

More historical and physical evidence for the Holy Shroud; and the record of bloodstains in the Holy Sepulchre and the possibility of a DNA match with the blood on the Shroud

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First, a note on the discovery of a shroud in a hewn cave tomb of the Hinnom Valley by the Old City of Jerusalem.¹ The remnants show a plain (tabby) weave in wool. Carbon-14 dating by Douglas Donahue of Arizona University (who again stands by his erroneous date for the Holy Shroud) gives a date for the first half of the 1st century AD. So far this fits approximately the evidence in situ. But ignorant conclusions from at least one member of the team working on the remains have been delivered, e.g. that this wool shroud indicates that the Holy Shroud cannot be genuine because it is made from 3:1 linen twill. This of course is more nonsense, like so many other statements from so-called experts. However, the discovery of a shrouded body in exactly the year 2000 is pertinent, revelatory, and Divine design cannot be ruled out; and nor can the DNA evidence recovered from the human remains inside this millennium shroud, because DNA remains on the Holy Shroud and will, notwithstanding the usual obstructions, procrastinations and posturing, be fully identified. More on this subject further on.

It will be interesting to see what develops from this shroud discovery by Shimon Gibson; it certainly adds to historical knowledge and practice, if not for those with a cognitive deficit towards the Holy Shroud.

So, as there is no doubt about the authenticity of the Holy Shroud, the sparse historical record during the early centuries is not going to change its status. But any reference is interesting and important for obvious reasons. After the Gospels, which include the Gospel according to the Hebrews, there is the Doctrine of Addai tradition and around the same period of final composition, the visit by Daniel of Galash took place to see the 'Image of the Messiah' in c. 405-413 AD. The reason for Daniel's visit: to receive a blessing.²

The validity of this record, in a work by Jacob of Serugh around 485 AD, has been dismissed by a foremost Syriac scholar, Han Drijvers, on the gratuitous grounds that the 'remarks about the image of Christ at Edessa ... are clearly later interpolations'.³ This breaks the first canon of textual criticism: that the integrity of the text is honoured until proved unreliable. There is absolutely no indication or proof that an interpolation has occurred; on the contrary, there is every reason to suppose that Jacob of Serugh was recording the event with accuracy. Apart from knowing the area of Osrhoene, Serugh (Batnae) was just southwest of Edessa, and the Image was obviously familiar to Jacob. It would have been more suspicious if Daniel of Galash, and his companion Mari, did not visit Edessa as part of the pilgrimage to visit the monks nearby. As for the claim that no one has heard of images giving a blessing, can this be sustained? The same Syriac idiomatic phrase used here for the Image is found for receiving a blessing from visiting the Holy Sepulchre; it is found in connection with holy tombs and places. This makes the reason for Daniel's visit to Edessa even more credible, this Image was obviously regarded as holy and important and directly connected with Jesus.

Then there is the incident in Syrian Antioch, where there was an icon of Jesus Christ in the Kerateion, and a head deacon, who distributed linen clothing, saw Christ come down to him from

the 'icon', i.e. he received a blessing, as well as a message on a principle of charity.⁴ Then there is Symeon Stylites the Younger who had a vision of Christ in the same place, in the same 6th century; and in which century there is an important, but not yet sourced, reference to the Edessa Image. A.A. Vasiliev reported that 'a serious upheaval in Antioch was directed against the worship of pictures, and in Edessa the rioting soldiers flung stones at the miraculous image of Christ'. So far, I have now found the probable source for the upheaval in Antioch, but not as yet, the source for the stoning of the Image in Edessa, but hopefully it does exist somewhere, and it will then be the second 6th-century record of the Image of Edessa, excluding the Acts of Mari and Acts of Thaddaeus from around that period.⁵

I suspect Drijvers has been led down the garden path by Averil Cameron, and is supporting her flawed history of the Edessa Image to the point of ignoring inconvenient evidence, as Ian Wilson and his followers have done in this instance, and many others.

To clarify another early reference to the Edessa Image, which has been vaguely known of, but wrongly ascribed to Moses of Khoren. It is the anonymous 'Geography' of Armenia, now with good confidence attributed to the Armenian chronicler and scientist, Ananias of Shirak. The text of the Geography portrays the situation as it was historically between 591 and c. 640 when the long recension was composed. Just after this, i.e. probably between 640 and c. 650, an emended abbreviation was produced, and it is this short recension that contains the important reference: 'many cities, one of which is Urha [Edessa], where the not-made-by-hand image is of-the-Saviour'. The important point in this text is the Armenian use of the demonstrative suffix 'n', which translates into the English definite article 'the'; it is definitely 'the image' and not 'an image'.⁶ We have here a precise and early record of the miraculous Image, i.e. the Shroud. This is now accompanied by the important news from Archbishop Gewargis Sliwa of the Assyrian Church, concerning a record of the Image of Edessa in a Syriac letter of Isho-yabh III who refers to 'the image of his adorable face and of his glorified appearance',⁷ from around the same date as Ananias of Shirak.

