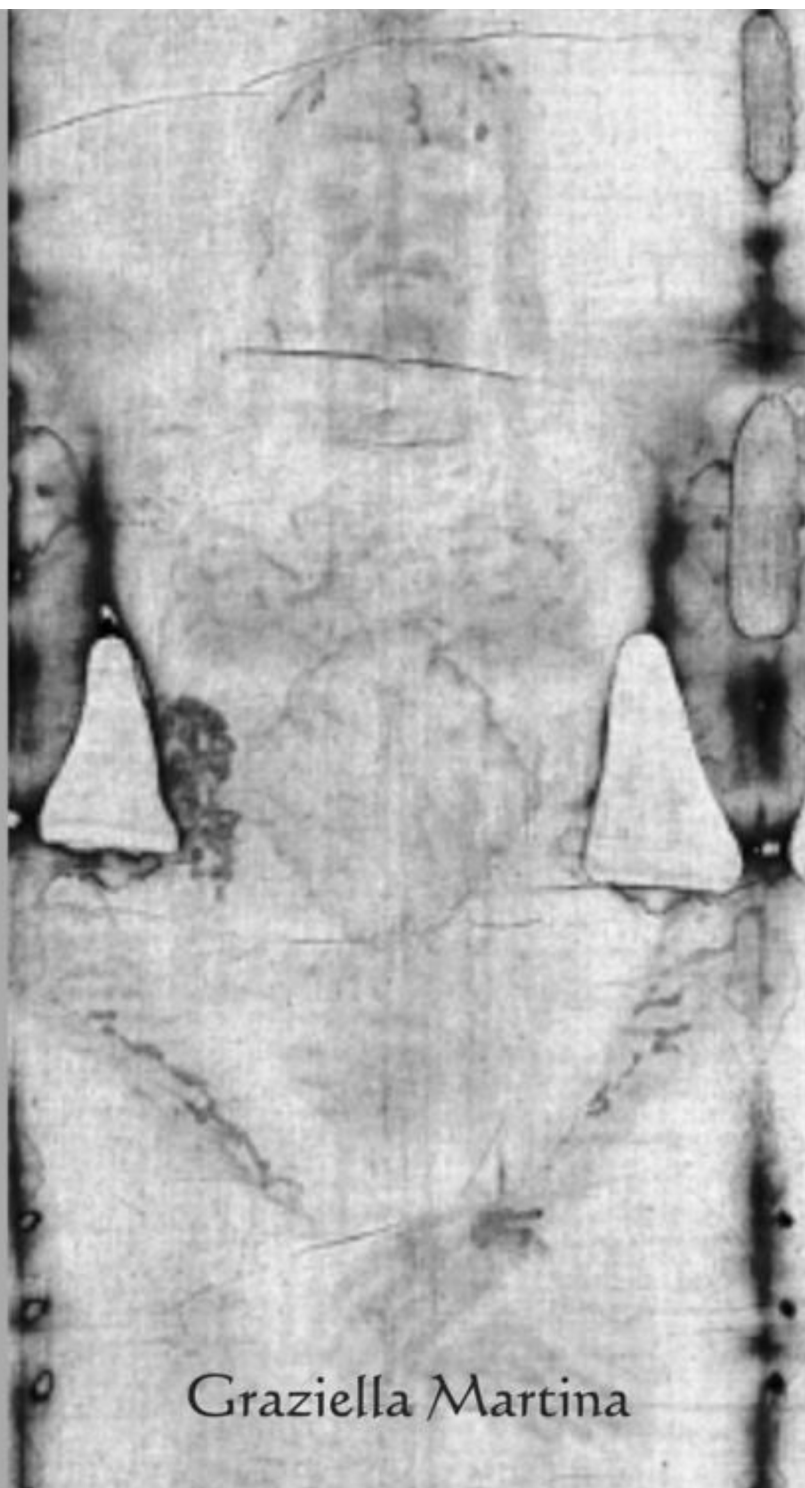


SHERES
AND
N-RUCH



Graziella Martina

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THE SHROUD, WHICH TRUTH?

A mysterious effigy

In that image we saw suffering so great that it would be impossible even to imagine. A beaten and tortured face, the head punctured by great thorns, trickles of blood running down the forehead, the cheeks swollen and disfigured, cruelly beaten. The left hand marked and crossed over the right covering the wound there. The nape of the neck pierced by the long thick thorns of the crown made for the head. Thick blood clots on the hair. The shoulders torn to pieces by the lashes of a whip.

Poor Clare Nuns of Chambéry.

April 16th 1534

The word 'Sindone' (Shroud) comes from the Greek and refers to a sheet or cloth used to cover or wrap bodies prior to burial. The Shroud kept in Turin is a rectangular linen cloth mixed with some cotton and measures 4.36 by 1.10 metres. The weave is irregular in a herring bone pattern and the threads are of an uneven thickness. The fabric is made of roughly 40 warp and 30 weft threads per square centimetre. The cloth has a blue border and has been backed with Holland sewn on by the Poor Clare nuns of Chambéry.

The cloth retains the negative image of the front and rear parts of a medium-tall male body, with a face framed by a beard and shoulder-length hair and bearing signs of wounds. This double image, with the front and back of the head in close-up, makes it clear that the corpse was placed on the sheet already laid out. The cloth was then folded down over the head and the front of the body. The imprint on the Shroud tells us that this was a man who had first undergone whipping and then had been crucified. There are multiple facial injuries. The right cheek and the upper lip are swollen as a result of beating, the nose is bent and the cartilage torn. There are also wounds on both eyebrows. There are marks on the head left by a crown of thorns which has made large wounds on the scalp and forehead, causing bleeding from the frontal vein with the blood coagulating in the form of an inverted 3. Traces of blood run down through the mass of matted hair in various directions, even though the deepest wounds are on the nape of the neck. The neck itself is not visible because of the reclining position of the head. Other wounds have left their imprint on the cloth: a wound at the level of the left fifth intercostal space, where a large stain of blood and serum has formed and a band of blood that could have been formed by the bleeding from the rib wound. Marks left by about a hundred whip lashes on the man's back have been counted, while there are shoulder wounds made by the block, the horizontal wood of the cross. In particular, the right shoulder appears lower than the left one and shows deep grazing. The upper limbs bear signs of piercing in the carpal area of the wrists, the so-called Destot's space, where the nail was sunk in. Given that the small bones of the hands would not support the weight of the body of a crucified man and the palms would tear after a relatively short time, the nail was driven into the wrists. The hands are crossed over the pubic area, with the left hand on top. There is no thumb print because the nail piercing the wrist caused the thumb to be drawn in towards the middle of the palm. Injury to the median nerve and the lateral fibres, of a sensitive nature, causes the inert collapse of the thumb towards the inner hand. The front image bears only a partial imprint of

the feet, which, however, are fully visible in the back plantar part. Traces of blood can be seen on the right ankle, caused by the piercing of the nail driven in between tarsals and metatarsals. On examination of the rear image, the left limb appears somewhat shorter than the right. The left foot was placed over the right for the nailing and therefore the knee and the thigh are moved forward and upward and fixed in this position when rigor mortis set in. This deformation is not, therefore, generally considered to be a natural feature. The toe prints of the right foot are visible as are also the trickles of blood that run down from the heel. The leg bones show no fractures, even though the knees, in particular the left one, are swollen and traces of earth were found at knee level, leading one to think there had been a fall.

On the cloth, which was originally white but has now yellowed with age, some lines, traces of scorching and water stains are visible.

The marks left by the flames are the consequence of the fire at Chambéry in 1532, when the Sainte Chapelle, which housed the Shroud at the time, caught fire. Drops of molten metal from the casket in which the Shroud was kept, fell on to the folded cloth and burnt a corner of it making twelve holes. The scorching has left two parallel lines along the sides of the image. There are also traces of an earlier fire, four L-shaped holes. This scorching has partially damaged the image.

This is what can be seen on the Shroud with the naked eye. Today, thanks to sophisticated instruments of research, we can go further. If until the end of the last century only the surface of the cloth was known, now, using microscopes and digital processing, we are able to discover also what has been concealed for centuries. We will only mention here the extra information we possess now, reserving the opportunity of going in to this in greater detail for the paragraph dedicated to science. We know that the image is a negative one and that some stains on the cloth are those of blood. It would seem that there are traces of some writing, letters and the imprint of two coins placed over the eyes.

The Shroud has so far been kept rolled over a long wooden cylinder, covered with red silk, in an engraved silver chest that dates back to the 1500s and which measures one and a half metres in length by about forty centimetres in width. This reliquary, protected by shatter-proof glass, was placed behind the altar in Turin Cathedral, in the special Chapel of the Shroud designed by Guarini. During the exhibition, the Shroud will be displayed horizontally, with the front image from the left side. After the exhibition it will be kept laid out horizontally in a bullet-proof glass reliquary, which is water-proof and in the absence of air in an atmosphere of an inert gas.

