Answering Objections to the Authenticity of the Shroud of Turin

Robert A. Rucker, MS (Nuclear), January 5, 2026

Bob Rucker was interviewed by Thomas Pogasic of catholicvote.com, to make the YouTube video titled ""That's Jesus" A Nuclear Engineer's Fascinating Experiment on The Shroud of Turin w/ Bob Rucker" (https://www.youtube.com/watch?v=TWcqpRWONdI). It was made available October 10, 2025 on YouTube. It has had 415,000 hits and 5032 comments as of January 5, 2026. Thomas Pogasic reviewed some of these comments to put together the following list of objections to the authenticity of the Shroud of Turin. Part 1 below is his list of objections. Part 2 is Bob Rucker's responses to these objections. In Part 2, the words in red are the objections and the words in black are the responses by Bob Rucker. Jack Markwardt's assistance in responding to question two is gratefully acknowledged. Especially helpful was chapter 41 "The d'Arcis Memorandum" in his 2021 book "The Hidden History of the Shroud of Turin".

Part 1: Objections to the Authenticity of the Shroud of Turin

1. Radiocarbon Dating Places It Firmly in the Medieval Period

One of the most robust scientific arguments comes from independent radiocarbon dating conducted in 1988 by three laboratories (Oxford, Arizona, and Zurich). Samples from the Shroud were analyzed, yielding a date range of 1260–1390 AD, aligning with the cloth's first documented appearance in historical records during the 14th century. This testing involved rigorous controls to avoid contamination, and the results have been widely accepted in the scientific community as evidence of a medieval origin.

Recent attempts to challenge this, such as a 2024–2025 wide-angle X-ray scattering (WAXS) study suggesting a 1st-century date, have been criticized for methodological flaws, including assumptions about storage conditions and potential contamination from centuries of handling. Critics argue that the carbon dating remains the gold standard, as it directly measures the cloth's age without relying on indirect proxies.

2. Historical Records Explicitly Label It a Forgery from the 14th Century

The Shroud first emerges in documented history around 1353 in Lirey, France, with no credible provenance tracing it back to the 1st century. In 1389, Bishop Pierre d'Arcis of Troyes wrote to Pope Clement VII, reporting that an artist had confessed to creating the image as a forgery to attract pilgrims and donations. The bishop described it as a "cunningly painted" work, and the Pope subsequently declared it an "icon" rather than a genuine relic, allowing display only if labeled as such.

A recently rediscovered 14th-century treatise by theologian Pierre de Thury further calls it a "clear" and "patent" fake, reinforcing contemporary skepticism. Additionally, a 2025 analysis of writings by medieval philosopher Nicholas Oresme contextualizes references to the Shroud as part of known 14th-century forgeries. The absence of any mention in early Christian texts, including the Gospels or other biblical accounts, further undermines claims of ancient origins.

3. Forensic and Anatomical Inconsistencies Suggest Artistic Creation

Modern forensic techniques have revealed that the bloodstains on the Shroud do not align with the physics of blood flow from a crucified body. A 2018 study using blood pattern analysis on mannequins showed the stains are inconsistent with gravity and positioning—e.g., wrist blood flows as if the arms were vertical, while head stains imply a standing figure rather than one lying supine. This suggests the image was created on a flat surface, possibly using a bas-relief sculpture or statue pressed against damp linen, as supported by 2025 3D modeling research. Anatomically, the figure's proportions are off: the head is disproportionately small, the arms too long, and the overall body lacks realistic distortion from wrapping around a 3D form. Comparisons to authentic 1st-century Jewish burial cloths, like one from Akeldama (Jerusalem), show the Shroud's weave and material are more akin to medieval European textiles than ancient Near Eastern ones.

4. The Image Could Be Explained by Medieval Techniques, Not a Supernatural Event

While the Shroud of Turin Research Project (STURP) in 1978 found no obvious pigments, skeptics argue the faint image could result from natural chemical reactions or deliberate medieval methods, such as acid etching, heat application, or contact with a heated statue coated in substances like aloe and myrrh. Pollen grains and dirt cited as evidence of a Jerusalem origin are likely contaminants from centuries of display and travel, not definitive proof. Moreover, the blood is type AB, but tests showing human DNA and trauma markers don't preclude it being from a medieval volunteer or cadaver used in forgery.

A $1 million challenge issued in the 2020s to replicate the Shroud has not been claimed, but critics note that partial replicas have been made using medieval-era techniques, casting doubt on claims of inexplicability.

