

Special Features

The Veronica of Rome - First Known Photographs!

Genuine independent 'scoops' from Germany
and from Italy



Photo by Roberto Falcinelli, received by the Editor one week after those by Michael Hesemann

Back in the Middle Ages pilgrims to Rome sometimes trampled each other to death in the crush to view the famous 'Veronica's Veil' preserved in St.Peter's Rome, which a very late legend claims to have been used to wipe Jesus' face en route to Golgotha, thereby becoming miraculously imprinted with his likeness. The Veronica Veil's interest for the Shroud is that its more likely origin is as a 'vera icon' or 'true likeness' copy made sometime around the late 10th/early 11th century AD of the Shroud face then preserved in Constantinople as the 'Mandylion' or 'Image of Edessa'. Until very recently, however, the issue has been frustrated because of the non-availability of any photograph of the Veronica in the public domain, the Vatican custodians having steadfastly refused all requests for any such photograph to be taken. The issue has further been dogged by one sindonologist's bogus claim that he was allowed a special close-up viewing (see Newsletter 46, p.11), also by Gregorian University

professor Heinrich Pfeiffer's highly publicised hypothesis that the 'true' Veronica was stolen from St.Peter's in the early 17th century, and is now at Mannoppello (see Newsletter 50, p.8).

Thankfully an initiative by Michael Hesemann of Germany has at last thrown valuable new light on the issue. Although at the Orvieto Congress Hesemann's main presentation was on the Titulus Crucis, reputedly the plaque inscribed with the King of the Jews' 'title' that was fastened to Jesus' cross, in a five minute addendum he described how on March 21, 1999 he filmed the Veronica in St.Peter's when it was shown from high up on the balcony of the Veronica pier of St.Peter's. For those in the know - Hesemann was tipped off by a friend who works for the Vatican Congregation for the Doctrine of Faith - two canons of St.Peter's briefly hold up the Veronica every year at 5 pm on the 5th Sunday of Lent, the Sunday before Palm Sunday. Hesemann had come to St.Peter's armed with a digital video camera, and although the distance and lighting conditions prevented him from capturing the Veronica's appearance in any fine detail, at least it is apparent from stills of his film that it is preserved with the same 'cut-out' facial surround and frame as that of its mediaeval heyday. This links it to the similarly framed Mandylion copies of Genoa and of the Matilda Chapel in the Vatican, and it also corroborates the broad accuracy of the facsimile Veronica specially made in the early 17th century for Constance of Austria, Queen of Poland, and now preserved in the Hofburg Palace, Vienna.

Given that any thief is most unlikely to have specially removed the Veronica's original cloth 'relic' from its historic frame before stealing it Hesemann is rightly confident that the present piece of fabric is one and the same as that exhibited in the Middle Ages. The dark colour of the facial area closely resembles a description of this written in 1373 by the mystic English nun Julian of Norwich. And the frame surround readily corresponds to that seen in a woodcut of 1489 depicting the Veronica being exhibited in St. Peter's at that time. Still unresolved is why there should be no facial imprint visible.

Michael Hesemann has devoted a chapter to the Veronica in his forthcoming book *Die stummen Zeugen von Golgatha* (Golgotha's Silent Witnesses), and is planning to be in Rome for next year's showing from the balcony, this time accompanied by a photographer with a very high-power telephoto lens.

Extraordinarily, only a week after receiving the photo from Michael Hesemann, a similar photograph, though somewhat less distinct, unexpectedly arrived from Roberto Falcinelli, a member of the Centro Diocesano di Sindonologia 'Giulio Ricci' Rome. This is reproduced above.

To compound the curiosity, just as this Newsletter was going to press, there arrived from Italy the latest issue of the Italian Shroud journal *Il Telo*. A large proportion of this has been devoted to articles on the Veronica, including one written by me some eighteen months ago specially pleading for the Veronica to be made more accessible to scholarly scrutiny. So perhaps at last matters are beginning to ease....

DEATH ON THE CROSS

Did The Turin Shroud Once Envelop a Crucified Body?

Frans Wijffels

Kindly submitted by a Dutch physician, the article that follows provides a fascinating, albeit harrowing, reminder of crucifixion experiments that were conducted fifty years ago by German radiologist Dr. Hermann Mödder. It is also valuable for the series of classical

references to crucifixion. Important to be noted, however, is that the Mödder experiments have been superseded by the much more sophisticated and detailed ones that were carried out by Dr. Frederick Zugibe during the early 1980s and presented to the BSTS in a memorable lecture 25 October 1985. Dr. Zugibe has described the Mödder experiments as 'unsound' because in them 'the hands were essentially suspended above the head, whereas in his own experiments the arms were at an angle of 60 to 70 degrees with the vertical, radically altering the whole situation. The Editor is greatly indebted to Brisbane pathologist Dr. John Sullivan, FRACP, FRCPA for his kind assistance editing this very specialised article.

