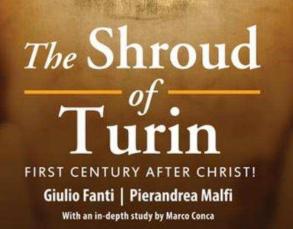
Prof. Giulio Fanti, Padua University

NUMISMATIC DATING OF THE TURIN SHROUD THROUGH THE ANALYSIS OF BYZANTINE COINS





OVERVIEW

Aim of this work is to understand if the close similarity of the Christ's face of the Byzantine coins with the TS image is sufficient to state that the TS was seen starting from 692 A.D.

- **1. INTRODUCTION**
- 2. ICONOGRAPHY OF CHRIST'S FACE
- **3. FIRST COINS OF CHRIST**
 - Commemorative coins
 - TS-like coins before iconoclastic struggles
 - TS-like coins after iconoclastic struggles
 - Coins not similar to the TS
 - Non TS-like coins
 - Coins showing the Manylion
- **4. PECULIAR DETAILS**
 - Christ enthroned
 - Left feet tiled
 - Wounds on forehead and swollen eyebrow

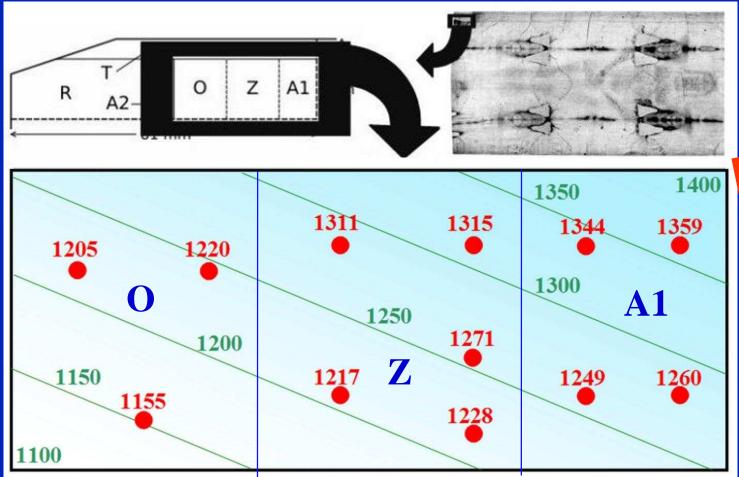
- wounds on forehead and hair interpreted ad locks of hair
- Detached hair
- No ears
- Beard
- Crooked nose and long left hair
- Tears and "T" shaped eyebrows
- Christ Antiphonetes
- **5. POBABILISTC ANALYSIS (ONE COIN)**
- 6. QUANTITATIVE ANALYSIS OF THE FACE OF CHRIST
- 7. CHRIST'S FACE IN THE WORLD
- 8. NUMISMATIC SYSNTHESIS
- 9. CONCLUSION

From the left Justinian II (692-695 A.D.), Basil II (976-1025 A.D.) and Costantine VII with Romanus (949-959 A.D.).



1988 Radiocarbon Dating of the Turin Shroud 3 samples from Arizona, Oxford, Zurich have been dated: age=1325 A.D.

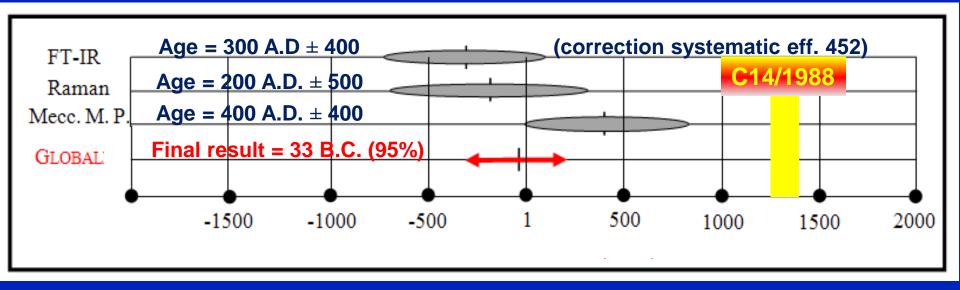
The statistical analysis at 95% confidence level furnished: uncertainty= ±65 years (wrong and a trend seems evident).





4

Alternative dating.



Result of chemical and mechanical analyses: 33 B.C. ±250 years



INTRODUCTION Council in Trullo or Quinisext (692 A.D.)

The Quinisext Council or Trullan was held in 692 A.D. under Justinian II.

"Thou shalt not paint a lamb for the type of Christ, but himself." (Canon eighty-second.) Jesus Chrish had therefore to be represented as Himself BUT without the signs of His Passion.



(Image from http://www.johnsanidopoulos.com/2015/03/christianperfection-and-mystery-of_20.html)



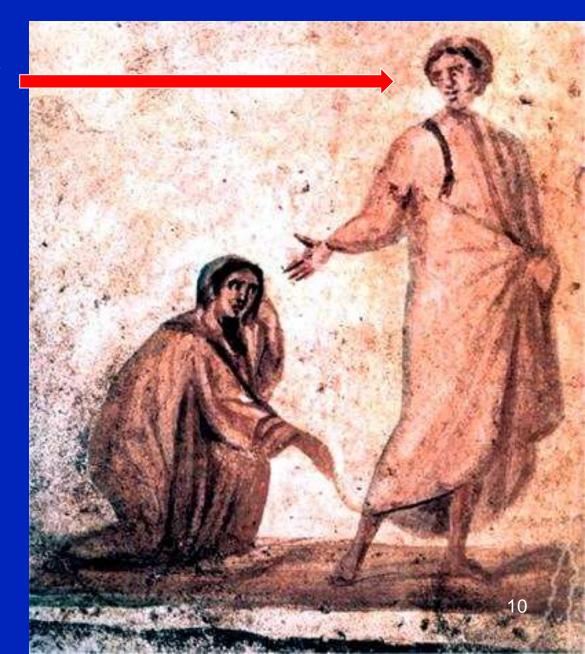
Byzantine monetization:

Period	Gold coins	Silver coins	Bronze coins
First (310 – about 700)	Solidus Semisse (1/2) Tremisse (1/3)	Hexagram or double Miliarensis (from 615)	Follis And others
Second (about 700 – 1092)	Solidus, Nomisma or Histamenon. Tetarteron	Miliarensis (from 720)	Follis
Third (1092 – about 1300)	Hyperpyron	Elettrum or Aspron trachy (gold alloy)	Aspron Trachy Tetarteron and Half Tetarteron
Forth (about 1300 – about 1350)	Hyperpyron	Basilikon	Aspron Trachy Assarion
Fifth (about 1350 – 1453)	//	Stavraton half- stavraton Doukatopoulon	Tournesion Follaro Aspron (silver alloy)



Before the discover of the Turin Shroud, in the first centuries, Jesus Christ was depicted beardless with short hair.