Centuries before this, the Shroud had been precisely folded to fit into its bespoke reliquary casket, which casket eventually found its way to Paris. It measured, from the Ste-Chapelle inventory, c. 23.5 x 16 x 3 inches (60 x 40 x 8 cm) and there is a reason why these dimensions occurred.⁸ The Shroud had been deliberately folded to frame the face of Jesus and to accord with the perfect art design of antiquity: the Golden Ratio – the Golden Section. Whoever folded the Shroud intended to produce the perfect portrait, and this can be demonstrated by a textile artefact from antiquity, the 6th-century Icon of Christ and Mary (Fig. 1).⁹

The width of this icon, like the Shroud, is exactly 2 cubits of 21.6 inches (54.8 cm), which equals 8 suklums. The height is exactly 3.25 cubits of 21.6 inches (54.8 cm), which equals 13 suklums (Fig. 2). A suklum = 5.4 inches (13.7 cm) = ¼ cubit. So here we have the Golden Ratio: $\frac{8}{13}$ equals 0.615 ($\phi = 0.618$). Although the Golden Section cannot be resolved mathematically, it always approximates to 1.6, Φ (Phi) = $(\sqrt{5} + 1) / 2 = 1.618$ and $\phi = 0.618$, and so 1:1.618.

And here is the Shroud, folded to the Divine Ratio of classical art (Fig. 3). And so the Ste-Chapelle/Edessa reliquary was made to frame the Divine face of Jesus. This is categoric. Here the Shroud is folded to 21.6 inches (54.8 cm) x c. 13.5 inches (34.3 cm). This approximates to the Golden Ratio at 0.625 and 1.6. The dimensions can also be expressed as 4 suklums x 2.5 suklums. The width of c. 13.5 inches (34.3 cm) would result if the Shroud was presented with the back of the central area resting against a panel of c. 13.5 inches (34.3 cm) wide, and the remaining two sides folded behind the panel respectively. The face area would then be fixed against the panel, and supported when inserted in the reliquary casket, which acts as a frame for the portrait face. The Shroud is then supported when the casket is held upright. This can be

demonstrated with a full-size replica and it is one possible way that the Shroud was fitted inside the Ste-Chapelle reliquary.

On another face of Christ which has been connected with the Shroud, i.e. the Templecombe wooden panel in England. There is no evidence that this painting has been copied directly from the Shroud, rather every indication that it is a copy of the 'Veronica' of Rome. The panel is from the same era c. 1300, when the Veronica was at its height of fame. The divided and pointed beard and iconography all point to the Veronica, and along with much else from the same stable it is a red herring; but the panel has importance in its own right as a copy of the Veronica school, and so indirectly to the Edessa Image. The Templecombe painting now becomes a candidate for one of the earliest known copies of the Veronica of Rome.¹⁰

To the Shroud itself. There is no doubt that the two missing corners have been cut off by relic seekers, and eventually a fragment may be traced. Pieces were taken before 1534 and bits during the 20th century. However, there is every sign that a strip was removed sometime after 1534 (Fig. 4). Observe the hatched area '2' on the Holland cloth. This patch is lighter than the adjoining area, meaning that the Holland backing cloth has been exposed to less light here than the main body of this Holland cloth corner (Fig. 5). And there are other possible areas that may give different light reflections (this includes the dorsal corner), and then there are various needle holes. So with light reflecting calibration, a date could be estimated. This is just one of many signals on the Shroud which I can reveal, and I am sure that the Turinese are only too anxious for me to examine the Shroud cloth, so that many can be enlightened, including themselves.¹¹

Still in Italy, many have been misled by the calculations of Giulio Ricci on the dimensions of the Shroud linen. Basing himself on the report by Arculf, who saw a shroud in Jerusalem in the 670s, that the linen shroud was c. 8 feet, it was therefore c. 16 feet when unfolded. Ricci surmised that a large piece of the cloth was cut off one end of the Shroud, to match its present length.¹² However, the 'shroud' that Arculf saw was not the Shroud, which was in Edessa at that date, and had been recorded a few years earlier by Isho-yabh and Ananias of Shirak. There is a twist, not all of the manuscripts record Arculf measuring feet; some MSS make a reference to 8 cubits. I have only examined one early MS so far, which reads 'octo pedes', 8 feet.¹³ However, foot and cubit were interchangeable terms for a given length, and as Arculf reported an image on the textile icon, but not on the 8 foot shroud, the latter can be safely excluded. So the Shroud has always measured 8 x 2 cubits of 21.6 inches (54.8 cm), as the stitching at both ends will confirm.

To emphasis the accuracy of the Jewish/Assyrian unit, the Bull inscription of Khorsabad is the paramount source for the recovery of Assyrian metrology, and the mathematical proof for 21.6 inches (54.8 cm). In an invaluable note, Julius Oppert¹⁴ set out the definitive discovery of the unit that was to be the Jewish measure in 1st-century Jerusalem, and on to the 6th-century textile icon, also probably from Jerusalem, and now kept in the Cleveland Museum of Art in America. It was the exact dimensions of the walls of Khorsabad, recorded in the Bull inscription, that enabled Oppert to recover the exact cubit value of 21.6 inches (54.8 cm). This is categoric; and along with the Shroud and textile icon, the cubit rod in the Petrie Museum, London, other artefacts may also be discovered to have derived from this Assyrian cubit of antiquity.