Introduction

The image on the Shroud of Turin has the shape and size of a human body, with the appearance of a man crucified. It exhibits wounds corresponding to what we would expect from nails, it being known that the Romans used either ropes or nails to affix to the cross those whom they crucified. The Shroud also exhibits on the back and on the leg images wounds corresponding in shape and size to a Roman scourge, scourging being known to have regularly accompanied crucifixion. The shape of the stains is physiologically convincing as from blood clots formed on a human body. Additionally the late Drs. John Heller and Alan Adler (1) found actual human blood, serum proteins and bile pigments in the Shroud, giving rise to the question: Did the Shroud once envelop the body of a crucified man?

To answer this question it must first be determined whether the bodies of those who are crucified exhibit certain special characteristics, also whether these characteristics, individually or collectively, represent such unequivocal indications of death by crucifixion that they rule out any other cause of death. But to try to find out these characteristics is to be confronted with an insurmountable problem due to the impossibility of totally reproducing the crucifixion mode of death within a modern context.

Nevertheless it is possible to formulate some idea of what death by crucifixion involved. As a guide to this we have reports from the German radiologist Dr. H. Mödder of several laboratory experiments that he conducted back in the late 1940s during which he observed - at least for the first few minutes - the behaviour of a human body suspended on a laboratory cross (2). Likewise French sindonologist Dr. A. Legrand has described (3) tortures leading to death which were inflicted during Second World War in Dachau. There is also evidence from modern studies of the physiology of human exertion (4). Although such indicators can never fully reproduce for us the reality of a Roman crucifixion, they can probably convey it closely enough.

The Evidence of Classical Writers (5)

Clearly, any theory of what crucifixion involved should not be at variance with information from writers who lived at the time that the mode of execution was being carried out. Here important to be noted is that classical writers never say simply "to crucify", but instead "to scourge and fasten to the cross." This may be attributed to how Roman crucifixion originated and developed. As a general rule Roman citizens were never crucified, the punishment normally being reserved for slaves, deserters, renegades, criminals and "offenders against imperial majesty". Crucifixion was cruel and the agony on the cross lasted a long time. According to Cicero it was the most cruel and deterrent punishment. (L.: "*crudelissimum taeterrimumque supplicium*" and "*servitutis extremum summumque supplicium.*" (Cicero *In Verrem* II 5,64,165;66,169.) Seneca wrote that the life of the crucified ebbed away drop by drop. Origen reported that in spite of their tortures the crucified hung dying throughout the entire night after their having been fastened to the cross, and the agony sometimes went on throughout the next day as well. (Commentary in Mattheum, 140, Patrologia Cursus Completus. Series Graeca, J-P. Migne, ed. 13, 1973 B).

According to Apuleius the use of nails was a particular torture for those who were crucified (*Metamorphoses*,3,17;1989, vol.1 p.158-159), Tertullian likewise saying that it was the nails that made the ordeal on the cross such a cruel one. (Adv. Marcionem 3,19 in *Corpus Scriptorum Ecclesiasticorum Latinorum* 47, 408; *Patrologiae, Cursus Completus*. Series Latina, J-P. Migne, ed.) Justinian wrote that the Carthaginian commander Bomilcar gave a speech while he was being crucified in the Roman Forum (1935, *Epitoma Historiarum*,22,7,8F. p.185), while St. Augustine, despite living a century or so after the abolition of crucifixion, wrote '... those hanging on the cross with hands and feet pierced by nails died slowly. For crucifixion was not just a simple matter of the victim being put to death. On the contrary, the crucified might be kept alive a long time on the cross, not because they chose to, but because their death was deliberately prolonged so that their sufferings would be prolonged likewise. (In *Joannis Evangelium*, Tractatus 36,4, *Corpus Scriptorum Ecclesiasticorum Latinorum*, 1954, p.326; 1978, vol.7, p.209; *Patrologiae Cursus Completus*.Series Latina, J-P.Migne.)

