

THE HEIGHT OF CHRIST

According to the Holy Shroud

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The "Mensura Christi," St. John Lateran, Rome.

The ambulatory of a medieval cloister often has the air of an old-fashioned back porch, dusty repository of superceded artifacts. In the 13th century cloister of St. John Lateran, in Holy Rome, mute survivors of the shadowy past are ranged along the gallery walls. Guardian lions, tamed by the patina of ages; a backless pontifical throne; sarcophagi, and fragments of a ciborium; broken Christian epitaphs. There is also a sort of monument which seems to fit no familiar category. A visitor might pass it by with no more than fleeting curiosity, unless, by chance, he were an avid reader of old Latin inscriptions. In this case, he might learn that the space from the floor of the little structure to the underside of the canopy is equal to the height of Jesus Christ.

A pious conjecture, no doubt. And yet the measure is 183 cm. (6 ft.), exactly the size of the Measuring Cross of the Emperor Justinian. Near the end of the VIth century, Justinian sent 3 men, "trusted, capable and expert," to Jerusalem with instructions to measure the height of Christ from the imprints left by his crucified body on the

Holy Shroud. From the envoys' measurements, a cross was fashioned, coated with silver, studded with precious gems and covered with pure gold. The cross stood a lofty 183.5 cm. The length established by the Envoys of Justinian may have been accepted through the years and applied to the little monument in St. John Lateran.

Leaping centuries and continents, we touch down in Turin, Italy, where the Shroud, property of the House of Savoy, has been preserved since 1578. And there the figure 183 cm. occurs again in the Royal Ribbons, which, in the XVIth and XVIIth centuries, were presented to

illustrious visitors as souvenirs of their attendance at expositions of the Shroud. A few of these ribbons found their way into museums; others are still cherished family heirlooms.¹

The question of Jesus' stature seems to have occupied many minds. Antoninus of Piacenza (570 AD) wrote: *Nam et staturam communem*. Epiphanius (c. 800) said Jesus' height was 6 ft. In the XIVth century, Nicephorus spoke of "seven spans," and an XIth century letter of the Three Patriarchs mentions "three cubits."

It was supposed that, since the somatic imprints on the relic represent a perfect likeness of Jesus, all one needed to do was to measure the length of the figure on the cloth and thus obtain the exact stature of Our Lord.

One wonders what criterion was used to determine the points, on the suffused vestiges, which marked the top of his head or the sole of his foot. One wonders, too, if compensation was allowed for the discrepancy between the horizontal length and the vertical height of an individual? At least one of these early experts, Msgr. Alfonso Paleotto² understood that the body was not lying normally supine, but in inflection . . .



The figure on the Shroud is a negative image, imprinted by orthogonal projection—the same way we see ourselves in a mirror. In the traditional manner of displaying the Shroud (as above), the right side of the body, both back and front, lies below the longitudinal axis; the left side lies above the axis.

The full extent of the complications was only gradually encountered after the publication of the official photographs (the only ones, incidentally, which are endorsed for study) which in 1898 and 1931 aroused the interest of science.

Shortly before World War 11, an experiment was made using a full-size photograph of the frontal image. It was found that a man of 178 cm. (5'9") fitted the imprints perfectly when he lay down with the photograph spread over him and the bloodstains of the forehead, carpus and feet applied to the corresponding parts of his own person. An identical experiment was made in 1976 by Drs. John Jackson and Eric Jumper of the United States Air Force Academy, who suggested that Jesus was a man of 5'10" and weighed about 175 pounds.

But is it all that facile? Let us consider first of all the fabric of the Shroud. Pure, raw, unbleached linen, herringbone weave, hand-loomed. Two thousand years old, or nearly so. What vicissitudes has it survived? Fires and dust, desert winds and Belgian humidity, handling by sweaty celebrants, moistened by tears, exposed to millions of smoking candles . . . Tested in the XVth century by a steam bath, by boiling, even (though this invites incredulity) boiled in oil. A XIIIth century Crusader narrates how, every Friday, for the veneration of the crowds, the

¹ It is interesting to note that these ribbons, dating from different expositions, are of several varying lengths.

