

The Shroud



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2016 Weiss

The Holy Shroud of Turin: What's That?

A Tour of the Mystery that is the Holy Shroud of Turin

Introduction

Where is the Shroud presently?

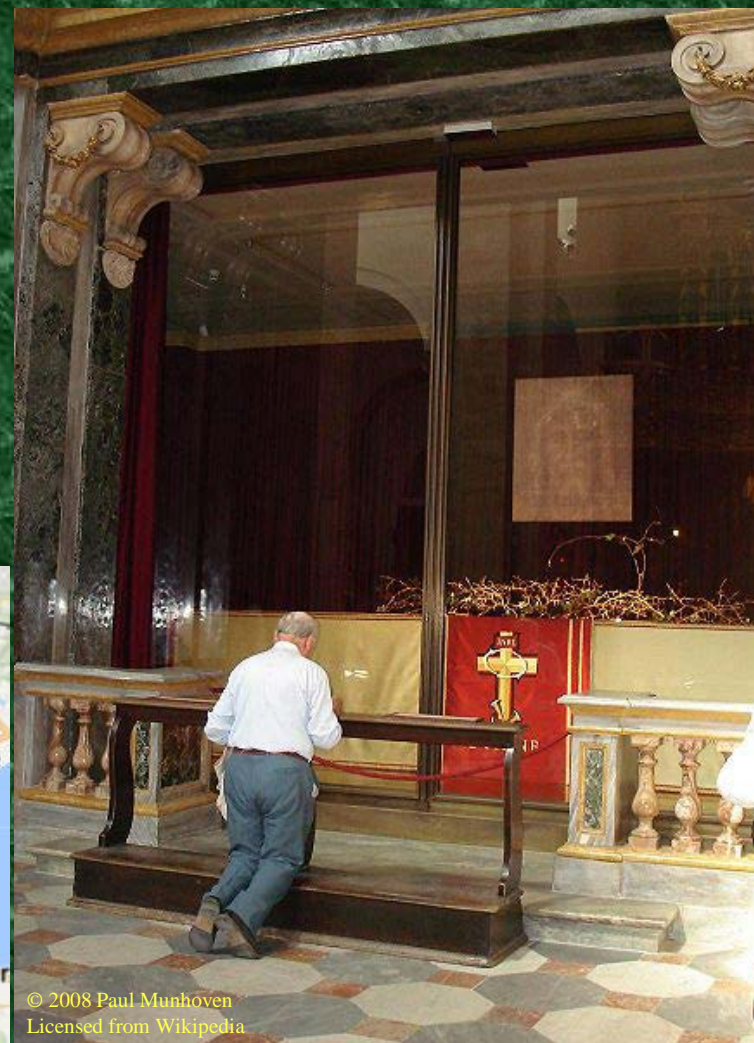


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Cathedral of John the Baptist



Turin, Italy near French & Swiss borders



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In the Cathedral when the Shroud is put away

Introduction

The Man of the Shroud: Positive, Negative & Crucifixion Painting Comparison

- The positive & negative below reveal the frontal image of a man crucified as was Jesus
- Compare an artist rendering of Jesus crucified & the Shroud
 - ✓ Artist: nails in palms, two nails in feet & feet on platform – not what is seen on the Shroud – continue for an examination of the evidence



Positive



Artist Rendering



Negative

Introduction

What is it? Description of the Shroud

- 14' 5.22" x 3' 7.3"/4.4 x 1.1m/8 x 2 cubit flax linen burial cloth (post-2002 restoration 14' 6.21" x 3' 8.76"/4.425 x 1.137m)
- Still made in Syria this size and larger with the same process¹⁰
- Image characteristics:
 - ✓ On 1–2 microfibers (10–20 microns), ~ width of human hair
 - ✓ Does not permeate the flax linen (not a liquid or burn)
 - ✓ Yellowed on only one side of the straw-shaped fiber cells
 - ✓ Cells not damaged as would be expected by known radiation
 - ✓ Pixilation like dot-matrix printing, more pixels=darker image
 - ✓ Image would disappear if razor run over the flax linen surface

Introduction

Highlights from 1898 in the Study & Testing of the *Image Made Without Hands* on flaxen linen

Start of the modern, scientific studies of the Shroud...

- **1898** Amateur Photographer & Lawyer Secundo Pia (1855–1941) took first photo; after developing the negative, almost drops plate
- **1902** Yves Delage (1854–1920) of the Paris Academy of Sciences concludes the Shroud is the authentic burial Shroud of Jesus⁴⁵
- **1931** Giuseppe Enrie (1886–1961) photographs the Shroud using high-resolution orthochromatic film; confirms Pia photograph
- **1976 Feb 19** Dr. John Jackson & William “Bill” Mottern VP8 Image Analyzer tests reveal 3D properties of the Shroud image
- **1976** Later test of Dr. Jackson & Dr. Eric Jumper with Pete Schumacher (in Jumper’s basement) enabled further VP8 studies & creation of the cardboard model
- **1977** Conference in Albuquerque, NM to establish protocols if testing the Shroud in Turin, Italy were permitted (STURP start)

Photographs highlighted in this slideshow include those taken by Secundo Pia (1898), Giuseppe Enrie (1931), Enrie colorization work of Aldo Guerreschi, 1995, Barrie Schwartz, 1978 & the Archdiocese of Turin post-’restoration’ images, 2002

1977 STURP Team

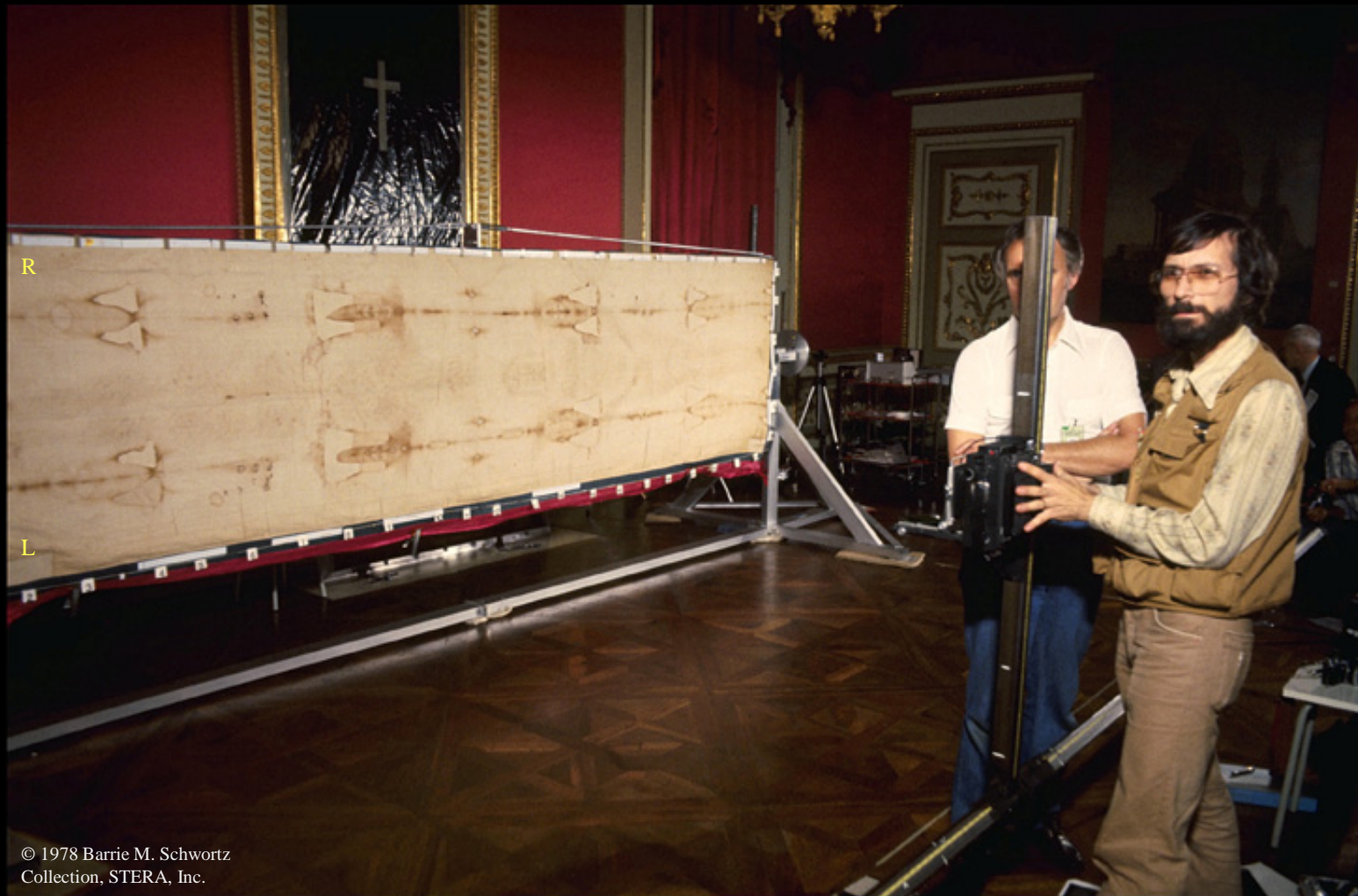
Highlights from 1898 in the Study & Testing of the *Image Made Without Hands* on flaxen linen

- 1978 Oct 8–13 Shroud Testing in Turin, Italy: 26 US scientists with 6,000 lbs of equipment to answer how the image was made
- Most of 26 thought they would discover a logical explanation in five minutes (brush strokes, etc.) & enjoy an Italian vacation
- They made special equipment, did a variety of tests & created protocols for 48, 72 & 96 hours, preparing extremely thoroughly
- STURP ran all their protocols over five days and nights – 120 hours straight – yet could not explain the image formation
- STURPs main objective was to explain how the image got there
- Ironically, science can tell us more about what it is not
- No one, those who accept its authenticity and those who do not, understand the process that made the image
- The images taken by Documenting Photographer Barrie Schwartz of STURP in 1978 make up many of the online Shroud images

STURP – Shroud of Turin Research Project²⁰

1977 STURP Team

1978 Shroud Testing: Barrie Schwartz Photographing the Shroud



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Photograph of originals being taken by Documenting Photographer Barrie Schwartz of STURP in 1978
STURP – Shroud of Turin Research Project started in 1975 culminating in the 1978 study of the Shroud & ensuing research

1977 STURP Team

1978 Shroud Testing: Co-Founders of the Shroud of Turin Research Project (STURP²⁰)

*Total STURP members by
State where worked (33):*

NM – 11

CA – 10

CT – 5

CO – 4

PA – 2

TX – 1

*STURP team members were chosen
for their science, not their faith*

*Team members included many
different people including
Catholics, Baptists, Methodists,
Jews, agnostics, etc.*

*Members who went to
Turin as STURP by State
(26, trip from 9/28–10/18):*

NM – 9

CA – 9

CO – 4

CT – 3

PA – 1



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Dr. John Jackson positioning the Shroud
The table was made specifically by STURP with removable panels for a variety of tests, affixed with white Teflon magnets to hold it without damage

1977 STURP Team

1978 Shroud Testing: Shroud of Turin Research Project (STURP)^{LS} by state (least to most)

Texas (1)

Harris County Medical Examiner

- Robert Bucklin (not in Turin)

Pennsylvania (2)

IBM (PA)

- Kenneth E. Stevenson

St. Agnes Medical Center

- Joseph Gambescia (in Turin, probably with Holy Shroud Guild)

Colorado (4)

Rocky Mountain Thermograph

- Thomas Haverty

University of Colorado

- Rudolph J. Dichtl

US Air Force Academy

- Eric J. Jumper (co-founder)
- John P. Jackson (co-founder)

Connecticut (5)

Nuclear Technology Corporation

- Thomas F. D'Muhala

Oriel Corporation

- Roger & Marty Gilbert

Western Connecticut State University

- Al Adler (not in Turin)

New England Institute

- John Heller (not in Turin)

California (10)

Barrie Schwartz Studios

- Barrie M. Schwartz

Brooks Institute of Photography

- Ernest H. Brooks II

- Mark Evans

- Vernon D. Miller

Jet Propulsion Laboratory

- Donald J. Lynn

- Jean Lorre

Lockheed Corporation

- Joseph S. Accetta

Oceanographic Services Inc.

- Donald Devan

Santa Barbara Research Center

- Samuel Pellicori

Los Angeles County Museum

- Jim Drusik (not in Turin)

New Mexico (11)

Sandia Laboratories

- Robert W. Mottern

Los Alamos National Scientific Laboratories

- Donald & Joan Janney

- J. Ronald London

- Ray Rogers

- Robert Dinegar

- Roger A. Morris

- Diane Soran (not in Turin)

- Larry Schwalbe (not in Turin)

US Air Force Weapons Laboratories

- John D. German

- Steven Baumgart

1977 STURP Team

1978 Shroud Testing: Shroud of Turin Research Project (STURP)¹⁵ alphabetical by org

Barrie Schwartz Studios (CA)

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- Al Adler

Los Angeles County Museum (CA)

- Jim Drusik

New England Institute (CT)

- John Heller

Harris County, Texas, Medical Examiner's Office (TX)

- Robert Bucklin

Crucifixion

Image of a Crucified Man

© 1978 Barrie M. Schwartz
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Back (Dorsal) Image

Upper Back

Front (Ventral) Image

L

Feet

Lower Legs

Upper Legs

Lower Back

Hair
Pony Tail

Head

Chest

Arms

Upper Legs

Knees

Lower Legs

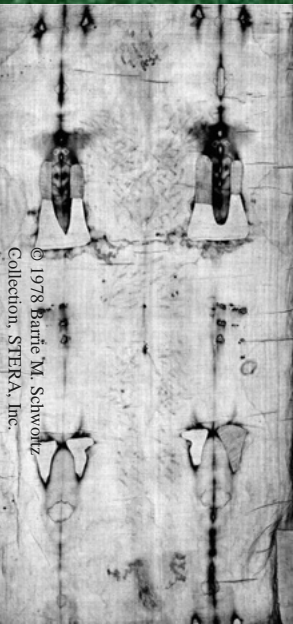
Feet

R

How do we know he was crucified? – continue for an examination

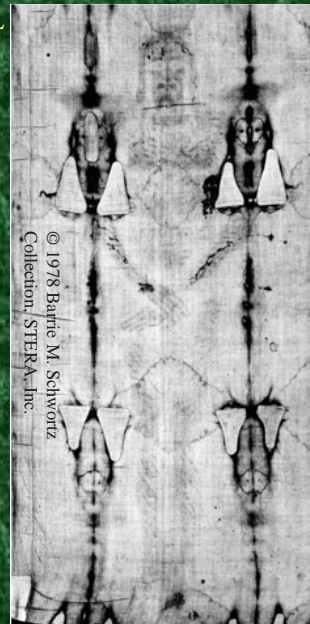
R

L



L

R



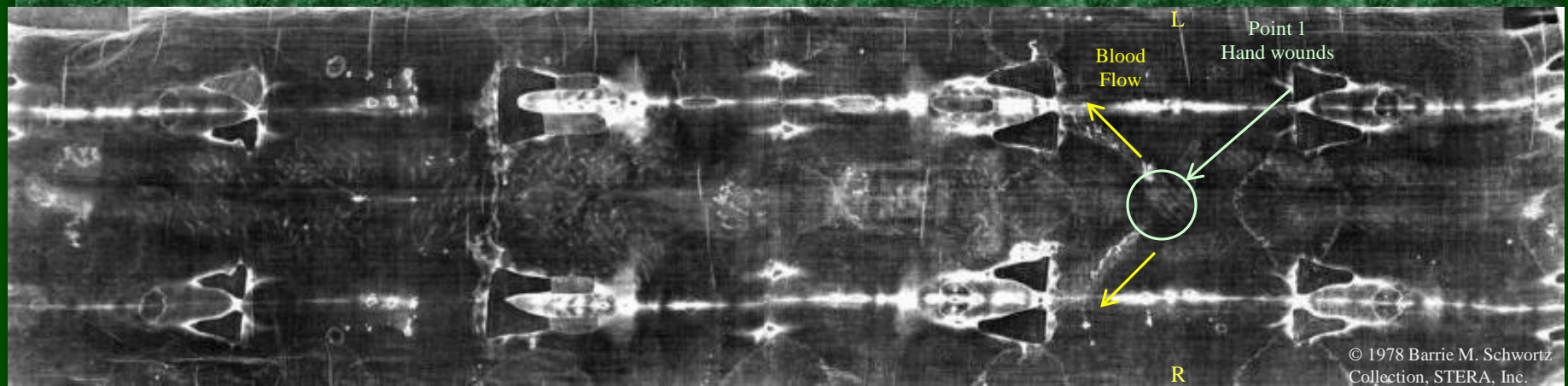
1978 Schwartz Black & White Images

Crucifixion

How can one be sure this is an image of a crucified man? 1 of 7

Evidence Point 1 – Hand/wrist wounds reveal:

- Consistent with crucifixion (wound location proved to hold up a crucified body)
- Blood flow down both arms indicates:
 - ✓ A nail went through each wrist & arms were up in crucifixion at that time, arms between a 65-68° angle for the blood flows ¹
 - ✓ Thumb either drawn into the palm due to the severing of the median nerve¹⁰ or would be out of sight because it was at rest²



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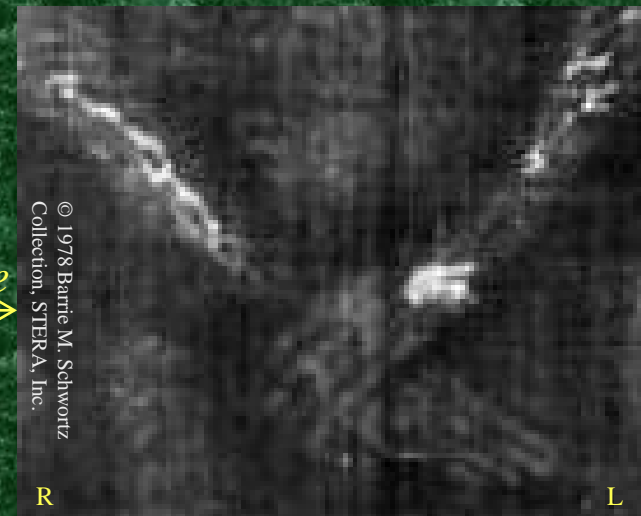
Crucifixion

Hand/Wrist Wounds

- Wounds in the hands with thumbs not visible
- Dr. Bucklin⁴³ supports Dr. Barbet¹ cause puncture the median nerve
- Dr. Soons supports Dr. Zugibe² thumb at rest not be visible



*Note the hand
wound reverse
from positive
to photo-negative*



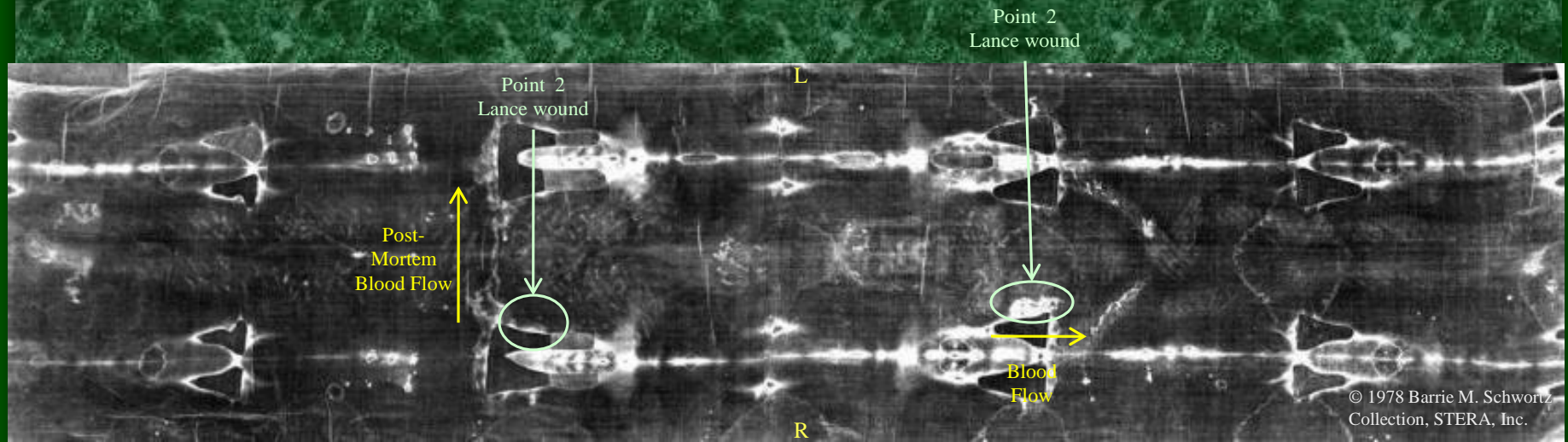
- Blood flow down the arms indicates the arms were raised
- One wound visible, blood flow proves both hands wounded
- Arms clearly not broken

Crucifixion

How can one be sure this is an image of a crucified man? #2 of 7

Evidence Point 2 – Lance wound in the right side

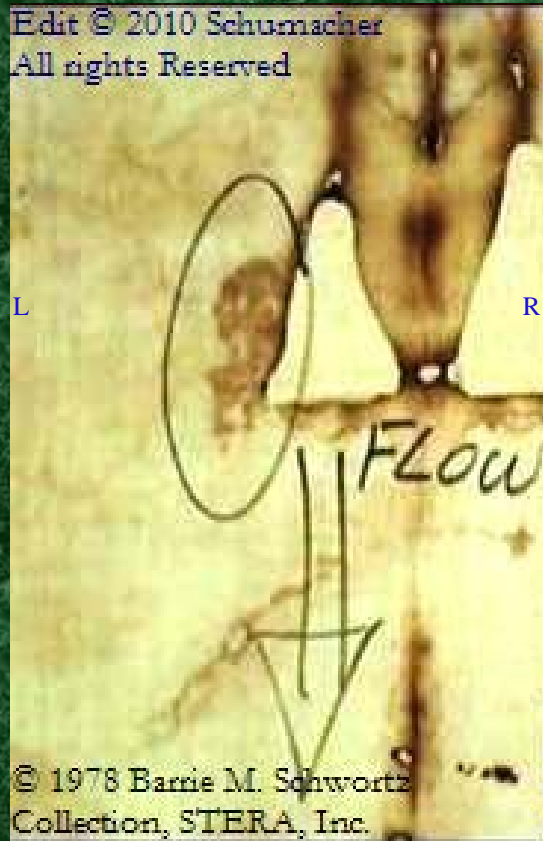
- Wound proved Jesus was upright & dead on cross; eyewitness records “*blood and water flowed out*” ([Jn 19:31–37](#))
- The “water” is pericardial fluid¹
- [Bilirubin](#) mixed with blood fluoresced in the 1978 STURP investigation
- Back blood flow called “belt of blood”¹³



Crucifixion

Lance Wound

- Blood from a lance in side proved death/very near death²
- Blood flow from lance wound toward the feet
- Victim was upright when pierced



Picture (Left)



Computer reversal of left image on right

Crucifixion

Lance Wound

- Blood flow across the back from the lance wound
- Known as the “belt of blood”¹³



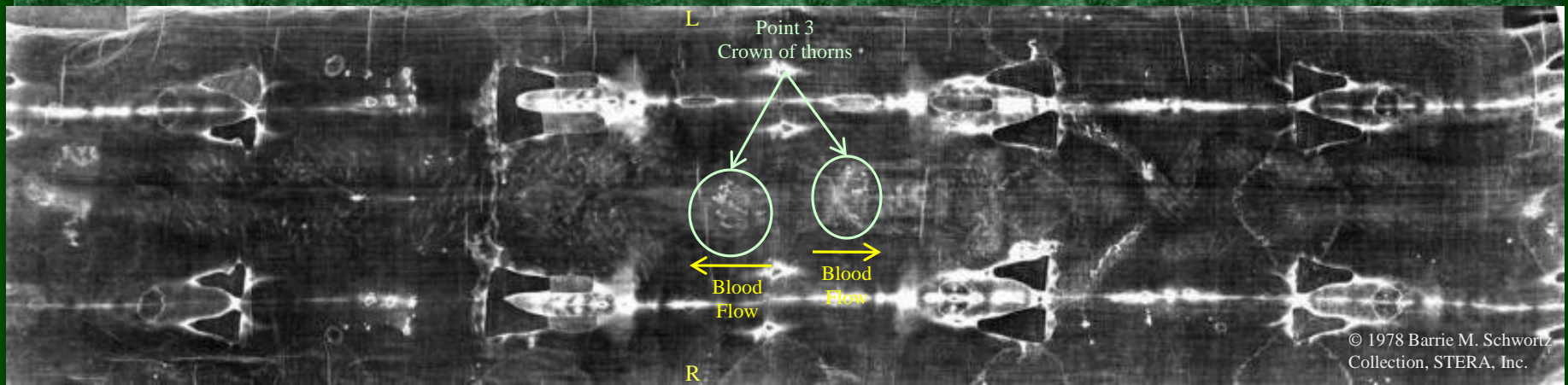
These blood flows occurred after the man died (post-mortem) and the body was laid on the Shroud

Crucifixion

How can one be sure this is an image of a crucified man? #3 of 7

Evidence Point 3 – Crown of thorns

- No record of any crucifixion victim crowned with thorns
- *Except* for one man – Jesus as recorded by an eyewitness (Jn 19:2) as they mocked him (Jn 19:3) for being called King of the Jews (Jn 19:19-22; Mk 16:16-20)



Crucifixion

Head Wounds: Consistent with a Crown of Thorns

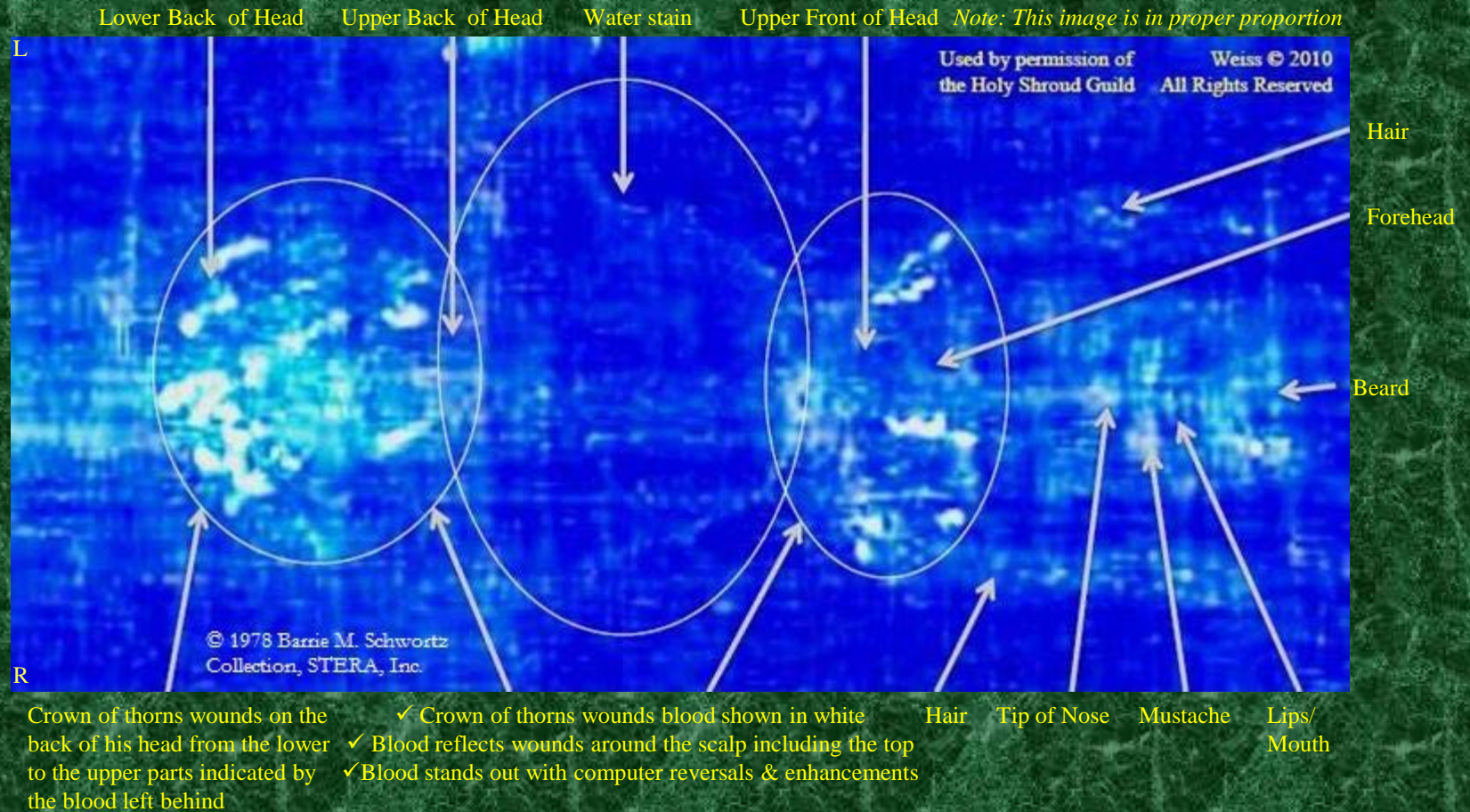


- Holograms provide unique perspective¹⁶
 - ✓ On 2D photographs a bloodspot appears to be floating above the area of the head
 - ✓ The holograms clarified that this BLOODSPOT was actually ON TOP OF THE HEAD
 - ✓ There are more bloodspots all around the head area
 - ✓ This indicates the crown of thorns was more helmet-like than circular

Crucifixion

Head Wounds: Consistent with a Crown of Thorns

*The only record of **any** crucifixion victim being wounded in the head*

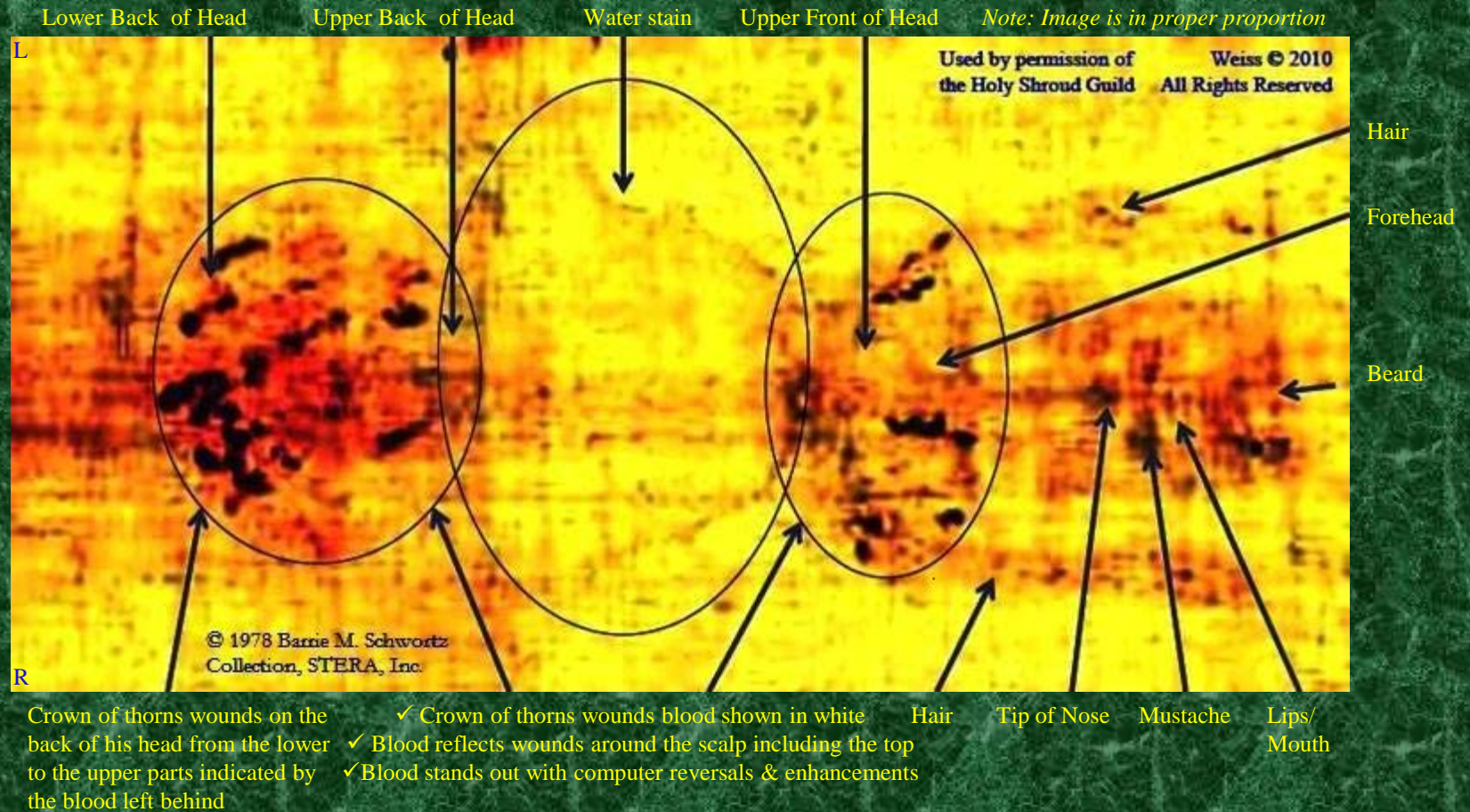


Computer reversed & enhanced negative without removing colors, processed to enhance

Crucifixion

Head Wounds: Consistent with a Crown of Thorns

*The only record of **any** crucifixion victim being wounded in the head*

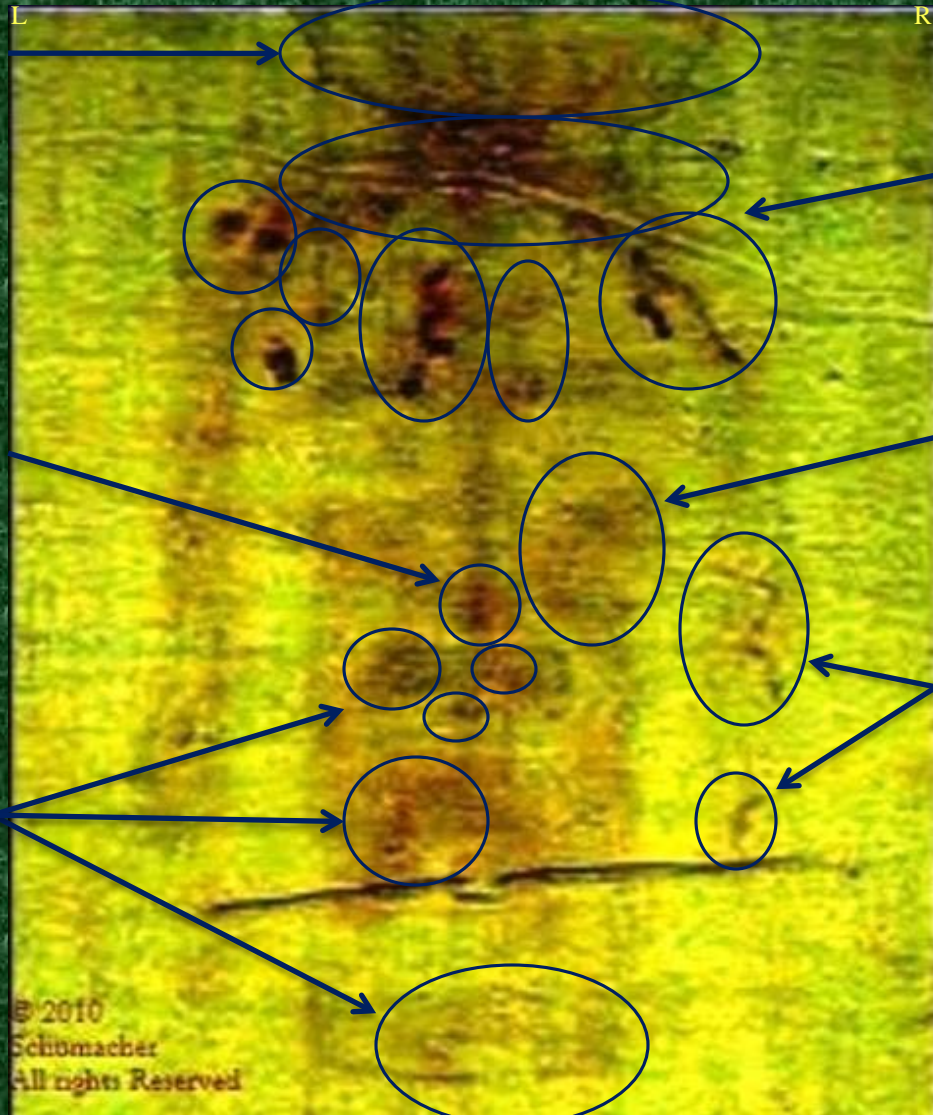


Computer reversed & enhanced image from previous slide

Crucifixion

Head Wounds: Consistent with a Crown of Thorns

The water stain seems to distort and/or highlight the blood from the top of the head



Blood throughout hair and upper head

Blood on the cheek

Blood in the hair

Blood in the mustache & beard

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Schlomacher
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This image done with a filter to highlight the AB human blood in red

Crucifixion

Head Wounds: Consistent with a Crown of Thorns

- Puncture wounds caused by a crown or cap of thorns
- This was proven by the holographic 3D work of Dr. Petrus Soons¹⁰
- This is the only extant example of wounding the head during a crucifixion
- Eyewitness account of Jesus' crucifixion reports crown of thorns

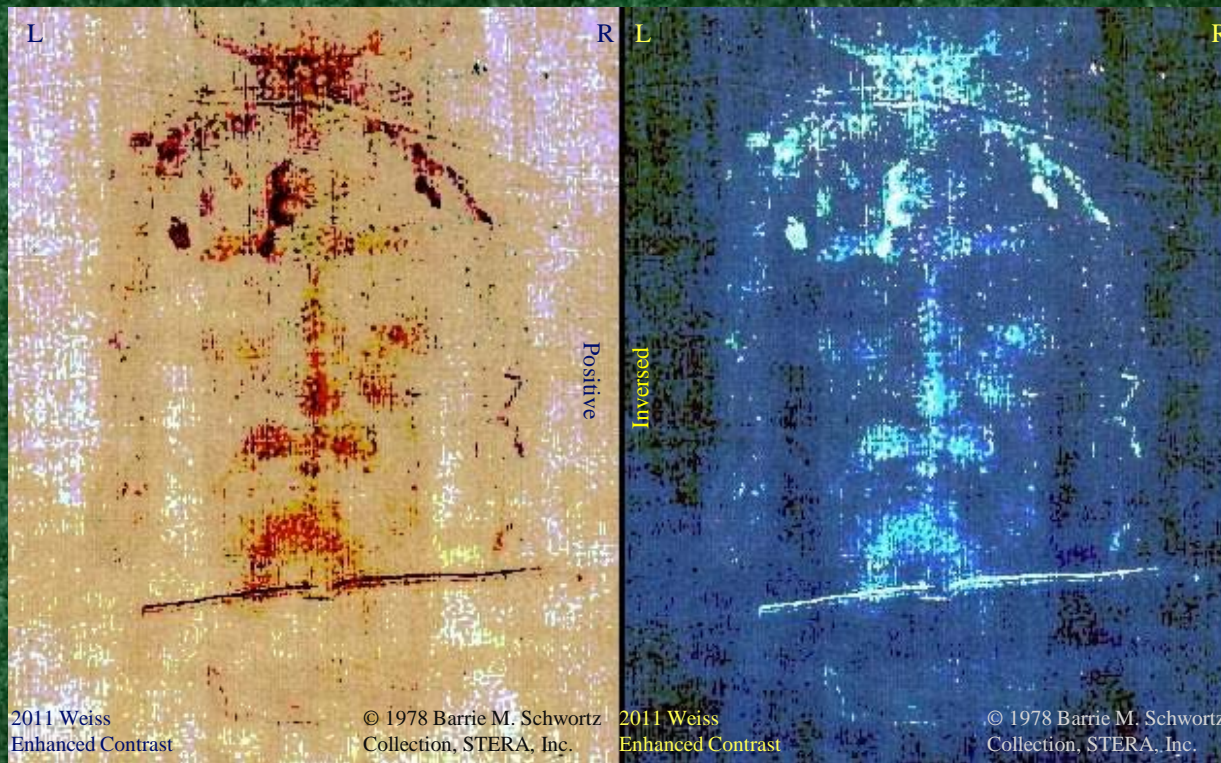


Image Enhanced Color Photo (L) showing blood in red/black & Inversed Colors (R) showing blood in bluish/greenish-white