Hemorrhaging woman touches Christ. Catacombs SS. Peter and e Marcellin, Rome III century A.D.



«Syriac» or «Semitic» Crist.

Jesus Christ was depicted with curly hair.

Abu-Girgeh Egypt, VI Century A.D.

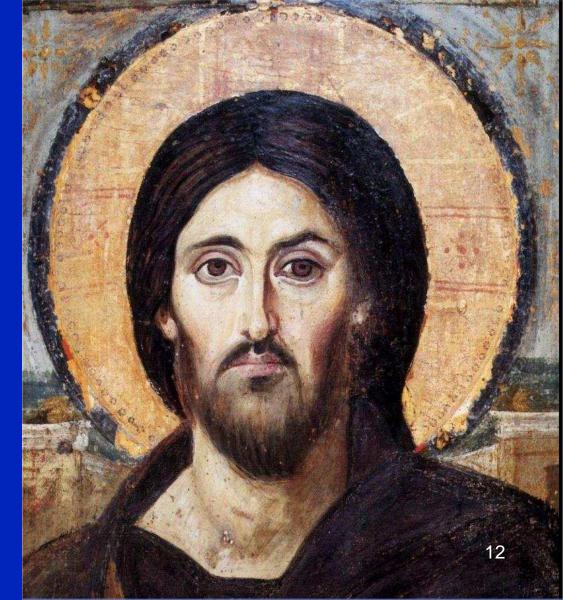
J. Breckenridge http://numismatics.org/digitallib rary/ark:/53695/nnan99732



After the discover of the Turin Shroud Jesus Christ was depicted with long hair and beard

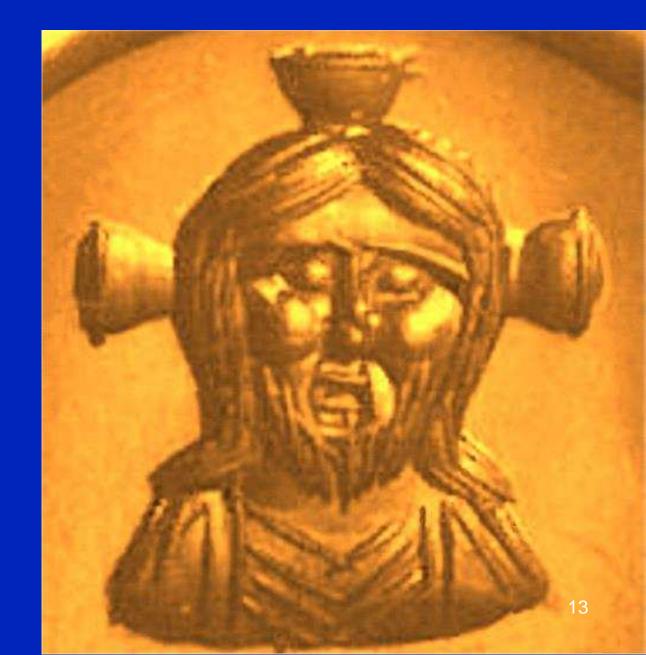
(note the left hair longer than right ones that mixes with te dress).

Christ pantocrator, St. Catherine Monastery at Sinai, VI century A.D.



Jesus Christ on a cameo, VI century A.D.

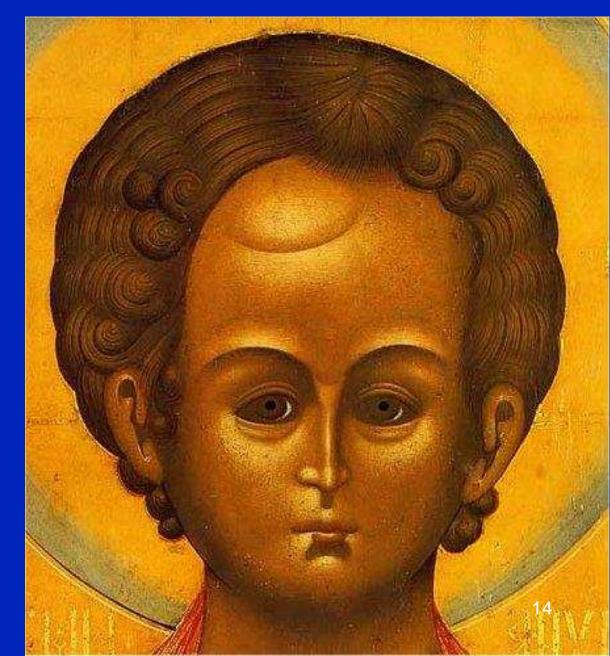
property of Lanckoronoski family, discovered by Traudl Wally.



Example of icon of Christ Emmanuel,

State Museum of Palekh Art. M .: Progress, 1994.

http:/www.iconart.info/hires.php?Ing=ru&type= 1&id=3206



Example of Mandylion, Genova, Italy.

Example of Mandylion on a Russian medal of Nicholas I, 1839 15 «Triumph of Orthodoxy».

0.3 GOLDATATA

3. FIRST COINS OF CHRIST

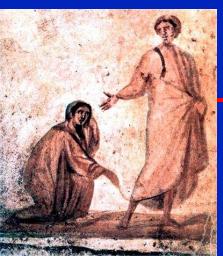
Commemorative coins
TS-like coins before iconoclastic struggles
TS-like coins after iconoclastic struggles
Coins not similar to the TS
Non TS-like coins
Coins showing the Manylion



FIRST COINS OF CHRIST - Commemorative Golden wedding solidus minted at Thessalonica of Licinia Eudossia & Valentinian III, 437 A.D.













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FIRST COINS OF CHRIST- Commemorative Golden wedding solidus of Marcian and St. Pulcheria, July 28, 450 A.D.













© The Hunterian, University of Glasgow 2013.

18

FIRST COINS OF CHRIST – TS-like



Golden solidus of the first period of Justinian II, 692-695 A.D. minted just after the Trullan Council (82° canon: no Lamb but Man). Inscription: «Jesus Christ King of Rulers» ¹⁹

SHROUD-LIKE COINS OF CHRIST–Different officinae



Silver hexagram of Justinian II, I period 692-695 A.D.





The various engravers, while reproducing the TS, highlighted different details that most affected them, for example lack of ears.





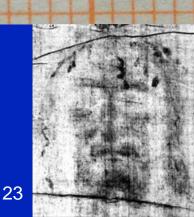


Golden solidus of Michael III (with Teodora), 843-856 A.D.





