

Federico Carra

The first day of Christianity

Shroud of Turin:
Religious Context and Jewish
Perspective

The first day of Christianity

Federico
Carra

© Federico Carra, 2024

All rights reserved to the author.

Federico Carra
www.mesullam.org

The first day of Christianity

To Giulia and Alfredo

Index

Preface	9
Introduction	11
1 The cloth.....	13
2 The first day of Christianity... ..	16
3 The starting context: the Jewish world.....	19
4 The context of arrival: Europe in the Middle Ages ...	25
5 Where was the Shroud from 30 to 1353?.....	30
6 Arguments for and against.....	35
7 Criticisms of the proponents of authenticity	39
8 Small theological considerations.....	41
Appendix A	44
Appendix B	46
Appendix C	51
Minimal bibliography.....	54
Federico Carra	55

Preface

This instant book was born as a reaction to an article published on an Italian newspaper (Il Fatto Quotidiano) in August 2024 with this headline: “*The Holy Shroud of Turin can be dated to the time when Jesus lived: the surprising breakthrough of scientists after new analysis*”. According to this article, some “new” Italian research would deny the results of the Carbon-14 analyses carried out in 1988 that dated the cloth to 2 1260-1390, automatically defining it as a fake.¹

This research, which - it should be noted - had already been circulating since 2022 (hereinafter referred to as the “De Caro study”), quite heavily criticizes the Carbon-14 tests conducted in 1988. These tests carried out by three authoritative laboratories specialized in Carbon-14, namely the laboratories of Tucson Arizona, Oxford and Zurich are considered unreliable for methodological reasons and for factual errors. The study then proposes its own methodology, known as WAXS.² This technology measures the natural aging of linen cellulose, converting it into time elapsed since

¹ This study, which appeared in English in the online journal Heritage, included as appendix A in this volume. It is an article from 2022, first signed by Liberato De Caro, researcher at the Institute of Crystallography of the CNR in Bari

² Wide-Angle X-ray Scattering

production, using specific aging parameters including temperature and humidity.

The article in the *Fatto Quotidiano* was quoted and partly denied by an article that appeared in the Italian newspaper *Repubblica* on August 23, 2024 in which Professor Nello Balossino, director of the Turin Center for Sindonology, says he is aware of the De Caro study and states that in reality it is not possible, on the basis of the tests carried out by the team of researchers from the CNR, to establish the age of the cloth of the Shroud. Both articles are attached in the Appendix.

The purpose of this instant book is to propose a compendium of the arguments in favor and against the authenticity of the Shroud, providing a further autonomous and until now little developed point of view, completely ignored by the so-called authenticist scholars, namely the consideration of the starting context of the Shroud, on the first day of Christianity. That is, the Jewish context.

Introduction

Why are relics so important in the Christian world? As a matter of fact, this is not correct, relics are very important for Catholics and Orthodox, but not for Protestants, who condemned them in the past and continue to do so today. Why this duality of positions? There are historical reasons, that is, attributable to the Protestant Reformation (1517) when there was a strong desire to rebel against the shameful trade of indulgences practiced by the Roman Church.

The aim was to orient religiosity towards “*sola Scriptura*” (scripture alone) and the true faith, as defined by Jesus: “blessed are those who have believed without having seen”. The cult of relics, however, draws on one of the most ancient drives of human beings, namely the reverence for the deceased loved ones, the honoring of their memory as a living presence, the sense of belonging that derives from it. The veneration of relics, therefore, derives from and simultaneously creates an emotional bond with our past that helps us stay together for our future, possessing a common history and values. So why do Protestants condemn them? Surely for all the fraud, and the abuses and, let's face it, the bad faith connected then with the relics and their trade.

Nowadays the phenomenon is marginal, except for Italy the case of the Shroud, which has obscured the other historical relics that also exist: for example, the two fragments of the Holy Cross in Venice. Furthermore, connected to the

veneration of relics but not limited to it, we witness other practices equally worthy of respect, for example the pilgrimage to sanctuaries - where relics are often kept. No one, strictly speaking, can believe that in the sanctuary of Santiago de Compostela lie the mortal remains of the apostle of James the Great, the apostle of Christ, arrived in Spain from Palestine aboard a boat without sailors miraculously carried there by the sea and the winds.... However, millions of pilgrims set out every year for Santiago.

The relics can therefore also stimulate the faith of believers and non-believers, and even the gullible. The history of most of the relics inherited from the Middle Ages certainly borders on the ridiculous, but we cannot limit ourselves to sarcasm without considering the spiritual enrichment that comes from it.

With great respect therefore we will treat the problem of the Shroud, which remains a moving icon but an ingenious fake, for all the reasons that follow.

1

The cloth

The Shroud of Turin “is a linen cloth 4.41 meters long and 1.13 meters wide, woven in a herringbone pattern. A finely made burial cloth, not particularly common in the mortuary traditions of the Jews and other ancient peoples, the Shroud bears imprinted on its front a double image (frontal and dorsal) of a human body with clear signs of torture. These are in reality two imprints of a life-size man lying on one half of the linen, with the other half of the cloth folded over his head to his feet, so as to create a double silhouette, opposite head-to-head, one frontal and one dorsal. The frontal image shows the head and face of a man about 1.80 meters tall with long hair, a split beard and a moustache. The more marked mass of hair on the left side suggests that the head was slightly tilted toward that side. Reddish spots are visible on the hair and face. The most characteristic is the one in the shape of an inverted 3 in the center of the forehead. The facial features are, however, marked by what appear to be various injuries: deviation of the nasal septum, swellings under the eye, on the right cheek, on the upper lip and on the jaw.

It is possible to see the two forearms crossed on the pubic bone with the left hand on the right wrist. Bloodstains are clear on the left wrist and on both forearms. The dorsal image shows a series of rivulets of blood from the nape of the

*neck to the neck. Numerous signs of flagellation are evident from the shoulders to the ankles. A transverse flow of blood can also be distinguished in the lumbar region. The dorsal image also shows the feet, especially the right one. In the central part of the right foot there is a decidedly darker area that corresponds to the wound of a nail. Two different rivulets of blood flow from it, one towards the toes and one towards the heel. The Shroud is very ancient and, as with any other object of similar date, it is very difficult to reconstruct its history. However, a centuries-old tradition has gradually consolidated that identifies the Shroud with the burial cloth that wrapped the body of Jesus after his death”.*³



The Greek word Shroud means “fine fabric, generally linen fabric; wool fabric, ext. cloth, drape, cloth, linen garment and also sail”, and is a word used by the three synoptic evangelists (Mark, Luke and Matthew) to describe the burial cloth of Jesus. The word is very ancient, it was already known in Akkadian and Biblical Hebrew, *saddinu* and *sadin* respectively with a similar meaning.