The most evident work done on the Shroud is that carried out by the Poor Clare nuns of Chambéry and also by the Blessed Sebastian Valfré of Turin who was greatly devoted to the Shroud. The nuns sewed triangular patches over the holes caused by the fire. In 1694, on the occasion of the display of the Shroud for its transfer to the chapel designed by Guarini, Father Valfré was called to restore the weave of the fabric in some places, mending the cloth. He did so while kneeling in an attitude of great humility and deliberately used dark brown thread so that it would be quite visible. He also changed the veils it was wrapped in and then handed them out as holy relics.

THE CRUCIFIXION

The precise origins of the practice of crucifixion are not known. At first it consisted in hanging the victim from posts or tree branches and leaving him there exposed to the inclemency of the weather and vultures or wild beasts. The cross was introduced later and was made of two pieces: an upright post driven into the ground on top of which a crossbeam (in Latin, *patibulum*), was fixed or nailed on. Thus the cross was t-shaped. There was often a seat or a kind of support placed under the feet. Crucifixion came into use in Rome at the beginning of the third century B.C. It was a punishment reserved for traitors, rebels, slaves and prisoners of war. The emperors Nero and Tito resorted to mass crucifixions. At the time of the revolt of the slaves led by Spartacus, six thousand of them were condemned to this torture. Their crosses formed a continuous line along the road from Rome to Capua. Crucifixion was almost always preceded by another form of corporal punishment, scourging. The condemned man was bound to a low pillar so that he could bend over it, as in the case of the man of the Shroud. Then two lictors – men specially trained for this – rained blows on him with whips or scourges. These were made with several ropes or strips of leather attached to a handle and with small pieces of metal at the tips. For Jews this scourging was not to exceed forty blows. For the Romans, on the other hand, it was *ad libitum*, that is without limits, if not that of the death of the victim. The convict then had to walk through the streets of the town carrying his gibbet, publicly confessing his guilt. Along the route he was scorned and hit by stones or blows.

The actual crucifixion was always carried out on high ground or in some place well in sight because the torment and the long agony of the crucified was intended to intimidate the whole population. The victim was made to lie down on the ground in order to be nailed or bound to the crossbeam. Then he was hoisted up and the crossbeam was fixed to the upright post already driven into the ground. Next, his feet were nailed separately, piercing the heels. The agony of the crucified man could last several days. Death frequently resulted from asphyxiation. Remaining in that position, hanging by his arms, the rib cage was compressed and breathing became impossible after a while. When he no longer had the strength needed to lever himself up on his feet and relieve the weight of his body in order to breathe, he died. In fact, death could be hastened when desired by breaking the condemned man's legs. Other causes of death might be blood loss, thirst and dehydration or tetanic fever.

Before the time of the Emperor Augustus, burial of those condemned to crucifixion was forbidden. After crucifixion the corpse could be entrusted to friends or relatives who claimed it, as was Jesus's case.

THE SHROUD AND HISTORY

A long journey amid legend and history:

The Shroud in the Orient

We have very little historical data regarding the Shroud prior to 1300 when it appeared in the West, and what we have cannot be linked with any certainty to the Shroud of Turin. Furthermore, most of the fragments we have probably belong more to legend and tradition than to history. But, even if they were historical facts, it is difficult to separate these scraps of information from legendary facts that have at this point distorted the substance.

What is more, documents which make mention of the existence of the Holy Shroud do not give any description of it, so that it is impossible to know whether they refer to the Turin Shroud or to others. It will be science, with its increasingly advanced and sophisticated instruments and procedures, that will fill the gaps left by history. Recent developments in the field of scientific research could lead to results that would enable us to go back with some certainty to a period of the Shroud's history prior to that of the Middle Ages. And if at present we have no certainties, we can, however, formulate theories to be used as starting points for further research.

There are scarcely any documents that give us definite proof of the existence and the movements of the Shroud before its arrival in France. Among these, we have some apocryphal testimonies, that is judged by the Church not to be authentic and rejected as untrue either because they have no historical basis, or because they are considered as having been supplied by a purely human, and not divine, authority, or because influenced by sects and by heretics and therefore not having the same value as canonical documents. But popular Christianity was not greatly concerned about historical truth and these sources have left a profound mark over the centuries and this can be seen in literature and figurative art. Among the apocryphal documents containing references to the Shroud, is the *Gospel of The Hebrews*, of which only three fragments have survived and are kept in the Vatican Library. It is part of that group of unofficial antique texts that together give information regarding the Shroud of Jesus. St. Cyril, patriarch of Jerusalem, also makes mention of the Holy Shroud in one of his works dating back to 335 A.D. Numerous factors have affected the mysterious events of the Shroud over the centuries, such as the various different cultural convictions and the diverse religious traditions linked to funeral rites. Furthermore, for some centuries an iconoclastic movement, contrary to all forms of image worship, advocated their destruction. Nevertheless, we do have some artistic images that might be held to be copies of the sacred cloth.

According to tradition it was the mother of Emperor Constantine, Helena, and Empress of the Orient, Pulcheria, who collected the relics of the Passion of Jesus in Jerusalem, among which was the Shroud. More certain documented information tells us that in 544 at Edessa, today Urfa, in Anatolia, Turkey, an image on cloth

called acheropite, that is, 'not made by human hand', was conserved and worshipped. According to legend, this image had been miraculously imprinted by Jesus. The cloth was known as *Mandylion* and was folded and refolded several times so that only the face could be seen, although it was of far greater dimensions and held the image of the whole body. Some scholars believe that the Shroud is identifiable in the image of Edessa, because the Mandylion disappeared when the Shroud appeared in Constantinople, but this is a hypothesis for which there is insufficient proof. In 550, some envoys of Emperor Justinian measured it in Jerusalem. In 688, Arculfe, Bishop of France, saw it and described it. There are Coptic and Mozarabic liturgies from the

same period that contain references to the 'Shroud of The Lord'. In

944, the Edessa image was moved to the Basilica of Saint Mary of Blachernes in Constantinople, together with other relics of the Passion. There it was laid out and displayed vertically. A French crusader, Robert de Clary, wrote about having seen a Shroud on which the imprint of the entire body of Jesus could be seen. Here is the testimony he left, now kept in the Copenhagen Library: "*Among the ancient monasteries there was that of Our Lady, called Saint Mary of Blakerne, where there was the Shroud in which our Sire was wrapped, and which each Friday was displayed hanging vertically so that one could clearly see the image of Our Lord. No-one knows however, neither Greek nor French, where it went when the city was taken.*" So a Shroud really existed in Constantinople. Unfortunately, no description was given, and so the question remains. Is it the same one that later arrived in France? And if so, by which route did it arrive? We know that in 1147, Louis VII, King of France, went to Constantinople on an official visit and was able to venerate the Shroud kept there. In 1204, Constantinople was sacked and occupied by the crusaders taking part in the fourth crusade and many relics went missing. There are many testimonies from people who say they saw 'The Shroud of The Lord'. According to one hypothesis, the Shroud was hidden in a safe place in Constantinople for many years. It was later handed to Louis IX, King of France, by the Latin-Byzantine emperor, Baldovine II. Another hypothesis says, instead, that the Shroud was taken to Europe by the Knights Templar, or rather Knights of the Order of the Temple of Solomon, who counted among their members a certain Geoffroy de Charny, namesake and relative of the successive owner of the Shroud. The basis of this theory, however, is very flimsy and it is hardly a tenable hypothesis. Yet another hypothesis presupposes the Shroud's passage and stay in Greece where there were Latin feudatories who had relations with the De Charny family. The copy of a nineteenth century document which has been lost, would seem to mention the presence of the Shroud in Athens in 1205. But in reality nothing precise is known of the Shroud from the time of its location in Constantinople to that of its re-appearance in France.

The Shroud in Europe

If in piecing together the journey of the Shroud we base ourselves exclusively on indisputable documentary sources, it is not possible to go back further than the middle of the fourteenth century. In the year 1353, the Shroud came into the possession of the French nobleman Geoffroy de Charny, Lord of Lirey, in the Champagne region, who gave it to the canons of Lirey.

It is not known either how or why this patrician came to own the Shroud, but many testimonies confirm the appearance of the cloth and the great interest it at once aroused. It is from this moment that the official permanence of the Shroud in the West begins. De Charny had a special chapel built at Lirey where the Sacred Cloth was kept and repeatedly displayed to the congregation. Geoffroy died in the battle of Poitiers in 1356. His son, Geoffroy II, carried on the practice of the displays, to which crowds of pilgrims flocked. At a certain point he came into conflict with the various ecclesiastical authorities, including the Chapter of the friars, delegated to manage the displays.

