An image that speaks of the Incarnation well before it speaks about the Resurrection¹

A reflection by Yannick Clément in the context of the Shroud being the true image of Jesus Christ

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The more I exchange about the Shroud with Christians interested in the subject, the more I realize that many of them don't want to hear anything regarding a potential natural formation of the body image we see on the cloth! Even though the whole portrait given by the numerous data and observations coming from the Shroud, really point in the direction of a natural formation of the image (most probably coming from biological substances released by the dead body or already present on his skin and hair when he was placed into the cloth). This mechanism maybe related to a very mild image formation process that most probably was not an action caused by an energy² reaction. People still want (I assert at all cost) to believe in a supernatural cause for the image that would be related directly to the Resurrection of Jesus Christ and, consequently, would give them a sure proof of this event.³

More deeply, the major part of all the comments I get when I talk with people about the image on the Shroud really gives me the strong impression that most "shroudies" associate the question of the authenticity of the relic with the Hollywoodish idea that the Resurrection of Christ (its "dematerialization" if you will) must have produced a release of energy of some sort⁴. Their thinking can be summarized like this: "If the Shroud is really authentic, then the "mysterious" image on it must be directly related to the Resurrection of Christ." It cannot have come from anything else than a supernatural burst of energy coming from the corpse, which was in its "Resurrection" mode (so to speak), not even a natural interaction between the dead body of Jesus and its burial cloth. And, even worse than this, I have a strong feeling that many of these people are even thinking something like this (which makes absolutely no sense to me): "If the Shroud is authentic and the image on it really comes from a totally natural process, then this could mean that Jesus' Resurrection did not really happen."

Personally, I think this is a very bad way to look at the Shroud. Due to this kind of thinking, individuals are reluctant to put aside biased views to consider pertinent data and observations that were collected by science over the years⁵, which really points in the direction of a natural cause of the image even if this case has not yet been fully explained. I think that this is mainly due to a fear (conscious or not) that such a natural cause could really be true, which would indicate that the image was most probably not formed at the precise moment the body of Jesus Christ disappeared from the cloth (which is, for most Christians of the world, the time of his Resurrection).

¹ This article was mainly written for people, like me, who believe the Shroud of Turin is the authentic burial cloth of Jesus Christ. Therefore, even if there is still no sure, scientific proof of this, I will assume in this paper that the body image that we see on the cloth is the one of Jesus of Nazareth of what he looked like when he was placed into the tomb after his death on the cross. The principal goal of this article is to propose a new and, I believe, interesting way to look at this image of Christ, especially for those who think its formation is directly related to his Resurrection and, therefore, represents a real material proof of this supernatural event. Nevertheless, I hope this article will also provoke an interesting reflection for every other person that is interested in the Shroud.

² On this subject, I highly recommend reading everything that was written about the Shroud's body image by Raymond N. Rogers, the head chemist of the STURP team, and particularly the book he wrote about the Shroud: Raymond N. Rogers, A Chemist's Perspective on the Shroud of Turin, Barrie Schwortz Editor and Publisher, July 2008 (http://www.lulu.com/shop/raymond-n-rogers/a-chemistsperspective-on-the-shroud-of-turin/ebook/product-17416203.html). Note: Rogers finished the writing of this book before his death in 2005 but it was only published in 2008. I also recommend reading an article of mine in which you'll find all the most pertinent quotes of Rogers regarding the Shroud image: Raymond N. Rogers' Observations and Conclusions Concerning the Body Image that is Visible on the Shroud of Turin, 2013 (http://shroudnm.com/docs/2013-01-10-Yannick-Clément-Reflections-on-Ray-Rogers-Shroud-Work.pdf).

³ This does not imply that everyone who desires this needs it to "prove" the resurrection.

⁴ Over the years, and even more since the inability of the STURP team to find one process of image formation that can account for all the physico-chemical characteristics of the image, many researchers have proposed different kinds of high-energetic hypothesis to explain the image formation, which goes from a release of light by the body of Christ (especially UV light), a release of protons and/or neutrons, an electric discharge (corona discharge), etc.