According to ancient Jewish custom the body was to be buried before sunset wrapped in several garments or cloths⁴, and not with a single cloth; in fact, this is what the evangelist John also tells us, who clearly mentions cloths in the plural (“*othonia*”), and then again of cloths and of a shroud that had

³ <https://sindone.it/museo/it/telo/>

⁴ <https://jewishencyclopedia.com/articles/13613-shroud>

been placed on Jesus' head. Mark refers to a sindon, Matthew describes a clean sindon, Luke first mentions a sindon and then of cloths or bandages in the plural (*othonia* like John).⁵

⁵ Mark15,45; Lk. 23,52 and 24,12; Matthew 27,59; Jn. 20,5

2

The first day of Christianity...

On 15 Nisan (spring month, approximately March-April) of the year approximately 30 CE, on the first day of the week after Easter, the Christian era begins. The stories of the four canonical evangelists are not identical, but the effect for all humanity will be identical: nothing will be as before.

Jehoshua of Nazareth is resurrected, and meets some of his disciples and some women, speaks and eats with them, before ascending to Heaven, where the Lord God resides. He becomes the Christ, son of the living God. Let's read what the evangelist Mark says:

After the Sabbath, Mary Magdalene, Mary the mother of James, and Salome bought spices so that they might go to anoint him. Very early on the first day of the week, they came to the tomb at sunrise. They said to one another, "Who will roll away the stone for us from the entrance of the tomb?" When they looked up, they saw that the stone had already been rolled away, for it was very large. When they entered the tomb, they saw a young man sitting on the right side, dressed in a white robe; and they were afraid. But he said to them, "Do not be afraid! You are looking for Jesus of Nazareth, who was crucified. He has been raised; he is not here. See the place where they laid him. But go, tell his disciples and Peter, 'He is going ahead of you to Galilee. There you will see him, just as he told you.'" (Mark,16,1-7)

With the faith in the resurrection of Jesus, Christianity was born. That is, the faith that Jesus is a divine figure, to be venerated and worshipped as a God. Obviously, no one started to count the Christian days from that day when Yehoshua's body was no longer found in the tomb: there was too much surprise and wonder, the dismay and hope of being able to see him again.

The tomb where Yehoshua had been buried about forty hours earlier is empty. But something of him remains in the tomb: according to Luke, they are the cloths that wrapped his body. John the Evangelist is much more precise, in fact he describes what the apostle whom Jesus loved (that is, himself) and Peter who arrives running immediately after him see in the tomb:

3 Then Peter went out with the other disciple, and they went to the tomb. 4 They both ran together, but the other disciple ran faster than Peter and reached the tomb first. 5 He stopped down and saw the linen cloths lying there, but he did not go in. 6 Then Simon Peter, who was following him, came and went into the tomb and saw the linen cloths lying there, 7 and the shroud that had been on his head, not lying there with the linen cloths, but rolled up in a place by itself. (John, 20,3-7)

Mark and Matthew, however, do not mention either linen cloths or shrouds. As can be seen, the two Gospels that mention them deny the existence of a single linen cloth or shroud. In contradiction with Luke and especially with John the evangelist (who seems very well informed), the linen cloth displayed in Turin would instead be the only burial cloth that wrapped the entire (this is the key point) deceased body of Jesus. Therefore, it would serve as evidence of the crucifixion, the resurrection and, consequently, of the Christian faith.



Let us try to imagine what may have happened in the tomb on the first day of Christianity. Let us assume, against the evangelical sources, that there was only one cloth. This cloth must necessarily have been stained with blood and other bodily fluids (tears, sweat, urine, feces), given that Jesus had died a violent death and had remained crucified for several hours. The Shroud bears traces of hundreds of large and small wounds, due to the crown of thorns, the flagellation, the thrust of the spear in the side, and has two wounds on the nose and cheekbone, compatible with injuries from a fall. Furthermore, the body, most likely, had not been washed, due to the rush to place it in the tomb before sunset, as prescribed by the Mosaic law.⁶

⁶ Deut. 21, 23

3

The starting context: the Jewish world

The main question - or rather the only question- is this: was it permissible to keep Jesus' burial cloth? The Jewish world is based on a great pillar, holiness. The Lord, in the book of Leviticus, 19,1 says:

"Be holy because I the Lord your God am holy".

The word "holy", which in modern translations may seem harmless, in Hebrew has a very precise meaning: it means separated (in Hebrew *kadosh*, from the verb *kadash* which etymologically means to separate). Even the word "sacred" comes from an Indo-European root "sec" which means "to cut, divide, separate, sever". Holiness, in Hebrew *kedushà*, means separateness.

So holy is equivalent to separated. Separated from what? First of all, from other peoples, who are not the Lord's favorites; Jews in fact could not share the table with pagans⁷, and even more so marry pagan women. And then they had to remain separate from impurities-for example from pork, camel meat and countless other animals, from blood, from

⁷ In fact, Peter does not eat with pagans, see chapter 10 Acts of the Apostles.

leprosy, from pagan idols and so on. In total, the Torah lists 613 commandments (365 + 248 corresponding to the number of days in a year and the bones of the body) that Jews had to respect and that concerned all aspects of human life. The Jewish religion is the religion of holiness-separateness (kedushà), and therefore of the observance of the commandments, which indicated how to remain separate.

Respect for blood was of particular importance. Blood is the life of the flesh, and is reserved for the Lord, it belongs to the Lord, not to man. Therefore, anything related to blood had to be avoided. Blood was impure, blood itself could not be absolutely eaten or drunk; women during their menstrual periods, women who had given birth and lost blood, suffocated animals that had not been drained of blood, all this was impure.

Even stronger was the prohibition of idolatry: idolatry means worshipping idols, that is, images that represent a God. For Jews, the Lord God was one: YHWH, there was no room for other gods. Therefore, all representations, in any form, of the divinity and deities were strictly forbidden: idols, statues, paintings, sculptures, amulets, tattoos, anything that could recall either the God of Israel or the pagan gods.



All this is widely reported in the biblical writings (the Pentateuch, the Prophets and the other Writings), in the extra-canonical biblical literature, in the rabbinic literature (Mishnah and Talmud) and is also confirmed by the New

Testament and 10 extra-biblical sources, including those of Josephus Flavius.⁸

For example, in the Acts of the Apostles (Chapter 15) James the brother of the Lord, proposes to the Apostles and to the elders to send a letter with instructions to converts coming from paganism, to establish that of the 613 Mosaic precepts only four should be observed:

19 For this reason I think that we should not trouble those who are converting to God from the Gentiles, 20 but only that they be ordered to abstain from contamination with idols, from illegitimate unions, from strangled animals and from blood.

The letter was sent to the Gentile converts, as we know from vv. 23-29. This teaching is reiterated later by Paul in Acts 21,23-25.

The cloth that today we call the Shroud violates three of these four commandments in a very serious way: it was in fact the representation of the corpse of a man or a God, dead, killed by other men, with clear signs of blood and other humors. Depicting the corpse of a dead man was already considered impure. How much more so the depiction of our God! Not only dead, but even killed and bleeding.

The preservation of such a cloth would have made whoever kept it perpetually impure. The mere idea of keeping such a

⁸ Josephus describes in the Jewish War II, 9, 2 that Pilate had introduced in Jerusalem the portraits of the emperor wrapped in a covering, and that on the day he showed them to the Jews after having surrounded them with troops in full armor to exterminate them all, if not had received the images of Caesar. At that point the Jews all threw themselves together on their knees stretching out their necks, declaring that they were ready to die so as not to violate the law.

cloth would have been completely crazy and disgusting, as well as blasphemous.

