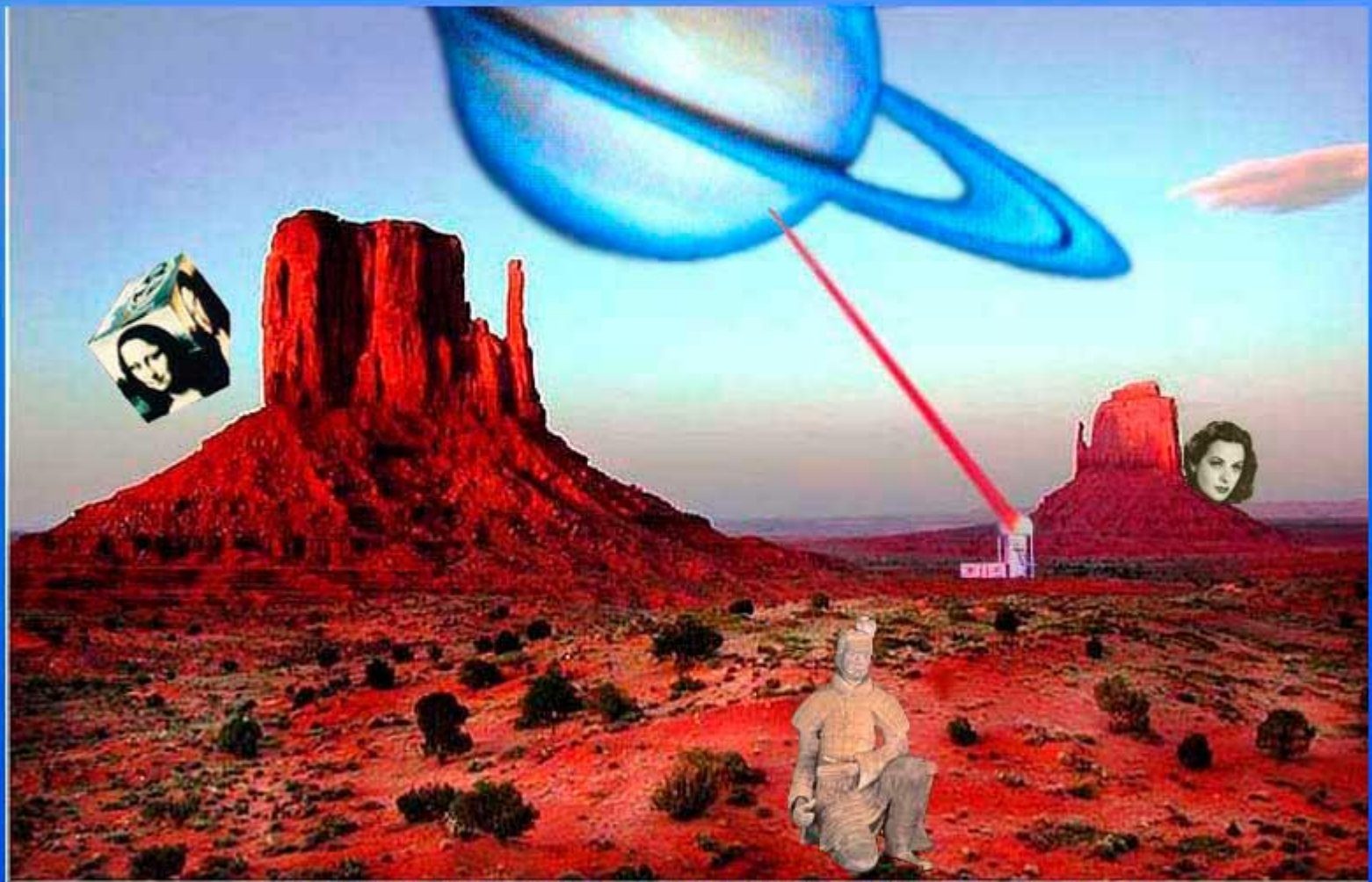
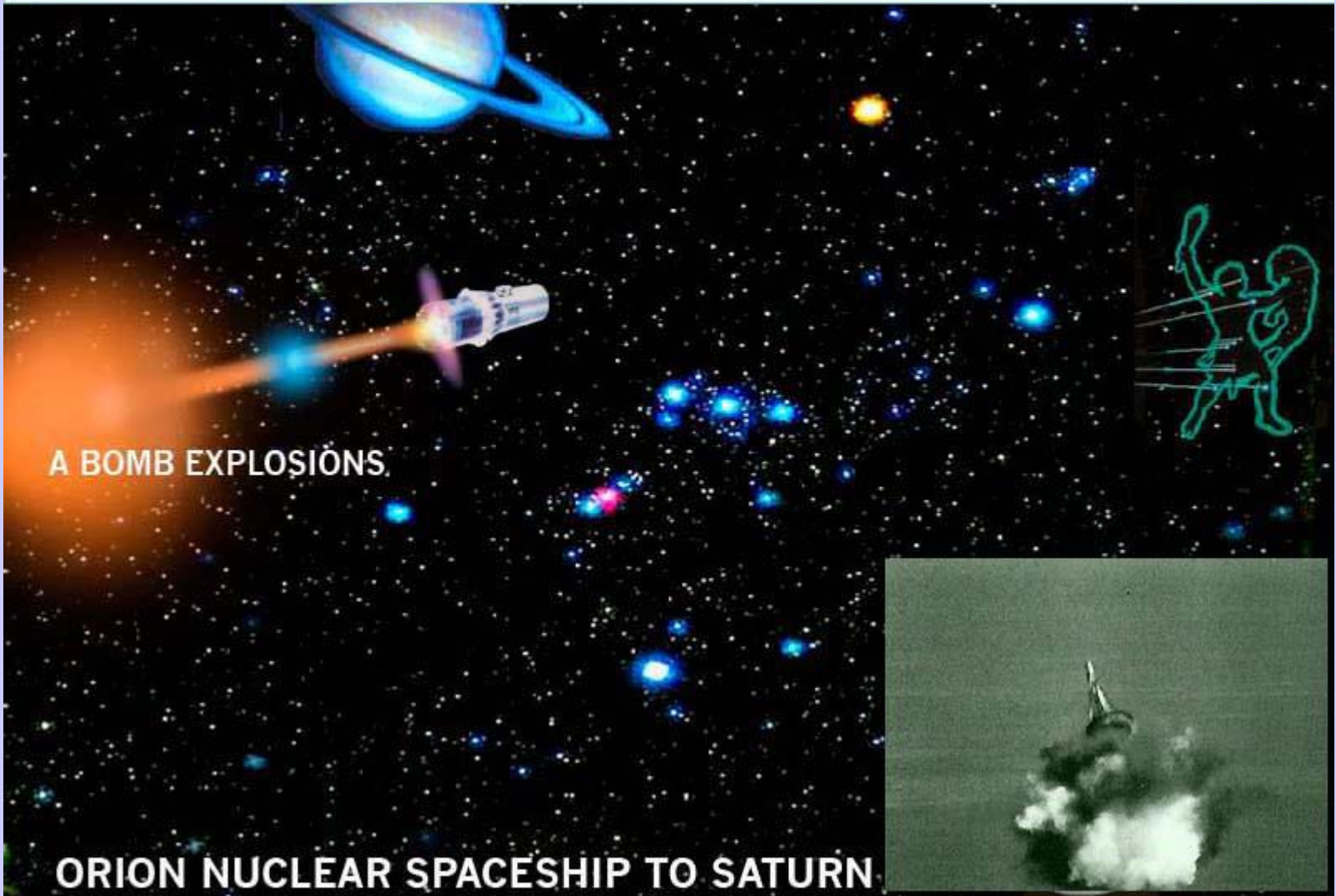


SEEING DOUBLE: LEONARDO'S MONA LISA TWIN



JOHN ASMUS, RESEARCH PHYSICIST, UCSD

“ROCKET SCIENCE”: “THE RIGHT STUFF”



A BOMB EXPLOSIONS

ORION NUCLEAR SPACESHIP TO SATURN

DEVELOPMENT OF DIAGNOSTIC TOOLS



A BOMB EXPLOSIONS

ORION NUCLEAR SPACESHIP TO SATURN

SAN DIEGO TEST FLT



".... I DEAL IN PETROLEUM"



