

Tristan Casabianca

# Turin Shroud, Resurrection and Science : One View of the Cathedral

This article has been published in final form in *New Blackfriars* (2016) :  
<http://onlinelibrary.wiley.com/doi/10.1111/nbfr.12183/full>

## **Abstract**

In a topic as controversial as the Turin Shroud, it is always surprising to note that there remains a large area of consensus among scholars who hold opposite opinions on the origin of this piece of fabric. According to the consensus view, neither science nor history can prove that the Turin Shroud shows signs of the Resurrection of Jesus of Nazareth. However, the reasons provided for this important claim are not convincing, especially in light of recent developments in historiography and analytic philosophy.

## **Keywords**

Shroud of Turin, Miracles, Jesus of Nazareth, Resurrection, Historiography, Methodological naturalism.

The Turin Shroud (TS), a linen cloth treasured in the Cathedral of Turin (Italy), is probably the most studied piece of fabric in the world.<sup>1</sup> Since the beginning of the 1980s, this artifact has been the main topic of at least fifty articles published in mainstream peer-reviewed journals and hundreds of popular books. This vivid interest is because the TS is believed by many to be Jesus's burial shroud, and the process by which an image of a crucified man was formed on it remains unexplained.

Scientific research on the TS began in 1898 when Italian Secundo Pia took the first photograph of the linen cloth, revealing that the details of the image were much more visible on the negative than on the positive image. However, the real scientific investigation began 80 years later, when a team of scientists named STURP (Shroud of Turin Research Project) examined the TS extensively and rigorously for five days. They concluded that the image formation process was an 'ongoing mystery.'<sup>2</sup>

The results of the 1988 radiocarbon test (1260-1390 AD) performed on the TS reversed the trend.<sup>3</sup> The hypothesis of a medieval origin of the linen cloth, thereafter the Medieval Hypothesis, became 'the only game in town.' Proponents of an antique linen cloth, espousing a theory known as the Antique Hypothesis, were classified as a fringe group. The radiocarbon dating published in *Nature* seemed to have cut the debate short.

Since the 2000s, however, the trend in scholarship has reversed again. The validity of the 1988 tests is increasingly contested in peer-reviewed journals of history, statistics, and chemistry.<sup>4</sup> An analysis of all articles on the TS published in English and French since 2000 in mainstream peer-reviewed journals (not open-access journals <sup>5</sup>) clearly shows that the elements in favor of the Antique Hypothesis have become predominant. Although such a classification is always difficult and arbitrary, between 2000 and 2014, approximately 25 articles conducted analyses and contained elements that reinforced the Antique Hypothesis, whereas 4 provided analyses and contained elements that reinforced the Medieval Hypothesis; 8 remained neutral. Of course, this census in itself cannot put an end to the controversy. It indicates only that there are some viable elements and arguments in favor of the Antique Hypothesis that must be considered by researchers.

In a field as controversial and polarized as the study of the TS, however, it is always surprising to note that a large area of philosophical consensus remains among scholars who hold opposite opinions on the topic. According to this consensus view, neither science nor history can prove (beyond a reasonable doubt) that the TS shows signs of the Resurrection of Jesus of Nazareth. This philosophical consensus is frequently expressed not only by partisans of the Medieval Hypothesis but also by most of the partisans of the Antique Hypothesis, not only physicists and chemists but also historians and theologians. For example, one of the leading scientists in TS studies, Giulio Fanti, has written,

‘The fourth level [of authenticity] states that the TS shows signs of the Resurrection of Jesus Christ. As the Resurrection is not a reproducible phenomenon, it goes beyond the realm of science and therefore the fourth level of authenticity cannot be tested.’<sup>6</sup>

Similarly, the historian Simon Joseph believes that ‘the scientifically established (first-century) authenticity of the Shroud would not be able to prove Jesus’ divinity, virgin birth, or resurrection, but it would make significant contributions towards resolving numerous historical questions regarding Jesus’ existence, physical appearance, and the general reliability of the gospel passion narratives of Jesus’ death.’<sup>7</sup> In 2001, the theologian Philippe Pochon, SJ, made similar observations on this topic.<sup>8</sup>