The synoptic gospels confirm the prohibition of blood in one of the most moving stories of the New Testament: it is the story of the so-called bleeding woman⁹ (haemorrhissa - ἡ αἰμοῤῥοοῦσα), that is, a woman who had continuous menstrual blood loss and was therefore perpetually impure and lived a life of desperation. Risking her own safety, she ventured into the crowd and stealthily approached Jesus and from behind touched a fringe of his tunic with the hope that this would heal her. Miraculously she was healed, but Jesus was initially unaware of what had happened - he only felt a force coming out of him. The disciples were also confused; then the woman came forward, confessed her actions and Jesus dismisses her with words of peace.



The taboo of blood and idolatry were an integral part of the religious and social life of the Jews at the time of Jesus. The Shroud of Turin violates and unequivocally denies these taboos and the Mosaic prescriptions. Therefore, there was no reason to preserve Jesus' burial cloth of on that first day of Christianity. Instead, there were very strong religious prohibitions not to do so. However, the cloth is here today, and therefore someone must have preserved it, according to what many believers and some scholars believe.

⁹ Mark 5, 25-32; Matthew 9,20-22; Luke 8,43-48

An ancient Chinese proverb says that even a journey of 100,000 steps begins with one step. Then there is the second, the third and so on. The journey continues only if, after the first step, there is the next step, and it ends only with the last step. Likewise, the Shroud of Jesus would have walked through history only if it had been preserved, after the first “preserver”, generation after generation, by transmitters (from the Latin *tradentes*), who had kept it lovingly, and then passed it on to their heirs and subsequent custodians.



At this point there are only two possibilities: either all those who have handled it over time knew what it was and therefore devotedly ensured its preservation over the centuries, or the cloth, at a certain point, became unknown and was rediscovered only much later.

In the first case, since the era of relics begins in the 4th century CE, whoever held it knowingly should have revealed it immediately in the 4th century CE: what could be more sacred, venerable, important, than the cloth that collected the imprint of the true body of Our Lord Jesus Christ risen? Why continue to keep it hidden?

In the second case, that is, in the hypothesis of the fortuitous discovery of an unknown cloth after centuries of oblivion, how could one affirm that that dirty and faded cloth was the authentic burial cloth of Jesus? On what basis?

Therefore, a burial cloth of Jesus as described above is totally incompatible regarding its genesis and preservation with the Jewish environment in which Jesus, his family and friends, and their heirs or subsequent custodians lived.

As we will see a little later, it is also incompatible with the gospel context and the writing of Paul of Tarsus, and the environment of the early church.

4

The context of arrival: Europe in the Middle Ages

The Shroud appears in Europe in 1353, in Lirey (France), through the work of a knight, one Goffredo di Charny, who installed the Shroud in a small church he had built.

It appears in a world crowded with relics of all types, most of which came from the Eastern Roman Empire, where relics had enormous importance since the end of the 4th century CE; according to Socrates Scholasticus who wrote in the 5th century CE the mother of the emperor Constantine , in 327 went to Jerusalem to look for the crosses of Christ and the two thieves and found all three of them, intact and whole (this traditional story is not confirmed, however, by the contemporary Eusebius of Caesarea, who wrote a Life of Constantine in 335 mentioning the pious archaeological activities of Constantine but not those of his mother Helena, and does not mention the discovery of the Cross).

From that moment on, the era of sacred relics begins, especially in the Eastern Roman Empire.

In the West it was Ambrose, bishop of Milan, who initiated of the veneration of relics, with the miraculous but fraudulent discovery of the remains of the martyrs Gervasius and Protasius in June 386 CE. Ambrose had promised that he

would find the bodies of the two martyrs and so led the people in a procession to a field and there, digging, two corpses were found still stained with blood (!) which, as two or three possessed people confirmed through visions, were indeed the martyrs, killed during the persecutions a couple of centuries earlier. Fragments of these two bodies were then requested and sent to many other churches and basilicas in Europe, as well as Europe flooded with fragments and small pieces of the body of the first martyr Stephen, miraculously found in Jerusalem in 415 CE.

The Crusades, and the sack of Constantinople by the Venetians and the crusaders themselves in 1204, had brought a great number of relics to the West. In Venice, there was in fact the Treasure of Saint Mark with a great number of them.

Let us make a brief description of some of them: the entire cross of Christ (found by Saint Helena in 327 and preserved in Jerusalem) and thousands of fragments of the same, numerous crowns of thorns and many thorns, eight foreskins of Jesus resulting from circumcision, countless ampoules with Mary's breast milk, more than a hundred with Christ's blood, even the shape of Jesus' buttocks engraved on stone (they were in Reims in France); seven heads of John the Baptist beheaded, body parts of martyrs and saints: skeletons, fingers, bones, teeth, nails, hair of various kinds, even some brains. And then plates, glasses, clothes connected with the life of Jesus; the Holy Grail, the trumpets of Jericho, the tail of the donkey with which Jesus entered Jerusalem, the throne of David... the list is endless and frankly ridiculous.

Some of the various contemporaries were perfectly aware of this: Boccaccio narrates in the Decameron of Friar Cipolla who shows the villagers "one of the feathers of the angel Gabriel, which remained in the room of the Virgin Mary when he came to announce her in Nazareth".



The reformer John Calvin wrote in 1543 "Le traité des reliques"¹⁰ a treatise in which he listed, denounced and ridiculed the relics known to him and that world of superstition and corruption.

The relics, in fact, were venerated, but also "sold, collected, lost, stolen, duplicated and destroyed: they guaranteed excellent business and constituted a formidable propaganda tool that was even used to display military power".¹¹

Every church, basilica, convent, monastery boasted its own relics, which attracted the faithful and pilgrims: the relics guaranteed protection, healing, defense against epidemics and against wars; they were an instrument of government and power, of consolation and security. Furthermore, there was the phenomenon that today we call merchandising: copies of relics, objects and cloths that were placed next to or hung on relics, and therefore became second-degree or contact relics, and then sold in turn.

¹⁰ Calvin's Treatise on Relics immediately met with great success and was translated into Latin, German, English and Flemish. It was placed on the Index of Prohibited Books in the year of its publication, in 1543

¹¹ Charles Freeman, Sacred Relics

In this climate the various shrouds (over forty have been counted in Europe since the Middle Ages),¹² or sudaria, should not have had an easy life, given that each automatically disqualified all the others, since each was, obviously, the one and only true shroud.

This was also one of Calvin's arguments, who also wondered why the Holy Spirit and the Gospels, which report so many miracles of Jesus, would have neglected to mention the miracle of the Shroud and even that of Veronica, a small cloth in which a woman would have dried the face of Jesus during the ascent to Calvary, in the presence of the crowd. In the Gospel of Nicodemus of the 2nd century CE, this woman is identified with the bleeding woman mentioned above, named Ferenice or Berenice or Veronica. The cloth known as Veronica (corruption of *vera icona*, "true icon") there are still eight examples in Italy today.