Crucifixion

Head Wounds: Consistent with a Crown of Thorns

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- Unique edited photo by Barrie Schwartz highlighting the blood on a negative photo of the Shroud face
- Puncture wounds caused by a crown or cap of thorns
- This was proven by the holographic 3D work of Dr. Petrus Soons¹⁰
- This is the only extant example of wounding the head during a crucifixion
- Eyewitness account of Jesus' crucifixion reports crown of thorns

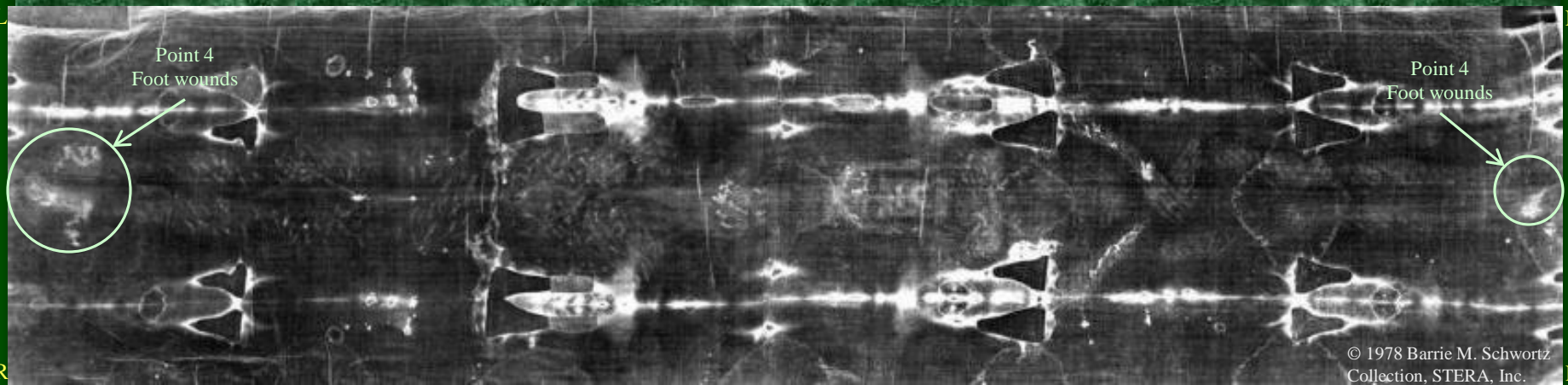
*Turin Shroud photographic negative facial image with bloodstains in red,
image flipped left to right*

Crucifixion

How can one be sure this is an image of a crucified man? #4 of 7

Evidence Point 4 – Foot wounds

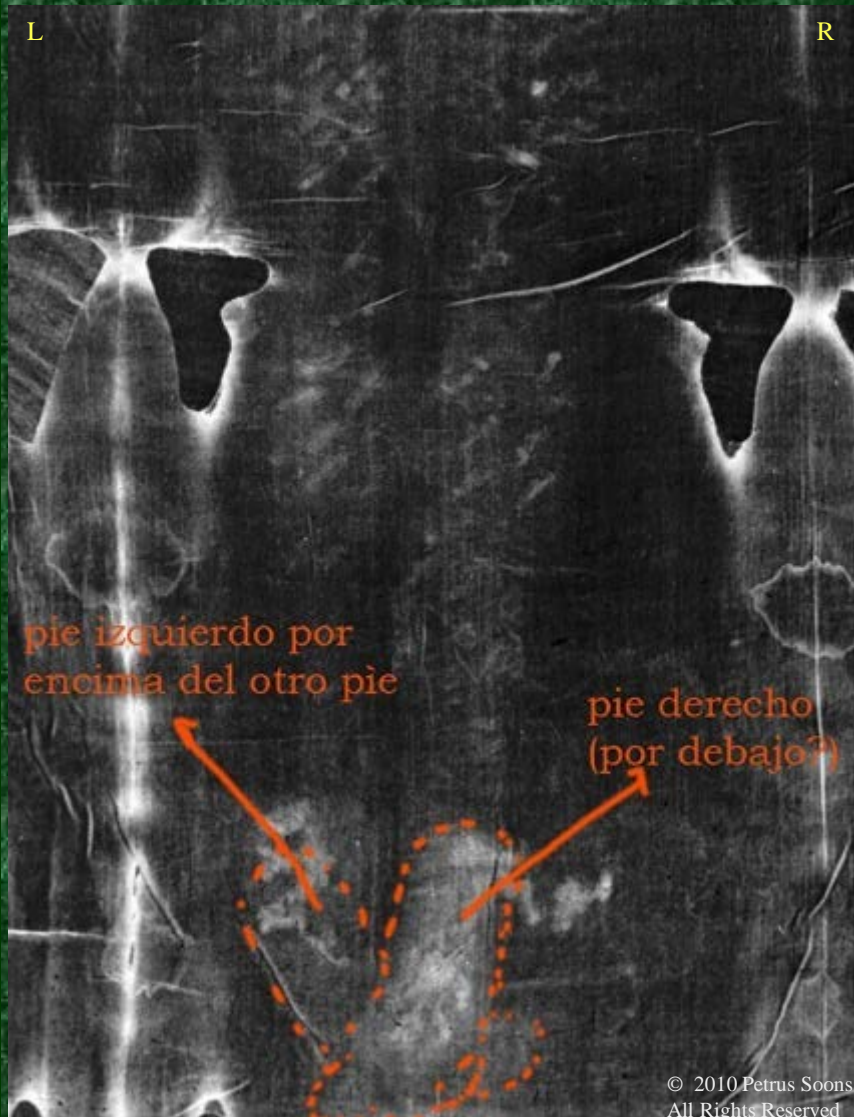
- Correct location for crucifixion
- Feet nailed with one nail onto the vertical beam (stipes) by placing the feet flat against the wood as proved by Dr. Soons' holographic work¹⁰



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Crucifixion

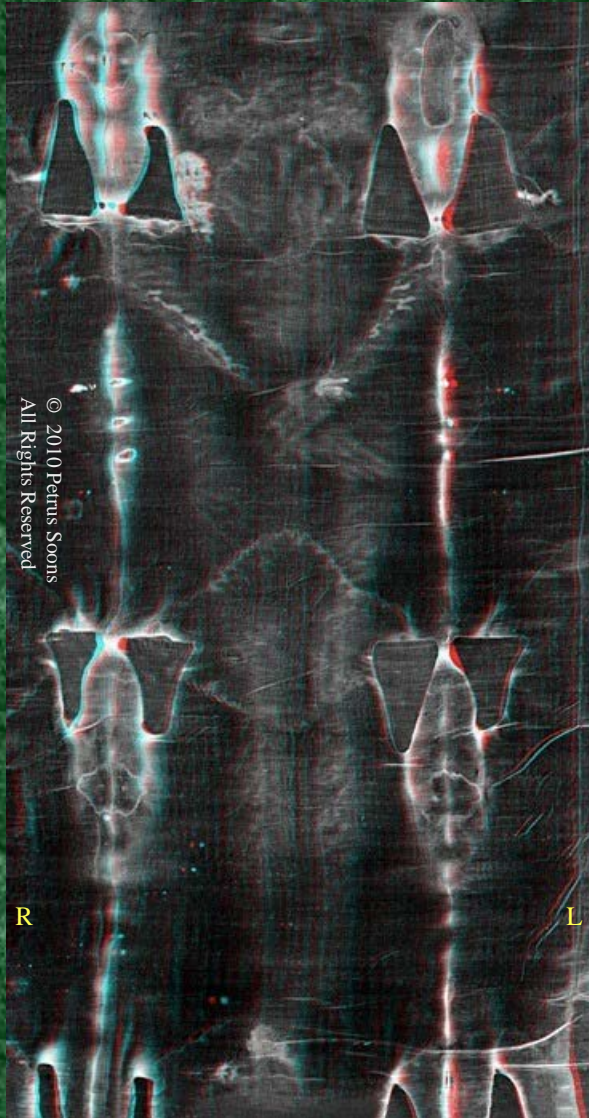
Foot Wounds



- Holograms provide unique perspective¹⁶
 - ✓ Reveal both legs bent with left more than the right, partly covering the right
 - ✓ This was caused by the fact the left foot positioned on top of the right foot in a X-way (diagonal) fashion
- In holograms, toes of both feet visible
 - ✓ Toes of the left foot sticking out on the side of the right foot
 - ✓ Conclusion: Romans put the sole of the right foot against the stipes (vertical beam), crossed the left foot on top of the right foot (diagonal) and fixed both feet with one large nail to the vertical beam of the cross

Crucifixion

Foot Wounds



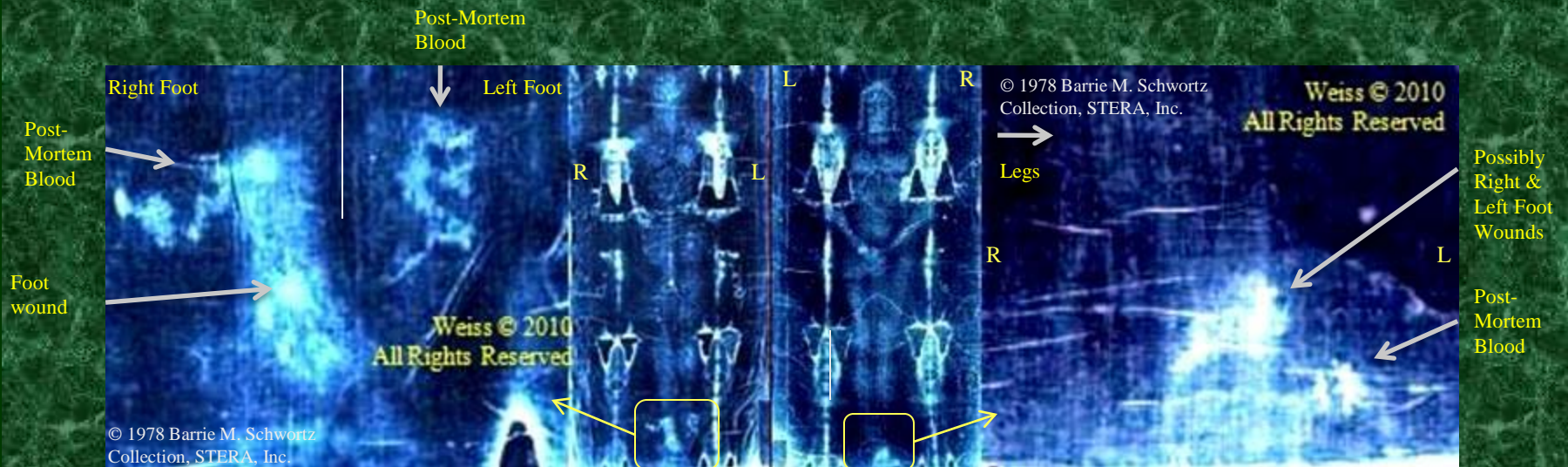
In this picture the left foot is clearly over the right

- Holograms provide unique perspective¹⁶
 - ✓ Reveal both legs bent with left more than the right, partly covering the right
 - ✓ This was caused by the fact the left foot positioned on top of the right foot in a X-way (diagonal) fashion
- In holograms, toes of both feet visible
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 - ✓ Conclusion: Romans put the sole of the right foot against the stipes (vertical beam), crossed the left foot on top of the right foot (diagonal) and fixed both feet with one large nail to the vertical beam of the cross

Crucifixion

Foot Wounds

- Wounds on the front and back of the feet
- Dirt (travertine aragonite) found in Jerusalem located on Shroud dorsal side bottom of the feet (on knees & nose too)
- Part of left foot is over the right in the toe region which should be considered when viewing the feet to understand what you are seeing

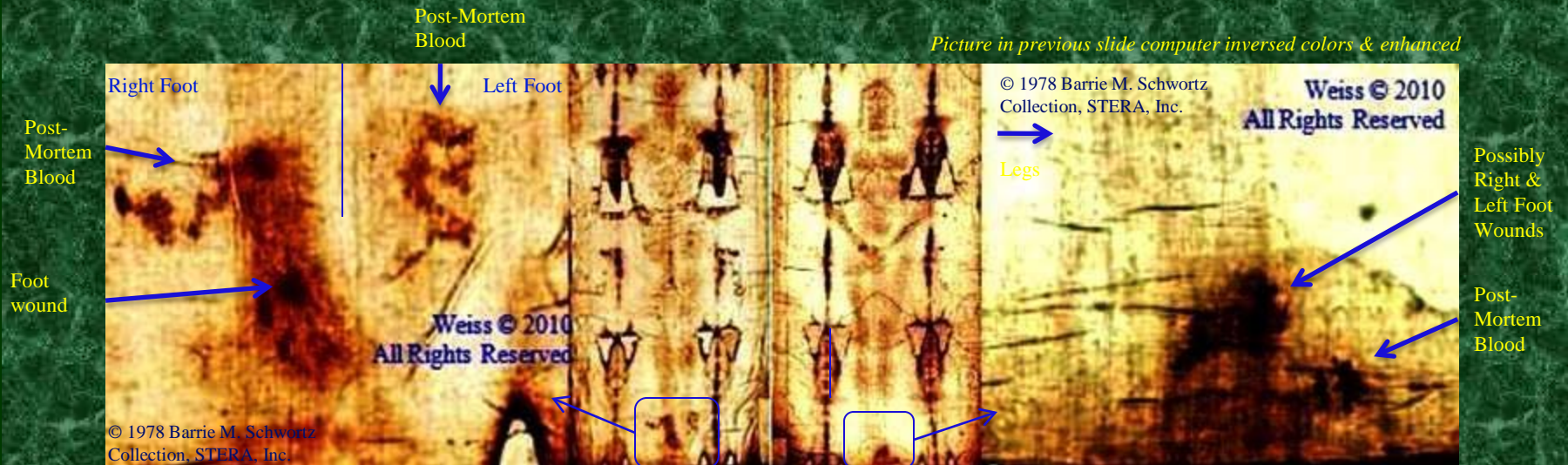


- ✓ Feet highlighted in full images illustrate the enlarged photo to the left and right
- ✓ Line drawn from the lower legs (left enlarged) shows blood on right foot, with right partially covering left from this view
- ✓ Possible left foot partially covering right with one nail through both

Crucifixion

Foot Wounds

- Wounds on the front and back of the feet
- Dirt (travertine aragonite) found in Jerusalem located on Shroud dorsal side bottom of the feet (on knees & nose too)
- Part of left foot is over the right in the toe region which should be considered when viewing the feet to understand what you are seeing



- ✓ Feet highlighted in full images illustrate the enlarged photo to the left and right
- ✓ Line drawn from the lower legs (left enlarged) shows blood on right foot, with right partially covering left from this view
- ✓ Possible left foot partially covering right with one nail through both

Crucifixion

Foot Wounds

- Blood flow at feet
- Dirt from Jerusalem on foot area
- Difficult to see
- Blood on front unclear

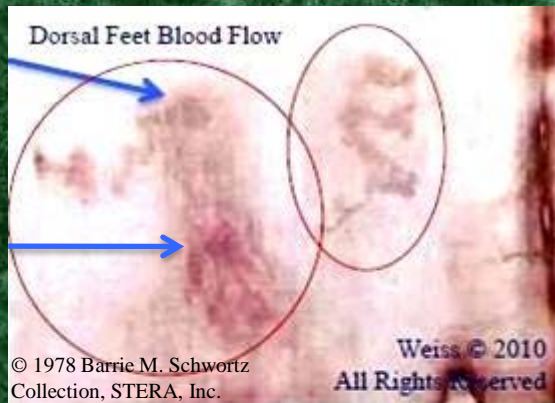


Heel Wound

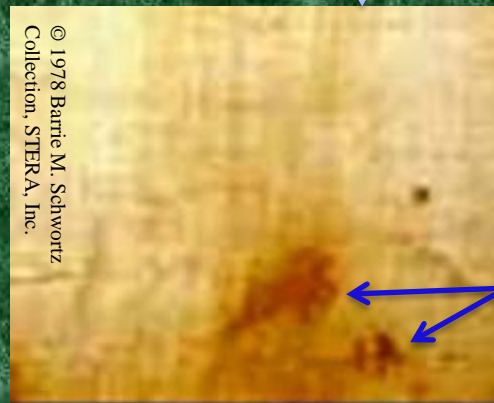
Nail Wound

Heel Wound

Nail Wound



Dorsal Feet



Ventral Feet

Blood

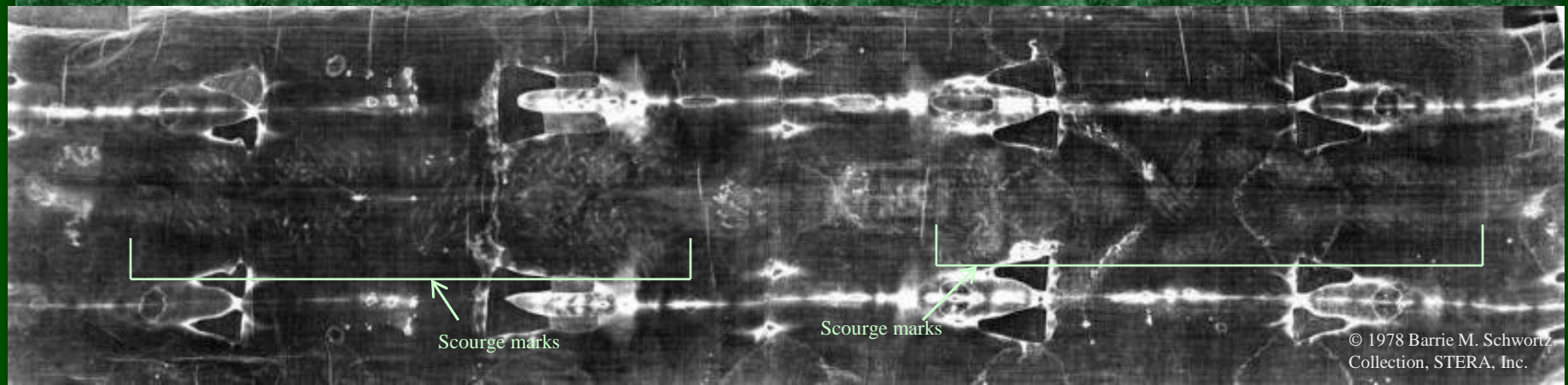
Blood

Crucifixion

How can one be sure this is an image of a crucified man? #5 of 7

Evidence Point 5 – About 120⁷-220⁸ Ricci scourge marks front & back

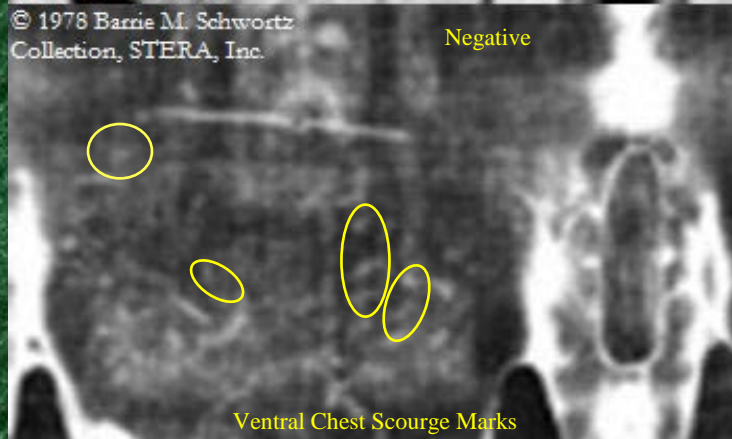
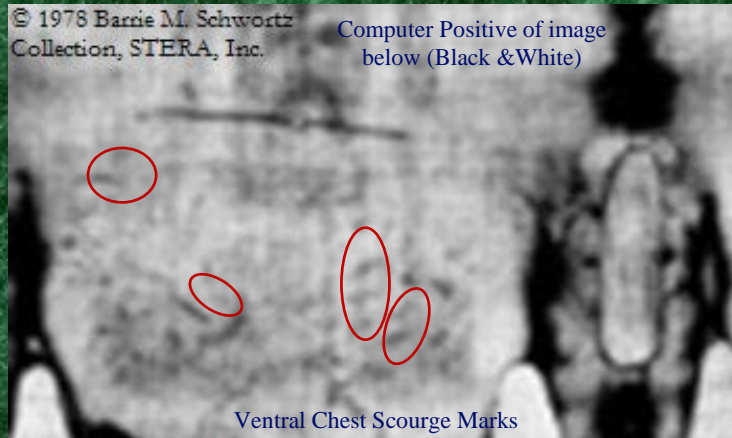
- See the marks by a Roman Flagrum from about chin to ankles & upper back to ankles
- Corroborates eyewitness account ([Jn 19:35](#)) of scourging ([Jn 19:1](#))
- Flagrum barbell found in archeological sites fit the wounds precisely
- Serum Albumin Halos around scourge marks⁵
- 1874 dictionary entry: [Roman Flagrum](#)



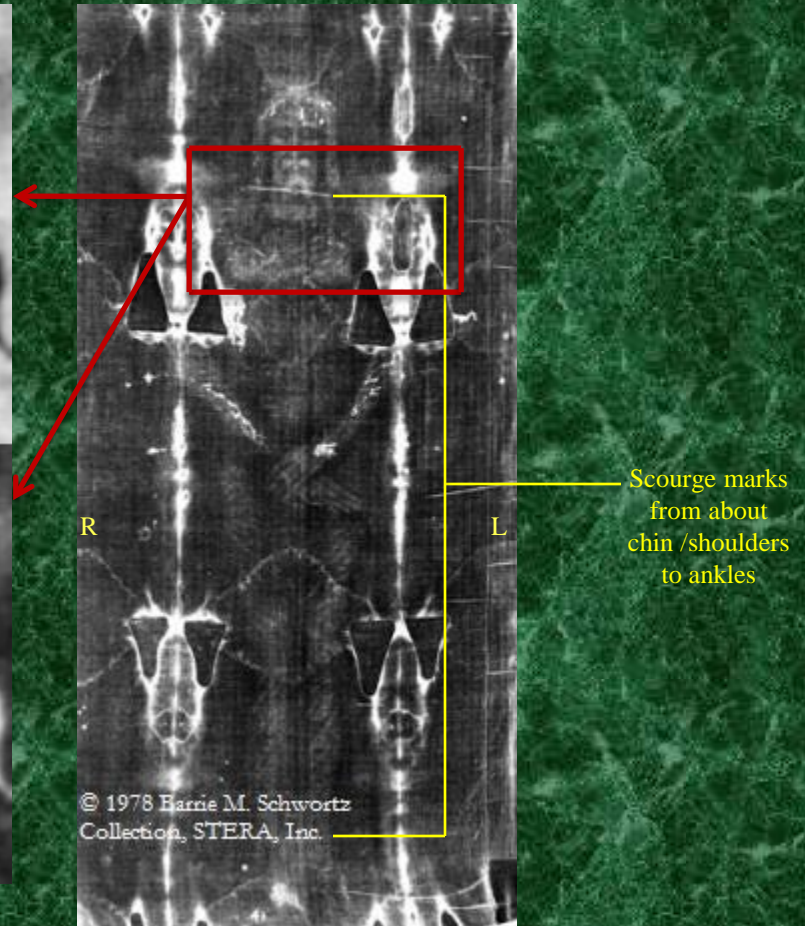
Crucifixion

Scourge Marks made by a Roman Flagrum

Note: Image front and back reveals 120⁷-220⁸ ~~Ricci~~ lashes from a Roman Flagrum and that two people of different heights stood on either side of him during this scourging



View of some highlighted scourge marks of the many on the front in positive and negative images

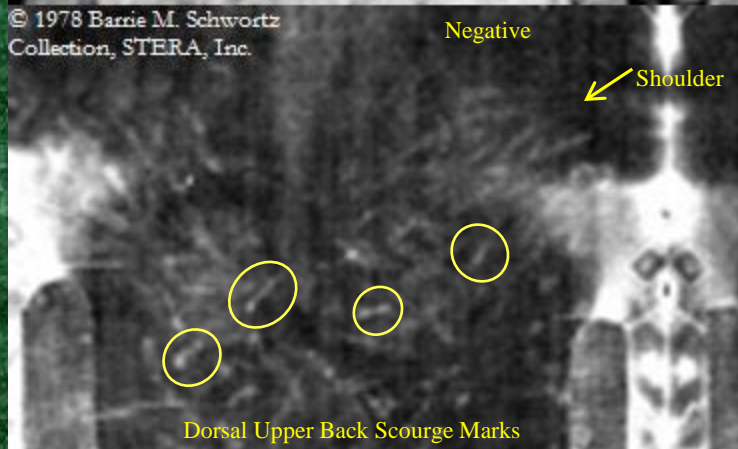
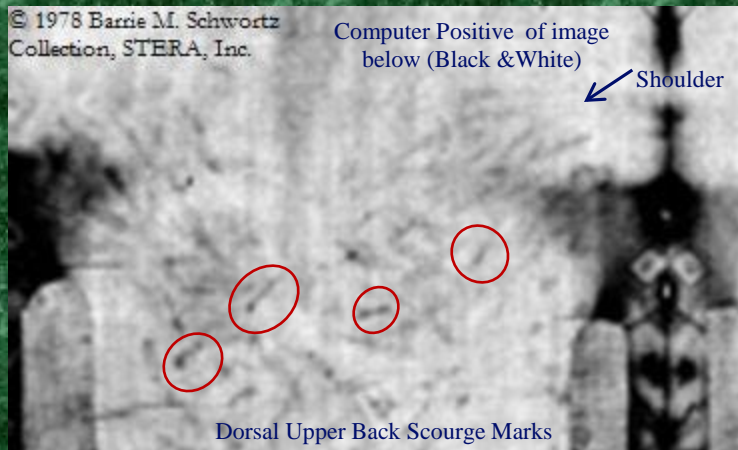


Ventral (front) View

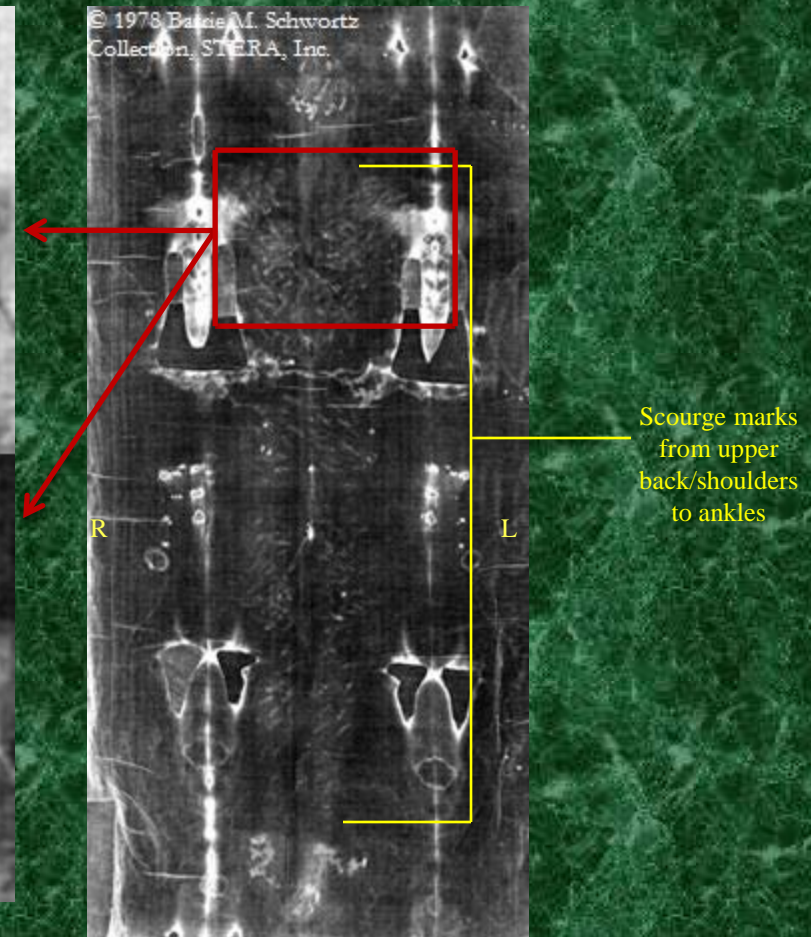
Crucifixion

Scourge Marks made by a Roman Flagrum

Note: Image front and back reveals 120⁷-220⁸ ~~Ricci~~ lashes from a Roman Flagrum and that two people of different heights stood on either side of him during this scourging



View of some highlighted scourge marks on the back of the many in positive and negative images



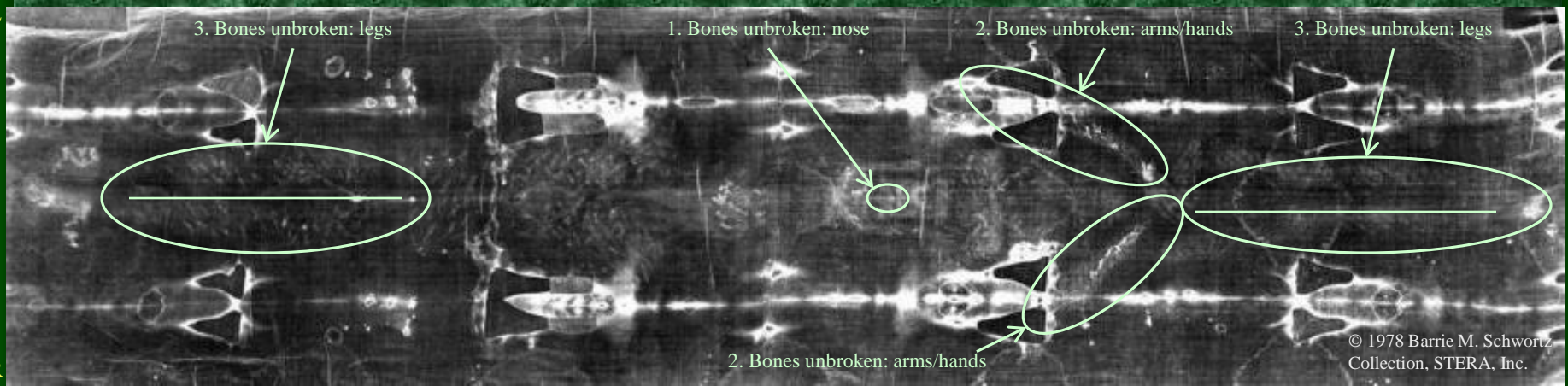
Dorsal (back) View

Crucifixion

How can one be sure this is an image of a crucified man? #6 of 7

Point 6 – No Broken Bones (Jn 19:31–36)

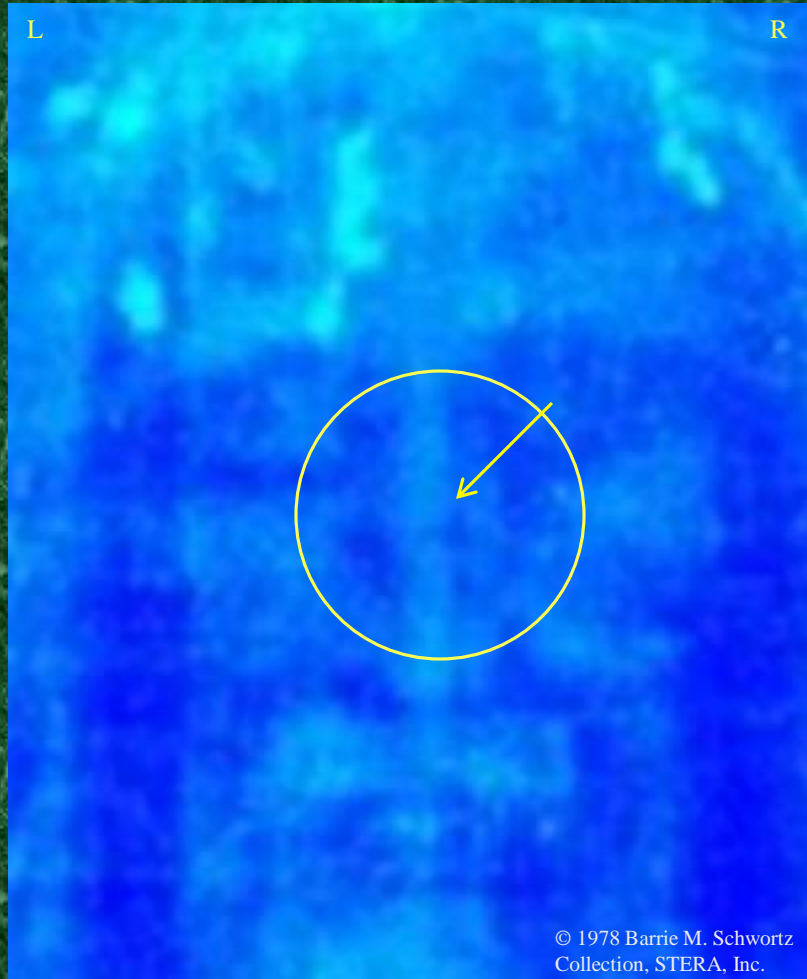
- Considering the extreme torture, this is amazing
 1. No evidence of a broken nose, but the cartilage is separated from the bone^{10 & 2}
 2. No evidence of broken arms
 3. No evidence of broken legs which was common in Roman crucifixions



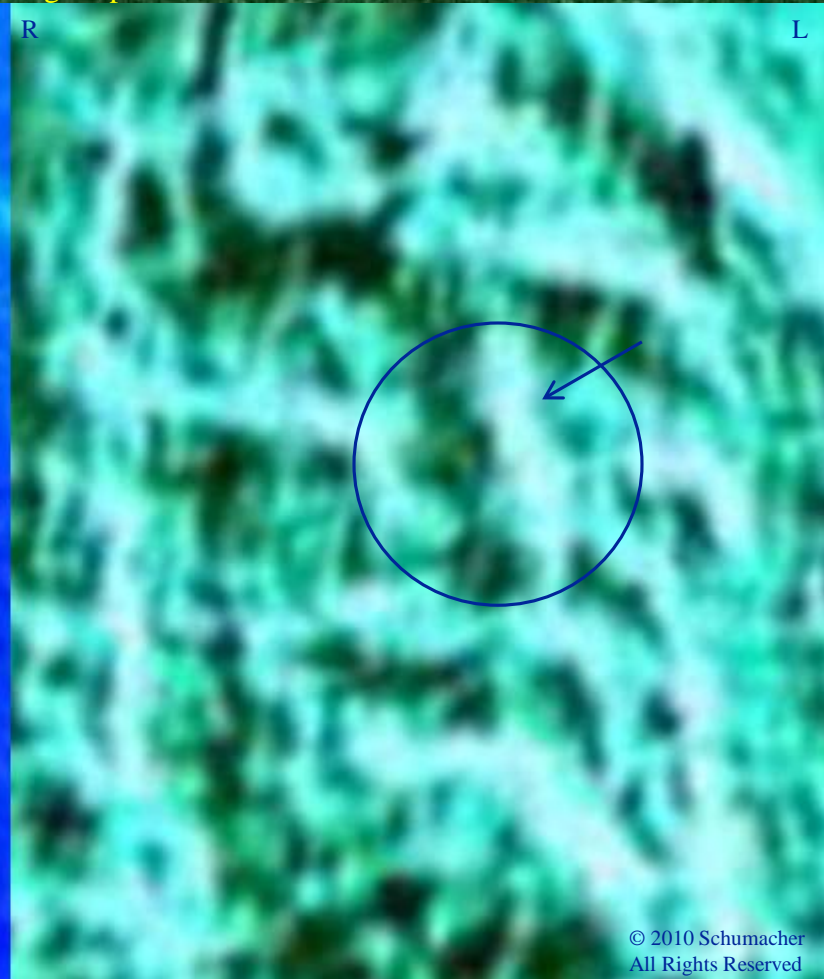
Crucifixion

No Broken Bones

1. Nose Unbroken: Cartilage separated from bone



Computer Reversed Colors & Enhanced



Rotated VP8 Image

Crucifixion

No Broken Bones

1. Nose Unbroken: Cartilage separated from bone



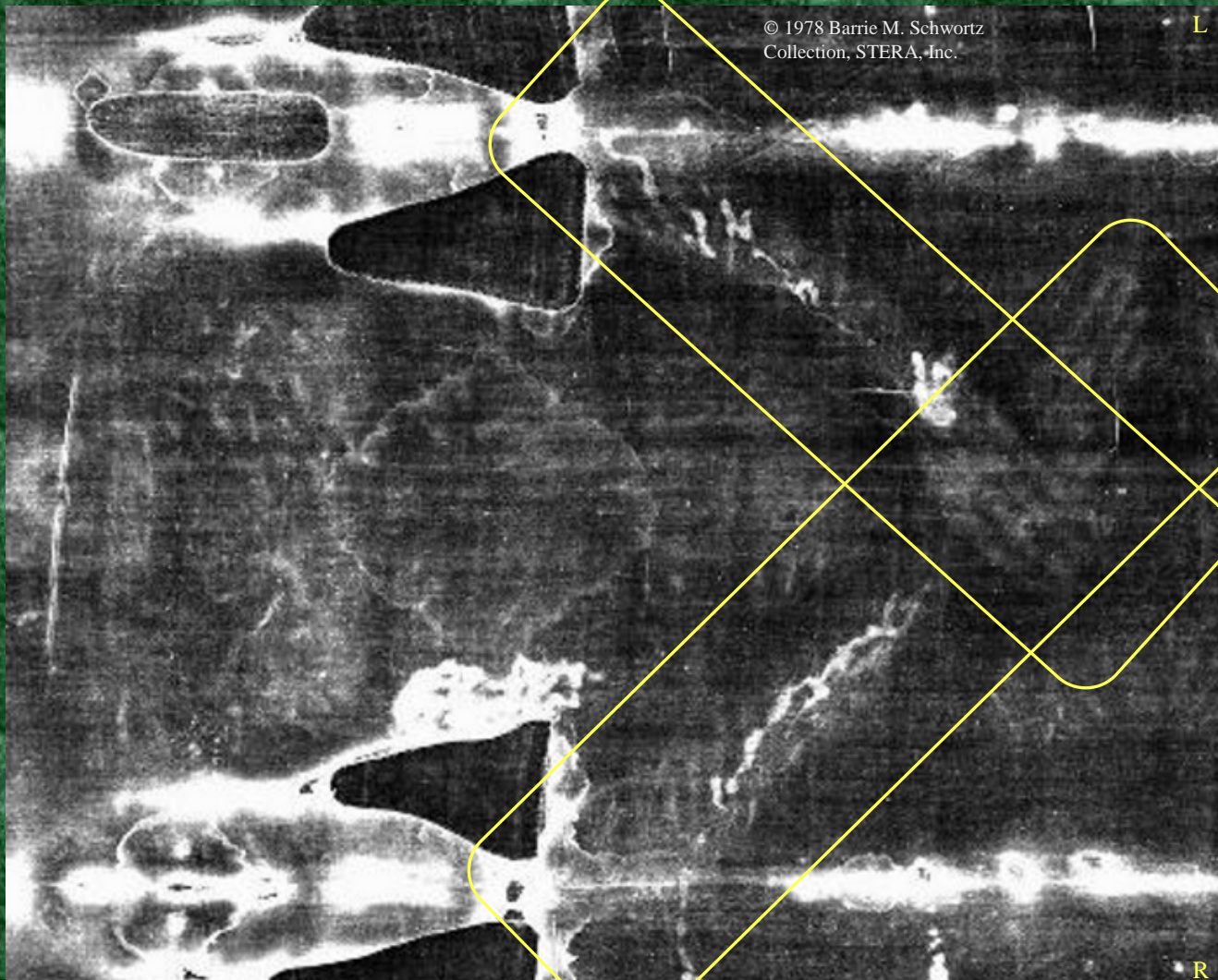
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Weiss Enhanced & Enlarged Negative

Crucifixion

No Broken Bones

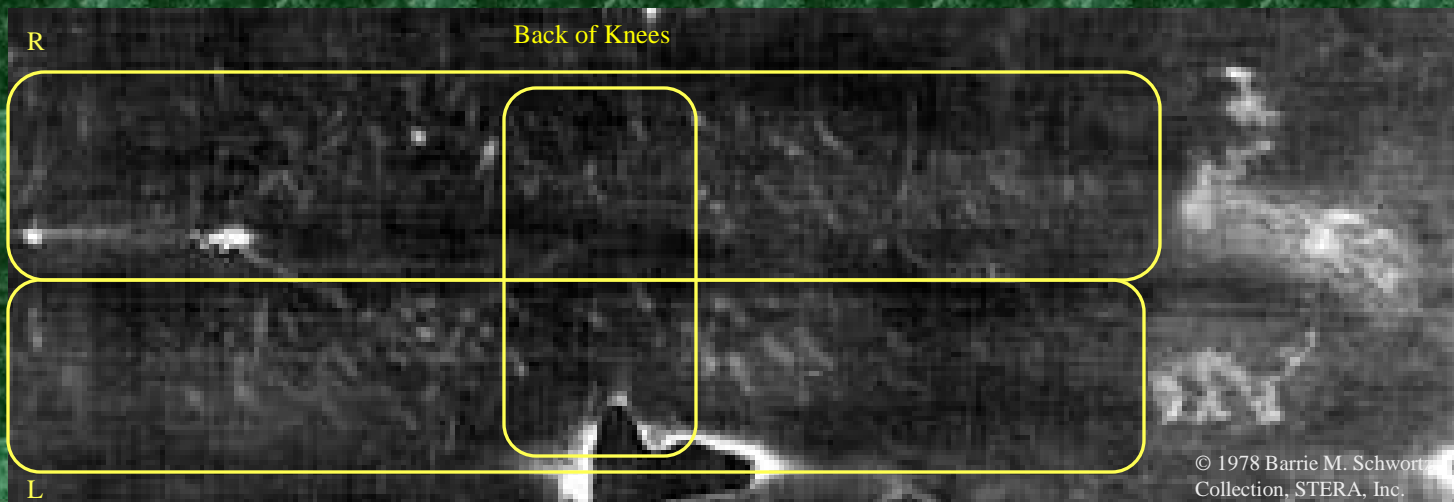
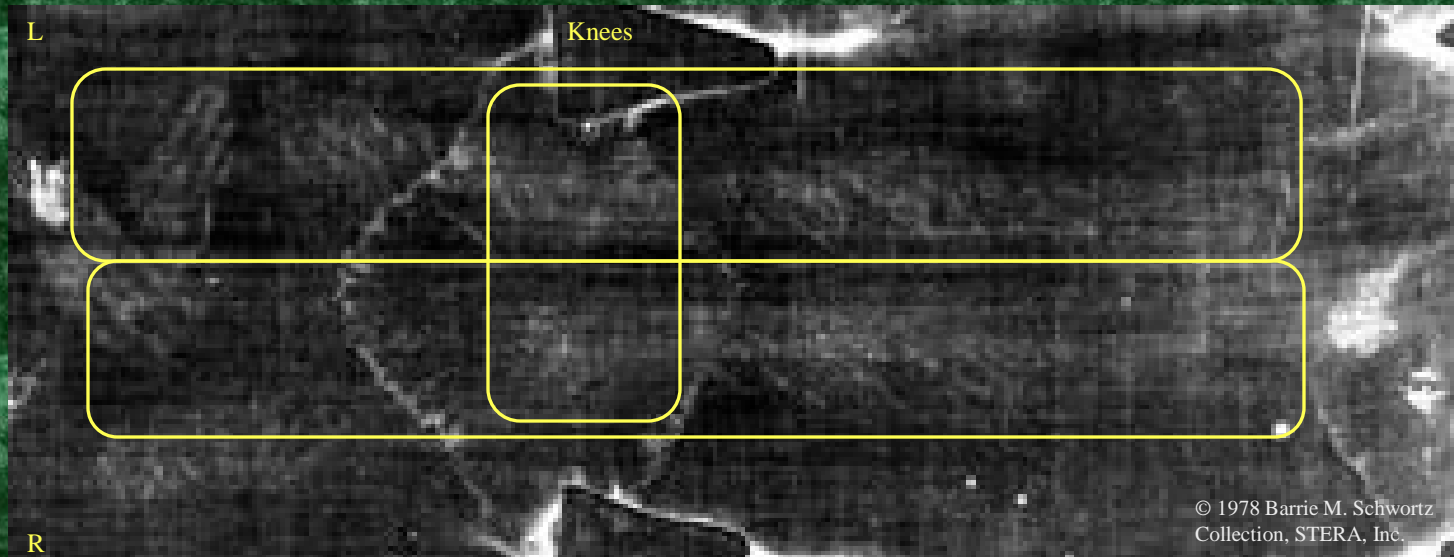
2. Arms/hands unbroken in negative image



Crucifixion

No Broken Bones

3. Legs unbroken in negative ventral (top) & dorsal (bottom) images

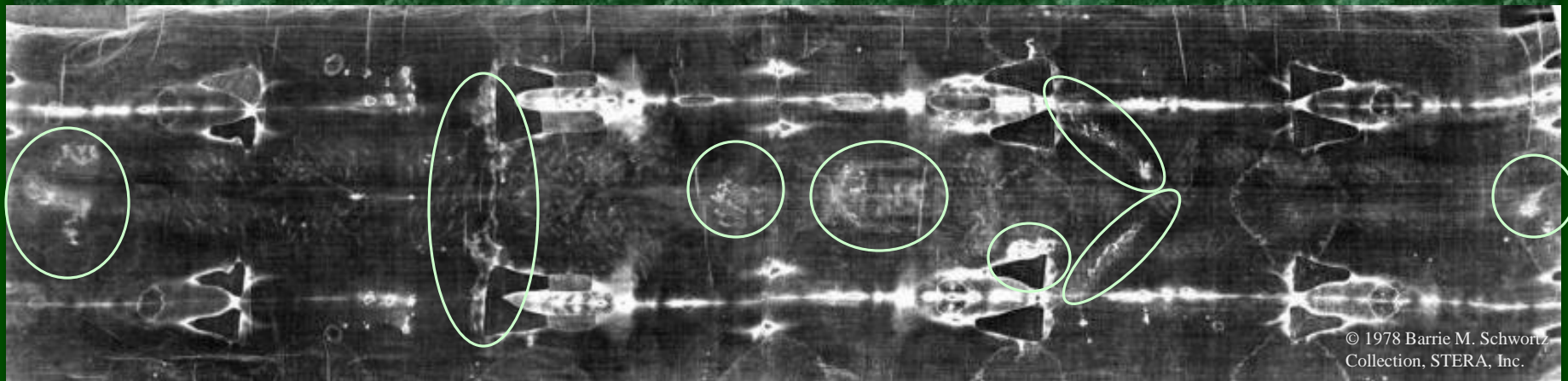


Crucifixion

How can one be sure this is an image of a crucified man? #7 of 7

Point 7 – Blood on Shroud (head, hair, lance wound in side, arms, hands/wrist, feet, etc.)