5. Lack of Endorsement from the Catholic Church and Broader Skepticism

Even the Vatican has never officially declared the Shroud authentic, describing it as an "icon" for meditation rather than a relic. If it were genuine, the Church would likely promote it more aggressively for pilgrimage revenue, but historical caution persists due to the forgery allegations. Biblical descriptions of Jesus' burial cloths (e.g., John 20:6–7 mentioning separate head and body wrappings) also don't match the Shroud's single-piece design.
In summary, while the Shroud remains a fascinating artifact and symbol of faith for many, the convergence of radiocarbon evidence, historical denunciations, and forensic mismatches

provides a strong case for it being a clever 14th-century creation designed to inspire devotion during a time of widespread relic production in Europe. Ongoing research may refine these views, but the weight of evidence currently leans against authenticity.

Part 2: Bob Rucker's Responses to the Objections in Part 1

1. Radiocarbon Dating Places It Firmly in the Medieval Period (This is definitely not true.)

One of the most robust scientific arguments (This argument falls apart upon closer inspection.) comes from independent radiocarbon dating conducted in 1988 by three laboratories (Oxford, Arizona, and Zurich). Samples from the Shroud were analyzed, yielding a date range of 1260–1390 AD, Proper evaluation of this 1260-1390 AD range requires an understanding of how carbon dating is done, how statistical analysis should be done on the measured values, and the difference between random measurement errors and systematic measurement errors. When these issues are properly considered, as discussed below, the carbon dating of the Shroud becomes one of the best evidences in favor of the authenticity of the Shroud instead of being the best argument against the authenticity of the Shroud.

Carbon dating is done by measuring the ratio of C-14 to C-12 in samples. An equation is then used to calculate a date from this C^{14}/C^{12} ratio. This equation is based on the assumption that the C^{14}/C^{12} ratio has only changed due to the decay of the C-14, but if this C^{14}/C^{12} ratio has changed due to the addition or removal of C-14, then the equation is no longer valid to calculate a date from the C^{14}/C^{12} ratio. If you do not know how much C-14 has been added or removed from the samples, which is the case with the Shroud, then it is not valid to use the equation to calculate a date from the measured C^{14}/C^{12} ratios.

Three samples were cut from the corner of the Shroud in 1988. These three samples were sent to three laboratories for carbon dating (Oxford, Zurich, and Tucson). Each of these laboratories cut their sample into smaller pieces resulting in 12 subsamples that were carbon dated. It should be accepted that the C^{14}/C^{12} ratios for the 12 subsamples were accurately measured based on the reasonably accurate measurement of the carbon dates for the three control standards that were also measured at the same time as the 12 subsamples from the Shroud. However, as will be discussed below, the evidence related to the C^{14}/C^{12} ratio measurements for the Shroud indicates that new C-14 was probably produced on the Shroud by neutron absorption in the trace amount of N-14 in the fibers by the [N^{14} + neutron produces C^{14} + proton] reaction. This production of new C-14 in the fibers causes a systematic measurement error in the calculated date if the normal equation is used to calculate a date from the C^{14}/C^{12} ratios, so that the calculated date cannot be correct.

Every scientific measurement should produce two values, the measured value and the uncertainty in the measured value. Both values are important since the uncertainty determines the meaning of the measured value. Every scientific measurement can also be affected by two types of measurement errors. There can be random and systematic measurement errors. Random measurement errors can cause the measured value to be a little higher than the true value one time and a little lower than the true value another time. Whether the error causes the measured

value to be higher or lower than the true value is random. The effect of random measurement errors can be corrected by making many measurements so that the positive and negative random errors will compensate for each other to a significant extent. The average or mean of the many measurements should then be close to the true value. This is why scientific measurements are usually repeated many times.

Systematic measurement errors are very different than random measurement errors because they are caused by something that can make a significant difference in the measured value, and they can always be positive or always be negative. For example, a systematic measurement error would be present in a series of measurements of the length of a long room if the ruler that is being used is different than the standard 12 inches. If the ruler was 10% longer than 12 inches, then every measured value of the number of feet across the room would be about 10% smaller than the true length. And if the ruler was 10% shorter than 12 inches, then every measured value would be about 10% larger than the true length, allowing for some uncertainty in the measured value due to random measurement errors.

If a systematic error is present in a measurement, then the measured value should be corrected for the error if possible. Unfortunately, this is seldom possible. If a measurement contains a systematic error, and the magnitude of the error is not known so that the measured value cannot be corrected, the only option is that the measured value must be rejected, i.e. given no credibility. In the 1988 carbon dating of the Shroud, the measured values indicate the likely presence of a large systematic measurement error, evidently due to new C-14 produced on the Shroud by neutron absorption. Since the magnitude of this systematic error cannot be known from the measured values, the only option is to reject the measured carbon dates for the 12 subsamples from the Shroud. Evidence for this systematic measurement error is discussed below.