Golden solidus of Michael III, 856-867 A.D.









Histamenon nomisma of Costantin VII and Romanus (949-959 A.D.)

The TS was triumphally taken to Costantinople in 944 A.D.²⁴









Histamenon nomisma of Constantine VII and Romanus (920-944 A.D.): tears are visible.



25





Golden histamenon nomisma of Basil II, 976-1025 A.D. No ears.

26





Golden histamenon nomisma of Basil II, 976-1025 A.D. Right eyebrow: swollen (or bloodstain?); no ears.





Golden histamenon of Romanus IV (1068-71 A.D.) No ears and non-symmetric hair.





Golden histamenon of Romanus IV (1168-1171 A.D.). Christ with emperor and Eudocia. Identification writing: «IC XC» On the opposite side Michael, Costantine and Andronicus.



Various faces of Christ on golden histamena of Basil II, 976-1025 A.D.





Other faces of Christ less similar to the TS on the golden coins of Constantine VII & Romanus (945 A.D.), Basile II & Costantino VIII (976-1025 A.D.).

The shape of the left hair is a recurrent feature.31

NON TS-LIKE COINS – Syrian Christ



Gold solidus of Justinian II,



«Syrian» Crist, Abu-Girgeh Egypt, VI Century A.D. J. Breckenridge http://numismatics.or g/digitallibrary/ark:/5 3695/nnan99732

II period, 705-711 A.D.

For comparison



COINS NOT SIMILAR TO THE TS - Christ with "wet beard"

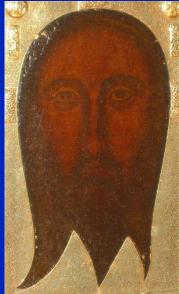


Golden histamenon of Michael VII (1071-1078 A.D)

Below: Genova Mandylion about 1000 A.D.



The long pointed beard is typical of Russian icons and this is an allusion to the fact that Christ is said to have washed his face before sending His portrait (Edessian image) to king Agbar.



COINS NOT SIMILAR TO THE TS – Christ with "wet beard"

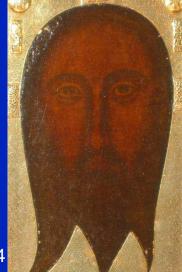




Again long «wet» beard.

Golden histamenon Michael VII (1071-1078 A.D)

Below: Genova Mandylion about 1000 A.D.



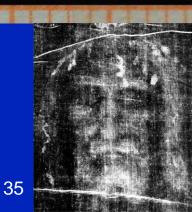
NON TS-LIKE COINS – Christ with His Mother

- mere

DEDOZIES

OEISSEE

Silver miliaresion of Basil II (976-1025 A.D.), Mother of God with 3 stars of virginity: before, during and after birth.



NON TS-LIKE COINS – Christ Emmanuel





Hyperpyron, Manuel I, 1143-1180 A.D. Christ Emmanuel beardless.

> Example of icon of Christ Emmanuel.



NON TS-LIKE COINS – Christ Emmanuel





Example of icon of Christ Emmanuel. 37

Aspron trachy, Alessius II, 1195-1203 A.D.

Christ beardless.





COINS OF CHRIST – Mandylion

Testone, Urban VIII, Vatican, Holy Year 1625 A.D.

MA



4. PECULIAR DETAILS OF CHRIST'S COINS

- Christ entroned
 - Right feet tiled
- Swollen eyebrow
- Wounds on forehead
- Wounds as locks of hair
 - No ears

- Detached hair
- Right shoulder lowered
 - Beard
 - Crooked nose
 - Long left hair
- Tears and "T" shaped eyebrows
 - Christ Antiphonetes

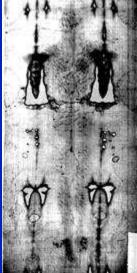


PECULIAR DETAILS - Christ entroned - right foot



Gold solidus of Basil I with Constantine, 867-886 A.D.

The naked right foot smaller and tilted, in agreement with the appearance on the TS, reproduces «Lame Christ» as is reproduced on the Orthodox Cross.



4(

PECULIAR DETAILS - Christ entroned - right foot

Golden histamenon of Romanus I with Cristophore, 921-931 A.D. The right foot is tilted and smaller (Lame Christ). The left hair are thicker and longer. 41



PECULIAR DETAILS - Christ entroned - right foot



Gold histamenon of Romanus III, 1028-1034 A.D. The right foot is again tilted.

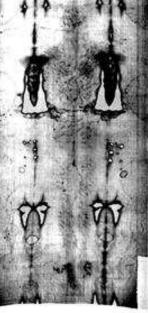
The emperor is crowned by the Mother of God. 42

PECULIAR DETAILS: left foot tilted



Golden solidus of Constantine VII & Romanus I, 913-959 A.D.

On this coin it is not the right foot tilted but the left one (as it should be in reference to the TS). 43

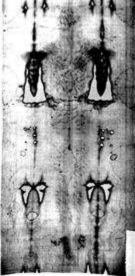


PECULIAR DETAILS: left feet tilted



Follis of Eudocia & Constantine X, 1059-1067 A.D.

Also on this coin it is not the right foot tilted but the left one.



47

PECULIAR DETAILS - swollen eyebrow.





Golden histamenon of Romanus III, 1028-1034 A.D.

(Again naked and tilted right foot.)

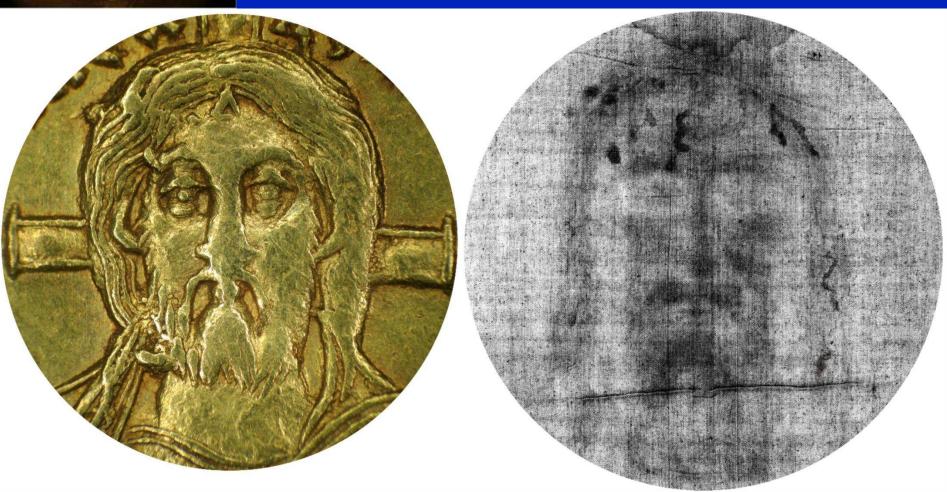
PECULIAR DETAILS: wounds interpreted as locks of hair



