Recently Published Papers & Articles November 22, 2021

Physical or Theological Approach to Investigate the Shroud Image Formation by UV Radiation? by Giovanni Fazio - International Journal of Theology, Philosophy and Science - No. 9, Year 5/2021 -November 8, 2021. Here is the abstract: "In this article, we ask ourselves if it is possible that Corona Discharge or Vacuum UV radiation may have been the tools to produce the Shroud body image. We are convinced that both are not appropriate mechanisms. In fact, the start of these processes is based on inconsistent hypotheses for the natural sciences, although all that follows is rational, reasonable and acceptable. However, the big initial mole remains. The complexity of this situation is such that it seems to be in a world in part Transcendent and in part Immanent. Therefore, independently from the possible results that in a next future could be obtained, due to identified photochemical processes, the Scientific Method cannot accept both the hypotheses and, consequently, the experiments. The same is also for the Theological approach which discards both proposals."

A Reexamination of the Pigment-Reinforcement Hypothesis of the Turin Shroud's Bloodstains by Giulio Fanti. WSN (World Scientific News) 163 (2022) 99-114 – November 6, 2021. Here is the abstract: "New studies based on X-Ray photographs of the Turin Shroud (TS) from 1978 and new quantitative tests induced the author to reexamine the viability of a hypothesis he had discussed in a prior work [1] where he stated that "A possible explanation for the presence of blood and pigments in the samples studied is that the bloodstains were originally produced by human blood which faded with time ... (and) have been reinforced by artists in the past centuries." In fact, the new quantitative results exclude red ochre/iron oxide and vermillion/mercuric sulfide as being responsible for the redness of the stains of blood that are visible with the naked eye on the TS. Having ascertained this result, two problems now arise. First, the origin of the additional reddish material found in correspondence with the TS bloodstains needs an explanation. A hypothesis to be confirmed is that the over 50 documented painted copies of the Relic made in past centuries may have deposited some pigment when they were pressed onto the TS, to be sanctified into higher order relics. The second problem concerns the explanation of the continued redness of the TS bloodstains. In addition to the hypothesis regarding the effects of ultraviolet rays on the high bilirubin content in the bloodstains on the TS and of the presence of carboxyhemoglobin, the author considers the redness of blood coming from an alleged Eucharistic Miracle." [Editor's Note: Although this paper deals in part with Shroud science, the author's conclusions are far more from a religious perspective, so I am archiving this paper in the **Religion and Philosophy** section of this website.]

Could an anomaly in Turin Shroud blood reopen the 1988-radiocarbon-dating result? By Giulio Fanti – WSN (World Scientific News) 162 (2021) 102-119 – October 10, 2021. Here is an excerpt from the Abstract: "This work proposes an explanation for a blood anomaly found in the Turin Shroud (TS). Unlike common human blood which contains significant levels of nitrogen (weight percentages of the order of 10%), TS blood shows levels of nitrogen which are lower than the background noise produced by the measuring instrument (about 1%). It is not easy to find an explanation for this result, but if we refer to the hypothesis formulated by T.J. Phillips who first proposed that neutron radiation had acted on the TS and therefore on the blood analyzed, it is possible to qualitatively understand what may have altered the observed nitrogen levels." [Editor's Note: Although STERA, Inc. appreciates being mentioned in the Acknowledgements of this paper, the following disclaimer states our official position: "STERA, Inc., is not now nor has it ever been directly involved in the research conducted on the samples we provided to Giulio Fanti, nor do we necessarily agree with the conclusions he has drawn based on those samples. Inclusion of these papers on Shroud.com does not constitute an endorsement by either the Editor or the STERA, Inc. Board of Directors of the methods used or the conclusions drawn by the authors."]

The Most Notable Figures in Shroud of Turin Research of the 20th and 21st Centuries by Joe Marino – Academia.edu – October 1, 2021. Here is an excerpt from the introduction: "Since the Shroud of Turin, believed by many to the actual burial cloth of the historical Jesus, is arguably the most intensely-studied artifact in human history, it's obvious that numerous scientists and researchers have spent numerous hours analyzing this mysterious cloth. There is actually a technical term for those who study the Shroud: "Sindonologists," from the Greek word sindon, basically meaning "linen cloth." It would be almost impossible to list everyone that has been involved, but I will list the scientists and researchers that I believe have been the most notable, with only brief descriptions of their involvement..."

The Most Significant Events in the History of the Shroud of Turin Since 1898 by Joe Marino – Academia.edu – September 28, 2021. Here is an excerpt from the introduction: "Many articles on the Shroud of Turin usually mention 1898 as one of the key dates in the saga of the Shroud of Turin, believed by many to be the actual cloth used to wrap Jesus after his crucifixion. It was when the first photographs of the Shroud were taken. Thus it is often termed as the beginning of the modern history of the cloth. I have followed suit in this article..."

<u>El hombre de la Sábana Santa Certezas y líneas de investigación</u> (The man of the Shroud Certainties and lines of investigation) by Paolo Di Lazzaro – Spanish language PowerPoint presentation by invitation at the IV International Congress of Brothers and Brotherhoods, Malaga, September 2021.

Crucifixion in the Ancient World: A Historical Analysis by Gary Habermas and Benjamin C. F. Shaw – Liberty University *Eleutheria* Volume 5, Issue 1, Article 3 – May 14, 2021. Here is an excerpt from the introduction: "In 1977 Martin Hengel wrote his incredible work Crucifixion which has become a classic work on the subject in just under 100 pages.1. Hengel gave the honor of revising this small book to John Granger Cook, who quickly realized that "it would be advisable to write my own monograph" (vii). 2. This is understandable given the depth at which Cook plunges into the topic and the breadth of his research. While Hengel's work will remain the concise classic, it was Hengel's hope that Cook's book will be "valid for the next 100 years" (xxxi). 3 Undoubtedly this is a great scholarly weight to have upon one's shoulders!"

<u>Textiles and Radiocarbon Dating</u> by <u>Carlo Cristi</u> – *Radiocarbon*, Vol 56, Nr 2, 2014, p 637–643. Here is the abstract: "Natural textiles provide suitable material for radiocarbon dating. Short-lived organic matter is usually involved and, if 14C dating is applied to pieces that are stylistically well dated, a better understanding of 14C dating of this type of material can be gained. This study presents some examples of dating that support the stylistic dates. Repeated analyses illustrate the robustness of the standard treatment applied to the textiles."

Image formation of the Turin Shroud: Hypothesis based on water vapor effects of light absorption by Giuseppe Baldacchini and Francesco Baldacchini - Scientific Research and Essays Vol. 7(29), pp. 2591-2602, 30 July, 2012. Here is the abstract: "The Shroud of Turin displays a weak front and back body image which inter alia is very superficial and possesses three-dimensional properties. Up to now it has been impossible to reproduce all its characteristics at the same time albeit several attempts were made in many laboratories. But lately, coloration similar to that of the Shroud has been imprinted on dry linen cloths with a powerful VUV radiation of an excimer laser, which however does not exclude the fact that a different laser source could do the same. In fact, a new hypothesis is advanced here which is based on the irradiation of wet linen cloths with a short and powerful pulse of a CO2 laser. Besides the well-known features of pulsed IR laser, the hypothesis is based solely on the peculiar optical and thermal properties of water and vapor, and therein an experimental investigation is proposed to prove its validity."