This paper’s main goal is to challenge the current consensus by offering another ‘view of the cathedral’, an expression that is a direct reference to a seminal 1972 contribution to law and economics authored by Guido Calabresi and A. Douglas Melamed: *Property Rules, Liability Rules and Inalienability: One View of the Cathedral*.<sup>9</sup> The title of their article was inspired by series of paintings by Claude Monet that depict the cathedral of Rouen, France. It was chosen to emphasize how modest every approach to their complex, interdisciplinary field should be. Our challenge to the current philosophical consensus is based on the latest developments in the fields of historiography and analytic philosophy. However, it is only one among many others; it is one view of the cathedral.

## **Beyond consensus**

The famous physicist and science writer Philip Ball goes beyond the current consensus. In an editorial published in 2008 in *Nature Materials*, Ball writes: ‘Of course, the two attributes central to the shroud’s alleged religious significance—that it wrapped the body of Jesus, and is of supernatural origin—are precisely those neither science nor history can ever prove.’<sup>10</sup> However, one can easily disagree with part of such a bold philosophical statement (not to

mention Ball's arbitrary distinction between history and science). Historians could prove that the TS wrapped the body of Jesus. It is neither theoretically nor practically impossible to do so.

The thesis of 'theoretical impossibility' (i.e., impossibility by nature) can be easily dismissed. We are sure that the tomb KV62 discovered in 1922 by Howard Carter and his team was the tomb of Tutankhamen. This example makes it easier to understand historians' common practice and why the case of the TS cannot present a 'theoretical impossibility.' If it is possible to attribute some objects to a pharaoh of the 18th dynasty with a very high level of certainty, it is also theoretically possible to attribute some objects to Jesus of Nazareth with a high level of certainty.

If one considers the thesis of 'practical impossibility' – that is, impossibility due to some peculiar circumstances – one can notice that many historians who espouse different methodologies, arrive at different conclusions and come from different backgrounds, including religious ones, believe that the evidence is largely sufficient. This is the opinion of the leading French modernist historian Jean-Christian Petitfils, who published (outside of his usual field of research) a very thorough biography of Jesus in 2011.<sup>11</sup> It is also the viewpoint of the art historian Thomas de Wesselow, who is also sure that the TS wrapped the body of Jesus.<sup>12</sup> The thesis of a 'practical possibility' continues to gain credibility. In 2013, using a systematic historiographical approach ('Minimal Facts Approach'), a research article argued that the probability of the TS being the burial shroud of Jesus is very high.<sup>13</sup> The same year, Bevilacqua et al. wrote in a medical journal that their anatomical study of the image provided 'further evidence in favour of the hypothesis that TS man is Jesus of Nazareth.'<sup>14</sup>

Therefore, part of the statement made by Philip Ball overly limits historians' field of research. Ball's statement does not seem able to withstand either critical examination or many historians' understanding of their profession.

### **The Turin Shroud and the historiographical approach to the Resurrection**

The thesis that the Resurrection of Jesus is not accessible to the historian has deeply permeated New Testament scholarship since the nineteenth century. However, if this position remains predominant among historians and biblical scholars, it is not supported by convincing arguments.

As seen in many articles and books on the TS, what authors mean by the 'Resurrection of Jesus' is not always entirely clear. In the rest of this article, we will use an unambiguous and widely shared definition: the Resurrection of Jesus of Nazareth is his bodily resurrection from the dead that occurred in approximately 30 AD. This definition fully agrees with the Catechism of the Catholic Church: 'Christ's Resurrection cannot be interpreted as something outside the physical order, and it is impossible not to acknowledge it as an historical fact.'<sup>15</sup> Thus, this definition explicitly excludes a metaphorical understanding of the Resurrection of Jesus. It also excludes the phenomenon of 'revivification' that is, dead bodies returning to life before a final death, as in the narrative of Lazarus (John 11:1-46).