Despite the incredulity and mockery of poor Calvin in the face of such impudence, the plurality of shrouds and burial cloths was never a problem. Calvin names various shrouds, including that of Chambéry (i.e. that of the Savoy, later the Shroud of Turin), and that of Cadoin in the Dordogne, known since 1214 CE and venerated until 1934, when a Jesuit discovered that it was from the Fatimid era (late 11th century CE), thereby putting an end to pilgrimages to the abbey.

As we can see, the context of the arrival of the Shroud in Europe does not support its historicity. Apart from the inflation of relics, it is the very quantity of the alleged burial

¹² MICROMEGA 4/2010, p.6

cloths of Jesus that makes it very unlikely that the Shroud of Turin was the true burial cloth that covered Jesus, if we want to believe that at least one of them was the real one. It was certainly not the most respected shroud, so much so that since its appearance in 1353 even Pope Clement VII and the Bishop of Troyes had denounced its falsity; its fame was largely surpassed by that of Compiègne, which appeared in 877 CE and by that of Cadoin, which was on the Camino de Santiago de Compostela, where the body of the apostle James the Greater is said to be.¹³

The Shroud of Turin became famous only after 1898, when it was photographed in black and white, and it was discovered that the negative was much more detailed than the positive. This is where the modern fortune of the Shroud was born. On the other hand, the relic of the Holy Cross still existing today in the Treasury of San Marco in Venice, mentioned above, is not considered by anyone, neither by the Church nor by scholars. And the cloth of Oviedo, which also bears the imprint of the face of Jesus, is likewise largely ignored. One might wonder why.

¹³ Charles Freeman, *A History of Hoax Relics in Christianity*

5

Where was the Shroud from 30 to 1353?

If the Shroud is authentic, where was it for 1323 years, that is, from 30 to 1353? What is the historically verified and acceptable evidence that someone preserved or found it intact? And whoever found it intact, how did he understand that it was indeed Jesus' burial cloth?

Below is the hypothesis most followed today by authenticists, that is, those who believe in the authenticity of the Shroud.

The Shroud has never disappeared, but it would be the Mandyllion, a cloth that appears in the 6th century CE in Edessa (now Urfa in southeastern Turkey, near the Syrian border). The historian Evagrius Scholasticus, in his *Ecclesiastical History*, (written around 593) recounts that in 544, during the siege of Edessa by the Persian Sassanids of King Khosrow I, the Mandyllion was used to protect the city. The original legend starts from Eusebius of Caesarea, who tells the story of the miraculous healing of the king of Edessa Abgar (identified as Abgar V Ukkama, meaning “the black one”),¹⁴ who, being seriously ill and having heard about Jesus Christ, writes him a letter to beg him to go and visit him and

¹⁴ Moraldi L., *Apocrypha of the New Testament*, vol. 2, p. 1657

heal him. This would have occurred during the life of Jesus. Jesus answers him in writing (!) saying that he couldn't come because he first had to take care of the Jews, but promising to send a disciple after his resurrection. He congratulates Abgar for believing in him without having seen him. After the Resurrection the apostle Judas Thomas sends the disciple Thaddeus to Edessa where performs many 16 miraculous healings. So far, this is according to Eusebius of Caesarea.¹⁵

The legend then continues with two other writings, *the Doctrine of the apostle Addaeus* in Syriac, and the Acts of Thaddeus in Greek, probably composed between the 4th and 6th centuries CE. In the Syriac version, King Abgar's archivist Ananias goes to Jesus, makes a pictorial portrait of him and brings it back to the king. In the Greek version, however, Ananias receives from Jesus a cloth on which he had wiped his face, and on which a miraculous image of Jesus remains. In jargon this image is called "acheropita", meaning 'not made by human hands'.

As we can see, the legend grows over time, and the prodigious part of it grows, despite the (alleged) words of Jesus "Blessed are you who believed without having seen" always hovering, which in themselves deny the need for a "sign", be it a painting or a miraculous acheropita image. The presence of a painting and then a cloth, which were venerated and used to ward off misfortunes, tells us that at the time of the Mandylion the religious concept without icons and images of the primitive Church had changed. Byzantine art¹⁶

¹⁵ Abgar's letter, handed down by a very late manuscript, is considered unanimously apocryphal

¹⁶ Byzantium is the archaic name of the city on the Bosphorus before it was Christianized – it must be said – in Constantinople

had already begun; by then people wanted to see the face of the man Jesus.

The equivalence between the Mandylion and the Shroud was first advanced, as far as we know, by an English journalist, Ian Wilson, who later became a prolific author of investigative books on the Shroud, Nostradamus and other mysteries of a religious nature.¹⁷ “The hypothesis advanced, which the Shroud scholars consider certain, is this: the Shroud is in reality the Mandylion (or Mandil), a cloth that bore the true image of the head of Jesus and which appeared around the 6th century in the city of Edessa, now Urfa in Turkey. It was mentioned for the first time in the 6th century and represented, in the collective imagination, the very essence of the icon.”¹⁸ The Mandylion, or mandīl or mindīl, which in its Syriac etymology meant “handkerchief” or, in general, a small piece of cloth.¹⁹ This thesis provides a “story” for a Shroud that would otherwise lack historical context.



It is therefore necessary to explain how it is possible that a handkerchief (mandil), a small piece of cloth, can also be a

¹⁷ Ian Wilson

¹⁸ New light on the Shroud, History, Science, spirituality, 2020 Edizioni Ares

¹⁹ Bartolomeo Pirrone, New light on the Shroud, E. Marinelli

burial cloth (sindon) measuring 4.40 meters long and 1.10 m wide, weighing approximately 2450 grams.²⁰

Authenticists argue that the shroud would have been doubly folded in four, that is, effectively making a “tetradiplon” cloth, which showed only the face of Jesus, keeping the rest hidden. It would have remained so until 944 CE when the Byzantine army reconquered Edessa and the Mandylion was triumphantly brought to Constantinople. There it was unfolded in its entirety and all its contents were revealed. The historical or legendary events become confused at this point. The Shroud disappeared in 1204, the year of the sack of Constantinople by the Venetians and Crusaders, only to reappear in 1353.

This interval of 149 years is filled with the hypothesis that the Shroud was secretly preserved by the Templars, whose legendary secrecy would explain why nothing more was known about it during this period. The reason for the lack of historical evidence is thus assumed as its own justification. Frege, Russel and Wittgenstein must be turning in their graves...²¹

As you can see, we are far from the 100,000 steps completed, in addition to the first steps, many others are missing, each of which is fundamental.