² Paleotto, *Espliatione del Sacro Lenzuolo* (1598).

Shroud was suspended vertically from a church balcony, free-swaying in the salt sea-breeze and meridian sun of Constantinople. Has the fabric stretched? Or has it shrunk?

The application of a large quantity of aloes and myrrh, sprinkled on the Shroud before the lifeless body of Jesus was laid upon it, may also have temporarily affected the tension of the absorbent linen threads.

But the aromatics interest us primarily for another reason: products of tree resins, they are gummy and adhesive, causing the fabric to cling to the sweat—and blood—covered body wherever it came in contact. And that brings us to the second consideration, concerning the condition and consequent position of the corpse which left its mysterious signature upon the cloth.

The mechanics of crucifixion wrenched the body into stressful deformations (Paleotto called them *meravigliose stranezze*) which death then locked in rigor mortis. In his last moment before his death on the Cross, Jesus slumped forward, knees bent; and, as St. John tells us, he inclined his head. As a result, the spinal column curved to the extent that the dorsal imprints exceed the frontal by 5 cm.³

Easily perceptible on the dorsal image is the hyperextension of the right limb, additionally prolonged by the pointing foot, which rigidly retains the position it was forced to take, flat



Artist's mannikin approximates the position of the body in the tomb.

against the upright stake. The left knee, however, was bent, and the leg lifted upwards, when the left foot was nailed over the right. The Shroud shows the left foot still twisted, as it was on the Cross.

Although on the frontal image no indication of pelvic displacement is apparent, it would seem that the body-axis was broken to the Right, for on the dorsal image the gluteal zone pushes a full 10 degrees to the left.⁴

The position the body took on the sheet is therefore radically unnatural. Other seeming anomalies will be evident as we reconstruct the arrangement of the fabric over the corpse, for the third aspect under study regards the conformation of the Shroud at the moment it received the imprints. The photographs are of such stark realism that a casual observer might forget that the Shroud is not a cardboard, but a supple cloth which draped, wrinkled and fell in folds over the corpse, just as a bedsheet conforms to the bulk of a sleeper.

Although experts offer various opinions on the details of the Shroud's draping, major manipulations cannot elude a thoughtful observer.

On the Shroud, the head's forward tilt annuls the region of the throat, skimming directly from the beard to the upper chest. This forward curvature is most convincing on the dorsal imprint, where the distance from the shoulders to the occipital region is distinctly exaggerated.

³ Princess Clotilde of Savoy (1843-1911), wife of Prince Jerome Napoleon, measured the front as 195 cm. and the back as 202 cm. *SINDON* 19:26.

⁴ Fusina, "La figura della Sindone osservata secondo l'anatomia artistica con particolare riferimento alla statura. *SINDON* 20.