From the above discussion, it can be concluded that random measurement errors are usually expected to be present and can be dealt with effectively, so random measurement errors do not require the measured values to be rejected. But if a systematic measurement error is present, it will usually require that the measured values be rejected, i.e. be given no credibility. This means that it becomes very important how the presence of a systematic measurement error can be detected.

To determine whether a group of measured values includes a systematic measurement error, a chi-squared statistical analysis must be performed of the measured values and their uncertainties. The purpose of this analysis is to determine whether the measured values are consistent with each other within their uncertainties, which is indicated by a high value of the "significance level" calculated by the chi-squared statistical analysis. If it is found that the measured values are consistent with each other within their uncertainties, then it means that: 1) the stated uncertainties are properly accounting for all sources of measurement errors, 2) that the measurement errors taken into account in the value for the uncertainty is all the sources of random measurement error, so that 3) no source of systematic measurement error is required to explain why the various measured values are different from each other.

But if the chi-squared statistical analysis produces a low value of the significance level, it means that the differences between the measured values probably cannot be explained by their

uncertainties, and thus by random measurement errors alone. In this case of a low significance level, a systematic measurement error must also probably be present to explain the distribution or spread of the measured values. This means that if the chi-squared statistical analysis produces a low significance level, then a systematic measurement error is probably present, which means that the measured values should be rejected. In a chi-squared statistical analysis, the critical value is usually assumed to be 5%. This is usually understood to mean that if the significance level is between 5% and 100%, then it should probably be accepted that a systematic measurement error is probably not present, which means that the measured values should be used. But if the significance level is below 5%, then a systematic measurement error is probably present, which means that the measured values should be rejected, i.e. given no credibility.

The results of the 1988 carbon dating of the Shroud were reported in a paper by P. E. Damon, et al. (Ref. 1). This paper reported the carbon dates obtained for the12 subsamples from the Shroud, as well as the carbon dates obtained for the three control standards that were dated at the same time. The purpose of carbon dating these three control standards was to demonstrate that the process used to carbon date the 12 subsamples from the Shroud was accurate. The chi-squared statistical analysis of the carbon dates for the Shroud subsamples and for the three control standards was also included in Ref. 1. The chi-squared statistical analysis of the carbon dates for the three control standards produced significance levels of 90%, 50%, and 30%, which indicates there was probably no systematic measurement error present in the measurements for the three control standards. Based on these three values, it might be expected that the significance level for the 12 subsamples from the Shroud would be within the 30% to 90% range, perhaps at the average value of about 60%, thus also indicating that no systematic measurement error was present. However, the significance level reported in Ref. 1 for the carbon dates for the 12 subsamples was 5%, thus raising the possibility of the presence of a systematic measurement error, and thus the possibility that all the carbon dates for the 12 subsamples should be rejected, i.e. given no credibility.

Evidence for the presence of a systematic measurement error in the carbon dating of the Shroud's 12 subsamples can be summarized as follows.

- It is not explained in Ref. 1 why the chi-squared calculated significance levels for the three control standards are at 90%, 50%, and 30%, whereas the calculated significance level for the Shroud's 12 subsamples is at only 5%.
- The 5% value reported in Ref. 1 for the significance level for the Shroud's 12 subsamples is only one significant digit. This raises the question whether the actual calculated value may have been below 5%, but that it was rounded up to 5% to satisfy the critical value limit of 5%.
- This 5% value indicates that the spread or distribution of the measured values only has about a 5% chance of being explainable by the stated uncertainties. Since the stated uncertainties should have been the result of the random measurement errors, this low significance level suggests that a systematic measurement error may also be present. And if a systematic error is present, then the measured carbon dates should be rejected, i.e. given no credibility.
- The average or mean of the carbon dates measured by the laboratory in Tucson is statistically different from the average or mean of the carbon dates measured by the

laboratory in Oxford. This indicates that the average carbon date from Tucson is essentially different from the carbon date from Oxford. A possible reason for this is the presence of a systematic error in their measurements.