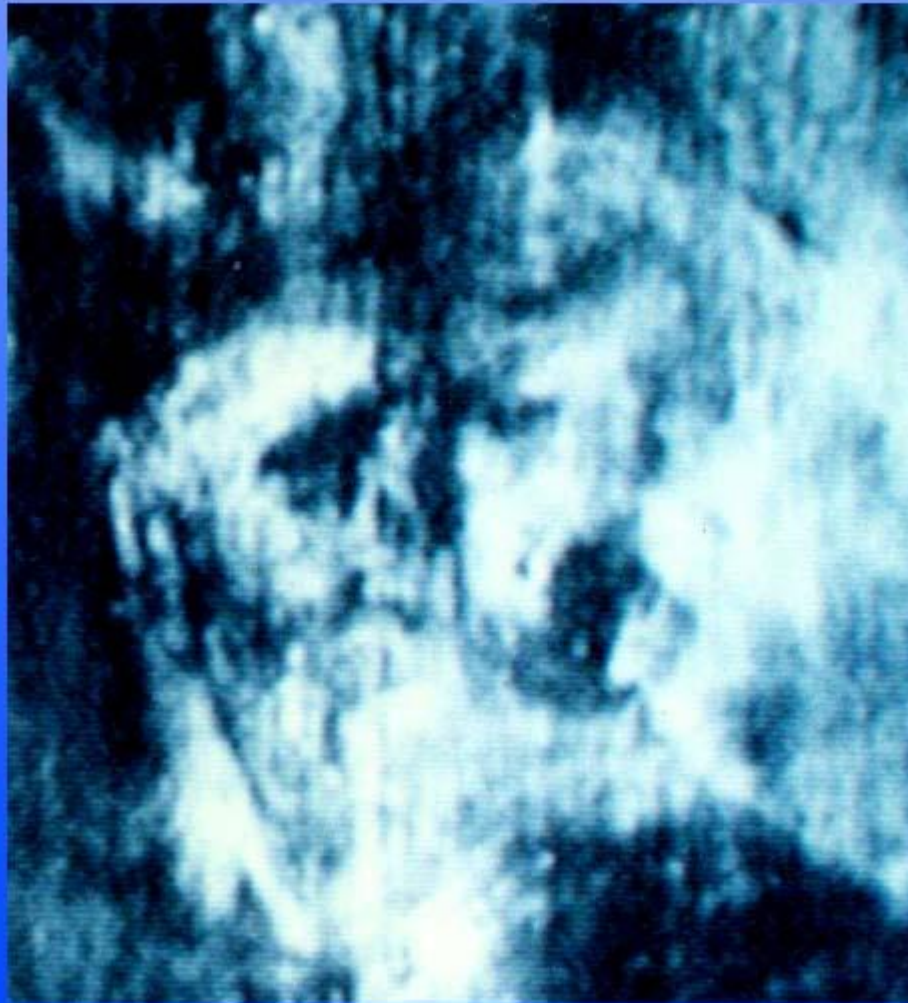
J.P. GETTY



MAN WITH A GORGET - REMBRANDT



"GORGET" X-RAY



DIFFERENCE IMAGE



CARLO PEDRETTI: UCLA LEONARDO SCHOLAR



**"CRONKITE'S
UNIVERSE"
(1982)**



RENTING THE MONA LISA



"...before I
die...",
Kenneth
Clark