²⁰ See however: https://it.cathopedia.org/wiki/Sacra_Sindone. “Its maximum dimensions 21 on the conservation bed reach 4.425 meters in length and 1.136 in width; the thickness of the fabric is approximately 34 hundredths of a millimeter and it is soft to the touch and easily foldable. The weight, estimated approximately, is 1.123 kg” (L'Osservatore Romano, 21-22 April 1980)

²¹ The fathers of modern logic

In fact, in addition to the Jewish point of view mentioned above, we must also consider the context of the early Church, marked by persecution and the liveliest faith in the risen Christ, who had defeated death and was alive again. In the first centuries there was a taboo, to represent the dead Lord Jesus, and in fact according to legend the mandil , was a representation of Jesus as a real, living physical person. The representation of the crucifix with Jesus hanging was established only from the 5th century onward. The early religiosity, greatly influenced by Saint Paul, was centered on faith in the risen Jesus, whom Paul himself had not known and did not want to know in the flesh. Paul rejected miraculous signs and objects that could lead to idolatry.

Furthermore, it is difficult to imagine that a handkerchief and a burial shroud could coincide, but it is even more absurd to think that for three centuries no one noticed that the venerated "handkerchief" hid the entire image of the front and even the back of Our Lord. Finally, the inclusion of the Templars in the chain of transmission of the Shroud makes the theory of the authenticists frankly fantastical: the Templars were already busy at that time preserving the Holy Grail...

Therefore, the identification of the Shroud with the Mandyllion faces truly insurmountable objections.

6

Arguments for and against

6.1 – ARGUMENTS FOR - THE SINDONOLOGISTS²²

1. The Shroud portrays the image of a dead man that corresponds exactly to the story of the passion of Jesus: the flagellation, the crown of thorns, the crucifixion with the nailed limbs, the wound on the side.
2. The cloth is a cloth from the 1st century CE produced in Palestine (Marinelli).
3. The cloth is a cloth from the 1st century CE produced in India (Fanti).
4. There are remains of pollen characteristic of Palestine.
5. There are bloodstains and streaks of serum, but under these blood traces there is no image of the body.
6. The blood is said to be AB positive (Aima Bollone and others before him).
7. On the cloth there are no traces of corpse decomposition
8. The photographic image of the body is a unique phenomenon and still unexplained, but it can be hypothesized that it was caused by a burst of radiation (Fanti). However, science is limited and cannot yet give us a 24 certain answer.²³

²² Ian Wilson, Giulio Fanti, Emanuela Marinelli, Pier Luigi Baima Bollone

²³ Fanti 2024 <https://www.youtube.com/watch?v=wFYHMOXlp7A&t=2816s>

9. The Shroud of Turin corresponds to the Mandylion of Edessa.
10. The results of the 1988 radiocarbon tests are incorrect.
11. The history of the Shroud of Turin can be retraced historically.
12. The micro particles of electrum (gold and silver alloy) found on the Shroud testify to the presence of coins on Jesus' eyes, which some have identified as coins from the time of Pontius Pilate.



6.2 – ARGUMENTS AGAINST – THE SKEPTICS²⁴

1. The Shroud cloth is of medieval origin, as proven by Carbon 14 tests. The carbon 14 method is universally accepted as a reliable method and has never been questioned. The De Caro study method, on the other hand, does not appear to have been used for other dating experiments.
2. The linen cloth is very expensive, not compatible with the status of Jesus, who was a simple carpenter; even more reasonably, if the cloth is of Indian origin, it is even more precious and incompatible with Jesus' situation.
3. In Palestine in the first century of the common era no similar cloths have been found
4. The bloodstains are not traces of blood, but remains of ochre and other dyes (Garlaschelli).

²⁴ Piergiorgio Odifreddi, Mauro Pesce, Charles Freeman, Luigi Garlaschelli

5. The image on the cloth cannot be the imprint of a corpse: in fact the back should be much more marked than the front, due to the weight of the body; the face should be visibly deformed; the rest of the body should also be deformed; there are no smears of blood from when the body would have come off the sheet, at the time of the resurrection.
6. The marks of the scourges are uniformly distributed on the back of the corpse, incompatible with the randomness of a real flagellation.
7. The preservation of a relic of Jesus is not compatible with the context of the early church.
8. The preservation and veneration of relics arose only three centuries after the death of Jesus.
9. The Mandylion cannot be the Shroud, for reasons of size, and because the Mandylion portrayed a living man, not a dead man like the Shroud.
10. When the Shroud first appeared, the Bishop of Troyes and Pope Clement VII denied its authenticity; the bishop said he knew who had cleverly crafted it.
11. The alleged historical events of the Mandylion and the Shroud are mostly conjectural and imaginative.



OIn addition, this book supports the thesis of the falsity of the Shroud because the first day of Christianity is a modern retrospective concept. On that day in reality there were no Christians on guard and Christianity had not yet emerged. What existed then was still Judaism.

The preservation of a burial cloth for an observant Jew is incompatible with the Jewish context of the first century of the common era.

7

Criticisms of the proponents of authenticity

- (I) It is not clear how, according to the authenticists, the image of Jesus on the cloth was formed. Some support the theory of a miracle, some emphasize the presence of traces of blood, and therefore seem to suggest a contact image, some remain vague and play on the ambiguities. Professor Fanti argues that the imprinted image occurred due to a physical phenomenon that is still unexplained by science. Such phenomena have a name: miracles. If therefore we are in the presence of a miracle, why is there also blood on the cloth? Why is there still a desire to seek scientific validation?
- (II) The Mandylion would be the Shroud of Turin; it would be, also, as expressly stated in the stories of Taddeo, and also by Professor Marinelli, the portrait miraculously imprinted on a handkerchief of the face of Jesus. The cloth of the shroud instead portrays the two-faced body of Jesus.
- (III) Professor Baima Bollone claims to have identified the blood type of the (alleged) bloodstains, which are said to

have been formed through direct contact.²⁵ We are therefore aware of the blood type of God, and of other characteristics of the blood not well specified.

²⁵ <https://www.iltimone.org/news-timone/baima-bollone-dopo-una-vita-di-studio-sono-convinto/>

8

Small theological considerations

In the New Testament we find numerous passages on how faith should be.

In the Gospel of John, in chapter 20, Jesus addresses Judas Thomas who had doubted his resurrection:

Jesus said to him: «Because you have seen me, you have believed; blessed are those who have not seen and yet have believed!». (John, 20, 29)

In the Gospel of Luke, whose faith and sweetness are captivating even for those who do not believe, Jesus is on his way to visit the dying servant of a centurion; the latter, probably knowing that Jews do not enter the houses of pagans, sends him to say:

Lord, do not trouble yourself! I am not worthy to have you come under my roof; 7 for this reason I did not consider myself worthy to come to you; but say the word and my servant will be healed (Lk. 7,6b-7)

Matthew, as usual, is more intransigent and almost brutal:

And he answered them, "An evil and adulterous generation seeks a sign; but no sign will be given to it, except the sign of Jonah the prophet. (Matthew, 12,39)

Mark also gives us numerous examples, and so does Paul:

For Jews demand signs and Greeks seek wisdom, 23 but we preach Christ crucified, a stumbling block to Jews and foolishness to Gentiles (1Cor. 1,22-23).

This was the religiosity of the primitive church, which turned to the risen Christ, not to idols of wood or stone or to images.



This faith of that time is also possible today, without the need to attach oneself or depend on relics of uncertain origins and highly questionable authenticity. How can one seriously think that the Templars secretly intervened for almost 150 years, and that the authenticity of the Shroud depends on this?