Although the word 'history' is one of those 'essentially contested concepts' advanced by Walter B. Gallie,<sup>16</sup> its most frequent acceptance is largely used by scholars. In 2009, as editor-in-chief of the *Companion to the Philosophy of History and Historiography*, the philosopher of history

Aviezer Tucker required all of his coauthors to use the following meaning: ‘history: Past events, processes, etc. For example, the decline and fall of the Roman Empire.’<sup>17</sup>

The Resurrection Hypothesis, as defined above, is a collection of events in the past. Thus, this hypothesis could reflect an ‘historical event.’ However, this simple line of reasoning is still rejected by many who prefer sophisticated and unstable constructions. In this section, we will mostly focus on John P. Meier’s position on the Resurrection of Jesus because of the huge influence, even on shroud researchers such as Petitfils,<sup>18</sup> of Meier’s seminal work *A Marginal Jew: Rethinking the Historical Jesus*.<sup>19</sup>

Meier’s opinion is that the Resurrection of Jesus is not accessible to the historian. Meier’s first point is that a miracle is only accessible to the philosopher, not to the historian.<sup>20</sup> However, this arbitrary distinction between history and philosophy, rightly described as ‘remarkably naïve’ by William Lane Craig,<sup>21</sup> has no real importance here because according to Meier, the Resurrection of Jesus is not even a miracle. For Meier, the Resurrection of Jesus is not a miracle because according to his own definition, a miracle is a supernatural event that ‘can be in principle experienced by any observer.’<sup>22</sup> This definition of a miracle appears both too restrictive and highly problematic. For example, it should be compared to Timothy McGrew’s much better definition: ‘A miracle is an event that exceeds the productive power of nature, and a religiously significant miracle is a detectable miracle that has a supernatural cause.’<sup>23</sup> Thus, even if we let that pass, Meier’s definition cannot be used to exclude the Resurrection of Jesus from the historical field of investigation because the Resurrection of Jesus is precisely not, if we follow Meier’s definition, a miracle.

According to Meier, ‘in the historical-critical context, the ‘real’ has to be defined in terms of what exists in this world of time and space, what can be experienced in principle by any observer, and what can be reasonably deduced and inferred from such experience.’<sup>24</sup> Meier relies explicitly on an article authored in 1967 by Gerald O’Collins, SJ, who argues that the Resurrection of Jesus ‘is not an event *in* space and time and hence should not be called historical” because “we should require an historical occurrence to be something significant that is known to have happened in our space-time continuum.’<sup>25</sup> Craig notes,

‘It is evident that O’Collins has unwittingly entangled himself in the ancient sorites paradoxes of motion. Transitional events like stopping, exiting and dying do not occur at any single space-time point. That the sorites paradoxes are, indeed, the culprit here, and not the nature of the resurrection, is evident from the fact that even if the resurrection were conceived as a transformation wholly within space and time, one could not specify a single space-time point at which it happened. It would either not yet have happened or have already happened [...] So just as the historian can determine where someone exited a building or when someone died, there is principle no objection to the historian’s determining where and when Jesus’ resurrection occurred.’<sup>26</sup>

The other reason given by Meier for defining the real in the historical context, ‘what can be in principle experienced by any observer,’ also appears unconvincing. Probably by interpreting Acts 10: 40–41 (‘but God raised him on the third day and made him to appear, not to all the people but to us who had been chosen by God as witnesses, who ate and drank with him after he rose from the dead’), Meier argues that the Resurrection appearances were not afforded to everyone, although he has not conducted a historical study of the Resurrection.