⁵ Most of this data was collected by the STURP team during its examination of the cloth in Turin, from October 8 to 13, 1978 and analyzed later. The results of these analyses were then published in different peer-reviewed scientific journals. For a complete list of those papers, see: http://www.shroud.com/78papers.htm

Here's an example of such data that points strongly in favor of a natural process for the image formation: The very probable location of the chromophore in a thin layer of impurities (honestly, I think Raymond N. Rogers has given us solid enough arguments to place this hypothesis in first place concerning the chromophore question⁶) really makes it almost impossible to maintain that some form of energetic radiation that would have been released by the dead body of the Shroud man (related to the Resurrection or not⁷) could have produced this very subtle, superficial and discontinuous coloration everywhere on the cloth⁸, no matter if the body was in direct contact with the cloth in some places and as far as 4 centimeters or more away from it in other places⁹. Here's another one: the fact that the bloodstains were not affected at all by the image formation process, along with the discontinuous and very superficial aspect of the image, strongly suggest that the image formation process was very mild and that it happened at normal temperature with no release of a high amount of energy¹⁰. On this subject, we should take note of the conclusion written by Fazio, Mandaglio and Roberto in a short paper that was published in 2012 in the British Society for the Turin Shroud (BSTS) Newsletter¹¹: "The Shroud body image, produced over many years (e.g. a few decades), is

⁶ For a good summary of the hypothesis developed by Rogers concerning the most probable chromophore for the Shroud image, see: Yannick Clément, *Raymond N. Rogers' Observations and Conclusions Concerning the Body Image that is Visible on the Shroud of Turin*, 2013 (http://shroudnm.com/docs/2013-01-10-Yannick-Clément-Reflections-on-Ray-Rogers-Shroud-Work.pdf).

⁷ In a paper written in 2010, the Italian researcher Giovanna de Liso proposed a hypothesis to explain the image formation on the Shroud involving an electrostatic discharge that would have been emitted by a hypothetical earthquake that would have occurred during the time in which the dead body of Christ would have been present inside the Shroud. De Liso proposed that such a natural electrostatic discharge would have passed through the corpse of Jesus to produce the body images (frontal and dorsal) that we see on the cloth. Here's the reference for this paper: Giovanna de Liso, *Shroud-like experimental image formation during seismic activity*: Proceedings of the International Workshop on the Scientific approach to the Acheiropoietos Images, ENEA Frascati, Italy, 4-6 May 2010 (http://www.acheiropoietos.info/proceedings/DeLisoWeb.pdf).

⁸ Here's the most relevant statement made by Rogers on this subject: "I studied the chemical kinetics of the impurity materials and conclude that it was improbable that the impurities had been scorched by heat or any radiation source: the crystal structure of the flax image fibers was no more defective than non-image fibers. It would take very good temperature control specifically to scorch impurities without producing some defects in the cellulose." We can find this particular statement in this paper: Emmanuel M. Carreira, *The Shroud of Turin from the viewpoint of the physical science*, 2010 (http://www.shroud.com/pdfs/carreira.pdf).

⁹ The STURP team has concluded that the image formation process was only able to cause a visible coloration in areas of the frontal part of the cloth that was located at no more than 3.7 centimeters from the corpse. Beyond this distance, the image formation process was unable to cause any visible coloration on that side of the cloth. The measurements and calculations that lead to such a conclusion can be found in these two papers: 1. John P. Jackson, Eric J. Jumper and William R. Ercoline, Three Dimensional Characteristic of the Shroud Image, IEEE 1982 Proceedings of the International Conference on Cybernetics and Society, October 1982. 2. John P. Jackson, Eric J. Jumper and William R. Ercoline, Correlation of Image Intensity on the Turin Shroud with the 3-D Structure of a Human Body Shape, Applied Optics, Vol. 23, No. 14, 1984. Also, in a study he presented in 2005 at the Third Dallas International Conference on the Shroud of Turin, the scientist Mario Latendresse estimated for the frontal side of the cloth that "beyond two centimeters the projection (image formation) has lost more than 80% of its efficacity." Here's the reference for this paper: Mario Latendresse, The Turin Shroud Was Not Flattened Before the Images Formed and no Image Distorsions Necessarily Occur from a Real Body, Proceedings of the Third Dallas International Conference on the Shroud of Turin, September 8-11, 2005 (http://www.sindonology.org/papers/latendresse2005a.pdf). It should be noted that no such analysis was made by the STURP team for the dorsal region of the Shroud in order to determine the maximum distance in which the image formation process was able to color a fiber in that region. Consequently, it is truly possible that such distance could be slightly different than what was calculated for the frontal side of the cloth (i.e. 3.7 centimeters). In fact, if we believe the conclusion reached by the Italian physicists Fazio and Mandaglio, who have studied this question in depth through a scientific analysis of the different intensities that are present in the dorsal image, this maximum distance for the dorsal side of the Shroud is certainly lower than 3.7 centimeters. Here's the reference for this particular study done by Fazio and Mandaglio: Giovanni Fazio and Giuseppe Mandaglio, Does an I(z) correlation exist for the back-part of the Shroud body image?, Accademia Peloritana dei Pericolanti. LXXXVI, CIA0802005-1-5, 2008 (http://cab.unime.it/journals/index.php/AAPP/article/download/C1A0802005/272). And for more information on this subject, read the annex that you can find at the end in this other paper of mine: Yannick Clément, My thoughts on a newly published paper by Raymond N. Rogers, 2013 (http://shroudnm.com/docs/Yannick-Clement-Thoughts-on-new-Rogers-paper.pdf).