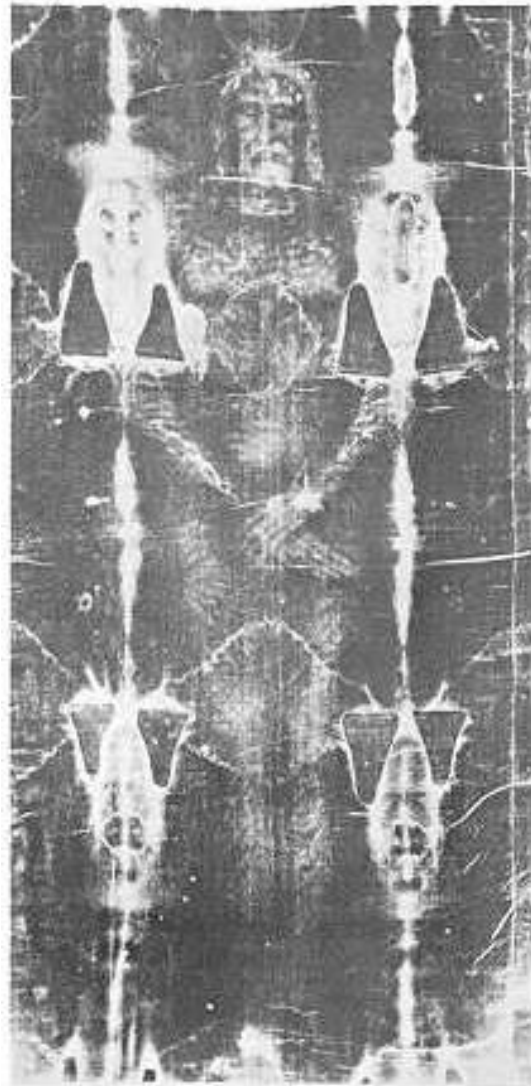
The chest is lifted and expanded, as Jesus died in the position of enforced inhalation. The volume of the chest is further widened on the imprints, because the cloth was tucked between the arms and the thorax. So much material was stuffed against the lance-wound that the right arm was printed far to the outside, as if dissevered from the shoulder. Forearm⁵ and upper arm are too long, due to the cloth's wrinkling in the elbow. The right hand is separated from the forearm by folds in the cloth, while the fingers are elongated because: either they curved backwards in hypertension, or the fabric was tucked beneath them, adding the fingertips and inner surfaces as far as the middle phalange.

From the surface of the abdomen, the sheet rose vertically over the superimposed hands, each one with the thumb lying inside the palm. The distance of this unmarked area would have been several inches before the sheet dropped over the top of the left hand. The carpus wound, therefore, registers much lower on the Shroud than it actually lay.

As we have seen, the left knee was raised. On the Shroud, the result is a foreshortening of the thigh caused by the suspension of the cloth between the hands and the knee. The right thigh and hip appear flared, for there the sheet adhered to the flanks.

An interesting detail concerns the tibiae. On the front, the tibial imprints are far too long. The right tibia measures 54 cm., whereas normally, on a man 180 cm. tall, it would be only 41-42 cm. The dorsal imprints show the same tibia, the right, to be only 37.9 cm.⁶ Two reasons for this extraordinary phenomenon can be seen on the frontal image: (1) the sheet made full rotation over the knee-cap of the flexed left leg, and (2), across the ankles lay deep, even folds, leaving on the straightened sheet a visual hiatus, as if the feet were not joined to the legs at all. Faintly dark striae extending almost the width of the Shroud cross this otherwise blank swath, showing clear evidence of deliberate folding. When the Shroud is laid out in its full length of 14'3" and width of 3'7", the distances between the various points of contact no longer correspond to the true measurements of the body.

As there are no apparent folds or appreciable creases in the back half of the sheet, one can logically deduce that after the Sacred Body was laid upon it at the entrance to the sepulchre and