- There appears to be inconsistencies in the reported values in Ref. 1 for the statistical analysis of the carbon dating measurements, both for the Shroud and for the control standards. This means that it is not clear how the statistical analysis of the measured values produced the results in Ref. 1, so that it could not be confirmed that the statistical analysis was done correctly. These issues led to an international conference of experts in statistical analysis to discuss questions about the reported data and analysis in Ref. 1. This is the CIELT International Shroud Symposium in Rome in 1993.
- Remi Can Haelst, an expert in statistical analysis from Belgium, wrote many papers on the statistical analysis of the data in Ref. 1. His last paper (Ref. 2) in 1997 is available at https://www.shroud.com/vanhels3.htm. It is 18 pages of technical calculations. On page 13, he confirms that a significance level of 5% means that there is only a 1 in 20 chance of the measured dates being consistent with each other within their uncertainties. This suggests that there is a significant chance that a systematic measurement error is also present. On page 14 of this paper, Prof. Bene (University of Geneve) concluded that "the measurements made on the linen of the Shroud are **NOT** homogeneous and that they should be rejected." "Not homogeneous" is the same as "heterogeneous" and means that the samples are essentially different from each other so that it is not correct to average their results to obtain an overall average date, i.e. they should be rejected. French statisticians Bouclier de Carbon and Forestier agreed with Prof. Bene's conclusion.
- The raw data for the 1988 carbon dating of the Shroud was retained by the British Museum until they were forced to release it in 2019 in response to legal action related to freedom of information. In response to this information finally being released, four papers were published in peer-reviewed journals (Ref. 3 to 6) that all concluded that the measured carbon dates were heterogeneous (not homogeneous). This condition is explained by the measurements of the carbon dates not only including random measurements errors but also systematic measurements errors, so that the measurements should not be used in the calculation of an overall average date so that the measured values should be rejected.
- The only proposed hypothesis that explains all four types of evidence from the 1988 carbon dating of the Shroud is that the true date of the Shroud is probably about 33 AD and that about 2×10^{18} neutrons were emitted from Jesus' body in his resurrection, as explained below.

There is not just one evidence (1260-1390 AD) related to carbon dating of the Shroud. Instead, there are four evidences related to the carbon dating of the Shroud: 1) the mean or average carbon date of the 12 subsamples is 1260-1390 AD (two standard deviations), 2) the measured carbon date changes depending on location of the sample, with a rate of change of about 36 years/cm (91 years/inch), 3) there is a specific distribution and range (1155 to 1359 AD) of the measured carbon dates for the 12 subsamples from the Shroud, and 4) the measured carbon date for the Sudarium of Oviedo is about 700 AD. The Sudarium of Oviedo is believed to be Jesus' face cloth mentioned in John 20:7. The medieval Shroud hypothesis that the Shroud was made in 1260-1390 AD is consistent with the above evidence 1 but is not consistent with evidences 2, 3, and 4. The correct hypothesis must be consistent with all the evidence, i.e. all four of the above evidences. The neutron absorption hypothesis that the Shroud was made about 33 AD and

that about 2 x 10^{18} (2 x 10^18) neutrons were emitted from Jesus' body in his resurrection explains all four of the above evidences. This is the only hypothesis that is consistent with all the evidence. The invisible reweave hypothesis is not consistent with these four evidences, so cannot be true.

Samples from the Shroud were analyzed, yielding a date range of 1260–1390 AD, aligning with the cloth's first documented appearance in historical records during the 14th century. The neutron absorption hypothesis predicts that various locations on the Shroud will be carbon dated (when using the invalid equation discussed above to calculate a date from the measured C^{14}/C^{12} ratios) from about 824 AD to about 8459 AD (Figures 12 and 13 on paper 13 on the website www.shroudresearch.net) due to new C-14 produced on the cloth, and that about 75% of the area on the Shroud will date to the future relative to today. The three samples were cut from the corner of the Shroud which produced a relatively low date for the Shroud (1260 ± 31 or 1260-1390 AD when corrected for the changing C-14 in the atmosphere) due to the relatively low amount of new C-14 that was produced on the Shroud, resulting in only about a 16.1% increase in the C-14 concentration. This date of 1260-1390 AD could be easily correlated in the media and by scientists with the exhibition of the Shroud in Lirey, France about 1355 AD. If the samples were cut from the Shroud about 3 inches closer to the center of the body, so that they were carbon dated to about 1550 AD, then they could say that the Shroud was made just before it came into Turin in 1578 AD. If the Shroud's samples were carbon dated to about 1530 AD, then they could say it was made just before the Shroud was in the fire in Chambery, France in 1532 AD. If the samples came from the extreme far corner of the Shroud so that it was carbon dated to about 960 AD, then they could say that the Shroud was made just before the coins were minted that contain the face from the Shroud. By this flexible process, the "medieval forgery hypothesis" is made to seem reasonable by "cherry picking" the historical evidence so that the evidence that is claimed to be reliable is consistent with the view that is being promoted. Also, on pages 13 and 14 of Ref. 7, 12 date indicators are summarized that contradict the date of 1260-1390 AD. And Figure 9 in Ref. 7 refers to five new measurements using four new measurement methods that date the Shroud to approximately the time of Jesus. These 12 date indicators and five new measurements contradict the medieval Shroud hypothesis.