¹⁰ On this subject, see quotes #20, 74 and 95 in my paper entitled "Raymond N. Rogers' Observations and Conclusions Concerning the Body Image that is Visible on the Shroud of Turin" (<u>http://shroudnm.com/docs/2013-01-10-Yannick-Clément-Reflections-on-Ray-Rogers-Shroud-Work.pdf</u>).

¹¹ Giovanni Fazio, Giuseppe Mandaglio and Antonella Roberto, *What is the Shroud of Turin? – A Suggestive Hypothesis Awaiting a New Radiocarbon Dating*, British Society for the Turin Shroud Newsletter #75, June 2012 (<u>https://www.shroud.com/pdfs/n75part10.pdf</u>).

natural¹². Therefore, to explain the image formation we do not need to say that it was a miracle and we can rule out the medieval forgery hypothesis. Nowadays, we know that a slight transfer of energy triggered a stochastic process." It's important to note that a stochastic process is a kind of natural mechanism that can be initiated by a small quantity of energy (which can be released theoretically by a fresh human corpse) and can produce, in theory, an image on linen that possesses the same properties as the one on the Shroud (including the discontinuous and very superficial aspect of the image)¹³. On the contrary, these Italian researchers were very clear about the fact that no deterministic process (such as a burst of energetic radiation of some sort or any kind of artistic process) is able to produce an image like the one on the Shroud with all the same characteristics, especially when it comes to the discontinuous distribution of the colored fibers in the image area.

Also, the idea that if the Shroud is authentic, the body image that we see on it must be directly related to the Resurrection leaves the door wide open for every possible supernatural concept (which often rests on unscientific thinking) that could make believe that the image was really formed at the time of the Resurrection, even though for the moment, there is nothing in the whole corpus of data coming from the Shroud that can really point without a doubt in that direction¹⁴.

Finally, and it's a shame for me as a Christian: This kind of thinking seems to completely put aside (or completely forget) the reality of God's Incarnation in our humanity! One thing's for sure for me, a Christian who believes in the reality of Jesus' Resurrection, the Shroud is a burial cloth showing the bloody stigmata and the body image of a dead Jesus in a state of rigor mortis¹⁵, which gives me the strong feeling that the image on the cloth is most probably related much more to the Incarnation of God than to his Resurrection! Here, it's important to state this truth very loud: This probable fact shouldn't be seen as a denial of the reality of Jesus' Resurrection in any way!

Having said this, I really think that the "supernatural" fans out there should try for a second to forget about the Resurrection when it comes to reflecting upon the image of a dead Jesus that we see on the Shroud and concentrate much more on the very important concept of the Incarnation of God in our humanity. Effectively, most people interested in the Shroud (most of them being faithful Christians) seem to forget that before his Resurrection and the disappearance of his corpse from inside the Shroud, as well as from inside the tomb, Jesus had a real human body, which was totally normal, as the body image and the bloodstains on the Shroud clearly show¹⁶, which eventually died

¹² This means that Fazio, Mandaglio and Roberto, as well as Rogers for a matter of fact, were convinced that the Shroud image was not only an image that was produced by a natural process, but that it was in fact a latent image that needed many years (and probably a few decades, as the Italians noted) to fully "develop" into a visible image on the surface of the cloth.

¹³ Giovanni Fazio and Giuseppe Mandaglio, *Stochastic distribution of the fibrils that yielded the Shroud of Turin body image*, Radiation Effects and Defects in Solids, Vol. 166, No. 7, July 2011 (<u>http://www.tandfonline.com/doi/abs/10.1080/10420150.2011.566877</u>). Giovanni Fazio and Giuseppe Mandaglio, *Can a latent image explain the characteristics of the Shroud body image*?, Radiation Effects and Defects in Solids, Vol. 167, No. 3, March 2012 (<u>http://www.tandfonline.com/doi/full/10.1080/10420150.2011.595413#.UjYuQRS1apo</u>). Giovanni Fazio, *A Stochastic Process to Explain the Turin Shroud Body Image Formation,* Journal of Modern Mathematics Frontier, Volume 2 Issue 3, September 2013 (<u>http://www.simmf.org/Download.aspx?ID=7362</u>).