- Type AB human blood (*see ref regarding blood science review*)⁵¹ on by contact first – no image under the blood
- Red –blood usually turns brown/black; when a body undergoes torture over an extended period , goes into anaphylactic shock: blood cells oxidize inside the body & remains red forever
- The blood highlighted indicates only the main part of the blood visible on the Shroud (e.g. there is blood on some of the flagrum wounds)

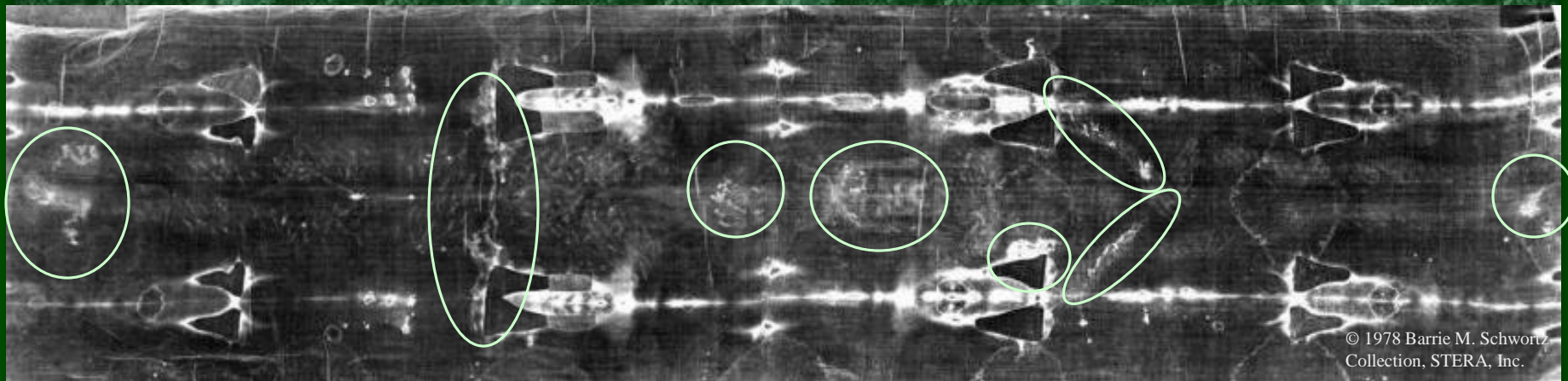


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Crucifixion

Blood on the Shroud

- Blood on the Shroud is exudate (exuded from a corpse) 23-25 & 47
- Blood did not flow from a living body, but exuded from a corpse
 - ✓ When blood flows from a living body, the blood retracts
 - ✓ There is no evidence like torn fibers proving the blood did not retract
 - ✓ Exudate blood on Shroud proves this man was dead before being put in the Shroud and his body was partially cleaned



Crucifixion

Blood on the Hair

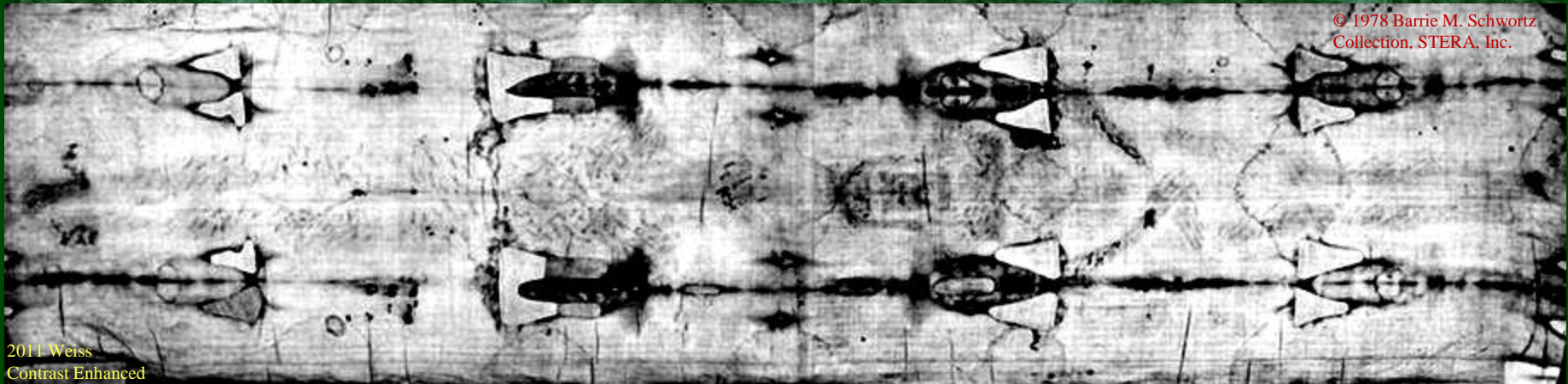


- Holograms provide unique perspective¹⁶
 - ✓ Some researchers claim the blood in the hair on the sides of the face originates from the cheek areas
 - ✓ Before the conversion process from 2D to 3D the bloodspots were taken away (no grayscale of the image)
 - ✓ When converted, the layer (matrix) containing the exact position of the bloodspots went on top of the 3D image
 - ✓ The bloodspots on the sides fitted nicely in the hair, even following on the anatomical right side the natural curving of the hair that is visible in the image

Crucifixion

Notes on Roman Crucifixion Practices & Medical Cause of Death

- Man probably not Roman because they generally did not crucify their own and no Roman would have been scourged this extensively & wounded in the head
- When Romans ready for victim to die they would break the legs
- Wound in side & exudate blood proves death & the legs are unbroken
- Only historical record of a crucifixion victim with wounds on the head
- Wounds in hands consistent with Roman crucifixion – proved by Barbet¹
- Zugibe cause of death: cardiac & respiratory arrest due to hypovolemic & traumatic shock from crucifixion²



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2011 Weiss
Contrast Enhanced

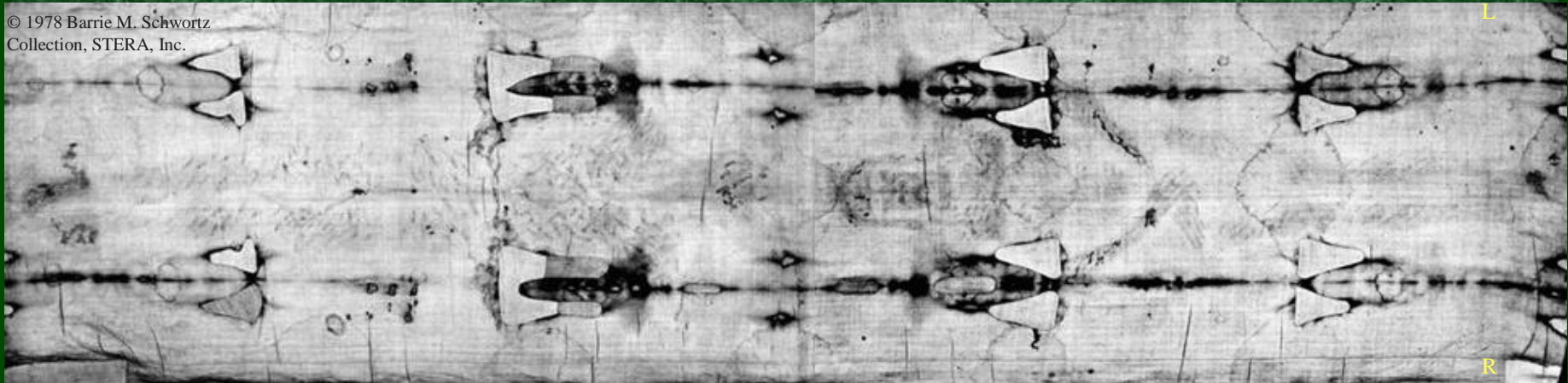
Contrast Enhanced Black & White Photo

Visual Examination

Black & White Shroud Image

- Shroud picture in SEAM is the actual size of the Shroud
- Printed on two 4x8' Kodak DuraTrans film spliced together (see page 3 for Shroud measurements)
- Image can only be seen from about 2 – 9 feet away
- Now, look very closely at the image below: What do you see? Continue for further visual examination

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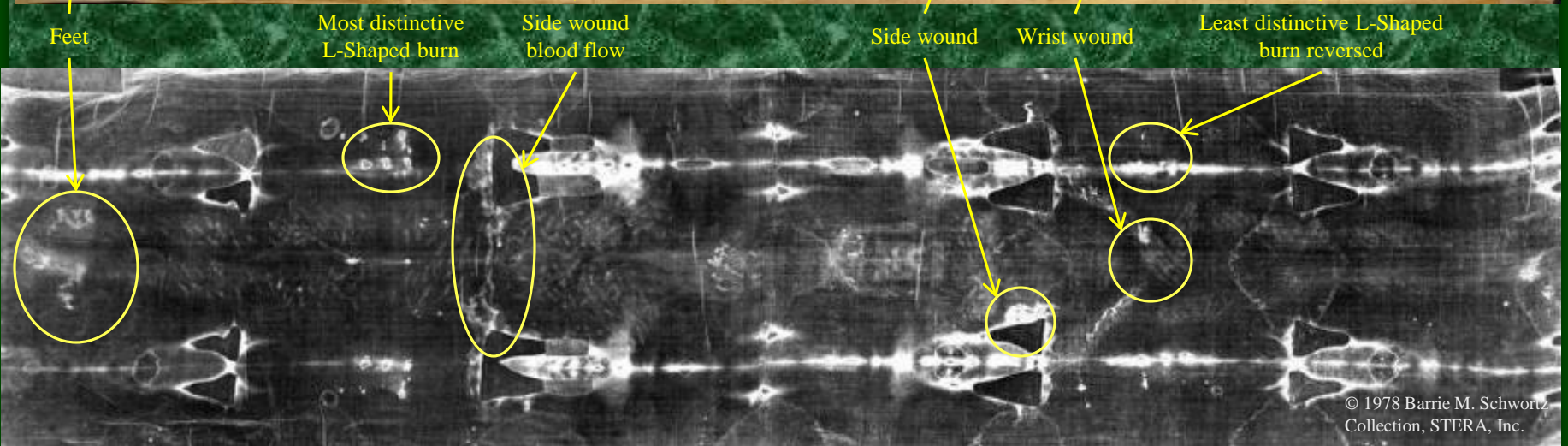


1978 STURP Black & White Photo by Barrie Schwartz.

Visual Examination

Orientation of PHOTOGRAPHIC positive and negative images

Photographic positive shows exactly as you would look at the actual image



Middle notes highlight reversal between images

Photographic negative reverses what you would see on the actual image

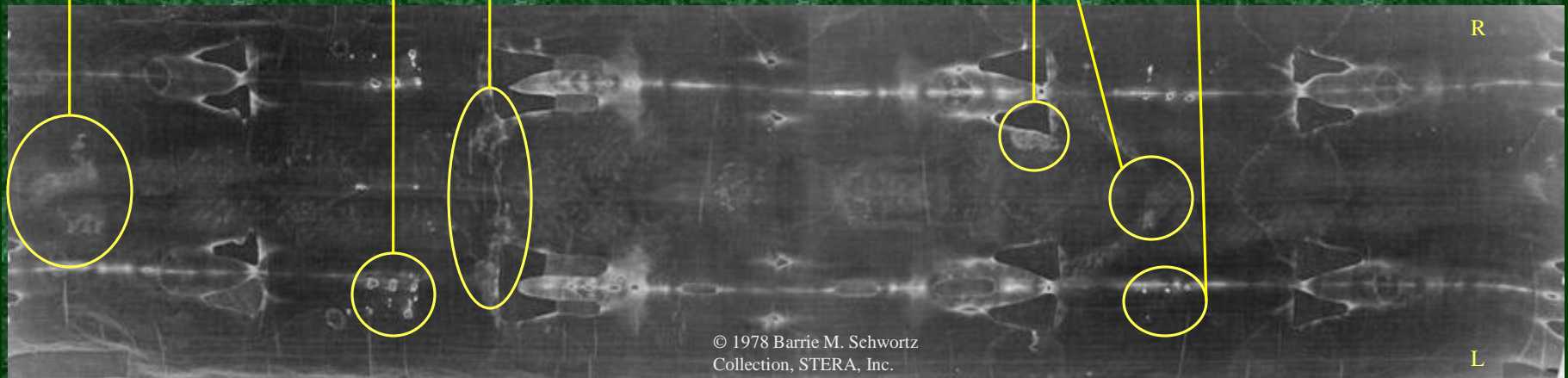
Visual Examination

Orientation of PHOTOGRAPHIC positive and COMPUTERIZED negative images

Photographic positive shows exactly as you would look at the actual image



Note: All Computer reversed images in this slideshow do not appear black since the colors have not been removed; this makes it easier to determine if you are looking at a photographic negative or at a computer inversion of the colors



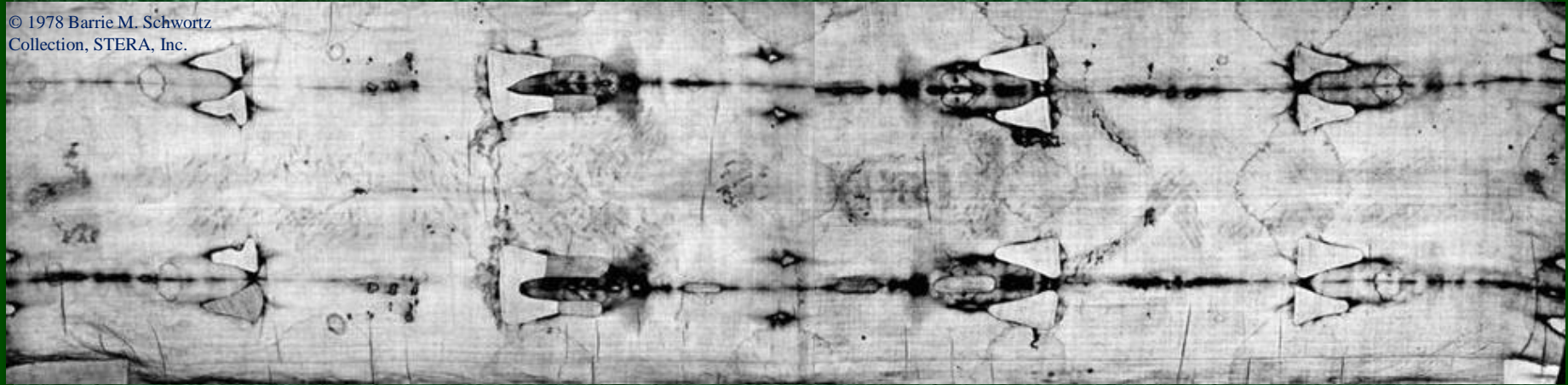
Computer reversing a positive to negative & changing to gray scale - no image reversal as previous

Computer inverted colors (negative) has the same orientation as the actual image

Visual Examination

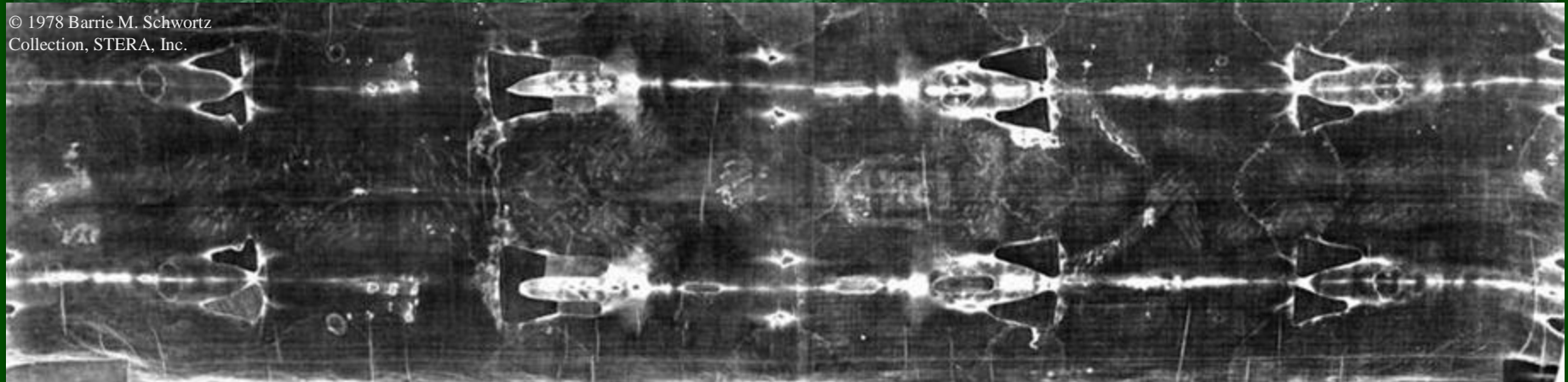
Comparison of Black & White Photo & the Computer Inverted Colors

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Black & White Photo

© 1978 Barrie M. Schwartz
Collection, STERA, Inc.



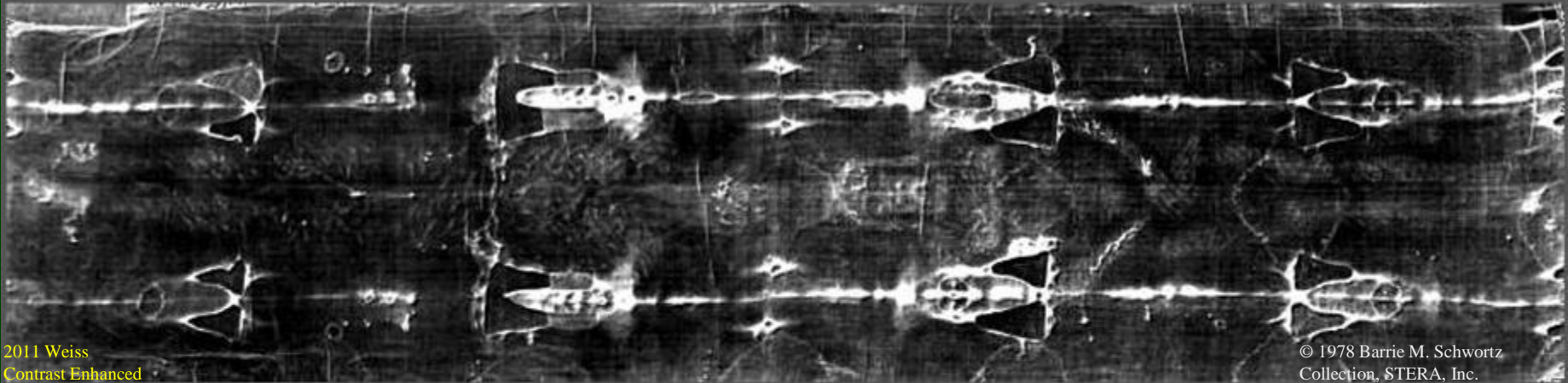
Computer inverted colors (just like negative) with the same orientation as the actual photo but NOT a Photo-negative

Visual Examination

Comparison of Enhanced Negative Photo & the Computer Inverted Colors

Contrast Enhanced Negative Photo

L



2011 Weiss
Contrast Enhanced

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Collection, STERA, Inc.

Computer inverted colors of above negative photo – looks like black & white but the orientation shows it's actually a modified negative

R
L



2011 Weiss
Contrast Enhanced

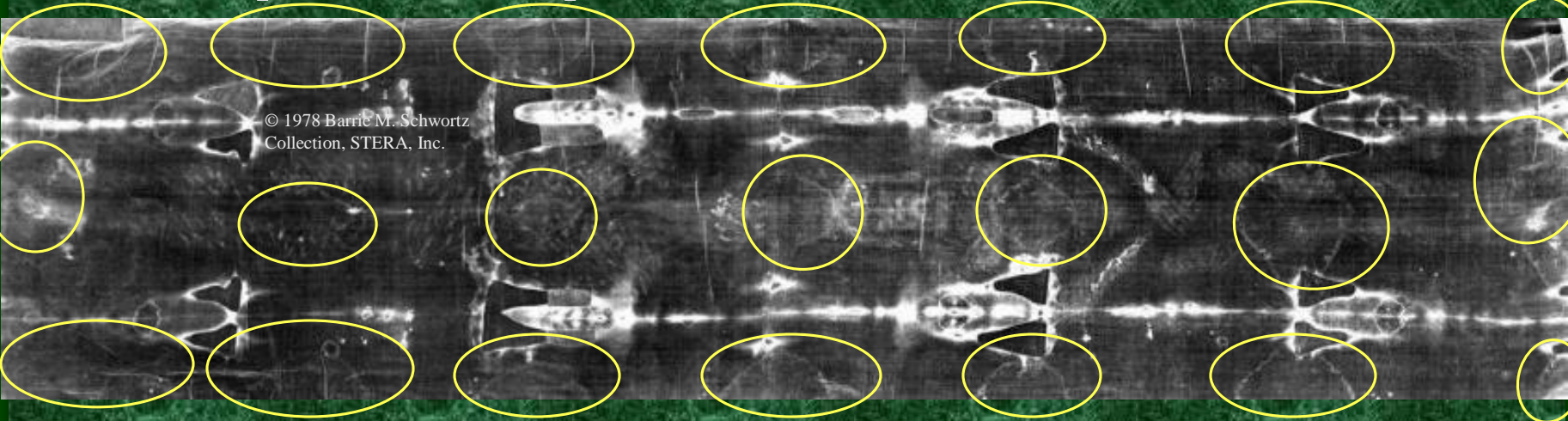
© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

R

Visual Examination

Repeating water stains due to the way the Shroud was folded

- Aldo Guerreschi's & Michele Salcito's computer & photographic studies on the burn marks & water stains reveals Shroud folding¹¹
- Aldo/Salcito confirm Ian Wilson's doubled-in-four (tetradiplon) hypothesis¹³
- Reveals the large water stains were produced prior to the 1532 Chambéry fire
- The Shroud was folded in 52 layers (34x32cm) when large water stains caused by only one corner in the water; storage in a jar is one hypothesis to explain this
- It is believed the Shroud was stored in an earthenware jar similar to those used at Qumran to preserve the Scriptures & store food and other items¹³

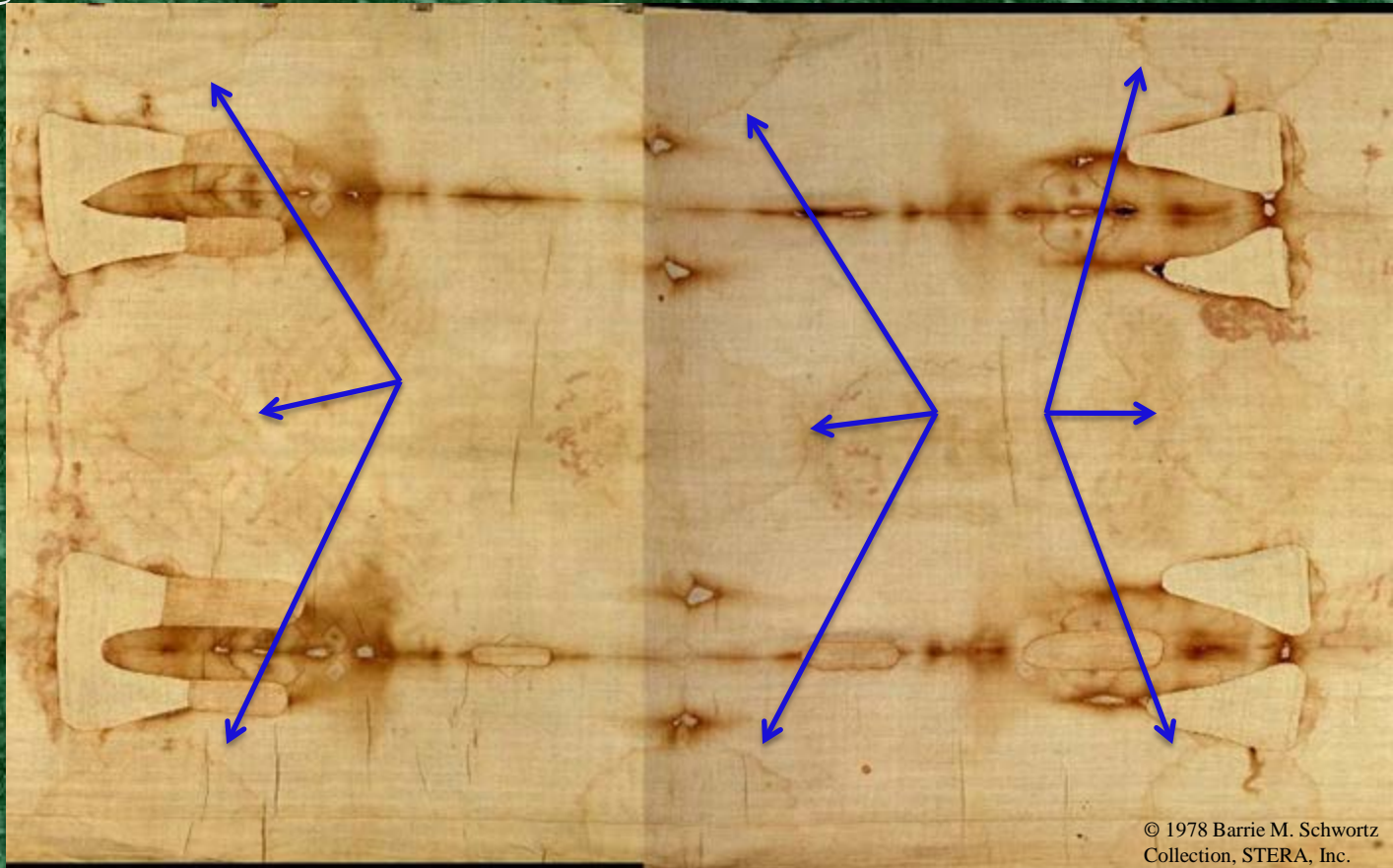


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Visual Examination

Repeating Water Stains

- There are at least two sets 11 & 3 of Geometric water stains appearing in a pattern on the Shroud which could be caused by putting out the fire or by storage

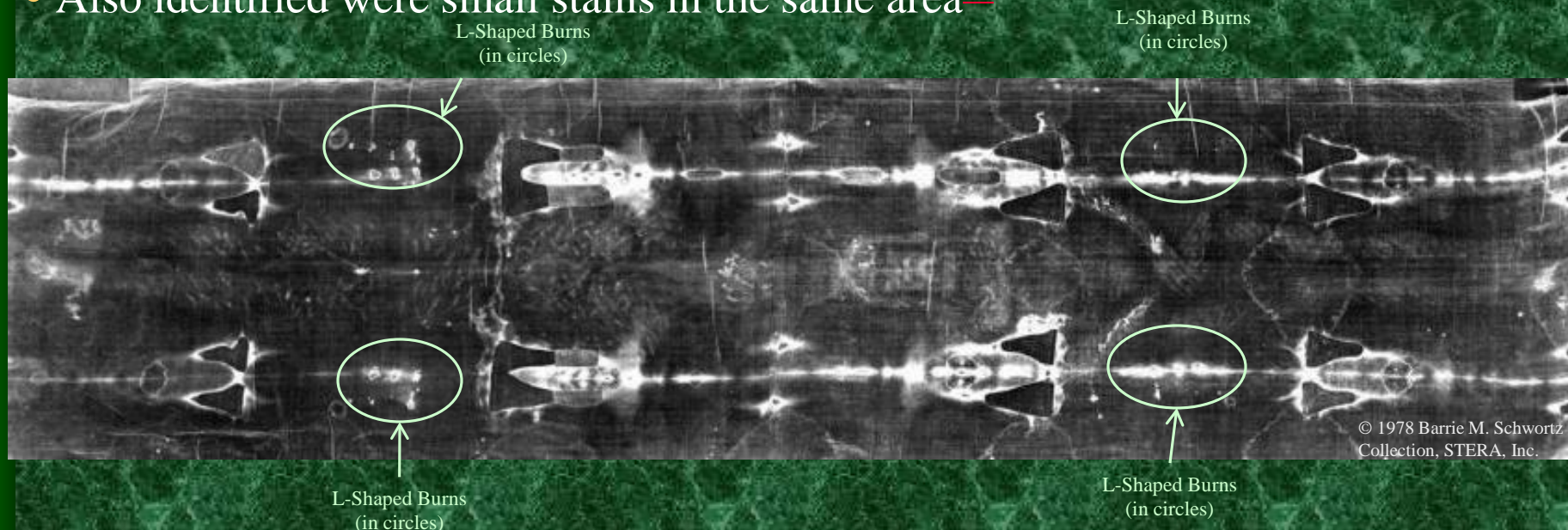


Sets of water damage highlighted with 3 groups of arrows on the upper section of a 72DPI image

Visual Examination

L-Shaped Burn Marks, Date Unknown

- 1191: Hungarian prayer manuscript discovered by Gregory Pray, SJ (called the *Pray Manuscript* in his honor)
- Illustration of Shroud image with these L-shaped burn holes (*poker holes*) of unknown origin
- Based on the burn holes, Guerreschi & Salcito were able to reconstruct how the Shroud was folded (half in height & then nearly half in width)¹¹
- Also identified were small stains in the same area¹¹



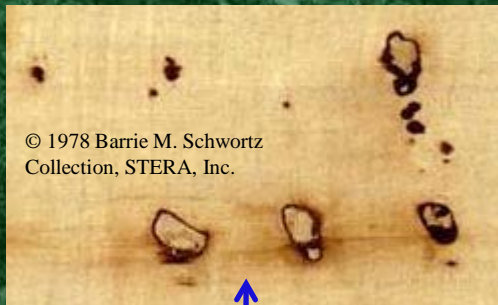
Enlarged in the next slide

Visual Examination

L-Shaped Burn Marks, Date Unknown

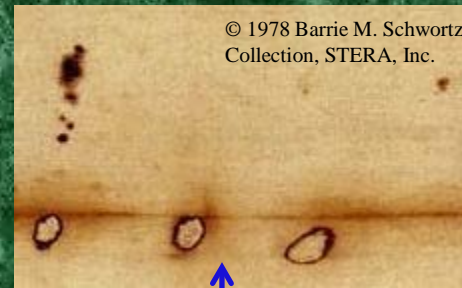
- In an illustrated Hungarian prayer manuscript dated from 1191 discovered by Gregory Pray, Jesuit Scholar
- Source of fire unknown, Historian Ian Wilson surmises btw 7th – 8th century³

*Dorsal
(Back)
Right Side*

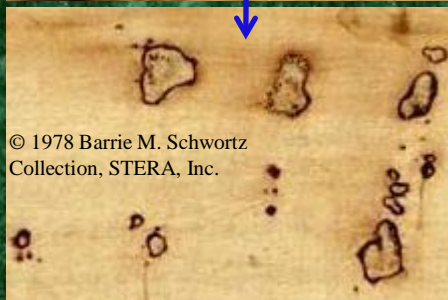


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*Ventral
(Front)
Right Side*



*Dorsal
Left Side*



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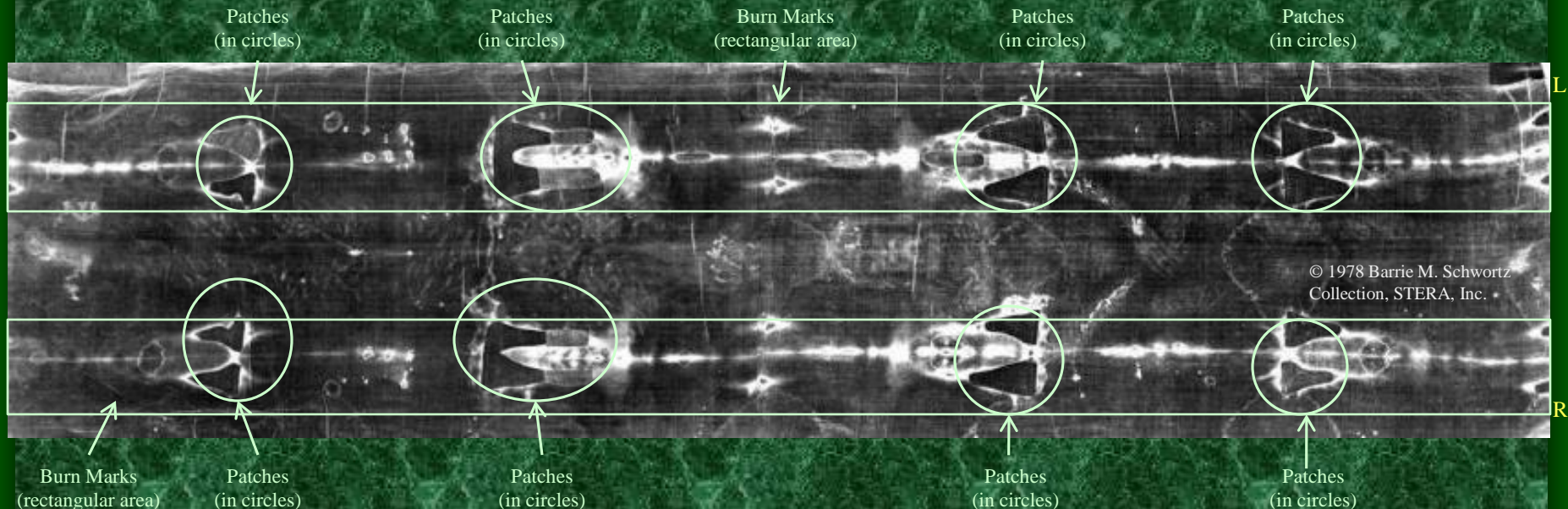
*Ventral
Left Side*



Visual Examination

Burn Marks & Patches

- 1532: Long repeating burn marks from fire in Chambéry France due to the way the Shroud was folded in 52 layers (34x32cm)
- 1534 & 1538: Initial patches & backing cloth (altar cloth called the *Holland Cloth*) sewn by Poor Clare Nuns
- 1694 Bl. Sebastian Valfre adds patches over some inadequate Poor Clare work¹⁷
- Matching of Enrie 1931 photos with Schwartz transparencies permitted specific measurement of burn holes aiding in identifying folding mechanism¹¹

