cm which is kept the Cathedral of San Salvador, Oviedo, Spain. This cloth is however considered to be extremely important by researchers who study the Shroud, as there are several features that are common to both these sacred cloths which reinforce claims for the authenticity of both.

The Gospel of St. John gives the following description of what the apostles Peter and John saw when they entered the sepulchre after the resurrection:

Then Simon Peter came, following him, and went into the tomb. He saw the linen cloths lying there, and the face cloth, which had been on Jesus' head, not lying with the linen cloths but folded up in a place by itself.

Gospel of John, Ch. 20 vs 6-7

It is claimed that the 'face cloth, which had been on Jesus' head' is The Sudarium of Oviedo and as we will see, there is considerable evidence to support this claim.

Shroud scholar Mgr. Giulio Ricci was the first to identify a correspondence between both relics when studying it in August 1965. He managed to match the position of the beards in the Shroud and Sudarium. Since then, international scientific research has found several more features on the Sudarium of Oviedo which match corresponding features on the Shroud of Turin.

An obvious but undeniable common attribute is that in both cases there is evidence of a beard and a moustache, which means the victim was male. Many of the features found on the Shroud of Turin unequivocally correspond to the wounds inflicted by a Roman crucifixion. In particular, the nail wounds in the feet and hands, the scourge marks made by a flagrum (a particular type of Roman whip), the abrasions found across the shoulders, the wounds on the forehead and nape of the neck and the large wound in the side. All these fit not only with a Roman crucifixion but more specifically with the one that Jesus Christ suffered as described in the Gospels.

Unlike the Shroud, the Sudarium contains no image markings and covered only the head rather than the full body and so it is more difficult to determine all the details of the torture suffered from a study of this cloth. However, forensic analysis of the Sudarium has indicated, with a high reliability, that the Sudarium of Oviedo was used on someone who had been executed and had remained in an upright position for more than an hour after death. It also indicates that there was a slow and soft discharge of pulmonary

edema¹ through the airways. These findings are compatible with the cloth having been used to cover the head of a victim of no other punishment but crucifixion.

Traces of wounds that are compatible with a crown of thorns punishment are also present in both cloths (fig. 1). They show small clots formed from wounds that had been made by small pointed objects such as the sharp spikes of a crown of thorns. These clots are located at the back of the head as well as on the forehead.

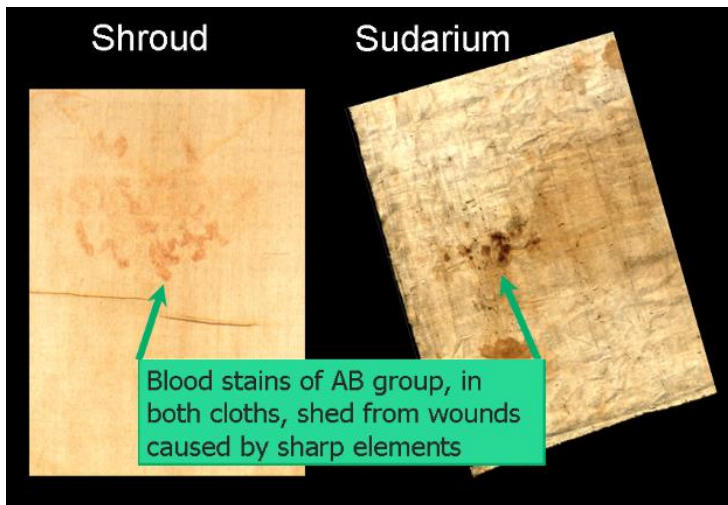


Figure 1. Stains of live blood of AB group in both cloths in the nape area.

During a thorough observation of the Sudarium, Dr Sánchez Hermosilla identified a pair of small dot-shaped stains in the lower left corner of the Sudarium which could have been caused by stroke from the Flagrum Taxilatam (fig. 2) which is believed to have been the punishment tool used for scourging Jesus Christ. The size of these stains is compatible with those that appear in the Shroud of Turin. However, these particular marks would fall under the hair in the Shroud and so cannot be seen in the Shroud on this part of the neck. However, they are at the same horizontal level as many visible Flagrum marks that are found on the shoulders of the Man of the Shroud.