¹⁴ For this to happen, a new characteristic associated with the image would need to be found because, for the moment, all the known characteristics of the image can find some similarities in nature (see note #24 below), even though, for the moment, no researcher has been able to reproduce a body image on linen with a natural process that would contain all those characteristics at once. Nevertheless, it should be noted that science is far from having tested properly every natural processes that exists that could produce in theory the kind of discontinuous, three dimensional and superficial image we see on the Shroud. On this subject, there is no doubt that more research and testing needs to be done.

¹⁵ The apparent state of rigor mortis of the Shroud man has been confirmed by most medical and forensic experts who have studied the Shroud over the years. To name a few: Pierre Barbet, Rudolf W. Hynek, Giovanni Battista Judica-Cordiglia Sebastiano Rodante, Pierluigi Baima-Bollone, Robert Bucklin, Frederick Zugibe and Pierre Merat. All these experts have recognized the fact the the body image on the Shroud is that of a **dead man who died by crucifixion** and for them, such a fact was totally consistent with the presence of some bloodstains on the Shroud (for example, under the side wound, in the lower back region and in the feet area) that shows all the characteristics of post-mortem blood flows. On this subject, I highly recommand reading the great book by the French surgeon Pierre Barbet concerning his study of the Shroud: Pierre Barbet, *La Passion de Jésus Christ selon le chirurgien* (A Doctor at Calvary), Éditions Dillen et Cie, Paris, 1950.

¹⁶ The vast majority of medical and forensic experts who analyzed the Shroud image have concluded that the Shroud man's body doesn't show any signs of malformation or abnormality of any kind and presents all the characteristics of a 30 to 40 year old male adult who was in good shape, while the study of the bloodstains done by John H. Heller and Alan D. Adler of STURP and another one done by the Italian

like any other body would after a very severe Roman scourging and crucifixion¹⁷. And we must never forget that this dead state of Jesus' body was still an integral part of God's Incarnation¹⁸! As such, there should be absolutely no theological or philosophical problem for anyone interested in the Shroud (especially Christians) to consider the idea of a natural formation of the body image with great peace, knowing that, if this is really how the image of a dead Jesus got on the cloth, this would not at all be a fact that could put the Christian concept of the Resurrection of Christ in jeopardy, while, at the same time, it would emphasize even more the Christian concept of the Incarnation of God in our humanity, which is a reality that speaks about who God really is¹⁹ as loud as the Resurrection!

Unfortunately, this is not what I normally see in most comments I get from people interested in the Shroud image, especially when it comes to talk about a probable natural cause for this image. That's why I really think these people should really ask themselves these good questions:

1- What would be the problem for your Christian faith if the body image on the Shroud would be directly related with the Incarnation of God instead of the Resurrection of Christ?

2- How and why would this be a problem for the Christian concept of Resurrection if the body image on the Shroud would have been caused naturally by the dead body of Jesus instead of having been formed by some burst of energy coming directly from the Resurrection of Christ?

3- Considering the fact that Jesus' body most probably spent several hours inside its burial cloth before disappearing from it, why would the idea of a body image produced by the dead body of Christ *before* the event of his Resurrection be impossible or at the very least problematic for you?

4- Why would such a scenario be in contradiction with the reality of Christ's Resurrection or be in contradiction with the idea that this Shroud and its body image were really part of God's plan for each one of us who would eventually be interested and fascinated by this relic, even though he didn't need, to accomplish such a plan, to rely on some supernatural powerful means but on the natural laws that he created?

forensic expert Pierluigi Baima Bollone have revealed that these stains are showing the normal characteristics of human bloodstains produced, in most cases, by exudates of moistened blood clots still present on the skin or, in other cases (particularly for the bloodstains in the feet area and probably also in the lower region of the back), by post-mortem blood that was still in a liquid state or in the earliest phase of the clotting process. Moreover, Alan D. Adler's conclusion that the blood is showing signs of blood that was filled with a very high level of bilirubin, which is totally consistent with the blood of someone who had been intensely tortured prior to his death, clearly shows that the body of the Shroud man had normal reactions when it was submitted to severe suffering, thus offering a very strong clue to conclude that his body was a totally normal human body like everyone of us, which had nothing "special" associated to it, biologically speaking. For a good summary of the blood analysis performed by Heller and Adler, including Adler's conclusion concerning the question of the level of bilirubin present in the blood, see: Alan D. Adler, *The Orphaned Manuscript : A Gathering of Publications on the Shroud of Turin*, Effata Éditrice, Torino, Italy, 2002. And for a good summary of the blood anlysis performed by Baima Bollone, see: Pierluigi Baima Bollone, *Sindone 101 domande e riposte* (101 Questions on the Holy Shroud), Edizioni San Paolo s.r.l., Milano, Italy, 2000.