But now, at the dawn of the 3rd millennium, there is a way to answer several more queries on the Shroud. It is simple and virtually no damage to the Shroud will occur, except in certain quarters to pride and prejudice, the very cause of the death of Jesus of Nazareth.

DNA (deoxyribonucleic acid) testing has now reached the stage where, from the smallest blood glob, ancient gene signals can be retrieved and amplified by PCR (polymerase chain reaction). These will include Y and mt (mitochondrial) DNA, plus genes that can tell the colour of hair,

eyes, height, etc., and the Y and mtDNA can also be sourced from existing database records to the place of origin; in this case it will be Israel. Then there is the question of descendants and collateral descendants alive today, from the mtDNA via the female family line of Mary.

Hegesippus (born c. 110, died c. 180 AD) the Church historian and reputed Jewish convert, records that 'there still survived of the Lord's family, the grandsons of Jude, who was said to be his brother, humanly speaking'. Hegesippus also records Symeon, the son of Clopas, brother of Joseph, Symeon being a cousin of Jesus.¹⁵ The Gospels mention several brothers and sisters (or as the Latin Church believes, cousins – but note that Jerome translated the Hebrew, i.e. Aramaic Gospel using *frater/αδελφος* for where the Lord calls James 'My brother') whose genes may survive to this day in distant relatives. Then there is the ultimate question of course, descendants of the male Y gene of Jesus, which, however, may not exist, humanly speaking. No match may ever be found, but this is a mystery to be discovered.

The beta-globin gene segment has already been extracted along with the X and Y genes from blood specks taken from the Shroud.¹⁶ The validity of these signals can easily be verified by repeat tests. In the process, new data can also be extracted from other gene segments.

Now I come to the further possibility of a control for the DNA details already known, from an independent site: the Holy Sepulchre in Jerusalem. It is here that tradition places the Resurrection and the Shroud, and it is here that a report was made by Boniface of Ragusa after he had examined the uncovered tomb in 1555. Boniface states that he saw blood (*cruor*, blood from a wound) and burial spices in the rock-cut tomb.¹⁷ Of course there will be degradation of ancient blood to some degree, but the general conditions should retard total loss, e.g. burial preservatives, dry, stable, constant and a cool enclosed site, the Sepulchre is 2500 feet (762 metres) above sea level. If the 1555 account is accurate, then it will be possible to amplify the DNA from blood trace elements, and then compare the results with those from the Shroud. If there is a match, then this will prove beyond any doubt that the Shroud and the Tomb are authentic, and physically prove the Resurrection of Jesus, except to the intellectually blind of course. Forensic expertise at the opening of the Sepulchre will include detection for blood and complete screening to prevent contamination from such impulses as osculation etc.

I have already made contact with the Greek Church clergy who are amongst the principal guardians of the Holy Sepulchre, and they are now fully aware of the implications, especially as the Sepulchre is due to be exposed for examination in the near future. The blood of Jesus is on the Shroud, and comprehensive DNA tests will be momentous in what they reveal; and when the Holy Sepulchre is uncovered, more DNA may be found from the same source as the blood on the Shroud: from Jesus of Nazareth.