In 1418, the Shroud passed to Count Humbert de la Roche, husband of Margaret de Charny, last descendent of the dynasty. Margaret always took the Shroud with her, on all her moves to Saint Hippolyte, to Chimay, to Germolles, amidst numerous religious conflicts and events which it is not easy to reconstruct with any chronological precision. When the canons asked Margaret to hand the Shroud to them, she refused. And she continued to refuse even when she was taken to court, incurring excommunication in the end. Only in 1453 did she agree to give it up, handing it over to Ludovico I, second Duke of Savoy, and his wife Anna Lusignano of Cyprus. This transfer of ownership probably took place in Geneva. Ludovico placed the Shroud first in the Cathedral of Chambéry, dedicated to St. Francis, then in a special chapel he had built beside their palace, the Sainte-Chapelle. But the Shroud did not always remain in Chambéry. We know that on several occasions it was brought to Piedmont. On one of these journeys it was brought from Lanslebourg to *Rivoli*, where it stayed for almost ten months. From here, during Lent, in 1478, it was taken to *Pinerolo*, on the occasion of the Duchess Iolanda of Savoy's stay in that city accompanied by the court of Savoy. The luggage of the Chapel, entrusted to the priest Ranguis, prior of the St. Sepulchre Church in Annecy, arrived in the city on March 19th. The Abbot of Pinerolo was Urbano Bonivardo. The Shroud was displayed to public worship, perhaps for the first time in Italy, on March 21st, the eve of Easter. We have had access to certain documents compiled by the treasurer of the House of Savoy and kept in the archives, referring to sums of money paid out on that occasion to buy wood for the construction of the stage and the installation of ornaments and decorations with which the city was decked. There is a fresco depicting the Shroud on the façade of a house in the old city centre, in via Archibugieri. Also on the façade of the Cathedral, in the lunette over the right side door, there is a picture of the Shroud with two bishops and another two figures, which recalls a previous fresco that was destroyed. In the Monastery of the Visitation, over the seats in the choir, there is a precious painting of the Shroud by Gastaldi. In the hamlet of Abbadia Alpina, there is a chapel dedicated to the Holy Shroud, with a fresco which has now been lost. Here, once a year, the festival was celebrated at the altar of Holy Cross, called the altar of

the Shroud. The Poor Clare nuns of Pinerolo also celebrated a Divine Office. In 1566, an altar dedicated to the Shroud was erected in the church of St. Maurizio and another was built in St. Donato in 1693. (Incidentally, an article entitled *The Holy Shroud and the People of Pinerolo* appeared in the 'Italia Reale-Corriere nazionale' paper, n°97 9-10 April 1898)

Following a transfer from Turin to Savigliano, in 1494 the Shroud arrived in Vercelli. In 1503 the new owner, Duke Filiberto II of Savoy, took it back to France. Some time after the Shroud was in Belgium, before returning to Chambéry to be placed once again in the special room behind the altar of the Sainte Chapelle, which, in the meantime, had been reinforced for greater security. In any event, it continued to be taken round to various cities in France and Piedmont, to celebrate weddings of the nobility, anniversaries and important festivals. On other occasions it was moved when war jeopardised its safety.

Over the years, the Savoy family repeatedly asked the Pope to officially recognise worship of the Shroud. In 1506, Pope Julius II not only gave official recognition to the cult of the Shroud, but he also fixed the liturgical anniversary as May 4th.

On December 4th 1532, fire broke out in the vestry of the chapel in Chambéry and the cloth, folded up in a coffer, was damaged by a drop of molten metal which, red hot from the high temperature, dripped onto it from the casket. All the various layers of the fabric were punctured and the image was damaged to some extent. In the Spring of 1534, the Poor Clare sisters repaired the damaged parts, sewing on triangular patches. They also backed the Shroud with Holland cloth, which served as reinforcement and support. In 1536,

the Shroud began its roaming again. Carlo II of Savoy was involved in numerous conflicts and his Dukedom was occupied. The Shroud was brought to Turin for safety, via the col of Arnas and the valley of Lanzo. From Turin it was then removed to Vercelli and from there to Milan, where on May 7th it was put on display in the Sforzesco Castle. In 1537 it was taken to Nice and numerous displays were organised there. In 1553 it was once again in Vercelli. Unfortunately the French also arrived there and under the command of Marshal Brissac they occupied and sacked the city. It was feared that the Shroud, kept in the Cathedral, might be forcibly taken away. The practice of seizing something and then giving it up on payment of an imposed price existed even then. When soldiers broke into the church, Canon Costa resorted to a cunning trick, of which two versions exist. The first version tells us that he took the casket containing the Shroud to his lodging and put it into a cupboard. Then, and here lies the boldness of the trick, he invited the French soldiers to come and eat and drink at his home. All went well and the soldiers did not suspect for a minute that the precious cloth lay just a few yards away from them. The second version says that, after persuading the soldiers to go out into the garden on some pretence, the priest hid the cloth under his cassock and then joined them where he kept them amused with pleasant conversation. Apart from this episode, the Shroud was constantly exposed to the risk of theft or attacks aimed at destroying it. For this reason, and above all during its travels, some kind of artifice was resorted to. Copies were made and, when it was time to set out, at least three 'shrouds' left. Each one followed a different route and no-one knew which route was the one the real Shroud was travelling by. Even the college of the Canonical-singers of the Chapel of the Shroud, who followed the travels of the Shroud, went by another independent route, arriving at destination before it. In 1501 the Shroud returned to Chambéry. The last exhibition of the Shroud in France of

which there is news, took place in Annecy in 1566.

The arrival of the Shroud in Turin

In 1578, the archbishop of Milan, Carlo Borromeo, today a saint, wanted to go on a pilgrimage on foot to Chambéry in order to prostrate himself before the Shroud and so fulfil a vow he had made when Milan was struck by a plague epidemic. Emanuele Filiberto of Savoy, with the praiseworthy intention of shortening the archbishop's journey, saving him the exhausting crossing of the Alps, decided to transfer the Shroud to Turin. The decision was made to bring the cloth via the Small St. Bernard pass and down the valley of Aosta. A stopover of one week was made at the ducal castle of Lucento. On September 15th the procession to the church of St. Lorenzo, in the Castle Square in Turin took place.

The visit of Cardinal Borromeo offered the occasion, but the motives for the transfer of the Shroud to Piedmont were quite different. In fact, just that year Emanuele Filiberto had decided to move the main seat of the Dukedom of Savoy from Chambéry to Turin. The Shroud conferred a precise function of legitimisation not only on the dynasty but also on the state, which at the time was emerging and expanding.

This can be seen in historical documents, but also in literature and art.

Pingone, magistrate of Chambéry, historian and councillor of the state of Savoy, wrote that the fact that the Savoy dynasty and the city of Turin had been chosen to preserve the image of the Son of God was to be considered a testimony of special predilection by Divine Providence. The holy relic's presence in Turin became, therefore, a sign of the presence of Christ himself in the city. In the words of the preacher Luigi Giuglaris, a native of Nice, the Holy Shroud was the inheritance left here by Christ, in the same way that *holy people leave traces on earth*. Thus the Shroud was fundamental to the prestige of the Savoy family, irradiating importance on them, not just as its guardians but also as great devotees of the Shroud. A court poet, Giovan Battista Marino, who dedicated a poem to the Shroud entitled *Portrait of The Most Serene Carlo Emanuele 1st*, saw it as a bastion defending the Savoy family more effectively than the Alps. The Jesuit theologian and preacher Francesco Adorno, who, in his *Epistola* of 1571 tells the story of how the Holy Shroud came to be the property of the House of Savoy, in a later document wrote a detailed description of the Holy Shroud's arrival in Turin. He also stressed how the presence in the city of such an important person as Carlo Borromeo, so very well-known for his great spirituality, who had arrived after a four day walk to find the Duke Emanuele Filiberto of Savoy, his son Carlo Emanuele I and the bishops waiting at the Palatine Gates to greet him, had bestowed enormous importance on the event. The poet Torquato Tasso was also in Turin for the arrival of the Shroud. He composed a sonnet and had it delivered to Cardinal Borromeo, whom he had met in the church of San Lorenzo when a special mass had been celebrated there for the occasion. For the exhibition of the Shroud a wooden stage was erected in front of the ducal palace. The Shroud, which had first been placed in the church of San Francesco and then removed to the Royal Palace, was taken to the Cathedral, where it was displayed on the altar and after that it was exhibited on the wooden stage. Cardinal Borromeo, standing centre-stage and aided by ten bishops, raised it three times before the huge crowd filling the square. There was great excitement. This exhibition was followed by forty hours of uninterrupted prayers, during which the huge crowd of worshippers demonstrated all their religious

fervour. When the cardinal left again, stopping on his way back at the Sacra di San Michele and at Varallo, Emanuele Filiberto presented him with a copy of the Shroud.