We know then that crucifixion, which always resulted in death, was deliberately cruel and long drawn out because of its deterrent intent; also that the crucified could not shorten their torture on the cross. Since the unbloody version, i.e. being tied by ropes, also the bloody alternative of being nailed, both similarly resulted in death, it is obvious that nails were not essential to the method. If we can assume that criminals, deserters and renegades were of average health, it becomes clear that it must be the scourging and the hanging on the cross that were responsible for death by crucifixion.

Dachau

Two survivors of the Nazi camp of Dachau, Mr. R. Gieser and Mr. G. Delorey, testified to the tortures that took place there in 1943. Their testimony was recorded by Antoine Legrand. (3): "In Dachau the condemned were suspended from a horizontal bar by means of leather straps around their wrists. After 15 minutes the victims began to have muscular spasms. These were relatively weak and not extensive. Then they started to spread and increase. After their hanging for one hour the victims could no longer exhale the air that filled their chest and there were contractions in their arms every two minutes. As time passed these contractions decreased. Sometimes a particularly strong man was able to resume respiration by contractions of a longer duration. (30 – 70 seconds.) But then weights were attached to his feet. Only at the end of the torture, when the victim's strength failed did asphyxiation take place, generally within 2 to 4 minutes. If the weights were removed from the feet of strong individuals, this allowed new contractions of the arms, thereby reviving them and prolonging the torture. It was noted that while the chest was maximally distended; the epigastrium became extremely retracted. If the hands were tied directly above the heads, death would occur after three hours. If the arms were more outstretched, the period was six hours. The entire body would be covered with sweat including the hair and beard. Towards the end of the torture the sweating would seem to increase, with the sweat flowing down to the toes, and staining the ground. Father G. Delorey has stressed that when the sweat fell in drops to the ground this was always a sign to the fellow prisoners, who were forced to witness the tortures, that their unfortunate comrade had only one or two minutes left to live. After death the lower part of the abdomen was distended, but the epigastrium remained drawn in, the skin became cyanotic and the head fell forward in the axis of the extremely rigid body. This was the reality of death by hanging." (A. Legrand 1952 pp.392-393; 1980 p.160)

From the R. Gieser and G. Delorey's very similar testimonies it can be taken for a fact that simply being suspended by the wrists will result in death after three to six hours. Moreover - and this is of essential importance in our paper – it would appear that those hung in this way always died with a maximally distended chest. After their death the epigastrium would remain

strongly drawn in; the lower abdomen would become distended; the skin would take on a cyanotic hue [i.e. blue] and the head would flop forward in the axis of the body. Especially important in the testimony of these same witnesses is that the bodies of those who died in this way were always extremely rigid, a stiffness which we can only interpret as rigor mortis. This means that rigor mortis has to have set in either at the very moment of death by suspension, or immediately after it.

The similarity between those who were crucified and those who were hung at Dachau is therefore readily apparent, both having been suspended by their wrists from a horizontal bar. An arguably significant difference between them is also clear: Whereas those who were hung in Dachau died in three to six hours, those who were crucified died only after a much longer time. Given that weighing down the victim appears to have aggravated the victim's torture, though shortening his life, while the removal of the weights lengthened this, it may be inferred that by their pulling up their bodies those who were hung at Dachau were able to lengthen their life. It then begins to become clear that if those who were executed by crucifixion had some means of support at their feet – and nails driven through the feet would have served this purpose – they could raise their bodies rather better than those who were hung in Dachau. This thereby explains the endurance differences between those who were hung with a support for their feet [even though that support was nails - Ed], compared to those who were hung without this, and by their wrists alone.

Harrowing Laboratory Experiments (2)

Dr. Hermann Mödder was a Cologne radiologist who during the immediate post-World War II period conducted experiments on the effects of crucifixion by suspending volunteer medical students by their wrists. The mode adopted was for them to be fastened so that their arms were outstretched in the form of a “V”. Mödder recorded measurements of respiratory and cardiovascular function before and during suspension. By the sixth minute the vital capacity had fallen from 5.2 L to 1.5 L., and the chest was fixed in a maximal position of inspiration, with only diaphragmatic respiratory movements remaining. The pulse rate quickly rose from 72 to 140 per minute, and by the sixth minute the blood pressure had fallen from 120 to 70. The ECG showed in leads 11 and 111 a marked fall of the ST-segment and an almost complete flattening of the T-waves. On x-ray the diameter of the heart was reduced by 3 cm. It was also noted that the skin was pallid, cold and damp.

According to Mödder : “What will set in after the end of the sixth minute can be foreseen by the physician: unconsciousness, intense pallor, sweating. In short: collapse due to insufficient blood supply to the heart and brain. We can see that – apart from the brain with its vital respiratory and circulatory centres – the heart obtains too little blood and oxygen, as is indicated by the changes in the ECG, the reduction of heart volume, and the rapid decline of the heart's performance.”