The Shroud is a wonderful artifact, which wants to celebrate the passion, death and resurrection of Jesus of Nazareth. We do not know how it was made, just as we do not know how the Egyptians built the pyramids, but this cannot serve as proof of its authenticity. It is an icon, an image, like Mantegna's depiction of Jesus.

The Shroud, like many other works of art, inspires us, moves us, uplifts us, but on the first day of Christianity there was none of this. There was no reason to preserve Jesus' burial

cloth on that first day of Christianity, instead there were very strong religious prohibitions not to do so.

Appendix A

Articolo de il Fatto Quotidiano del 21 agosto 2024.

“La Sacra Sindone di Torino può essere datata all’epoca in cui è vissuto Gesù”: la sorprendente svolta degli scienziati dopo nuove analisi

Alcuni ricercatori italiani hanno confermato la datazione del telo a circa 2000 anni fa
di Gabriele Scorsonelli

Un sudario di lino, un viso barbuto, i segni di un corpo martoriato e alcune macchie di sangue. La sacra Sindone di Torino, esposta per la prima volta al pubblico nel 1350, è per i credenti il telo in cui, dopo la sua crocifissione e morte, fu sepolto Gesù. Un oggetto misterioso, che da sempre affascina gli studiosi di tutto il mondo e su cui, negli anni, sono state condotte numerose ricerche. Più voci, nessuna conclusione unanimemente accettata.

Negli Anni 80, come riporta il *Daily Mail*, un’ipotesi basata su un test al radiocarbonio aveva retrodatato il reperto al Medioevo, rompendo ogni legame con il cristianesimo. Oggi, alcuni ricercatori italiani hanno confermato la datazione del telo a circa 2000 anni fa (all’incirca l’epoca di Gesù) usando una nuova tecnica basata sui raggi X. Secondo le recenti analisi, il fatto che le linee temporali coincidano potrebbe accreditare l’idea che il segno del sangue di un uomo con le braccia incrociate sul petto sia stato effettivamente lasciato dal cadavere di Gesù. D’altronde, anche il Vangelo di Matteo afferma che Giuseppe D’Arimatea avvolse il corpo del suo maestro in un sudario di lino, deponendolo in una tomba. Ma facciamo un passo indietro.

Ipotesi e pareri contrastanti, credenze e scetticismo riguardo il telo della sacra Sindone (oggi conservata nella cattedrale di

San Giovanni Battista a Torino e proclamata così dal cavaliere francese Geoffroi de Charny, che la donò al decano della chiesa di Lirey, in Francia) si rincorrono fin dalla sua prima esposizione pubblica stimolando, tra gli altri, l'immaginazione di storici e capi ecclesiastici. Nel 1988, una squadra di ricercatori internazionali ne analizzò un pezzo utilizzando la datazione al Carbonio 14 (tecnica che usa il decadimento di un isotopo radioattivo del carbonio per determinare ora e data di realizzazione degli oggetti) e collocando il tessuto tra il 1260 e il 1390 d.C. Secondo questa interpretazione e gli identici risultati ottenuti da tre laboratori diversi, l'opera avrebbe solo sette secoli. Si tratterebbe, quindi, di un falso.

Da secoli, gli scienziati continuano a studiare il sudario, tentando di risolvere il suo mistero e, a partire dagli anni '80 sono stati pubblicati più di 170 articoli accademici a riguardo. La soluzione più comune? L'autenticità del reperto, dei segni della corona di spine sulla testa, delle lacerazioni e dei lividi sulla schiena e sulle spalle che sarebbero state provocate anche dalla croce portata addosso da Gesù fino al Golgota, collina fuori da Gerusalemme e luogo della sua crocifissione. Un altro gruppo di ricercatori, nel 2017, avrebbe trovato sul telo le prove di tracce di sangue di una vittima di tortura, identificando sostanze come creatinina e ferritina (presenti di solito nei pazienti con traumi violenti).

Convinzione o perplessità, verità o falsità, credenti o meno, quello della Sindone resta un affascinante mistero a cui si cercherà sempre una soluzione. Un enigma che abbraccia la storia. E che probabilmente, per molto tempo, farà ancora la storia.

Appendix B

(Abstract, Introduction and conclusion)

X-ray Dating of a Turin Shroud's Linen Sample

Liberato De Caro 1,* , Teresa Sibillano 1 , Rocco Lassandro 1, Cinzia Giannini 1 and Giulio Fanti 2 1 Istituto di Cristallografia, Consiglio Nazionale delle Ricerche (IC-CNR), Via Amendola 122/O, 70126 Bari,

Italy; teresa.sibillano@ic.cnr.it (T.S.); roberto.lassandro@ic.cnr.it (R.L.); cinzia.giannini@ic.cnr.it (C.G.) 2 Dipartimento di Ingegneria Industriale, Via Gradenigo 6/a, Università di Padova, 35131 Padova, Italy; giulio.fanti@unipd.it

* Correspondence: liberato.decaro@ic.cnr.it

Abstract: On a sample of the Turin Shroud (TS), we applied a new method for dating ancient linen threads by inspecting their structural degradation by means of Wide-Angle X-ray Scattering (WAXS). The X-ray dating method was applied to a sample of the TS consisting of a thread taken in proximity of the 1988/radiocarbon area (corner of the TS corresponding to the feet area of the frontal image, near the so-called Raes sample). The size of the linen sample was about 0.5 mm × 1 mm. We obtained one-dimensional integrated WAXS data profiles for the TS sample, which were fully compatible with the analogous measurements obtained on a linen sample whose dating, according to historical records, is 55–74 AD, Siege of Masada (Israel). The degree of natural aging of the cellulose that constitutes the linen of the investigated sample, obtained by X-ray analysis, showed that the TS fabric is much older than the seven centuries proposed by the 1988 radiocarbon dating. The experimental results are compatible with the hypothesis that the TS is a 2000-year-old relic, as supposed by Christian tradition, under the condition that it was kept at suitable levels of average secular temperature—20.0–22.5°C— and correlated relative humidity—75–55%— for 13 centuries of unknown history, in addition to the seven centuries of known history in Europe. To make the present

result compatible with that of the 1988 radiocarbon test, the TS should have been conserved during its hypothetical seven centuries of life at a secular room temperature very close to the maximum values registered on the earth.

1. Introduction

The Turin Shroud (TS) is the most-studied archaeological object in the world [1,2]. The TS is an ancient linen cloth, 4.4 m long and 1.1 m wide, which wrapped the corpse and encoded the image of a tortured man, who was scourged, crowned with thorns, crucified, and pierced by a spear in the chest. In agreement with the Christian tradition, many researchers are convinced that the TS is the sepulchral cloth of Jesus Christ; however, in 1988, the Shroud was radiocarbon dated by three famous laboratories [3] and attributed to the year 1325 Anno Domini (AD), with an uncertainty of ± 65 years, implying that the TS should be a Medieval artifact. This result has been widely criticized [4,5] for both procedural and statistical problems, as was recently confirmed by the statistical analyses of raw data made available to the scientific community after only about thirty years and a legal action [6]. A regression analysis of data on the TS carbon dating has shown their statistical heterogeneity, together with the implausibility of the spatial allocations of some measurement samples [4–6]. Moreover, the ^{14}C dating results remain controversial, especially because of the likely non-negligible carbon contamination of the textile [6,7].