NOTES

1. Details in, *The Mystery of The Shroud*, documentary broadcast 31st March 2002, British television ITV. Also a report in *The Daily Telegraph* (London), “Shroud ‘has links to the Crucifixion’ ”, 29th March 2002
2. The Life of Daniel of Galash by Jacob of Serugh is in Syriac MS 235, Bibliothèque Nationale, Paris, folios 165r & 166r for the image of the Messiah. As this text is unpublished I have translated the important lines in, *Revue Internationale du Linceul de Turin*, (RILT) No. 11, Winter 1999, ‘The image of the Messiah and Daniel of Galash at Edessa’, pp. 20-3. There is a summary in French of the Life of Daniel by F. Nau in, *Revue de l’Orient chrétien*, vol. 15 (1910), pp. 60-2, introduction pp. 53-5, in his article ‘Hagiographie Syriacque’. Also on Daniel, Andrew Palmer, ‘Sisters, Fiancées, Wives and Mothers of Syrian Holy Men’, *Orientalia Christiana Analecta*, vol. 236 (1990), pp. 207-14; and ‘The inauguration anthem of Hagia Sophia in Edessa: a new edition and translation with historical and architectural notes and a comparison with a contemporary Constantinopolitan kontakion’, *Byzantine and Modern Greek Studies*, vol. 12 (1988), pp. 117-67. Sebastian P. Brock, *The Hidden Pearl: The Syrian Orthodox Church and its Ancient Aramaic Heritage*, Rome, 2001, vol. 2, pp. 122-5. See also Ian W. Dickinson, ‘New Evidence for the Shroud of Jesus’, *RILT*, No. 13, Summer 1999, pp. 2-11; and ‘New evidence for the image on the Shroud’ in *Actes du III^{ème} Symposium Scientifique International du CIELT-Nice 1997, Acheiropoietos “non fait de main d’homme”*, CIELT, Paris, 1998, pp. 113-7, colour pl. IV. (A usefully relevant article by S.P. Brock can be added here, though running to some different conclusions, ‘Transformations of the Edessa portrait of Christ’, *Journal of Assyrian Academic Studies*, 18:1 (2004), pp. 46-56.)
3. Han J.W. Drijvers, ‘The image of Edessa in the Syriac tradition’, in *The Holy Face and the Paradox of Representation*, Villa Spelman Colloquia vol. 6, ed. Herbert L. Kessler and Gerhard Wolf, Bologna, 1998, pp. 13-31. Apart from some wrong conclusions in this book, it is important for the history of the Edessa Image.
4. In the Greek text of John Moschus, see T. Nissen ‘Unbekannte Erzählungen aus dem Pratum spirituale’, *Byzantinische Zeitschrift*, vol. 38 (1938), pp. 351-76, on pp. 367-8. See also N.H. Baynes, ‘The “Pratum Spirituale” ’, *Orientalia Christiana Periodica*, vol. 13 (1947), pp. 404-14
5. A.A. Vasiliev, *History of the Byzantine Empire 324-1453*, Madison, 1952 ed., p. 255, reported in *Holy Shroud Office Journal*, No. 1, April 2001, pp. 15-6. However, I found the source in *The History of Theophylact Simocatta, An English Translation with Introduction and Notes*, M. & M. Whitby, Oxford, 1986 (p.73), and I have been collecting references to verify the Greek text, which late in the day, is also in E. Dobschütz, *Christusbilder*, Leipzig, 1899, pp. 127*-8*. The stone-throwing incident took place definitively in 588 AD. But even more important, there is another record in the same work, which describes in decisive detail (Whitby p.46) the: ‘image of God Incarnate, which tradition from ancient times even to the present day proclaims was shaped by divine wisdom, not fashioned by a weaver’s hands nor embellished by a painter’s pigment. It was for this reason that it is celebrated among the Romans even as “not made by human hand”, and is thought worthy of divine privileges: for the Romans worship its archetype to an ineffable degree.’ It was also stripped of its ‘sacred coverings’, this happened in 586 AD. It looks as if there are two more accounts of the Image of Edessa in the 6th century. Greek text, C. de Boor & P. Wirth, ed., *Theophylacti Simocattae Historiae*, Stuttgart, 1972, pp. 73-4 & 111. T. Olajos, *Les sources de Théophylacte Simocatta historien*, Leiden, 1988. And see

- Glanville Downey, *A History of Antioch in Syria, from Seleucus to the Arab Conquest*, Princeton, 1961, p. 555, n. 219, also pp. 553-4
6. Robert H. Hewsen, *The Geography of Ananias of Širak, The Long and the Short Recensions, Introduction, Translation and Commentary*, Wiesbaden, 1992, p. 71A, sec. 26, and p. 265 for n. 189A. However, I suspected the Armenian record here may be more exact, and requested Robert W. Thomson of the Oriental Institute, Oxford University, to check the Armenian text, which he kindly did: ‘In his translation Hewsen uses “icon” to render the Armenian patker. The latter is a word of wide meaning, “image” being perhaps a better rendering in English. Patker does not necessarily refer to a painted image, but could imply a portrait in general, or even a statue. In the New Testament it is the standard rendering of the Greek eikon. In the context of Urha, Anania (and all Armenians) would have been well aware of the famous portrait of Christ. In my translation of Moses Khorenats’i to which you refer, on p. 169 [=Book II, ch. 32] “the Saviour’s portrait from life” renders kendanagrut’iwn p’rkc’akan pakerin, which literally means, “living depiction of the saving image [patker].” “Living depiction, kendanagrut’iwn,” is an Armenian compound based on the Greek compound zo-grafia. In the passage of Anania “icon” seems reasonable. But it might be better to leave the English as imprecise as the Armenian, namely “image.” ’ / ‘You have a very good point. In Armenian there is no separate particle acting as a definite article. On the other hand, there is a threefold series of demonstrative suffixes: “s” for this near me; “d” for that near you; “n” for that over there – the last being generally used as an equivalent for “the.” In the passage in the shorter recension of the Geography the “n” is used. Therefore a proper translation would be “the image.” ’ / ‘The Armenian transliteration (in the standard REArm system) of the passage concerning the image runs as follows: Urha, ur anjeragorc patkern e p’rkc’in “Urha [Edessa], where the not-made-by-hand image is of-the-Saviour.” ’ Also on Ananias, R.H. Hewsen, ‘Science in Seventh-Century Armenia: Ananias of Širak’, *Isis*, vol. 59 (1968), pp. 32-45, and ‘Armenia According to the Asxarhac’oyc’’, *Revue des Études Arméniennes*, 1965, pp. 319-42; and *Armenia: A Historical Atlas*, Chicago, 2001. See *RILT* No. 13, n. 2 supra for Moses of Khoren.
 7. This text has been seized upon by Ian Wilson, *Shroud Newsletter*, No. 54, Nov. 2001, pp. 34-5, and he has interpreted the translation ‘incarnation’ to be an image of the ‘whole body’. However, the Syriac *mth(Heth)zynwt’* has been quite freely translated by Gewargis Sliwa and rather means ‘appearance’. So I contacted Sebastian Brock of the Oriental Institute, Oxford University, for his opinion, and he confirmed ‘appearance’ and points out that the literal meaning is ‘his visibleness’, ‘visible state’. I think ‘glorified appearance’ can only safely refer to the mysterious image of the face of Jesus in the portrait reliquary. This record is in, R. Duval, *Iso’yahb III patriarcha. Liber Epistolarum*, Paris, 1904, letter 22 in part 3, Syriac text p. 283, Latin trans., p. 205
 8. The reliquary was recorded at Constantinople, 1247 AD, in the cession document as ‘sanctam Toellam tabule insertam’. The description may of course have been repeated from earlier inventories in Constantinople, when the Shroud was once kept in this reliquary, see P.E.D. Riant, *Exuviae Sacrae Constantinopolitanae*, Geneva, 1878, II, p. 135. This reliquary casket is identified in an inventory of 1534 of the Sainte-Chapelle, Paris, as ‘La sainte trelle insérée à la table [où est la face de Nostre Seigneur Jésus Christ]’, see A. Vidier, ‘Le Trésor de la Sainte-Chapelle’, in vols 34-7 (1907-10) of *Mémoires de la Société de l’histoire de Paris et de l’Ile-de-France*, vol. 35 (1908), p. 190; and on pp. 191-2, ‘Et au regard du huitième article, contenant la trelle insérée à la table, après plusieurs difficultés, a esté finalement trouvée en un grand reliquaire et tableau garny d’argent surdoré, où y a apparence d’une effigie,