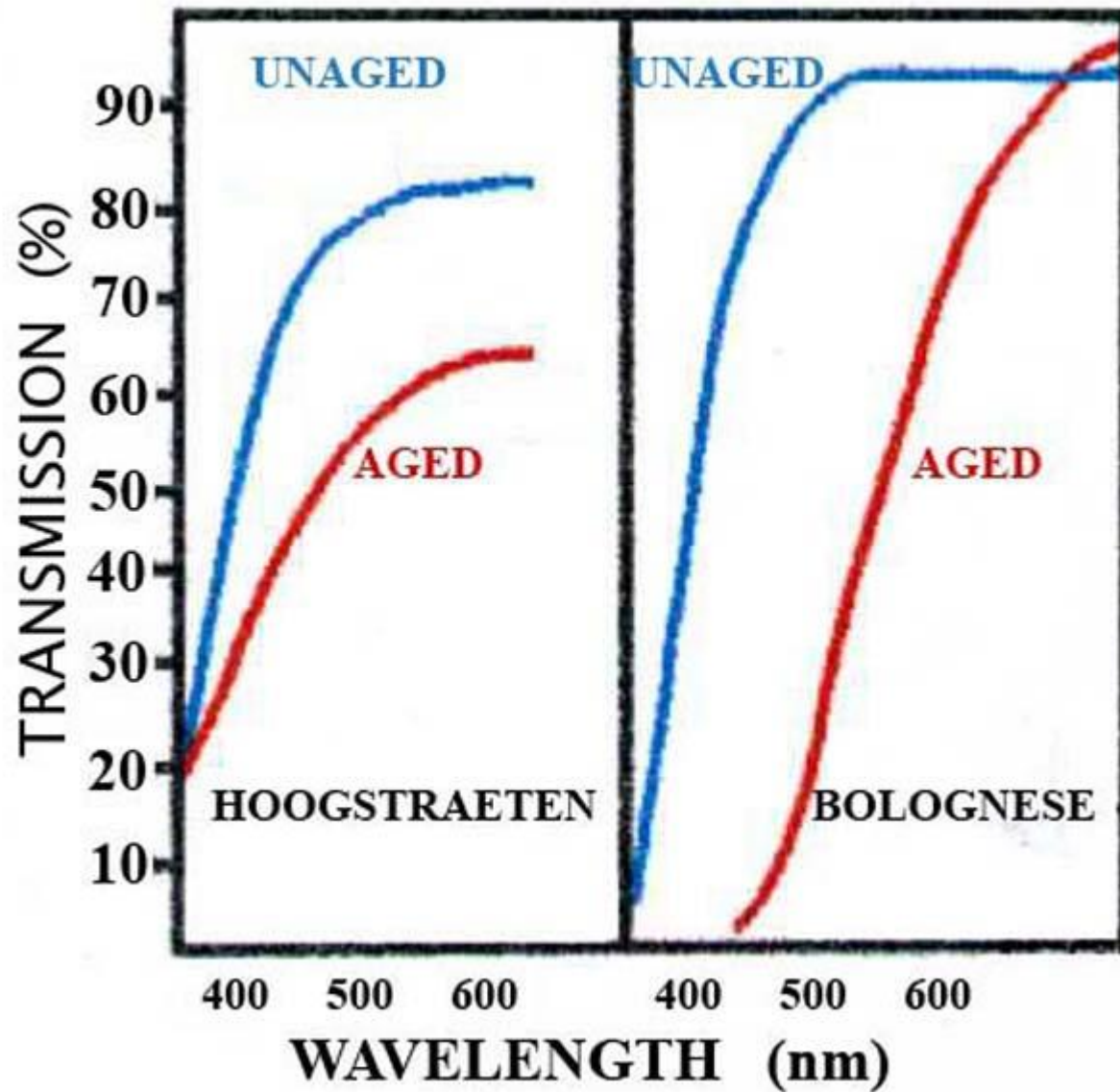
MONDAY
WITH
MONA



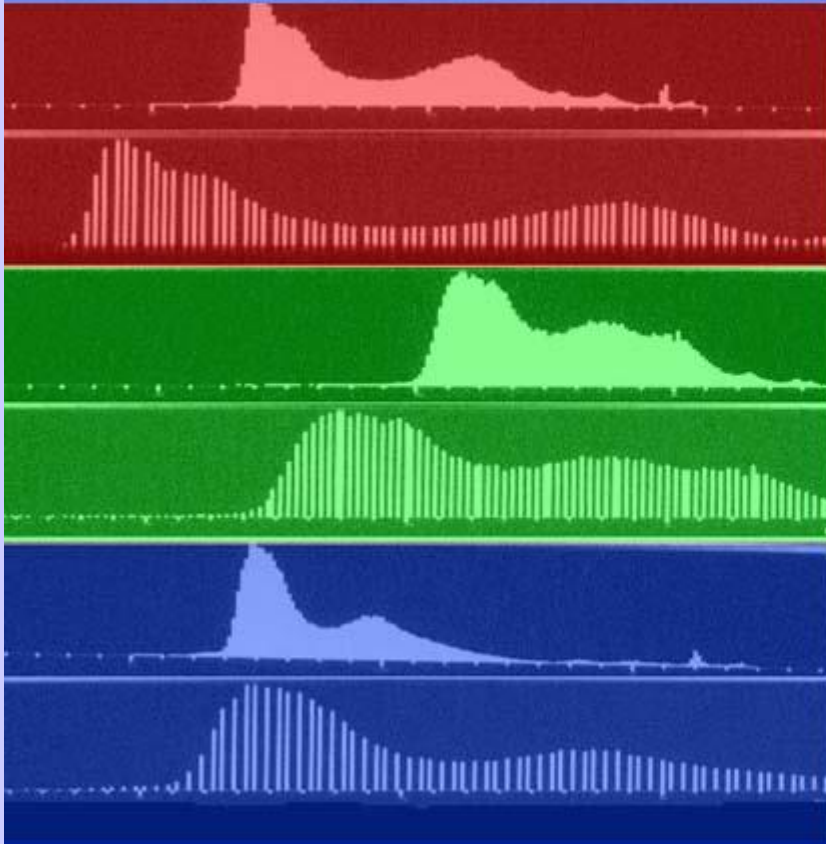
"...ARE YOU WARM, ARE YOU REAL, MONA LISA?..."

RED, GREEN, BLUE COMPONENTS

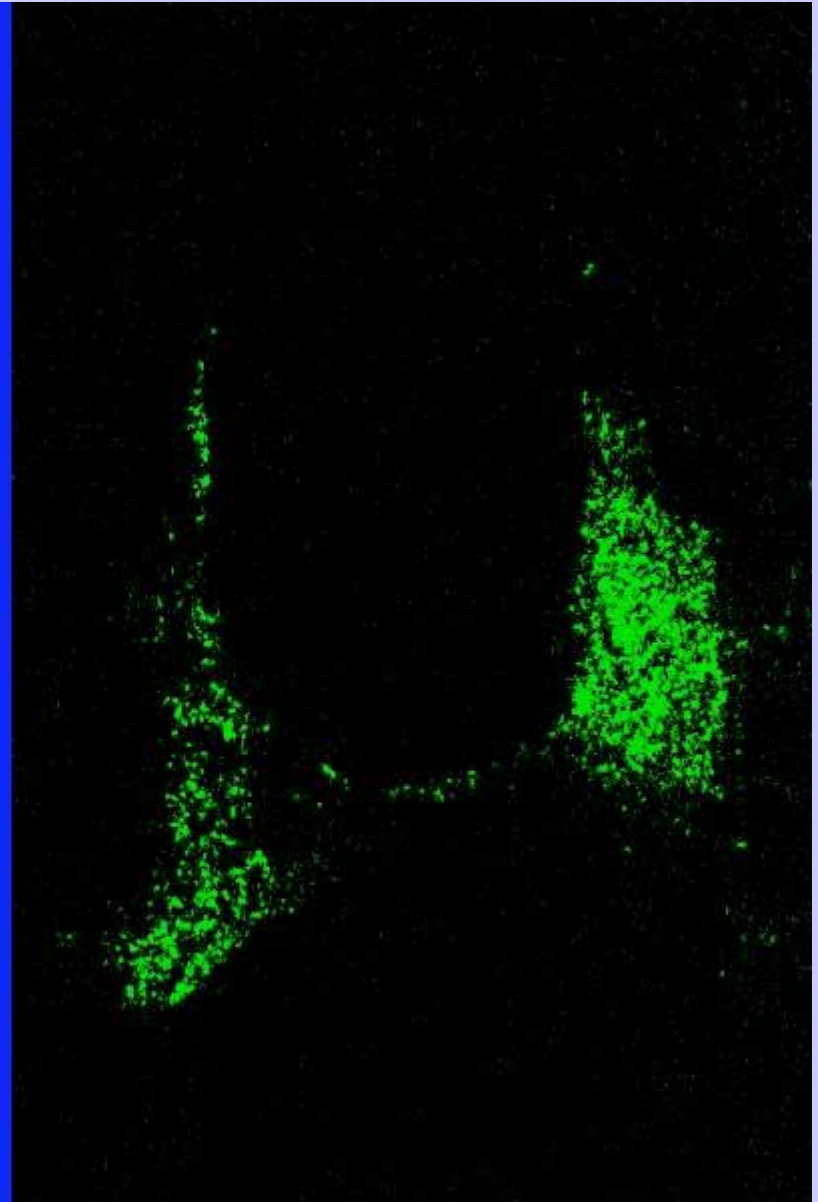
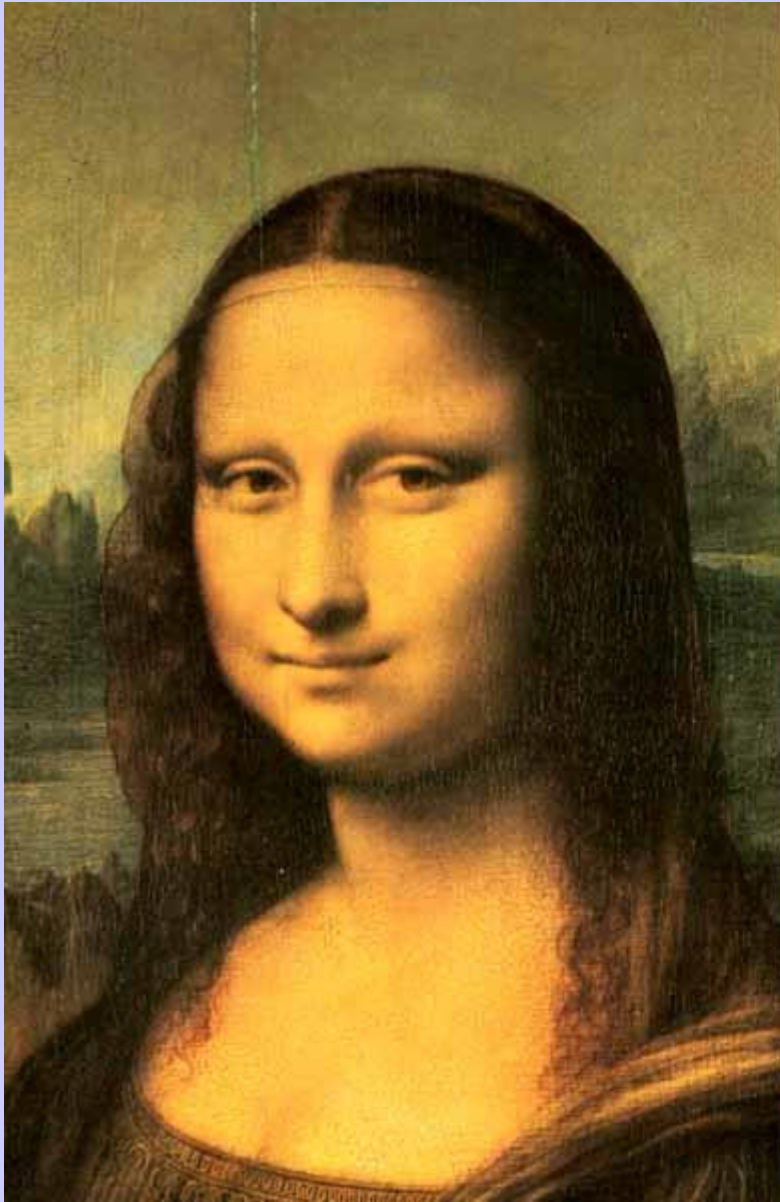




