

Resurrection : physical evidence

by Craig Paardekooper

A. Real Body

The general consensus of Shroud researchers is that it wrapped a real human body that was crucified.

Exactly as Jesus was Crucified

The shroud contains full size good resolution images of the front and back of a naked man that was crucified exactly as the New Testament says Jesus of Nazareth was crucified. The rigor mortis of the body, the injuries, the blood stains and serum stains, are exactly what we would expect.

The shroud shows

1. A person who was scourged
2. Had a crown of thorns
3. Was crucified with nails through wrists and feet
4. Had a side wound that poured blood and a clear liquid
5. Whose legs were unbroken
6. Who was naked
7. Who had rigor mortis
8. Who showed no sign of putrefaction - so the body must have disappeared from the shroud before putrefaction could start
9. Whose face looks Semitic
10. Who was removed from the shroud without smudging or damaging the blood stains

The person in the shroud could only be Jesus . A forger would not portray him as naked - or with missing thumbs or with wrists pierced or with rigor mortis or with wounds showing serum exudate.

Tradition

Long standing tradition maintains the Shroud of Turin is the authentic burial cloth of Jesus.

B. Not a Natural Process

Not a Natural Image : Negative Image

The scientific investigation of the Shroud of Turin began in 1898 when Secondo Pia took the first photograph of it. This photo revealed the image on the cloth was a good resolution negative image. This contradicted the generally held opinion that the image on the Shroud was a painting, because no artist of a previous era could paint a negative image, because he would have never seen a negative image.

Not a Spontaneous Process : Requires Energy :

There must have been some process or mechanism that caused discoloration on the top portions of the fibres that make up the image on the cloth

Energy would have been required for the functioning of the discoloration mechanism to alter the electron bonds of the carbon atoms in the cellulose molecules that caused the discoloration.

Not a Random Process : Requires Information

And information defining the shape of the body and the presence of some of the bones was needed to guide the process so front and dorsal images with good resolution could be formed. The images are of high resolution. This requires that energy not just be emitted, but also guided. There is a one to one correspondence between points on the body and points on the image, so the energy must have been vertically collimated up and down.

Not a Natural Process :

Under normal conditions, the quantity and characteristics of the radiation that could be emitted from a dead body by decay could not form such an image, and never have. Anyone that looks through his clothing will find his body has not encoded good resolution front and dorsal images of itself onto the inside surface of any of his clothing. This certainly suggests the body of a living person cannot encode an image of itself onto a piece of cloth. . Of the billions of people in all human history that have died, none of their dead bodies (except the body wrapped within the Shroud) have encoded an image of itself onto cloth. The images on the Shroud of Turin are a totally unique phenomenon. If the images were encoded by a naturalistic process, then it is reasonable to expect there would be other examples of such images on cloth. A human body forming a front and dorsal image of itself with good resolution on a piece of cloth is unique to the Shroud of Turin. There is no other example of such a thing happening in human history, whether the person was alive or dead.

C. Biblical Explanation

Matthew 27:27 to 28:20, Mark 15:16 to 16:8, Luke 23:26 to 24:53, and John 19:17 to 21:25 explain that the body was resurrected – it was transformed, and became radiant. This event was evidenced by the empty tomb and by the post resurrection appearances to the disciples, many of whom would later die for their belief.

The first observers to enter the tomb after Jesus' crucifixion and burial (John 20:1-10) claimed the body that was wrapped within the Shroud had disappeared from within the Shroud.

D. Evidence for a Radiation Mechanism

In the section below I show that the man in the shroud appears to have emitted a radiation. This radiation produced a uniform discoloration over all the fibres that comprise the image. The radiation was more collimated than would be expected since it created a good resolution image. The intensity of the radiation declined with distance from the body so conveys three dimensional data of the body's topography. The radiation produced a photographic negative with enough resolution to recognize his face, his anatomy and the small details of his specific injuries. The negative photograph alone shows that nearer bodily features are darker (the result of more intense radiation), and more distant features are lighter (the result of less intense radiation).

Why would a forger create a negative image when most of its details would be hidden for hundreds of years ?

The image was produced by radiation , as if the body of Jesus had emitted “light” - as if he had been transformed - which would explain the disappearance of the body.