¹⁷ Even if the conclusion of the medical and forensic experts who analyzed the Shroud often differ on the main cause of death (some, like the French surgeon Pierre Barbet, though that slow asphyxiation was the main cause of death, while others have proposed a different hypothesis, like the American forensic expert Frederick T. Zugibe for example, who thought that the death of the Shroud man was releated to a traumatic and hypovolemic shock or like the American doctor Joseph Bergeron, who thinks the Shroud man died of a traumatic disorder called "trauma-induced coagulopathy"), it should be noted that they all agree about the fact that the cause of death they proposed is totally natural in the context of a very severe Roman scourging and a Roman crucifixion, thus offering another very good clue, along with the presence of a very high level of bilirubin in the blood, to conclude that the body of the Shroud man had normal reactions when it was submitted to severe suffering, which clearly indicates that he had a totally normal human body like everyone of us, which had nothing "special" associated with it.

¹⁸ His dead body was still a part of God's Incarnation for the simple and good reason that if God would not have come on Earth in the flesh 2000 years ago, Joseph of Arimathea would not have had any corpse to bury on Good Friday! In that sense, we can say that through Jesus' Passion, God agreed to experience our human condition in a complete and dramatic way, which includes experiencing pain and suffering (physically, as well as mentaly and also spiritualy) and finally, experiencing physical death.

¹⁹ I think the best definition that exists concerning the most profound nature of God can be found in this verse of the first letter of John: "So we know and believe the love God has for us. **God is love**, and he who abides in love abides in God, and God abides in him." (1 Jn 4:16). Starting from this particular quote, I truly believe that the Incarnation of God in our humanity is a sign of the real nature of God (i.e. love) as great as the Resurrection of Jesus Christ. **5-** And here's the most crucial question of them all: Is it possible that, since the conclusion of the STURP study, most people have completely passed by the most profound message the Shroud had to give us by thinking that this relic is mainly speaking about the Resurrection of Christ while, in reality, it is truly possible that the Shroud is speaking primarily of the Passion and death of Jesus Christ and, by extension, of the Incarnation of God in our humanity²⁰?

Before answering this question, I think you should read and reflect upon the great article written by Father Peter Rinaldi in June 1934 and entitled simply "The Holy Shroud"²¹, in which you will clearly see that, back then (and up until at least the STURP days), most Christians (and even serious Shroud researchers like Pierre Barbet, who was able to analyze the Shroud while leaving his faith in his back pocket²²) were really seeing the Shroud as a relic that's mainly speaking about the Passion and death of Christ, and by extension of his Incarnation, well before it speaks about his Resurrection.

In sum, is it possible that the body image that we see on the Shroud (along with all the bloodstains on it) can truly be a great *sign* of the Incarnation of God instead of being, like many people today desperately wants to see (even if it's simply not there), a real and sure *proof* of Christ's Resurrection?

More profoundly, we can ask ourselves another good question: Is it possible that the most important message of the Shroud concerns primarily the greatness of the love of God for all humanity much more than his own personal Resurrection, while showing us in graphic detail where such a God was willing to go with his human body in order to reveal to us that his merciful love for every human being has absolutely no limit at all when it's time to save even the most lost of his children and, consequently, we have absolutely no good or rational reasons to fear such a loving and merciful God and to fear for our eternal salvation?

I hope those who will read this paper (especially those who are thinking the Shroud image cannot have come from anything else but the Resurrection event) will at least take some time to ask themselves seriously and honestly those questions and, more importantly, will reflect with an open mind upon the possibility that the formation of the body image of a dead Jesus that we see on the Shroud could really be related directly, not to the Resurrection of Christ, but to his Passion, death and, by extension, to his Incarnation in our humanity and therefore, could really come from a natural interaction that happened between his human corpse and the linen cloth in which he had been placed after his death.

Personally, I must say that every time I look at the Shroud, I see, first and foremost, an image of a dead and crucified Jesus that mainly speaks of his Incarnation in our humanity and, therefore, I don't see any good reason why such an image could not have been caused naturally by his human corpse, especially due to the fact that his body was tortured so badly before his death²³.