Facial Area

The main stain of the Sudarium that was produced by direct contact with the face can be divided into three parts: upper, lower and central. Thus, we can see in figure 3 that the upper part corresponds with part of the forehead of the face of the Shroud, the

¹ Pulmonary edema is a condition caused by too much fluid in the lungs. This fluid collects in the air pockets in the lungs, making it difficult to breathe.

lower part corresponds with the mouth and finally, the narrower and central part of the stain connecting these upper and the lower parts corresponds with the nose.

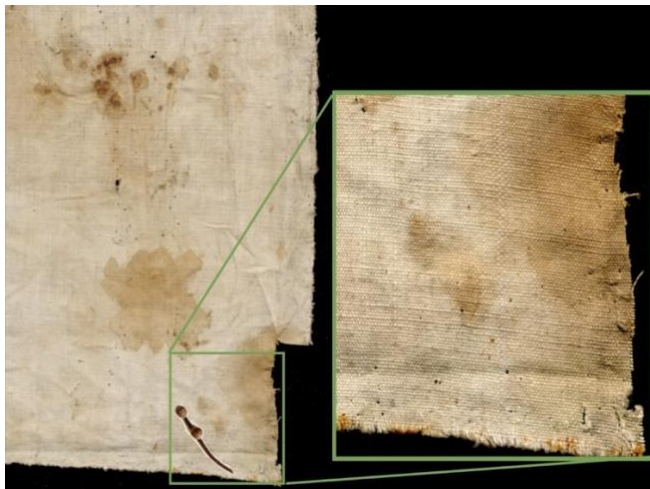


Figure 2. Left: The dumbbell-shaped Flagrum metallic edge compared to the double bloodstain. Right: A close up of the double bloodstain

In the Sudarium, the upper part of the main stain borders the edge of the hair, the eyebrows, and the famous epsilon clot seen in the image of the Shroud. These elements delimit a “reservoir” for the fluid that came out of the nose and mouth when the corpse was face down.

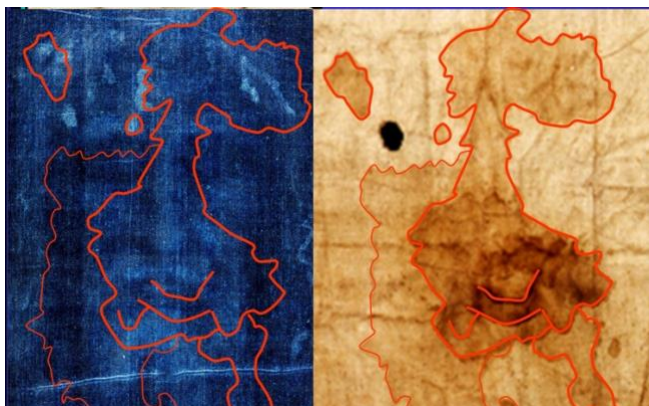


Figure 3. Outline of the main stain over the face of the Shroud of Turin and over the stain of the Sudarium.

There is a small bloodstain on the Sudarium which is separated from the main stain.

This bloodstain matches the size and position of a similar stain on the left eyebrow of the Man of the Shroud and appears to be a wound from the crown of thorns. It is immediately below the epsilon-shaped clot in the Shroud and is positioned where the eyebrow would have touched both cloths. In addition, the central part of the drop is absent in the Shroud of Turin cloth, in contrast to the rest of the 'three-shaped' blood clot. We may suggest that the missing part of the Shroud's drop remained in the Sudarium when it was removed.

The lower part of the main stain in the Sudarium corresponds to the tip of the nose, the mouth, and the beard. The darker part of the stain in the Sudarium matches the position of the nose and the mouth of the image of the Shroud, which would have been the source of the fluid discharge. In addition, both edges of the moustache can be seen in the Sudarium stain.

