

Robert A. Rucker

M.S., Nuclear Engineering, University of Michigan, 1971

38 years in the nuclear industry in nuclear reactor design, criticality safety & statistical analysis of measurements. Shroud research and promotion since Jan. 2014

robertarucker@yahoo.com <http://www.shroudresearch.net>

Robert earned an MS degree in nuclear engineering from the U. of Michigan in 1971. He worked in the nuclear industry for 38 years in nuclear reactor design, nuclear criticality safety, and statistical analysis of measurements for nuclear material inventories. He holds Professional Engineering (PE) certificates in nuclear engineering and in mechanical engineering. He has conducted independent research and has promoted the Shroud since 2014. He organized the International Conference on the Shroud of Turin (ICST-2017) held July 19-22, 2017, in Pasco, Washington. His 22 papers on the Shroud can be downloaded from his website at <http://www.shroudresearch.net/research.html>.

ABSTRACT**Why We Can See the Image on the Shroud**

This presentation explains why we can see the image of a crucified man on the Shroud. The simple answer is that we see the image with our eyes when light shines on the Shroud. But the details of this process are far more complex and informative. This presentation is based on the image being formed by the body and involves the concept of information. The nature of information is first discussed using examples. Formation of a person's image in a photograph is used to explain why information is required to form an image. The required information is that which defines the appearance of the person. This information can only come from the body and clothing of the person. For the same reason, the information required to control which fibers are discolored so that the image could be formed is that which defines the appearance of a crucified man. This information could only come from the body of the man as it was wrapped in the Shroud. This information had to be transported or communicated from the body to the Shroud where it then had to be deposited. Of the several mechanisms that can communicate information, radiation is the only mechanism capable of communicating the focused information required to form the good resolution image we see on the Shroud. Thus, we can see the image because radiation communicated the required information from the body to the cloth so it could be encoded into the pattern of discolored fibers that make the image, perhaps through a secondary process such as a corona discharge. When we look at the Shroud, this information is communicated from the Shroud to our eyes by reflected light, i.e. radiation. Our minds have learned to interpret this information as the appearance of a crucified man.