In 1694, the chapel that Guarini had specially designed to contain the Holy Cloth, was ready. This was to be the Shroud's final home. Except for brief transfers due to wars, here it remained for the next three hundred years. On one of its journeys, made shortly before the French laid siege to the city, the Shroud was first taken to Cherasco, where it was displayed for three days, then to Mondovì, Savona and finally Genoa, from where it returned again a few months later. Up to the end of the nineteenth century, when the Shroud was exhibited it was displayed in different directions from the balconies of Palazzo Madama. We have one of Silvio Pellico's letters in which he describes an exhibition at which he was present, when the Shroud was displayed in this way. During the Second World War, the Shroud was taken in secret to the Santuario of Montevergine, near Avellino, for safety reasons. In 1946 it was brought back to Turin. During the twentieth century it was put on public display on rare occasions. In 1983, the Shroud, which had belonged to the Savoy family for over 500 years, was donated to the Pope. It was King Umberto II of Savoy who left it as a legacy to the Holy See by will. Despite changing hands, the Shroud has not changed its abode.

MUSEUM AND TREASURE

In 1938 a museum of sindonology was created specially for the Shroud. The museum's relocation to the crypt of the church of the Holy Shroud in via San Domenico 28, is planned to coincide with the public exhibition of the Shroud. The museum gathers together documentation concerning the history of the holy relic and the wandering route it has followed, and also objects in some way linked to it. There are, for instance, portraits of the members of the royal family who ruled at the time of the various public exhibitions and

paintings depicting the events; posters announcing the exhibitions;

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the standard that was carried through the streets of the city in procession bearing the embroidered motto of the Savoy family FERT; the casket in which the Shroud was transported from Chambéry to Turin; the camera and photographic plates used by Secondo Pia when taking pictures of the Shroud, and enlargements of the photographs taken by Pia and Enrie.

Then there is a collection of silver, gold, reliquaries, vestments, altar cards, religious ornaments and antique fabrics, known collectively as the Shroud Treasure, and which has not been exhibited in Turin since the city ceased to be the capital of Savoy. These are gifts received from Popes, monarchs and noble families, but also from the people. Since the chapel of the Shroud was mostly plundered by the French Jacobins after the occupation of Piedmont in 1798, the treasure is of a later date and largely nineteenth century, and was put together again starting from the reign of Vittorio Emanuele I of Savoy. The pieces from an older period were stolen during the sacking of the city on the night of December 9th 1798, the work of Torinese Jacobins and then of the French invaders. In the diary of an eye witness, Maurizio Biandrate from San Giorgio, we read: < the sacking began soon after the royal family's departure, exiled by the invaders, under escort by French hussars.

It was robbery to the advantage of the French generals. The stolen goods were gifts donated to the Shroud at the end of the sixteen hundreds by Carlo Emanuele II of Savoy, by the regent Giovanna Battista and by Vittorio Amedeo II. Among the pieces remaining there is an eighteenth century thurble, a large silver vestment from the altar of the Shroud, 32 centimetres tall and almost a metre and a half in length; a reliquary in embossed silver and engraved, containing relics of wood from the Cross and thorns from Christ's Crown of Thorns; vestments and ornaments in brocade and precious materials; altar ornaments and priests' albs adorned with fine lace; patens, chalices and ampullae for holy oil; engraved and gilded ostensories, bearing the names of the best-known Piedmontese gold and silversmiths of the past centuries; a collection of 'Gold Roses' given to the queens of Savoy by pontiffs.

The rose given to Queen Maria Adelaide by Pope Pius IX in 1847, is kept in a walnut box which is in itself a fine example of cabinet-making. There are also some carved gilt wooden urns, enriched with stained glass containing relics of St. Maurizio, St. Carlo Borromeo, Blessed Amedeo of Savoy and St. Francis; two beautiful crosses inlaid with mother-of-pearl, made in the Holy Land in the mid-seventeen hundreds; a chalice with enamelled medallions, which belonged to Pius IX; a collection of jewellery that was given to the Shroud as a votive offering by a woman who survived the nazifascist persecutions. There is also a processional umbrella from the baroque period in gilded flower-patterned damask and a piece of

a cover that belonged to St. Carlo Borromeo, as well as some fine needlework by Queen Maria Teresa and Queen Maria Adelaide, respectively the wives of Carlo Alberto and Vittorio Emanuele II>.

Chronology of the Public Exhibitions

Throughout the centuries public displays of the Shroud have marked its existence. Until the eighteenth century these occurred at quite short intervals of time and for various reasons. Displays were always announced by a royal edict, by illustrated posters and with letters from the Bishops. The Sacred Cloth was not displayed behind plate glass as it is nowadays, but was grasped at either end of its length and held up on high before the crowds. It was bishops and cardinals who performed this while standing on a stage or balcony. The number of people involved varied. It might, in fact, be only two, but could even be eleven, as was the case on the occasion of the 1578 exhibition. The most important person – in this instance Cardinal Borromeo – was always in the centre. The church dignitaries stood before the crowd of faithful in all the magnificence of their soutanes. They dressed in cassocks and surplices embroidered in gold and silver, wide loose copes, solemn mitres and buckled shoes. Behind them were the clerics bearing the pastoral staff. Ordinary exhibitions were annual on May 4th. The extraordinary ones, instead, took place on dates fixed from one time to the next and determined by the event they were linked to. They frequently served to highlight family events in the House of Savoy, adding importance to them. These were events like weddings and baptisms. In 1585, for example, the marriage of Duke Carlo Emanuele I, eleventh duke of Savoy, to the infanta Catherine of Austria was celebrated with an extraordinary exhibition. In 1586, the baptism of their first-born, Filippo Emanuele, Prince of Piedmont, was honoured with an exhibition, and likewise in 1587 that of their second child Vittorio Amedeo I, future twelfth Duke of Aosta. In 1613 there was a public exhibition in which St. Francis de Sales participated, taking the Shroud from its case and presenting it to the public. In 1625, another public display celebrated the marriage of Prince Vittorio Amedeo I to Christine of France, known as 'Madama Reale'. In 1642 there was an exhibition of the Shroud to celebrate the end of the hostilities which had arisen among the various members of the Savoy family. In 1684 the wedding of Vittorio Amedeo II, first King of Sardinia, and Ann of Orléans was commemorated in the same way. In 1694 a public display of the Shroud highlighted its final placing in the specially designed Chapel of Guarini. Then there were other extraordinary exhibitions like that of 1613 when grace was invoked to put an end to the plague, or like that of 1630 when success on the battlefield was prayed for. It might also be decided to display the Shroud because some important person or a religious personage was to pass through the city, as occurred in 1664 when Father Domenico da S. Tomaso came to the city. He was the son of a sultan who had converted to Christianity and had become a monk. In the eighteenth century more royal weddings were celebrated with exhibitions of the Shroud, as was the abdication of Carlo Emanuele IV who wanted the display to be arranged in his apartments for that particular occasion. In 1804, Pope Pius VII passed through Turin on his way to Paris for the crowning of Napoleon and in accordance with his wishes the Holy Cloth was shown to him. In 1815 there was an exhibition to celebrate his return from prison in Fontainebleau. In 1822 Carlo Felice of Savoy, sixth king of Sardinia, ordered an exhibition to mark the beginning of his reign. In 1842 there was another exhibition for the marriage of Vittorio Emanuele II, eighth King of Sardinia and first King of Italy, to Maria Adelaide of Lorraine, Archduchess of Austria, and in

1868 for that of Prince Umberto of Savoy, second King of Italy, to Margherita of Savoy. The last public exhibition to mark the occasion of the marriage of a member of the House of Savoy, was in 1931 when Umberto of Savoy, heir to the throne and later fourth King of Italy, married the Princess Maria José of Belgium. On this occasion the Shroud was photographed by Giuseppe Enrie. In 1933 there was a public display to mark the nineteenth centenary of the Passion, Death and Resurrection of Jesus Christ. About one million people came to venerate the Shroud. In 1973 the Shroud was exhibited on television and on that occasion professor Max Frei took samples of pollen and dust from the cloth. The last public exhibition was in 1978, to celebrate the four hundredth anniversary of the Shroud's transfer from Chambéry to Turin. On this occasion some researchers carried out tests on the cloth.

In the beginning there was art

Has the Shroud influenced Christian religious art? Are there ties between the Christ of the Shroud – the Sindonic Christ – and representations made by artists over the centuries? The gospels give us no indication of the sindonic image, but it is possible that the image on the cloth formed later, thanks to active biological elements. Could it be that this image was better known in the past than we can understand through history today?