- ladite trelle comme consommée contre ledit tableau, autour, environ et dans ladite effigie'. (There have been some recent studies on Vidier's text, *Le trésor de la Sainte-Chapelle*, J. Durand, M.-P. Laffitte, and Louvre Museum, Paris, 2001; and 'A propos des reliques de la Passion à la Sainte-Chapelle', Emmanuel Poulle, *RILT*, No. 23, April 2002, pp. 12-18.) Ibid. p. 297, in an inventory of 1740, 'Une autre boette, de vingt deux pouces de long sur quinze pouces de large, aussy couverte de lames d'argent et garnye de quelques pierres précieuses; au de dans de la ditte boette, le fond est revêtu de lames d'or dans tout le contour, et dans le milieu est la représentation de la Sainte Face de Notre Seigneur, ou la Véronique'. 22 by 15 pouces = 23.38 x 15.94 inches (49.38 x 40.48cm), i.e. c. 23.5 x 16 inches (60 x 40 cm). Paris usage at the end of the 18th century, 'le pied-de-roi' = 12 pouces, i.e. 32.5 cm (12.79 inches), 1 pouce = 2.7 cm (1.06 inches); c. 3 inches (7.6 cm) depth is calculated from an engraving. Also the total thickness of 24 layers of Shroud cloth equals 350 µm x 24 = 0.84 cm (0.33 inches), say c. 0.5+ inches to allow for the seam and creases (there was no backing cloth), and that leaves plenty of recess in the reliquary to fit a panel and cover etc. For a clear print of the engraving of the Grande Châsse see S.J. Morand, *Histoire de la Sainte-Chapelle, Royale du Palais*, Paris, 1790, p. 40. The Shroud reliquary is No. 18 in the engraving, underneath the smaller cross on the altar, on the viewer's right. The Shroud was removed from this reliquary well before 1204, when it was taken to Athens by Othon de la Roche after the sack of Constantinople. See also Ian W. Dickinson, *Shroud News*, No. 74, Dec. 1992, pp. 3-14, and *RILT*, No. 13, n. 2 supra, and for how the Shroud was folded see, 'The Edessa Image and Pre-Lirey Folding of the Shroud', *Shroud News* (Runciman Press, Manly, Australia), No. 100, Feb. 1997, pp. 46-51, and *Actes ... Nice 1997*, p. 113, n. 2 supra. Re the wooden chest kept at Ray Castle, France. This is currently under research. Points in favour: it is kept where Othon de la Roche was connected, the dimensions fit the Shroud folded in 96 layers, the Castle tradition says the casket contained the Shroud. After a visit to Ray Castle (April 2002) with Michel Bergeret and César Barta, there is now a question mark. Following the examination, and a report from the Victoria & Albert Museum, London, the chest is partly identified from the mid-1400s, so the next step must be dendrochronology.
9. Dorothy G. Shepherd, 'An Icon of the Virgin; A sixth-century Tapestry Panel from Egypt', in *The Bulletin of The Cleveland Museum of Art*, vol. 56, No. 3, March 1969, pp. 90-120, gives a full account of the tapestry. The evidence that this is the same cloth icon mentioned by Arculf (Adamnan, *De Locis Sanctis*, Bk 1, ch. 10 (12)) continues to grow and a pollen test now needs to be done to locate this tapestry in the Jerusalem area. The Golden Ratio also applies to the Oviedo cloth in Spain. Assuming the dimensions of 85.5 x 52.6 cm are accurate, then this is the perfect rectangle of 1:1.618 of classical art. The 52.6 cm is an ancient cubit of c. 20.6 inches used in the Near East. This implies that the Oviedo cloth has remained unaltered since it was made; however, it has an untidy edge. There are two possible ways of proving the cloth as that mentioned in John's Gospel: 1. a DNA test; 2. to be explained elsewhere, and notwithstanding any C-14 test.
 10. Cf. Ian Wilson, *Holy Faces, Secret Places*, London, 1991, pp. 51-5, where we are told of the Holy Year of 1300, and of the 'Artists of Veronicas', and compare the similarity of the Mirabilia Romae copy of the Veronica, p. 69, with the Templecombe painting in Wilson's *The Turin Shroud: The Illustrated Evidence*, London, 2000, p. 116, where the caption claims the Templecombe painting as the 'prime clue' that the Templars may have owned the Shroud? For my details on the Veronica see *Actes ... Nice 1997*, n. 2 supra; and *Holy Shroud Office Journal*, No. 1, April 2001, pp. 4-7
 11. Research on the Shroud is inhibited and prevented by lack of access, and the few photographs of any quality for detail are not made available for research, such as that