This contamination could be due to many factors, including environmental ones [8,9].

Moreover, other dating methods agree in the assignment of the TS to the first century AD [5,10–12]. Spectroscopic methods, based on Fourier Transform Infrared spectroscopy/Attenuated Total Reflectance [10] and Raman spectroscopy [11], date the Shroud to 300 Before Christ (BC) ± 400 years and 200 BC ± 500 years, respectively. The mechanical multi parametric method, based on an analysis of five parameters, including the breaking load and Young's modulus and the

loss factor, after an adequate calibration based on the results of two dozen samples of known age, dates TS as 400 AD \pm 400 years old [12].

Estimates of the kinetic constants for the loss of vanillin from lignin suggest that TS has an age range from 1300 to 3000 years [5]. A recent numismatic analysis [13] proposes that TS was already present in 692 AD.

A new method for dating ancient linen threads by inspecting their structural degradation by means of Wide-Angle X-ray Scattering (WAXS) [14] was recently applied to small linen samples taken from ancient fabrics, previously dated with the radiocarbon method. Our work showed that when the ancient fabrics are preserved by environmental contamination—i.e., when they were kept in the tombs where they were found—X-ray and ^{14}C dating agree well [14].

The aim of this work is to apply this new dating method for ancient linen fabrics to a TS linen sample. In Section 2, we describe the material and present the method that was adopted for the analysis, which was detailed in [14]. In Section 3, we summarize the X-ray experimental results obtained for the TS sample. In Section 4, we resume the main formulae [14], which were used to date the natural aging of linen cellulose, discussing their implications for TS X-ray dating. Finally, in Section 5, we report on the conclusions.

5. Conclusions

More than 30 years ago, it was argued that the measurement of the depolymerization of the cellulose constituting the linen of the TS could have offered the possibility of dating its fabric [24]. This was the aim of this work. In particular, the WAXS analysis presented here, for the natural aging of the cellulose in the linen of a TS sample, allows us to conclude that it is very probable that the TS is a relic of about 20 centuries old, even if we only have European historical documentation for the last seven centuries. Since the ^{14}C dating [3] does not agree with our results, or with the dating obtained by other works (see Table 1), a more accurate and

systematic X-ray investigation of more samples taken from the TS fabric would be mandatory to confirm the conclusions of our study. In this regard, it is very interesting to note that X-ray dating can be realized on half-mm-sized samples and, contrary to ^{14}C dating, the WAXS allows for repetitive measurements to be taken of the same sample. Therefore, many laboratories could repeat the X-ray dating on the same samples, and the procedure would also be blinded, because submillimetric or millimetric samples of linen fabric are indistinguishable, compared to the cm-sized samples needed for ^{14}C dating, which prevented a blind measurement protocol from being carried out in the 1988–1989 ^{14}C study [3]. Indeed, the particular TS weaving was clearly identifiable, invalidating the achievement of a blind analysis procedure. As a result, the bias in the 1988–1989 ^{14}C analyses occurred, as was demonstrated for this famous relic [6].

Our tests on the effects of a thermal shock on the linen, obtained by measuring the WAXS patterns before and after a thermal treatment in the oven of a linen piece at a temperature of 200°C for 30 min, allow for an increment in the natural aging due to the action of accidental fires, which have surely characterized the history of the TS fabric [12], to be excluded. In particular, detailed experimental tests about the yellowing of the linen have demonstrated that a few minutes at a temperature of 200°C could be enough to cancel out the TS image [20].

Moreover, it is interesting to point out that our analysis has shown that, in order for the TS fabric to be about 20 centuries old, it should have necessarily been kept at an average secular temperature of about $22.5 \pm 0.5^{\circ}\text{C}$ and an average relative humidity of $55 \pm 5\%$ for 13 centuries preceding the XIV century. From Equation (5), it follows that if the average relative humidity was of the order of $75 \pm 5\%$, to obtain the same value of the measured natural aging of 0.60 ± 0.02 for the TS sample, the average secular room temperature should

be about 20.0 ± 0.5 °C. Therefore, from our WAXS characterization it follows that we have a range of allowed secular average room temperatures of 20.0–22.5°C, correlated with a range of average relative humidity values of 75–55%, as climate constraints, for the TS to be a 20-centuries-old relic. These physical constraints on the secular average room temperature and the average relative humidity, obtained by measuring the natural aging of the cellulose of the TS sample, here realized through WAXS characterization, could help historians test their hypotheses throughout the possible locations in the world and historical periods in which the TS could have been kept during the 13 centuries before its documented history in Europe.

Finally, since X-ray dating indicates that the TS is older than its seven centuries of European history, we can also argue that it was fortunate that the TS was carried to Europe seven centuries ago. Indeed, our analysis has shown that, from the XIV century until today, the natural aging of the cellulose of the TS linen has been very low, due to the low secular European average room temperatures, thereby preventing the TS body image from fully disappearing, which would have happened at an average secular room temperature of 22.5 °C. Indeed, Equation (4) implies that, under the hypothesis that the TS is 20 centuries old, after 20 centuries at an average value of $T_r = 22.5$ °C and a relative humidity of 55%, a natural aging of about 90% would have already occurred; this value is much higher than the 60% that was experimentally determined for the TS sample. Therefore, by chance, only the recent history of the TS in Europe has prevented the TS linen from fully yellowing and the TS image from fully disappearing, thus preserving a puzzle that is very difficult for science to solve. New WAXS analyses on the natural aging of the cellulose in linen could allow for the correct age of the TS to be determined, which is a fundamental piece of this puzzle.

Appendix C

Articolo de la Repubblica del 23 agosto 2024

Esperti scettici sull'età della Sindone rilevata da uno studio ai raggi X “Non ci sono prove scientifiche”

di Martina Tartaglino

Il sudario che avvolse il corpo di Cristo duemila anni fa o una reliquia di epoca Medioevale? Falsa o autentica? I misteri che ruotano intorno alla Sindone custodita nel Duomo di Torino appassionano da anni scienziati e credenti. Ed è di questi giorni la riproposizione di una ricerca firmata da studiosi italiani e pubblicata l'11 aprile 2022 sulla rivista Heritage che fisserebbe la datazione del celebre lino a oltre duemila anni fa, smentendo così gli esami effettuati nel 1988 con la tecnica radiometrica del Carbonio-14 che hanno fatto risalire la Sindone al Medioevo e, più di preciso, a un periodo compreso tra il 1260 e il 1390.