GAIN-BIAS CORRECTION FOR VARNISH

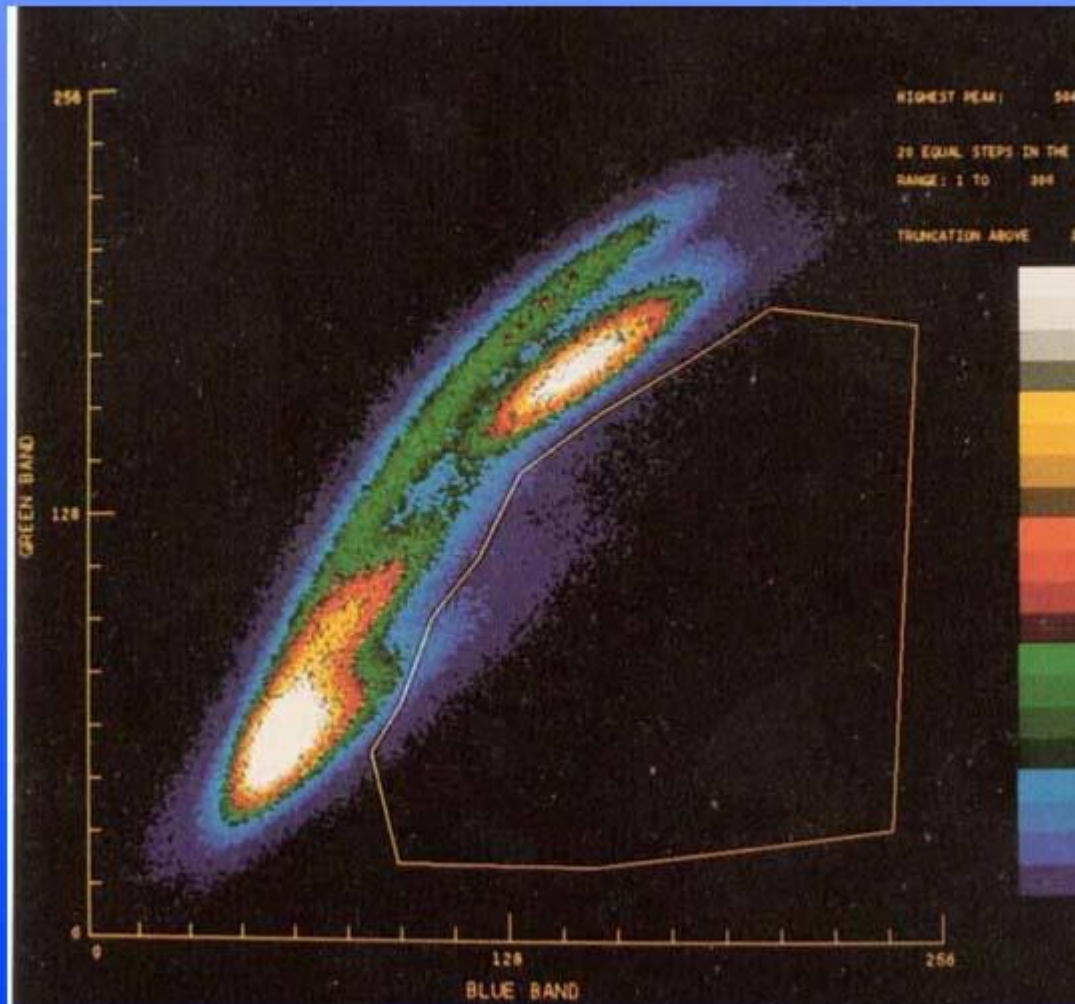


SURFACE ROUGHNESS

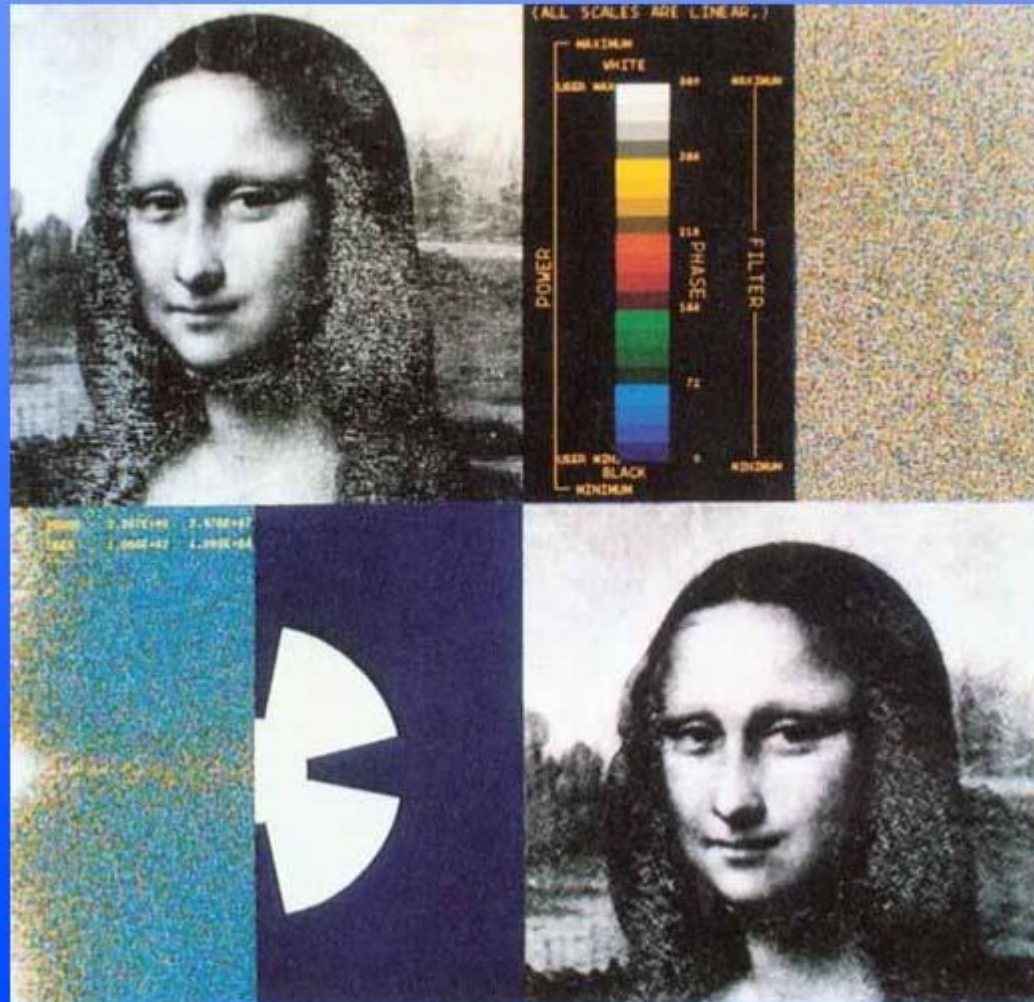