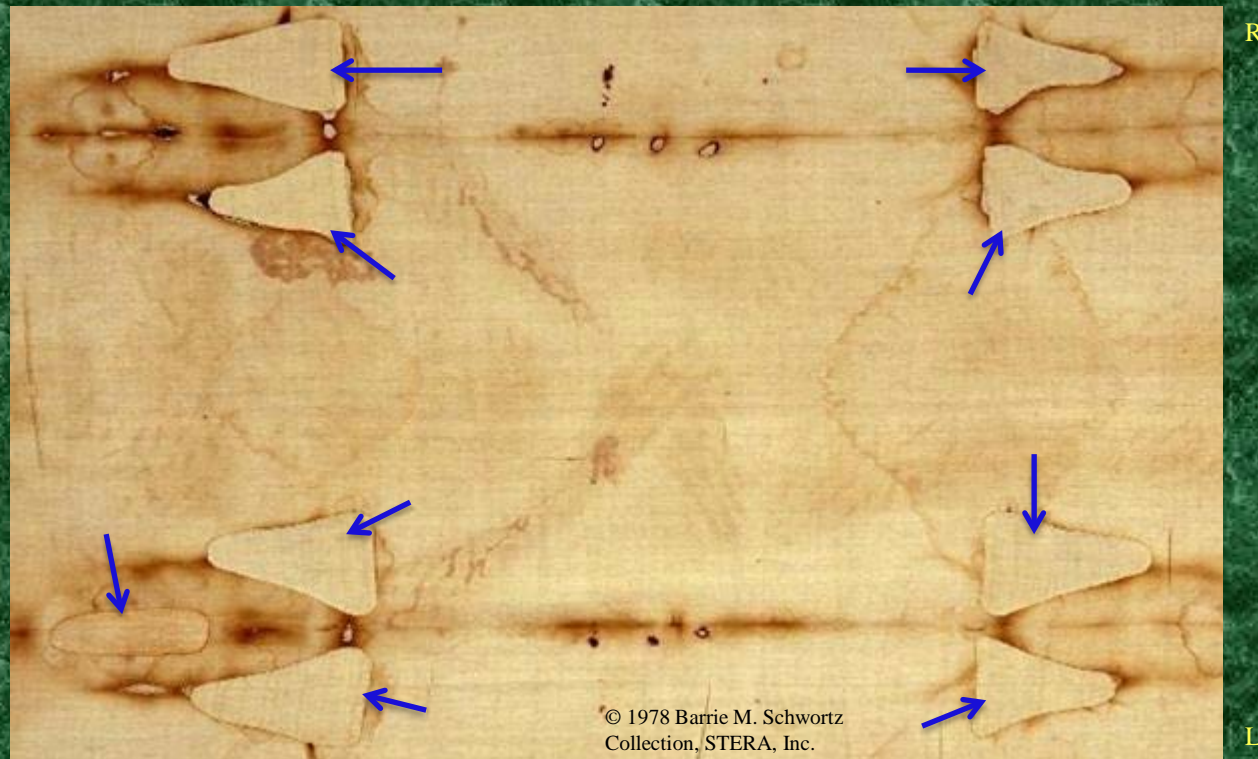


Visual Examination

Largest Burn Marks (with Patches) from 1532 fire in Chambéry, France

- Examples of fire area from ventral image showing patches sewn on the Shroud in 1534 and 1538 by Poor Claire Nuns; backing cloth seen through unpatched holes

Note: The 1532 fire caused much damage because of the way the Shroud was folded – one corner caught fire causing the majority of the damage to the Shroud



Positive photo highlighting ventral fire damage from below beard to lower legs with arrows identifying patches (ignoring the L-Shaped burns which are highlighted separately in previous slide)

Visual Examination

1978 Examination of Shroud Under the Holland Cloth Near the Foot Wounds



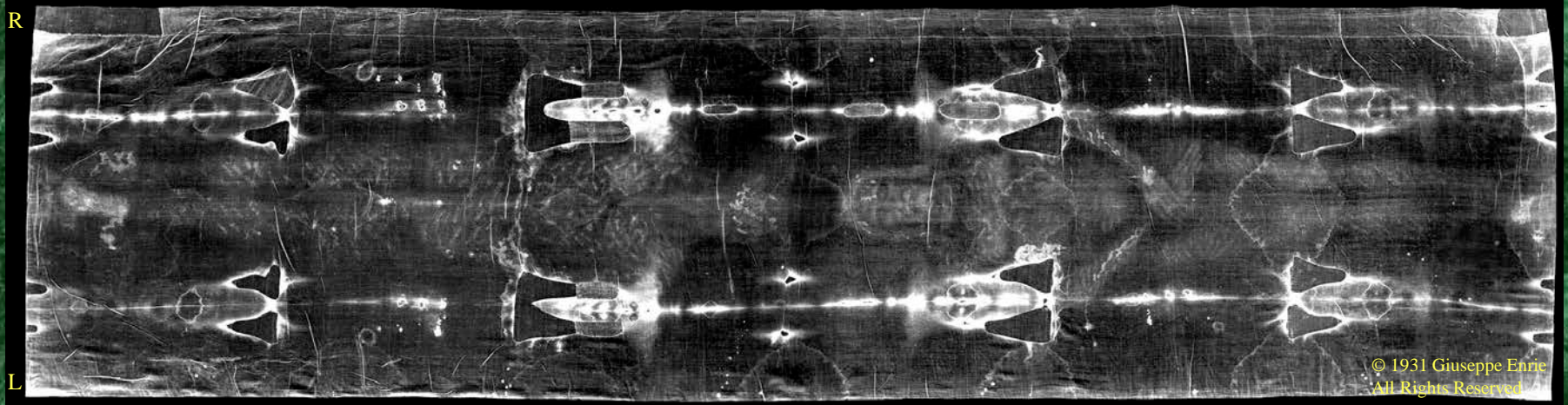
© 1978 Barrie M. Schwartz
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Prof. Giovanni Riggi, Sam Pellicori, Franco Faia and Prof. Luigi Gonella look at the underside of the Shroud near the dorsal feet

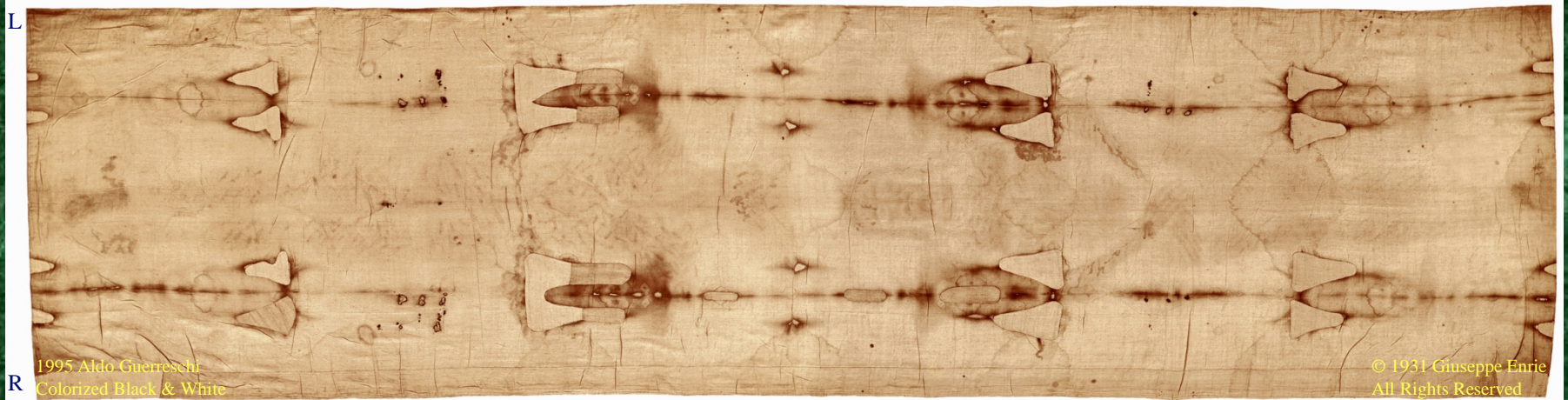
Visual Examination

Creases

- Creases in Enrie's 1931 image and in the colorization under



Giuseppe Enrie's 1931 negative image

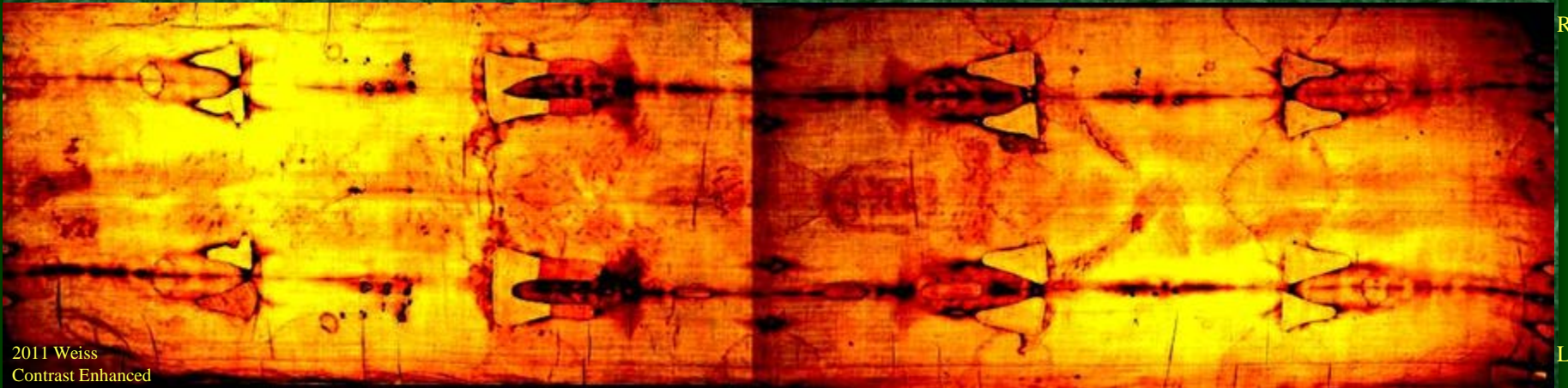


Aldo Guerreschi's colorized Giuseppe Enrie 1931 computer-flipped negative image

Visual Examination

Creases

- Creases had become a prominent feature (below)
- Most removed in 2002 restoration & now stored flat to avoid future creases



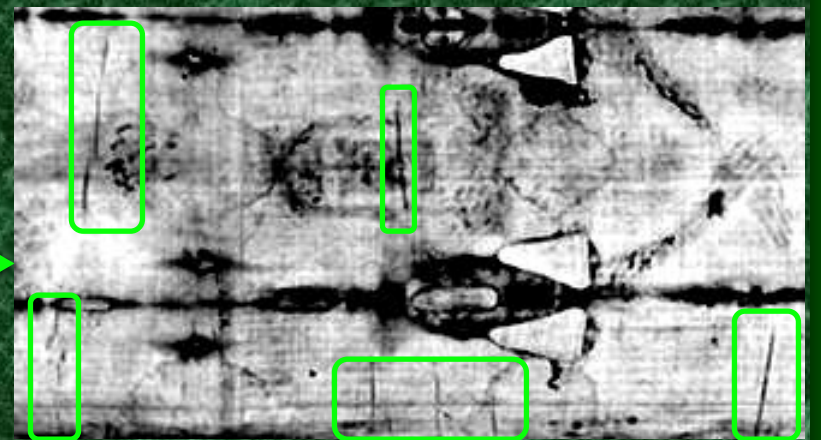
Computer enhanced colors of the 1978 Schwartz photo to highlight creases which are easily seen throughout the Shroud



Computer enhanced colors of head

Creases

Creases



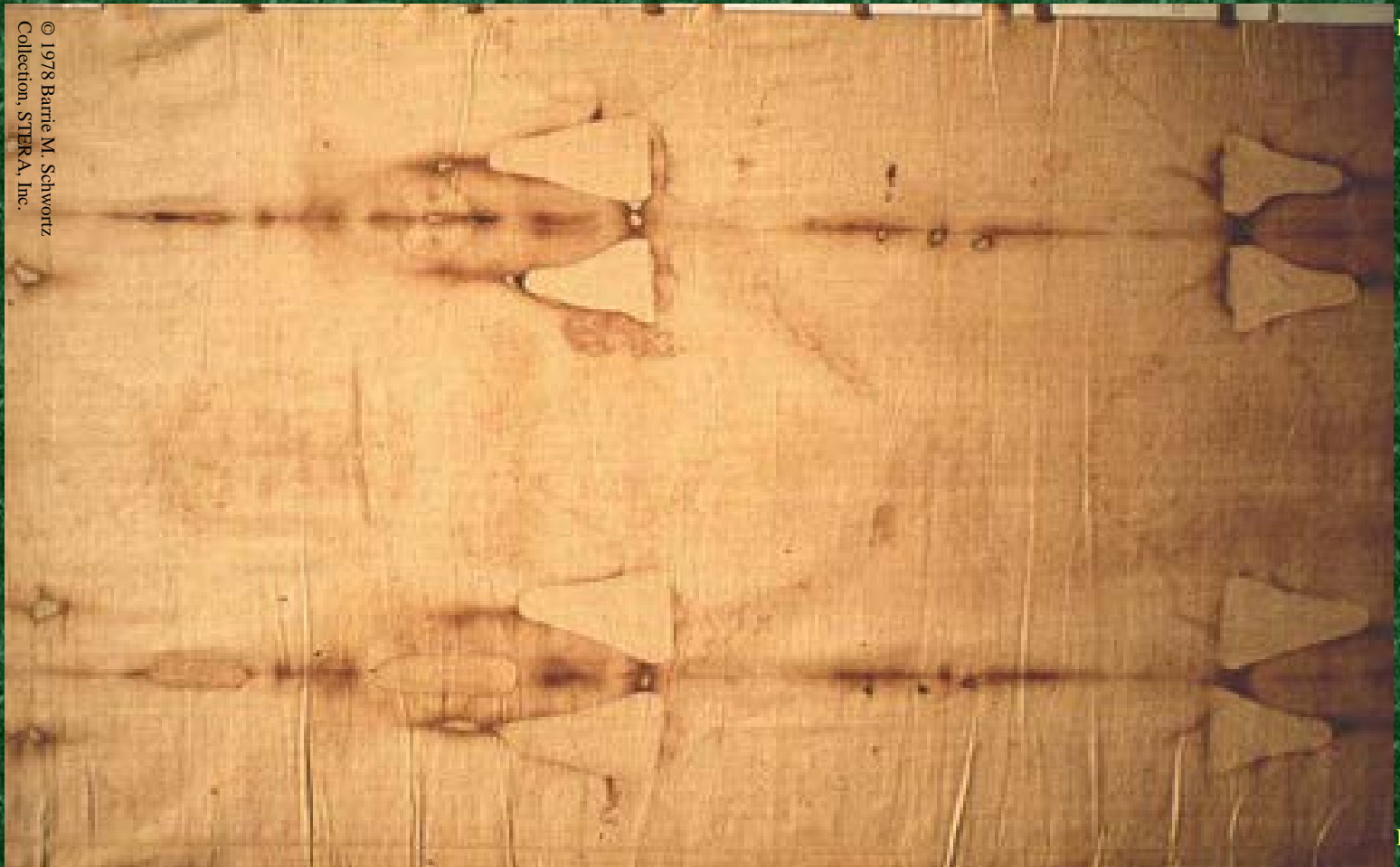
Computer enhanced Black & White

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Visual Examination

Creases

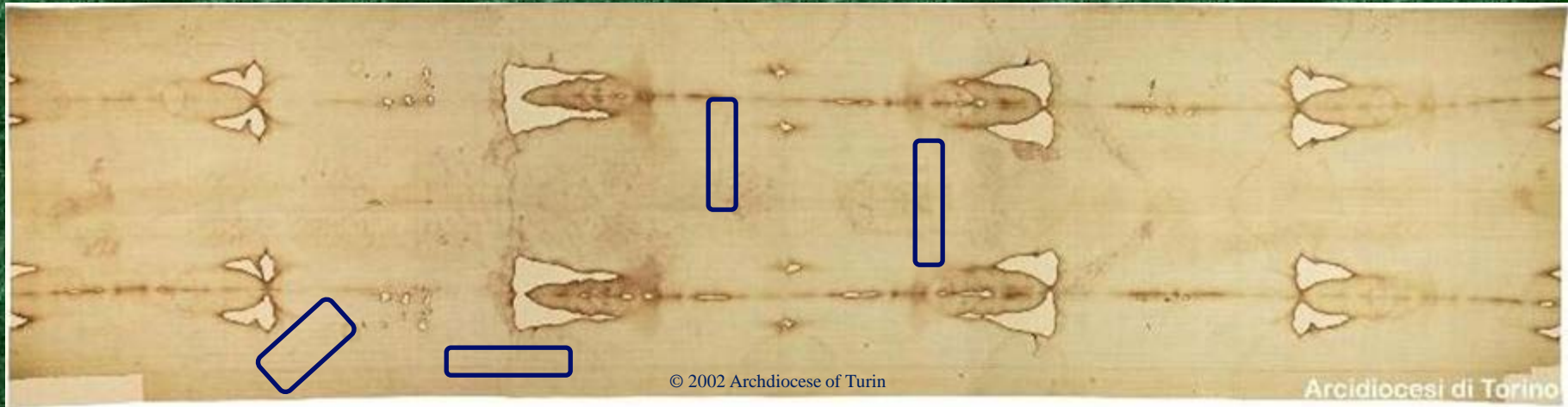
- Creases had become a prominent feature (below 1978 Schwartz picture)
- Most removed in 2002 restoration & now stored flat to avoid future creases



Visual Examination

Creases

- Creases had become a prominent feature
- Most removed in 2002 restoration & now stored flat to avoid future creases
- Can you find *any* creases in the 2002 restoration image below?
- After enlarging several times, the webmaster found four faint creases
- Try enlarging your view of this slide to see them – PDFs are very scalable

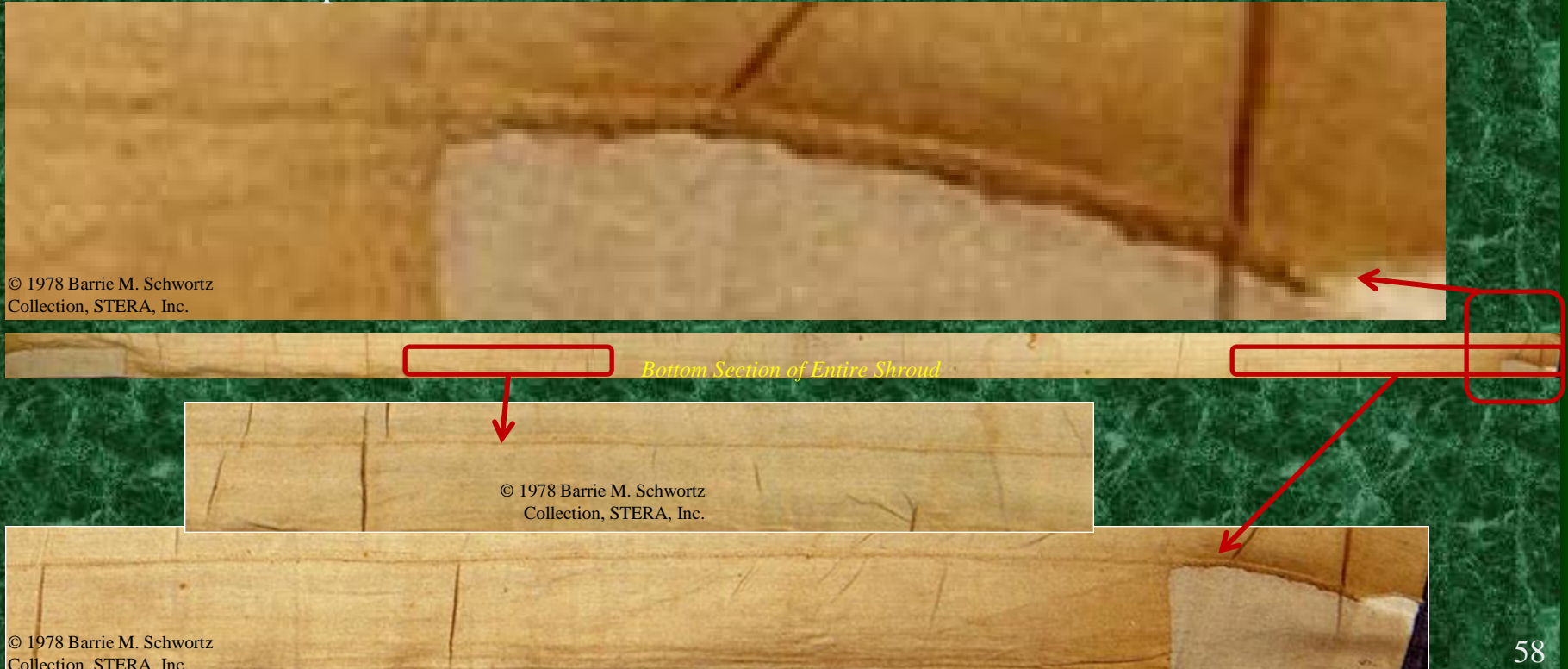


2002 post-restoration photo positive

Visual Examination

Strip of Cloth

- Jackson's theory: strip cutoff to bind the body in the Shroud & reattached later, noting several fold marks match between the Shroud and the reattached strip¹²
- Technique used to reattach strip known as *false border* took great expertise¹³
- Threading used to reattach is an S-shaped torsion structure, different from the Shroud's Z-shaped torsion structure¹³



Visual Examination

Facial Expression Evaluation

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Schwartz Negative Head

- The look on the face shows:
 - ✓ Peace
 - ✓ Serenity
 - ✓ Surrender
- This is not the look of a terrified man
- This man accepted his fate
- This man was at peace with himself and the world around him
- There is no discernible emotional facial disfiguration
- The character of this man might be extrapolated from his visage
- He does not have hidden pain, but is in harmony with life & God

History

Earliest Years according to Eusebius

- In Book 1, 13, Eusebius states written evidence of his report is available & taken from the Record Office at Edessa, that that time a royal capital
- He extracted and translated from the Syriac word for word
 - ✓ Copy of a letter sent by Abgar the Toparch to Jesus at Jerusalem
 - ✓ Copy of a reply sent from Jesus to Abgar by the courier Ananias
 - ✓ Quotes short part of the Doctrine (Teaching) of Addai
 - ✓ Read the historically attested letters for yourself
- Addai document identifies
 - ✓ Judas, also known as Thomas sent the apostle Thaddeus (Addai)
 - ✓ Thaddeus is identified with the 70 sent by Jesus to preach (Lk 10:1-24)

History

Timeline Reconstruction from work of Ian Wilson¹⁷

Jerusalem to Edessa

Thaddeus/Addai⁴⁶ (1 of 70 in Lk 10:1-24) sent by Judas aka Thomas takes a "...cloth bearing the image of Christ" known as the *image not made by hands* (*αχειροποίητα* - *Acheiropoieta*) to Abgar V and he is cured of a serious disease. This cloth becomes known as *The Cloth of Edessa* since it is kept in that city.

After Abgar's first son dies, his second son takes throne and persecutes Christians.

Shroud disappears, likely hidden.

Abgar V dies, his first son takes throne.

Abgar VIII, pro Roman and Christian, assumes the throne.

Constantine the Great becomes first Christian Roman Emperor. Edessa Bishop Cona orders construction of cathedral.

Flood of Edessa. Roman Emperor Diocletian orders destruction of Christian properties and persons.

30-33

50

57

177

303

313

History

Timeline Reconstruction from work of Ian Wilson¹⁷

Edessa

Egeria, a nun, makes observation concerning a letter from Jesus to Abgar V

*Doctrine of Addai*⁴⁶ published based on an earlier version of Abgar's story concerning Hannan who painted Christ's portrait "in choice paints." (Perhaps related to garbled memory of a likeness of Jesus brought to Edessa.)

Beginning of Pontificate of Gelasius, who decrees the correspondence of Jesus invalid. The West firmly rejects the letter & the East firmly retains.

Edessa again floods

The remains of Thaddeus are moved to St. John the Baptist church in the middle of the city of Edessa, near the church of Theotokos (Mother of God).

Joseph of Arimathea reported as having "collected the blood of Jesus in a head band and a large sheet." Might initiate story of "the Holy Grail."

*City Gates of Edessa are repaired and sealed.

*Edessa floods again causing severe loss of life and property, including the churches. Repairs and reconstruction undertaken.

*Possible *Cloth of Edessa* recovery between 502–525 during repairs in both time periods.

Persian attack on Edessa is repulsed as "Christ stands before our city."

375

383

413

492

494

502-503

525

History

Timeline Reconstruction from work of Ian Wilson¹⁷

Edessa

The *Acts of Thaddaeus* (Jude or Labbaeus) story of Edessa's evangelization, dated no later than 600, describes Jesus wiping His face on *tetradiplon*, a cloth *doubled in four*, leaving an image of His face on the cloth.

Byzantine Emperor Justinian II issues gold coins bearing the first likeness of Jesus. The likeness is very similar to the Shroud of Turin facial image.

Evagrius writes in his *Ecclesiastical History*, the Persian attack repulsed by "...the divinely wrought likeness (of Jesus) which 'human hands have not made'." One of the first references to the Cloth of Edessa as a historical object.

Edessa falls rather peaceably to the Moslems. Nestorian, Monophysite and Orthodox Christian Churches are accorded toleration by the new rulers.

Hymn mentions the "image not the work of [human hands]".

544

569

c. 600

639

692

History

Timeline Reconstruction from work of Ian Wilson¹⁷

Edessa to Constantinople

Byzantine Emperor Romanus sends an army to negotiate for the safe transfer of “the Edessa cloth imprinted with Jesus’ likeness” from the Moslems. He offers “...(Edessa) perpetual immunity from attack, ...12,000 pieces of silver, and release (of) 200 Moslem prisoners.” (“Edessa’s Christians *attempt* to hand over mere copies, the bishop is eventually satisfied that he has the original and travels with it across Anatolia back to Constantinople.

Countless icons and artistically created images of Jesus were destroyed during a period of iconoclasm. The Cloth of Edessa survived because it was not artistically created. Byzantine and Moslem both suffered losses of such properties during this time.

August 15, 944, the “Cloth of Edessa” arrives in Constantinople. August 16, it is paraded and then taken to Hagia Sophia where the Archdeacon Gregory delivers a sermon about the cloth.

Fourth Crusade captures Constantinople and the Shroud disappears.

Leo Lector of Constantinople mentions seeing “the holy image made without hands revered and adored by the faithful”

Byzantine Emperor Constantine VII Porphyrogennetos issues silver coins with the likeness of Jesus on coins, very similar to the Shroud of Turin image.

723

c. 750

943

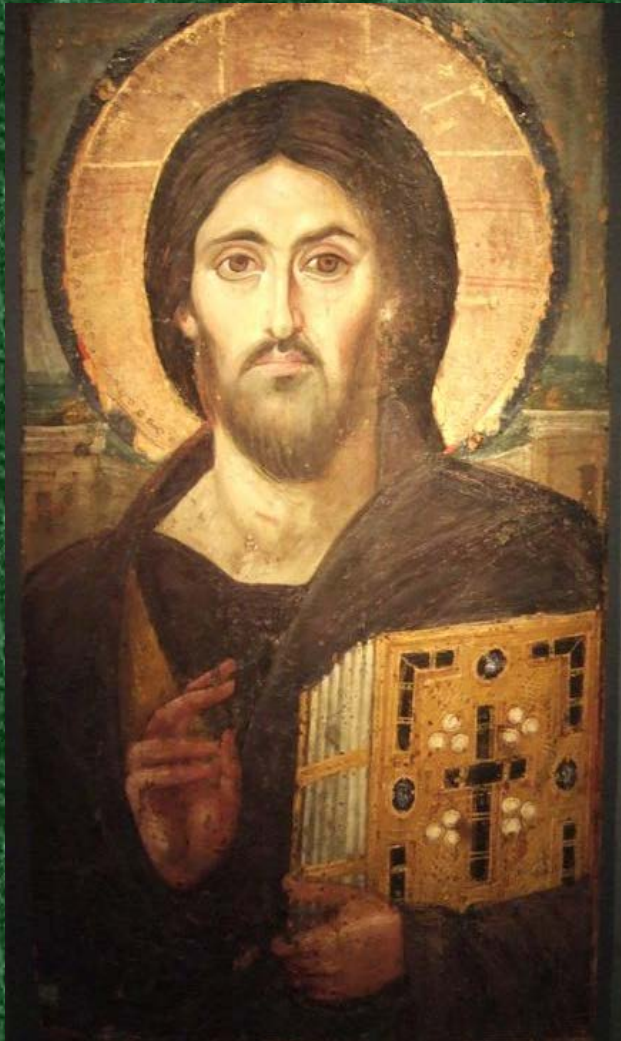
944

945

1204

History

Christ Pantocrator Icon about 550AD



- Cloth of Edessa found in a niche in 525AD after flood nearly destroyed the city
- Cloth paraded around city in 525
- Oldest known icon³ of Christ Pantocrator or *Christ the King* (~550AD)
- Encaustic (hot wax painting) on Panel
- Image has several points of congruence indicating modeling from the Shroud face image
- Different facial expressions can emphasize Christ's dual nature as fully God and fully human (continued examination immediately follows...)

History

Travels of the Shroud

Dr Avinoam Danin on the travel of the Shroud

This statement matches the journey of the Shroud from Jerusalem to Edessa, Turkey (modern Sanliurfa).¹⁷

“Dr Avinoam Danin of the Hebrew University's Department of botany that's even pointed to the Shroud pollen demonstrating an itinerary from Israel's Negev Desert northwards to the Lebanon Highlands.”⁴²

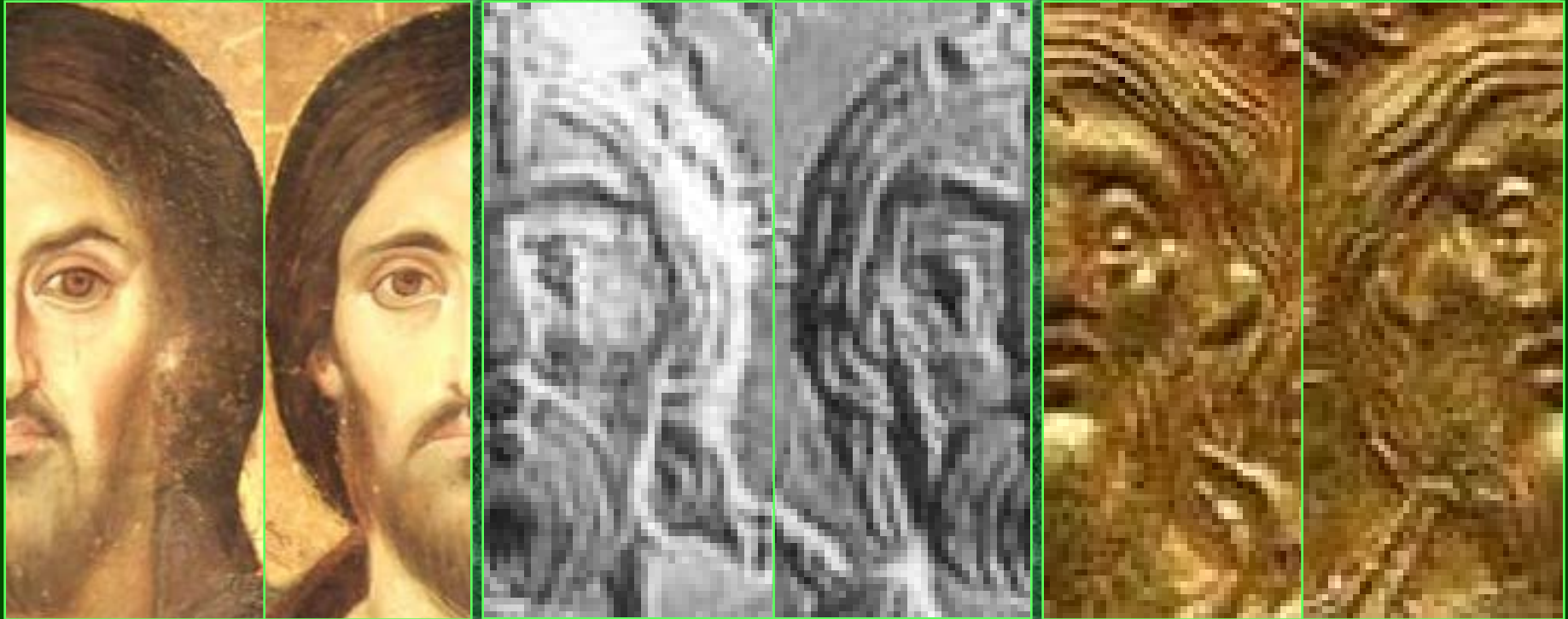
Note: the Negev Region is Southeast from Jerusalem.



History

Examination of Half-Face Expressions

Judge for yourself if each image has two different expressions as claimed for the Christ Pantocrator



*Christ Pantocrator (Christ the King) circa
around 550 AD*

*945 AD Coin Struck by Byzantine Emperor Constantine
VII Porphyrogenetos , Byzantine Ruler 945–959*

*692 AD Gold Coin Struck by Byzantine Emperor
Justinian II , Byzantine Ruler 685–695, 705–711*

History

Examination of Half-Face Expressions

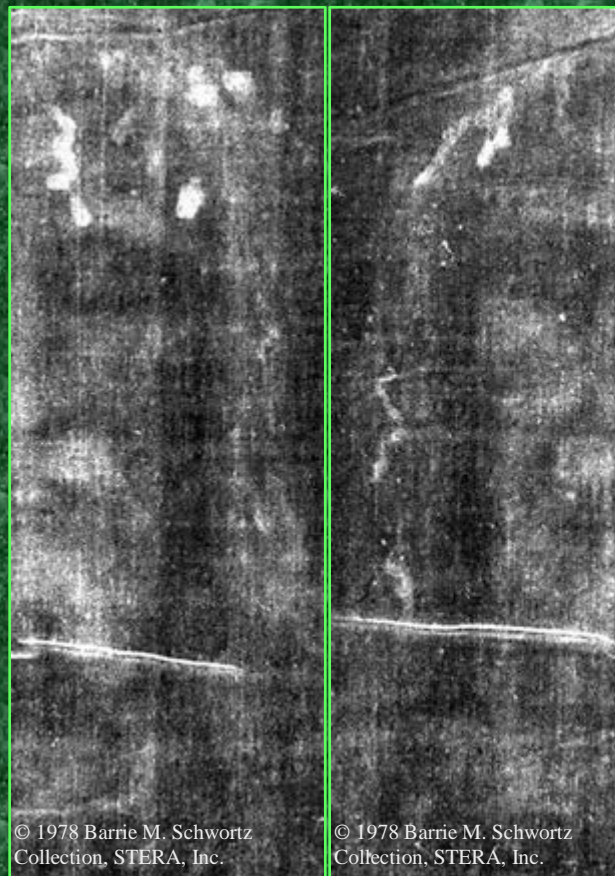
Compare the image in positive and negative for the claimed two expressions



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Collection, STERA, Inc.

Schwartz 1978 Color Positive Head Image



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Schwartz 1978 Negative Head Image

History

Examination of three different Half-Face Expressions

Compare each side of the three images for yourself

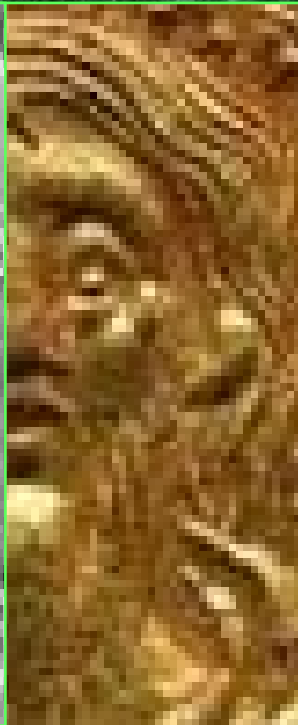


~550 AD



945

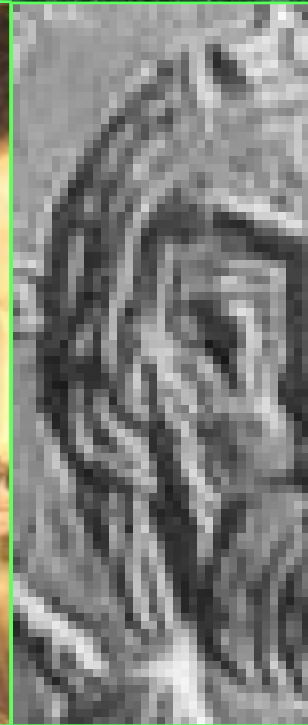
Left



692



~550 AD



945

Right



692

History

Vignon Markings

French Scholar Paul Vignon³ identified common markings with many Byzantine Christ portraits he examined

- | | |
|--------------------------------------|--|
| 1) Two strands of hair | 8) Enlarged left nostril |
| 2) Transverse streak across forehead | 9) Accentuated line between nose & upper lip |
| 3) Topless square between eyebrows | 10) Heavy line under lower lip |
| 4) 'V' Shape at bridge of nose | 11) Hairless area between lower lip & beard |
| 5) Raised right eyebrow | 12) Forked beard |
| 6) Heavily accented, owlish eyes | 13) Transverse line across throat |
| 7) Accentuated left & right cheek | 14) Left side lock of hair lower than right |

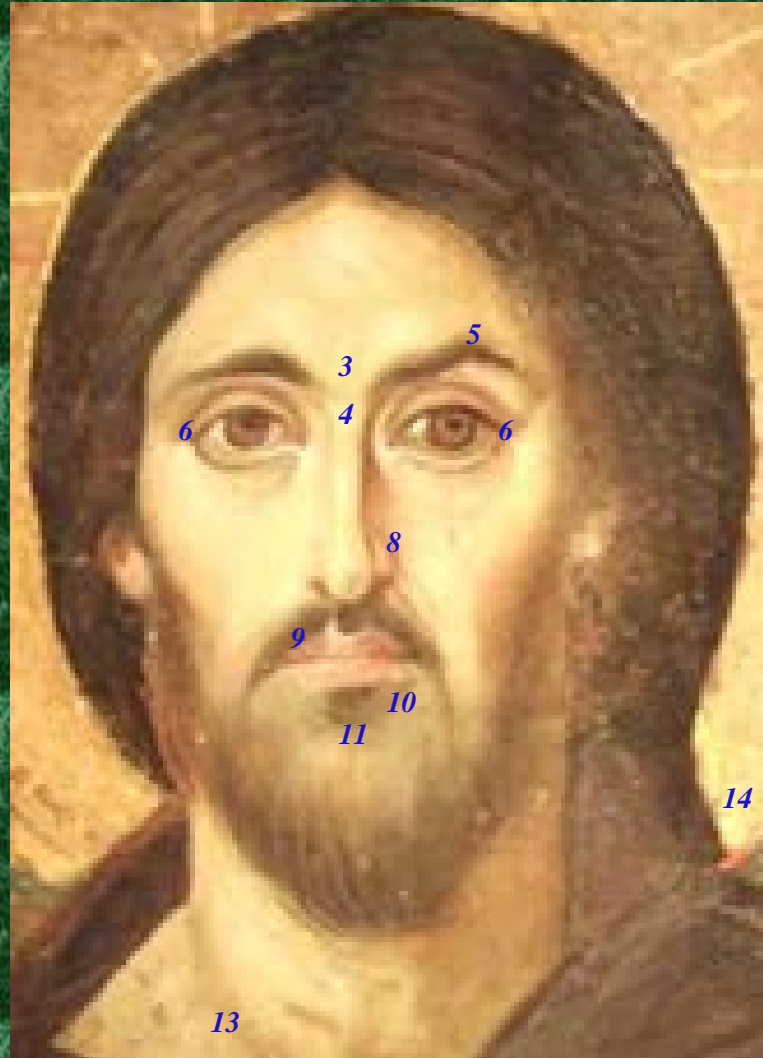
See below & subsequent slides to compare Vignon's identifications with your own observations



History

Dcn. Andy Weiss' Evaluation of Enlargement: 10 points of congruence (in orange)

- 1) Two strands of hair
- 2) Transverse streak across forehead
- 3) Topless square between eyebrows
- 4) 'V' Shape at bridge of nose
- 5) Raised right eyebrow
- 6) Heavily accented, owlsh eyes
- 7) Accentuated left & right cheek



- 8) Enlarged left nostril
- 9) Accentuated line btw nose & upper lip
- 10) Heavy line under lower lip
- 11) Hairless area btw lower lip & beard
- 12) Forked beard
- 13) Transverse line across throat
- 14) Left side lock of hair lower than right