L'articolo di Heritage che ha riacceso la curiosità degli appassionati, è stato ripreso dal Daily Mail ed è firmato da Liberato De Caro, Teresa Sibillano, Rocco Lassandro, Cinzia Giannini dell'Istituto di Cristallografia del Cnr di Bari e da Giulio Fanti del dipartimento di Ingegneria industriale dell'università di Padova. Lo studio si poggia su una tecnica, detta Waxs, che utilizza la diffusione di raggi X ad ampio angolo in grado di misurare l'invecchiamento naturale della cellulosa di lino e quindi di risalire al tempo in cui la stoffa è

stata prodotta. Dai risultati ottenuti, i ricercatori del gruppo di Bari e di Padova hanno concluso che la Sindone sarebbe stata conservata a una temperatura che si aggirava intorno ai 23 gradi e con un'umidità relativa del 55 per cento per tredici secoli prima di giungere in Europa. Inoltre il filato risulterebbe compatibile con altri campioni di tessuti di lino rinvenuti in Israele, nella zona di Masada, e risalenti al I secolo, in una forbice di tempo compresa tra il 55 e il 74 dC.

Gli esiti di questa ricerca vanno ad alimentare i tanti dubbi sull'origine della Sindone e anche le discussioni all'interno della comunità scientifica. Nello Balossino, direttore del Museo della Sindone e docente del dipartimento di Informatica al corso di Psicologia criminologica forense all'università di Torino, è scettico: «Si tratta di una ricerca presentata due anni or sono, e già allora ne abbiamo molto discusso pubblicando una critica sulla nostra rivista. Penso si tratti di una tecnica da rivedere e che non porti a una effettiva datazione come è, invece, scritto nell'articolo su Heritage. Ho dei dubbi proprio sulla metodologia utilizzata perché non ha avuto alcun seguito scientifico e in archeologia ancora nessuno utilizza questa tecnica di spettrometri a raggi X per datare oggetti».

Della stessa opinione è Paolo Di Lazzaro, fisico e ricercatore al centro Enea di Frascati nonché vice direttore del Centro internazionale di studi sulla Sindone: «La tecnica era stata proposta già nel 2019 poi nel 2022 è stata applicata a un campione di filo ed è stato pubblicato lo studio. Oggi siamo nel 2024 e per la scienza un intervallo di tempo di due anni è un'eternità. Inoltre gli archeologi continuano a utilizzare la misura con il Carbonio-14, che non viene influenzata dalla storia dell'oggetto e del tessuto, a differenza della Wax».

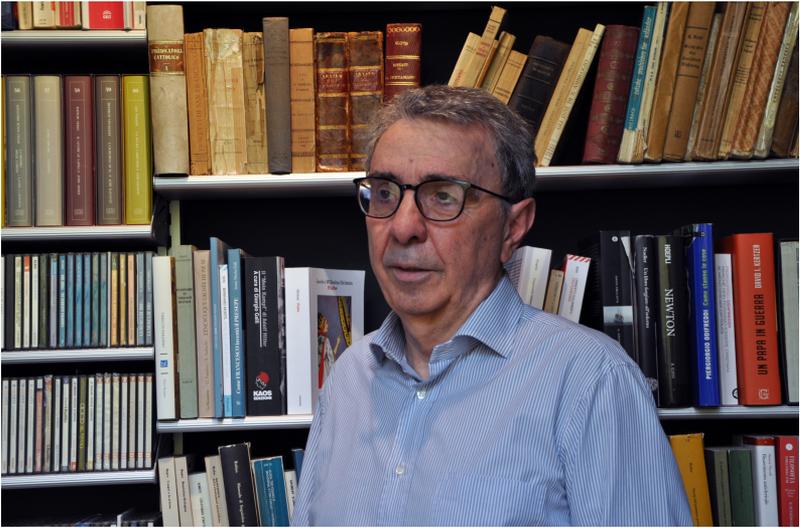
grande mistero della Sindone riguarda infatti il suo percorso, la sua conservazione, i passaggi di mano. «Sappiamo per certo — continua — che la Sindone ha avuto una vita travagliata, che ha subito attacchi batterici, danneggiamenti, è scampata a incendi e il risultato dato dalla tecnica Waxs non tiene conto di questi fattori e non può dare un risultato preciso. La Sindone non stata conservata per secoli in un solo luogo a temperatura e umidità costanti e con la medesima esposizione alla luce».

D'altra parte Di Lazzaro riconosce un merito alla tecnica Waxs: «Il vantaggio rispetto al Carbonio- 14 è che si tratta di una tecnica non invasiva e che permette di non distruggere il campione. È un aspetto interessante. Io credo occorra ripetere una nuova misura con Carbonio-14, ma con i metodi odierni, perché dal 1988 a oggi sono trascorsi quasi 40 anni».

Nello Balossino, che ha anche una lunga esperienza in ambito forense — dalla morte di Carlo Giuliani al Mottarone, al crollo del ponte Morandi — ribadisce: «Allo stato attuale dell'arte non si sa quale sia stato il meccanismo che possa avere provocato l'impronta sindonica. Si ha da una parte la datazione proposta con il Carbonio-14 che relega la Sindone al Medioevo e quest'ultima tecnologia — non comprovata — che la relega all'Anno Zero. Ma bisogna fare molta attenzione: l'immagine sindonica è un'immagine forense e se la tratto come tale, in un tribunale, vengono chieste le prove che sia datata duemila anni fa o al Medioevo. Ci sono prove? No. Appunto. Manca il concetto di prova scientifica ed è il motivo per cui nei confronti di questi esperimenti sono sempre scettico».

Minimal bibliography

- S.BOTTI, P.DILAZZARO, F.FLORA, L.MEZI, D.MURRA natura molecolare dell'invecchiamento della cellulosa indotto da radiazione ultravioletta e ultravioletta estrema
- <https://www.jewishencyclopedia.com/articles/4782-crucifixion>
- <https://jewishencyclopedia.com/articles/13613-shroud>
- https://it.cathopedia.org/wiki/Sacra_Sindone.
- Charles Freeman - A History of Hoax Relics in Christianity
- Charles Freeman - Sacre reliquie. Dalle origini del cristianesimo alla Controriforma-Einaudi (2012)
- Emanuela Marinelli - Nuova luce sulla Sindone-Edizioni Ares (2020)
- Giulio Fanti, Saverio Gaeta - Il mistero della Sindone_ Le sorprendenti scoperte scientifiche sull'enigma del telo di Gesù-Bur (2015)
- Ian Wilson - The Shroud_ Fresh Light on the 2000 Year Old Mystery-Transworld (2010)
- Jean Calvin - Traite de reliques
- O. Petrosillo, E. Marinelli - La Sindone. Storia di un enigma (1998, Rizzoli)



Federico Carra

Federico Carra is a passionate scholar of ancient Eastern languages and sacred texts in their original language.

He is the author of the book *I racconti di Marco, Luca e Matteo*, in which he thoroughly examines the texts of the Synoptic Gospels.

Before dedicating himself to the study of the ancient East, he worked as a lawyer and former Director of Legal Affairs in a multinational company, dealing with international contracts, Mergers & Acquisitions (M&A), corporate law, and antitrust regulations throughout his legal career.

After retiring from his professional life, he began delving into volumes on the ancient East, starting with Professor Mario Liverani's textbook, and he has not been able to stop since. Today, he continues to deepen his knowledge in the field, studying Greek classics, poets, and philosophers, and he devotes himself to the study of the Hebrew language and rabbinic literature.