Starting from the fourth or fifth century we have numerous examples that demonstrate how a classical idea of Christ formed among artists, Christ with a majestic face, long hair and a beard, just like the Christ of the Shroud. Before that, Christ was shown with the beardless face of an adolescent. The best known portrayals of the face of Christ are that of the Matilde Chapel in the Vatican, that of St. Bartolomeo of the Armeni in Genoa and that of the Veronica conserved in St. Peter's; all are images of a face with features recalling those of the Shroud. Furthermore, certain sarcophagi discovered in Arles, in Milan and in the Vatican, contained reproductions that would seem to confirm an analogy in the portrayal of facial appearance. An ancient hypogeum, that is, a subterranean burial chamber, discovered in Rome in 1919, contains a portrait of Jesus with a beard and long hair. Science also provides us with an answer on the subject. In 1989, in Turin, professor Tamburelli used electronic processing superimposing the face of the man of the Shroud over that of the principal icons of the face of Jesus going back to the first millennium of the Christian era. This arrangement of the traits of the one over the other highlighted the fact that there are a large number of points that match and coincide. The results of this experiment would seem to confirm the theory that the features of the Shroud image have, over the centuries, influenced artists depicting Christ.

Artistic reproductions of the Crucified Christ also seem to hark back to the Shroud image. We have an example in bas-relief, in ivory, on a fifth-century casket in the British Museum in London. This particular portrayal is the oldest example remaining to us. Another art work showing many referrals to the Shroud is to be found in the church of St. Maria Antiqua, which stands on the Palatine hill in Rome. This church contains a number of frescoes dating from the fifth to the tenth century. To the left of the apse, in the Chapel of St. Quirico and St. Giulitta, there is a niche in which a rather fine Crucifixion can be seen. This is an eighth-century work, made to the order of Pope

John II, who was most probably familiar with the Shroud. Jesus is depicted here dressed in the Colobium sindonis, a sleeveless tunic, in accordance with the regulations of that time forbidding any representation of the nude body. The attitude of the crucified man does not give the idea of suffering either, in accordance with yet another rule of the period. Many details, however, presuppose a certain knowledge of the Shroud image.

The Cluny museum in Paris has a lead medal, fished out of the river Seine and probably dating back to the fourteenth century, which is likely to be a souvenir of a pilgrimage to Lirey.

The first lithograph of the Shroud, that is the first print made with a matrix consisting of a stone plate, goes back to the sixteenth century. Currently it is kept in Belgium. It is attributed to Dürer, though there are those who dispute this, and it does not reproduce the scorch marks on the cloth left after the fire of Chambéry. However, most reproductions of the Shroud date after its arrival in Piedmont. The Savoy family had decided to widen the spread of its knowledge in various ways. They decided to mint medals and coins depicting the Shroud and they entrusted this work to artists and artisans. The medals were to commemorate public exhibitions of the Holy Shroud or other family anniversaries and were then given to prominent people or sold to pilgrims who came for the exhibition. The money collected from these sales in the city and along pilgrim routes, went towards the upkeep of the hospitals.

To celebrate the marriage of a member of the House of Savoy, some miniatures reproducing the Shroud were made on parchment paper or ivory. There were also drawings and works of embroidery on the same subject. Then there were the prints. The first of these was produced in 1578 on the occasion of the Shroud's arrival in Turin and its exhibition. We know from Pingone that on that particular occasion coins were also minted bearing images of the Shroud, although no examples of those remain. A print of the Holy Cloth, used as an illustration to a book with a religious setting by Pingone, dates back to 1579. The missals dedicated to the *Missae Sacrae Sindonis* also carried a reproduction of the Shroud on the frontispiece. In the seventeenth century, when public exhibitions, both ordinary and extraordinary, became very frequent, there was also a huge increase in reproductions of the Shroud. We know from both written testimonies and documents that in 1633 Duke Vittorio Amedeo I, consort of Christine of France, Madama Reale, had coins minted bearing an image of the Shroud. His depictions, complete with texts, were produced in those years, intended as didactic material. The Shroud also figured on flags and banners brandished by the standard-bearers of the Savoy militia during sieges or going into battle, as testimony to the devoutness of the army. One of these flags is still kept in the convent of S. Domenico in Turin, the other can be seen in the painting by Parentani in Turin Cathedral. This painting depicts the guardian angel of the city holding an oriflamme – a banderole of crimson silk with stars and flames of gold. The flag-ship of the Savoy fleet, three ships strong, also flew a flag bearing the effigy of the Shroud. Other objects where the Shroud figures are a coach that belonged to Carlo Emanuele III and which is now kept in the Royal Armoury, and a sixteenth century seal from the S. Sudario hospital for the mentally infirm, run by the Fatebenefratelli order of monks, in Borgo Po, Turin. In the late nineteenth century, the Shroud was still being depicted on devotional objects, the most common of which were medals. But these were the last portrayals. Since 1898, when Secondo Pia took his photographs of the Shroud, all forms of iconography have ceased completely. Since then, except for rare occasions, photographic reproductions have replaced the entire range of images of the previous centuries.

There was one exception in 1931 when the Shroud was reproduced on a medal to mark the occasion of the marriage of Umberto II to Maria José. Among relatively recent reproductions, we have the 220 lira stamp issued by the Italian Postal Services to commemorate the public exhibition of 1978. Other reproductions in recent years include a sculpture and a bas-relief in terracotta of the sindonic image to be found in the Sassi cemetery in Turin. Not even the Shroud escapes that perverse phenomenon of mass art, which goes by the name of kitsch, a feature of which is a garish pretentiousness full of banal motifs. In 1978 a taste for this type of kitsch led to the circulation and commercial exploitation of a reproduction of the sindonic face on holographic postcards. A slight movement of the postcard made the eyes open and close. It is to be hoped that nothing of this kind will ever be seen again.

Shroud 'in fresco'

Devotion to the Shroud has always involved all social classes, from the nobility to the ordinary people. There are numerous frescoes in Piedmont, which are the most genuine sign of popular faith towards the Sacred Cloth and participation in public displays of it. In these iconographic works the Shroud image is reproduced in a rather rough and clichéd manner. It is thought that about 150 still remain. They are little known and often in poor condition owing to the effects of the weather and to neglect. They can be found on the façades of houses, public buildings and stately homes; on the outside walls or, more rarely, inside ones, of parish or brotherhood churches, along what were once routes of pilgrimage. It was here, before these churches, that people stopped in prayer, or a benediction was given, or mass was celebrated. Often the frescoes were painted over the doors of the houses or those of the city walls, as a protection against wars and famines. The strategic position over the door or on the archway of the main entrance, was intended to keep away evil, preventing it in this way from entering and forcing it to go elsewhere. From certain reconstructions made by researchers, it seems that some of these frescoes mark the path followed by the plague contagion. They vary greatly in size according to the space available. They are almost always rectangular, sometimes framed by a frieze in linear stucco or embellished with fruit and garlands; the knot of the House of Savoy appears on the frame of some. Frescoes were also made as votive offerings when an illness or a war was over, or to mark the passage of the Shroud, in the stopping off places on its journeys of transfer. In the Valley of Susa, along the ancient Via Francigena, there are some of these pictorial testimonies. One is in Susa, in via Palazzo di Città, another two are in the Venaus hamlets of Mestrале and Vayr. At Voragno, near Ceres, in the Valley of Lanzo, there is a fresco that probably dates back to 1535, when the Shroud was brought to Turin via the Valley of Lanzo. It measures more than six metres in width and was most likely the work of several people. The expression on the face is one of great sweetness, while the rest of the body is fairly roughly drawn. It also portrays the saints Claude, Sebastian, Christopher and James. In the centre there is a cardinal with a red hat from which some cords hang down onto his cope. At the sides there are two bishops wearing two-cornered hats. Behind them there are two figures with shining discs on their heads, holding a candelabrum.

Some worshippers are portrayed at the bottom. Around the fresco there is a decoration with the Savoy coat of arms and that of Portugal. This painting, which has recently been restored, is a testimony to the passage of the Shroud through the valley that year and its stopping off in this tiny, out of the way hamlet. There are more frescoes in the area of Saluzzo, in the Monregalese area and also in that of the Canavese, and where the *Sacri Monti* (Sacred Hills) are to be found. The Shroud was often painted in a simple naïf manner and was generally shown laid out horizontally. If there was insufficient space for this, then it was shown draped or sloping diagonally. In some frescoes it is held up by bishops, in others by angels, by the Madonna or by saints, such as St. John the Evangelist, St. Peter, St. Francis of Assisi, portrayed with his stigmata, and St. Joseph of Arimathea. This was a way of underlining the divine nature of the sacred cloth as worthy of worship. In some frescoes the souls of

Purgatory can be seen hoping for divine pardon thanks to the intercession of the Shroud. Some paintings are anonymous, most are without a date, but we know that the period when they were most frequently produced was that of the seventeenth and eighteenth centuries.

SHROUD AND FAITH

Prodigious and Unique

Despite having expressed respect and veneration for this cult object of the faithful, the Church has always been very cautious concerning the Shroud. Each time it has made a declaration, it has done so only in a liturgical ambit. We have already spoken of Pope Julius II, who in 1506 declared the Shroud a holy relic to be worshipped. In 1582, Pope Gregory XIII granted plenary indulgence to the faithful present at the exposition of May 4th and at the religious service. In more recent years, many pontiffs have come out in favour of the Shroud's authenticity. Pius XI, the pope of the Lateran Treaty, not only believed in the Shroud's authenticity but also granted plenary indulgence to those who professed their faith before it. Pius XII, pope from 1939 to 1958, recognised the Divine Face of Jesus in the image on the cloth. John XXIII, his successor, proclaimed the origin of the image to be free from any form of human intervention. Paul VI spoke of the mystery of the figure of the Saviour, whose image he recognised in that of the Shroud. He defined the Shroud as 'icon of the Passion of the Man of Sorrows'.