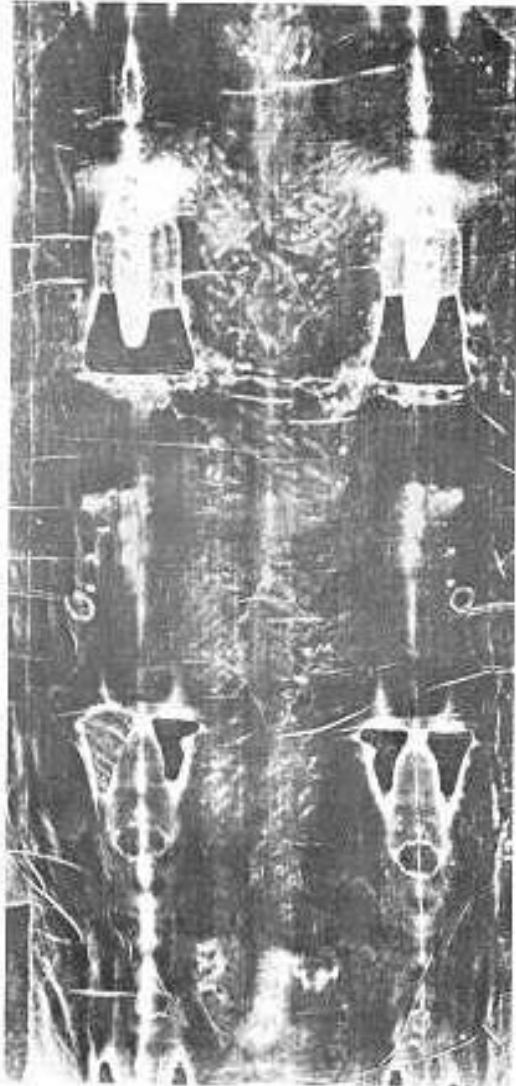


The frontal image, as revealed by photography. The Man now faces us in normal fashion, with his right side at our left, his left side at our right.

⁵ Msgr. Ricci measures 62 cm. *Osservazioni alle perizie ufficiali sulla Santa Sindone* (1969-1973).

⁶ Giulio Ricci, *L'Uomo della Sindone é Gesu*, p. 73.

the top half folded over Him, Our Lord was thus carried hammock-wise into the tomb, with the under-section of the sheet tautened by the weight of the burden.



The dorsal image also appears in normal fashion, as someone standing in front of us. His right at our right, his left at our left.

And this Divine Visage; shall we inspect this, too, upon plotting paper? It has been done; but the details do not concern us here, for the play of cloth over these damaged features evades mathematical certainty. Most experts agree that the cloth adhered closely to the frontal planes, following the facial contours over the forehead, the prominent brows and the orbital sockets, then being tucked under the tip of the nose. To close the mouth, a chinband—the sudarium—was bound around Jesus' jaw. Covering his ears, it was tied at the top of his head, so that these areas did not register. Aromatic sachets may also have been placed at the sides of the head, holding the cloth away from the sides of the face, but supporting the locks of hair. The lateral surfaces of the face lie in deep shadow, accentuated on the Left by a band of fabric of coarser threads. The overall result is a stamp somewhat longer than natural; a lengthening and narrowing of the imprints of the Holy Face.

In this brief survey, we have noted the principal problems involved in measuring the imprints as a means of ascertaining the height of Christ. The difficulties of measuring his human form on the Shroud would seem insuperable. One might be inclined to follow the advice of a devoted sindonologist, Paul Vignon, who wrote: “Do not push too far these measurements; it would be a false exactitude. For all our precise calculations, the dimensions of the Man of the Shroud are inaccessible.”

Yet, armed with modern techniques, researchers continue the study, offering their estimates, however, as personal interpretations. No serious scientist pretends to give a conclusive statement, even after the most scrupulous computations.

Listed below are the findings of 8 leading authorities:

Lorenzo Ferri	187 cm. (6' 1½")
Prof. L. Gedda	183 cm. (6' 0")
Dr. G.-B. Judica-Cordiglia	181 cm. (5' 10")
Dr. Paul Vignon	180 cm. (5' 10")
Rev. Peter Rinaldi, SDB	180 cm. (5' 10")
Dr. Pierre Barbet	178 cm. (5' 9")

Rev. Paul de Gail, Si
Msgr. Giulio Ricci

172 cm. (5'7")
162 cm. (5'3½")

The difference of 10 inches which separates the two extremes amply attests to the difficulties of the problem. The method and accuracy, competence and sincerity, logic and acumen of each researcher are, obviously, not in question.