Discolouration Due to Cellulose Degradation

The discoloration on the fibres is not due to pigment added to the Shroud but is due to a change from single to double electron bonds of some of the carbon atoms already in the cellulose molecule. This is essentially the same as the oxidation-dehydration process that results from aging of cloth. So, the discolouration of the shroud was not due to the addition of a material to the shroud, but rather was due to the addition of energy to the material already in the shroud – which converted a carbon single bond to a carbon double bond.

This explains why the discoloured fibres all have the same intensity of colour – because a carbon double bond absorbs fixed quanta of more light, because it is a binary situation – either double or single.

Digital Nature of the Discolouration

The discolouration is half tone. This means that all the fibres have the same colour, but darker areas have more coloured fibres than lighter areas.

When you view a newspaper picture closely, you find that it is made of dots, each placed individually upon the paper, with white spaces between them. This tells you that the newspaper picture is synthetic rather than natural.

Uncollimated radiation would not produce this effect because the radiation would travel in all directions from each point. It would not produce discontinuous dots, but instead would produce a continuous gradation of fibre discolouration.

Heat radiates in all directions equally. It should therefore produce an analogue discolouration of all fibres. If the discolouration is half tone, this means that in any area there will be fibres that are clear and fibres that are discoloured.

Half tone images are always synthetic because they **simulate** continuous tone imagery (natural imagery) through the use of dots. The shroud image is half-tone.

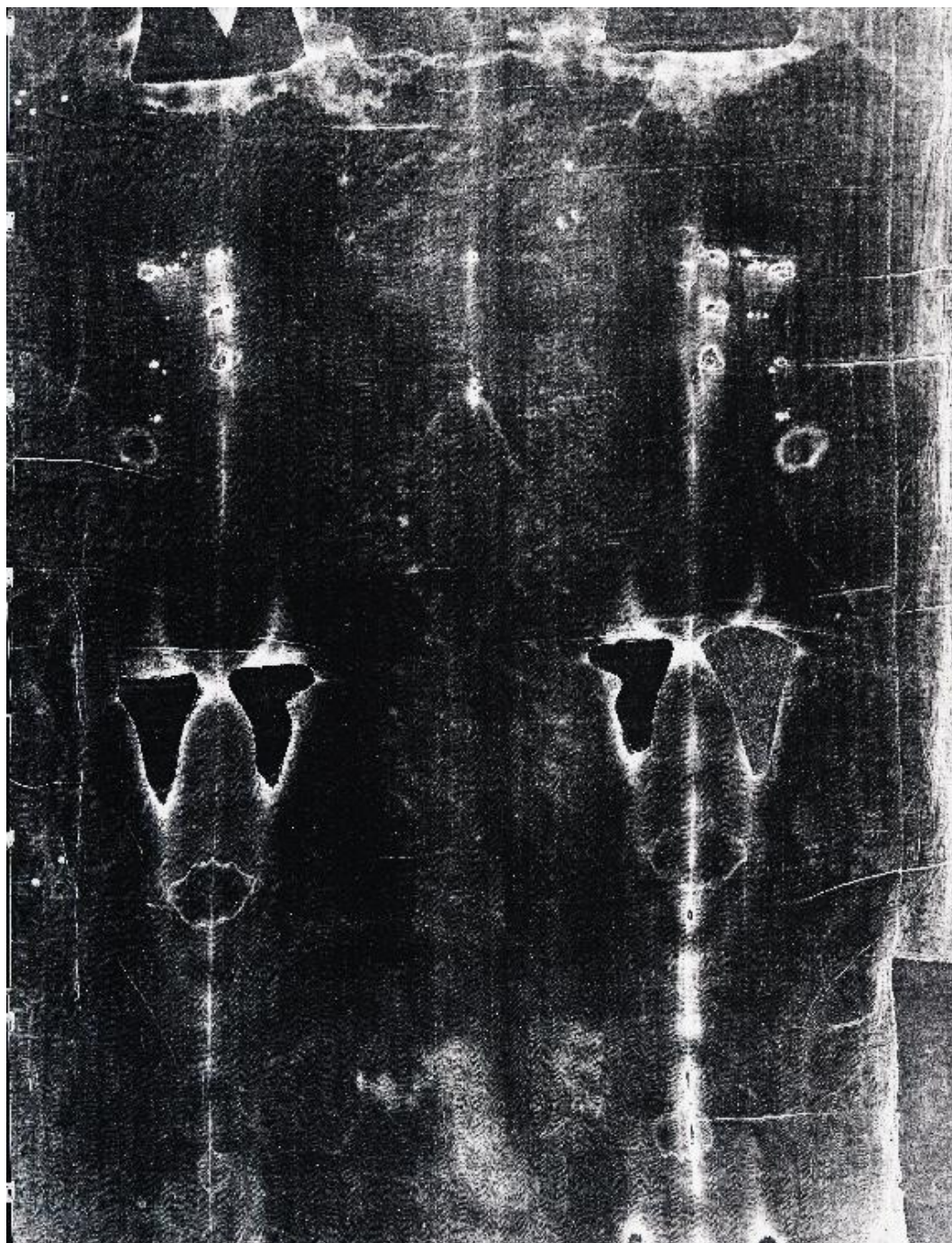
Discolouration Due to Radiation determined by Body-Cloth Distance