This testing involved rigorous controls (Three control standards were run to confirm the accuracy of the dating methods but before the tests were performed, the laboratories were told the dates of the control standards. This is a shocking violation of normal procedures and invalidates the effect of the control standards to validate the carbon date of the Shroud.) to avoid contamination (There were no controls to prevent the production of new C-14 on the cloth by neutron absorption in N-14 from neutrons emitted from the body in Jesus' resurrection. The basic assumption of the carbon dating test was that the cloth was a normal piece of cloth like any other piece of cloth, but this assumption ignores the possibility that if the cloth was the authentic burial cloth of Jesus, then it could have undergone unknown effects in the process of Jesus' resurrection. Thus, this assumption invalidates the entire carbon dating process. Also, the entire process of taking the samples was recorded on video, except when they were taken into the back room to package the samples, so that proof or provenance was lost of what the laboratories were dating.), and the results have been widely accepted (And widely questioned. They are now generally not accepted in the scientific community due to the above issues and the new dating methods discussed above.) in the scientific community as evidence of a medieval origin.

Recent attempts to challenge this, such as a 2024–2025 wide-angle X-ray scattering (WAXS) study suggesting a 1st-century date, have been criticized for methodological flaws, including assumptions about storage conditions and potential contamination from centuries of handling. These objections have some merit to them but do not necessarily invalidate the results that were obtained. Further studies of the WAXS process need to be done to determine the validity of the assumptions that affect the results. Also, the 1988 carbon dating of the Shroud had multiple "methodological flaws" that have been widely documented, for example in Joe Marino's 774 page book "The 1988 C-14 Dating of the Shroud of Turin, A Stunning Expose". Critics argue that the carbon dating remains the gold standard (This is a statement out of the 1960s. It is now known that there are many mechanisms that can significantly alter the carbon date, and there are many examples of very wrong carbon dates being obtained. Archeologists generally prefer to date things by pottery or coins rather than by carbon dating.), as it directly measures the cloth's age (No, it does not directly measure the cloth's age. It directly measures the ratio of C-14 to C-12 in the samples. An equation is then used to calculate a date from the C-14 to C-12 ratio, but this equation assumes that the ratio has only changed due to decay of the C-14. If anything has increased or decreased the amount of C-14 in the sample, then it is not valid to use this equation to calculate a date from the ratio.) without relying on indirect proxies. (There is no discussion about what "indirect proxies" refers to.)

Given the above, the question is then whether it can be determined whose image is on the Shroud. There are two criteria that must be satisfied to determine whose image is on the Shroud: 1) The front and dorsal images on the Shroud are those of a man that was crucified exactly as Jesus was crucified as described in the Gospels in the New Testament, and 2) His dead body emitted an extremely short burst of radiation that formed the images and shifted the carbon date in the forward direction relative to the true date. In a review of all the historical documents available to humanity, the only person and event that can satisfy these two criteria is Jesus in his resurrection. This is why a proper understanding of all the implications of the 1988 carbon dating of the Shroud is one of the strongest arguments in favor of the authenticity of the Shroud of Turin. Thus, the best hypothesis that is most consistent with all the evidence, is that the Shroud is the authentic burial cloth of Jesus, and that a burst of radiation from the body caused the images and shifted the carbon date forward from about 33 AD to the range of 1260-1390 AD.

2. Historical Records Explicitly Label It a Forgery from the 14th Century

The Shroud first emerges in documented history around 1353 in Lirey, France, with no credible provenance tracing it back to the 1st century. The provenance of the Shroud all the way back to the first century is somewhat uncertain due to multiple name changes for the cloth. It has only been called the Shroud of Turin since it came into Turin, Italy in 1578. However, one credible historical provenance tracing the Shroud back to the 1st century was presented in a book published in 1978 by Ian Wilson (The Shroud of Turin) which tracked the Shroud from Jerusalem to Edessa (33 AD) to Constantinople (944 AD) to Paris (1307 AD). A second credible historical provenance tracing the Shroud back to the 1st century was presented in a book published in 2021 by Jack Markwardt (The Hidden History of the Shroud of Turin) which tracked the Shroud from Jerusalem to Antioch (35 AD) to Constantinople (540 AD) to Paris