²⁰ Again, it's important to emphasize the fact that if this is true, that doesn't mean the Shroud had nothing to say about Jesus' Resurrection. It simply means that the Resurrection would not be the primary message coming from this image of a dead, crucified Christ.

²¹ Here's the link to read this paper: <u>https://www.shroud.com/pdfs/rinaldi1934.pdf</u>.

²² For the reference of his book about the Shroud, see the end of note #16.

²³ Concerning this fact, I just want people to realize that a body that has been tortured and crucified for several hours prior to death can certainly release more biological substances than a normal corpse (like an intense sweat for example that could have been filled with urea, lactic acid and other products, which could have been left on the skin and hair even after the drying of the sweat), whether it is shortly prior to his death (like the example of the sweat I just gave) or shortly after (like a release of post-mortem gases like ammonia and some heavy amines, as it was proposed by Rogers). In such a particular context, I think there's a fair possibility (hard to estimate though) that some of those biological substances that were possibly released by the body could eventually have taken part in the image formation process on the cloth's surface. Of course, there is still no proof that such an interaction with one or more of these substances really happened in the case of the Shroud, but nevertheless, this is certainly not a hypothesis that science can discard for the moment. On this subject, there have been several interesting hypotheses that were proposed over the years, starting with the vaporographic hypothesis of Paul Vignon, who thought that the urea left on the skin by the complete drying of the intense sweat that was probably present all over the body and the hair of the Shroud man at the time of his death could eventually have produced a gaseous diffusion of

And to conclude, here's a reflection for anyone interested in the Shroud, particularly the Christians: During the last decade in which I studied the Shroud closely, I have often heard this kind of statement made regarding the Shroud: "This cloth is impressive because it was probably in contact with the body of Jesus at the time of his Resurrection!" I think those people (and not just them) should be as impressed by the probable fact that this cloth is the last material object to have touched the real and normal human body in which God lived a human life with us on this Earth for more than 30 years²⁴!

Important notes:

1- Because every characteristic related to the Shroud image can find some similarity in nature²⁵ and, even more, because some of those characteristics (like the discontinuous distribution and the very superficial aspect of the image) really seem to strongly suggest that the image on the cloth has been formed by a natural interaction between the crucified dead body and the surface of his burial cloth²⁶, seeing this image as some kind of material proof of his Resurrection is presently only possible through faith and consequently, such a concept cannot be based on a real scientific and rational reflection. But having said that, it's important to note that it is truly possible, through rationality, to see the Shroud (not only the body image on the cloth, but the burial cloth itself, along with the body imprint and the bloodstains present on it) as a material sign (not a proof!) of the Resurrection of Christ, in the sense that it has been proven that the cloth contained, only for a short period of time (i.e. less than 72 hours²⁷), the real crucified body of a man who presents all the bloody stigmata of Christ, as described in the Gospels, while the extraction of his body image in any way, which can be seen as possible signs (not proofs) of a "dematerialization" (or a "spiritualization" if you prefer) of his body at the moment of the resurrection. Also, and this

ammonia while the corpse was resting inside the cloth and this would have caused a coloration on the cloth in the shape of a human body. For a good summary of Vignon's conclusions about the Shroud and its image, see: Paul Vignon, *Le linceul du Christ: étude scientifique*, Éditions Masson, Paris, 1902. Paul Vignon, *Le Saint Suaire de Turin : devant la science, l'archéologie, l'histoire, l'iconographie, la logique*, Éditions Masson, Paris, 1938.

²⁴ Along with the probable fact that the Shroud is the last material thing to have touched the human body of God, people should also be impressed by the probable fact that the bloodstains on the cloth are really made of his human blood, which shows all the characteristics of normal human blood (see note #15). In sum, the body image and also the bloodstains have something strong to say about the reality of God's Incarnation in our humanity and, for this reason, we have the right to be impressed.