However, Meier gives no serious reason to exclude the notion that in principle, the Resurrection could have been experienced by any observer. For example, in a thought experiment, if someone were in the tomb with Jesus at the instant of the Resurrection, he could have seen the corpse disappear. By building on Gerald O’Collins, Meier paradoxically bases his reasoning on

someone who defends a position that is essentially different from his own: that it is possible for a historian to determine whether Jesus was raised. O'Collins is part of a growing minority of contemporary New Testament scholars from all backgrounds who share this opinion. This minority includes people as diverse and influential as Wolfhart Pannenberg, N.T. Wright, Gerd Lüdemann, and

Raymond Brown. John Dominic Crossan is also part of this movement because according to him, the question of the historicity of the Resurrection is not negated even if it seems less important to him than the question of its meaning. Recently, Michael Licona based a book on three facts that fall within the broader consensus among contemporary scholars of the life of Jesus (the crucifixion, the conversion of Paul, and the rapid spread of Christianity) to reach the conclusion that the Resurrection Hypothesis is the most likely of all historical explanations.<sup>27</sup>

Briefly, it is a philosophical/theological conviction on Meier's part that the Resurrection is affirmable only by faith and that it is inaccessible to the historian. Moreover, this conviction contradicts Meier's own 'neutral' historical methodology, thus rendering his historiographical cathedral fragile.

However, beyond these philosophical and historiographical foundations, what is the place of the TS in the historical study of the Resurrection? Today, the TS is perfectly localized in time and space. Just like a piece of cloth preserved since the fall of Masada, it is entirely subject to historical enquiry. Logically, the historian cannot refuse to study it because it is the result of the Resurrection of Jesus; any historian adopting this position would demonstrate that he already had the answer to his question. This would be like adopting a position similar to the position Meier takes with respect to Acts 10: 40–41. The immediate objection would be as follows: how do we know that Jesus' Resurrection did not occur in space and time without having studied it historically? Theological convictions cannot justify a historiographical approach that advances theological neutrality on pain of internal contradiction.

Thanks to the TS, a frequent critique of the historical study of the Resurrection can also be called into question. According to Lidija Novakovic, 'our sources preserve fragmentary memories and do not provide enough information for a comprehensive historical reconstruction of the resurrection events. They contain apostolic testimonies and are thus limited to the circle of believers. They not only mirror the worldview of ancient authors but also express the extraordinary nature of the Easter experiences.'<sup>28</sup> The objectivity of the TS could offer decisive help to historians.

### **The Turin Shroud and the arguments against and from miracles**

In this section, we will first focus on David Hume's argument against miracles, described as violations or transgressions of the laws of nature.<sup>29</sup> Hume's argument has had a huge impact. Most of the arguments currently advanced by historians and theologians in favor of the consensus view are simply variations on Hume's argument. Since the 1980s, this argument has been strongly criticized by analytical philosophers of religion. In a decisive and trenchant critique, the analytical philosopher John Earman even calls Hume's argument an 'abject failure.'<sup>30</sup> Unfortunately, however, the assessment made by Joseph Houston in the 1990s remains valid: 'large numbers of generally informed people see Hume on miracles as substantially unassailable.'<sup>31</sup>

First, an uncontroversial analysis can be performed. The clarity and accessibility of Hume's demonstration, which serves a purpose that is deliberately more polemical than his *Treatise of*

*Human Nature*, is countered by its introduction of both vagueness in its argumentation and ill-defined concepts.<sup>32</sup> We can divide Hume's argument against miracles into two parts: the practical argument and the theoretical argument.

Hume makes four points related to the practical argument: practical argument 1: miracle claims are poorly attested by educated and wise men; practical argument 2: people crave the miraculous; practical argument 3: miracle claims occur most often among 'barbarous' people; and practical argument 4: miracle claims cancel each other. This practical argument appears to be unconvincing and quite outdated. In light of recent historical and sociological scholarship, practical argument 1 and practical argument 3 appear to be frankly false. Miracle claims occur frequently in North America and Europe.<sup>33</sup> In Lourdes (France), claims of miraculous healings are so frequent that a "Medical Bureau" and an 'International Medical Committee' have officially been created. This situation has generated a large number of well-documented cases.<sup>34</sup> Practical argument 2 and practical argument 4 have no force at all; logically, miracle claims canceling each other and people wanting miracles to happen do not mean either that 'true' miracles do not exist or that it is unreasonable to believe in their existence.