46

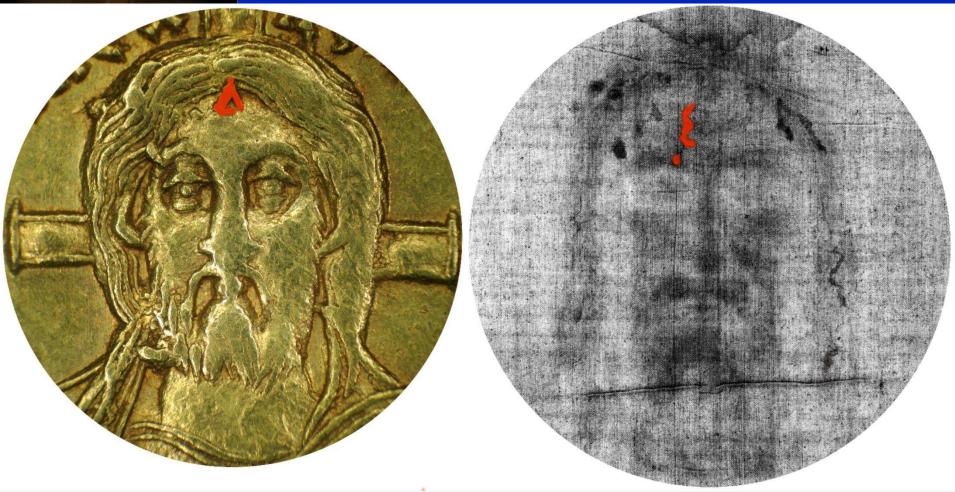
Golden solidus of Justinian II, I period, 692-695 A.D. (Also a swollen eyebrow is evident.) A detailed presentation follows.