When we attempt to match the features found on both cloths using reproductions at the same scale, we would expect that when the forehead stains are correctly aligned, the contour of the stain which corresponds to the mouth and beard in the Sudarium should correspond to these anatomical elements on the image of the Shroud. However, it appears that they are displaced downwards making it impossible to match the outline of the main stain of the Sudarium simultaneously on the mouth and on the forehead of the face of the Shroud. If the stain is correctly aligned at the forehead, the outline of the main stain on the Sudarium has to be moved up to be correctly aligned with the area of the mouth on the Shroud. We believe this can be explained by the fabric of the Sudarium and the Shroud having covered the face in slightly different ways.

The forensic reconstruction of the use of the Sudarium shows that it was closely fitted to the profile of the face by sewing it to the strands of hair and beard and, at times, compressing the area of the nose and mouth with a hand. However, the Shroud was placed gently over the face, keeping contact only with the most prominent parts of it, such as the tip of the nose and chin. The fabric of the Shroud was therefore not folded around the tip of the nose to the base of the nose at the upper part of the upper lip. In contrast, the fabric of the Sudarium was tightly wrapped against the entire length of the base of the nose by sewing one edge of the cloth into the hair at the nape of the neck and sewing the opposite fold into the hair and beard on the right side and, at times, compressing the area of the nose and mouth with a hand. This means that when the Oviedo cloth was unfolded, the mark corresponding to the tip of the nose is separated from the mark on the lip by a distance corresponding to the base of the nose. If we account for this by removing a gap corresponding to the base of the nose, the two cloths are then correctly aligned at both the forehead and mouth (fig. 4). This gap is around 1.2 cm which is consistent with the estimate of Dr Miñarro who proposed 3 cm for the projection of the nose as a result of his simultaneous studies of the Shroud and Sudarium.

Because the Sudarium retained more blood than the Shroud of Turin and its only

markings are from the bloodstains, we had to enhance the appearance of the blood in the Shroud in order to make a visual comparison of the two cloths. This was done by merging the reverse, the transparency and the RGB images of the face of the Shroud to make its bloodstains visibly clearer. Then, we superimposed the outline of the Sudarium (fig. 4 right).

Using this approach, the clot that runs down from the right corner of the mouth in the Shroud is clearly visible and we can see how it matches with the lower right part of the outline of the Sudarium. This clot is difficult to distinguish in direct photographs of the Shroud. However, this match convinced Mgr. Ricci that the Sudarium and the Shroud had covered the same face.

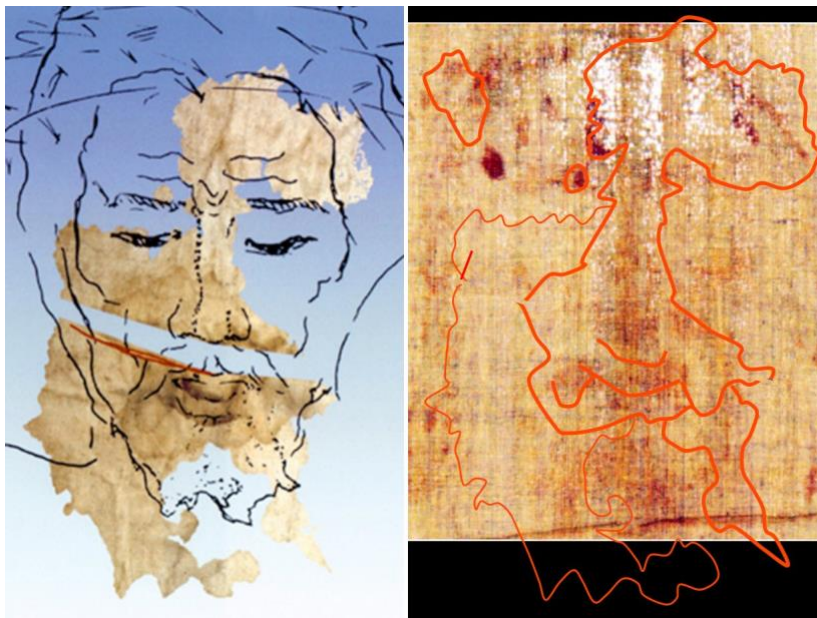


Figure 4. Once the gap corresponding to the base of the nose is removed (left), the stain is correctly aligned with both forehead and mouth of the face of the Shroud (right).