Image Source: Saint Catherine's Monastery, Mount Sinai

History

Byzantine Emperors Coins³



692 AD Gold Coin Struck by Byzantine Emperor Justinian II , Byzantine Ruler 685–695 & 705–711

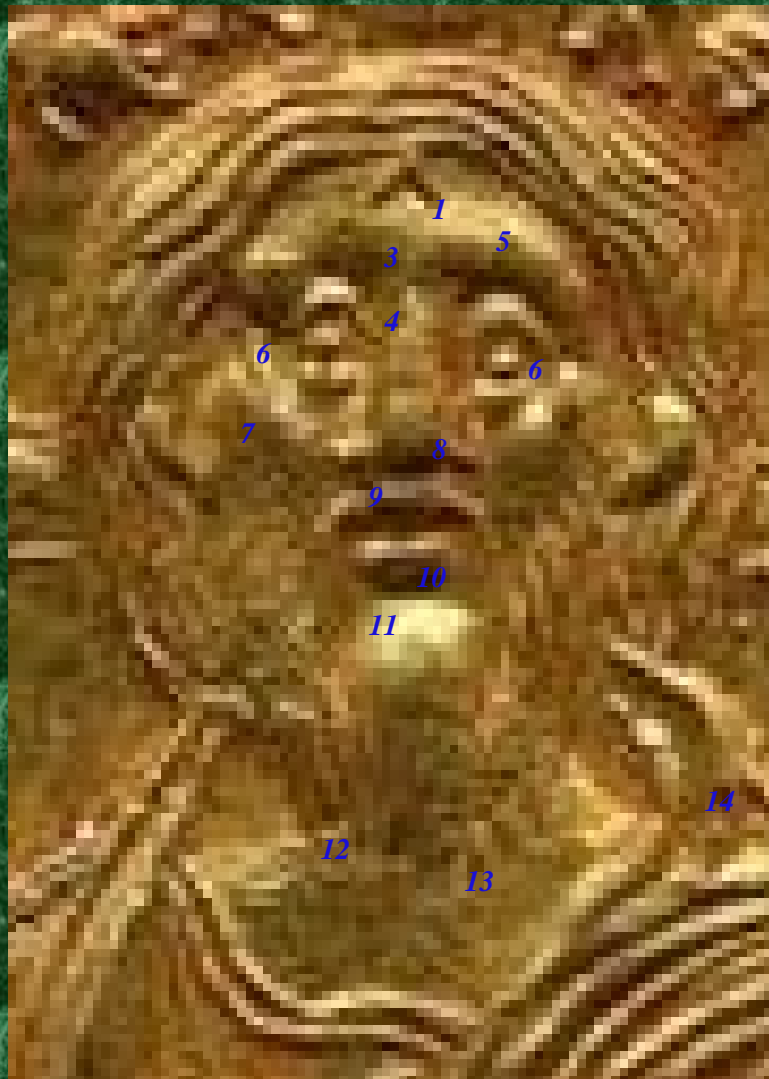


945 AD Coin Struck by Byzantine Emperor Constantine VII Porphyrogenetos , Byzantine Ruler 945–959

History

Dcn. Andy Weiss' Evaluation of Enlargement: 13 points of congruence (in orange)

- 1) Two strands of hair
- 2) Transverse streak across forehead
- 3) Topless square between eyebrows
- 4) 'V' Shape at bridge of nose
- 5) Raised right eyebrow
- 6) Heavily accented, owlsh eyes
- 7) Accentuated left & right cheek

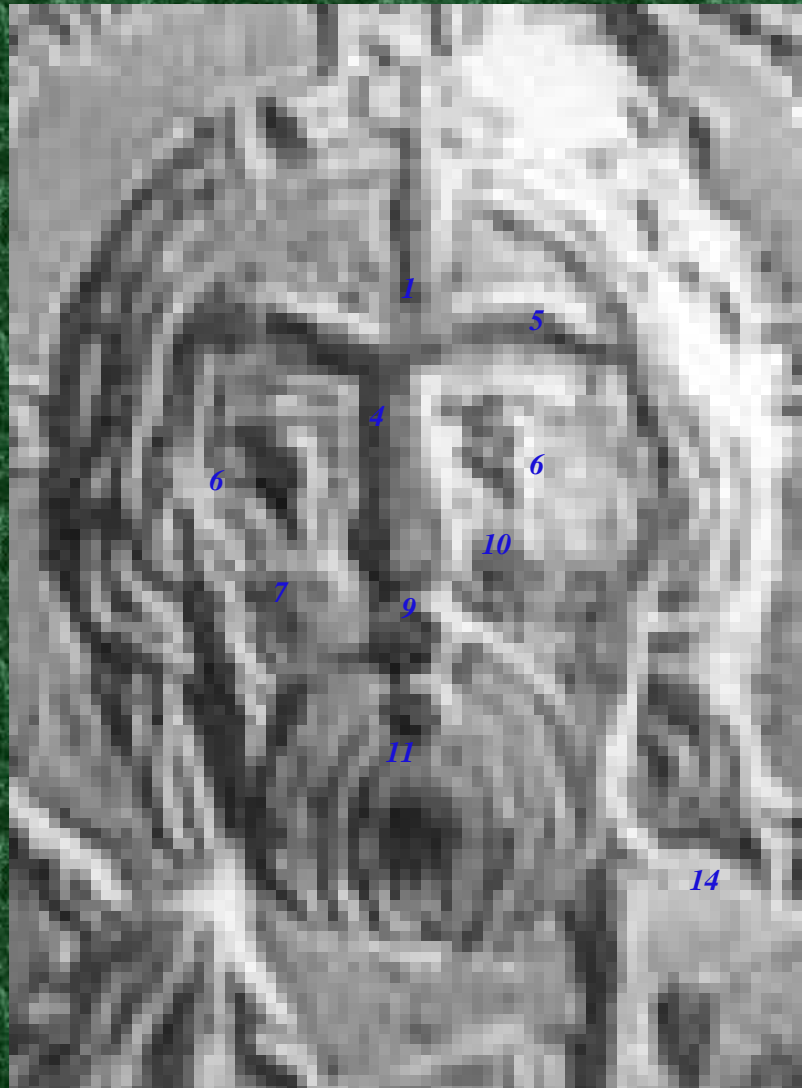


- 8) Enlarged left nostril
- 9) Accentuated line btw nose & upper lip
- 10) Heavy line under lower lip
- 11) Hairless area btw lower lip & beard
- 12) Forked beard
- 13) Transverse line across throat
- 14) Left side lock of hair lower than right

History

Dcn. Andy Weiss' Evaluation of Enlargement: 9 points of congruence (in orange)

- 1) Two strands of hair
- 2) Transverse streak across forehead
- 3) Topless square between eyebrows
- 4) 'V' Shape at bridge of nose
- 5) Raised right eyebrow
- 6) Heavily accented, owlsh eyes
- 7) Accentuated left & right cheek



- 8) Enlarged left nostril
- 9) Accentuated line btw nose & upper lip
- 10) Heavy line under lower lip
- 11) Hairless area btw lower lip & beard
- 12) Forked beard
- 13) Transverse line across throat
- 14) Left side lock of hair lower than right

History

Pray Manuscript of 1191AD



Image Source: National Szechenyi Library, Budapest

- Hungarian Pray Manuscript Illustration (1191) of removing Christ from the cross discovered by Gregory Pray, SJ

Shows the following:

- Dead body of Christ being removed from the cross by the four witnesses
- Nicodemus
- Mary the Mother of Jesus (left)
- Joseph of Arimathea
- John the Apostle (right)

History

Pray Manuscript of 1191AD



Image Source: National Szechenyi Library, Budapest

- Hungarian Pray Manuscript Illustration (1191) of the entombment of Christ³

Upper Illustration:

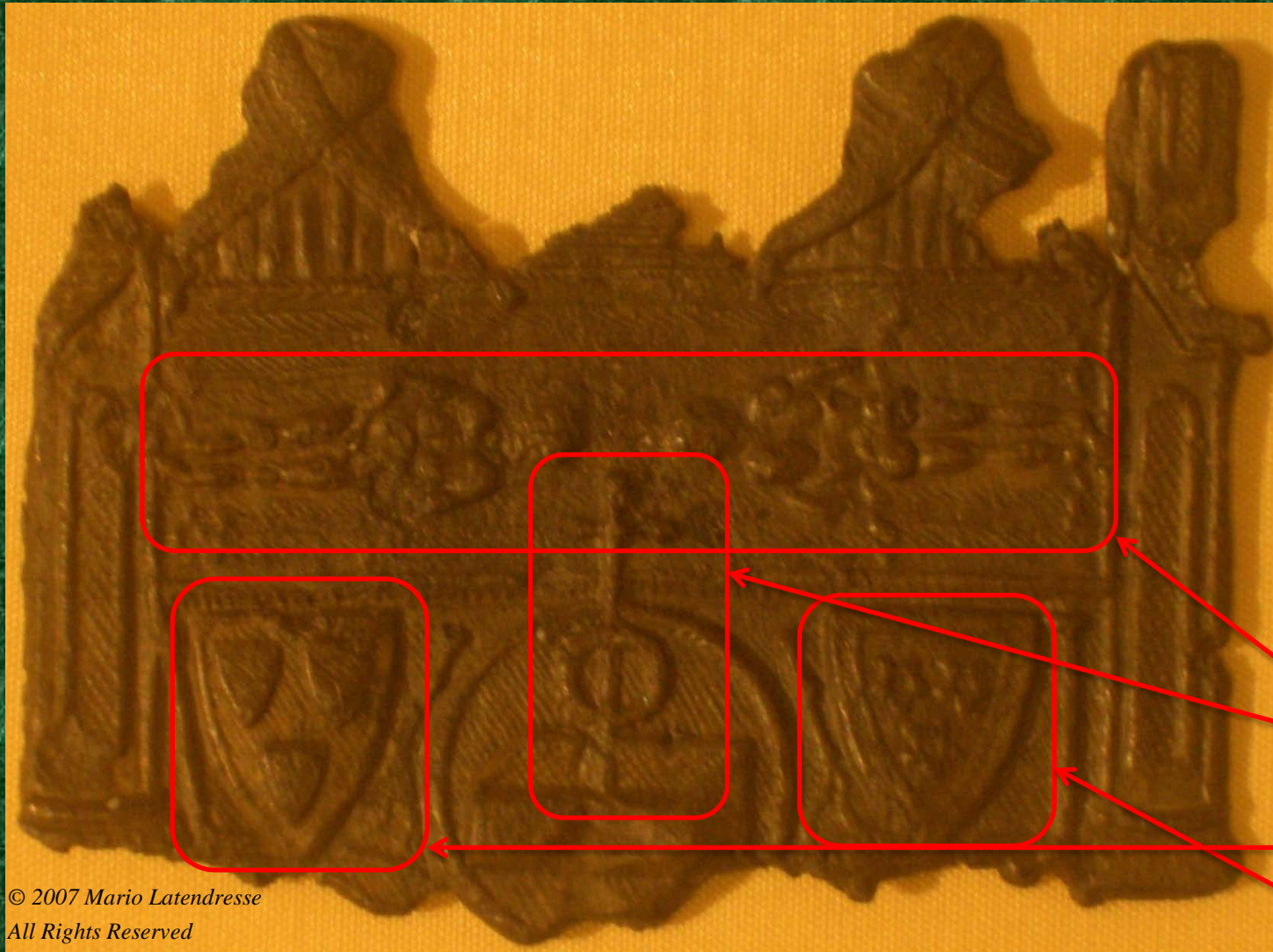
- Body shows pose like that on Shroud image
- Could halos reveal the Apostle John & Nicodemus (red) and Joseph of Arimathea (black)?

Lower Illustration:

- The L-shaped burn holes
- One can easily see the distinctive herringbone weave of the Shroud cloth
- Could halos reveal the angel & Mary the Mother of Jesus (red) and Mary Magdalene & Mary Mother of James (black)?

History

Medallion in Cluny Museum ~1353 – 1453AD



- *Shroud medallion*
 - *Only known exemplar found in 1855 in the Seine river; under the "Pont-au-Change" bridge*
 - *Probably from a pilgrim who went to Lirey, France, to see the Shroud*
 - *Definitely established from several historical records that the Shroud was in Lirey from 1353 to 1453*
- Body Image*
- Cross & Crown of Thorns*
- Arms of Geoffrey de Charny (L) & his wife Jean de Vergy (R)*

History

Engraving of the Shroud 1578AD

Earliest Shroud Engraving by G. Testa 1578

© 1999 Barrie M. Schwartz
Collection, STERA, Inc.



The earliest known engraving of the Shroud by G. Testa from 1578, commemorating the arrival of the Shroud in Turin with Bishops holding the cloth, from the Richard Orareo Boston Collection of Shroud Art.

For a summary timeline of Shroud history from 1349 see reference²⁹

Photography

Secundo Pia & Barrie Schwartz

Note how the camera has grown so much
more complex and smaller over 80 years
1898 - 1978



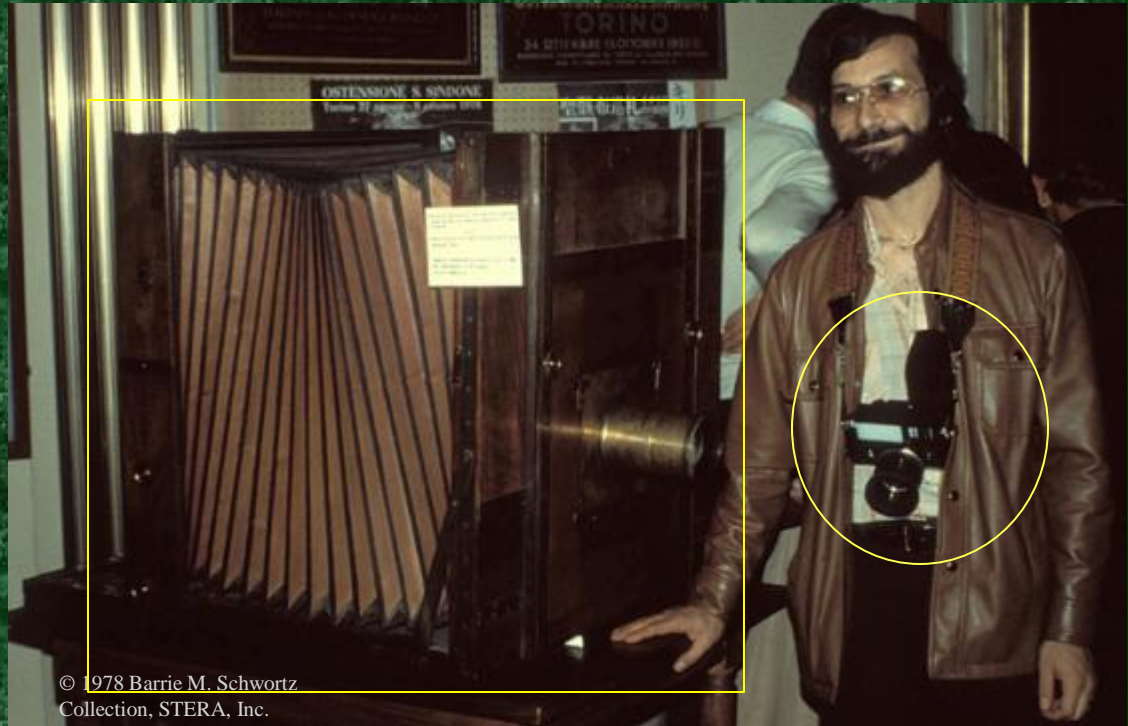
Secundo Pia



Barrie Schwartz



Secundo Pia posing with a different camera



Barrie Schwartz with his camera in 1978 with Secundo Pia's Camera used to take the first picture of the Shroud

Photography

Secundo Pia's Original Photographs: The First Photographs of the Shroud

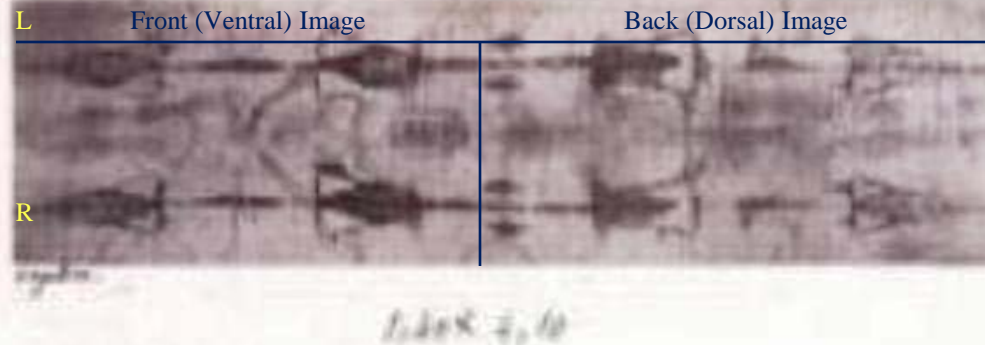
- In 1898, Secundo Pia (lawyer/amateur photographer) developed the negative glass plate of the first photo of the Shroud—image clarity only within past 100+ years
- It is said he nearly dropped the plate, being the first to see the Shroud this way
- The negative has positive image characteristics
- This does not happen with any picture, art work or statue of a person
- This result is a unique property of the brightness map on the Shroud, not a process of photography

Photography

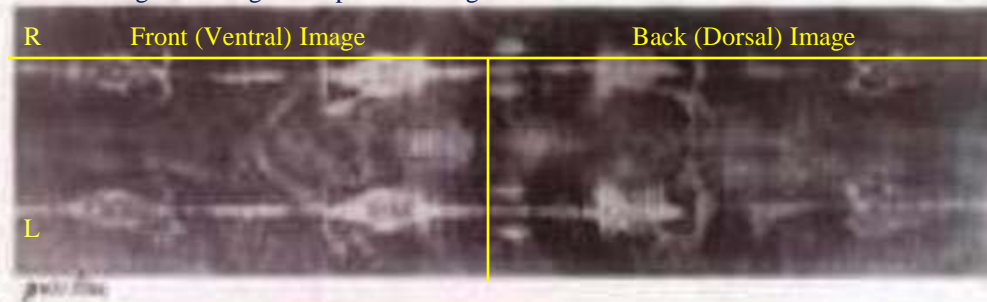
Secundo Pia's Original Photographs: The First Photographs of the Shroud

Secundo Pia's original photographs from 1898

Positive Image seen for the first time in a photograph



Negative Image with positive image characteristics seen for the first time

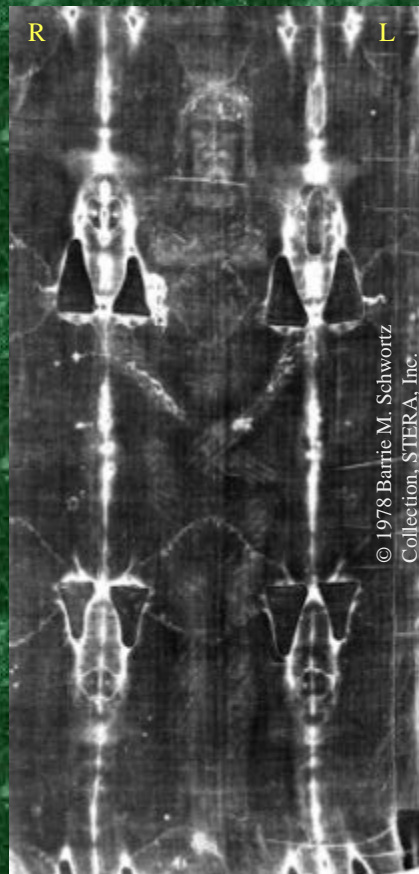


Enlarged Public Domain Image of full Shroud positive & negative images - orientation opposite image in SEAM

Photography

Secundo Pia's Original Photographs: The First Photographs of the Shroud

Barrie Schwartz 1978 & Secundo Pia 1898 Photo-negatives



Barrie Schwartz 1978 Negative

Secundo Pia's Original Negative 1898 Head Photo



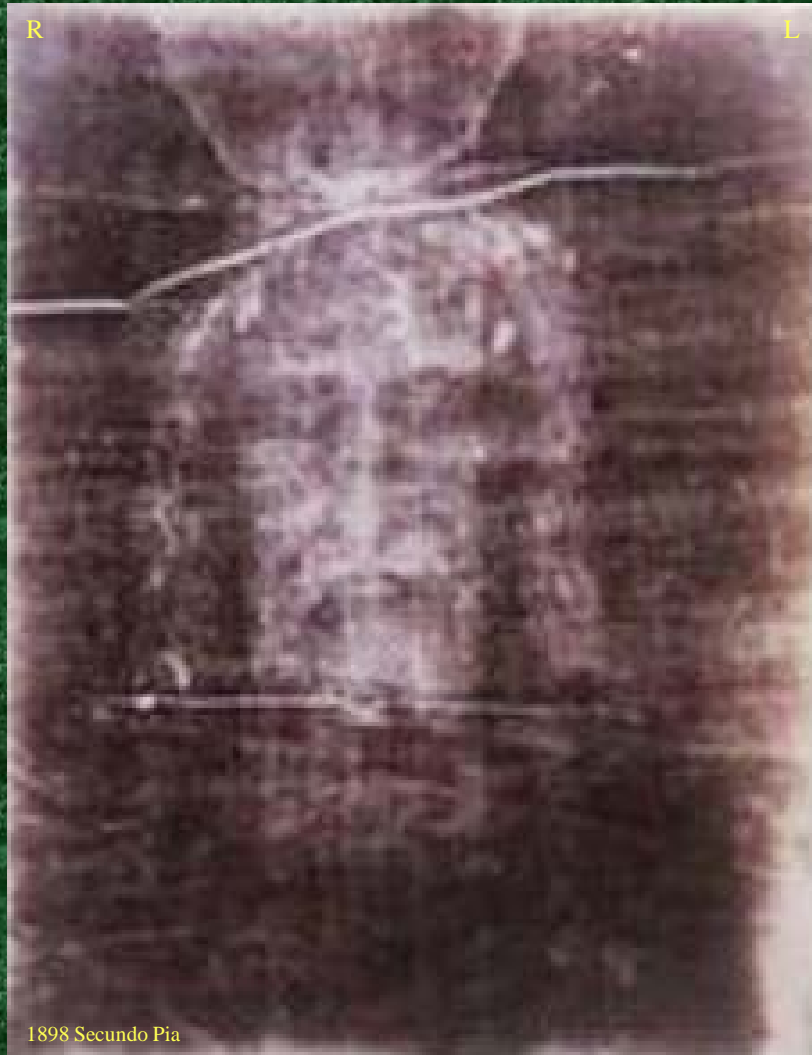
Enlarged Public Domain Image of Head



Barrie Schwartz 1978 Negative

Photography

80 Years of Photography, Head Shots: Secundo Pia 1898 compared to Barrie Schwartz 1978



Pia Negative Head



Schwartz Negative Head

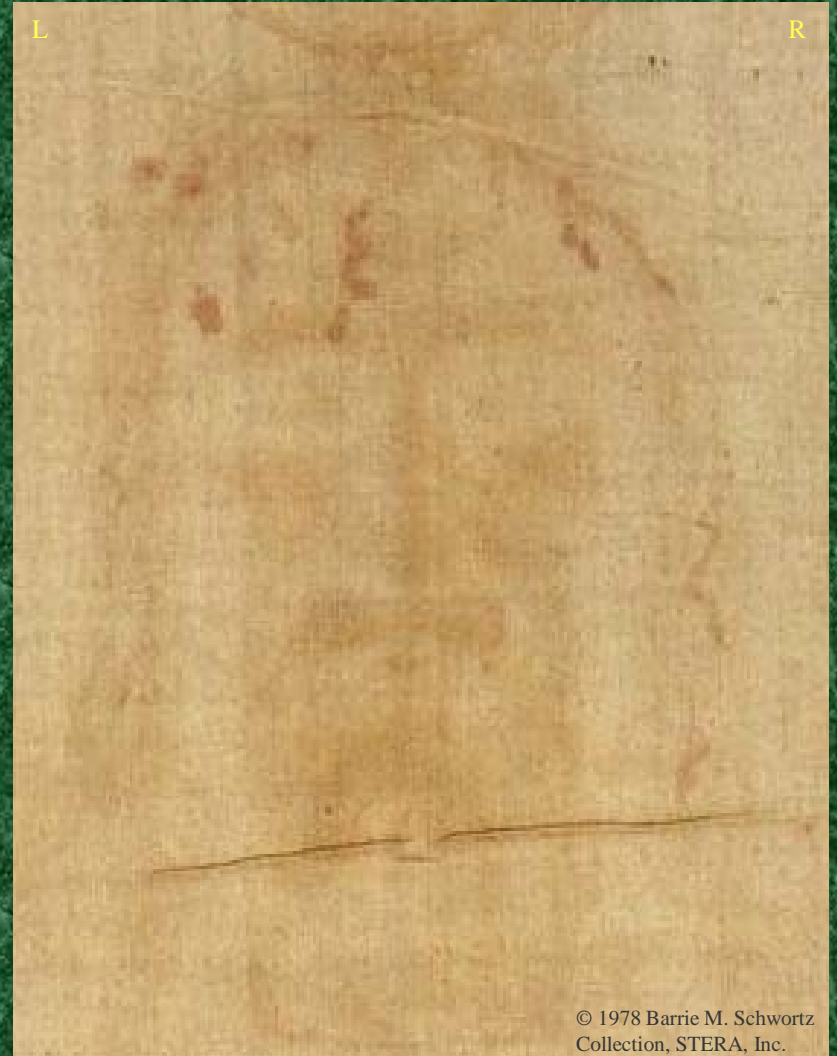
Photography

80 Years of Photography, Head Shots: Secundo Pia 1898 compared to Barrie Schwartz 1978



1898 Secundo Pia

Pia Positive Head 200DPI

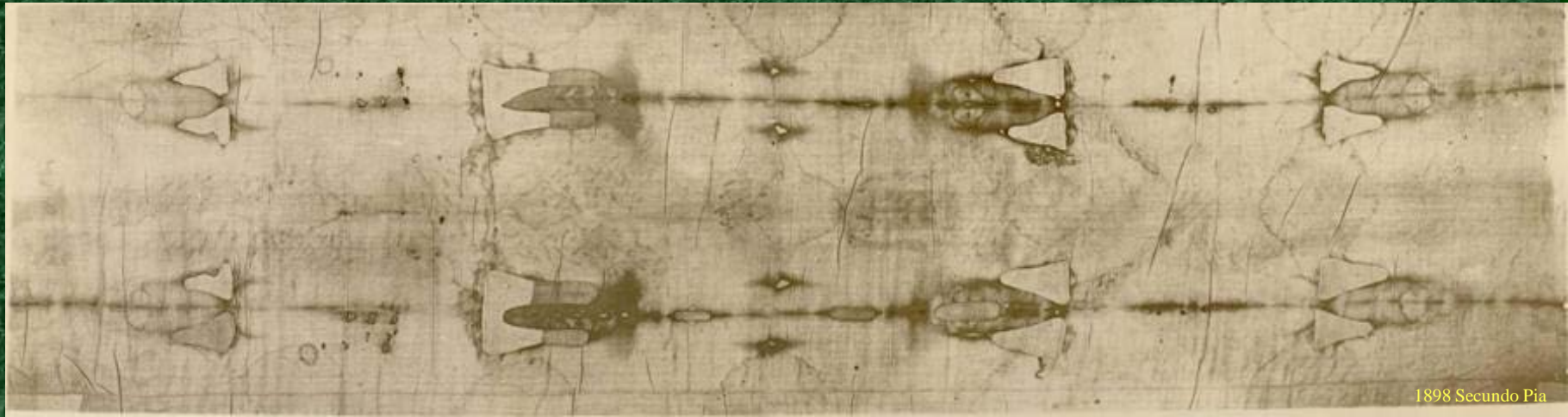


© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Schwartz Positive Head 72DPI

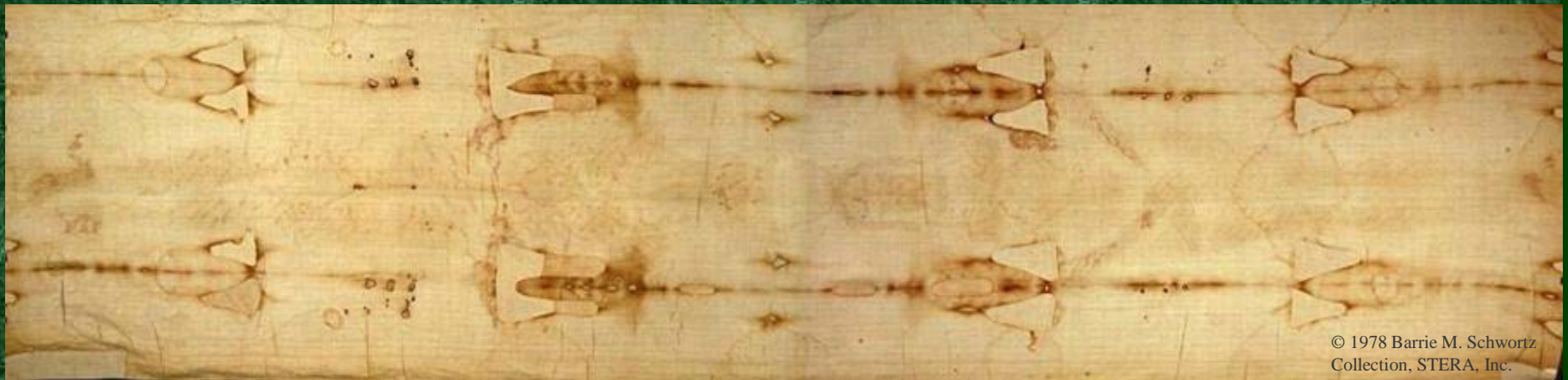
Photography

80 Years of Photography: Secundo Pia 1898 compared to Barrie Schwartz 1978



1898 Secundo Pia

Pia Photo Positive 200DPI

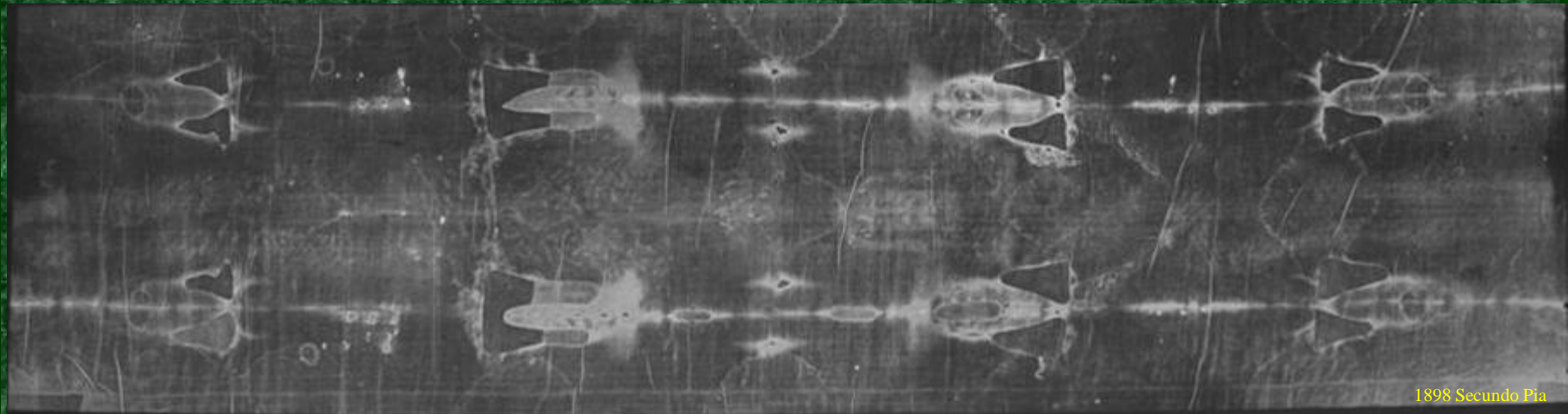


© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Schwartz Photo Positive 72DPI

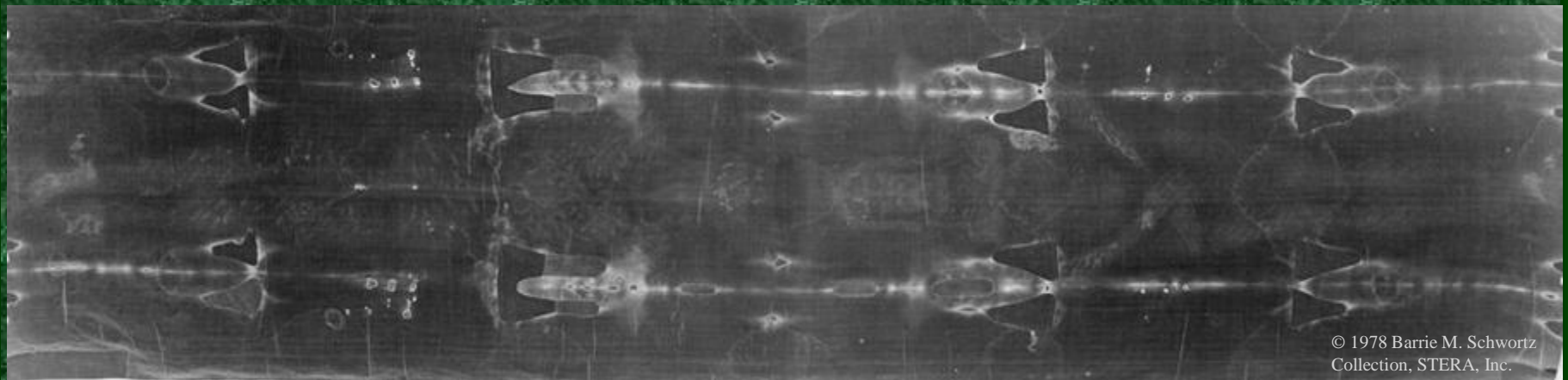
Photography

80 Years of Photography: Secundo Pia 1898 compared to Barrie Schwartz 1978



1898 Secundo Pia

Pia inverted/grey scale Colors 200DPI

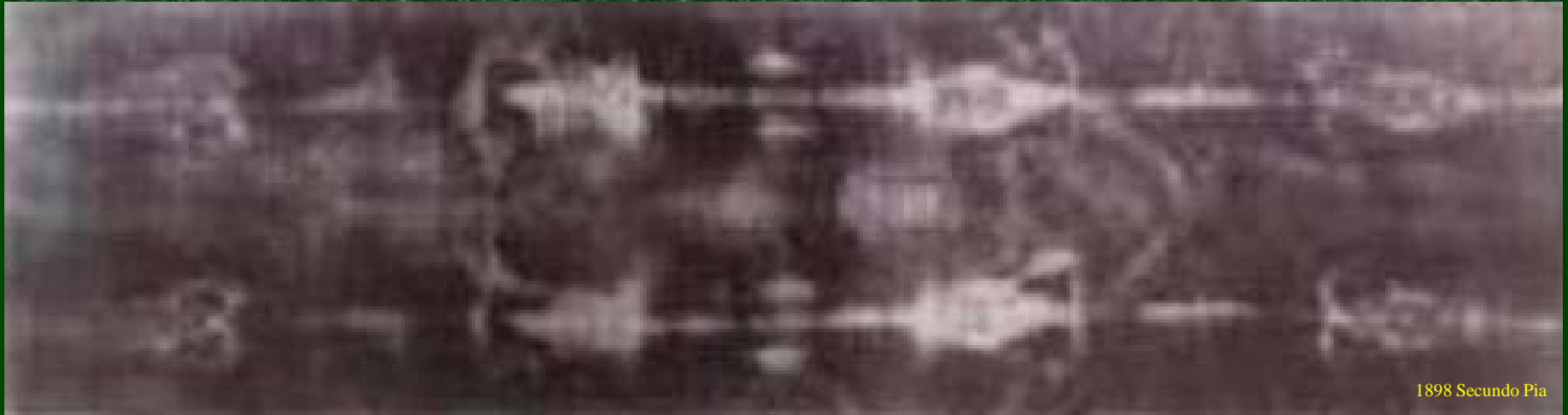


© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Schwartz inverted/grey scale Colors 72DPI

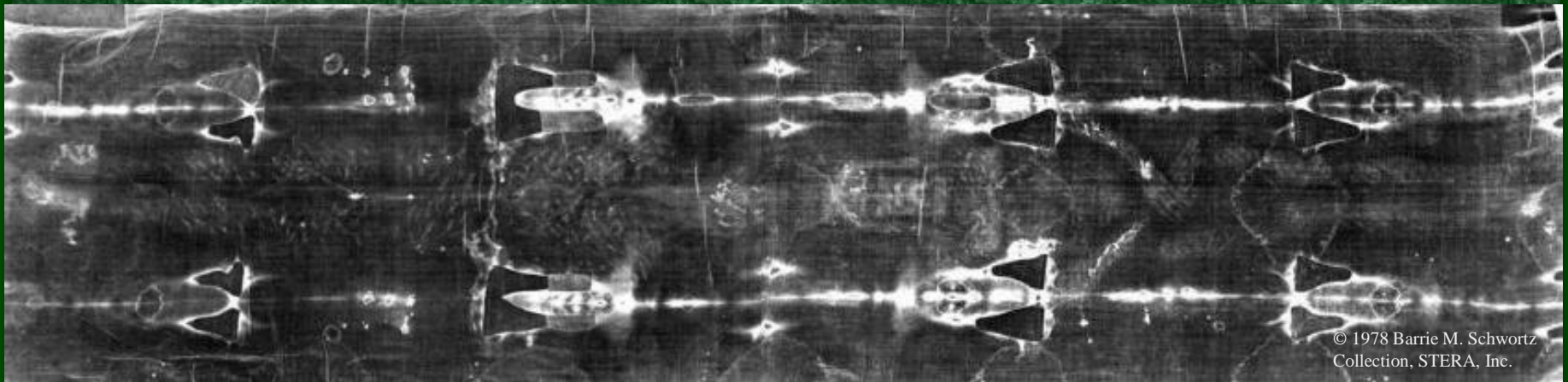
Photography

80 Years of Photography: Secundo Pia 1898 compared to Barrie Schwartz 1978



1898 Secundo Pia

Pia Photo Negative



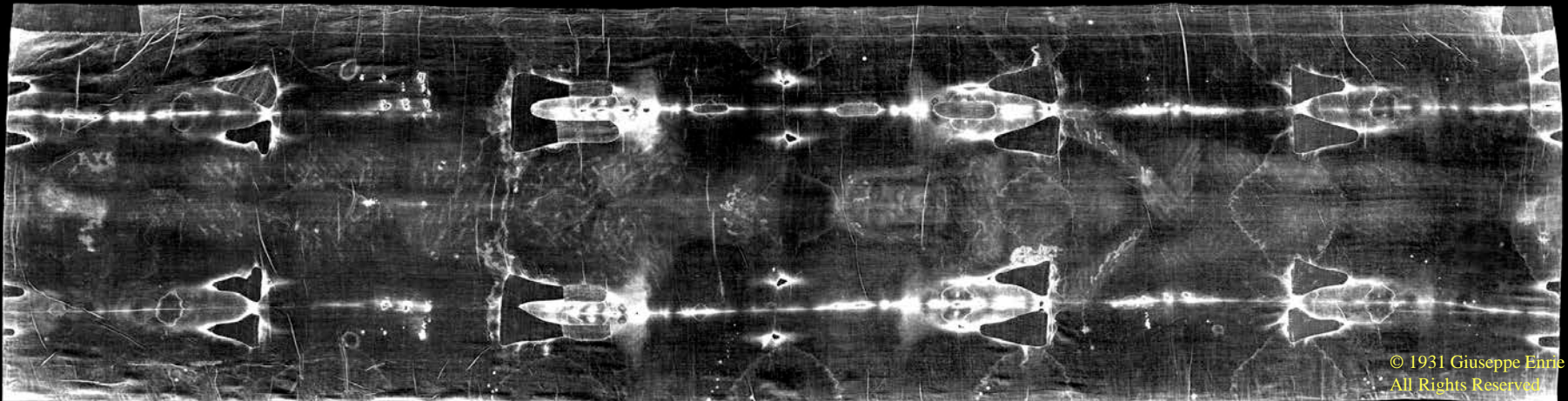
© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Schwartz Photo Negative

Photography

Giuseppe Enrie 1931 Negative

- Enrie used high resolution orthochromatic film & raking light¹⁴
 - ✓ Orthochromatic film only records black or white; it changes mid-tone grays to only black or only white
 - ✓ Orthochromatic film increases contrast so it changes data, discarding more subtle color differences
 - ✓ This causes an infinite number of patterns and shapes
 - ✓ Using Enrie photos to find patterns invalidates the conclusions



Photography

1995 Colorized & Flipped Giuseppe Enrie 1931 Negative

- Enrie used high resolution orthochromatic film & raking light¹⁴
 - ✓ Orthochromatic film only records black or white; it changes mid-tone grays to only black or only white
 - ✓ Orthochromatic film increases contrast so it changes data, discarding more subtle color differences
 - ✓ This causes an infinite number of patterns and shapes
 - ✓ Using Enrie photos to find patterns invalidates the conclusions



