

THE TURIN SHROUD AND PHOTO-RELIEF TECHNIQUE

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The photographing of the sindonic image has recently undergone further development with interesting results.

I refer to the findings of the experiments which I presented at the 3rd International Congress of Sindonological Studies in June 1998, and which have subsequently improved.

This treatment of the image, which refers to an old technique known as "photo-relief," has enabled us to highlight and show off the particular characteristics which this absolutely unique impression possesses.

Analysing the faint traces left by the corpse of the Man of the Shroud on the sheet, it has been discovered that these are composed of a series of "variable monochromatic intensities" having the characteristic of greater or lesser tones determined by the distance between the body and the sheet in which it was wrapped.

As is well-known, this fact constitutes the most extraordinary aspect of this figure.

Examining the Face for example, the more intense tones are found where there has been direct contact between the sheet and the protruding parts of the human form such as the forehead, the nasal pyramid, the chin, etc., but traces have also been observed in those areas where direct contact does not normally occur and here the intensity of the impression gradually fades until it disappears altogether.

It may be said that the different tones are representative of this phenomenon and constitute a three-dimensional information bank whose decoding has enabled various researchers to obtain extraordinary relief images.

In 1974 the Frenchman Paul Gastineau was able to read this information by means of an apparatus containing a light which, when concentrated into a tiny spot, measured its reflection. By transferring this data to a white-hot point, it incised a plastic material, thereby obtaining for the first time a relief mould of the sindonic Face.

In 1978 Jumper and Jackson, using a VP8 image analyser developed by NASA, obtained the first photographs having a three-dimensional effect.

Professor Tamburelli of the University of Turin, using computer-aided equipment, subsequently obtained other exciting images of that superb Face we all know.

Even though the photo-relief technique is based on different premises, it also utilises the peculiar characteristics of the sindonic image in a different way:
it could be said that while in the previously-mentioned cases the reading of the information is done vertically, with this technique it is done horizontally.

Appearing at the beginning of the last century, with the probable objective of giving depth to two-dimensional photographic images, it achieved results which went no further than curious oddities, so that its application was limited to the fields of expression and creativity.

The basic technique consists mainly in superimposing two complementary photographic films (one negative and one positive) of the same subject, adherent to each other but with a slight displacement of their coincidence.

This offsetting generates intensities and transparencies in those tiny spaces which are able to show off the outlines of a form with light and shade without altering the image, achieving a vague bas-relief effect where it is supposed they exist.

In fact the results on normal subjects are mere oddities easily obtainable using computers; on the contrary, the application of photo-relief on the sindonic image, with specific and suitable adaptation, has unexpectedly given very different results due to the intrinsic nature of the subject.

But another no less important characteristic of the sindonic impression should be added to the analysis already expounded: that of showing itself without the minimum of shadow, even though its image is so evident and deep.

Instead the photo-relief, whose basic characteristic is of being a light carrier and consequently also a shadow carrier, enables the three-dimensional effect to be achieved.

Without going into purely technical explanations, I can guarantee that the experimentation has led me, after the initial excitement, to a series of more and more encouraging and interesting trials, according to the combination of the different intensities, contrasts and positions, culminating in these more marked and precise images.



Reviewing the results obtained, we can see how the Face, which appears to be illuminated by light coming from its right (viewer's left) at an angle of about 45°, shows outlines of a natural roundness and a depth which highlight in a particular way:

- the swelling at the right cheek-bone
- the swelling at the right cheek
- the split nasal septum
- the trickles of blood on the forehead, hair and beard
- the various shadows which outline the lips, the chin, etc.



By varying the reciprocal positions, we see the same face but this time illuminated by light coming from its left (viewer's right) side with evident and logical variations in the effects of light and shade



The frontal trunk which seems to be illuminated from above, shows us the characteristics typical of a crucified man, namely:

- the dilated form of the chest in an asphyxiated position
- the depression of the diaphragm area due to its contraction and stiffening
- the natural bulging of the abdominal area
- the exciting relief of the two hands crossed and slightly bent.



The full frontal figure of the sindonic Man illuminated from its left (viewer's right) at 45°, gives back the complete harmony of a body, but with the legs close together and the knees touching.

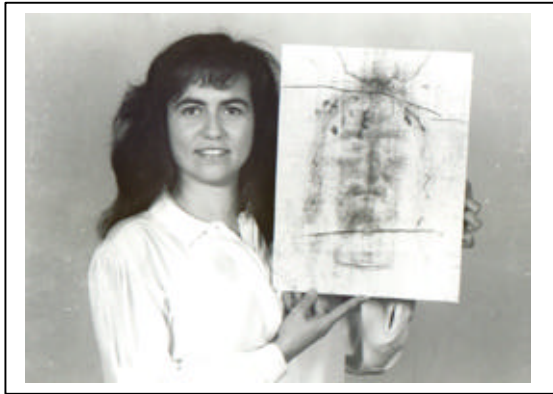


Looking at the back, perhaps the most interesting for the study, the consequences of the death by crucifixion can be clearly seen, with the left foot which has been nailed above the right, as well as the effects of the stiffening of the corpse:

- the lower part of the body slightly out of its axis
- the asymmetric position of the buttocks, with the right lower than the left
- the thighs reproduced unevenly indicating a different contact
- the calves which maintain a certain roundness
- the impression of the slightly flexed but uneven legs.

Finally there follows the exciting revelation of a mass of soft flowing hair, whose more marked right side (parallel to the hair on the left side of the face on the more important frontal view) seems to indicate a head slightly turned to one side and bent forward.

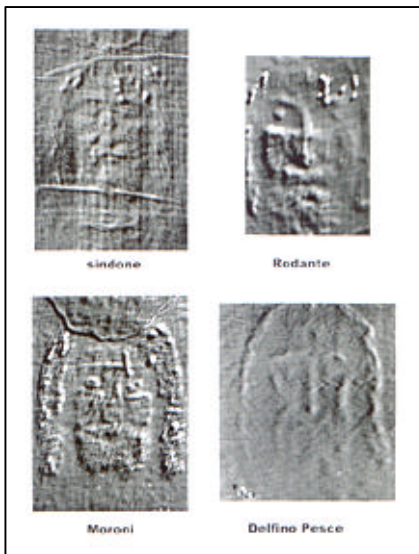
The three-dimensional results emerging from this new experimentation are entirely due to the intrinsic characteristics, which are particular and unique, of the sindonic image.



Proof of this can be seen in the results of the photograph showing a girl beside an image of the sindonic Face.



The application of this technique on the entire photograph only shows the sindonic Face in relief, while the same effect cannot be seen on the girl.



Likewise the pseudo-sindonic images of the Face produced by the researchers Rodante, Moroni and Delfino Pesce, did not give satisfactory results when subjected to the same treatment, since they did not have the particular sindonic characteristics.

Finally I would like to underline the fact that these results have been achieved using perfectly normal photographic techniques, starting from the celebrated Enrie negatives (which are, as is well-known, extremely detailed and are considered to be technically the best available), and excluding any modification operation to the images, which have, however, enabled us to highlight this figure with a more natural softness, in striking contrast to the harshness of the computerised image.

I think the vision of this incredibly real body of the emblematic Man of the Shroud can make its observation even more emotional and dramatic, practically an eye-witness account.