Back of the Head

A detailed comparison has also been made of the occipital area at the back of the head of both cloths, where there is a group of clots produced by small wounds clearly identifiable as the type of wounds that would be produced by a crown of thorns. It has been proved that in both cases, the stains are from blood that was shed when alive. When a transparency of the Sudarium rotated approximately 19° with respect to the

Shroud photograph was superimposed on an image of the Shroud, the correspondence between the stains from both cloths was very clear (fig. 1). Both have a main stain of a very similar size and shape that is flanked by other smaller stains at similar distances. There are eight bloodstains in that area of the Shroud and six of these correspond with the position of similar bloodstains on the Sudarium. That is to say, in the area of the crown of thorns, which is an exclusive characteristic of the Passion of Christ, there is a 75% agreement between both relics.

The blood correspondence is not only found in the pattern of the bloodstains. The blood found on both the Shroud and the Sudarium belongs to group AB. There is roughly a one in a thousand chance that the blood on these two cloths should match.

Dust on the Tip of the Nose

Using X-ray fluorescence spectroscopy, we identified three particularly dusty spots on the Sudarium located near tip of the nose. The dust would have been fixed in the cloth by the physiological fluids while they were still fresh. Similarly, an unexpected excess of dirt around the tip of the nose has also been found on the Shroud of Turin (fig. 5) which is another astonishing coincidence between both cloths.

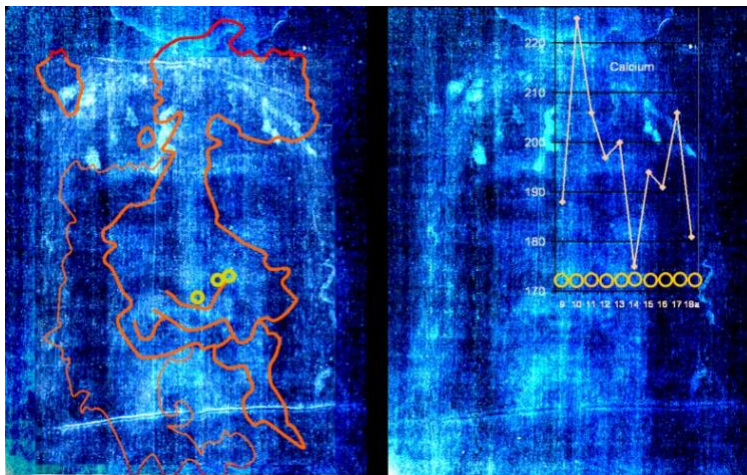


Figure 5. Location of three dustiest spots close to the tip of the nose in the Sudarium (left) and intensity of Calcium on the face of the Shroud (right. Elaborated from Morris et al.).

The particular accumulation of soil dirt in this area of the face has been attributed to falls in which the nose touched the ground.

The placement of hair on the Shroud image

So far we have reviewed some of the main features found on the Sudarium that

correspond with those observed on the Shroud. Now we will look at two unusual features that can be seen on the Shroud and will show how these can be explained by an understanding of how the Sudarium of Oviedo was applied to the head of the Man of the Shroud. These features are the so-called 'ponytail' and the position of the hair next to the cheeks seen on the Shroud.

At the back of the Man of the Shroud's head there is a tress of hair that looks like a ponytail which some scholars believe was a typically Jewish fashion at the time of Christ. A simpler and more probable explanation is that the Sudarium of Oviedo was sewn around the hair in this area, causing the hair to gather together like a ponytail. This can be deduced from the two relatively parallel lines of holes showing where the needle went in and out of the Sudarium, running from the dot shaped bloodstains to the large lower stain shown in figure 2.