The problem here, however, goes beyond the major developments in science and knowledge since the 18th century. In his essay, Hume focuses on eyewitness testimony.<sup>35</sup> However, it seems impossible for a permanent artifact such as the TS, which has been studied by dozens of scientists, to completely enter the traditional category of oral testimony that Hume had in mind. Moreover, as well analyzed by Edward Schoen,<sup>36</sup> the claim regarding the miraculous nature of the TS image shows concretely that the Humean conception of miracles (as 'something invariably fleeting or elusive'<sup>37</sup>) is far too restrictive. God might produce something that has lasted for centuries, and this something can be studied by 21st-century scientists.

Hume's theoretical argument is not easy to grasp, but its conclusion can be summarized in one sentence: it is impossible to rationally believe in miracles because miracles violate the laws of nature. On the one hand, investigations of the TS can help demonstrate Hume's definition of miracles because violations or transgressions of natural laws are not the only definition that exists. One might prefer McGrew's definition or even the notion of 'scientifically inexplicable events' advanced by Stephen Griffith and the Lourdes International Medical Committee.<sup>38</sup>

On the other hand, the current trend in TS research in favor of the Antique Hypothesis, as described above, offers a concrete, new way to question Hume's theoretical argument. Could an unbeliever someday be 'swayed by hard physical evidence'<sup>39</sup> offered by the TS and believe that the Resurrection Hypothesis is the only reasonable explanation of the image-formation process? In light of all of the recent publications, this question becomes much more pressing than some traditional thought experiments, such as the following interrogation: would you still be an atheist/agnostic if the stars were to form the sentence 'God exists' in the sky?<sup>40</sup>

Today, all of the undisputed facts about the TS can clearly lead to a convincing case in favor of the Resurrection Hypothesis. However, it also appears that all of the TS's controversial aspects have made it difficult to participate in reasoning about it, even for natural theologians and Christian apologists. It has recently been shown that when we adopt a historiographical approach (the 'Minimal Facts Approach') to explain the image on the TS, the Resurrection Hypothesis is the most likely of all of the hypotheses, even when compared with natural hypotheses. The natural hypotheses – that is to say some image formation process without predominant human and divine intervention in first century Palestine – have often been proposed by researchers, for example a spontaneous electrical discharge (known as Corona

discharge).<sup>41</sup> But when strict historiographical criteria are applied, all the natural hypotheses appear unlikely. They lack plausibility: no image of such a human body has ever been discovered. They are contrived, more *ad hoc* than the Resurrection Hypothesis: a Corona discharge needs a strong (and just in time) earthquake. Moreover the natural hypotheses will not explain uncontroversial historical facts: Jesus' empty tomb and the apparition of the pre-Pauline Kerygma in the first years after the crucifixion.<sup>42</sup> The use of these traditional historiographical criteria (plausibility, explanatory scope and explanatory power, less *ad hoc*, illumination) to explain the TS could counter the empirical claim, recently advanced by Stephen Law, that 'there is no extraordinary evidence for any of the extraordinary claims concerning supernatural miracles made in the New Testament documents.'<sup>43</sup>

Although one cumulative case for the Resurrection of Jesus, a Bayesian approach, has been made recently, that approach unfortunately has never included the TS.<sup>44</sup> If the TS had been included, it probably would have reinforced the case for the Resurrection. Thus, the TS should be part of a concrete argument for the Resurrection, an 'argument from miracle', as defined by Robert Larmer, that 'must be understood as genuinely interdisciplinary, inasmuch as it presupposes the involvement of historians, archeologists, linguists and a host of other specialists that is necessary if the relevant data is to be critically engaged with in necessary detail.'<sup>45</sup>