Psychologically and aesthetically, it is pleasant to imagine Jesus as a tall man. Msgr. Ricci disturbed that concept, arriving at his minimal figure by a staggering complexity of anatomical and geometric calculations. He calls upon archeological data which sets the average height of the Mediterranean Palestinian male of 2000 years ago between 150 and 160 cm. (5'1" to 5'3"). Most anthropologists are reluctant to define the 'typical' Palestinian of that era. And many sindonologists are not at all convinced that Jesus was a 'typical' Palestinian. Examining the exceptional and highly individual characteristics and the anatomical perfection of the Man of the Shroud, they classify him above and outside every ethnic type.



The Holy Face of Jesus. The horizontal lines are creases in the material.

Inevitably, one must ask: does it matter how tall He was, how short He was? Of what utility these investigations?

It can be answered that any inquiry not motivated by curiosity but conducted in reverence and technical competence will add to our overall knowledge and understanding. In the minute examinations required for the stature-studies, many surprising details have been discovered which would otherwise have passed unnoticed. There is convincing proof that these "strange anomalies" are not arbitrary, are not accidental. As Pope John XXIII remarked of the Shroud, "Digitus Dei est hic." And God does not write in vain.

Can we assume that, despite its discrepancies, the image on the Shroud does hide the height of Christ? Indeed; where else? The answer to our question is revealed to us with unsuspected simplicity as soon as—realizing that we were trying to measure the immeasurable—we lay our useless rulers down and look with deeper eyes upon this figure sketched, as it were, with sanguine crayon. The distortions we discovered fade behind the wondrous beauty of this man. This Body, battered and bent, radiates serenity and strength. Only majesty and douceur reflect in this Face ravaged by immane sufferings. This Corpse, conquering the clutch of Death, is charged with Life. The measure of his stature is eternal.

ADDENDUM

It never failed; at the end of every Shroud lecture someone in the audience was sure to ask, "How tall was He?" Sensitive to popular interest in this detail, I composed *Height of Christ*, the first and only of a project that *Spectrum* superseded.

In the twenty-five years that have passed since then, scientists have given us correct answers to some early misconceptions and have added unsuspected information about this complex Relic.

For example: On page 3, we read, “Has the fabric stretched?” A couple of years after *Height* appeared, an Italian scientist, Nicola Scarpelli, conducted some experiments on antique linen to discover why the weft threads were “bunched up.” It’s the simple explanation that convinces; the linen stretched (he gives the percentage) longitudinally, bringing the warp threads closer to each other. His research was published in the Acts of the Congress of Bologna, 1981.

In the middle of page 5, we see the Sacred Corpse laid upon the Shroud at the entrance to the tomb and carried inside “hammock-wise.” An idea reflecting pious paintings, no doubt, but unsupported by archeology and inconsistent with the Gospel accounts.

Legend too, sneaks into print at the top of page 3. We are grateful to chemists who found no trace of oil in the fabric. Seems a waste, to take a medieval rumor into the laboratory to test its worth, but scientists are never satisfied until they have done an experiment. If the consensus is far from unanimous about the presence on the Shroud of aromatics, gummy or otherwise, one thing is certain: the Cloth did not “cling” (p. 3) to the Body. The linen is supple and the weave ideal for draping (see Tyrer, *Spectrum*, March 1983), and lay unbound by ties or unguents.

Nor is the tucking—much less a “stuffing”—of the Cloth (p. 4) acceptable to chary observers, confronted as they are with a more mysterious cause for what has been perceived as tucking. An interesting experiment published in 1986 by Lavoie and Adler ranks among the everlasting verities in sindonic literature. You can see it for yourself, the bloodmarks are not in register with the somatic image. The bloodmarks came onto the cloth by direct contact; Lavoie and Adler demonstrate that the Image was produced by “a distinctly different mechanism,” as yet unknown. The authors conclude: “The production of the bloodmarks and the formation of the image were two different events.”

Each *meravigliosa stranezza* of the Figure on the Shroud enfolds a surprise that dazzles the mind. And deepens the mystery.

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