We used volunteers to simulate the process undergone by the hair of Jesus Christ during His Passion. At the beginning of the experiment, the volunteers had clean hair. We then used combinations of serum, blood and dust and applied them to the head and scalp of the volunteers. These were applied in ways that would simulate the sweat 'like drops of blood falling to the ground' when Jesus prayed on the Mount of Olives, the bleeding caused by the crown of thorns, the sweat and perspiration caused by the effort during the Calvary Road carrying the weight of the cross and the dust of the road that would have been in the hair after the falls of Christ. By the end of this stage of the experiment, their hair was covered with serum, dust, and blood.

After this simulation of the first stage of the Passion, we replicated the use of the Sudarium of Oviedo by wrapping the head with a cloth (however we did not sew the cloth to the hair). When the cloth was removed, the hair remained thick and compact. This showed that dirty hair soaked with blood and sweat, that had been gathered together and tied up in the Sudarium between the fabric and the stitches for about two hours, would have kept its shape after the cloth was removed.

This lock of hair that had been gathered and tied using the Sudarium could therefore be responsible for the Shroud's 'ponytail' which was then recorded by the image formation process. We think this is the most plausible explanation for the existence of the Man of the Shroud's hair tress.

The other odd feature on the Shroud is the layout of the lateral tresses of hair. They are aligned next to the cheeks, and they reach the front of the shoulders. However, if a corpse is lying on its back, it would be expected that these locks would fall towards the back, leaving the side of the face and the ear free. One suggested explanation for this anomaly is that the corpse had a chin guard that held the tresses of the sides. However, the use of the Sudarium of Oviedo would have been enough to keep the hair in the position which is seen on the Shroud without the need of any other aids.

The Gospel says that Christ bowed his head forward at the moment of death. If a linen cloth such as the Sudarium of Oviedo was then placed around his head, the hair would remain fixed to his cheeks. To verify the effects of the use of the Sudarium, at the end of the Passion simulation described above, the volunteer was placed on his back and the sudarium was removed. His ears and part of the cheekbones and jaw remained covered by hair after removing the cloth. The tresses reached the front of the shoulders.



Figure 6. After the Passion simulation, the lateral tresses covered the cheekbones and reached the shoulders.

In summary, the placement of the tresses along the cheeks of the Man of the Shroud, despite the horizontal position of the body, can be explained by the fixative effect of the Sudarium which would have held the hair in that position for over two hours.

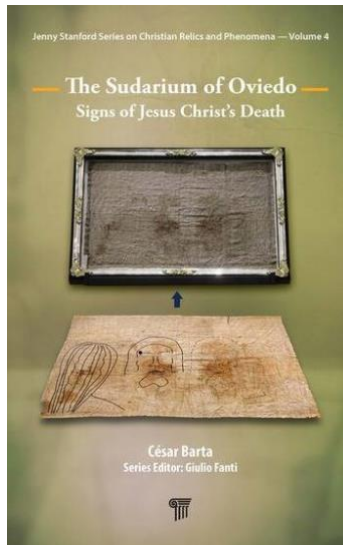
This brief description of some of the evidence revealed by studies of the Sudarium shows why scientists who have forensically analysed these two sacred cloths are convinced that they must have covered the same head. This not only adds to the weight of evidence in favour of the authenticity of both these cloths but as we have shown, it also helps to explain some of the unusual features that are seen when studying the Shroud of Turin.

You will find much more information about the evidence linking the Shroud of Turin with the Sudarium in chapters 7 and 8 of César Barta's recently published book, which provides a comprehensive account of the findings revealed by scientific and historical research into the Sudarium of Oviedo¹.

The Sudarium of Oviedo: Signs of Jesus Christ's Death
by César Barta

2022 Jenny Stanford Publishing

386 pages, with 56 colour and 180 black and white illustrations



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Pam Moon, the creator, owner and manager of a captivating mobile Shroud exhibition, is always on the lookout for new venues such as churches, cathedrals or large halls, which may be able to host such events. If you know a suitable venue which could be made available for a Shroud exhibition, please contact Pam Moon by sending an email to:

familyofmoon@aol.com

¹ This publication was reviewed by Michael Woodward in BSTS Newsletter issue number 95.