(H. Mödder 1949, pp.56-57,59)

Mödder stated that in the case of a very strong individual the collapse did not occur until after 12 minutes, adding that the vital capacity was 1.5 L., which does not indicate death by asphyxia, since many patients can stay alive with a vital capacity of 1.2 L.

So from Mödder's experiments it can be inferred that suspension by the wrists does not lead to asphyxiation but rather to orthostatic collapse (i.e. postural hypotension) and unconsciousness. Yet why should such collapse not have occurred in the case of those who were hung in Dachau or those who were crucified? The answer has to be that all these victims raised their bodies. In Dachau this was by their pulling up their body. For those who were crucified it was by their flexing their arm muscles and their extending their leg muscles

in order to push themselves up on the support given by the nails in their feet.

Dying on the Cross.

Dehydration (loss of fluid) and exhaustion would have been heavy contributors to the suffering on the cross. Before the condemned man was fastened to the cross he was scourged. This would have torn his skin causing, among other things, loss of fluid from his wounds. He then had to carry the heavy patibulum, or crossbeam of his cross to the place of execution. If this weighed, as might be expected, something of the order of 50 kg., such efforts could only have exhausted him, causing him to sweat copiously and so to lose more fluid. Then there were more exertions and more loss of fluid during the torture on the cross itself. To avoid the above mentioned collapse and its accompanying loss of consciousness the crucified would have to have raised himself on the cross within 6 minutes – for stronger individuals within 12 minutes – and to have managed to stay in this position. If he did not do so he would die as the men in Dachau died. But the question arises: why did such victims try to raise themselves at all, when by their not doing so they would have shortened the sufferings?. We have to face the possibility that there are mechanisms in the human body which may cause it to raise itself involuntarily in such circumstances.

The standing position

If we accept Mödder's data it is clear that avoidance of circulatory decompensation (i.e. failing blood circulation) and the restoration of respiratory function were both of critical importance to crucifixion victims. They could only manage these by extending their leg muscles and by flexing their arm muscles, whereupon once they had attained a standing position their circulatory and respiratory situation would have returned to one comparable to that which Mödder describes after the first minute of suspension. So it is no longer surprising that Bomilcar was able to deliver a speech from the cross. Unfortunately, however, such muscular activity would have brought into play fresh problems, ones which would have lessened the muscles' functional capacity. Some of these would have arisen where the muscles carried out their life-saving activity, problems which we may term "the peripheral problem".

The accumulation of metabolic waste products in the muscles would compromise their function. If they ceased contracting, circulatory decompensation would take place. Alternatively the body, acting autonomously, would take over the relevant muscles. We may infer that it was the latter which happened, because torture on the cross lasted longer than would any comparably exhausting sporting activity. Measures taken by the body to improve cardiac and respiratory function would repeat with these units the problems of the peripheral areas. No further compensations would be available.

Please note: If the Romans broke the legs at this stage, they brought about great loss of blood upon which hypovolemic (lack of volume) shock and death speedily followed.

Death of the extremities.

For a short time, by redistributing blood, the body would have saved vital organs such as the heart and the brain at the expense of the extremities, i.e. the arms and legs). What would happen to those extremities thus deprived? During the last minutes the muscles would be driven to extreme activity by hyperthermia or high body temperature, by serum epinephrine, which is a substance that promotes activity, and by the orthosympathetic impulse, which is a nervous excitation that also promotes activity.

Such continued muscular activity would puff out the chest to a maximal position of inhalation, also stretch the extensors of the legs. The thumbs, bent inward into the palms, would have become fixed in that position by rigor mortis. (7) In this state acidosis would have

risen to such a level that the production of the muscle relaxant adenosine triphosphate (without which the muscles are rigid) would have ceased, thereby bringing all muscle cell function to an end and causing muscle death and total rigidity. Ultimately myocardial activity of the heart was brought to a standstill by acidosis, after which the brain was deprived of oxygen. This is how men died on the cross - and so died The Crucified.

Cause of death

For many years in many parts of the world it has been said that those who were crucified died from asphyxia. The significant factor for this asphyxia has been said to be the elimination of the bellows function of the chest. However Mödder clearly stated that after the elimination of the bellows function a respiratory capacity of 1.5 L. remained, enabling respiration to continue, thanks to the activity of the diaphragm, which is a strong respiratory muscle. When it is stated that the action of the crucified pushing himself up on the cross restored the bellows function, this is not completely incorrect, as Mödder's findings indicate. However, we now believe to be mistaken the argument that the Romans' breaking of the crucified's legs had the effect of stopping this bellows function's recovery, thereby bringing about asphyxia.