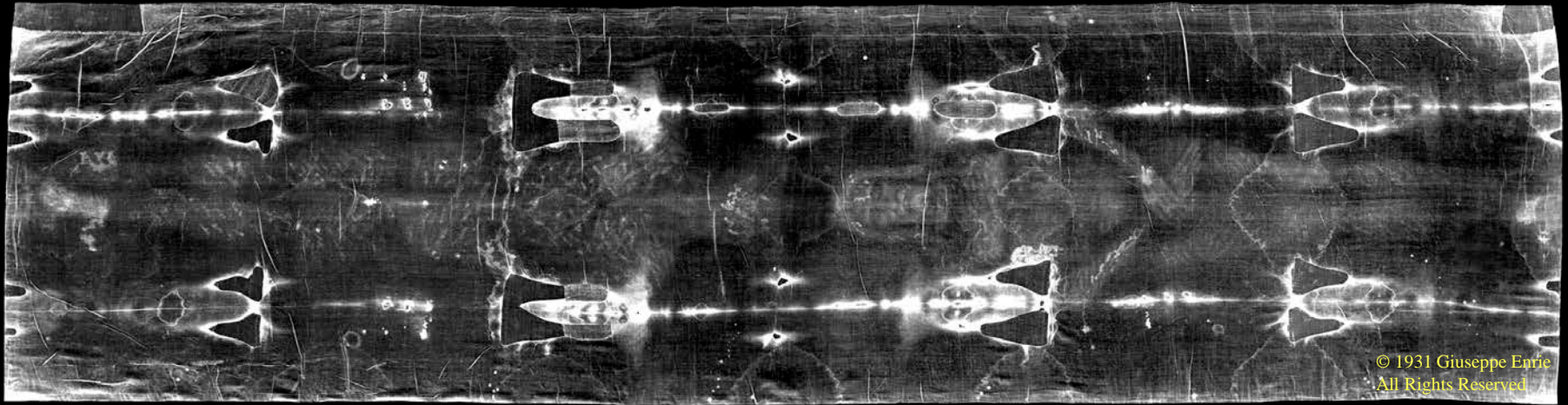
1995 Aldo Guerreschi
Colorized Negative

© 1931 Giuseppe Enrie
All Rights Reserved

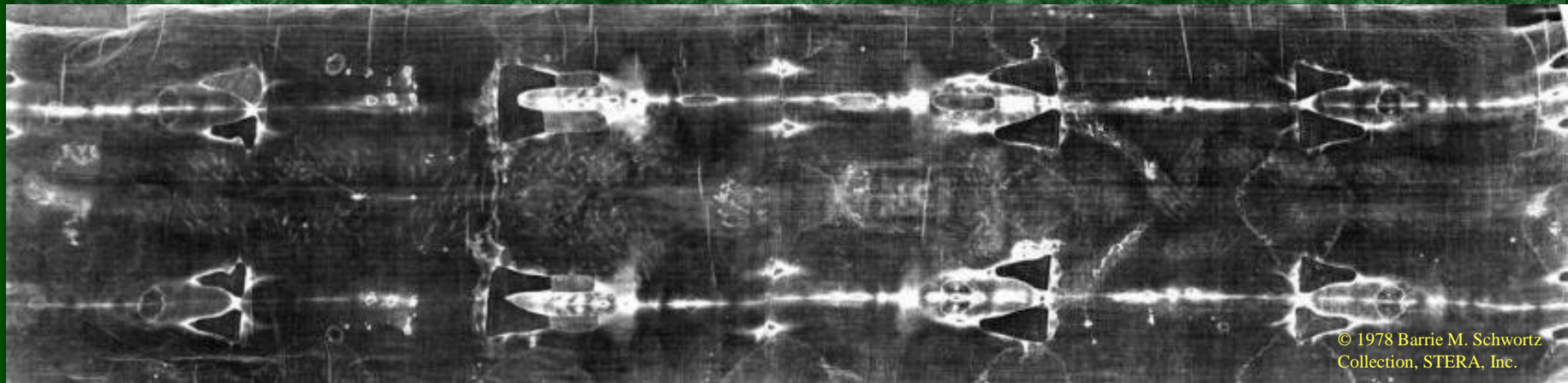
Colorized & Flipped Enrie 1931 Negative 300DPI

Photography

47 Years of Shroud Photography: Giuseppe Enrie 1931 & Schwartz 1978 Negatives Compared



Enrie Photo Negative 300DPI



Notice many creases missing in 1978 STURP investigation due to the magnetic mounting of the Shroud on the table as compared with the 1931 Enrie above

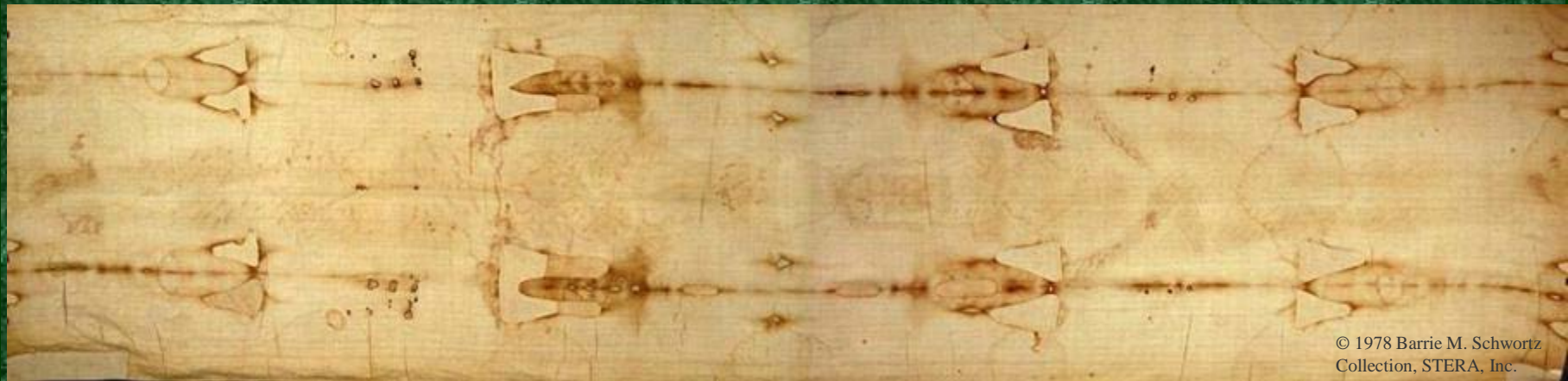
Schwartz Photo Negative 72DPI

Photography

47 Years of Shroud Photography: Colorized Giuseppe Enrie 1931 compared to Positive Schwartz 1978



Enrie 1931 Colorized & Flipped Negative 300DPI



Notice many creases missing in 1978 STURP investigation due to the magnetic mounting of the Shroud on the table as compared with the 1931 Enrie above

Schwartz Photo Positive 72DPI

Photography

47 Years of Shroud Photography: Giuseppe Enrie 1931 & Schwartz 1978 Negatives Compared



Enrie Negative Head 300DPI



Schwartz Negative Head 72DPI

Photography

47 Years of Photography: Giuseppe Enrie 1931 colorized compared to Barrie Schwartz 1978



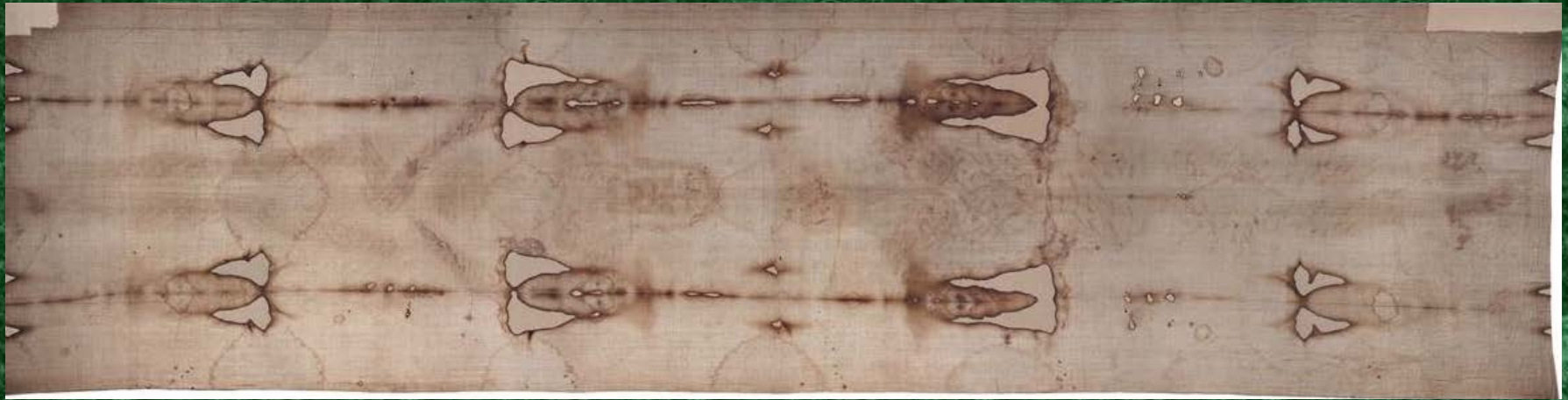
Enrie Negative Colorized and Flipped Head 300DPI



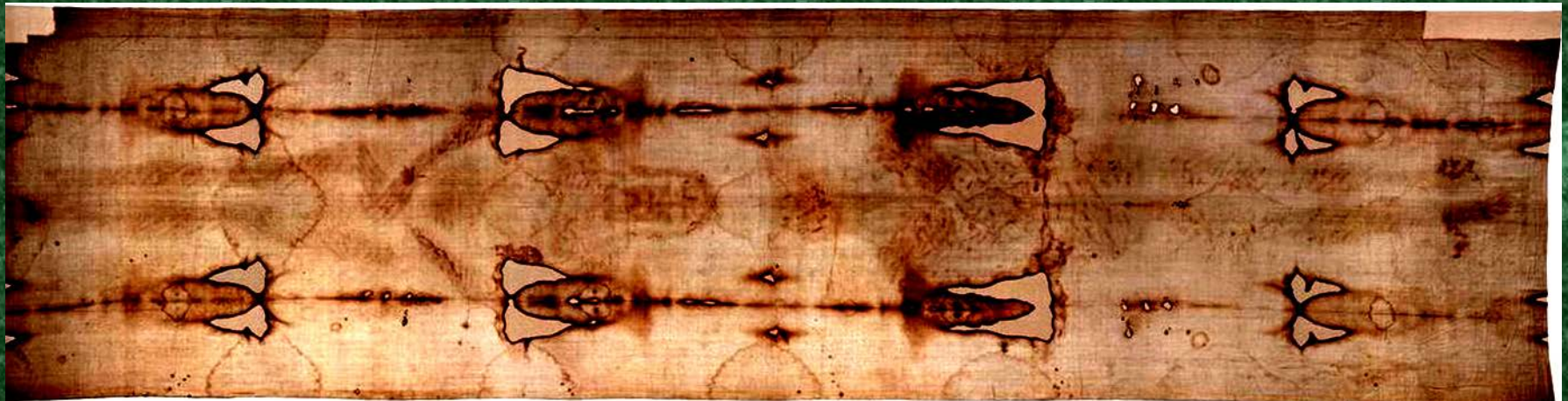
Schwartz Positive Head 72DPI

Photography

2002 Durante Restoration Image



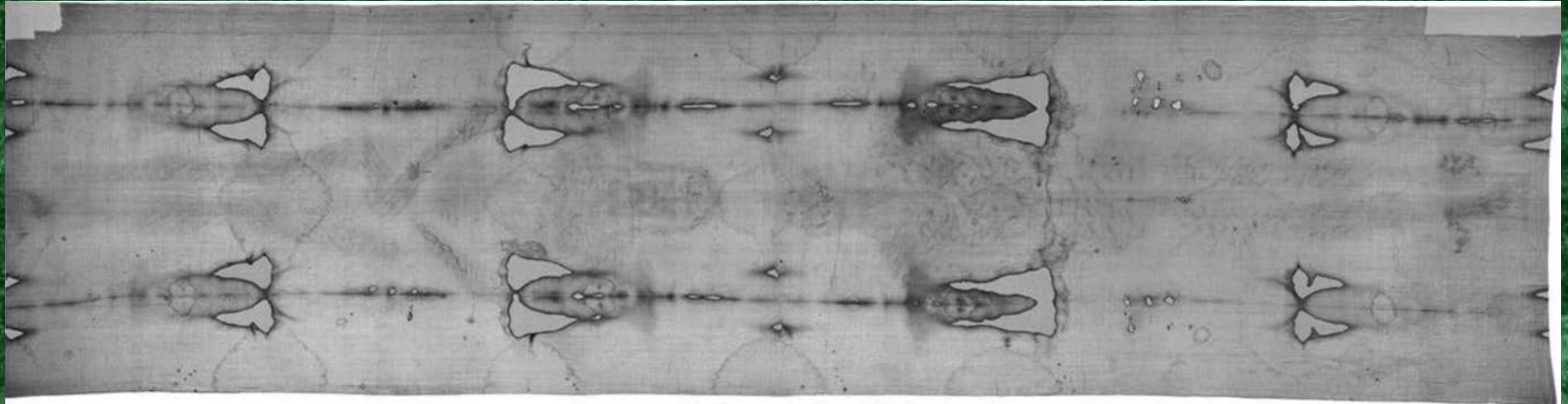
2002 – Patches/backing cloth removed, vacuumed, stretched to remove historical creases, new lighter backing cloth washing out the image (see slides 99–101 to compare how this washed out the image to the 1978 Schwartz photo)



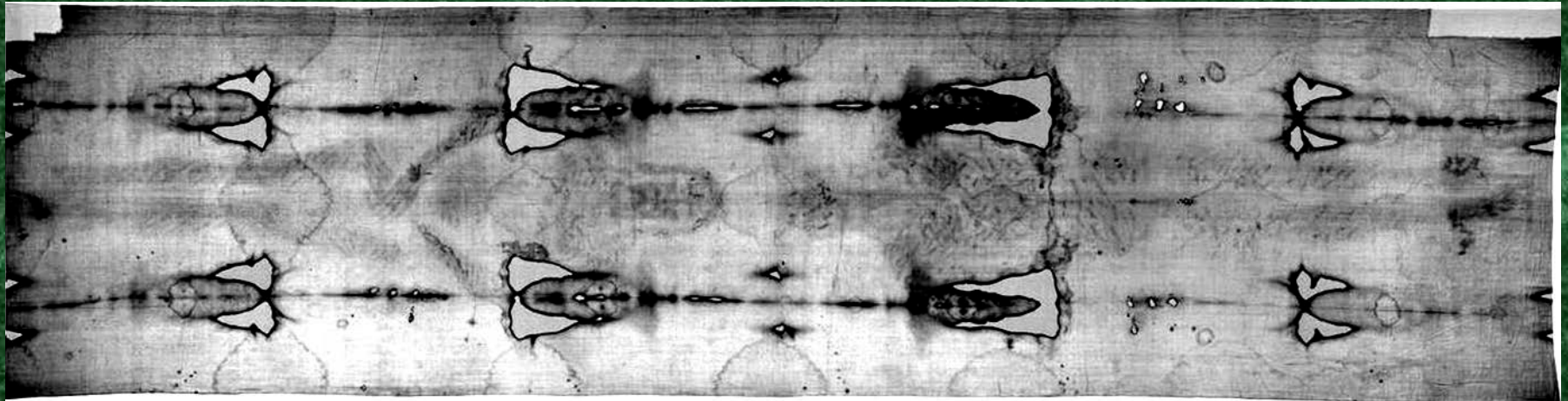
2002 Contrast Enhanced (false color)

Photography

2002 Durante Restoration Image



2002 Image Computer Reversed Colors/Grayscale



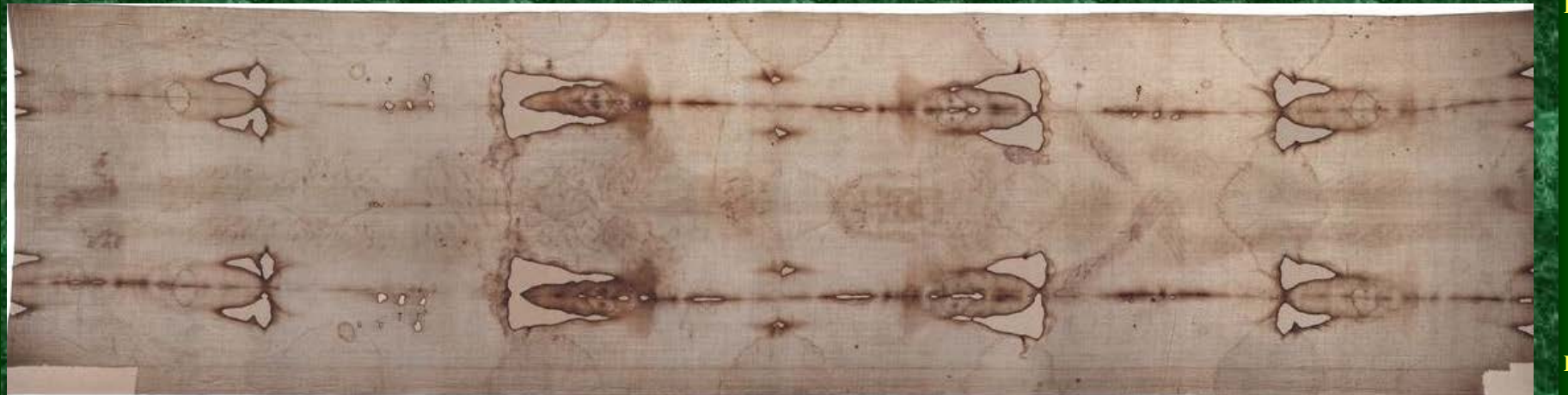
2002 Grayscale Enhanced Image Computer Reversed Colors/Grayscale (false color)

Photography

24 Years of Shroud Photography: Positive Schwartz 1978 compared to 2002 Durante Restoration



1978 STURP Positive 72DPI



2002 Durante Positive

Photography

2002 Durante Restoration Images



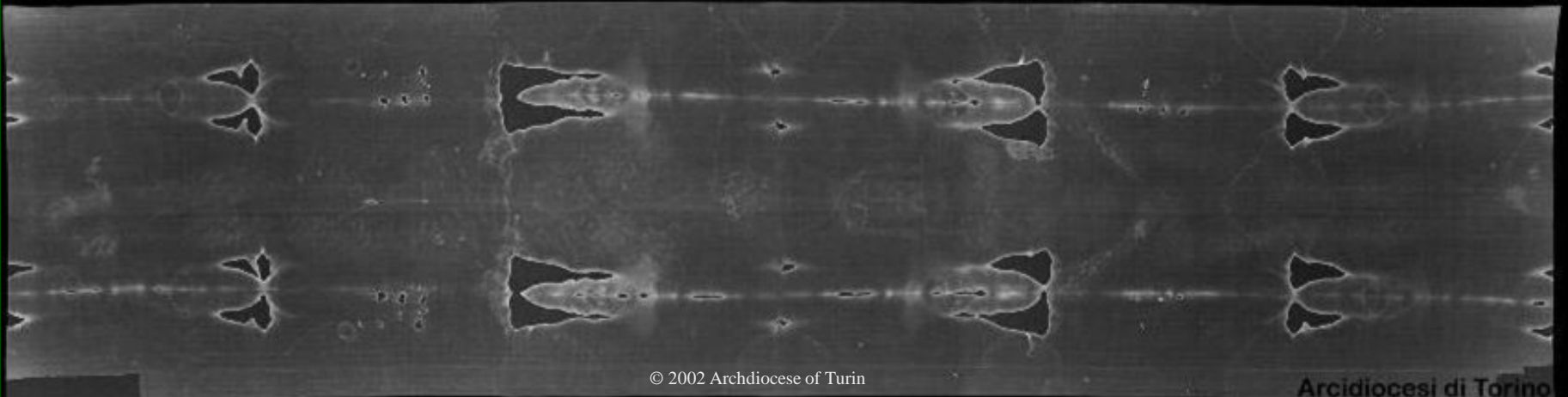
Original 2002 Image 300DPI



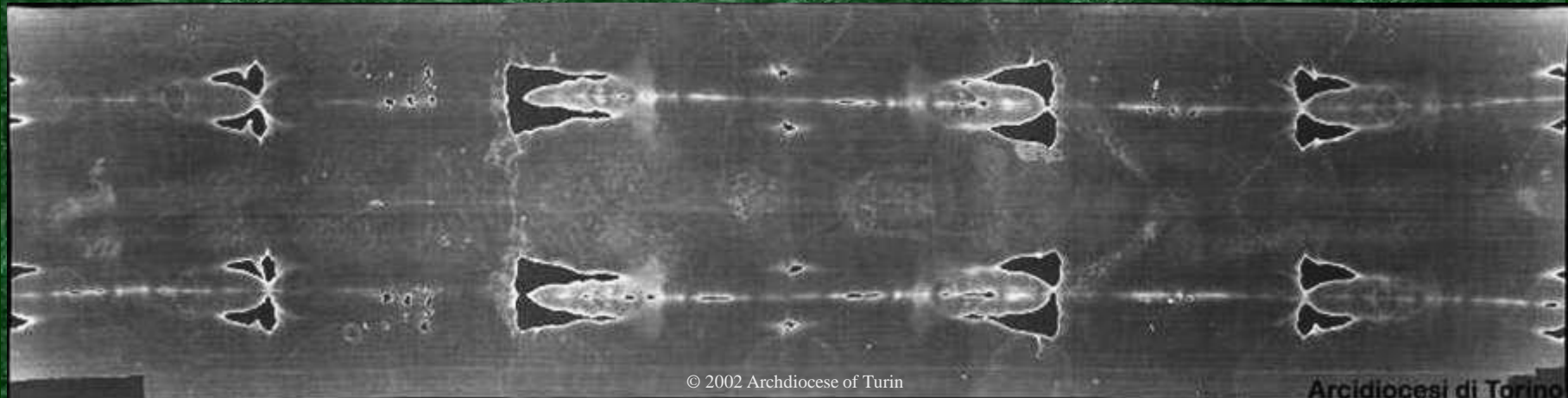
2002 Image Computer Enhanced 300DPI (false color)

Photography

2002 Durante Restoration Images



Original 2002 Image Computer Reversed Colors/Grayscale 300DPI



Original 2002 Computer Enhanced Image Computer Reversed Colors/Grayscale 300DPI (false color)

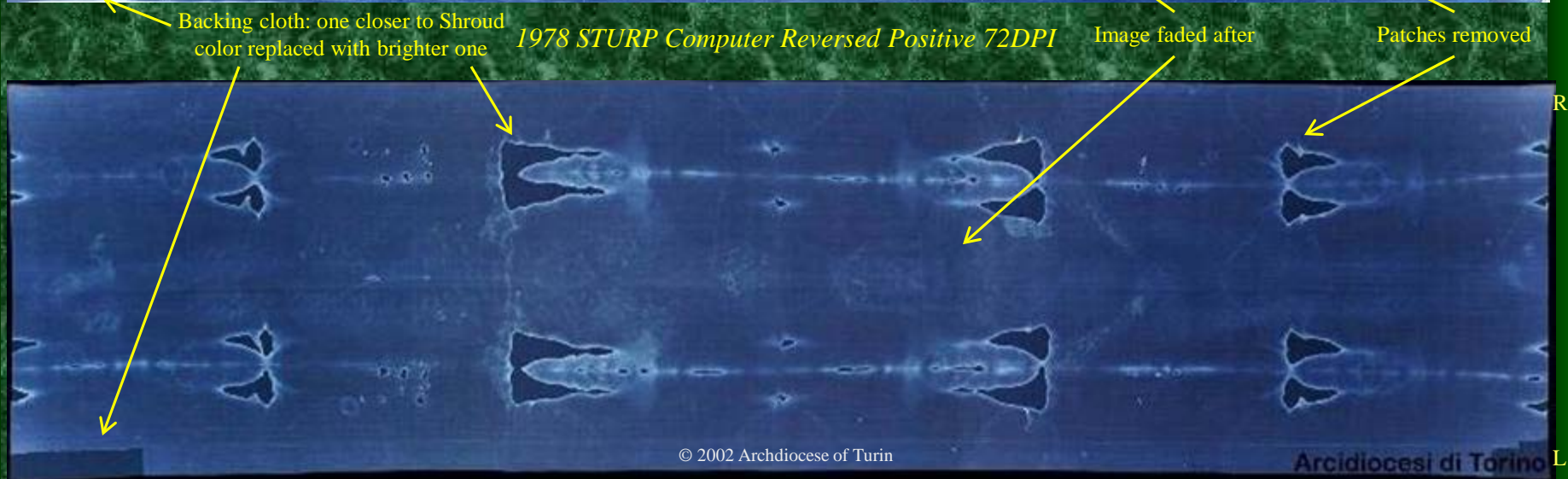
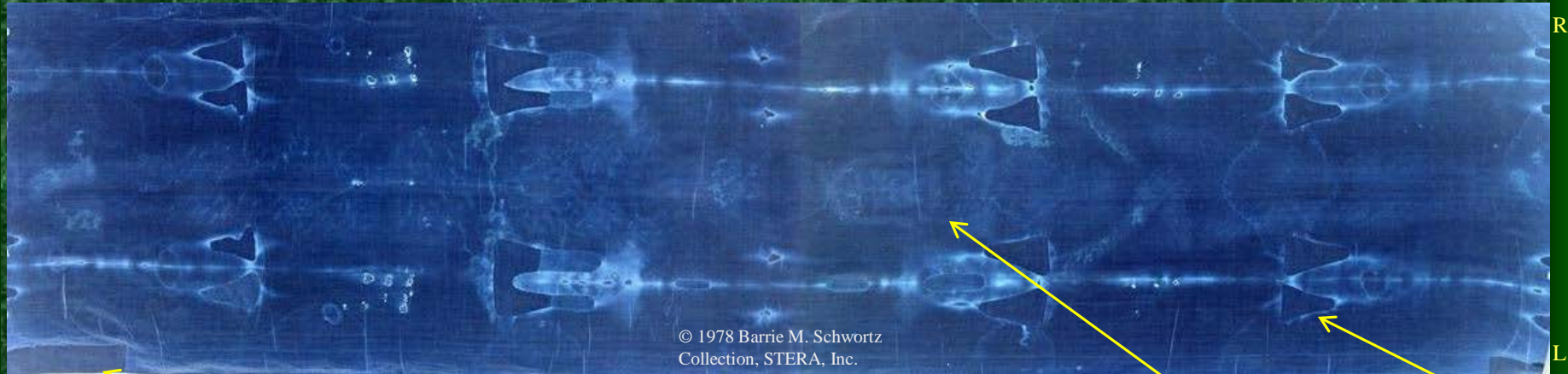
Photography

24 Years of Shroud Photography: Positive Schwartz 1978 compared to 2002 Durante Restoration



Photography

24 Years of Photography: Schwartz 1978 & 2002 Durante Restoration Computer Reversal Comparison



Backing cloth: one closer to Shroud
color replaced with brighter one

1978 STURP Computer Reversed Positive 72DPI

Image faded after

Patches removed

Shroud vacuumed and charring scraped away
on the 2002 restoration image

2002 Restoration Computer Reversed Positive 300DPI

Photography

24 Years of Photography: 1978 Barrie Schwartz & 2002 Durante Restoration Comparison



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2002 Restoration Head 300DPI



© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Schwartz Positive Head 72DPI

Photography

Transmitted Light

- Transmitted Light, in photography, means light that passed through a transparent or translucent material –back lighting
- This kind of photography proves the image is not made from pigments, paints, dyes or any other material added to the linen cloth
- As you can see in the image to the left, there is no image visible
- We clearly see
 - ✓ Blood from the head, hair, side, arms, hands & feet
 - ✓ Water stains & burn marks
 - ✓ Light source

© 1978 Barrie M. Schwartz
Collection, STERA, Inc.



L R
Only Transmitted Light Ventral Photo Ever Taken

Photography

Transmitted Light

© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

R



L

Only Transmitted Light Ventral Photo Ever Taken Proves Image not Made by Materials Added to the Shroud Linen Fibers

Science

Sample Removal Comparison



© 1978 Barrie M. Schwartz
Collection, STERA, Inc.



© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Dr. Max Frei, Swiss criminologist, took sticky tape samples from the surface of the Shroud of Turin during the 1978 scientific examination in photos (above & left)

Note he used ordinary tape leaving residue on the Shroud and tearing threads from this ancient relic which are now black, hence the need to 'restore' the Shroud in 2002 (slides 94-101)

The STURP team, in taking samples from the Shroud, used a custom made torque applicator(right) with special tape by 3M designed to not leave residue or tear the flax linen threads of the Shroud



© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Science

Shroud sample taken & the carbon dating

- The Shroud was Carbon dated in 1988 from a corner approved without characterization by Franco Testore, Turin Polytechnic Textile Technology Professor and Gabriel Vial, Ancient Textile Museum Curator in Lyon, France
- The results from the 3 labs dated the Shroud between 1260 and 1390
- The press automatically jumped to the conclusion that the Shroud was a fake, a scam, a forgery; Wait — WHAT?



1978: Picture of SEAM display

Inset highlights two important samples:

- ✓ *1973: Red highlight (white spot) is a sample removed for study by Dr. Gilbert Raes, called the Raes Sample*
- ✓ *1988: Blue highlight is approximate sample area taken to carbon date the Shroud in 4 sections: 3 for labs in Arizona (54mg in 2 peices), England (50mg) & Switzerland (50mg) and 1 reserve sample kept by Giovanni Riggi*

Science

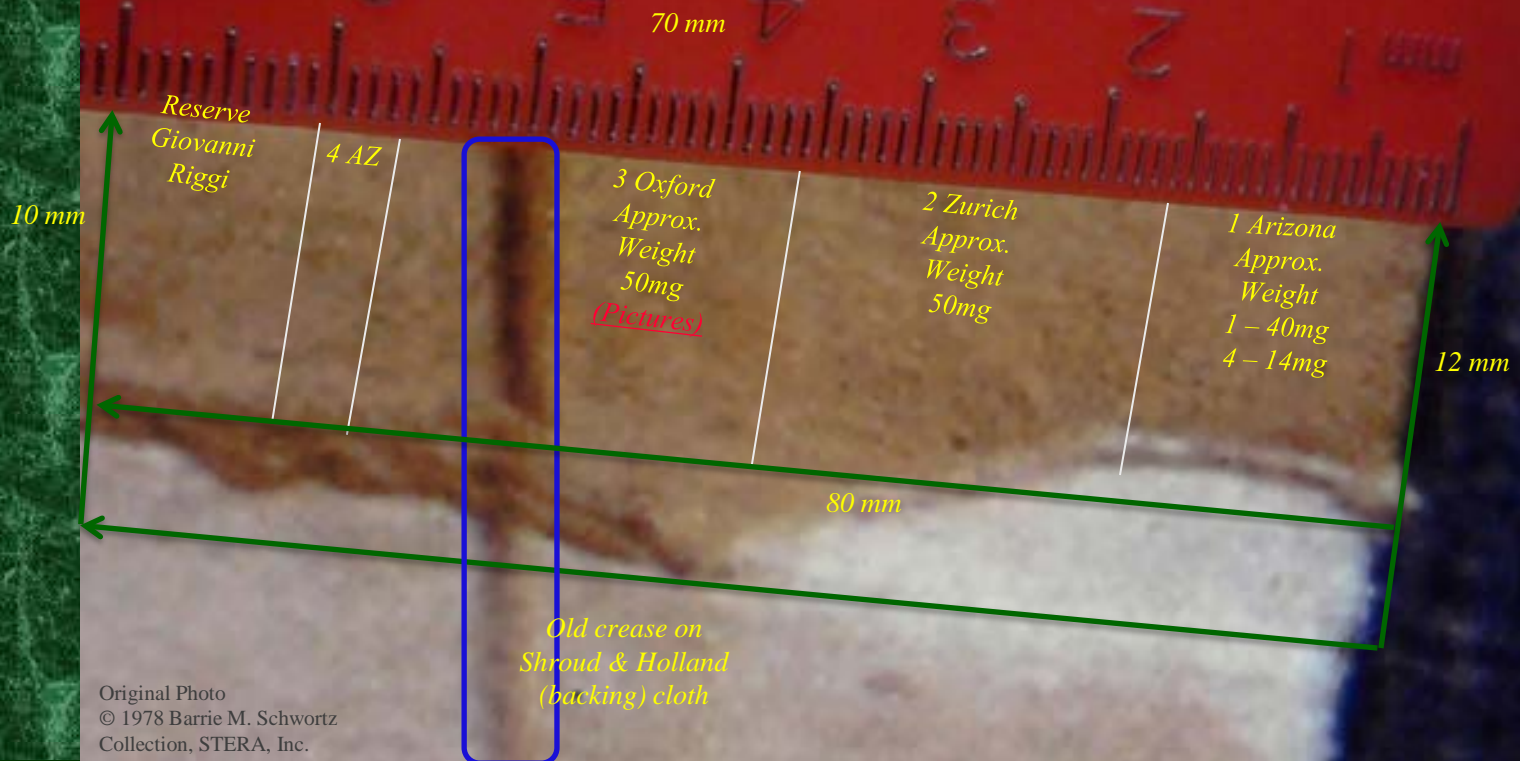
Approximate size of the carbon dating sample

©2020 Weiss Sample approximately 10mm high X 70mm long for testing of the total sample taken: 12mm x 80mm
All Rights Reserved

Actual sample size taken



© 2002 Archdiocese of Turin



Original Photo
© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

Science

Arizona lab remaining sample from the section used for the carbon dating



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Sample 1 - Shroud - Side 1 - Approx. 1:1 Magnification - 1/15 sec @ f2.8

Science

Arizona lab remaining sample from the section used for the carbon dating



Sample 1 - Shroud - Side 2 – Approx. 1:1 Magnification - 1/15 sec @ f2.8

Science

Arizona lab remaining sample from the section used for the carbon dating



Sample 1 - Shroud - Side 1 - Approx. 1:1 Magnification - 1/15 sec @ f2.8

Science

Arizona lab remaining sample from the section used for the carbon dating

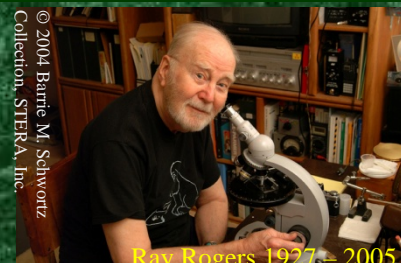


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Sample 1 - Shroud - Side 2 – Approx. 1.5:1 Magnification - 1/3 sec @ f8

Science

Carbon Dating and the Evidence

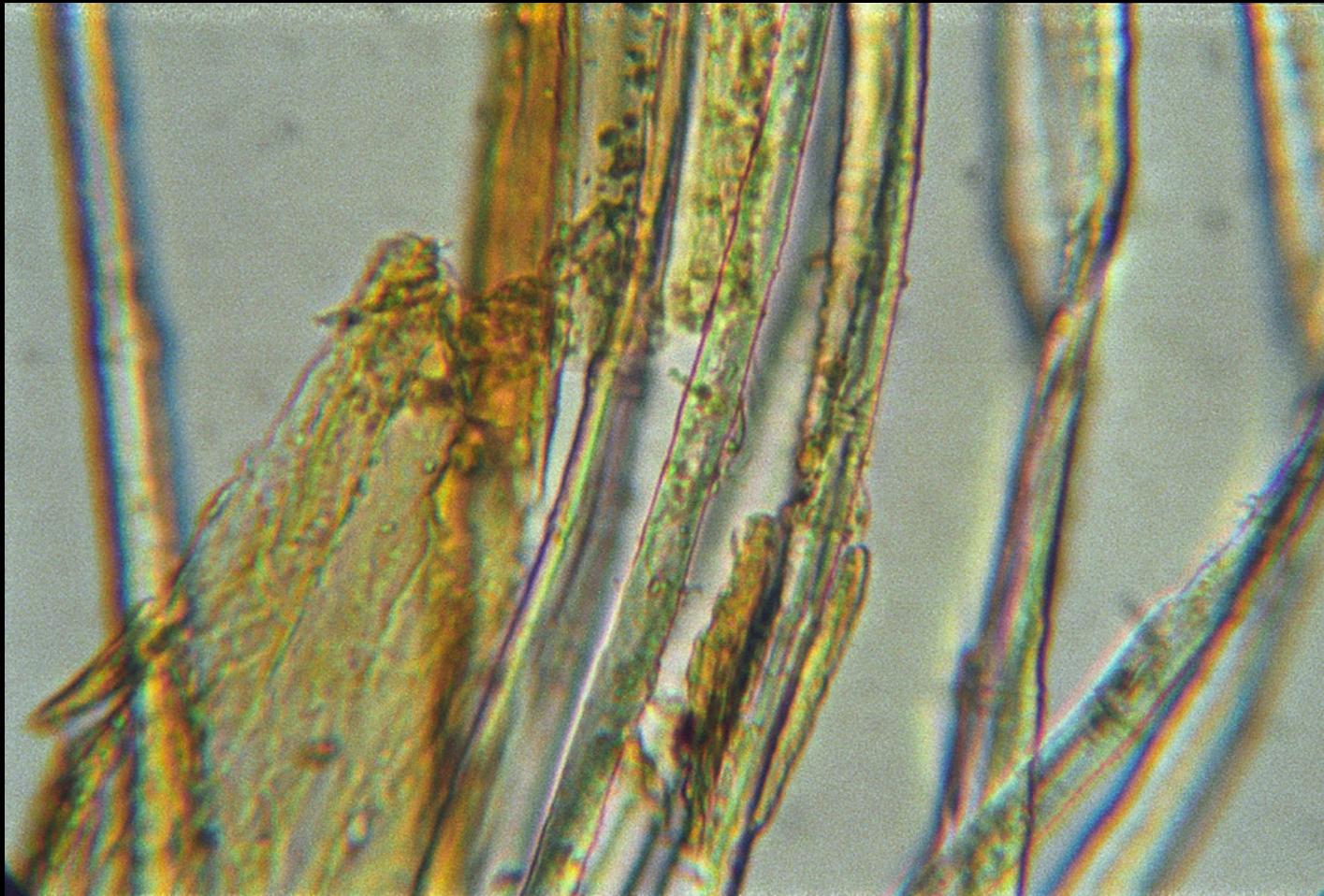


- Sue Benford & husband Joe Marino noticed sample area color different from rest of Shroud
- Took high resolution photos to three textile industry experts, separately confirming in blind questioning area repaired with an Invisible French Reweave²⁷ & ²⁸
- Invisible French Reweave uses cotton, resins, dyes & gums to repair cloth
- Ray Rogers, 1978 STURP world-class pyrolysis Chemist (resume), confirmed theory finding cotton, resins, gums & dyes with flax in the Raes & Arizona lab reserve samples (Shroud is **flax linen**)
- Rogers **proved** the carbon dating sample is anomalous & inconsistent with rest of the Shroud
- Read Rogers' 2005 article from the prestigious, peer-reviewed Thermochemica Acta, which also proposes alternate dating using the vanillin depletion, speculated depending on the storage temperature between 1395–3095 years old²⁶

Science

Carbon Dating and the Evidence

© 2005 Raymond N. Rogers
Collection, STERA, Inc.