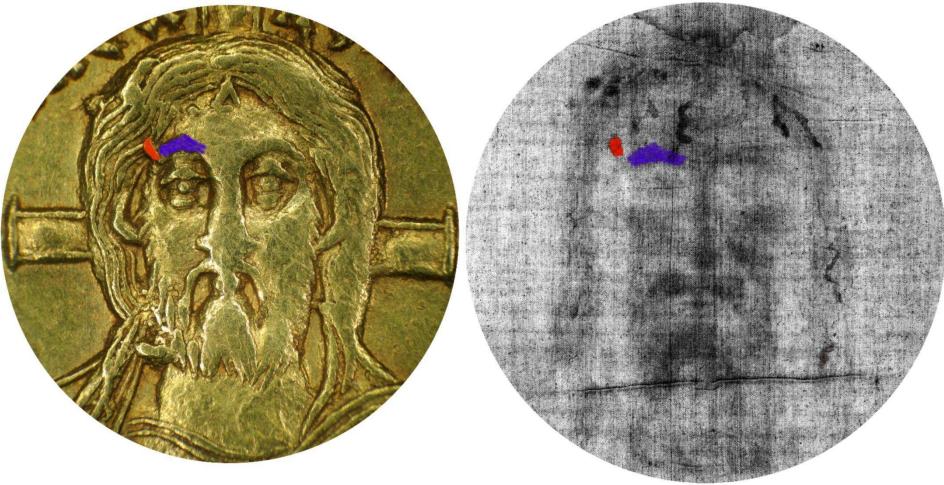


Tuft of hair: ascetained

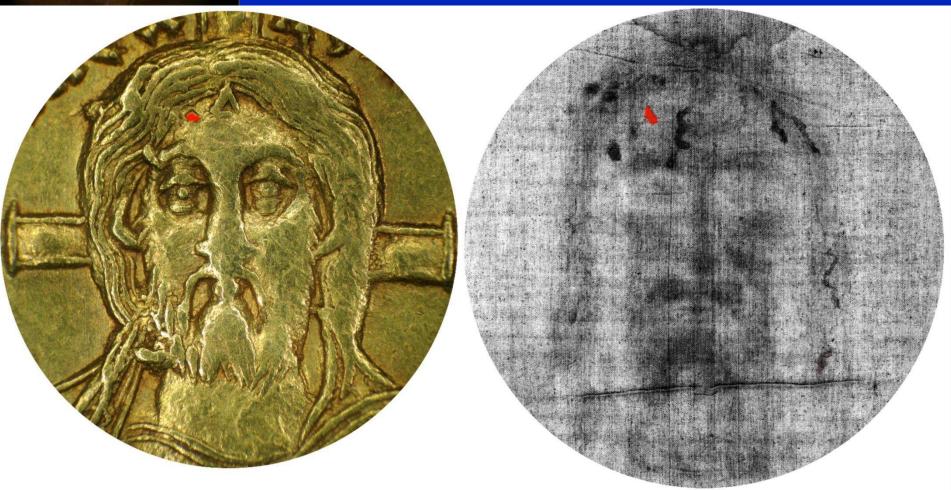




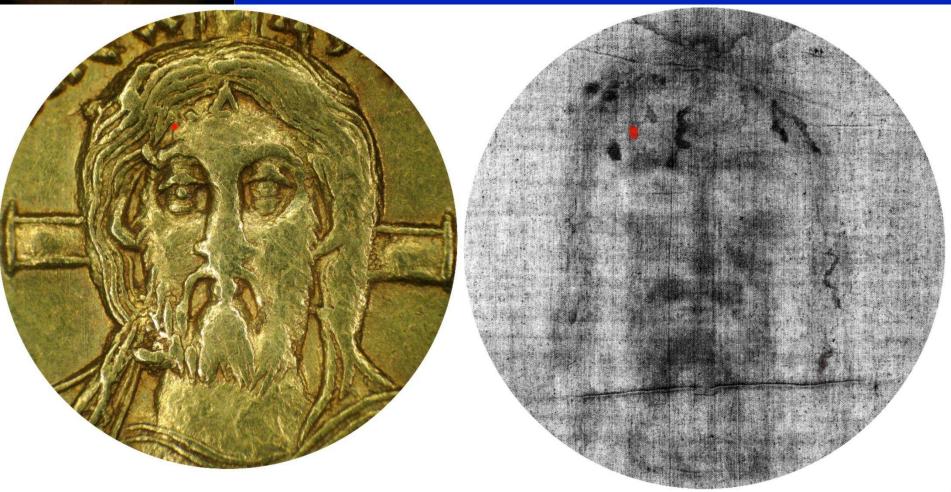
Tuft of hair with shape of eyebrow



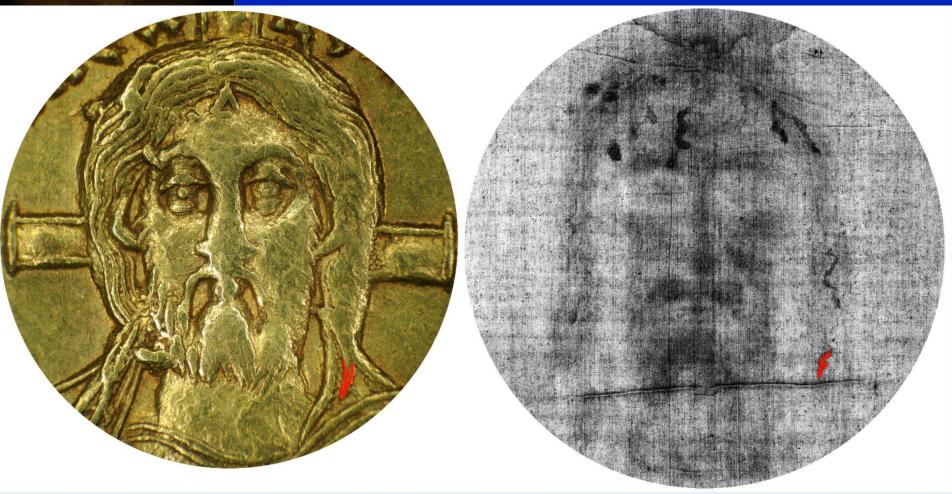




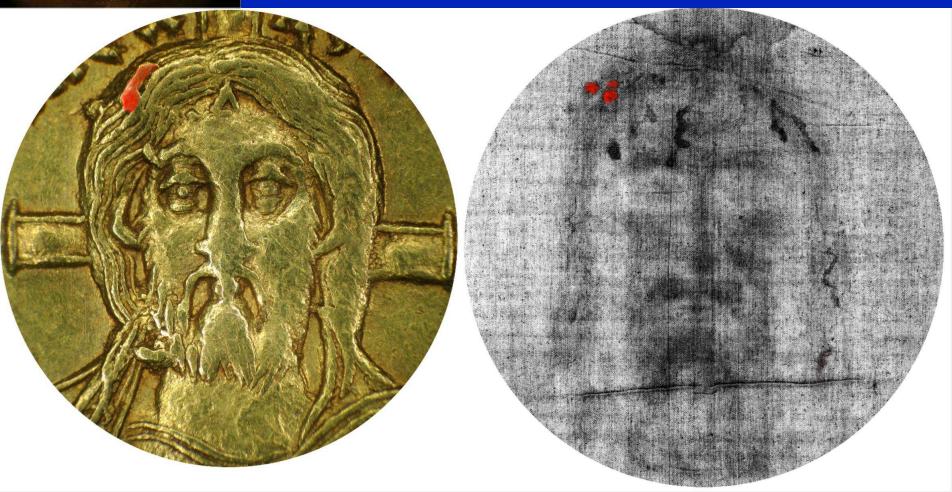






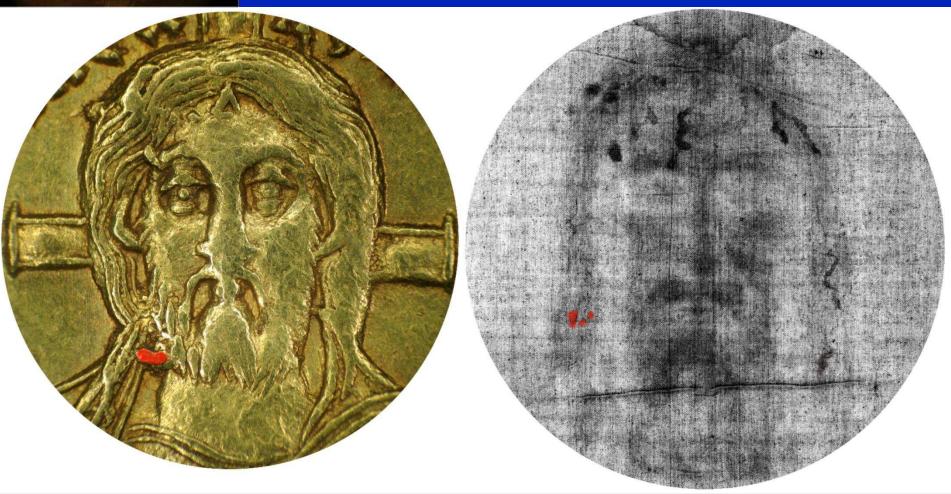








Not sure wound



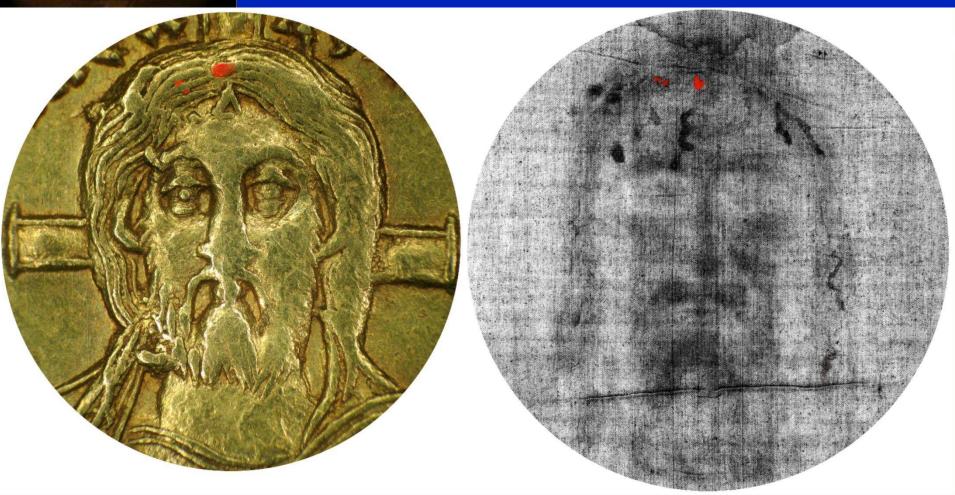


Possible wound if an ear is excluded



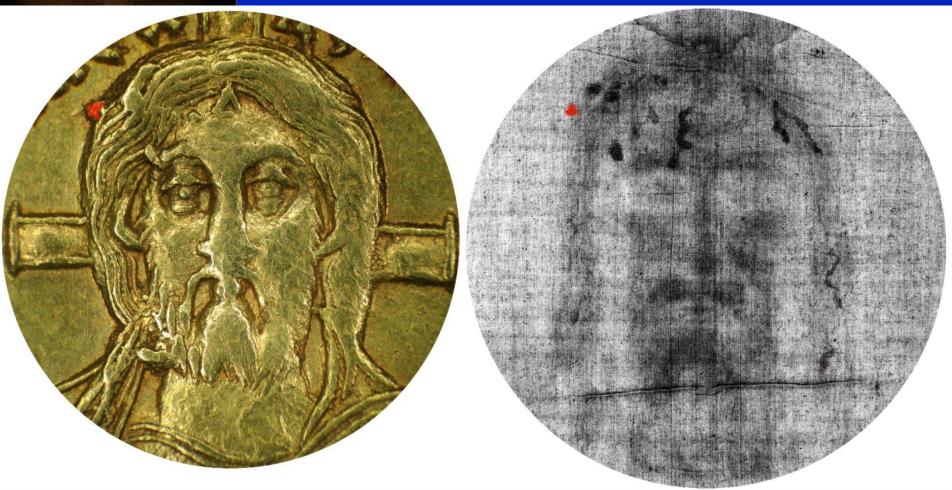


Possible wounds



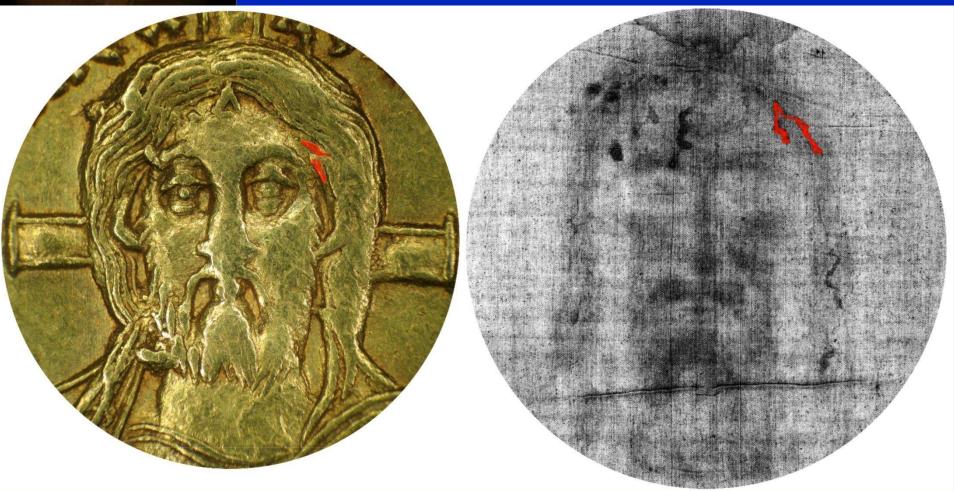


Possible wound



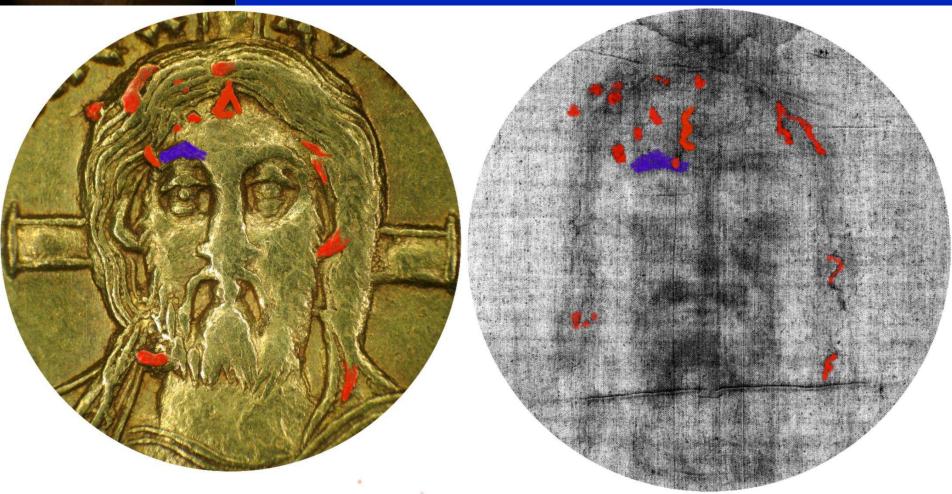


Possible wound





All the wounds



PECULIAR DETAILS: no ears





Golden tremissis of Justinian II, I period, 692 A.D.

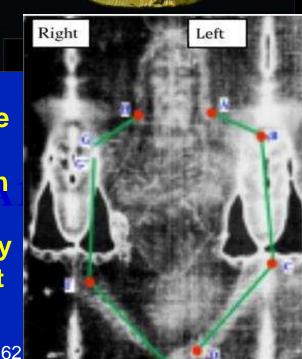
PECULIAR DETAILS: detached hair



Golden solidus of Justinian II, I period, 692 A.D.

PECULIAR DETAILS: right shoulder lowered

In agreement with the dislocation of the right arm detected on the TS, the right shoulder is frequently lowered with respect to the left one.



PECULIAR DETAILS: beard and lower lip.



Golden solidus of Justinian II, I period, 692-695 A.D.

Also gap in the beard below the lower lip and a protruding lower lip, typical of the TS image are evident.

PECULIAR DETAILS: crooked nose Golden solidus of Justinian II, I period, 692-695 A.D.



Skew nose (like the TS) probably due to a stick shot (on the top) compared with (on the left) a shock on the coin.



64

PECULIAR DETAILS: long left hair Solidus of Constantine VII & Romanus (945-959A.D.) and bronze follis of John I (969-976 A.D.)



The longer left hair is evident. This non-symmetry was partially hidden by some of the first engravers that preferred to embellish the face by confusing the left hair with the dress collar.

65

PECULIAR DETAILS: tears & "T" shaped eyebrows





Golden solidus of Constantine VII & Romanus, 945-959 A.D.