(1261 AD). It should be recognized that all the scientific evidence related to the images and the carbon dating can only be explained if what we now call the Shroud of Turin is the authentic burial cloth of Jesus, and his resurrection is a real historical event that included a burst of radiation that formed the images and shifted the carbon date forward from the true date, as discussed above. In 1389, Bishop Pierre d'Arcis of Troyes wrote to Pope Clement VII (There is no evidence this memorandum or letter was ever sent to the Pope. We only know about this letter from two copies that were obviously draft copies that were unsigned and undated. A final version was not found in the archives of the Avignon papacy where Pope Clement VII was located.), reporting that an artist had confessed (There is only one sentence in the letter that is relevant to the issue of this person painting the image. Referring to a previous exhibition of the Shroud in Lirey, France, about 1355 AD, this letter says that in a previous investigation by d'Arcis' predecessor in Troyes in northeastern France, Bishop Henri de Poitiers, a man was found who said he painted it. But even if this is true, this could only mean that he had painted a copy of it, which was not an unusual thing to do. Many copies were made of the Shroud of Turin, not for financial gain, but for devotional purposes to show people in their home church the evidence for Jesus' death, burial, and resurrection. No other information is given about the man that was said to have painted the Shroud and d'Arcis did not claim to have documentation of such an investigation by his predecessor, which he should have had as the new Bishop in Troyes. We are left with this probably being nothing more than hear-say evidence, which is not allowed in a court of law. D'Arcis did not claim to have seen the Shroud or to have investigated it himself in any way.

And most importantly, the Shroud of Turin Research Project (STURP) sent about 26 scientists from the US to Turin, Italy to perform non-destructive testing on the Shroud of Turin for five days, 24 hours a day. Their main goal was to determine how the images were formed. They concluded that the images on the Shroud were not due to paint, dye or stain because there was: 1) no pigment in the fibers sufficient to form the images, 2) no evidence of a binder to hold pigment, 3) no clumping of fibers or threads, 4) no stiffening of the cloth, 5) no cracking of the images along fold lines, 6) no brush strokes, and 7) no outline. Because the images are not due to paint, they cannot be a painting by an artist or forger. Ref. 7 proposes a hypothesis for how the images were formed that is consistent with 27 evidences related to the images. According to this hypothesis, the images were formed by an alternating current in the fibers that led to electrical heating of the very thin outer circumference of the fibers that discolored this thin region by a scorch mechanism, with the alternating current caused by a vertical oscillation of deuterium nuclei in the body that split them into protons that formed the images and neutrons that shifted the carbon date forward.) to creating the image as a forgery to attract pilgrims and donations. There is no evidence for this. D'Arcis did not claim that this alleged artist stated that he had created the Shroud image as a forgery to attract pilgrims and donations. D'Arcis was angry because the donations were going to a small church in his area of responsibility instead of into his effort to build a cathedral. The bishop described it as a "cunningly painted" work, and the Pope subsequently declared it an "icon" rather than a genuine relic, allowing display only if labeled as such. Pope Clement VII never declared the Shroud to be an icon. That is false. In his first two bulls, Clement described the Shroud to be a "figure and representation" of Jesus' burial shroud, but only because that was the language used in the petition to permit the exhibition filed by Geoffrey II de Charny, the son of the man who had exhibited it in the 1350's. Geoffrey II was a baby in the 1350's, so knew nothing about the Shroud's history and provenance. However,

in his final bull on the matter, Clement allowed the Shroud to be exhibited without being described as a “figure and representation” whenever a sermon was not preached at the exhibition, so he had no problem with it being presented as a true relic. His previous reluctance was a product of his wanting to placate the Emperor of Constantinople, but he was deposed shortly before the final bull was issued. Eventually Pope Clement VII imposed perpetual silence on d’Arcis regarding the Shroud’s exhibition in Lirey, France.

A recently rediscovered 14th-century treatise by theologian Pierre de Thury further calls it a "clear" and "patent" fake, reinforcing contemporary skepticism. Where did Pierre de Thury declare the Shroud to be a “clear” and “patent” fake? Such a statement from Thury, a well-known theologian, would have been very notable, but documentation for this statement is lacking. Pierre de Thury was the papal legate of Clement VII who had permitted the second series of Shroud exhibitions to begin in the Spring of 1389. The document giving his written permission to start this second series of Shroud exhibitions has never been found, but it is quoted by d’Arcis in his memorandum. It is unlikely that Thury would have called it a clear and patent fake, as it would have contradicted the actions which he took on behalf of the pope to permit the exhibition of the Shroud to commence.