- in cabinet 13 (in 2000) of the Shroud Museum in Turin. This explains a lot about the clandestine photography/scanning of the Shroud by the Turinese in Nov. 2000; see report in *RILT*, No. 21, Sept. 2001, p. 43; and www.shroud.com/latebrak.htm, June 27, 2001. (In the summer of 2002 more images were taken which clearly show a small 'relic' fragment of cloth removed from slip X, Fig. 4. Depending on the original edging thread, wherever that now is, it could be a pre- or post-1534 relic sample. Also, the light exposure record on the removed Holland cloth may give an indication. Scandalously, during the 2002 'restoration', the Shroud was damaged and important evidence lost, cf. Latin Church canon 1284 par. 2.1. For an inside account of this duplicitous 'restoration' see, *The Rape of the Turin Shroud*, by archaeologist William Meacham, 2005, ISBN 1-4116-5769-1.)
12. Giulio Ricci, *The Holy Shroud*, Rome, 1981, pp. 7-10. And see Anré Fage, 'The measurements of the Shroud', in *RILT*, No. 15-16, Winter 2000-1, pp. 29-30, French, pp. 15-6
 13. James Rose Macpherson, *The Pilgrimage of Arculfus in the Holy Land (About the year A.D. 670)*, Palestine Pilgrims' Text Society, London, 1895, p. 15, n. 1. Latin 8th-9th cent. MS, British Library, Cotton Tiberius D.V. (pars II) *Arculphi liber de locis santis*, folio 82v: 'mensuram longitudinis habens quasi octo pedes'.
 14. M.J. Oppert, 'Bull Inscription of Khorsabad', in *Records of the Past* (new series) vol. XI (1878), pp. 15-26, see p. 22, n. 1; for the full account see, 'L' Étalon des Mesures Assyriennes fixé par les textes cunéiformes', *Journal Asiatique*, Aug-Sept. 1872, pp. 157-77, and Oct.-Nov. 1874, pp. 417-86. Also, W.M. Flinders Petrie, 'Weights and Measures', Ancient Historical unit class value of 21.6 inches in *Encyclopaedia Britannica*, 9th-13th editions. - *Weights and Measures*, London, 1926, pp. 39-40, sec. 89, No. 10, for the Graeco-Roman cubit rod incised with 'Anouti'. - *Inductive Metrology*, London, 1877. - *Measures and Weights*, London, 1934
 15. In the work of Church historian, Eusebius, *The History of the Church*, Bk 3, chs 11, 19-20, 32 and Bk 4, ch. 22. If Jesus' brothers were not full brothers, then they would have been uterine brothers. The male members of the Lord's family will all carry the SRY gene, which controls gender; this gene resides on the Y-chromosome from the father, but not on the X-chromosome from the mother. Jesus received his Y-chromosome from the SRY gene, however that was created. (N.B. In Nov. 2002, news of the 'James' ossuary came to light. The ossuary contained bone fragments and a DNA test would tell if they are from the brother of Jesus. This also applies to the reputed bones of James in the Armenian cathedral, Jerusalem.) As it happens, Jewish DNA can carry dangerous mutations; there is Tay-Sachs disease among the Ashkenazi, with a high risk to offspring if both parents carry the gene. And another mutation brought to my attention by Gérard Lucotte, see his paper, 'Study of the Mutation M694V of Familial Mediterranean Fever in Jews', *Genetic Testing*, vol. 5, No. 1, 2001, pp. 53-6. This gene is inherited from biblical times by a percentage of Sephardic and Oriental Jews. So in theory there is a chance that a mutant gene may reside on the Shroud. However, switching from science to theology, as Jesus was able to heal, and raise the dead, I do not expect his DNA to carry this mutant gene. Indeed, it looks as if Jesus neutralised gene mutations in those he healed.
 16. Leoncio A. Garza-Valdes, *The DNA of God?*, London, 1998, p. 120-1. The results from chromosome 11 produced 268 base pairs, which is more than enough data to provide for a match, that is, there could also be more than enough recoverable bases on the Y-chromosome and mtDNA. (Victor and Nancy Tryon who did the test at the University of Texas Health Science Center in San Antonio, claim to have recovered hundreds of bases, but refuse to publish or supply the data. This is scientific duplicity and an insult to Prof. Giovanni Riggi who provided the sample for testing.)