LASER SCATTERING

BISCATTER FILTER

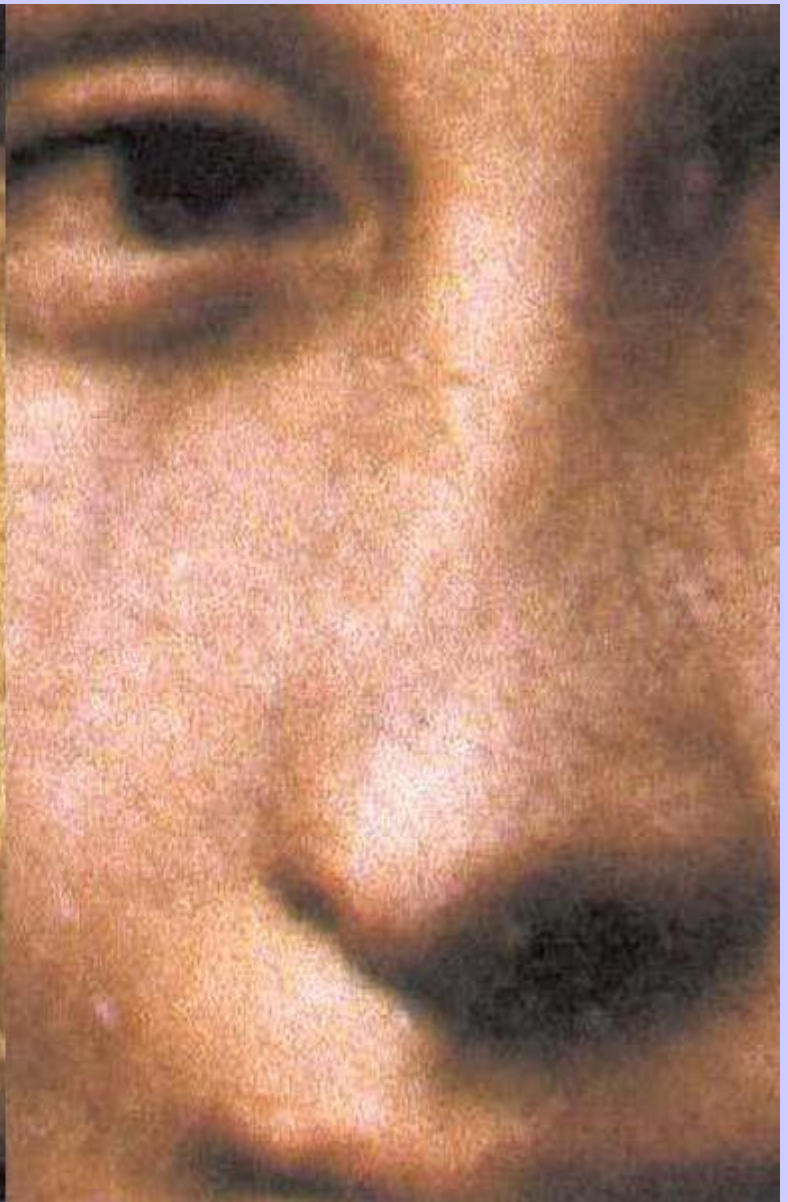
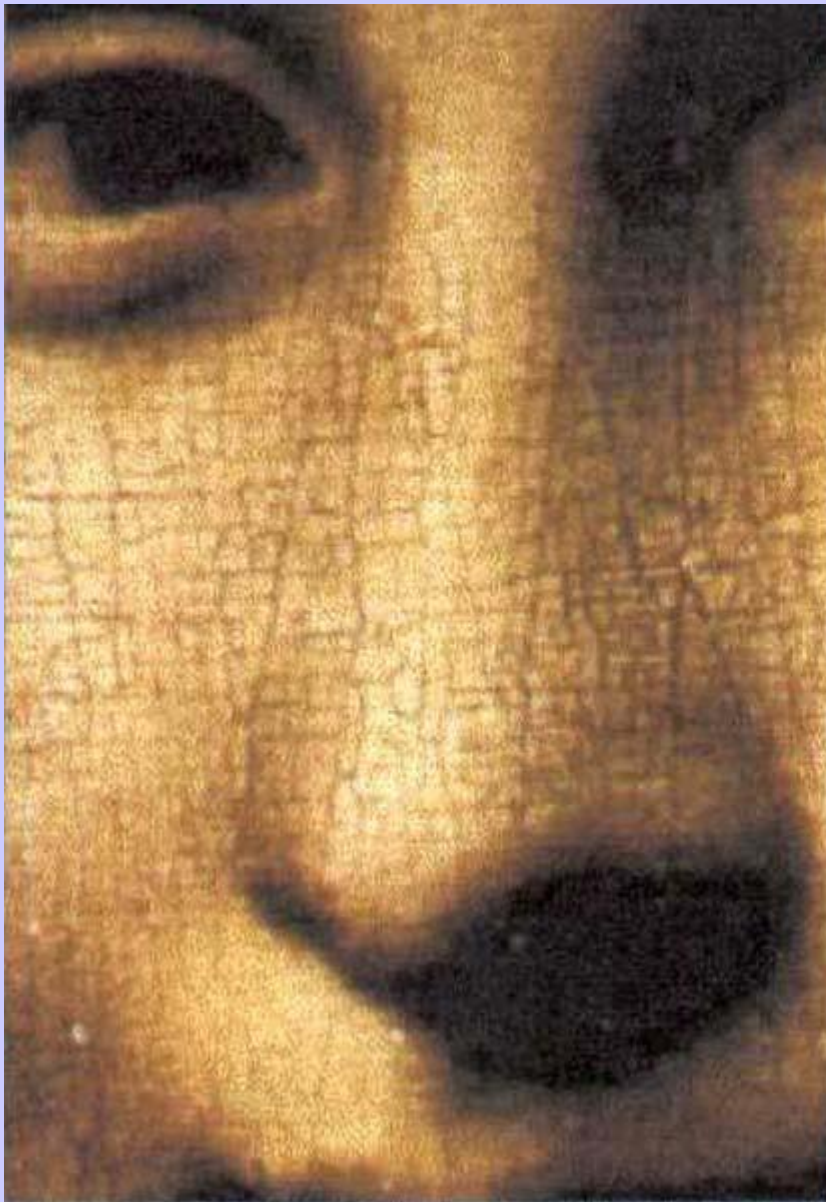