Additionally, a 2025 analysis of writings by medieval philosopher Nicholas Oresme contextualizes references to the Shroud as part of known 14th-century forgeries. The absence of any mention in early Christian texts, including the Gospels or other biblical accounts further undermines claims of ancient origins. Oresme did not refer to the Shroud as a forgery. He cited its presentation by the Lirey canons as an example of clerics who were dishonest in their statements. A recent debate on this topic concluded that this text has no real historic significance (https://www.youtube.com/watch?v=5gW4nOpz000&t=4695s). Galatians 3:1 is a probable reference to the Shroud. If Gal. 3:1 does not refer to the Shroud, then it is not known what it refers to. There are multiple reasons why the Shroud would not have been clearly identified in the Biblical text or other documents. The Shroud was being hidden to keep it from being destroyed during the intense persecutions of the first two centuries. The Shroud would have also been offensive to the Jewish mind because it was a burial cloth with blood on it, and because it contained an image of a man that was believed to be God in human flesh.

3. Forensic and Anatomical Inconsistencies Suggest Artistic Creation

Modern forensic techniques have revealed that the bloodstains on the Shroud do not align with the physics of blood flow from a crucified body. A 2018 study using blood pattern analysis on mannequins showed the stains are inconsistent with gravity and positioning—e.g., wrist blood flows as if the arms were vertical, while head stains imply a standing figure rather than one lying supine. (This study has many flaws in it as documented by many Shroud researchers. Perhaps the best response is paper 17 on www.shroudresearch.net.) This suggests the image was created on a flat surface (The section of the cloth that was located above the body was flat evidently because it was levitated above the body by electrostatic effects related to Jesus’ resurrection. See “electro-static effects” on page 4 of paper 41 on www.shroudresearch.net. This invalidates the following “2025 3D modeling research”.), possibly using a bas-relief sculpture or statue pressed against damp linen, as supported by 2025 3D modeling research.

Anatomically, the figure's proportions are off: the head is disproportionately small (The top portion of the head is not encoded onto the cloth due to the nature of the image formation mechanism, the bottom of the chin is hidden by the beard, and the knees are bent and the toes are pointed due to their position during crucifixion.), the arms too long (One arm gives the appearance of being too long because it is probably out of the socket due to the crucifixion.), and the overall body lacks realistic distortion from wrapping around a 3D form (This is because the top cloth was levitated above the body and the body was evidently levitated above the bottom cloth by electro-static effects, see page 4 on paper 41 of www.shroudresearch.net.) Comparisons to authentic 1st-century Jewish burial cloths, like one from Akeldama (Jerusalem), show the Shroud's weave and material are more akin to medieval European textiles than ancient Near Eastern ones. (For the 1988 carbon dating of the Shroud, the British Museum searched around the world for a piece of fabric that was similar to the Shroud to act as a control standard, but they could not find anything similar, even in their extensive access to medieval European textiles.)

4. The Image Could Be Explained by Medieval Techniques, Not a Supernatural Event

While the Shroud of Turin Research Project (STURP) in 1978 found no obvious pigments, skeptics argue the faint image could result from natural chemical reactions or deliberate medieval methods, such as acid etching, heat application, or contact with a heated statue coated in substances like aloe and myrrh. These statements are easy to make but no naturalistic image formation hypothesis has ever produced an image of the face that satisfies all the evidence both macroscopically and microscopically. Whenever this is attempted, it only proves that it is not how the images were formed. This is why the $1 million challenge was never attempted. Pollen grains and dirt cited as evidence of a Jerusalem origin are likely contaminants from centuries of display and travel, not definitive proof. Pollen was found on the Shroud from many different locations where the Shroud had been, including pollen from plants that bloomed primarily in the spring, when Jesus was crucified, in and around the area of Jerusalem. Dirt found on the Shroud near the feet was found to be limestone with impurities that identified it as "Jerusalem limestone." This type of limestone is called "Jerusalem limestone" because it is found primarily in the Jerusalem area, though it can also occur elsewhere. Though the pollen and dirt found on the Shroud do not prove that the Shroud was in Jerusalem, they significantly add to the cumulative argument that the best hypothesis is that the Shroud of Turin is the authentic burial cloth of Jesus. Moreover, the blood is type AB, but tests showing human DNA and trauma markers don't preclude it being from a medieval volunteer or cadaver used in forgery. But neither does this blood type, DNA, or trauma indicators prove that the Shroud was made in the medieval era.

A $1 million challenge issued in the 2020s to replicate the Shroud has not been claimed, but critics note that partial replicas have been made using medieval-era techniques, casting doubt on claims of inexplicability. An analysis of their documentation indicates that no naturalistic image formation hypothesis that has been proposed is consistent with the microscopic evidence related to the images. When these hypotheses are tried, the result has never satisfied all the macroscopic and microscopic evidence, so it only proves how the images were not formed.

