



THE THOUGHT OF THOMAS AQUINAS. A SWORD OF DAMOCLES ON THE RADIATIVE PROCESS

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ABSTRACT

In this article, we want to further investigate the radiative hypothesis using the thought of a Doctor of the Catholic Church: Saint Thomas Aquinas. Here, we speak about a radiative process (which, in this case, appears to us as if it was a miraculous event) that should lead to the formation of the Shroud Body Image. We do not believe that this hypothesis is able to obtain the above Image with all the complex characteristics already deduced experimentally. Thus, we decided to investigate with the help of Saint Thomas Aquinas, an authoritative scholar in the world of Theology and Philosophy. The above investigation that seems impossible, on the contrary, can become realistic using the thought of Thomas that exudes from all his writings. Saint Thomas affirms that God is Immutable and Eternal, that is, outside of time and space. Consequently, His actions, for example a Miracle, occurs instantly, with the impossibility that this extraordinary event could be described step by step. In such a case the Natural Sciences can only say that a supernatural event is happened. Nothing else.

Keywords: *Shroud of Turin; Body Image formation; Radiative Hypothesis; Natural processes; Saint Thomas Aquinas;*

INTRODUCTION

The Shroud of Turin is the most intriguing and investigated (experimentally and theoretically) archaeological object that exists in nature. Despite the interest there is in the world for this funerary linen and the many decades of studies, a solution accepted by all has not been reached. On the contrary, each researcher has his own solution; obviously, they are all different from each other. The first “random” experiment on the Shroud was performed, in May 1898, by Secondo Pia, an amateur photograph.

The first result of the above experiment highlighted the 2 D characteristic possessed by the above Body Image that appears on the burial linen: an Image that has the properties of a photographic negative; reversed colour, like right with left (see Fig.1).

For the scientists, the above date marks the beginning of research, as understood in the modern sense. So, there are about twelve decades of effort supported by scholars from all over the world, without success. The underlying problem is the conflict of interest which, unfortunately, affects the minds of all of us.

Here, all the differences among Agnostics, Atheists, Roman Catholics and belonging to other religions appear. Maybe, the above effects could be different for each researcher, however, they are present.

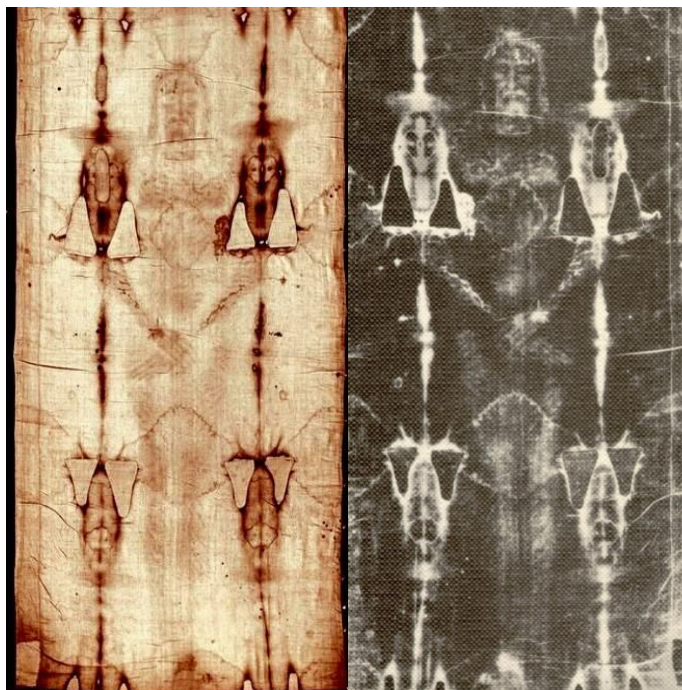


Fig. 1 The Shroud of Turin: (left) Frontal Image, (right) Reversed Colour of the same. The Image, beyond the Water marks, Burned and Scorches areas, shows a male flagellated and crucified with injuries to his hands and feet, forehead and side. The serene face, in the Reversed Colour Image, of a man who has undergone so much suffering is striking.

1. THE THOUGHT OF THOMAS AQUINAS

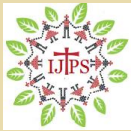
After an article of the scientist Lukasik (1985), a lot of Scientists and Researchers who believed in the radiative hypothesis, that appear miraculous, have worked and continue to work, theoretically and experimentally, with great commitment for more than three decades in the attempt to obtain an acceptable result, which isn't there yet.

Physics contrasts these hypotheses: it would be the first time, in the history of humanity, that a body emits protons or ultraviolet radiations to form an image. A human body can only emit thermal radiations, like his corpse. Therefore, with this beginning, everything that is successively deduced, should be discarded.

One of us has demonstrated several times and with different approaches that the above mechanism (the radiative one) is not practicable and unacceptable for the Natural Sciences. In fact, with our articles, it has been demonstrated the futility of continuing with this line of research (Fazio, 2020, 2022 and 2020a). Unfortunately, from our point of view, it has been unsuccessful.