St. Gregory said that the prints on the Shroud, with the sores, the blood and the wounded body, were so striking and had such a strong effect, that they were capable of transmitting the faith better than any book. For this reason the Shroud was considered the 'fifth gospel'. But let us see what the four evangelists, Matthew, Mark, Luke and John, write regarding Jesus's burial:

“ . . . And when Joseph had taken the body, he wrapped it in a clean linen cloth, and laid it in his own new tomb, which he had hewn out in the rock: and he rolled a great stone to the door of the sepulchre, and departed.”

(Matthew, 27, 59-60)

“ . . . And he (Joseph) bought fine linen, and took him down, and wrapped him in the linen, and laid him in a sepulchre which was hewn out of a rock, and rolled a stone unto the door of the sepulchre.”

(Mark, 15, 46)

“ . . . And he (Joseph) took it down and wrapped it in linen, and laid it in a sepulchre that was hewn in stone, wherein never man before was laid.”

(Luke, 23, 53)

“ . . . He (Joseph) came therefore, and took the body of Jesus.

And there came also Nicodemus, (which at the first came to Jesus by night,) and brought a mixture of myrrh and aloes, about an

46

hundred pound weight

Then took they the body of Jesus, and wound it in linen clothes with the spices, as the manner of the Jews is to bury.

Now in the place where he was crucified there was a garden; and in the garden a new sepulchre, wherein was never man yet laid.

There laid they Jesus therefore, because of the Jews' preparation day; for the sepulchre was nigh at hand."

(John, 19, 38-42)

All four evangelists are in agreement in their mention of Joseph of Arimathea as the person who requested the body of Jesus from Pontius Pilate. All four say that Jesus was laid in a sepulchre hewn out of the rock which had never held a body before, and that the entrance was closed with a large stone. There is just one discordant point. While Matthew, Mark and Luke say that Joseph took the body from the cross and wrapped it in a linen cloth, John talks of linen clothes (strips of cloth) in which the body was wound. It is this very point that has triggered many arguments, since there are those who see in John's Gospel confirmation of the non-authenticity of the Shroud. The other point considered indisputable by those who uphold the theory of non-authenticity, is that the Gospels do not speak of the existence of this cloth. We have no certain news of it throughout the first millennium; why is this linen cloth never mentioned among the holy relics that were worshipped or that were transported from place to place? Why is it that only the Shroud's arrival in Turin is ceremonially celebrated and there is written documentation and memories of the occasion? Not to mention the fact, so the argument goes, that in the past religious wars led Christians into a kind of rush for the multiplication of relics to display to the faithful and this in turn led to the production of fakes to draw followers. So the Holy Shroud would fit in to this trend. This bitterly controversial issue remains so far unresolved.

For our part, we feel inclined to fully share the principle that the Church has always upheld: faith does not come from seeing or touching, but from hearing the word of God. In Jesus's words to the apostle, Thomas: "*Thomas, because thou hast seen me, thou hast believed: blessed are they that have not seen, and yet have believed.*" (John. 20,29) It will not therefore be the Shroud that will influence the faith of those who believe, while those who do not have faith will probably remain indifferent. But it is the mystery of this cloth that fascinates everyone, a mystery which in part will remain so for ever because, in the words of Cardinal Ballistrero, no expert will ever be capable of demonstrating whether the Shroud truly held the body of Christ and whether the blood is his blood. In any case, apart from anything science has been able to back or to put forward, devotion to the Shroud by millions of believers from around the world has always been constant and has shown no sign of a decline.

Miracles

One of the aspects of devotion to the Shroud is that of calling upon it for protection as those who venerate the Saints do. In the past it was called upon to end an illness or the plague, or to avoid a war. Today we might say that the foremost miracle of the Shroud is that of having managed to survive, even though damaged, fire, theft, various journeys and numerous public displays. There have been at least three fires and hundreds of public exhibitions with the faithful (not all, fortunately) touching the cloth, kissing it, soaking it with their tears, as happened to St. Francis of Sales during an exhibition of which he himself tells. Although perhaps not always entirely true, rather colourful descriptions have reached us of various miracles. One of these, of which we have news, occurred on the occasion of a theft at the beginning of the sixteenth century in Chambéry. At the time the Shroud belonged to Margherita of Charny. The thieves, having stolen the Shroud, were about to cut it into pieces so that each thief could have one and sell it at an exorbitant price. They had hardly taken hold of the scissors to start cutting the cloth when all at once their fingers twisted preventing them from doing any damage at all to the Shroud. A happy ending? But no, not at all because another thief took the Shroud. Acting alone, he had no need to cut up the cloth, but he had another equally dangerous idea. He acquired a

pound of caustic soda and immersed the cloth in it in order to make it whiter and so be able to see it better. And the result? The image escaped undamaged and the cloth became blindingly white, literally so. The unfortunate thief, dazzled by such splendour, lost his sight. When these various attempts to steal the Shroud, with their relative miracles, came to the knowledge of its owner, she must have thought that Chambéry was no longer a sufficiently safe place to keep the holy relic. Even though, thanks to miracles, the cloth had been saved, it would be foolish to run further risks. And so Margherita decided to send it to certain relatives of hers who lived not far from Chambéry and organised the Shroud's transfer by mule train. At the established hour all the mules lined up and set off diligently. All, that is, except one. And which was the mule that dug its heels in? None other than the one carrying the Shroud. Every way was tried to persuade the mule to move, first by stroking, soothing and flattering it, then by resorting to harsher means. Nothing doing, the mule simply could not be moved. There was no choice but to take the holy relic and put it back in its chapel, which was then reinforced to guarantee greater protection.

Another episode that, had it not been for miraculous interventions, could have seriously jeopardised the Shroud's survival, but of which the truth is doubted, occurred during the public display at Bourg-en-Bresse in 1503. In this charming village in the east of France, the Shroud is said to have been boiled in oil to put its divine nature to the test. De Lalaine narrates the episode thus: "*the cloth was boiled in oil, it was tested by fire and leached, but the imprint and figure could neither be cancelled nor removed . . .*" This episode is challenged because there is no trace of oil on the cloth, but nevertheless this might simply have been another miracle. A different category of miracles concerns those that have happened to people in the presence of the Shroud. Among those who have turned to the Shroud in order to ask for a divine favour, there have been cases of miraculous healing: the blind who have recovered their sight, the deaf who have recovered their hearing, the lame and the crippled who have become sound again, the possessed who have been freed of demons. There is the tale of a young paraplegic girl in Chambéry who, when taken

before the Shroud, began to walk quite normally. She later happily married and had numerous children. Then there is the story of a young French cavalier who was saved by the Shroud's timely and miraculous intervention, following his father's plea for divine grace after he had witnessed his son's ruinous fall from his horse. Pingone tells of a miracle which took place in Turin on the day of the celebrations for the arrival of the Shroud in the city. During the Holy Cloth's public showing in Piazza Castello, a mute boy who approached the cloth with considerable uneasiness and in an attitude of shame, regained his speech. And what do you suppose was the first thing he did on regaining his speech? He immediately went to confess all his sins.

SHROUD AND SCIENCE

Research and Findings

A scientist's approach to the Shroud is, of course, very different from that of a man of faith. Science is the result of closely examined and weighed up knowledge, ordered in a logical way, obtained by experimental methods. Since this branch of study is a codification on a theoretical level of applications on a practical level, the scientist examines the exhibit – Shroud – and tells us whether he has found what he was looking for. It must be added, however, that not all scientists agree among themselves on the results obtained. We shall group the experiments into two categories: those aimed at discovering what the Shroud is exactly, and those aimed at establishing its age. The former were, in order of time, the first to be carried out. A few theories have been confirmed, others, more or less finally, excluded. One point on which all the researchers are now in agreement is that the image was not painted on the cloth. There are no traces of oils, paint or other painting materials on the fibres of the fabric. Furthermore, the way in which the print is impressed shows that the cloth was not fully stretched out, something that makes it highly unlikely that this is the work of a painter. But if it was relatively easy to exclude the possibility of a painting, it is more difficult to say what the Shroud is exactly. The definitions given from time to time over the centuries are extremely varied: it is the funeral sheet of a tortured and crucified Christian, on which the reaction between aloes, myrrh, sweat and blood has created the image; it is a medieval manufactured article, produced using a corpse or a sculpture; it is the product of a thermal reaction or, instead, of a vapour-graph . . . Let us attempt to separate truth from fantasy, taking into consideration what scientific research has been able to tell us over the years. 1898 was the year when there was a sudden turning-point in studies of the Shroud. That year there was a public display taking place thirty years after the previous one and coinciding with the Turin Exhibition of Sacred Art. Using a camera which seems prehistoric nowadays, a cube one metre square, now on show in the Shroud Museum, the lawyer Secondo Pia, a keen and skilful photographer, took some pictures of the Shroud using 15 and 20 minute exposures. To his great surprise, a positive image of the man of the Shroud appeared on the photographic negative and the man's majestic face was the cause of huge excitement. It was thanks to this photograph that many people were persuaded of the authenticity of the Shroud, which for two thousand years had conserved and concealed the face of Jesus. In 1931, to mark the marriage of Umberto of Savoy to Maria José, there was another public display and on this occasion Cardinal Fossati, archbishop of Turin, appointed another photographer, Giuseppe Enrie, to take pictures in order to evaluate the worth of the previous ones. There was no doubt about the authenticity and value of the lawyer Pia's photographs. In 1969 the first colour photographs of the Shroud were taken by Giovanni Battista Judica-Cordiglia. These pictures restore the real appearance of the Shroud, enabling us to get a more precise idea of it. The photos were taken with ultraviolet radiation for fluorescence and reflection, using

