

## **Recently Published Papers & Articles**

January 21, 2021

**[Could the Turin Shroud Body Image Formation be Explained by Maillard Reaction?](#)** by **Giovanni Fazio and Giuseppe Mandaglio** - *Mediterranean Archaeology and Archaeometry*, Vol. 21, No 1, (2021), pp. 177-181. Here is an excerpt from the abstract:

"...This study is an attempt to analyze the Rogers' hypothesis: a Maillard reaction between amines (nitrogen compound with a free -NH<sub>2</sub> group), coming through the corpse wrapped in the Linen of Turin and reduced sugars, due to the manufacturing procedure, present on the surface of the above linen cloth. Therefore, as it has already affirmed, we have two different visions. However, we must take also into account that the second one hypothesis needs, at same time, the presence of amines and the absence of aromas and/or burial ointments. The aim of this our study is to see if the above hypothesis (the one of Rogers with Arnoldi) is able to yield on the linen a color distribution characterized by a I(z) correlation between the intensity of color and the cloth-body distance, as it occurs to the Shroud of Turin."

**[A revised, natural explanation for the Shroud of Turin image: creation of a composite Maillard reaction](#)** by **Kelly Kearse** - *Journal of Historical Archaeology & Anthropological Sciences*, Volume 5 Issue 5 - 2020. Here is the abstract:

"The Shroud of Turin is a large linen cloth bearing the full size image of a man with wounds corresponding to scourging and crucifixion. The molecular basis for the image on the cloth is unknown, although interestingly, the color only exists in a thin film on the fiber surface, less than 0.7 micrometers thick. In 2003, Rogers proposed that the Shroud image was the result of a Maillard reaction, involving interaction of free amines with reducing carbohydrates. Specifically, he suggested that a thin coating of crude starch and Saponaria residue on the surface of the cloth reacted with volatile amine-containing compounds arising from a body. Here, Rogers' Maillard hypothesis is (re)examined with the consideration of additional, contributing factors in the possible creation of the Shroud image."

**["Let no one who is not a mathematician read my principles" - Scientific notes on the book \(by Andrea Nicolotti\), 'The Shroud of Turin: the history and legends of the world's most famous relic'](#)** by **Paolo Di Lazzaro** – Academia.edu – December 29, 2020. Here is a link to the original, **[Italian language version](#)**. Here is the online description:

"This article is a collection of notes on some scientific statements in the recently released book by the historian Andrea Nicolotti on the Shroud of Turin."

**[The Turin Shroud in Light of First-Century CE Jewish Burial Practices According to Jewish Sources - a Bibliography](#)** by **Joseph G. Marino** – Academia.edu – January 9, 2021. Here is an excerpt from the introduction:

"In late 2020 [December 28, 2020], I published a short, limited-scope article on academia.edu titled, **[Is the Turin Shroud Compatible with a First Century Jerusalem Burial?--Some Jewish Perspectives](#)**, which included a discussion group. I was hoping that the comments by others might help me to decide how to proceed from that article. I received some remarks that helped me to decide that the most useful route to take would be to produce three separate follow-up articles. Later, I will produce similarly titled articles... most likely to be segregated by groups of years 1900-1959 and 1960-2020..."

[UV Fluorescence Imagery of the Turin Shroud - Digitally Revisited](#) by **Samuel Pellicori** - International Journal of Archaeology, Volume 8, Issue 2, December 22, 2020, Pages: 32-36. Here is an excerpt from the Abstract:

“UV fluorescence imagery of faint or fragile images and markings (writing) on relics and artwork is an affordable non-destructive tool useful in revealing often invisible details and in monitoring temporal stability. UV fluorescent images of Turin were recorded for the first time during the 1978 scientific investigation. The original images were recorded on color film and now have been digitally scanned and enhanced using image processing software. The processed UV images contain spectral discriminatory information and high spatial detail resolution with high contrast that is not discernable in white light images. Differing fluorescent emission colors were found to be associated with image features such as body image, burns, blood flows, skin wounds and water flows on the Turin Shroud...”

[The Burial Shroud of Christ in Historical Liturgical Practice](#) by **Dr. Cheryl White** – Academia.edu – November 10, 2020. Here is the abstract:

"From the earliest Christian understanding of the altar as representing the sepulcher of Christ came the use of a pure linen cloth upon it for the Holy Sacrifice of the Mass. It is a practice that blends the consistency of history and liturgy with the Passion narrative. The known history of the general use of altar cloths signals an understanding of the enshrouding of Christ that cannot be explained solely by the Gospel accounts and their differing descriptors. The prescribed use in the early Church, certainly by the fourth century, indicates knowledge of a single pure linen cloth, and one of considerable length. Interestingly, the Church adopted a vigorous emphasis on the cloth's material composition from the fourth century through the early seventh century, a time coinciding with a succession of popes who had all previously served as apocrisarius (papal legate) to the imperial city of Constantinople. Their renewed interest and emphasis on the liturgical correctness of the altar cloth and its pure linen composition may indeed derive from knowledge of the actual burial shroud held in the Byzantine Empire. One can trace this knowledge throughout the medieval papacy with the institution of increasingly specific liturgical norms found in not only canon law, but also clearly represented in medieval artwork."

[The Shroud of Turin: an archeological piece anchoring Jesus' crucifixion in history](#) by **Michel Valois** – Academia.edu – September 2020. Here is an excerpt from the introduction:

“The Shroud of Turin, Italy, if genuine, is of an exceptional nature, as the almost only object that can claim the status of Jesus-related archeological piece. As such, it can be and is researched by any scientific method. Its successive owners, presently the Holy See, never opposed such a research. It is said to be the “most studied object in the world.” Several scientific studies have recognized it authentic, such as the 1902 survey by the French agnostic medical doctor Yves Delage who said it was “the image of Christ,” or the 1978/79 multidisciplinary approach by forty American scientists who said it was “not the work of an artist...”