Warp fibers from the radiocarbon sample, 400X in 1.515-index-of-refraction oil, showing the gum/dye/mordant coating

Science

Carbon Dating and the Evidence

- Many early/modern Eastern corporals (Mass linen cloth) have a Shroud drawn body (antimension ⁶)
- Romans stopped crucifixions in the 4th century; rare knowledge in 13-14th centuries
- Shroud face on Pantocrator icon (~550) & coins of Byzantine Emperors (690 & 945)
- Hungarian Prayer Manuscript (1191) illustrates Shroud with L-shaped burns
- Shroud moved from Constantinople to France (1204)
- Shroud damaged in fire in Chambéry, France (1532)
- Dirt on Shroud only found in Jerusalem

Science

Carbon Dating and the Evidence

- Carbon dating sample anomalous, not representative of the entire flax linen Shroud (i.e. Invisible French Reweave)
- Vanillin dating corrects the carbon dating in the range to be Christ's
- Carbon dating is an inexact science according to William Meacham, an archeologist who is an expert in using carbon dating³⁷
 - ✓ There are many factors that could invalidate carbon dating
 - ✓ When carbon dating contradicts majority of known data about an item, the carbon dating is set aside as anomalous
- New Video highlighting the reasons why the carbon dating is not valid (2016)
 - ✓ [A Grave Injustice](#) (27 minutes)

Science

Irregularities in the Carbon Dating³⁷

- Originally, the following laboratories were to be involved : Oxford, Tucson, Rochester, Zurich, Brookhaven, Harwell and Gif-Sur-Yvette (10 October 1987, Cardinal Balestrero decided that only Oxford, Arizona and Zurich would be involved, most likely from advisor Professor Gonella and coerced the labs from dropping out after protocols abandoned by threatening to use other labs instead)
- Labs statement: ‘The Archbishop’s plan, disregarding the Protocol, does not seem capable of producing a result that will meet the test of scientific rigor’ and ‘ it is probably better to do nothing than to proceed with a scaled-down experiment’
- There were supposed to be several samples taken from a variety of sections of the cloth, none to be taken from charred areas by Dr. Mechthild Fleury-Lindbergh, a textile expert (instead, Giovanni Riggi did so 21 April 1988 from a repaired area, as we later learn)
- Dr. Tite could not find an ancient cloth with a similar weave as the Shroud so the labs knew the Shroud sample, breaking the blind protocol

Science

Accounting for all the image characteristics - Valencia Challenge ¹⁸

To assert the Shroud of Turin is a medieval artifact while claiming scientific credentials, it must shown how it can bear an image with all the following 7 characteristics:

1. The body image is created by a molecular change of linen fibers/impurity layer; where there are bloodstains, there is no body image beneath the bloodstains
2. The body image does not penetrate below the surface fibers *and* is not visible when illuminated by transmitted light, *yet* the bloodstains do/are
3. The body image varies in intensity that correlates to expected cloth-body distances had the cloth covered a body

Science

Accounting for all the image characteristics - Valencia Challenge¹⁸

4. The sides of the body are not represented even where blood has transferred to the cloth and between the head images
5. The resolution of the image is sufficient to resolve body features of a few millimeters (*high resolution image*)
6. There are no outlines or directionality to the body image within the plane of the cloth
7. The body image has the visual characteristics of a photographic negative (*normal light and dark areas are reversed*)

Science

Samples & Pollen⁴⁰: proposed 45 of 58 pollens on the Shroud from Jerusalem and other locales

Summarized Max Frei Pollen Studies²

Max Frei³⁸ (criminalist & amateur palynologist) took sticky tape samples from the Shroud and conducted pollen studies from which he concluded the types of pollens by shape. Quoting Mariotti Lippi, professor of Archaeobotany and Palaeobotany in the Department of Plant Biology, University of Florence, “palinologists today cast doubt on the identifications made by Frei.”³⁹ See also Hugh Farey.⁴¹



Max Frei (r) takes tape samples from the Shroud in 1978 as Dr. Raymond Rogers (l) observes



Max Frei (center) and assistant take tape samples from the Shroud in 1978 as Prof. Baima-Bollone (r) observes

© 1978 Barrie M. Schwartz
Collection, STERA, Inc.

See next slide for list of proposed 53 pollens on the Shroud

Frei's pollen studies are not a reliable measure of where the Shroud has been

Science

Samples & Pollen: proposed 45 of 58 pollens on the Shroud from Jerusalem and other locales

Summarized Max Frei³⁸ Pollen Studies²

- | | | |
|---------------------------------------|---|---|
| 1. <i>Acacia albida</i> Del. | 19. <i>Hyoscamus reticularus</i> L. | 37. <i>Pinus halepensis</i> L. |
| 2. <i>Althaea officinalis</i> L. | 20. <i>Ixolirion montanum</i> Herb. | 38. <i>Pistacia lentiscus</i> L. |
| 3. <i>Anabasis aphylla</i> L. | 21. <i>Hyoscamus aureus</i> L. | 39. <i>Pistacia vera</i> L. |
| 4. <i>Anemone coronaria</i> L. | 22. <i>Helianthemum vescarium</i> B. | 40. <i>Platanus orientalis</i> L. |
| 5. <i>Artemisia Herba-alba</i> Asso | 23. <i>Haplophyllum reuberculatum</i> Juss. | 41. <i>Poeterium spinosum</i> |
| 6. <i>Bassia muricata</i> Asch. | 24. <i>Haloxylon persicum</i> Bg. | 42. <i>Prosopis farcta</i> Macbr. |
| 7. <i>Capparis spec.</i> | 25. <i>Gundelia Tourneforti</i> L. | 43. <i>Pteranthus dichotomus</i> Forsk. |
| 8. <i>Cedrus libanotica</i> Lk. | 26. <i>Glacium grandiflorum</i> B & H | 44. <i>Reaumuria hittella</i> J. & Sp. |
| 9. <i>Cistus creticus</i> L. | 27. <i>Fagonia mollis</i> Del. | 45. <i>Ricinus communis</i> L. |
| 10. <i>Cupressus sempervirens</i> L. | 28. <i>Echinops glabertimus</i> DC. | 46. <i>Ridolfia segutum</i> Moris |
| 11. <i>Echinops glabertimus</i> DC. | 29. <i>Juniperius oxiceandrius</i> L. | 47. <i>Romeria hybrida</i> DC. |
| 12. <i>Fagonia mollis</i> Del. | 30. <i>Laurus nobilis</i> L. | 48. <i>Scabiosa prulifera</i> L. |
| 13. <i>Glacium grandiflorum</i> B & H | 31. <i>Linum mucronatum</i> Bert. | 49. <i>Scirpus criquerius</i> L. |
| 14. <i>Gundelia Tourneforti</i> L. | 32. <i>Oligomerus subulata</i> Boiss. | 50. <i>Silene conoida</i> L. |
| 15. <i>Haloxylon persicum</i> Bg. | 33. <i>Onsoma syriacum</i> Lahili | 51. <i>Suaeda aegyptica</i> Zch. |
| 16. <i>Cedrus libanotica</i> Lk. | 34. <i>Paliurus spina</i> Christi Mill. | 52. <i>Tamarix nilotcia</i> Bunge |
| 17. <i>Cistus creticus</i> L. | 35. <i>Peganum harmala</i> L. | 53. <i>Zyglophyllum damosum</i> |
| 18. <i>Cupressus sempervirens</i> L. | 36. <i>Phillyrea angustifolia</i> L. | Boiss. |

Frei's pollen studies are not a reliable measure of where the Shroud has been

Science

Samples & Pollen⁴⁰: proposed 45 of 58 pollens on the Shroud from Jerusalem and other locales Statement by Dr. Oliver Rackham on the Pollen Studies¹⁷

Dr. Oliver Rackham of Corpus Christi College, Cambridge, although not a pollen analyst himself, works with them and knows their methods. He has commented to me of this list:

“Conventional pollen analysts can make most identifications only to genus (e. g. Pistacia) or even to family (Chenopodiaceae). They use terms like 'Ranunculus-type' or 'Quercus-cerris-type' for a group of species, all with the same type of pollen, for which no closer identification is possible. Of doctor Frei's 58 identifications, 56 are to species; only twice does he identify no more closely than to a genus, and he never uses the '-type' expression. I am suspicious of such great precision of identification. If it is true, then Frei made a very considerable advance at the frontier of what palynology is capable of doing. Maybe he did, but he never explained how he did it. Species, rather than genus or family, identifications are crucial to his argument.”⁴⁸

3D & Brightness Encoding

History of 3D Studies ²²

- 1938: Paul Vignon, University of Paris, observed a image on the Shroud varied inversely with the cloth-to-body distance (closer = darker); image density proportional to distance of body to cloth – could not scientifically prove
- 1950s: Leo Vala, London professional photographer performed first 3D experiments he called front projection Transflex Process – projected 2 positive images on bed of clay creating a matrix for a sculpture of the face

3D & Brightness Encoding

History of 3D Studies²²

- 1973: Barbra M. Sullivan 3D qualities experiments publishing her results in the National Review article: “Reading the Shroud of Turin: Climax Approaching”
- 1974: Paul Gastineau made a negative relief mold³⁰ – using his equipment, examined every single point with a concentrated light source, measurements of the quantity of light which transmitted to another part of the instrument containing a white-hot point which engraved the image into a soft material, thus visualizing this hidden information and obtaining a three dimensional face

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8

- In 1976, two scientists, John Jackson and Eric Jumper of the Air Force Academy requested Interpretation Systems Incorporated donate a then \$25,000 VP8 Image Analyzer³¹ analog computer, manufactured in 1972
- Delivered by Pete Schumacher, VP8³² production engineer
- There's a brightness map encoded on the Shroud image
- This brightness map reveals a 3D image when processed with the VP8³³ – the brightness data encoded on the Shroud image is not a process of photography
- They used this analog computer to make a brightness map in cardboard one line at a time, foot to head

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8



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Archbishop Anastasio Ballestrero, Prof. Baima Bollone and Msgr. Jose Cottino (l to r) examine a 3-D cardboard sculpture of the Shroud face created from VP-8 Image Analyzer data by Jackson & Jumper

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8



Image (right) was constructed one line at a time (480 total) starting at the feet, next to the negative image

- Using the brightness map discovered with the VP8, Drs. Jackson and Jumper modeled in cardboard the “Man of the Shroud”
- They did this by tracing each line from the VP8 to paper, then cardboard, cut them out and stacked them
- They made one model which is in the Air Force Academy Cadet Chapel on left from 1986

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8



*Recent photos of image constructed one line at a time (480 total)
starting at the feet from the brightness values encoded on the Shroud*

- Using the brightness map discovered with the VP8, Drs. Jackson and Jumper modeled in cardboard the “Man of the Shroud”
- They did this by tracing each line from the VP8 to paper, then cardboard, cut them out and stacked them
- They made one model which is in the Air Force Academy Cadet Chapel on left from two angles

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8

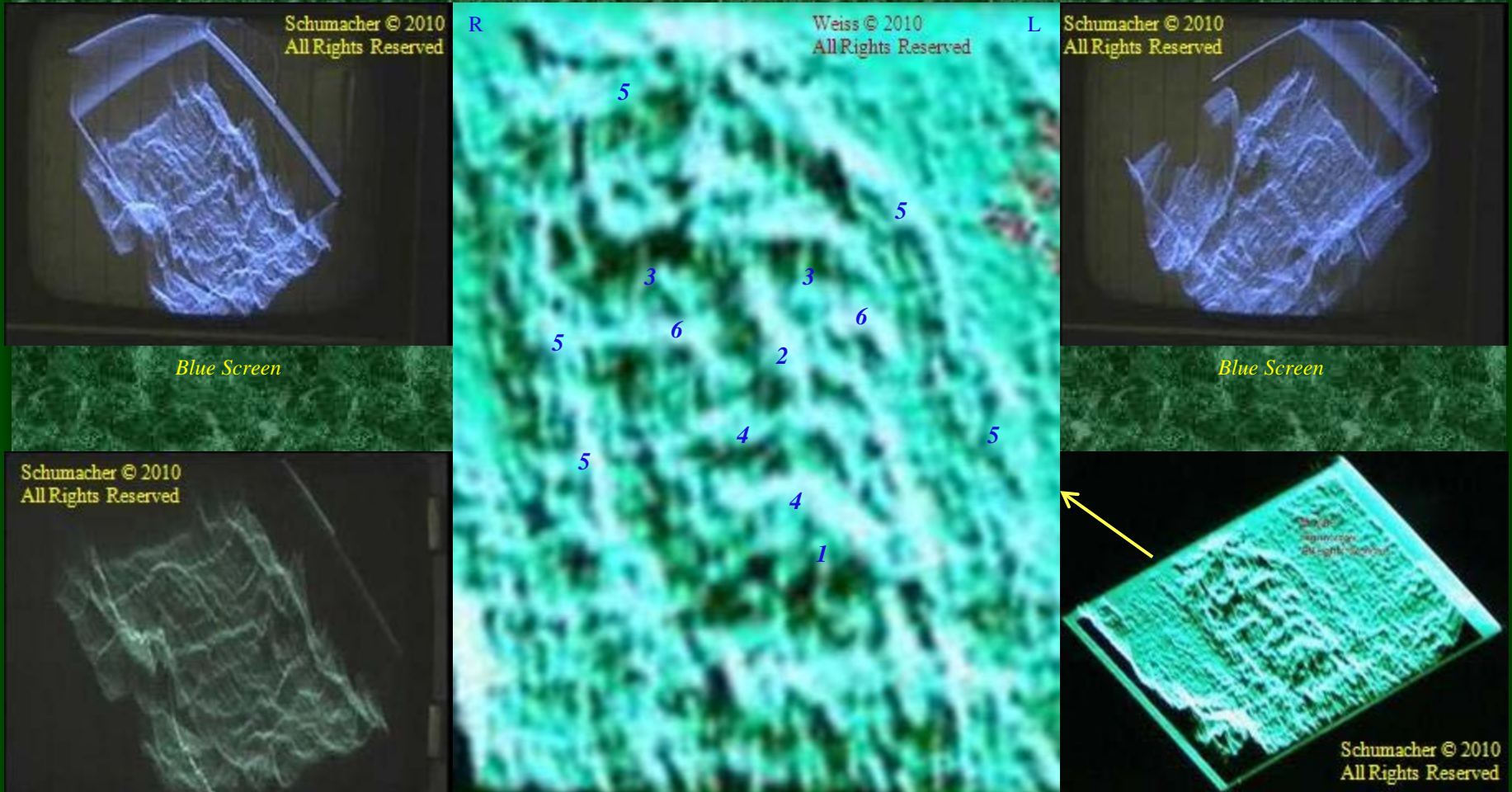


Chelgren © 2011
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Cardboard Model kept in the Air Force Academy Cadet Chapel, Colorado Springs, Colorado

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8

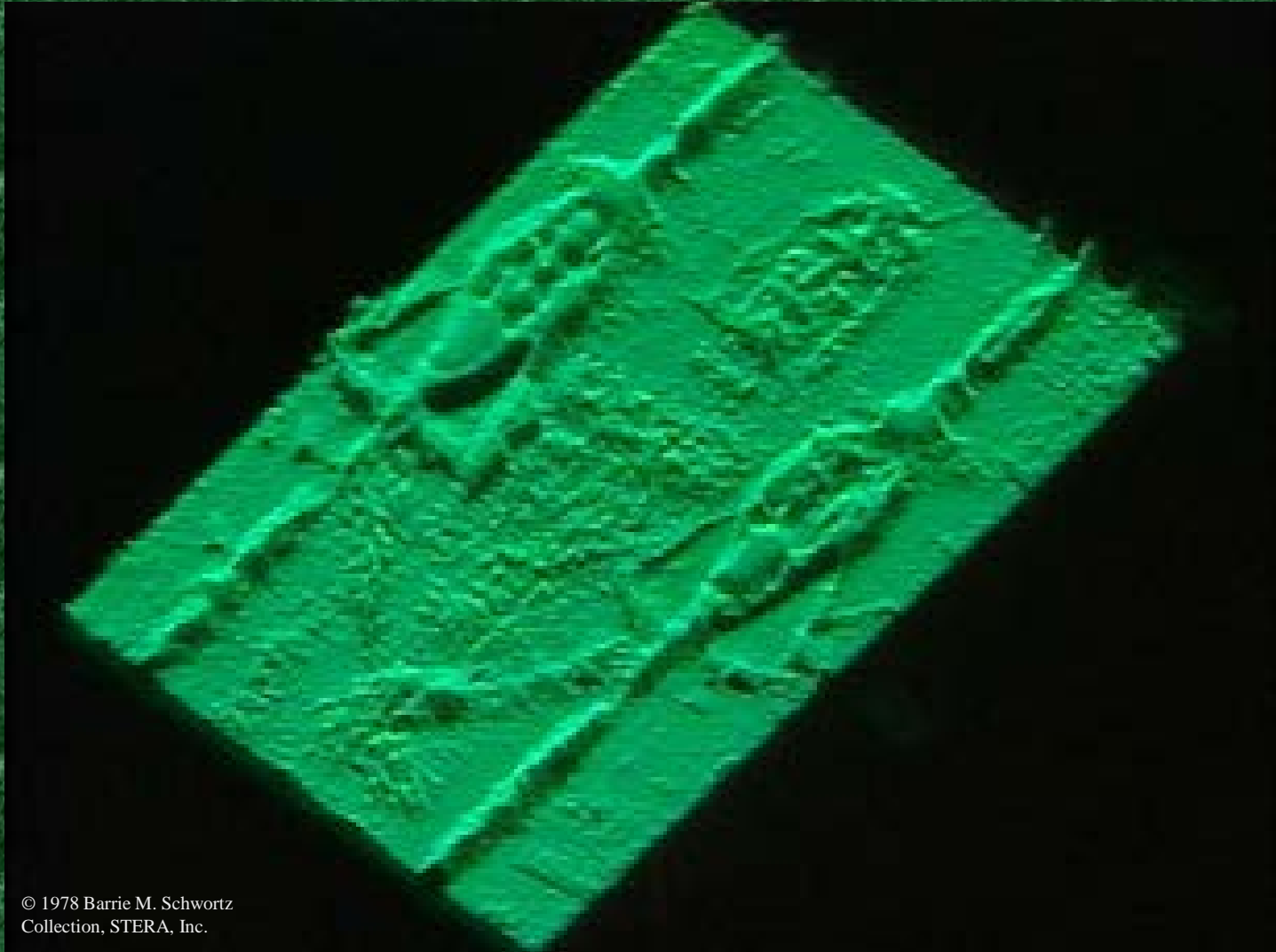


VP8 image computer enlarged & rotated for ease of view reveals:

1. Chin higher than throat below it
2. Nose ramps up in relief from face
3. Eye sockets sunken from brows & cheeks
4. Mustache & beard raised up from lips & face
5. Hair distinct from face in elevation & distance
6. Cheek bones raised in contrast to rest of face with swelling

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8

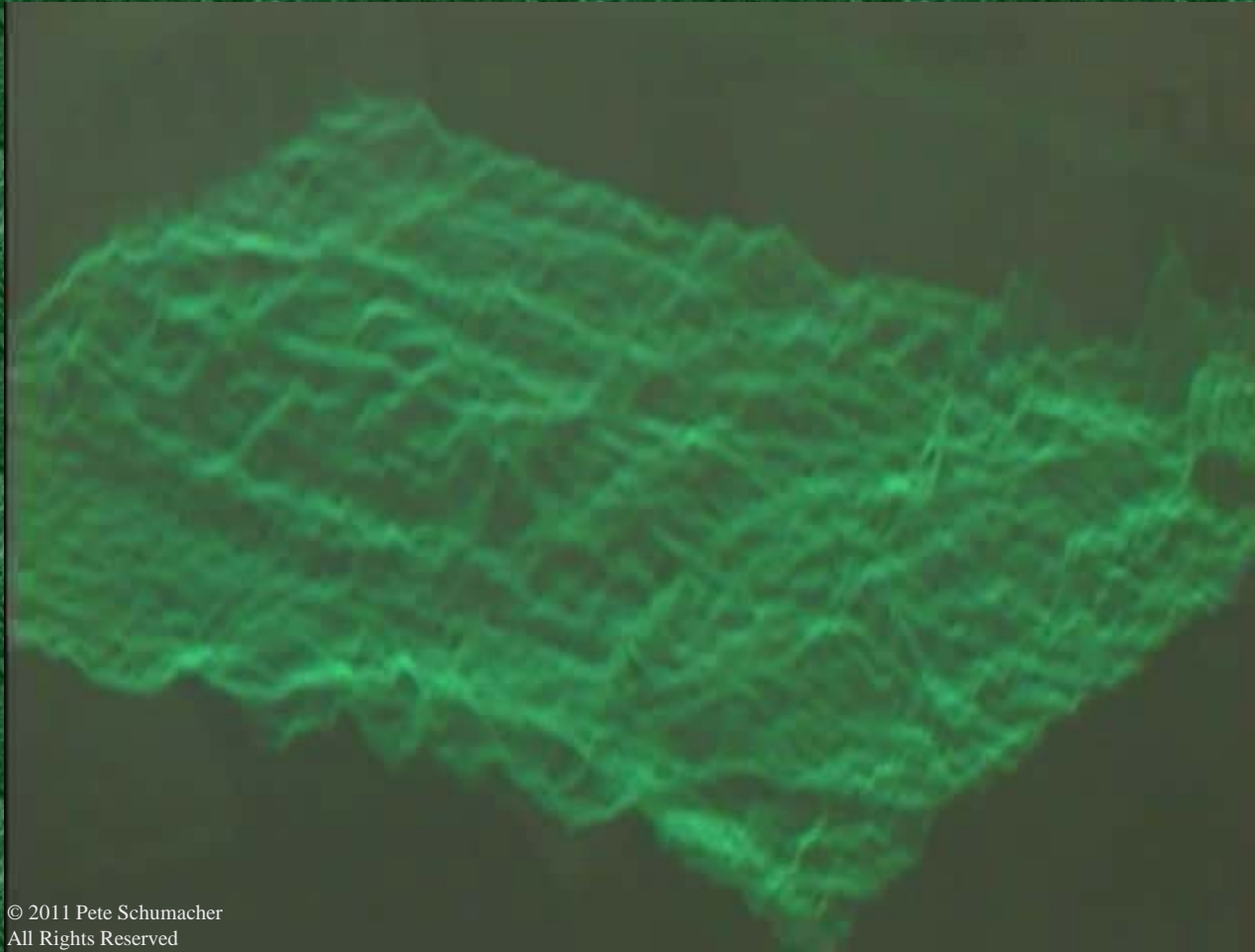


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Enlarged Green Screen

3D & Brightness Encoding

VP8 Image Analyzer: Proving the 3D is encoded in the Shroud image and is not a property of the VP8



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Green screen still from the 2010 video work of Pete Schumacher & Petrus Soons

3D & Brightness Encoding

Photo Relief Technique (Edge Enhancement): Proving the 3D is encoded in the Shroud image

Enlarged Head Image



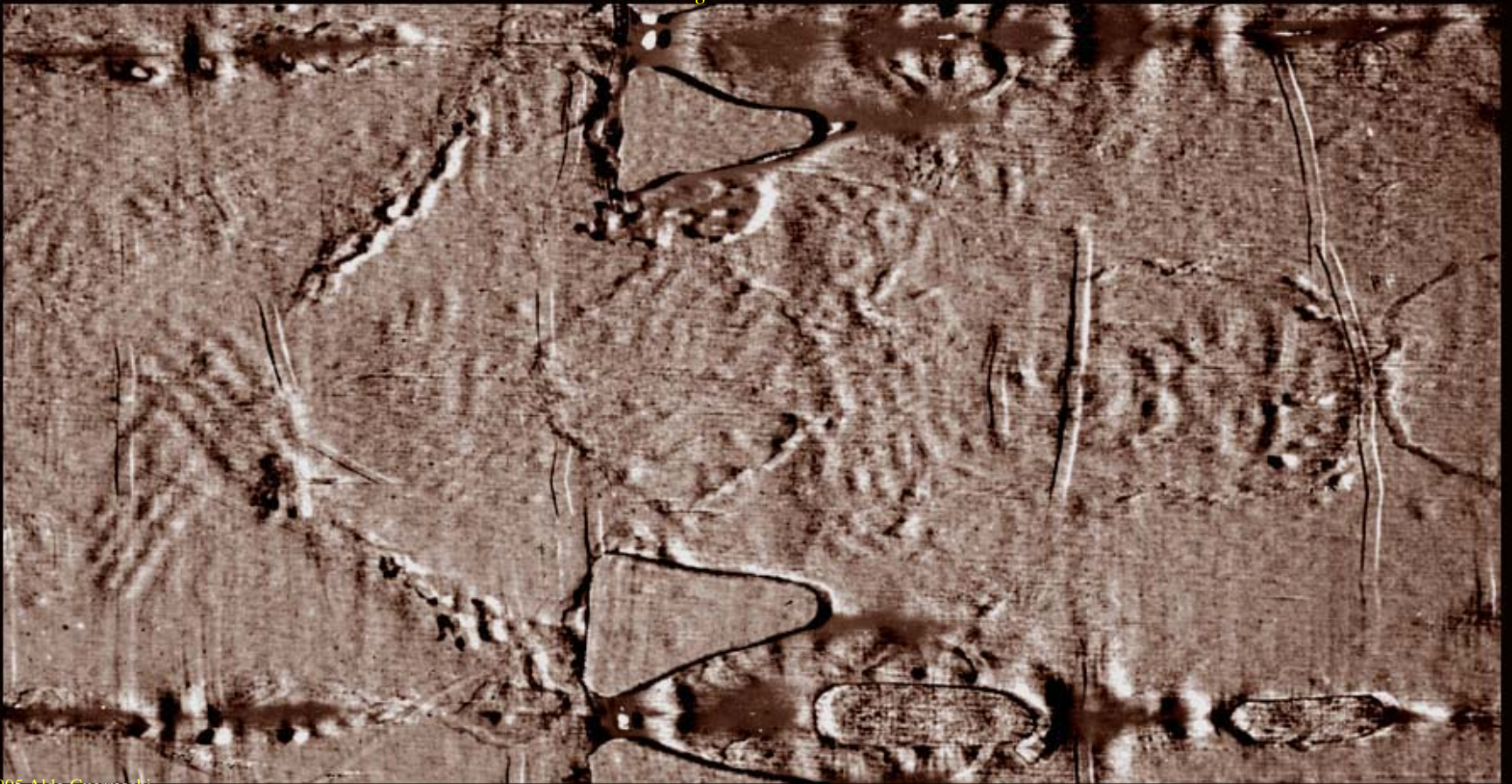
© 1995 Aldo Guerreschi
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- Unique photographic technique perfected by Aldo Guerreschi & exhibited at the 1998 Shroud Congress in Turin, Italy
- Analog photographic technique
- Proves the brightness encoding discovered by Secundo Pia
- Validates the VP8 3D image
- Shows the 3D is not a process of Edge Enhancement
- Proves the 3D is encoded in the Shroud image

3D & Brightness Encoding

Photo Relief Technique (Edge Enhancement): Proving the 3D is encoded in the Shroud image

Enlarged Ventral Bust



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3D & Brightness Encoding

Photo Relief Technique (Edge Enhancement): Proving the 3D is encoded in the Shroud image

Ventral Image in orientation of Shroud display in SEAM

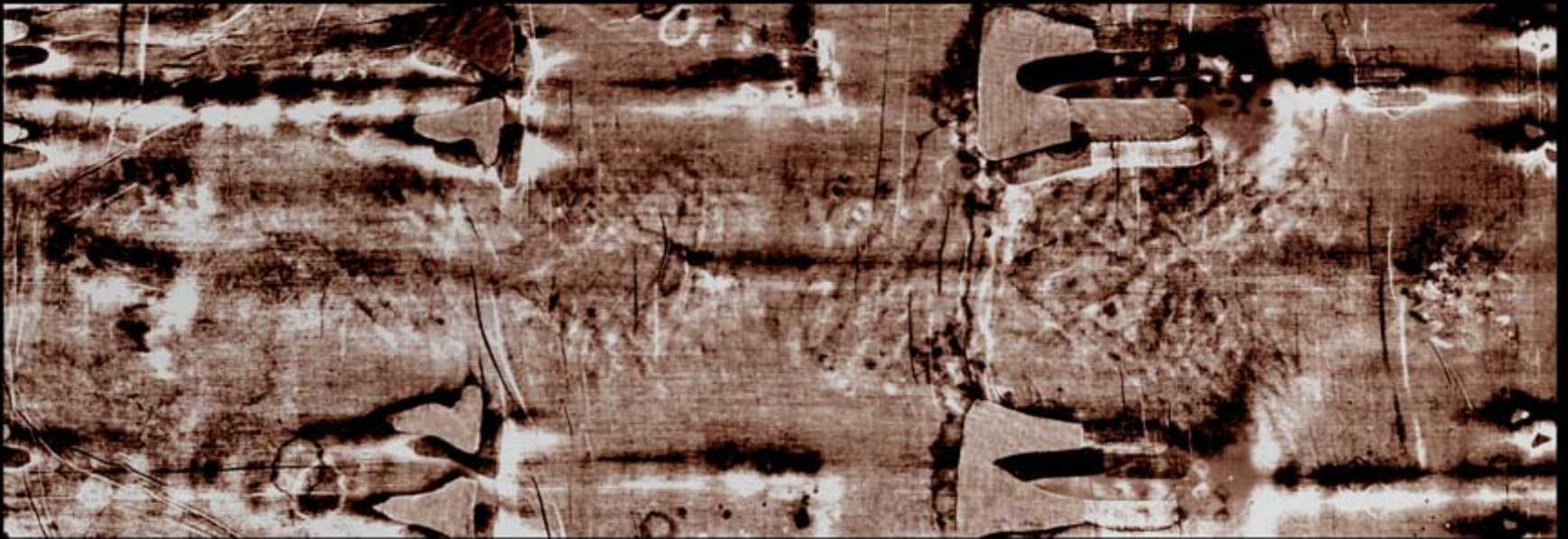


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3D & Brightness Encoding

Photo Relief Technique (Edge Enhancement): Proving the 3D is encoded in the Shroud image

Dorsal Image in orientation of Shroud display in SEAM



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3D & Brightness Encoding

Photo Relief Technique (Edge Enhancement): Proving the 3D is encoded in the Shroud image

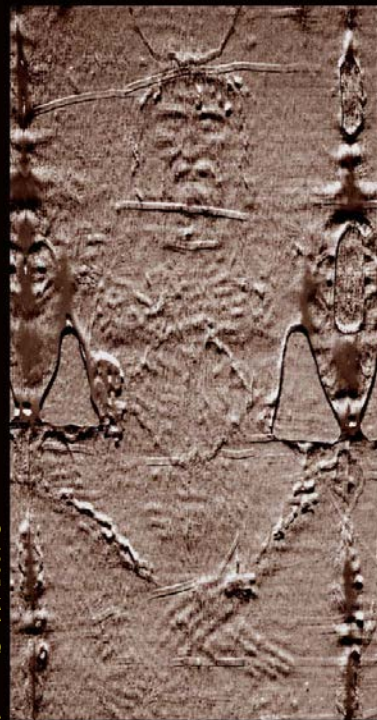
R



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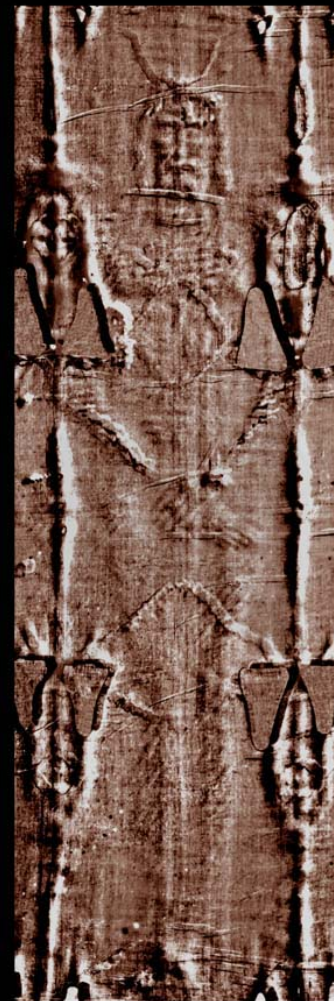
L

*Dorsal (left), Ventral
(right) & Bust (below)
Images as kindly provided
by Aldo Guerreschi
scaled slightly smaller to
accommodate images in
this presentation*



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3D & Brightness Encoding

VP8 & Photo Relief Technique comparison: Proving the 3D is encoded in the Shroud image



3D & Brightness Encoding

Groundbreaking Work: 3D Studies of the Shroud

- Dr. Petrus Soons & colleagues used digital computers (compared to the analog VP8), performing three dimensional experiments
 - ✓ Applied the brightness elevation model to the photo-negative for a **3D image** viewed with glasses (2005)
 - ✓ Created a **holographic** image of front and back (2008)
 - ✓ From holographic work created:
 - Full-size statue from holograph
 - **Lenticular 24-layer image** with 24 virtual cameras, 3D to the naked eye (from brightness encoding on Shroud, not artwork)



Dr. Petrus Soons



3D & Brightness Encoding

Groundbreaking Work: 3D Studies of the Shroud

Still photographs of Dr. Soons holographic images during a presentation at SEAM June 2012

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These show brightness encoding from the Shroud & is not an artwork. Where image brightness ends there are no edges – the sides you see are the end of the brightness from the Shroud image. In the right image, you can clearly see the distinction between the head and the watermark.

3D & Brightness Encoding

Groundbreaking Work: 3D Studies of the Shroud

- Dr. Soons' holographic work continues with some promising areas of research
 - ✓ Solid Object Under the Beard
 - ✓ Three Hebrew Letters on the Solid Object
 - ✓ Circle (Halo) Around the Head
- Donated examples of **two images above** can be seen in SEAM
- You can buy 24-layer lenticular images in SEAM



*Dr. Petrus Soons
presentation on
the letters
discovered on
the solid object
discovered on
the Shroud while
doing
holographic and
3D work*

*Presentation
given in SEAM
April 9, 2011*

Scriptural Evidence

Scriptural Story of the Passion, Death and Resurrection with Shroud Studies Information

- Jewish Sabbath at sundown, about 6 PM
- Christ died about 3 PM ([Mk 15:33](#); [Lk 23:44](#)), providing about 3 hours before Sabbath for burial, head cloth ([Sudarium of Oviedo](#)) wrapped head incompletely on cross for about 1 hour⁴
- Joseph of Arimathea asked Pilate for the body ([Mt 27:58](#); [Mk 15:43](#); [Jn 19:38](#)) & Pilate surprised he was dead already ([Mk 15:44](#))
- His side was pierced from which flowed blood and water ([pericardial fluid](#)¹), proving death and legs not broken ([Jn 19:31–36](#))
- Body taken down ([Jn 19:38](#); [Mt 27:58-60](#); [Mk 15:43-45](#); [Lk 23:52-53](#))
- Blood is exudate²³⁻²⁵; Rigor mortis broken to reposition arms & hands²
- Sudarium removed, anointed & wrapped around head for about 1 hour⁴
- Body moved to tomb close by, washed², anointed, enshrouded, bound & buried ([Mt 27:59–61](#); [Mk 15:45-47](#); [Lk 23:53](#); [Jn 19:38–42](#))

Scriptural Evidence

Scriptural Story of the Passion, Death and Resurrection with Shroud Studies Information

- Pilate has tomb sealed & guards stationed (Mt 27:59–66; Mk 15:46)
- Next morning women went with spices to tomb but found stone rolled away (in Mt, angel moved the stone away) and empty tomb (Mt 28:1-8; Mk 16:1–7; Lk 24:1–11; Jn 20:1–2)
- John, eyewitness to Jesus' trial, crucifixion & burial, lead Peter (betrayed Jesus & wept bitterly Mt 26:75) to the tomb, *saw and believed* (John 20:3-8); *italicized* is a peculiar statement
- If John saw the burial cloths simply untied why would he *believe*?
- Question: What did John see? Logically: Either a wrapped Shroud without the body in it (body could not physically exit without being untied) or an unwrapped Shroud with the image on it
- Since the body was not there, they could not finish the anointing
- We believe the Shroud is an image of Jesus' burial and resurrection

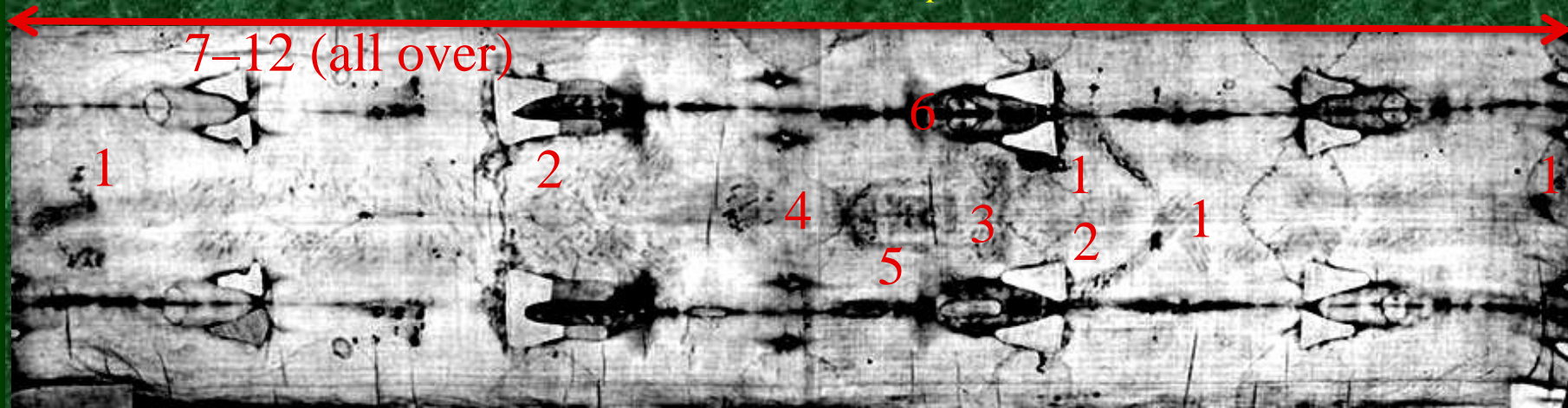
Scriptural Evidence

From Jewish Law

- Anything with blood on it would have been buried with Christ including the Sudarium and dirt mixed with life blood (bled as he expired)
 - ✓ To touch would make one ritually impure
- Images were forbidden in Jewish Law
 - ✓ While no one knows if the image was on the cloth at that time, it is possible
- For these reasons, an observant Jew would not handle a burial cloth with these attributes

Scriptural Evidence

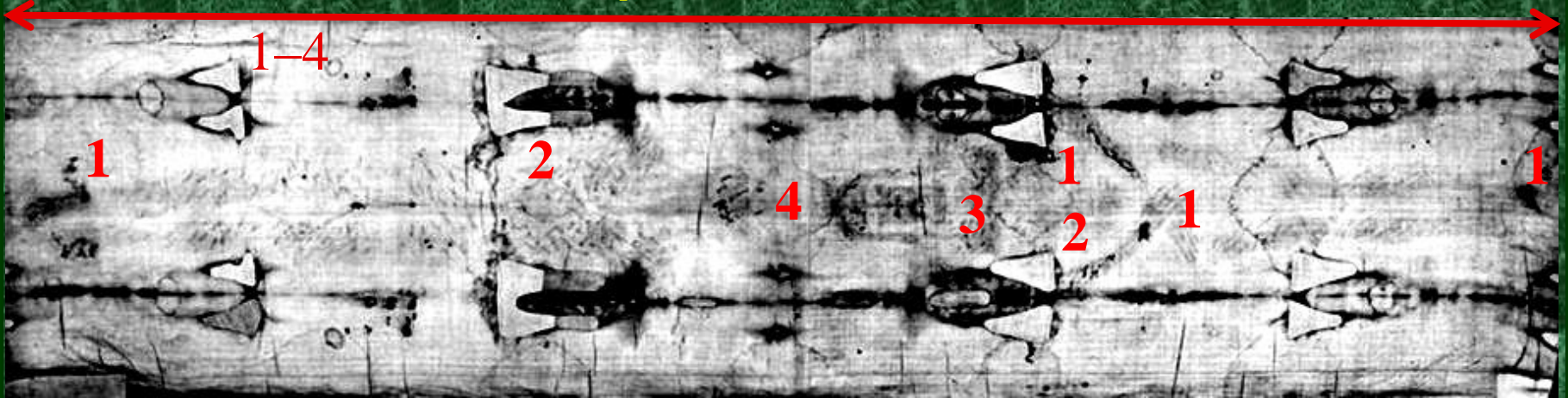
The Shroud & The Passion in Scripture Overview



1. Pierced hands, feet & side Ps 22:16/Zech 12:10/Mt 27:35/Mk 15:24/Lk 23:33/Jn 19:34, 20:27
2. Back struck/Scourging Is 50:6/Zech 13:6/Mt 27:26/Mk 15:15/Jn 19:1 (shoulders to ankles)
3. Beard plucked Is 50:6
4. Crown of thorns Mt 27:29; Jn 19:2
5. Jesus hit with hand or fist Mk 15:19; Lk 22:63; Jn 18:22, 19:3 (face)
6. Shoulder damage Jn 19:17
7. Bones out of joint Ps 22:14 (several potential places depending on definition)
8. Bruised Gen 3:15, Is 53:5, 10 (several potential places)
9. Bones unbroken & able to be counted Ps 22:17, 34:20 (whole image)
10. Appearance marred beyond human semblance Is 52:14 (whole image)
11. Stricken, smitten by God, and afflicted Is 53:4 (whole image)
12. Wounded Is 53:5 (head, face, hands, feet, back, front, shoulders, tip of nose, knees, legs)

Scriptural Evidence

Scripture in the Shroud (RSV²)



1. Pierced hands, feet & side Ps 22:16 they have pierced my hands and feet/Zech 12:10 And I will pour out on the house of David and the inhabitants of Jerusalem a spirit of compassion and supplication, so that, when they look on him whom they have pierced, they shall mourn for him, as one mourns for an only child, and weep bitterly over him, as one weeps over a first-born/Mt 27:35 And when they had crucified him/Mk 15:24 And they crucified him/Lk 23:33 they crucified him/Jn 19:34 one of the soldiers pierced his side with a spear, and at once there came out blood and water, 20:27 Then he said to Thomas, "Put your finger here, and see my hands; and put out your hand, and place it in my side; do not be faithless, but believing."