panchromatic material, with less contrast but with details in greater relief. These photographs, especially the macro ones of the fabric, provide very useful documentation for research. In 1973, when there was a televised display, further photographs were taken with infra-red light. Again on the occasion of the 1978 exhibition, permission was granted to photograph the Shroud and Vernon Miller was appointed to do this. The most recent photos we possess were taken on June 25th, 1997, commissioned by the Diocese of Turin. But photographic procedure is not the only means used in an attempt to gain greater knowledge of the Shroud. In recent decades centres of research and also research groups have been formed to investigate the chemical and medical aspects. Further knowledge has been gained in this way. These studies concern the nature of the fabric, the problem of the forming of the image and its physical properties, of the presence of traces and stains as the result of a process which is either natural or otherwise. The most sophisticated technologies are employed for this research. It is not just the surface of the cloth that is studied, but also the inner part invisible to the naked eye. For this thermographic microscopes are used and tests are carried out with varying light frequencies. The results are then data processed. To study the image of the Shroud, in 1977 some American scientists carried out experiments using an electronic processor. On the computer they removed stains and lines from the image and brought into focus certain details. This high definition reconstruction of the face in the image led to the discovery that the image contains certain three-dimensional features that neither paintings nor normal photographs would possess. Among the traces discovered more recently, and for which it is perhaps necessary to await a greater number of checks and verifications, there are two coins placed over the eyelids. It was Professor Tamburelli of Turin who, in 1978, pointed out that on the right eyelid it was possible to make out traces of an object that could be identified as a coin. According to the numismatist M. Moroni, this is a small Roman coin called a lepton, minted by Pontius Pilate in Palestine. On one face of the coin there is a shepherd's crook in the shape of an inverted question mark, whilst on the other is the year when it was put into circulation from the start of the reign of Tiberius, 29 A.C. that is. It is more difficult to interpret the coin on the left eyelid. The tradition of placing coins over the eyelids to keep them closed in eternal sleep, belonged to the countries of the Balcanic area, while the Greeks and the Romans used to place a coin in the deceased's mouth so that he would be able to pay the ferryman, Charon, to be taken to the hereafter. The theory that this was a Judaic usage is very controversial. A few cases have been reported, but these are insufficient to be able to call it a regular practice. Even though it is necessary to carry out further surveys and verifications, given the difficulty and uncertainty in the very controversial reading and interpretation offered by various researchers, traces of writings have also been detected on the Shroud. reported by Ugolotti in 1978, These graphic signs are arranged both horizontally, under the face, and vertically, along the sides, above three clear stripes, where the image has not formed. The 'Centre International d'Etudes sur le Linceul de Turin' in Paris and 'L'Institut d'Optique in Orsay', under the direction of André Mario, have broken the photograph of the Shroud down into tens of thousands of tiny squares, to which the corresponding optic density was given, then transporting it onto a program. The analysis with a microdensitometer is said to have brought to light Greco-Latin characters: under the chin there could be 'Jesus' written, vertically on one side 'Nazareth'. According to the archaeologist M. G. Siliato, the centurion whose job it was to check that the crucified man was dead, would have put a line of some kind of glue on the cloth in order to create a stiff bottom strip on which to write the name of the deceased in a

red liquid. The imprint would not have formed on this strip because the cloth had been made waterproof at that point. This is ancient writing, perhaps in Hebrew or Aramaic, but the fragments that have been picked out so far do not make it possible to formulate any precise theory for the moment. The other kind of trace that has been accurately analysed is that of the blood stains, with characteristics of red blood cells and of residues of myrrh and aloes. The first to make this haematological analysis was the French doctor, Barbet. In 1932, he picked out the imprints of numerous wounds made by the body of the Shroud man. The image on the cloth was that left by the corpse of a man who had first received lashings and had then been crucified. The blood clots left stains on contact. Around the stains, at the height of the rib cage between the third and fourth rib, halos of serum can be seen, with signs of retraction. Research carried out at the end of the nineteen seventies and in the nineteen eighties by Professor Baima Bollone, head of the 'Centro Internazionale di Sindonologia' in Turin, led to the conclusion that blood is present on the cloth which has been preserved unaltered. These results were confirmed by the American researcher Adler. The blood-stained areas show traces of human arterial and venous blood and a detailed examination led to its being classified as belonging to group AB. Blood from the head which coagulated in the frontal-temporal region reached that site because it was pushed there by pulsation of the artery and its formation is due to the mechanism of head movements. The frontal blood clotting is in the shape of a 'Y' and could have been determined by spastic contraction of the frontal muscle in reaction to pain.

The differences between arterial blood and venous blood were discovered by Andrea Cesalpina in 1593. This makes the hypothesis that the Shroud is a medieval artefact highly unlikely. In fact, how could such a complex morphology of coagulation of venous blood and arterial blood have been reproduced with the knowledge of anatomy that was available at that time?

The University of Genoa has found traces of DNA on the cloth belonging to various subjects of both male and female sex. One needs to remember, though, that the Holy Cloth has been handled by many people. Apart from any contamination by the faithful who stroked and kissed it, there is that of the Poor Clare nuns who repaired it, and also of who knows how many other people. Among the signs recently observed on the cloth, there are also traces of earthy material in correspondence with the left knee and the heels. An American expert on lunar rocks has found crystals of aragonite in this residual material, matching those found in the ground and in some tombs in Jerusalem.

American scientists, members of STURP, the association of scholars of the Shroud, have performed some very complex tests on the Shroud image in an attempt to establish just how it formed. The results have proved interesting. There are no pigments or colouring agents present on the cloth, as was already known, but this further experiment has excluded once and for all the theory of a painting. Moreover, the image is absent below the blood stains. The conclusion reached is that the formation of the image is due to a process of dehydrating oxidation of the cellulose of the superficial fibres of the fabric, by means of some unknown process, not due, however, to artificial means. Because of its shape, the conclusion is that the image on the cloth was not formed by contact. In fact, the mark of the body on the cloth appears to be imprinted, with none of the deformation that one would expect had the imprint been formed when the cloth was wrapped around the body. So how did the image come to be stamped on the cloth in this way? There are many hypotheses, but none of a scientific nature. Was it cast there by energy emission? Or instead directly transmitted there by supernatural causes, through the

effect of the Resurrection, that is? Or even as the effect of a wave of impact, like the one caused by the Hiroshima bomb, which pulverised bodies stamping their images on the walls? But how could this have happened hundreds of years ago when we have no other example of analogous cases from the same time period? To prove the authenticity of the cloth, other similar examples of shrouds of the same era were sought, but nothing significant that might be of any importance archaeologically came out of this. There simply are no other examples bearing the image of a human figure so completely as the Holy Shroud. There is, though, an important note to be made and that is that, as certain experimental investigations have shown, the use of aloes and myrrh can leave traces of the human body on the fabric. Doctor Sebastiano Rodante tried this out with samples placed in the catacombs of St. Giovanni in Syracuse, a city lying close to the parallel that passes through Jerusalem. Spraying blood onto the face of corpses and applying aloes and myrrh over that, an imprint is formed on the shroud in which the corpse is wrapped. The image is distorted, though, as it would be were we to place a sheet over our face and body after first having sprinkled paint over ourselves. Could some of the elements mentioned above have caused photographic reactions on the fabric, in particular atmospheric conditions and with the added factor of a type of energy generated by the body of a man who had suffered greatly? The theory that exuded blood, combined with the aloes and the myrrh, which give off substances that alter the cellulose, caused the formation of the imprints of the body on the cloth, remains. However, this is an image very far from the perfection of the face on the Holy Shroud. Another researcher, Mario Moroni, working on Rodante's experiences, and using a plaster cast covered over with a deer skin, sprayed with blood and bilirubin, which is the major pigment present in bile and also contained in blood, 25 hours later obtained a print which is the result of a natural process, of a reaction that could bring onto a scientific level the manner in which the image was formed. Other researchers, like Professor Pesce, in the Apuglia region of Italy, have carried out experiments in order to check how the Shroud might have been manufactured, like any other artefact. Just as a medieval falsifier could have done, he superheated a bronze bas-relief of the face, taking it up to a temperature of 230°C. The sculpture, reproducing a human face, had a relief of 11%. He then applied a cloth and found that the shape remained imprinted on it, creating, in his words, 'an indelible anthropomorphic image'. Of course, it is not easy to recreate the entire imprint, anterior and posterior, of a statue almost two metres tall using this method. But the objection raised to this experiment is that, when an image is printed using heat, the imprint passes through to the opposite side of the linen, while in the Holy Shroud the print is on one side only. Moreover, the Shroud shows traces of many burns. These appear fluorescent if examined with Wood's light. This is a characteristic the Holy Shroud image does not have. We must therefore deduce that it was not produced by thermic effect. Is this, therefore, a natural imprint, formed over time by a chemical process, like that which fixes the nervation of a leaf on a herbarium? And was it the aromas of aloes and myrrh mixed together with sodium carbonate that, placed on and under the cloth that Jesus was wrapped in, turned the cloth into a sort of blotting paper?