The image on the shroud defines the shape of the body in terms of the vertical distance between the body and the cloth, for researchers have concluded that is what the shades of discoloration on the Shroud indicate.

The variation in discolouration is due to a variation in cloth-body distance. This shows that radiation is the cause. This indicates radiation communicated to the cloth the information that specified at every point the body-to-cloth vertical distance required to produce the 3D information on the Shroud. This information must have been produced by something that flowed from the body to the cloth that diminished as it passed through the air gap between the body and the cloth. The only option to communicate this information is radiation. Such radiation

could be diminished by absorption or scattering by the air in the gap, or by decay of particle radiation. The image is a negative (reverse) image that contains 3D or topographic information content related to the distance of the cloth from the body. The 3D effect is due to the intensity of the image being approximately inversely proportional to the vertical distance of the cloth from the body, with no image formed when the cloth was more than about 3 or 4 cm from the body. This can be explained by radiation that went from the body to the cloth, with its intensity decreasing as it passed through the air gap between the body and the cloth due to absorption, scattering, and/or decay, until it was not strong enough to cause any discoloration. This implies the discoloration mechanism has a threshold energy.

An agent acting at a distance with decreasing intensity is, almost by definition, radiation.



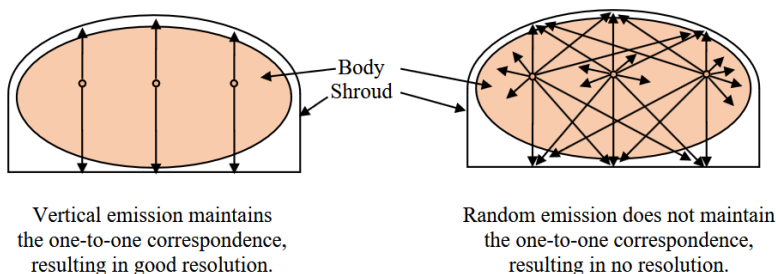
The legs of Christ are a good example of the variation of intensity with distance. You can see that the buttocks have the highest intensity. The right thigh loses intensity as we descend, because the right leg was bent so that the right foot could be nailed on top of the left foot. The calf of the right leg has an increased intensity owing to its muscular mass. This demonstrates action over a distance, where the intensity decreases as distance increases. The thighs and calves have a rounded cross section. Notice how they appear darker at the edge and lighter in the centre because of this roundness.

Radiation was Vertically Collimated

The front and dorsal images on the Shroud have good resolution, with the resolution estimated to be about 5 mm or less. There are no images of the side of the body or the top of the head. To encode good resolution images onto the Shroud, there must have been a one-to-one correspondence between each point on the surface of the body and each point on the cloth, so that each point on the surface of the body affects only one point on the Shroud and each point on the Shroud is affected by only one point on the surface of the body. Since there were no lenses between the body and the cloth to focus the radiation, the best explanation for how this could have been accomplished is that radiation was emitted within the body, with this radiation emitted in a vertical direction – vertically up and vertically down. This is shown in the left figure below. And with the radiation only emitted in vertically up and vertically down directions, no image of the side of the body or the top of the head would be formed, consistent with the evidence on the Shroud.

Random Emission of Radiation Produces No Image

As shown in the right figure below, if radiation is emitted randomly in all directions from every point in the body, then each point on the cloth would receive radiation, and hence the information carried by that radiation, from many points in the body, leading to confusion of the information, leading to no image on the cloth.