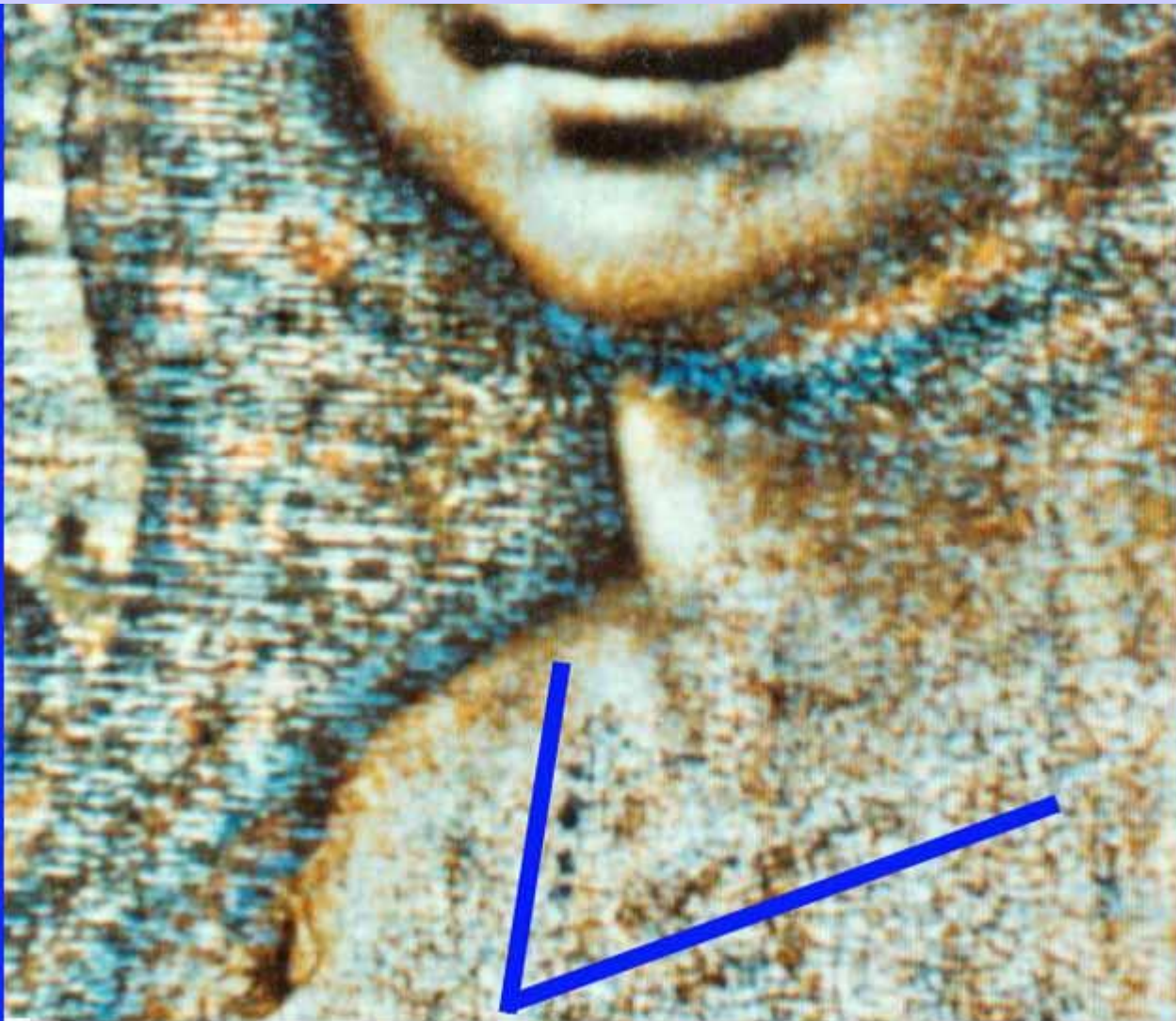
FFT CRAQUELURE FILTER



TWO STAGES OF DIGITAL CORRECTION







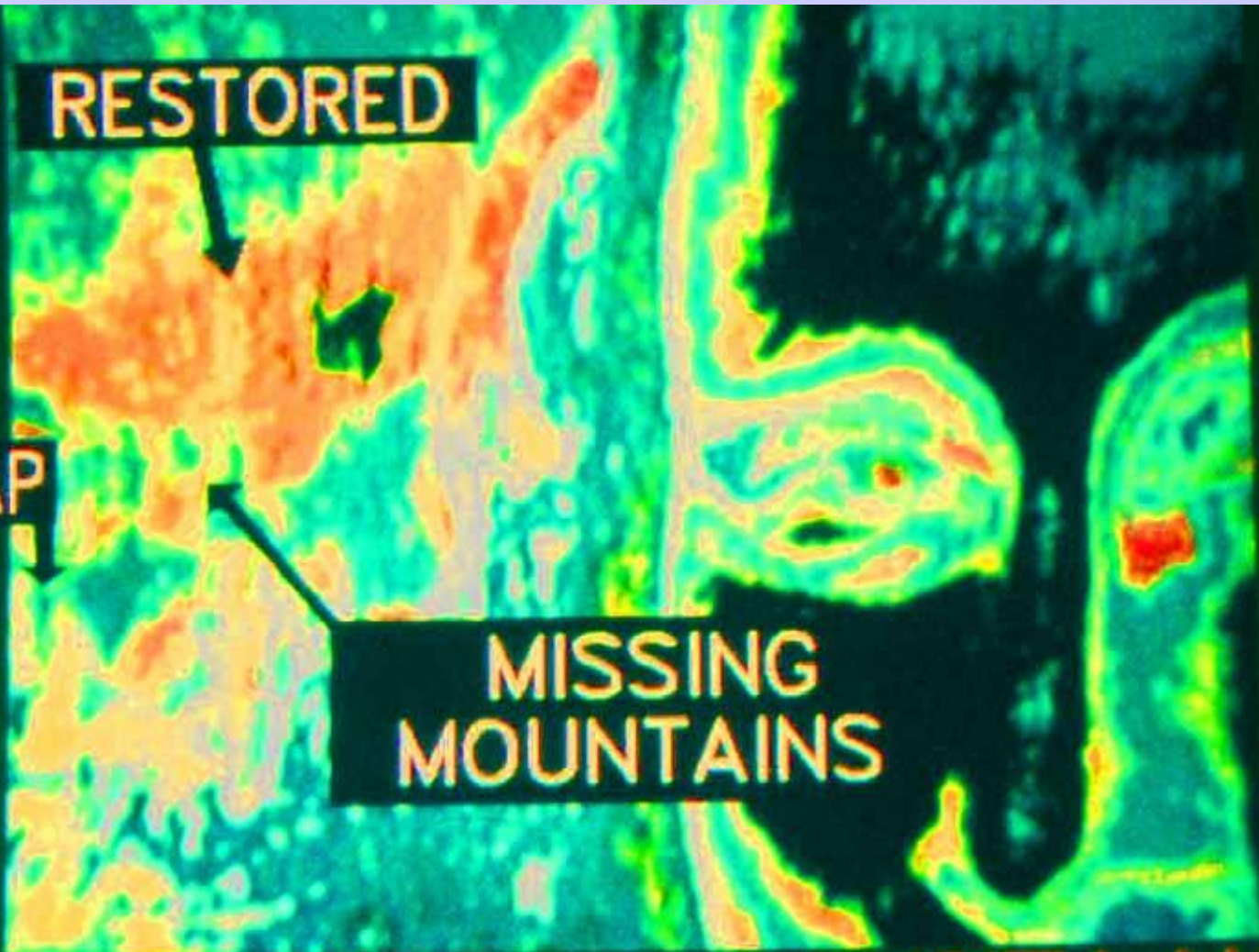
NECKLACE PENTIMENTI

RESTORED

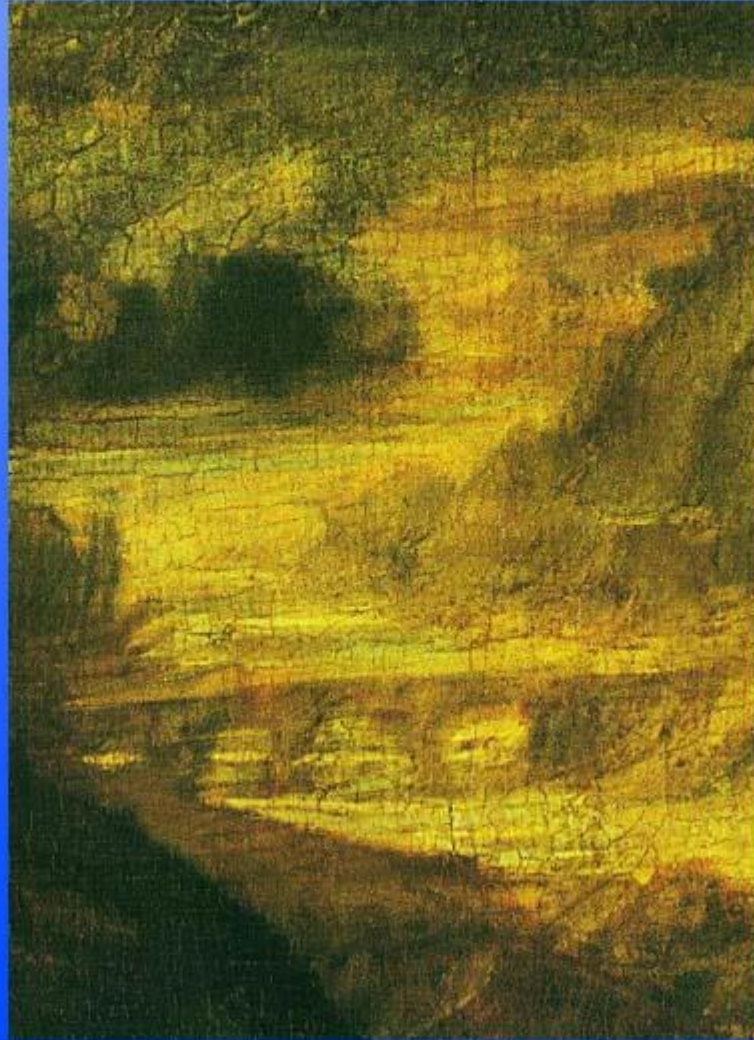
GAP

**MISSING
MOUNTAINS**

PSEUDOCOLOR INTENSITY MAP



"MONA LISA" RIVER & BRIDGE DETAIL



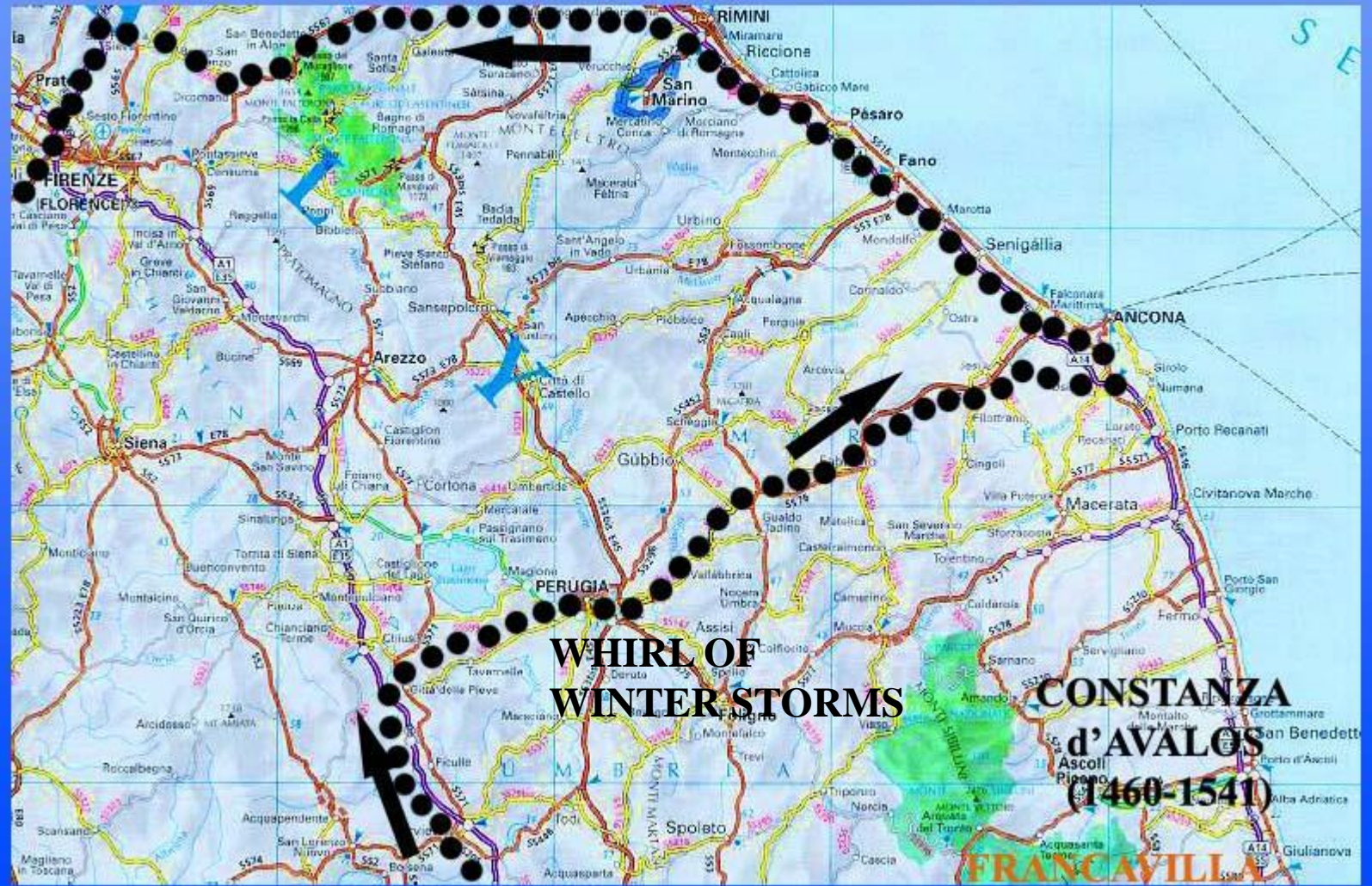
"NEAR PERUGIA" BY GEORGE INNESS



BRIDGE
OVER
TIBER



LEONARDO WITH BORGIA (1502-1504)



**WHIRL OF
WINTER STORMS**

**CONSTANZA
d'AVALES
(1460-1541)**

FRANCIVILLA

THE BORGIAS







THE NECKLACE BATTLE

THE NEW YORK TIMES, TUESDAY, JUNE 17, 1986

Science Times

Space-Age Methods Penetrate Art of Past



By WALTER SULLIVAN

THE same computer-based image processing that brought the rings of Saturn into vividly detailed view as well as other modern techniques are giving art historians a new look at the legacy of the great masters.

The new techniques let historians, using penetrating illumination, peer deep below a painting's surface, showing how preliminary sketches and hidden layers of paint allowed artists to test their compositions or convey the grace and beauty of flowing garments.

Officials at the Museum of the Louvre in Paris, where the Mona Lisa hangs, expressed astonishment at the report. Christian Lahnier, a specialist in scientific examination of paintings there, said the report from Cali-

formia had prompted plans to expose the painting to infrared scanning.

This, he said, should show whether it has been altered and whether Leonardo first sketched the figure in black, as done by many artists. The only similar examination of the painting so far, he added, has been with X-rays, which do not record the paint, except for white pigments containing lead.