Other scientists have carried out tests on the cloth. The Swiss Botanist and professor of criminology, Max Frei-Sulzer, collected mineral particles, fragments of fibre and vegetable tissue, fungal spores and pollen present on the cloth using adhesive tape.

By separating the latter from all other materials and analysing them under a microscope at a magnification of up to over 10,000, he isolated the various types.

He then identified them as mostly belonging to plants which are native to the Middle East. Unfortunately, the premature death of Max Frei left this research work unfinished. Still, his conviction that he had accurately identified 29 species of plants typical of that area, gave rise to more than one objection from other botanists. Here are the facts he gathered and presented at a sindonology congress: *'Three quarters of the species found grow in Palestine, among which thirteen are very typical of and exclusive to Neghev and the areas around the Dead Sea. Study of the grains of pollen enables us, then, to assert that the Shroud, in the course of its history (including its manufacture), has been in Palestine . . . it must have been exposed to the open air in Turkey, too, given that twenty of the species found abound in Anatolia (Urfa, etc.), and four in the area around Constantinople'*. But, despite some criticism, the scientific validity of the results obtained is not, on the whole, jeopardised. Experiments carried out so far in an attempt to date this icon, have produced very controversial results. In 1988, a sample of the material was taken from a marginal area of the Shroud,

and subjected to radiocarbon dating, known as carbon 14 or, more simply, C-14 dating. Carbon is the basic element of all organic compounds, in which it is fixed with various isotopes. Among these isotopes is C-14, which shows a constant percentage value in living organisms, while it decreases in organisms which are no longer alive. This phenomenon is used in order to date fossils, either animal or vegetable, by a test called a C-14 test. Three laboratories carried out this test: one in Oxford, England, one in Tucson, USA and one in Zurich, Switzerland. All three dated the material with an average date that goes from 1260 to 1390 A.D. This dating sparked numerous controversies. It has been said that this method of radiocarbon dating is not the most suitable for material like that of the Shroud with its historical and chemical-physical peculiarities. Textile materials often prove unreliable. What is more, the Shroud is a cloth that has been exposed to the elements for many centuries and has absorbed substances and particles, such as fungi, parasites and mites, from the atmosphere that may have introduced more recent carbon.

According to Siliato, the fragment of material tested, taken from the upper left corner of the cloth, is heavily darned and contaminated over the centuries. In fact, the weight of the sample taken is almost double that of the average specific weight of the cloth, which was calculated in 1978 by the American scientists, members of STURP. It would have been better to take a scattered sample, that is taking threads from the whole surface of the fabric. Even in this case, though, in order to avoid an erroneous dating, it would be necessary to bear in mind that the cloth is affected with radiocarbon, as a result of the fires it was involved in. The water used to put out the fires may have added its share of contamination to the cloth. In this regard a recent discovery made by the American Doctor Valdés, who has found contamination by bacteria called *Lichenothelia* in the linen, has proved extremely interesting. This type of contamination has already been found by this scholar on some Maya artefacts. This bacterium covers the material with a kind of plastic coating which rejuvenates the age of the object. Another study by the Russian scientist Dmitri Kouznetsov, head of the Sedov laboratory in Moscow, has re-opened the scientific debate on the dating of the material, supplying results from experiments that would demonstrate pollution of a biological and chemical kind, capable of altering the radiocarbon age of the material, as a consequence of the fire in Chambéry. In view of this, Kouznetsov offers his own theory, according to which the fire of 1532 has affected the C14 present in the linen, rejuvenating the material as a result. In 1988, there

were no measurements made to see whether the fire had altered the cellulose of the fabric, an alteration which takes place already at a temperature of 300°C. By reproducing a fire in the laboratory, one can witness how the increased temperature, in the presence of water, combustion gases such as carbon monoxide and carbon dioxide and silver cations, which act as catalysts, that is as accelerators of the chemical reaction, cause a carboxylation reaction. This means that a new modern carbon molecule attaches itself to the old molecule of the cellulose, owing to the combustion gases, which leads to the enrichment of carbon in the glucose structure of the cellulose. To put it more simply, the thermic bath has increased the quantity of radiocarbon in the cloth, rejuvenating it. The Russian researcher has tried this on a Hebrew cloth two thousand years old. Measuring its age after having heated it, the cloth proved to have been rejuvenated. Moreover, Kouznetsov claims, in 1988 the researchers used a conventional mathematical method for their calculation. They measured the quantity of carbon 13 and 14, working on the assumption that the quantity of radiocarbon in both the flax plant and the woven linen cloth were the same. But there is a biological phenomenon, called internal bio-fractionisation of the linen isotopes, meaning they are distributed differently on the plant and in the cloth, and the radioactive carbon is greatly enriched in the cellulose compared to that in the plant of origin. Another consideration is that there are micro-organisms, microbes, bacteria or micro-fungi in the atmosphere that introduce extra carbon which binds itself to the structure of the fabric increasing its carbon content. And, the older the fabric, the longer the bacteria have had to add carbon bound to the cellulose.

I shall not dwell further on detailed descriptions of this and other experiments that have been carried out on the Shroud, and so risk boring my readers. I have wanted to report this test in order to give some idea of the complexity of the research being done and the high level of specialisation involved. Despite all this, the problem of dating, like that of the authenticity and of the formation of the image, is very far from being solved. So further research and further tests in a multidisciplinary context are needed, involving scientists from various fields.

THE VERONICA AND THE SUDARIUM OF OVIEDO

The Veronica is a cloth which, according to legend, is said to bear the name of the compassionate woman who dried the face of Christ, and who lived on Golgotha, three hundred and forty steps from the palace of Pontius Pilate. She is said to have taken the cloth to Rome where she gave it to Pope St. Clement. Actually, the name Veronica most probably derives from 'vera icona' (real icon), the image of the face of Christ that remained stamped on the cloth when He used it to wipe off the sweat and blood. The Veronica acquired great fame and became a tremendous pull for pilgrims. It was worshipped during Jubilees and Dante Alighieri also speaks of the pilgrimage undertaken to venerate the cloth of the Veronica exhibited during the Holy Week in St. Peter's. In the thirty third canto of Paradise he says:

*'Who haply from Croatia wends to see
Our Veronica, and the while 't is shown,
Hangs over it with never-sated gaze,'*

And he speaks of it in the Vita Nova, too. *'..... at the **time** when **many people go to see that blessed image which Jesus Christ left us as an imprint of his most beautiful countenance,'***

The sudarium of Oviedo, so called from the name of the chief city of the Asturias region in North West Spain, where the cloth is kept, is a piece of linen about 80cm by 50cm. In the central area of the cloth there are dark red stains, visible to the naked eye. According to tradition it is the cloth that was used to cover the face of Christ while he was being taken from the cross to the sepulchre. It is said to have arrived in Spain, together with other keepsakes, in a packing case made by the disciples. In 1075 the case was opened on the orders of King Alfonso VI who made a list of the holy relics contained therein, among which there was also the sudarium. Since 1765 the cloth has been kept in the Cathedral of Oviedo, inside a tabernacle. The sudarium is put on display to the faithful three times a year. According to the Shroud expert Mons. Giulio Ricci, the cloth could have been placed over the face of Jesus before the Shroud, perhaps immediately after the deposition of Christ from the cross. The botanist Max Frei found pollens on the cloth of botanical species from North Africa. The electronic microscope has revealed that the threads used to weave the cloth are similar to those of the Shroud. Professor Balassino, with the aid of a computer has found, above all in the lower part of the face, features identical to those of the Shroud man.