Consider how our eyes function. When we view the scene in front of us, our eyes can produce a high-resolution image of the scene on the retina at the back of the eye because each eye contains a lens. Even though photons are being reflected in all different directions from every point in the scene in front of us, so that photons are entering our eyes from many different points in the scene in front of us, the presence of the lens in each eye is able to focus those photons onto the retina so that a high resolution image can be formed. If there were no lens in the eye, no image of the scene in front of us could be formed on the retina. Similarly, for the Shroud, since there was no lens between the body and the cloth, no image of the body could be formed on the cloth if radiation were released in random directions from every point within the body. But a good resolution image can be produced if the radiation emitted from every point in the body was initially released in a vertical direction, collimated vertically up and vertically down, assuming the body was lying horizontally in the tomb.

Consider a pin-hole camera. The smaller the hole, the sharper the image formed. In a bigger pinhole **the image will become brighter, but it will also be blurred**. This is because light from one point on the object can reach more than one point on the screen. If the hole is much bigger i.e., equal in size to object being captured in the pinhole camera, **the image will not form at all**.

So you can see why a lens or a pin hole would be necessary - in the absence of these, the light would need to be collimated – a directed beam, like a laser, from each point on the body's surface.

Only vertical beams of light or radiation illustrate how the body image was encoded through space in a straight line direction from the body to the cloth.

“Whatever the mechanism might be, it must be such as to yield effects as if it were a burst of collimated [parallel beams of] radiant energy”

If the source of radiation was uncollimated, such as heat (which radiates equally in all directions) then the image would be very blurred.

Shadow Effect

Microscopic analysis of the Shroud shows that discoloured threads/fibres prevent threads/fibres below them from being discoloured. This “shadow” on the lower threads or fibres indicates something probably flowed from the body to the cloth, and that this flow was essentially vertical.

Not Due to Contact

The image seems to lack the wrap-around lateral distortions that are to be expected from any likely interaction between a human shape and a cloth. The image has been called an “orthogonal projection” of a body onto a surface. It has also been called a “frontal projection”.

If the image is an orthogonal projection onto a flat surface, then the contact with the linen was minimal, and the effect of uncollimated radiation would be a much more blurry image.

The front and dorsal images have nearly the same intensity in spite of the fact that the front of the body only had the weight of the cloth on it whereas the back of the body had the entire weight of the body on it. If for example, the discoloration on the cloth were proportional to the degree of contact between the body and the cloth, then the back or dorsal image should be significantly darker than the front image. But if the image formation was due to radiation emitted from within the body, and it was emitted vertically up and vertically down, then both images should be equally dark.

Images exist where there was no contact – which means there must have been an effect over a distance – radiation.

Light-Dark Reversal

Radiation explains the light-dark reversal of the image. It also explains the left-right reversal.

Replication of Discolouration Characteristics

Radiation has been found to replicate all the characteristics of the discolouration found on the Shroud – such as straw yellow colour, monochromatic, appearance of aging, superficial layers, shadows etc.

Necessary Strength and Duration of the Radiation

It is possible to determine the energy required for radiation to mark linen on its surface, but no deeper. Experiments have been carried out with lasers that emit a collimated beam of photons in the UV spectrum 193nm.

A yellowish surface colouration was achieved only when laser intensity was greater than 1.1×10^9 watts per cm^2 . Below this level linen was not coloured at all. So, it takes more than a billion watts per centimetre squared to colour linen, and this has to be applied for only 12 nano seconds.

This is a huge amount of energy for a fraction of a second. Any longer, and the linen would turn to vapor.

Conclusion

The shroud shows

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The person in the shroud could only be Jesus . A forger would not portray him as naked - or with missing thumbs or with wrists pierced or with rigor mortis or with wounds showing serum exudate.

Then we find that this person appears to have emitted a radiation that produced a uniform discoloration over all parts of the image. The radiation was more collimated than would be expected since it created a good resolution image . The density of the image conveyed distance. The radiation produced a photographic negative with enough resolution to recognize his face, his anatomy and the small details of his specific injuries.

It's as if the body of Jesus had emitted "light" - as if he had been transformed - which would explain the disappearance of the body.

References

Energy Required to Colour Linen :

Ref : https://www.fisheaters.com/Deep_Ultraviolet_Radiation_Simulates_the_Turin_Shroud_Image.pdf

Necessity of Collimated Light :

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General Reference :

Role of Radiation in Image Formation on the Shroud of Turin

https://0201.nccdn.net/1_2/000/000/0ee/7b1/role-of-radiation-in-image-formation.pdf