

SUGGESTIONS ON HOW THE SHROUD IMAGE WAS MADE

The Turin Shroud bearing the image of Jesus as a crucified man is a fake but nobody, unsurprisingly when it is centuries old, can say for sure how the body print was done. You can be sure that the method has been found but because of time and alterations in the Shroud's environment and due to it being cooked in a fire that cannot be proven.

Image Creation by Josh McDowell Christian writer

The transference of the image to the cloth is an important step in explaining whether or not the cloth is a result of a miracle and is in fact the burial cloth of Jesus. If there was no doubt that the cloth was beyond natural means, we would have a miracle and therefore the cloth of Christ. It is admitted by both sides in this argument that the image is patterned after Christ's crucifixion.

The methods proposed for the transfer of the image to the cloth are (1) vaporography; (2) scorching and radiation; and (3) thermography.

Vaporography is a process by which the mixture of spices, aloes, and oil reacts with the ammonia (urea) in a man's sweat in the form of vapors to form an image on the cloth. The only requirement of physics is that the vapors must travel in straight lines to form the image. The problem with this theory is that not all chemists believe vapors will travel in exact linear relationships from their points of origin.

O'Gorman wrote in 1931 that a possible way for a vapograph to take place would be with the addition of a radioactive substance in the spices or the body of Christ Himself! But this must be recognized as speculation of the highest nature.

Another method that has gained popularity and is dealt with in the "Proceedings" is "scorching," or the process of a body releasing radiation sufficient enough to burn the image onto the cloth. This theory was put to rest by the testimony of two scientists, Wade Patterson and Dave S. Myers of the Lawrence Livermore Laboratory. They said they didn't see any way that the Shroud images could have been produced naturally by ionizing or high-energy radiation, nuclear or otherwise. X-rays and gamma rays are among the principal ionizing rays, and the images couldn't have been produced by either of them because it takes high-voltage machines to generate X-rays and the only natural sources of gamma rays are radioactive substances like uranium; besides, X-rays and gamma rays don't act on matter in the ways shown on the Shroud. X-rays and gamma rays, they continued, are among the most penetrating radiations; they would have gone right through the Shroud instead of marking it. A very intense source of ionizing radiation, they admitted, would have been able to affect the cloth, but, given the factors involved—a body, the passage of centuries, and so on—they didn't see how that could have been possible.

Even if by some unlikely chance the body had been made radioactive and was therefore emanating X-rays or gamma rays the images on the Shroud were still not in accordance with the kinds of images that should have formed under these circumstances. X-rays and gamma rays are more strongly absorbed by the bones, said Patterson, and thus bones, and not skin, would have been the most distinguishable aspects of the images. Even if a radioactive substance such as uranium—which emits gamma rays and alpha and beta particles, all of which are ionizing radiations—had been smeared on the body, the scientists still didn't think the Shroud images would have appeared; at best there would have been a silhouette. If a radioactive substance had been applied in such a way as to emphasize only highlights, they added, they still didn't know of any technique for sensitizing cloth so that it would be able to register high-energy radiation. X-rays were an example of what they meant; film is needed to record the presence of X-rays. If an atomic blast had gone off over Jerusalem at the time of the burial, there would have been enough high-energy radiation to etch the images on the Shroud, but it would have destroyed the Shroud itself with its intensity. Even if it didn't destroy the Shroud, it would have affected the linen of the Shroud in a quite different way (from *The Shroud*, by Wilcox, pp. 154, 155).

A third method that would allow for an image transfer is a lower form of radiation manifested in the mode of heat. This process is called thermography, and it is used in the detection of breast cancer. Drs. Jackson and Jumper favor this method as the most probable for the image transfer. "Using computers to analyze data from the photos, they had verified the idea that the image was uniformly lighter and darker in proportion to the distance between the body and the cloth. So uniform, in fact, was the variation... that there was no question in their minds that images had been produced by some 'physical process'—apparently other than human artistry—and they tended to favor a 'thermogram,' an image formed by heat" (From *The Shroud*, by Wilcox, p. 175).

However, Dr. Wood of the Neurological Institute of New York relates this process to the Shroud and as a result exposes significant doubt on this process. Thermography, explained Dr. Ernest Wood, grew out of infrared photography which was

developed in World War II; today it is used mainly in the detection of breast cancer. The principle behind it is a simple one: heat emanating from the body is used to make diagnostic pictures, and the pictures are negatives. But there were significant differences, Dr. Wood pointed out, between thermographic pictures and the "pictures" on the Shroud. For one thing, it took sophisticated machines to magnify body heat to the extent that a picture could be registered: the magnification was on the order of one million times. For another, the thermographic picture was registered on Polaroid film, not cloth (from *The Shroud*, by Wilcox, pp. 171, 172). The amount of radiated heat magnified on a scale of a million times or more would in all probability destroy the cloth with its intensity. Those who advocate that low radiation made the image must provide for a refraction of the visible light. They account for this by the supposed layer of morbid sweat on the body acting as a refraction lens to focus the radiation in the necessary linear columnated pattern to produce the image (hence a major reason why the body must be unwashed). If you remove the sweat, you remove the mechanism for focusing. Dr. Mueller called this whole theory ridiculous, as the body would require hundreds of lenses all over it resembling a fly's eye to focus the radiation. Sweat would just not do it! It is also important that the visible low-level radiation being discussed form the image at less than two inches from the body. At greater distances, the radiation intensity drops to zero and would not leave an image. The average for the distance on the Shroud is three centimeters or one-and-a-half inches, which significantly weakens the image-forming properties of radiation, and there are much greater distances on the Shroud to be covered which should form no image if the cause was a radiation scorch. It is also important to remember that the proponents' mechanism for radiation scorch is all pure speculation; there is no proof. It must be wild guessing at best.