MONA LISA X RAY







VIRTUAL MUSEUM



ALBERT
EINSTEIN
Correspondance
avec
MICHELE BESSO
1903 - 1955



COLLECTION SAVOIR

Collection Bibliothèque Savoie - France - Italie

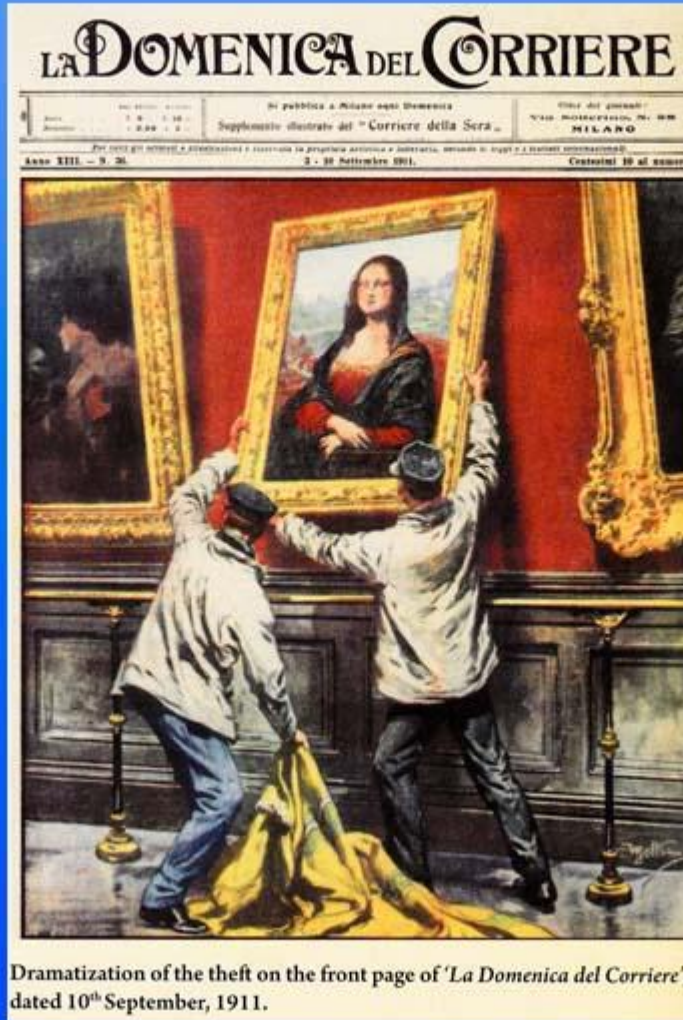
VITTORIO BESSO (1828 - 1895)
OBIETTIVO SARDEGNA



VITTORIO BESSO
ART COLLECTOR
PUBLISHER



1911 THEFT



Dramatization of the theft on the front page of 'La Domenica del Corriere', dated 10th September, 1911.

RECOVERY IN FLORENCE



HUGH BLAKER DISCOVERED THE ISLEWORTH



From the New York Times, February 15, 1914

“Another version, in a far purer state and possibly by the hand of the master himself, is, or was until recently, in a private collection at Isleworth... Let it be said at once, the picture in question has nothing whatever to do with any of the innumerable early or late French copies which have from time to time been boomed into prominence. It is not only vastly superior to all of them, but it is of such superb quality that it more than holds its own when compared with the much-restored and repainted Louvre masterpiece. What is even more significant is that it is in no sense of the word a “copy”, but varies in some very important points from the Paris ‘Mona Lisa’. The design is altogether different. There is far more background; the spacing is infinitely more pleasing; the head is inclined at a different angle; the background is quite different and far less assertive than in the Paris picture; the features are more delicate, and, let it be boldly stated, far more pleasing and beautiful than in the Louvre version.”