### **Two hidden philosophical viewpoints behind the consensus: methodological naturalism and reproducibility**

In Methodological Naturalism's actual scientific context, a strong case in favor of the Resurrection might not even be convincing for a vast majority of scholars. Methodological Naturalism excludes supernatural intervention as an explanation for an event. In academic circles, Methodological Naturalism is widely believed and, in fact, is often adopted without much thought as one of the main characteristics of the scientific method.<sup>46</sup> Methodological Naturalism has often been perceived to contradict religious beliefs. With the argument from miracles, the opposite question now arises: can Methodological Naturalism be contradicted by a Bayesian approach?<sup>47</sup>

Here, two approaches are possible: Methodological Naturalism can be considered dogmatic (science cannot accept any explanation that does not exclude supernatural intervention), or pragmatic: science can accept another explanation.<sup>48</sup> Pragmatic Methodological Naturalism seems to be preferred even among openly atheist scientists such as the cosmologist Sean Carroll and the biologist PZ Myers. For example, Myers believes that 'if a source outside the bounds of what modern science considers the limits of natural phenomena is having an observable effect, we should take its existence into account.'<sup>49</sup> This last sentence is also important because it reminds us a point we tend to forget: pragmatic Methodological Naturalism remains a methodology, that is to say an imperfect way of approaching the ultimate reality of the universe. By its very definition, pragmatic Methodological Naturalism does not affirm that something that cannot have an observable effect does not exist.

In a nutshell, pragmatic Methodological Naturalism offers just one scientific view of the cathedral. Pragmatic Methodological Naturalism also implies a very high standard of proof. Clearly, our current (mis)understanding of the TS image formation process cannot challenge naturalistic worldviews. One may wonder about the extent to which pragmatic Methodological Naturalism's requirements are realistic, especially with respect to events of the distant past.

Further inquiries and new scientific tests on the TS might make it more apparent that dogmatic and pragmatic Methodological Naturalism are indeed conjoined twins.

In addition to dogmatic and pragmatic Methodological Naturalism, another common philosophical viewpoint hidden behind the consensus view of sindonologists is that science should only be interested in ‘reproducible’ phenomena. To illustrate this point, we can return to Giulio Fanti: ‘as the resurrection is not a reproducible phenomenon, it goes beyond the realm of science, and therefore cannot be tested.’

This philosophical distinction is obviously questionable. Traditional definitions of science have included the notion that science always deals with reproducible phenomena. However consider an area that everyone will agree to define as scientific: cosmology.<sup>50</sup> Scientific reasoning allows us to deduce with a good level of certainty that one past event (the ‘Big Bang’) occurred approximately 13.8 billion years ago. This not only shows us that cosmology ‘has [...] become a historical science’.<sup>51</sup> This also shows us that some scientists study unique past events that human beings cannot reproduce. It becomes then difficult to escape the question asked by Alvin Plantinga: ‘what about the Big Bang: if it turns out to be unrepeatable, must we conclude that it can’t be studied scientifically?’<sup>52</sup> A negative answer seems reasonable and implies that the realm of science is probably bigger than authorized by more traditional definitions. Therefore, this argument against the scientific study of the Resurrection is not strong and must be rejected. Perhaps scientists (or just some scientists?) cannot study the Resurrection Hypothesis, but ‘unrepeatability’ is not a good argument in favor of this position.

## Conclusion

In this article, we have examined some of the main reasons that the consensus view – according to which neither science nor history can ever prove beyond a reasonable doubt that the TS shows signs of the Resurrection of Jesus – is not convincing. Recent developments in historiography and philosophy should be treated more seriously by sindonologists. Recent improvements in these fields of knowledge might have a strong impact on their research.

In every instance, studies of the TS must be continued and intensified. It is safe to say that new investigations will greatly improve our knowledge of the artifact. They might even offer us another view not only of a linen cloth treasured in the Cathedral of Turin but also of the scientific cathedral in which we live every day.

*Tristan Casabianca*  
*tristancasabianca@yahoo.fr*

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