Dr. Marvin Mueller has been with the Los Alamos Scientific Laboratory in New Mexico for twenty years, and has done experimental and theoretical research in several different fields of physics. For the past eight years he has worked on the Laser Fusion Energy Project, and is internationally known in this field for his theoretical contributions and antagonistic efforts.

In a letter, Dr. Mueller writes: "Some scientists who are members of the Shroud of Turin Research Project (STURP) have claimed that the experimental results of their study show the Shroud did in fact wrap the crucified body of Jesus Christ. "Their main reason for asserting the authenticity of the Shroud is based on the claim that the Shroud image would only have been produced by a 'short burst of radiation' emanating from the body and then scorching the image of the body onto the cloth with which it was covered. "Such an event would of course be miraculous, but that is just what they need to establish authenticity; for no natural process of image formation could lead to the conclusion that the body which produced the image was that of Jesus Christ. "However, their assertions do not withstand close examination, and seem to be based in large measure on wishful thinking. For one thing, they have not demonstrated that the Shroud image is a scorch, although it does possess some scorch-like properties such as color and heat resistance. "Other substances, which could have been used to form the image of artistic means, also possess these properties and have in fact been found on the image. This fact alone makes any claim of authenticity seem rather foolish. "Moreover, the STURP has not demonstrated that the image was transferred through space from body to cloth by means of radiation or any other agent. While the details are too complicated to be explained here, it can be said that all STURP has done is to establish a correlation between Shroud image density (darkness) and cloth-to-body distances measured using a male volunteer overlaid with a cloth. "But correlation does not imply causality. For example, in principle at least, the procedure which STURP uses to construct a statue of the 'Man of the Shroud' could also be used to reconstruct a full relief (or statue) from a rubbing image produced by Joe Nickells' method. "The fact that they have produced a statue from the Shroud image using the method outlined says nearly nothing about the method by which the image was produced. In particular, the rubbing method, being intrinsically variable and adaptable, can produce a wide range of tonal gradations for a given bas-relief; and can thereby vary the 'threedimensional' characteristics of the image almost at will. "Hence, the two assertions on which the 'short burst of radiation' hypothesis is based are not defensible. Any claim for authenticity of the Shroud of Turin is so premature as to be ludicrous."

QUOTE FROM A CHRISTIAN BOOK

A method for fabricating the Shroud image was demonstrated by Craig and Randall Bresee, both of them being scientists.

First of all they created a carbon-dust drawing of a Jesus-like face using collagen dust. They did this on newsprint paper that was made from wood pulp to simulate paper that was used in 13th and 14th centuries. Then they placed a linen over it and pressed them against each other by rubbing with the flat side of a wooden spoon. A reddish-brown image of a real person with a three-dimensional quality was produced without any sign of brush strokes or other discernible signs of painting.

According to another explanation, it is possible to create the picture on the shroud using a bas-relief -- a sculptural relief in which forms extend only slightly from the background, as opposed to a statue which has the three dimensional form of a person. According to this explanation, a bass-relief sculpture would best preserve the aspects of human body seen in this picture on the Shroud. Researcher Jacques di Costanzo demonstrated this hypothesis by constructing a bass relief of a Jesus-like face and carefully covered it with wet linen. Once the linen dried in that position, he applied a mixture of ferric oxide and gelatin on it. The result was an image strikingly similar to what is seen on the Shroud. What is more, the image was resistant to washing, stable up to temperature of 250 degree Celsius, and was not damaged by exposure to a large

number of harsh chemicals, including bisulphite which would have degraded ferric oxide to ferrous oxide if gelatin were not present. Similar results were obtained by another researcher also.

Others have suggested that instead of painting, they could have used a very hot metal bas relief to scorch and image on to the cloth. But scorching experiments have not been as successful as bas-relief experiment mentioned earlier. Another suggested method for producing the image is through what is called the "Maillard reaction". In it the cellulose fibers of a cloth are coated with a thin carbohydrate layer of starch fractions, various sugars, and impurities which are known only to experienced forger. Several people have demonstrated that this is a plausible way of producing the image that is seen on the Shroud.

These quotes The Shroud of Turin!! Is it Genuine or is it a Forgery? Dr Johnson C Philip, Dr Saneesh Cherian, Edited by Gregory Anderson. Creative Commons. Copyright Philip Communication. First Edition 2014.

INVISIBLE INK?

The argument that invisible ink was used to make the image is dismissed as it would be too hard to paint a big image with it and get it so right. The cloth would have to be baked to get the image on. Some think lemon juice was used to make the paint and the fires the image had brushes with made the image that was there when the paint came off. The lemon juice could have been a ploy to make the painting light. But if that was how it was done we do not know for sure if it was lemon juice.

The image could have been block printed with invisible ink as Clive Prince and Lynn Picknett tell us.

ANOTHER QUOTE

"Before his death in 2005, STURP's Ray Rogers (with whom I sparred in the pages of Skeptical Inquirer 61) dismissed some of the astonishing nonsense of certain shroud claimants (the burst-of-radiant-energy "theory" for instance), disparaging what he termed "lunatic fringes" and "religious zealots ." He had come to believe that the shroud image was the result of "decomposition products of a rotting body," adding that "no miracles or painters are required." Unfortunately the lack of wraparound distortions and the presence of pigments and paint, together with much other evidence, rules out the "rotting body" scenario." This quote is interesting.

My point is that maybe the paint was not made of what we think it would have been made of? Rotting body fluids maybe? Whoever made the shroud had to contemplate using a body in some way or another. So did he???