17. Ian W. Dickinson, 'The Holy Sepulchre of Jerusalem: the Shroud could verify the site of the Resurrection', *RILT*, No. 20, May 2001, pp. 2-9. The full text of the report of Boniface is in F. Quaresmius, *Historica Theologica et Moralis Terrae Sanctae Elucidatio*, Antwerp, 1639, tome 2, book 5, ch. 13, Peregrinationis 2, pp. 512, cols a & b; 513 a, notes to p. 515a; there is also an interesting ch. 17 on the Shroud, pp. 529-541. There is an English version, with Latin text, of Boniface's report in *Ichnographiae Monumentorum Terrae Sanctae (1724-1744)*, E. Horn, 2nd ed., trans. by E. Hoade, Jerusalem, 1962, pp. 132-7. Extracts in, *The Finding of the Cross*, Louis de Combes, trans. L. Cappadelta, London, 1907, p. 34

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THE GOLDEN RECTANGLE 8:13

Fig. 1

Tapestry 'Icon of the Virgin', wool, 70.3 x 43.25 inches (178.5 x 109.8 cm), 6th century, probably from Egypt or Jerusalem; preserved Cleveland Museum of Art, Ohio. Bequest, 67.144

**DIMENSIONS OF THE SIXTH-CENTURY
TEXTILE ICON OF CHRIST AND MARY
DESIGNED TO THE GOLDEN RATIO
OF 1.618**

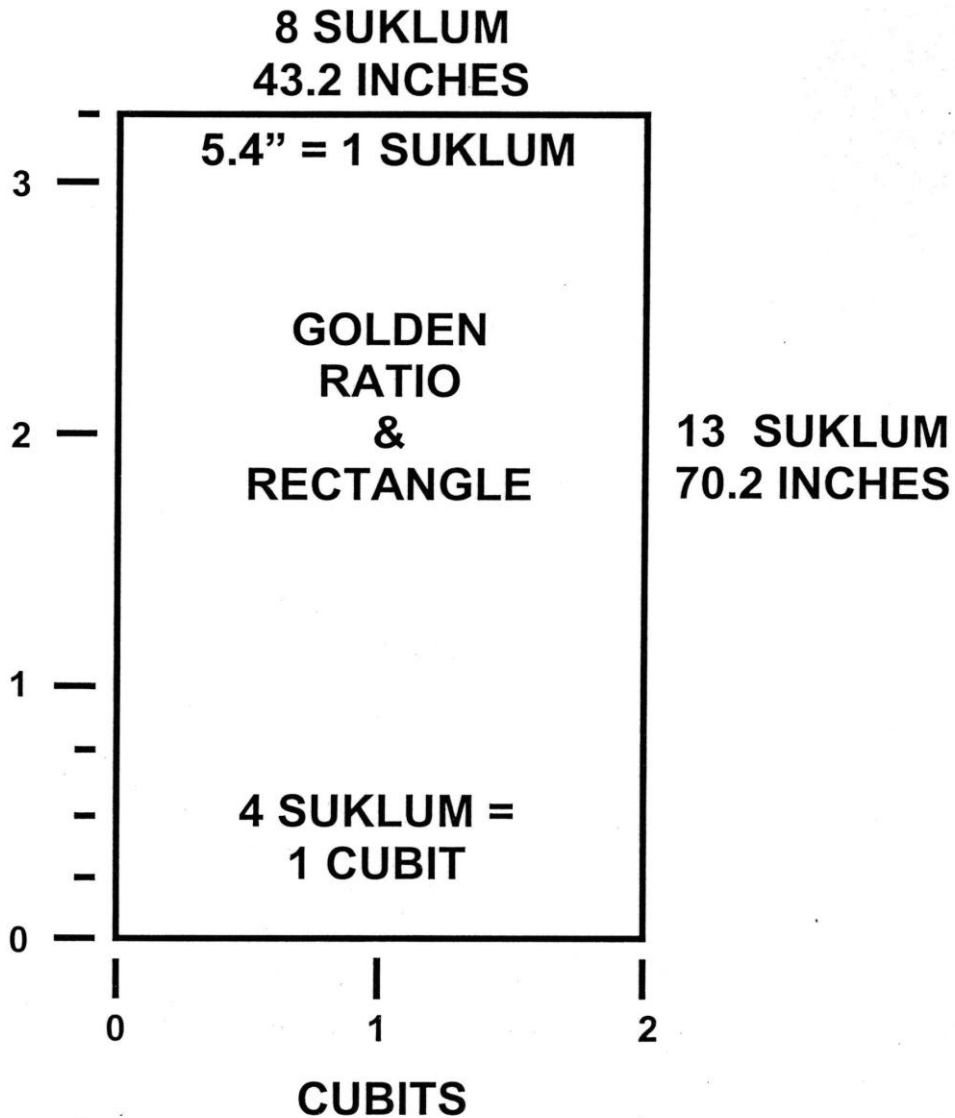


Fig. 2

THE GOLDEN SECTION. The dimensions in the diagram are based on the recovery of the original metrology using the cubit of 21.6 inches (54.8 cm) and suklum of 5.4 inches (13.7cm)