(and swollen right cheekbone on the right)



PECULAIR DETAILS - Christ Antiphonetes

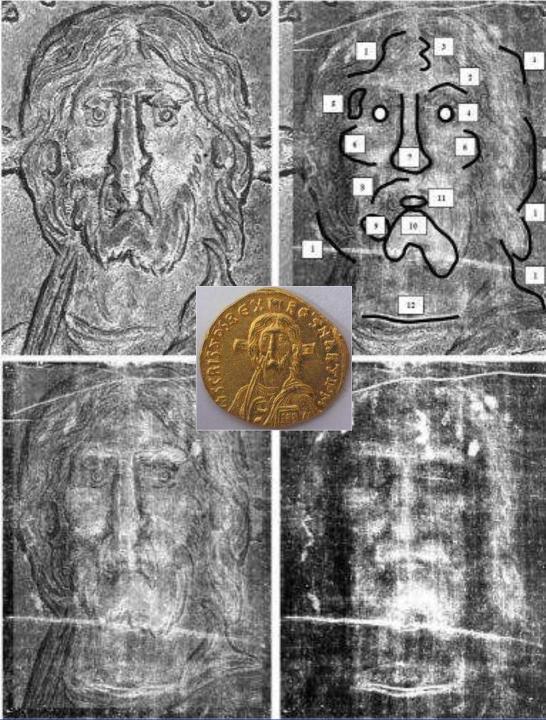


67

Follis representing the icon of Christ Antiphonetes (a famous icon of the Byzantine empire now lost) struck under Michael IV, 1034-1041 A.D.

5. POBABILISTC ANALYSIS APPLIED TO ONE COIN





Costantinople: solidus of Giustinian II - 692 A.D.

- -1. Hair and asymmetries.
- -2. Left eyebrow more arched.
- -3. "reverse 3" wound.
- -4. Close big eyes.
- -5. Contusion near right eye.
- -6. Pronounced cheekbones.
- -7. Elongated nose.
- -8. Long moustaches.
- -9. Ripped beard on the right.
- -10. Bifurcated beard.
- -11. No beard under mouth.
- -12. The same shape of the fold under the neck as the edge of the garment.

Image independence: 7 probabilities over a billion billion!

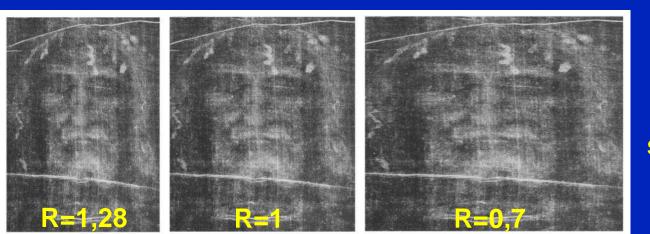
6. QUANTITATIVE ANALYSIS OF THE FACE OF CHRIST



QUANTITATIVE ANALYSIS OF THE FACE OF CHRIST



Parameters for comparison: Ratio between nose length and eyes distance.

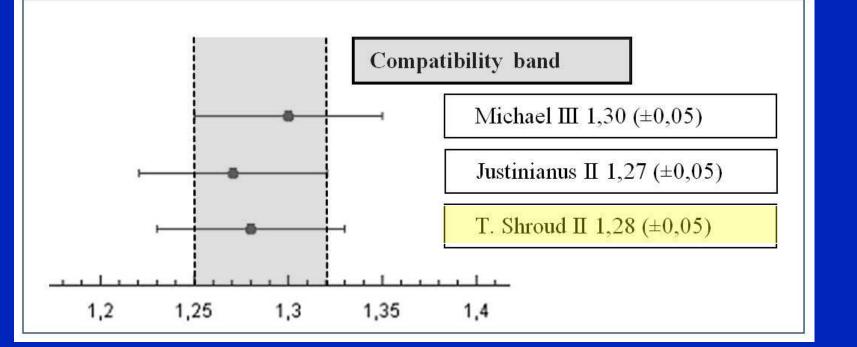


EXAMPLE: the real TS face is compared with the same face distorted.

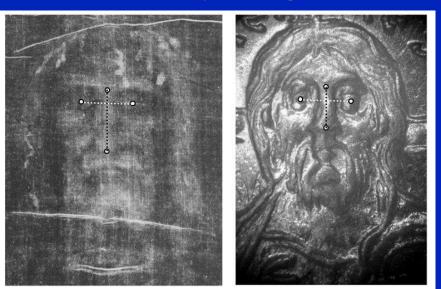
R ratios = nose/eyes length in some faces of Christ, uncert. in the ratio = $\pm 0,05$.

Face picture	Description: emperor & date	Nose/eyes ratio	Notes	Face picture	Description: emperor & date	Nose/eyes ratio	Notes
	Shroud	1.28	Control image		Basil II and Constantine VIII 976–1025	1.20	Probable direct observation
(Art)	Justinian II Period I I mintage 692	1.27	First direct observation		Basil II and Constantine VIII 976–1025	1.13	Beginning of features deterioration
	Justinian II Period I I mintage 692	1.20	First direct observation Different mintage	GEN.	Romanus III 1028–1034	0.80	Features deterioration
	Justinian II			- (1- p-	Michael VII 1071–1078	0.82	Features deterioration
	Period I II mintage 693–695	1.06	Copy from the first mintages	(A)	Manuel I 1143–1180	0.63	Further features deteri- oration
E.	Justinian II Period I last mintage 695	0.87	Copy from the first mintages	623	Guglielmo I from Palermo 1154–1166	0.71	Features deterioration
(2)	Michael III 865-867	1.30	Second direct observation		Republic of Dubrovnik (Ragusa)	1.09	Resume of some features
(?)	Basil I and Constan- tine 867–886	0.86	Copy from other mintages: deterior image		Lorenzo Tiepolo Republic of Venice 1268–1275	0.85	Features deterioration
Com	Romanus I and Christophorus 921–931	1.00	Copy from other mintages: deterior image	100)	Stefan Uros Serbia 1268–1275	0.87	Features deterioration
	Constantine VII		Third direct obse		T. Svetoslav Bulgaria 1300–1322	0.60	Further features deteri- oration
	and Romanus 944	1.20	tion, Shroud arriv Constantinople		Manuel II Byzantium 1391–1423	0.80	Features deterioration

QUANTITATIVE ANALYSIS OF THE FACE OF CHRIST



R ratios = nose/eyes length in some faces of Chris, uncertainty in the ratio = $\pm 0,05$.



The compatibility of the ratios among the images of Christ with that of the TS demonstrates that it was seen from 692 A.D. 73





- Armenian Georgia with Rusudan (1223-1245);
- Anatolia Mesopotamia with Fakhr al-Din Qara (Kara) Arslan (1144-1174);
- Kiev with Vladimir I (980-1015)
- Venice (1192- ... 1800 ca.)
- Bulgaria (1100 ca.)
- Palermo Ruggero II (1130-1140)
- Denmark Sweyn II (1130-1140)

Christ's depictions are less refined but conform to Byzantine canons.

CHRIST'S FACE IN THE WORLD

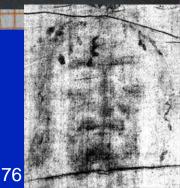
Coniage with the faces of Christ and/or Christ on throne in the period * 1000-1300 A.D.