5. Lack of Endorsement from the Catholic Church and Broader Skepticism (The popes have not been scientists, so they have not been able to adequately evaluate the scientific evidence. Perhaps there is also a concern regarding accusations that the church is against science, or that they may be proven wrong.)

Even the Vatican has never officially declared the Shroud authentic, describing it as an "icon" for meditation rather than a relic. If it were genuine, the Church would likely promote it more aggressively (If they were not sure whether it was genuine or not, they would not aggressively promote it.) for pilgrimage revenue (No, if they were sure it was genuine, it would be promoted for the spiritual value, i.e. that it proved Jesus' death, burial, and resurrection.), but historical caution persists due to the forgery allegations (No, caution persists because of their perception that there is a lack of positive evidence for its authenticity.) Biblical descriptions of Jesus' burial cloths (e.g., John 20:6–7 mentioning separate head and body wrappings) also don't match the Shroud's single-piece design. The Shroud's "single piece design" refers to the body cloth, i.e. the cloth that covered his entire body, but there is also the head or face cloth, which is still in existence and is known as the Sudarium of Oviedo. It is a low-quality linen cloth 84 cm × 53 cm (33 by 21 inches), has a blood stain pattern similar to the Shroud but contains no images, and according to historical documents, it left Israel in 614 AD and has been in Oviedo, Spain since 840 AD. These are two different pieces of linen cloth that were used for two different purposes. The head or face cloth was put around his head after he died, while he was still on the cross. Its purpose was to catch the blood that would have been draining out of his nose and mouth after he died, due to his head-forward position while still nailed to the cross. The purpose of this head or face cloth was to allow the blood to be buried with the body, consistent with Jewish culture. This cloth would have been left on the head as the body was lowered off the cross and transported to the tomb. After the body was brought into the tomb and laid on the back bench on half of the body cloth, the head cloth would have been taken off his head and laid aside, probably onto the right-side bench. The other half of the body cloth would then have been moved over his head and pulled down over his feet. This is why the body cloth, i.e. the Shroud of Turin, contains an image of Jesus' face whereas the face cloth does not, because the face cloth was off the body at the instant of Jesus' resurrection, which caused the images on the body cloth. Thus, there is no contradiction. The body cloth was evidently on the back bench in the tomb, possibly along with tie strips and wash cloths. The face cloth was separate from these items in the tomb. This is entirely consistent with John 20:6-7.

In summary, while the Shroud remains a fascinating artifact and symbol of faith for many, the convergence of radiocarbon evidence (No), historical denunciations (No), and forensic mismatches (No) provides a strong case for it being a clever 14th-century creation (No) designed to inspire devotion during a time of widespread relic production in Europe. It is best to understand that this relic production was a result of unscrupulous individuals trying to make money in response to donations being given when authentic relics being shown in Europe, such as the Shroud of Turin. Ongoing research may refine these views, but the weight of evidence currently leans against authenticity. No, a proper understanding of all the evidence is strongly in favor of the authenticity of the Shroud. This is why Shroud researchers believe that further scientific testing of the Shroud, especially regarding the carbon dating, will increase people's confidence that the Shroud of Turin is the authentic burial cloth of Jesus.

References

1. P.E. Damon, and 20 others, “Radiocarbon Dating of the Shroud of Turin”, Nature, Feb. 16, 1989
2. Remi Van Haelst, “Radiocarbon Dating The Shroud, A Critical Statistical Analysis”, 1997, available at https://www.shroud.com/vanhels3.htm.
3. T. Casabianca, E. Marinelli, G. Pernagallo, and B. Torrisi, “Radiocarbon Dating of the Turin Shroud: New Evidence from Raw Data”, published March 22, 2019 in *Archaeometry*
4. Paolo Di Lazzaro, Anthony C. Atkinson, Paola Iacomussi, Marco Riani, Marco Ricci, and Peter Wadhams, “Statistical and Proactive Analysis of an Inter-Laboratory Comparison: The Radiocarbon Dating of the Shroud of Turin”
5. Bryan Walsh and Larry Schwalbe, “An Instructive Inter-Laboratory Comparison: The 1988 Radiocarbon Dating of the Shroud of Turin”
6. Bryan Walsh and Larry Schwalbe, “On Cleaning Methods and the Raw Radiocarbon Data from the Shroud of Turin”
7. Robert A. Rucker, “Hypothesis to Explain the Image Formation and Carbon Dating on the Shroud of Turin”, Nov. 23, 2025, paper 44 on shroudresearch.net