**EDESSA IMAGE OF CHRIST
THE GOLDEN SECTION: SHROUD FOLDED
FOR RELIQUARY CASKET OF STE-CHAPELLE
PARIS**

SHROUD FACE	IN	DIVINE	RATIO	1.618
IN				
GOLDEN				
RECTANGLE			21.6 INCHES	
OF			4 SUKLUM	
CLASSICAL			1 CUBIT	
ART				
IN		c. 13.5 INCHES		
ANTIQUITY		2.5 SUKLUM		
		c. 1 THIRD OF 2 CUBIT WIDTH		

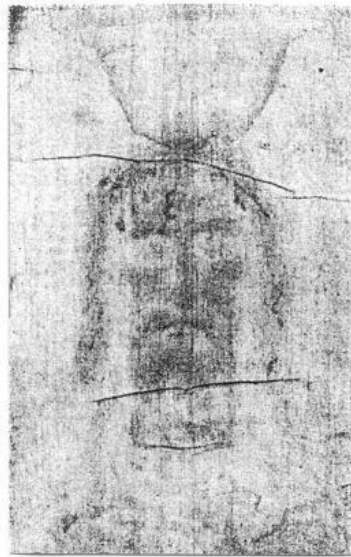


Fig. 3

The Shroud folded to the Divine Ratio – the Golden Section, and known as the Edessa Image of Christ during the first millennium. The reliquary was obviously constructed to display the traditional portrait. This is also the most practical way of folding the Shroud for displaying the face and for conserving the Shroud in an appropriate reliquary container: there would be no folding across the face, and no need to unfold the Shroud to see the face. It can be observed that copies of the Edessa Image with gold plate insets, such as at Genoa and the Veronica copy at Vienna, reveal the Golden Section.

SHROUD FRONTAL CORNER

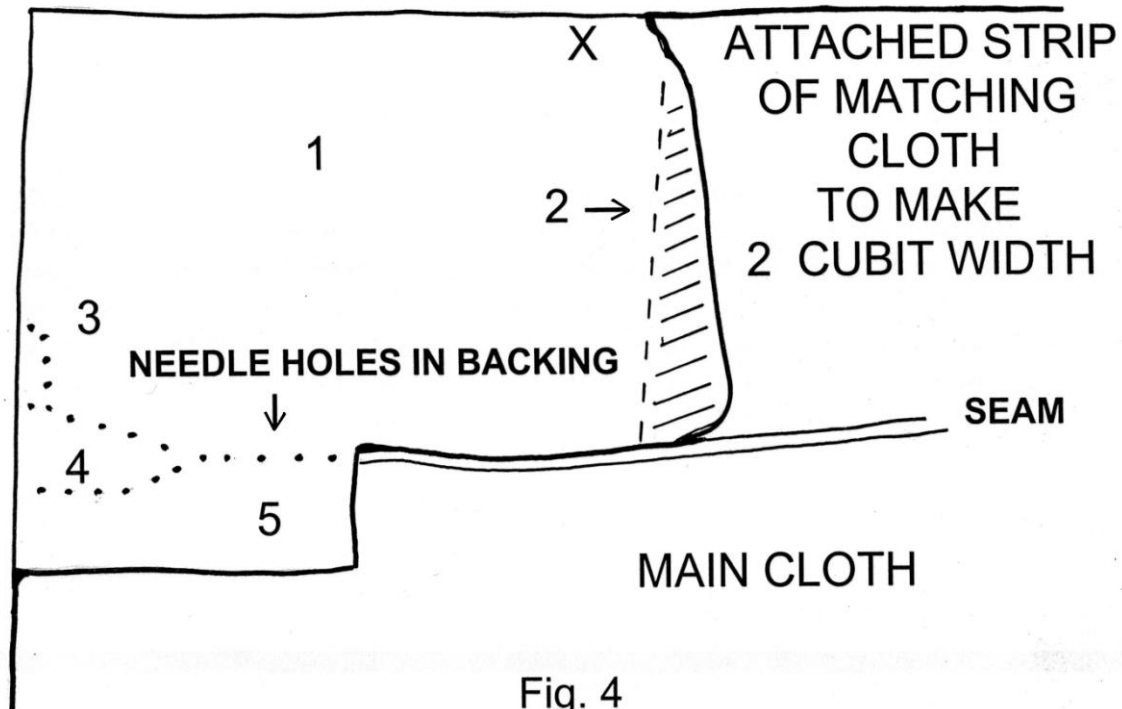


Fig. 4

Area 1*: Removed (possibly all) before 1534, when the Holland backing cloth was attached, status: relics, location unknown. Area 2: Removed definitely after 1534, status: relic, location unknown. Area 3: Removed between 1931 and 1969, status: relic or 'souvenir', location unknown, but probably in Italian hands. This cloth peninsula, together with the slip X, were both deliberately left on the Shroud to indicate the line of the original cloth, and to show that a section had been removed. Area 4: Removed in 1973, status: technical sample, location Turin. Area 5: Removed in 1988, status: sample for C-14 test, remainders in Turin and small fragments elsewhere.

* Approximately 3 x 6 inches, not to scale



Fig. 5

Frontal image corner of the Shroud showing the area '2' removed after 1534. Photograph taken in 1978 before the C-14 sample was removed; digital copy kindly provided by Vernon Miller.