Venice continues in the centuries with Resurrected Christ and with "Almond Christ" 75



Byzantine empire under Manuel I, 1180 A.D.

Principality of Russia – Kiev, Vladimir I (980-1015) representing the Christ's face. «T» shape of the eyebrows.



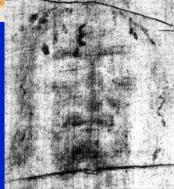


Silver ducat of Roger II (Palermo, 1130-1140 A.D.) showing the face of Christ.



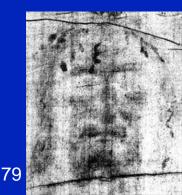


Follaro of Roger II (Messina 1105-1154 A.D.) showing the face of Christ. Arabic influence is evident.



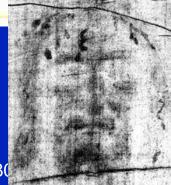


Count of Edessa, Joscelin I de Courtenay (1119-1131). Bust of Christ. It shows the cult still active in memory of the Shroud there a time preserved.





Tancred, Antioch Principality (1104-1112). Bust of Christ.





Danish silver penny, Sweyn II Estridsson Ulfsson (1130-1140 A.D.) showing Christ on throne.



BYZANTINE INFLUENCE IN THE WORLD



Venetian grosso of Enrico Dandolo (1192-1205 A.D.) showing Christ on throne with evident Byzantine features.



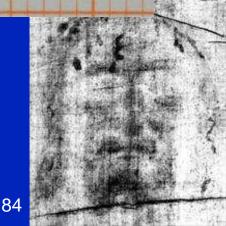


Bronze dirham. Artqids state Amid & Kaifa of Fakr al-Din Qara Arslan. (1144-1174 A.D.) Face of Christ. 83



Bezant «base gold scyphate» of Henry I of Lusignan, Cyprus (1218-1253 A.D.).

Christ on throne.





Golden Hyperpyron of Michael VIII of Nicea(1272-1282 A.D.) showing Christ. Constantinople walls with the Mother of God on the obverse.



Silver coin of Rusudan, Georgia, (1223-1245 A.D.).

Bust of Christ with the Gospels.





Silver coin of Levon I, Armenia, (1198-1218 A.D.).

Christ with the king.



Danish penny, king Sweyn II Estridsson Ulfsson, 1130-1140 A.D. Christ on throne. 88

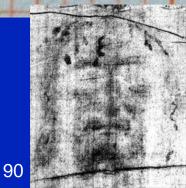


Grosso or Dinar of Stefan Uros II Milutin, Serbia (1282-1321A.D.)

Christ with a TS-like detached hair from face.



Venetian mezzanino of Andrea Dandolo (1343-1354 A.D.). Resurrected Christ with a Shroud-like face.



Venetian zecchino (or ducat) of Francesco Foscari 1423-1457 showing «Almond Christ»

or «vesica piscis» which both alludes to the fruit of almond and seed in general, attributed to Him who is "the Way, the Truth and the Life." It also refers to Christ as the intersection of two circles, thus a means of communication between the spiritual and the material world. 91



Grosso, Balcan Republic of Ragusa, 1284-1372 A.D.

A REAL PROPERTY AND IN COMPANY

Christ with a Shroud-like face.



Grosso, Theodor Svetoslav, Bulgaria, 1300-1322 A.D.

Christ on throne.





Grosso, Ivan Alexander, Bulgaria 1331-1371 A.D. Christ standing facing full-length, blessing with two hands.



CHRIST'S FACE IN THE WORLD: up to now



Austria, 500 shillings for the 2000 Jubilee. The face of Christ still has a weak Byzantinesindonic reminescence (for example long wavy hair, but now symmetric).

8. NUMISMATIC SYSNTHESIS



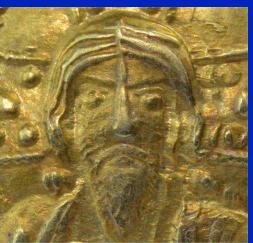
- In 450 A.D. (Marciano-Pulcheria), the Byzantine Empire did not know the Shroud.
- From 692 A.D. (Justinian II) the Empire demonstrates that the Shroud was visible.

- The representation of Christ is then deteriorating over time.
- From the entrance to Constantinople of the TS (Constantine VII) in 944
 A.D., the numismatic image of Christ is enriched with sindonic details and spreads to the world.
- Even after the fall of Constantinople in 1204 A.D. the sindonic image continues in European numismatics, especially in the Venetian Republic.
- Even today (e.g. Austria 2000) there are still traces.



Marcianus & Pulcheria wedding 450 A.D.

> Michael VII 1071 A.D



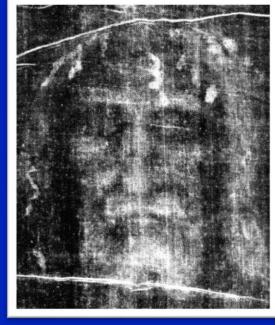
Different Christ's faces



Justinian II I p. 692 A.D.

Justinian II II p. 705 A.D.





Turin Shroud

Manuel I 1143 A.D



9. CONCLUSION: image of Christ

Certainly from 692 A.D., the Byzantine Empire knew the Shroud and its image of Christ was taken as a numismatic model up to these days.

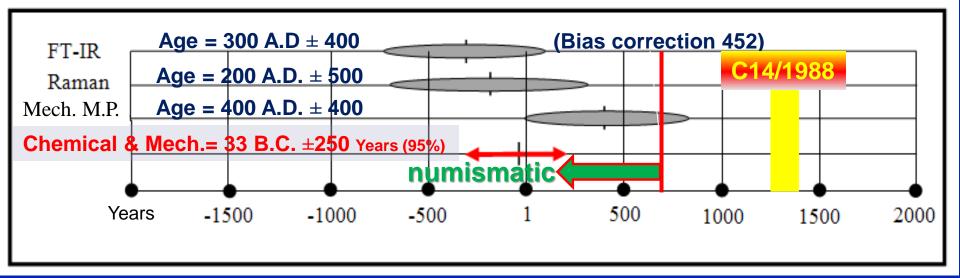
The C14 analysis of 1988, found to be incorrect, dated the Shroud at 1260-1390 A.D.; this result is not compatible with mechanical, chemical and numismatic analyses.



9. CONCLUSION: numismatic dating of the Shroud



The gold solidus of the first period of Justinian II, 692-695 A.D. confirms that the Shroud was known in the 7th century AD.



Results of chemical and mechanical analyses: 33 A.D. ±250 years; the C14/1988 result of 1325 A.D. ±65 years is wrong. 99