²⁵ A good example of this reality has been shown by the physicist John A. DeSalvo who did a scientific study of a natural phenomenon called the Volckringer pattern effect. In 1982, DeSalvo published an article in the Italian journal Sindon in which he demonstrated that almost all the main characteristics of the Shroud image (whether it be the kind of visible spectral reflectance, the kind of UV fluoresence, the high-resolution of the image, the negativity and the three dimensional properties) are also present in images of fresh leaves or flowers that were naturally imprinted on paper via a Volckringer pattern effect. Unfortunately, in his article, Mr. DeSalvo did not address the question of the discontinuous distribution of the colored fibers in the image area on the Shroud and consequently, it is not clear if this very particular characteristic of the Shroud image can also be seen in these kind of vegetal images. Nevertheless, even if this would not be the case, it's important to note that, in the case of the Shroud image, it is truly possible that such a feature can come from the presence of a thin and uneven layer of carbohydrate impurities that would have been concentrated and colored on the top surface of the cloth (see note #5), which is not something that normally happened in the production of paper, which is the normal material support of those Volckringer imprints of leaves or flowers. Here's the reference for the paper written by DeSalvo: John A. De Salvo, The image formation process of the Shroud of Turin and it's similarities to Volckringer patterns, First published in Sindon, No. 31, December 1982 and reprinted in Shroud Spectrum International, No. 6, March 1983 (<u>http://www.shroud.com/pdfs/ssi06part4.pdf</u>). You can also read a paper written by Alan A. Mills, in which he talks about the Shroud image and the similar characteristics that we can find in images of fresh vegetal material produced on paper by a Volckringer pattern effect, and also in images of material such as fresh and dry leaves or flowers, paper, card or wood on ancient photographic emulsions by another natural phenomenon called the Russel effect: Allan A. Mills, The Image on the Shroud of Turin: Clues from the Volckringer and Russell Effects, Shroud Newsletter #56, British Society for the Turin Shroud, December 2002 (http://www.shroud.com/pdfs/n56part4.pdf).

²⁶ See note #12 for the references of three papers written by Fazio and Mandaglio on the subject of the most probable image formation processes in the context of the discontinuous distribution of colored fibers in the image area.

²⁷ Raymond N. Rogers, *A Chemist's Perspective on the Shroud of Turin*, Barrie Schwortz Editor and Publisher, July 2008. Note: in his book, Rogers cites a study by Arpad A. Vass et al., indicating that the appearance of the first liquids of putrefaction usually comes between 36 to 72 hours after death, depending on many factors. It should be noted that on the Shroud, there are absolutely no signs that such liquids ever stained the cloth, which indicates quite clearly that the dead body of the Shroud must have left the cloth before this phase of the putrefaction process.

is probably even more important, the simple fact that such a gruesome burial cloth of a crucified criminal (which shows the complete body image of a nude "Christ", along with lots of bloodstains) has been taken out of the tomb²⁸, quietly kept²⁹ and carefully preserved for centuries after his dead body has only spent a short period of time in it, can truly be seen as the greatest material sign of the Resurrection of Christ that exists. In sum, we can say that it's not the body image on the Shroud but the cloth itself that is the real material sign of Jesus' Resurrection! Effectively, if this cloth would have been the burial shroud of an anonymous crucified man, why in the world would such a grave cloth have been taken out of the tomb and well preserved until now?

Nevetheless, it's important to emphasize the fact that this sign remains an indirect sign of this event, instead of being a direct proof of it, like it is researched by many people today who really want to see a clear physical proof of Resurrection in the body image of a dead Jesus that is present on the cloth.

2- Since no hypothesis involving some form of natural interaction between a dead body and a linen cloth as ever been scientifically confirmed yet as being able to fully explain the Shroud image, the question of whether or not a Maillard reaction, in the way it was proposed by Raymond N. Rogers³⁰, can have taken part in this still undetermined but a most probable natural process is another story that shouldn't interfere in the answers you can give to the numerous questions I ask in this article and, on a more general level, on the whole reflection I hope you will do after the reading of this present paper. And this is the same thing for any other existing hypothesis proposing a natural process to explain the formation of the body image on the Shroud, like the ones proposed by John A. DeSalvo³¹, Alan A. Mills³², Giovanni Fazio and Giuseppe Mandaglio³³, or any other researcher.

²⁹ If the Shroud of Turin is the authentic burial cloth of Jesus of Nazareth, it is almost certain that the keeping of the cloth would have been done very quietly, since nowhere in the New Testament or in any other early Christian writings of the first Century A.D., we can find a clear reference to the fact that the burial cloth of Jesus would have been preserved by the disciples or by someone else. In the Jewish context of the time (see previous note), this kind of secret preservation of a cloth that had been in contact with a dead body is easy to understand and could certainly explain the complete silence of all the early Christian writers about that. In fact, it is very probable that most of them were not even aware of the fact that Jesus' shroud would have been kept and preserved after it was found in his empty tomb, for the simple and good reason that these authors, including St Paul, were not direct eye-witnesses of the Easter event they describe.

³⁰ See note #2.

(<u>http://www.shroud.com/pdfs/ssi06part4.pdf</u>). John A. De Salvo, *Revised Vaporgraphic – Direct Contact Theory*, Article published on DeSalvo's personal website. (<u>http://www.gizapyramid.com/LECTURE-SHROUD1.htm</u>).