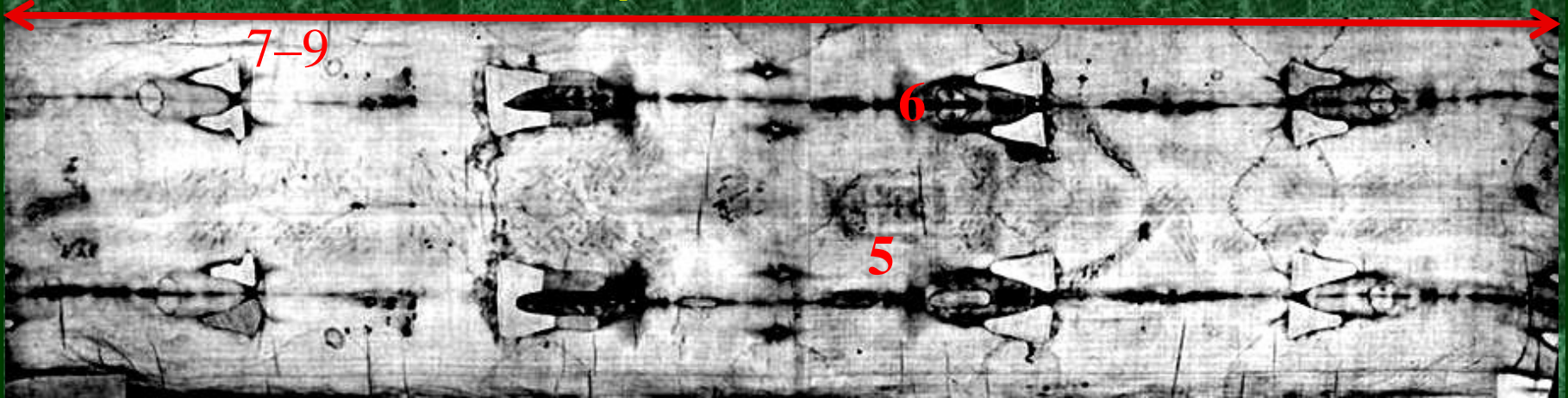
2. Back struck/Scourging, nearly shoulders to ankles Is 50:6 I gave my back to the smiters/Zech 13:6: And if one asks him, 'What are these wounds on your back?' he will say, 'The wounds I received in the house of my friends.'/Mt 27:26 having scourged Jesus/Mk 15:15 having scourged Jesus/Jn 19:1 Then Pilate took Jesus and scourged him

3. Beard plucked Is 50:6 (gave) my cheeks to those who pulled out the beard

4. Crown of thorns Mt 27:29 and plaiting a crown of thorns they put it on his head/Jn 19:2 And the soldiers plaited a crown of thorns, and put it on his head

Scriptural Evidence

Scripture in the Shroud (RSV²)



5. **Face hit with hand/fist/reed (see also #8)** Is 50:6 I hid not my face from shame and spitting/Mk 15:19 they struck his head with a reed/Lk 22:63 the men who were holding Jesus mocked him and beat him/Jn 18:22 one of the officers standing by struck Jesus with his hand & 19:3 and struck him with their hands
6. **Shoulder damage** Jn 19:17 bearing his own cross
7. **Bones out of joint (several potential places depending on definition)** Ps 22:14 I am poured out like water, and all my bones are out of joint
8. **Bruised (several potential places)** Gen 3:15 I will put enmity between you and the woman, and between your seed and her seed; he shall bruise your head, and you shall bruise his heel/Is 53:5 he was bruised for our iniquities & 10 it was the will of the LORD to bruise him/Lk 22:63-64 Now the men who were holding Jesus mocked him and beat him; they also blindfolded him and asked him, "Prophesy! Who is it that struck you?"
9. **Bones unbroken & can be counted (whole image)** Ps 22:17 I can count all my bones, 34:20 He keeps all his bones; not one of them is broken

Scriptural Evidence

Scripture in the Shroud (RSV²)



10. **Appearance marred beyond human semblance (whole image)** Is 52:14 As many were astonished at him -- his appearance was so marred, beyond human semblance, and his form beyond that of the sons of men
11. **Stricken(whole image)** Is 53:4 we esteemed him stricken, smitten by God, and afflicted
12. **Wounded (head, face, hands, feet, back, front, shoulders, tip of nose, knees, legs)** Is 53:5 he was wounded for our transgressions
13. **Blood is exudate²³⁻²⁵, i.e., it exuded from a dead corpse and was not pumped by a living heart (see ventral & dorsal image on the Shroud)** Eph 1:7 In him we have redemption through his blood, the forgiveness of our trespasses, according to the riches of his grace (see also Rom 5:9, Col 1:14, 1 Pt 2:24 & Is 53:4-5)

Scriptural Evidence

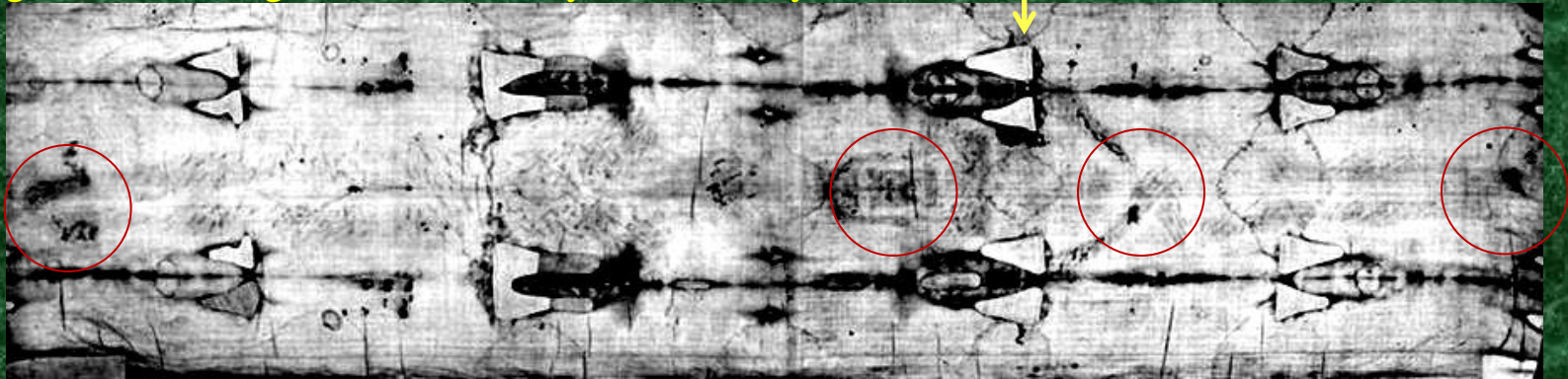
Old Testament (RSV²) Prophecies of Physical Description

Genesis 3:15 I will put enmity between you and the woman, and between your seed and her seed; he shall bruise your head, and **you shall bruise his heel.** →



Psalms 22:14b **all my bones are out of joint** 15b **my tongue cleaves to my jaws; thou dost lay me in the dust of death.**

16b **they have pierced my hands and feet** –17a **I can count all my bones** 18 **they divide my garments among them, and for my raiment they cast lots.** ↓



Psalms 34:20 He keeps all his bones; **not one of them is broken.** ↑

*Hands could be down too far
indicating potential
dislocation of shoulders*

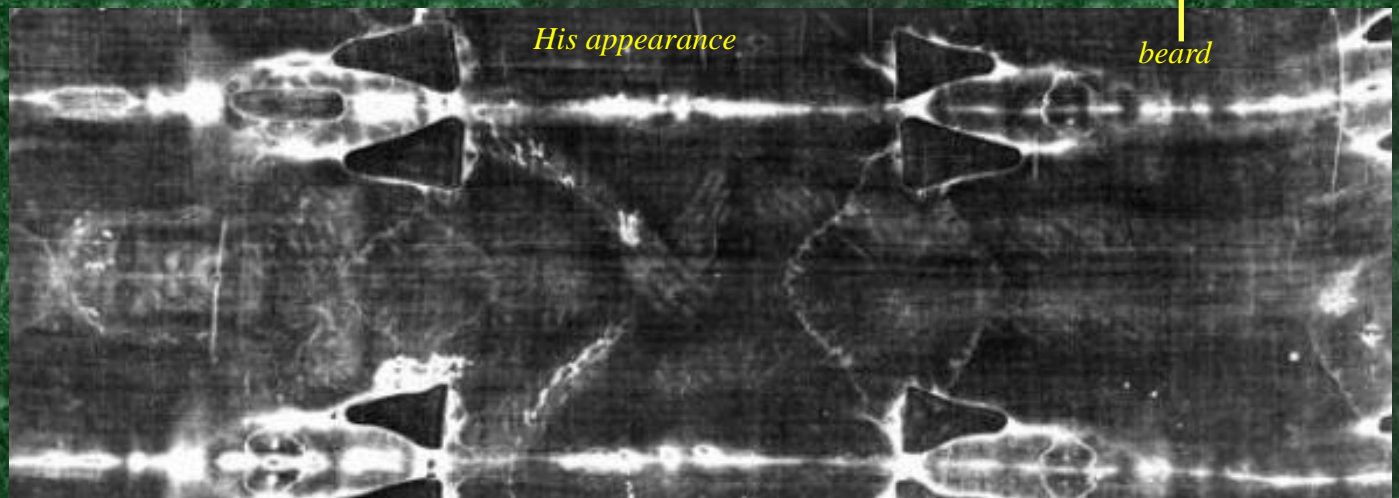
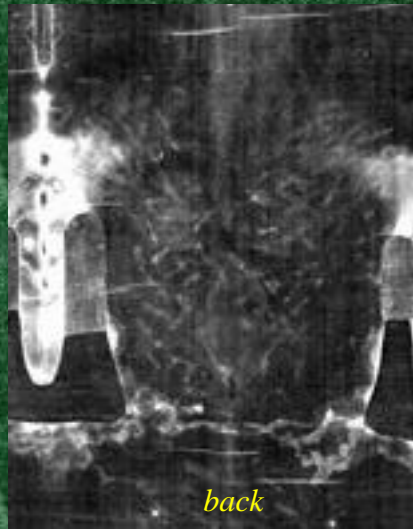
Scriptural Evidence

Old Testament (RSV²) Prophecies of Physical Description

Isaiah 50:6 I gave my back to the smiters, and my cheeks to those who pulled out the beard

Isaiah 52:14 his appearance was so marred, beyond human semblance, and his form beyond that of the sons of men

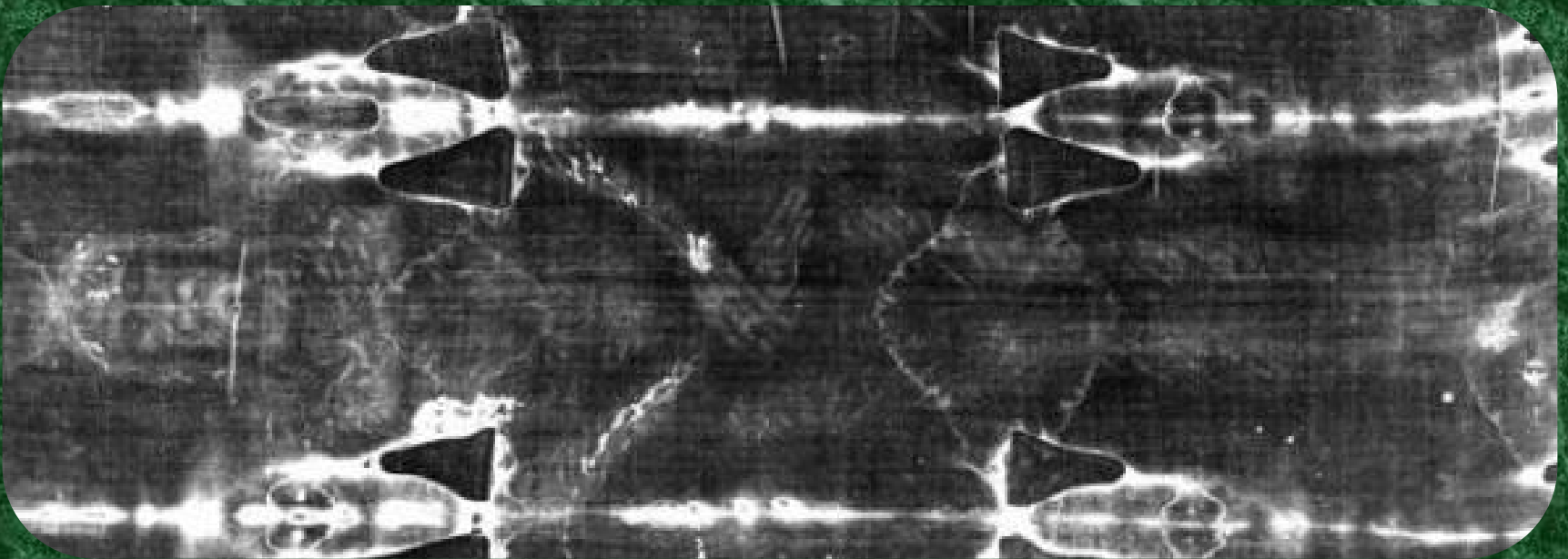
Zech 13:6 And if one asks him, 'What are these wounds on your back?' he will say, 'The wounds I received in the house of my friends.'



Scriptural Evidence

Old Testament (RSV²) Prophecies of Physical Description

Isaiah 53:4b yet we esteemed him **stricken, smitten by God, and afflicted**. 5 But he was **wounded** for our transgressions, he was **bruised** for our iniquities; **upon him was the chastisement** that made us whole, and with his stripes we are healed.



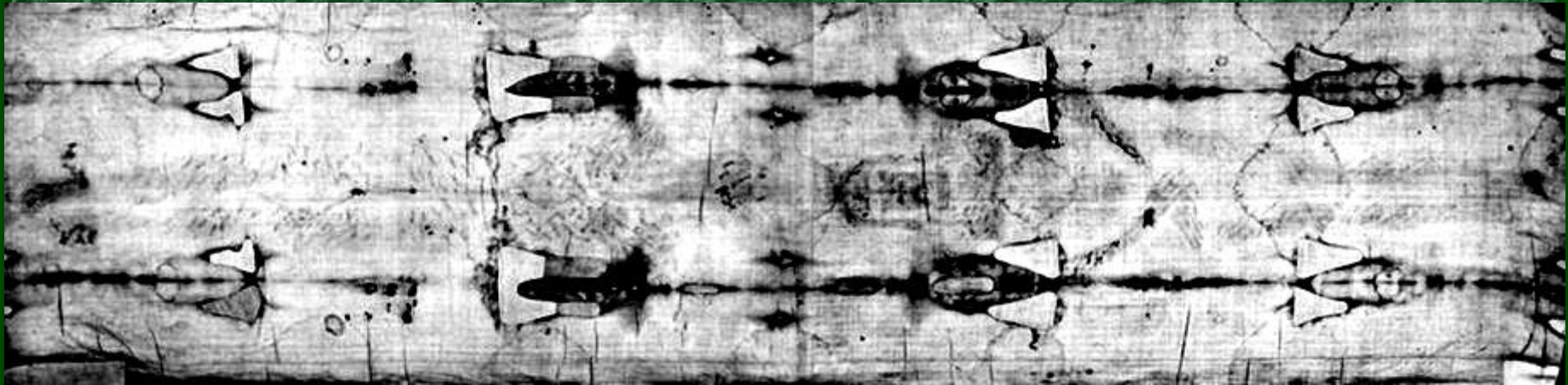
Isaiah 53:10a Yet it was the will of the LORD to **bruise him**

Zechariah 12:10b when they look on **him whom they have pierced**, they shall mourn for him, as one mourns for an only child, and weep bitterly over him, as one weeps over a first-born.

Scriptural Evidence

Old Testament (RSV²) Prophecies of Physical Description

Daniel 9:26a And after the sixty-two weeks, **an anointed one shall be cut off, and shall have nothing;**



His clothes were taken, scourged naked nearly to death with anywhere from 120-220 lash marks. He was crowned with thorns, the blood of which can be seen covering the entirety of his head. His hands and feet were affixed to the wood of the cross with nails that pierced them both. There he hung upon the cross naked for all to see with a sign above stating “Jesus, King of the Jews.” The Romans wanted all to know they had power over this king. So at this end he had nothing, completely cutoff – until his resurrection.

Scriptural Evidence

Potential Scriptural Clues to Explain the Shroud Image?

- God & Light
 - ✓ In the NT (RSV²), light is used in 77 verses 90 times, not including all variations & others (lighted, lighten, lightened, lightens, enlighten, lamp, lampstand, etc.), for example:
 - ✓ Luke 2:32 a **light** for revelation to the Gentiles, and for glory to thy people Israel.
 - ✓ John 1:5 The **light** shines in the darkness, and the darkness has not overcome it.
 - ✓ Rev 23-24a And the city has no need of sun or moon to shine upon it, for the glory of God is its **light**, and its **lamp** is the Lamb. By its light shall the nations walk
 - ✓ Jesus' transfiguration on Mount Tabor is described in Luke 9:28-36 the appearance of his countenance was altered, and his raiment became **dazzling white**
 - ✓ Dazzling white could indicate radiance: could this indicate some form of energy which would not damage the flax linen fibers?

Scriptural Evidence

*Potential Scriptural Clues to Explain the Shroud Image?**

- Mary Magdalene thought she saw the gardener & when she realizes who he is, he says in John 20:11-18 Do not hold me, for I have not yet ascended to the Father
 - ✓ What happened to his body that she could not touch him?
 - ✓ How was his body changed to cause Jesus to say this?

**Author note on additional information: also 44*

1. *Dr. Ray Rogers – “The crystal structure of the flax fiber of the Shroud shows the effect of aging, but it has never been heated enough to change the structure. It has never suffered chemically significant radiation with either protons or neutrons. No type of radiation that could produce either color in the linen fibers or change in the C¹⁴ content (radiocarbon age) could go unnoticed. All radiation has some kind of an effect on organic materials. This proves that the image color could not have been produced by thermal or radiation-induced dehydration of the cellulose. Image formation proceeds at normal temperatures in the absence of energetic radiation of any kind.”²¹*
2. *This expert opinion should be balanced by the following*
 - a. *Expert holographer Dr. Petrus Soons’ observations on his website*
 - b. *Dave Hines’ video claims (first part)*

Scriptural Evidence

Examination of Jesus' words under torture and the face on the Shroud image

- The man in the Shroud image has a look of serenity in his face
- John 19:26-30 When Jesus saw his mother, and the disciple whom he loved standing near, he said to his mother, "Woman, behold, your son!" Then he said to the disciple, "Behold, your mother!" And from that hour the disciple took her to his own home. After this Jesus, knowing that all was now finished, said (to fulfill the scripture), "I thirst." A bowl full of vinegar stood there; so they put a sponge full of the vinegar on hyssop and held it to his mouth. When Jesus had received the vinegar, he said, "It is finished"; and he bowed his head and gave up his spirit.
- This recorded conversation at the end of his crucifixion matches the serene look on the face of the man of the Shroud
 - ✓ He ensures his mother is taken care of
 - ✓ He fulfills prophecy in Scripture

Scriptural Evidence

Examination of Jesus' words under torture and the face on the Shroud image

- Matthew 27:46 And about the ninth hour Jesus cried with a loud voice, "Eli, Eli, lama sabachthani?" that is, "My God, my God, why hast thou forsaken me?"
 - ✓ He has been nearly beaten to death in the scourging and hanging on the cross from some time, and then he prays
- Luke 23:27-31 And there followed him a great multitude of the people, and of women who bewailed and lamented him. But Jesus turning to them said, "Daughters of Jerusalem, do not weep for me, but weep for yourselves and for your children. For behold, the days are coming when they will say, 'Blessed are the barren, and the wombs that never bore, and the breasts that never gave suck!' Then they will begin to say to the mountains, 'Fall on us'; and to the hills, 'Cover us.' For if they do this when the wood is green, what will happen when it is dry?"
 - ✓ He has already been beaten nearly to death in the scourging yet he speaks with serenity
 - ✓ This matches the serenity on the face on the Shroud
 - ✓ One who loves has peace in the midst of suffering

Scriptural Evidence

Examination of Jesus' words under torture and the face on the Shroud image

- Luke 23:39-43 One of the criminals who were hanged railed at him, saying, "Are you not the Christ? Save yourself and us!" But the other rebuked him, saying, "Do you not fear God, since you are under the same sentence of condemnation? And we indeed justly; for we are receiving the due reward of our deeds; but this man has done nothing wrong." And he said, "Jesus, remember me when you come into your kingdom." And he said to him, "Truly, I say to you, today you will be with me in Paradise."
- ✓ He has already been beaten nearly to death in the scourging and is now on the cross, yet he speaks with serenity
- ✓ This matches the serenity on the face on the Shroud
- ✓ The peaceful countenance also matches his obvious, self-donating love which considers others as more important than oneself

Scriptural Evidence

Church/Papal statements about the Shroud ¹⁷

- 1389 Bishop Troyes Pierre d'Arcis claims shroud was created by human around 30 years prior
- 1390 Jan 6 Anti-Pope Clement VII orders d'Arcis to keep silent under threat of excommunication
- 1506 Apr 21 Pope Julius II institutes a Feast of the Holy Shroud with proper Mass and Office; May 9 Papal Bull, “Almighty eternal God...you have left us the Holy Shroud on which his image is imprinted...”
- Pope Benedict XIV (d. 1758) had written, “The Holy Shroud, that outstanding relic, is preserved at Turin. Popes Paul II (1464-71); Sixtus IV (1471-84); Julius II (1503-13) and Clement VII (1523-34) all bear witness that this is the same in which our Lord was wrapped.”
- 1804 Pope Pius VII venerates the shroud and kisses it with tender devotion

Scriptural Evidence

Church/Papal statements about the Shroud

- 1931 Cardinal Fossati, Archbishop of Turin is told in an audience with Pope Pius XI, "be entirely at ease. We speak now as a scientist and not as Pope. We have made a personal study of the Holy Shroud and are convinced of its authenticity. Objections have been raised but they do not hold water."¹⁷
- Pope Pius XI (1922-1939): "...certainly not the work of any human hand."³⁶
- Pope Pius XII (1939-1958): "The linen in which Joseph of Arimathea enveloped the sacred remains of our Lord Jesus Christ."³⁶
- Pope John XXIII (1958-63): "This can only be the Lord's own doing."³⁶
- Pope Paul VI (1963-78): "The image from the Holy Shroud reveals to us the human and divine personality of Christ."³⁶

Scriptural Evidence

Church/Papal statements about the Shroud

- Pope John Paul II (1978-2005): “The Holy Shroud is the most splendid relic of the Passion and Resurrection.” [36](#)
- Pope Benedict XVI (2005-2013): “...a photographic document of the darkest mystery of faith — that of Christ’s Crucifixion and Resurrection.” [36](#)
- Pope Francis I (2013-Present): “By means of the Holy Shroud, the unique and supreme Word of God comes to us” [36](#) & “turning his gaze to the Man of the Shroud, in which we recognize the features of the Servant of the Lord, which Jesus made in his Passion” [50](#)

Forensic Summary

Evidence: Summary of what the Shroud is NOT...#1

- What the Shroud image is NOT:
 - ✓ NOT Bodily secretions
 - ✓ NOT Burn mark or scorch (1966 Asche Scorch theory disproved^{8 Jumper})
 - ✓ NOT Painting, dye, etching or rubbing²
 - Medullas of the fibrils show no coloration
 - No binders (cementing substances) found between Shroud fibers
 - Rogers' Pyrolysis/Mass Spectrometry Analysis revealed no impurities (organic/inorganic impurities would have changed parts of the image during the Chambery fire)
 - ✓ Not made by thermal or radiation-induced dehydration²¹

Forensic Summary

Evidence: Summary of what the Shroud is NOT...#2

- What the Shroud image is NOT: (continued)
 - No sulfide pigments (vermillion, mercury sulfide, HgS, orpiment, realgar, mosaic gold or cinnabar) found on Shroud
 - ✓ NOT Medieval “photograph” (first chemical photograph in 1826)
 - ✓ NOT Made by artist because:
 - Image has no pattern (all human work has patterns)
 - No image directionality (direction of light)
 - Fourier Analysis shows no brush stroke directionality
 - Image went on after blood (blood removed, no image)

Forensic Summary

Evidence: Summary of characteristics of the Shroud...#1

- Characteristics of the Shroud image:
 - ✓ There is a cloth-to-body distance relationship⁸
 - ✓ Body in rigor mortis, image created w/in 48 hours of death
 - ✓ Light/dark characteristics similar to a negative photograph
 - ✓ Human blood⁵ on Shroud first (blood removed, no image)
 - ✓ Image contains brightness map revealed with the VP8 Image Analyzer
 - ✓ Serum Albumin Halos around scourge marks⁵ unknown in medieval times
 - ✓ Scientific consensus: image made by something caused oxidation, dehydration & conjugation of the polysaccharide structure of the microfibrils of the linen itself²

Forensic Summary

Evidence: Summary of characteristics of the Shroud ...#2

- Characteristics of the Shroud image: (continued)
 - ✓ Jumper, Adler, Jackson, Pellicori, Heller & Druzik in "A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin," *Archeological Chemistry III*²
 - Fibrils on image areas more yellow than non-image areas (like pixels in printing – more in darker areas)
 - Color consistent with aging effect due to alteration of the microfibrils of the cellulose structure of linen caused by oxidation, dehydration & conjugation of the long-chain sugar molecules that comprise the microfibrils
 - ✓ Human blood consists of exudates (the blood exuded from corpse)²³⁻²⁵

Forensic Summary

Evidence: Summary of characteristics of the Shroud ...#3

- Characteristics of the Shroud image: (continued)
 - ✓ In contrast to the conclusion of Jumper, Adler, Jackson, Pellicori, Heller & Druzik, lead STURP Chemist Ray Rogers surmises that since the “image color resides only on the fiber surfaces leads to the hypothesis that the color formed as a result of chemical reactions involving impurities on the surface. The spectra strongly suggest that the impurities were carbohydrates that dehydrated as a result of the image-formation process. The hypothesis on carbohydrate impurities is supported by observations of traces of some starch fractions on image fibers. No protein impurities were found in image areas.”¹⁹

Forensic Summary

Evidence: Summary Overview and the Challenge of Faith

- Science is limited: it only can prove what it can measure
 - ✓ Drs. Adler & Heller proved blood on Shroud is human⁵
 - ✓ Dr. Luigi Bollone proved the blood is AB (some dispute)
 - ✓ Dr. Adler proved the blood is exudate²³⁻²⁵
 - ✓ Cannot prove or disprove the identity of the image without physical evidence – cannot prove or disprove it is the image of Jesus
- The preponderance of evidence is more than enough to accept in a court of law & provides reasonable assurance this is the burial cloth of Christ
- Generally, believing is a matter of faith: what one believes from honest inquiry (different from but related to the gift of faith from supernaturally revealed data in Christianity)

Forensic Summary

Theories of Shroud image formation

- ✓ *There is a principle which is a bar against all information, which is proof against all arguments and which cannot fail to keep a man in everlasting ignorance – that principle is contempt prior to investigation. -Philosopher William Paley*
- ✓ Theories about the process that made the image include:
 - Vapor (Vignon disproved by Jumper⁸)
 - Radiation or scorch (Disproved by Rogers²¹ - statement below)
 - Natural Chemical Reaction (Rogers¹⁹)

**Ray Rogers – The crystal structure of the flax fiber of the Shroud shows the effect of aging, but it has never been heated enough to change the structure. It has never suffered chemically significant radiation with either protons or neutrons. No type of radiation that could produce either color in the linen fibers or change in the C¹⁴ content (radiocarbon age) could go unnoticed. All radiation has some kind of an effect on organic materials. This proves that the image color could not have been produced by thermal or radiation-induced dehydration of the cellulose. Image formation proceeds at normal temperatures in the absence of energetic radiation of any kind.²¹*

Forensic Summary

Evidence: Summary Overview and the Challenge of Faith

- Scriptural Evidence
 - ✓ The Biblical account of Jesus passion & death can be seen in the details on the Shroud image
 - ✓ Biblical prophecies concerning the Messiah can be seen on the Shroud image and none of them are contradicted by the evidence
 - ✓ The appearance of the image shows a man at peace
- Jewish Law: Items with life-blood prohibited yet his Jewish followers kept the Shroud
- Papal Statements: In the past 100 years Popes made statements about the authenticity of the Shroud

Forensic Summary

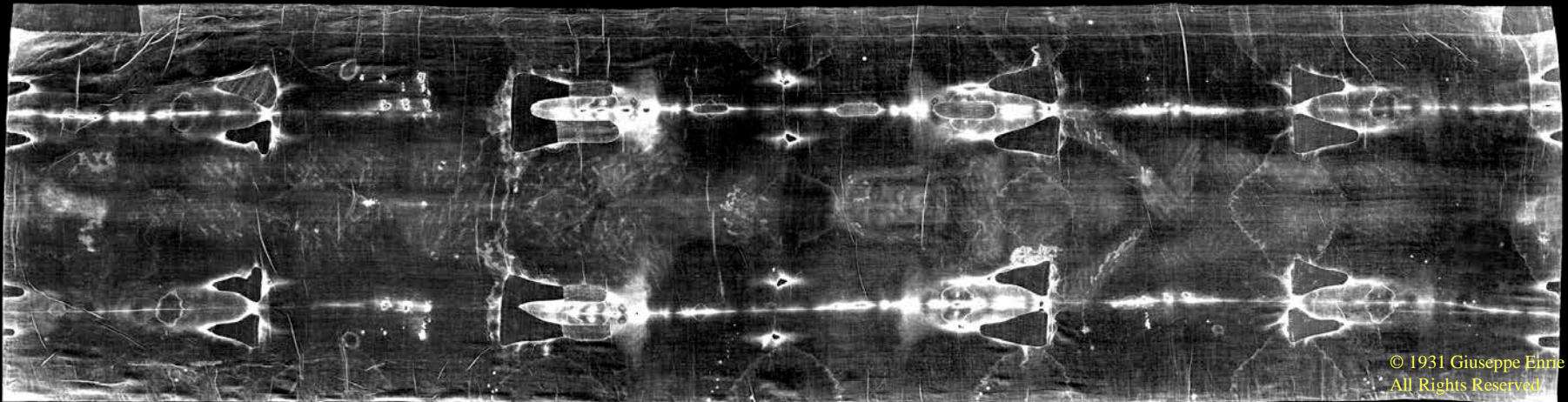
Webmaster statement on the import of the Shroud studies

- The medical studies on the Shroud prove beyond a doubt that this is an image of an adult male body subjected to the torture and death of scourging and crucifixion
- Historically, this kind of punishment was done by Romans
- This evidence demonstrates the body on the Shroud is dead, disproving any theory that Jesus was resuscitated
- All the Scriptural evidence proves that the man in the image suffered perfectly in accordance with everything written in sacred Scripture about Jesus
- If one follows the evidence, it points to this being Jesus
- In a court of law, the evidence is so overwhelming that it would be accepted as proof that the image is Jesus
- There is simply no other tenable explanation after over 115 years of study

Forensic Summary

Evidence: Summary Overview and the Challenge of Faith

- Follow the evidence: whatever is not ruled out is possible
- Have you followed the evidence?
- What do you think and believe about the Shroud?
- Is the evidence the basis of those thoughts and beliefs?
- Ask yourself: Do I believe that the Shroud *could* be the burial cloth of Christ? Is it *possible* Christ died and rose?
- Follow the evidence & come to your own conclusion

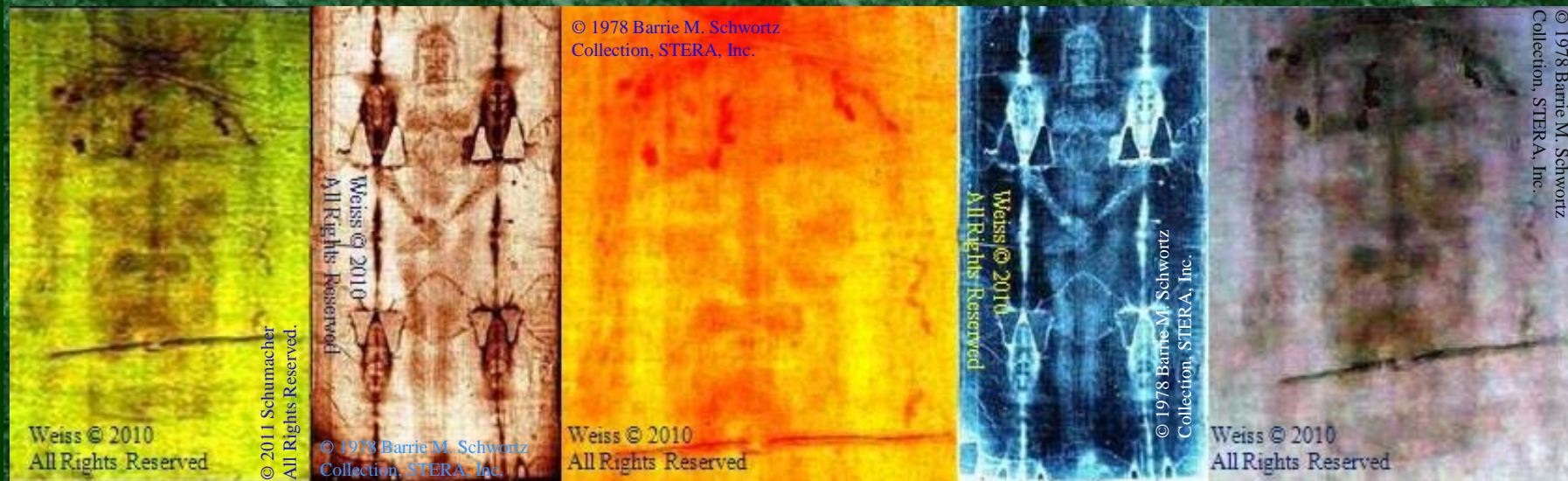


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Forensic Summary

SEAM Summary and Conclusion

- We believe the preponderance of evidence (Shroud Cloth, Chemical Analysis, History, Art & Iconography, Medical Forensics, Science, Eyewitness Accounts, etc.) indicates that this is a true image of Christ's crucifixion & resurrection
- This is an image unlike any other...



(variety of computer inverted & enhanced colors of Shroud and head images)

Experts' Quotes on Authenticity



All this proves and confirms that on the Shroud there are effectively real and complete bloodstains, conserved in their various components.

-Dr. Baima Bollone



I have no doubt in my mind whatsoever. -Dr. Frederick Zugabie



There have been attempts to date the Shroud, but the style of sewing is the biggest clue. It belongs firmly to a style seen in the 1st century AD or before. -Dr. Methchild Flury Lemburg



The authenticity of the Shroud from the point of view of anatomy and physiology is a scientific fact. -Dr. Pierre Barbet



The remarkably fine detailing of the scourge marks revealed by UV florescence would be impossible to obtain by any other means than by direct contact between a body and the linen. -Dr. Sam Pellicori



The perfect correspondence of the forehead bloodclots gives us the certainty that the Shroud covered the corpse of a man who, while alive, endured the lesion of these blood vessels. -Dr. Sebastiano Rodante

SEAM Presentation

SEAM Presentations: 10/2009 Larry Schauff – Shroud on Trial



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Shroud Exhibit and Museum, Inc. (SEAM)

SEAM Presentation

SEAM Presentations: 03/2010 Dr. Petrus Soons – 3D

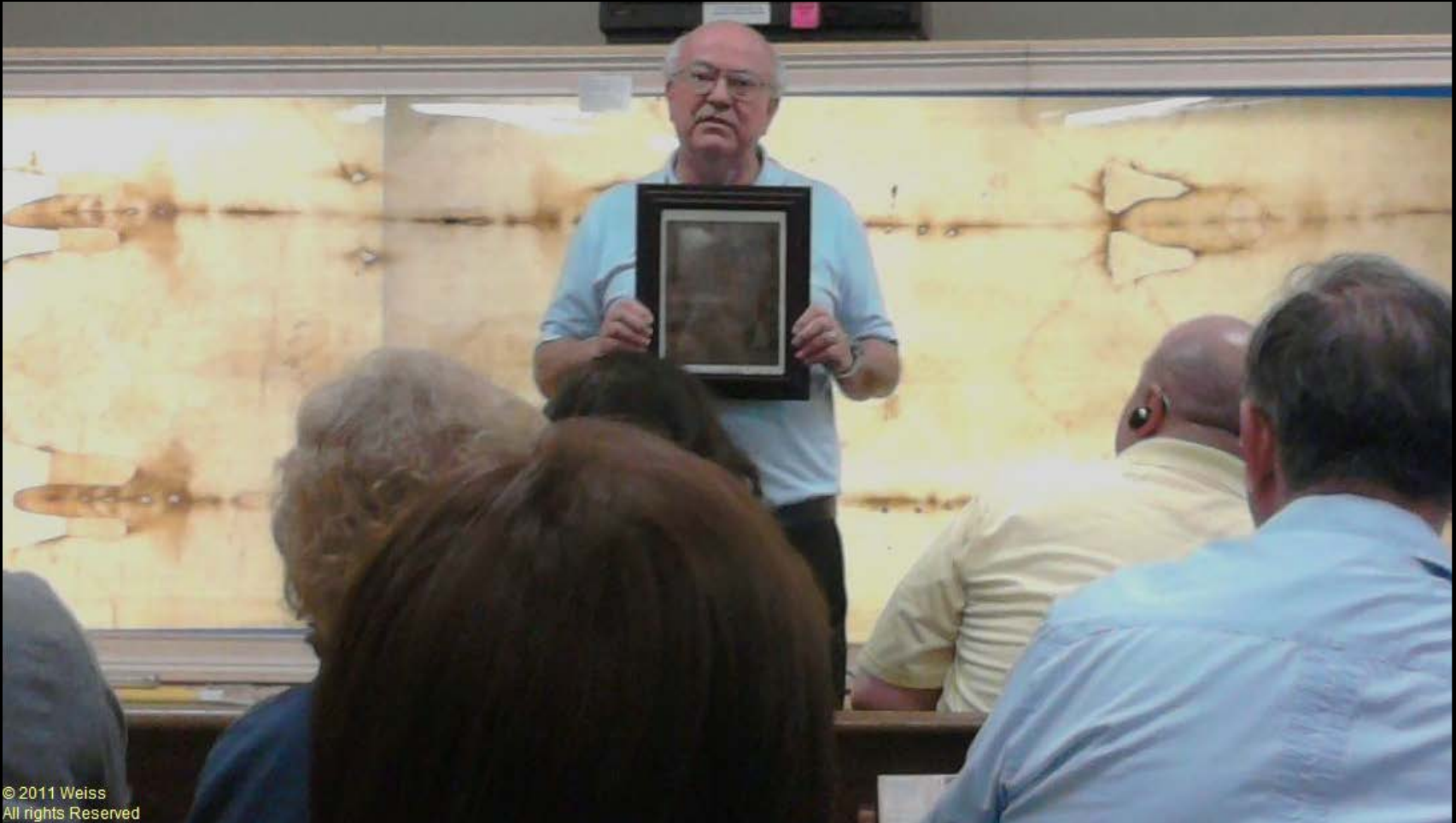


Shroud Exhibit and Museum, Inc. (SEAM)

SEAM Presentation

SEAM Presentations: 02/2011 Deacon Pete Schumacher – General Audience

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2011 presentation, 14½ foot X 3½ foot backlit Shroud; Dcn Pete Schumacher reveals 1st generation polaroid photo given to him by a dear friend; camera used to take this photograph was about 4 feet from the actual Shroud and the light bounced from the Shroud onto the film he is holding

SEAM Presentation

SEAM Presentations: 04/2011 Dr. Petrus Soons – 3D



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SEAM Presentations: 06/2011 Deacon Pete Schumacher – General Audience



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SEAM Presentations: 03/2012 Dr. John Jackson – 35th Year STURP Anniversary

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SEAM Presentations: 05/2012 Barrie Schwartz – 35th Year STURP Anniversary



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Shroud Exhibit And Museum (SEAM)

Shroud Museum in Alamogordo, NM (Feb 25, 2009 – Present)



- SEAM goal – for all to experience the “Man of the Shroud” including persons with vision impairments & those who speak various languages
- This is a permanent exhibit sustained by generous contributions
- Museum space donations: 1. White Sands Mall, 2. Olde Post
- Olde Post gave building space to SEAM

Credits

- Originally 30 slides used in presentations in the Shroud Exhibit and Museum, Inc.(SEAM)
- Original Creator: home-schooled HS student Christa
- Secondary Author: Dcn. Andy Weiss, [SEAM](#) Webmaster & President from 2018-2022
- Advisor: Dcn. Pete Schumacher, VP8 expert
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