Rogers and Arnoldi believed in a chemical process as a Maillard Reaction that happened among ammonia and amines emitted by the decomposing corpse and the reducing sugar contained in crude starch left on the funerary cloth by the manufacturing procedure (Rogers and Arnoldi, 2003). Here, it is important the energy source.

The only present is the thermal of the corpse. The Dr. R. Irvine of the Pathology Section, Office of the Medical Investigator, University of New Mexico, affirms that a corpse



in the funerary cloth can also reach 41 Celsius degrees. This is a positive result for those who are certain of the Shroud Image formation by Maillard Reaction.

We are also convinced that the mechanism responsible for the formation of the Shroud Image is a natural process. Therefore, we are against the radiative hypothesis. We believe in a natural process of stochastic type (Fazio et al., 2019). A small amount of thermal energy is distributed over all the fibrils of the flax. Apparently, nothing happens. After years or decades, we see fibrils that have undergone chemical modifications and others that have not. In the same way, the stochastic process happens in the world of the weak ionizing radiations (Little et al., 2003).

However, there is no competition between the two above natural processes: both depend on the ordinary chemistry. In other words, everything is conditioned by the presence (or not) of ammonia and amines. If the nitrogen compounds are present, it is possible the chemical process announced by Rogers and Arnoldi. Otherwise, it is possible a stochastic interaction.

Recently, it has been announced, in the case of radiative hypothesis, the incompatibility existing between the penetration depth of the linen and the value of the discoloration range (Fazio, 2023). A proton, that penetrates the linen for 200 nm, in air cannot satisfy the Discoloration Range and viceversa (Fanti et al., 2010). Furthermore, the correlation between the density of the yellowed fibrils and the Body Image-Burial Linen distance it is not linear. Therefore, it is different from the one extracted from the area of the Body Image on the Shroud.

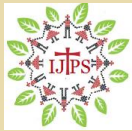
Humanity has always asked itself the question: who is God? or: is there a God? Here, it is extremely complex for anyone to provide an answer. Augustine of Hippo, Saint and Doctor of the Catholic Church, had expressed the Plato's philosophy in Christian key. Thomas Aquinas, centuries later, founded his philosophical system, reworking Aristotle's philosophy from a Christian perspective, on the assumption that faith and reason are reconcilable and not in contradiction. Thus, in an attempt to combine them, he identified five paths to demonstrate the existence of God, all on rational foundations. Not empirical evidence, but rationally demonstrable reasoning.

He deduced that God is Eternal, that is, outside of time and space. God has always been there, is there today and will always be there. Man, using reason, can identify other aspects of God. However, a deeper knowledge of God cannot be obtained with reason alone; it is necessary to resort to the revealed doctrine which, through faith, allows us to grasp what we otherwise could not understand on rational foundations.

Thomas, according to reason, deduced that the actions of God, Immutable and Eternal, are instantaneous as, for example, in the case of a Miracle. The above Theologian defined the exact nature of this supernatural event: it is a sensitive effect produced by God that transcends all the forces of nature. His power over nature is absolute. From eternity and for eternity, God foresaw and willed what He should do in the course of time. He, therefore, established the course of things, but at the same time he preordained in His eternal decree what he will have to do outside the regular course of nature (Saint Aquinas, 1932).

Now that we have described the thoughts of Saint Thomas relating to Miracles, it is the time to review the trend of the radiative hypothesis with the aim of comparing it with what we have deduced. For the supporters of the above hypothesis, at first, there is the emission of vacuum ultraviolet radiations or of protons.

Then follows a series of experiments, in line with the Laws of the Natural Sciences, which can be described step by step. In the end, there is the formation of the Image.



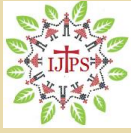
CONCLUSIONS

Putting the Saint Thomas' thought into action, we see that two errors were made using the radiative hypothesis. The first, it is evident coming back to the initial phase of their experiments, which occurs with the emission, by a human being, of electromagnetic radiations or, alternatively, of particles such as protons. The second one happens while they operate respecting the laws of Natural Sciences. In fact, in this second phase what happens during the experiment can be described step by step. All this is not reconcilable with the claim to demonstrate that the Body Image is the result of a Miracle through the radiative hypothesis. We can say: their vision begins in the Transcendent, continues through the Immanent to flow into the Transcendent.

It is not possible to present a model of mechanism for the Shroud Body Image formation which is based in part on Theology and in part on Natural Sciences. We must think that there is an area of investigation where the rational phenomena occur and where the Natural Sciences can explain them. This area is that of the Immanent which has insurmountable boundaries. Outside, there is the area of the eternal Transcendent where the supernatural phenomena occur and the laws of Physics are not valid to study such events. These laws can only tell us that there has been an extraordinary event. Nothing else.

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