³³ See note #12.

²⁸ It's important to note that the Jews of Jesus time were not allowed by their law to even touch an object that has been in contact with a dead body. In fact, the prohibition to touch a corpse can be found in Numbers 19:11, 14-16 of the Torah, while the prohibition to touch something that has been in contact with a dead body can be found in Oholot tractate in the Mishnah. It is a well known historical fact that these rules had to be followed by every Jew, including those under a Nazarite vow, and each time someone would come in contact with a burial cloth that had covered a dead body, he was considered ritually unclean and had to follow a long ritual to become clean again, which include the isolation of the person from others for a period of 7 days and on the third and the seventh day, this person had to be sprayed with the water of cleansing (which was composed of water mixed with the ashes of a red heifer). It's only after the second aspertion done on the seventh day of the isolation that the unclean person was delivered of his impurity. It's also important to note that such contact with a burial cloth like the Shroud was not considered as a crime by the Jewish law (like, for example, theft or murder) but only as a sin of impurity. However, in the highly repressive religious context of the time, the idea that a Jew would have dare to break the law concerning ritual purity by keeping and preserving such a blood stained grave cloth appears to be completely irrational and even absurd, except in the light of the finding of the empty tomb (and the empty Shroud!) by some disciples of Jesus on Easter morning, as it is described in the Gospels.

³¹ John A. De Salvo, *The image formation process of the Shroud of Turin and it's similarities to Volckringer patterns*, First published in Sindon, No. 31, December 1982 and reprinted in Shroud Spectrum International, No. 6, March 1983

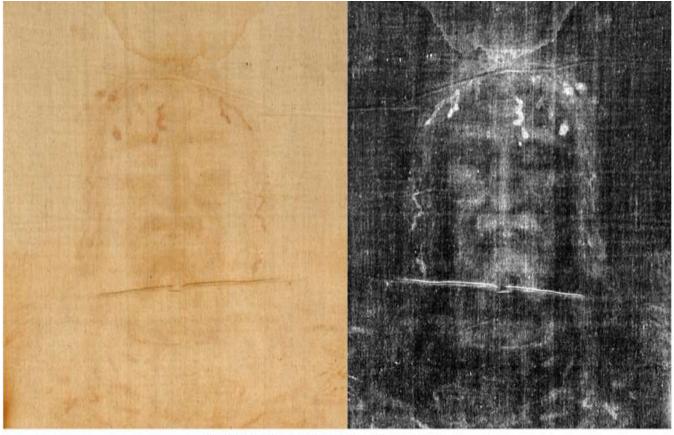
³² Allan A. Mills, *Image formation on the Shroud of Turin : The reactive oxygen intermediates hypothesis*, Interdisciplinary science reviews, Vol. 20, No. 4, 1995 (This article is available for subscribers of Maney Publishing via the back archive that is described in this webpage: http://maneypublishing.com/index.php/journals/isr/). Allan A. Mills, *The Image on the Shroud of Turin: Clues from the Volckringer and Russell Effects*, Shroud Newsletter #56, British Society for the Turin Shroud, December 2002

^{(&}lt;u>http://www.shroud.com/pdfs/n56part4.pdf</u>). Allan A. Mills, *Hypotheses for image formation on the Turin Shroud*, Shroud Newsletter #69, British Society for the Turin Shroud, June 2009 (<u>http://www.shroud.com/pdfs/n69part3.pdf</u>).

Annex

To conclude this article, I think everyone should seriously consider the possibility that the best lines that we can find in the Gospels to understand the most profound meaning of the Shroud image are possibly not the one we found in the accounts of the Resurrection but much more these three verses from the Gospel of John³⁴:

"And **the Word was made flesh**, and dwelt among us, (and we beheld his glory, the glory as of the only begotten of the Father,) full of grace and truth." (Jn 1:14).



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"Now before the feast of the passover, when Jesus knew that his hour was come that he should depart out of this world unto the Father, having loved his own which were in the world, **he loved them unto the end**." (Jn 13:1).

"Philip said to him, "Lord, show us the Father, and it is enough for us." Jesus said to him, "Have I been with you so long, and you still do not know me, Philip? **Whoever has seen me has seen the Father**. How can you say, 'Show us the Father'?" (Jn 14 8-9).

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³⁴ These three verses come from the general introduction of John's Gospel (chapter 1), the introduction to the whole account of the Passion and death of Jesus Christ (chapter 13) and the account of the last supper taken by Jesus with his apostles before his death (chapter 14).