The nature of suffering on the cross lay in the fact that on the one hand the limited respiratory capacity was sufficient for a long period of suffering on the cross, and on the other hand this limited capacity was too small to supply the increasing demand of oxygen, necessitated by continuously increasing muscular activity.

So did the Shroud once wrap a crucified man?

We have seen that there is no essential difference between the death in Dachau and the death on the cross. All these victims were hung by their wrists from a bar. The only difference is that the crucified resisted death longer, thanks to the support to their feet. Therefore the physical characteristics of those hung in Dachau are the same as the physical characteristics of those crucified, with the exception of the wounds due to scourging and to nailing. The men hung in Dachau exhibited a maximally distended chest, the epigastrium drawn in, the hypogastrium distended, the head bowed in the median axis of the body and signs of rigor mortis. The Man of the Shroud exhibits all the above mentioned characteristics.

As far as rigor mortis is concerned, his legs are shown in a standing position, the chest distended in a position of maximal inhalation and the thumbs (7) bent inward into the palms of the hands. See (8) the computer reconstruction of the three dimensional image of the figure on the Shroud and note the relationship of the intensity of colour and the distance between the cloth and the body which have been made evident by J.Jackson, E. Jumper and B. Mottern and described (8) by V. Miller and D. Lynn.

In view of the 'Man of the Shroud' also exhibiting scourge-wounds and nailing of his hands and feet, also human blood, serum proteins and bile pigment having been found in the Shroud, it has to be considered very likely that the Shroud once enveloped the body of a man who died by crucifixion.

BIBLIOGRAPHY:

1. Heller, J.H. and Adler A.D. (1981) A Chemical Investigation of The Shroud of Turin. *Canadian Society for Forensic Science Journal*,14 (3), 81-103.
2. Mödder, H. 'Die todesursache bei Kreuzigung'. *Stimmen der Zeit*, March 1949, pp. 50-59.
3. Legrand, A. 'Du Gibet du Golgotha a ceux de Dachau' *Medicine et Laboratoire*. 19, December 1952, 391-393.
Legrand, A., 'Le Linceul de Turin Pelerinages au Linceul de Turin' *Collection Sanctuaires Pelerinages Apparitions*. Poitiers / Liguge : Desclee de Brouwer, 1980
4. Bernards J.A. & Bouman N.L. *Fysiologie van de mens*. Utrecht; Bohn, Scheltema en Holkem, 1979.
5. Holzmeister, U. (1934a). Crux Domini eiusque crucifixio ex archaeologiae Romana illustrantur. *I. Verbum*

Domini, 14 (fasc.5), 149-155.

- Holzmeister, U. (1934b). *Crux Domini eiusque crucifixio ex archaeologiae Romana illustrantur II. Verbum Domini*, 14 (fasc.7), 216-220.

- Holzmeister U. *Crux Domini Atque Crucifixio Quomodo Ex Archaeologia Romana Illustrentur*. Disseruit Urbanus Holzmeister S.J. Romae E Pontificio Instituto Biblico 1934 Scripta Pontificii Instituti Biblici.

6. Forster, B. und Ropohl, D *Rechtsmedizin*. Stuttgart: Ferdinand Enke Verlag, 1982.

7. Barbet, Pierre *La Passion De N-S. Jesus-Christ Selon Le Chirurgien*. Dillen & Cie (eds), Issoudun-Paris, 1950

8. *Natuur en techniek* 49e 2/1981. Centrale uitgeverij en adviesbureau b.v. Maastricht.

A word of thanks:

Nothing is achieved without the help of others, We are grateful to: Mrs.D. Crispino; Mr.A.H.G.A.Fey+; Mr. and Mrs van der Heijden; Father E. Houben+; Mrs.E.M.C.JonasPeters,B.A.; Mr.A.M.G.Krijns; MrH.Kuipers,M.D.,Ph.D.; Mr.G.D.Majoor, Ph.D.; Mr.P.C.Maloney; the late Father A. Otterbein CSSR; Mr. V. Verniers; Mr. W.G.M. Witkam, M.D.; Father H.G.M. Wijsen,O.F.M.and Prof Dr. H. Wellman. Ph.D. Translation: Mrs.E.M.C. Jonas-Peters, B.A., with editing by Dr.John Sullivan and Ian Wilson