This passage was contributed by **P. G. Konody**, the widely-known and internationally respected art expert and critic.¹

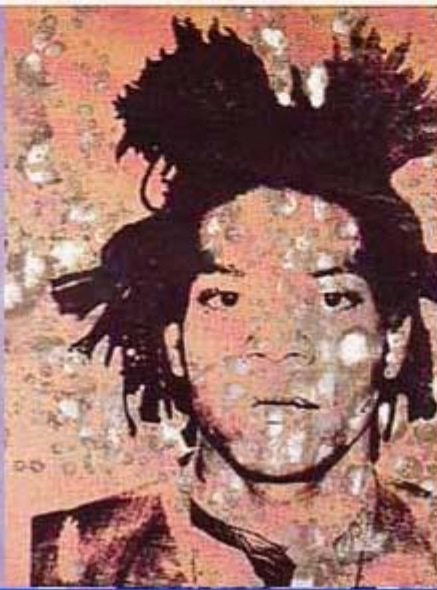
RAPHAEL INSPIRATION





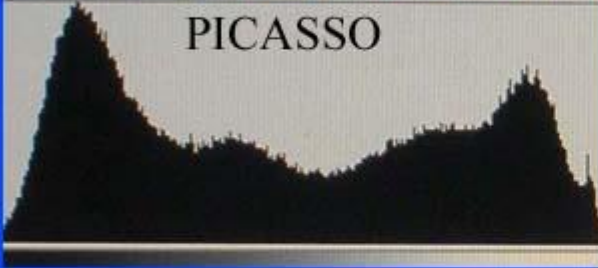




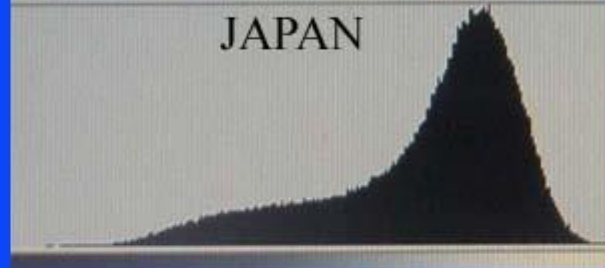




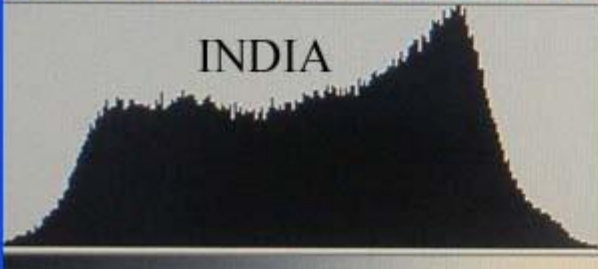
PICASSO



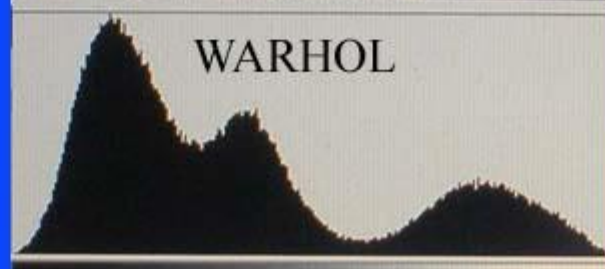
JAPAN



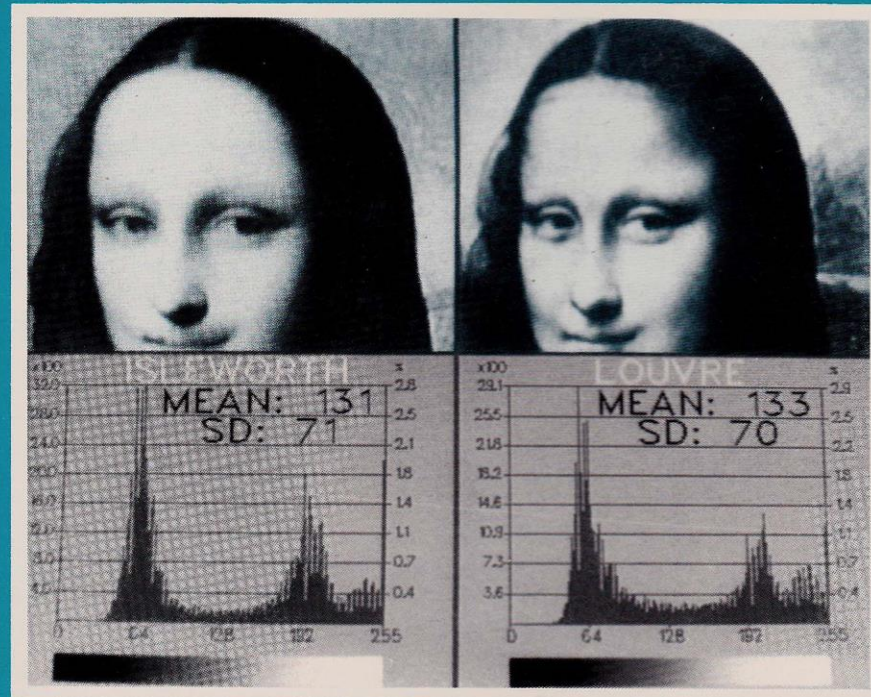
INDIA



WARHOL



Visual Communications and Image Processing





ISLEWORTH



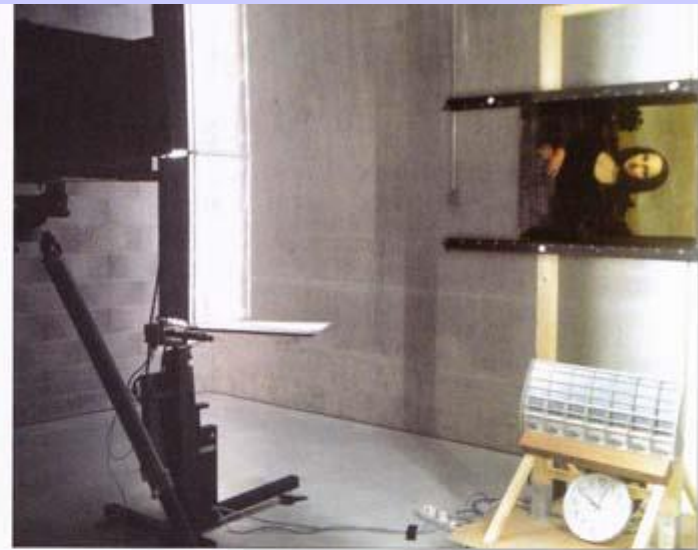
LOUVRE

DIRECTOR OF THE VINCI MUSEUM (VEZZOSI)





Pascal Cotte with the earlier version of *'Mona Lisa'*, September 2010.

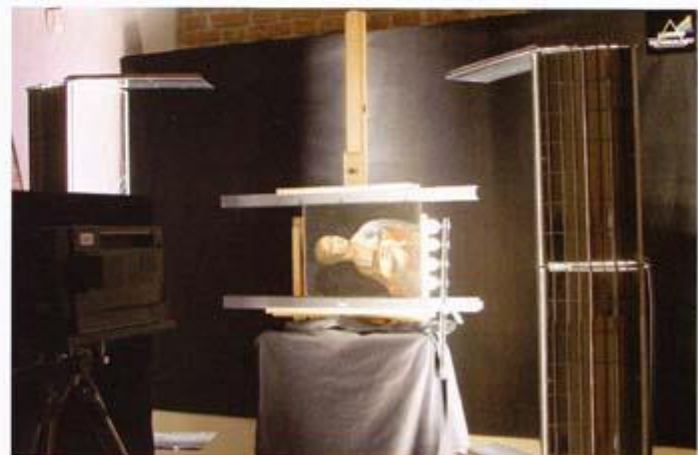


The earlier version of *'Mona Lisa'* undergoing multispectral digitisation, September 2010.

LUMIER, PARIS



The multispectral digitisation of *'La Joconde'* at the Louvre, and *'The Lady with the Ermine'*.



3D, MICROWAVE, & INFRARED SCANNING



SCIENTIFIC ANALYSES OF PIGMENT SPECIMENS

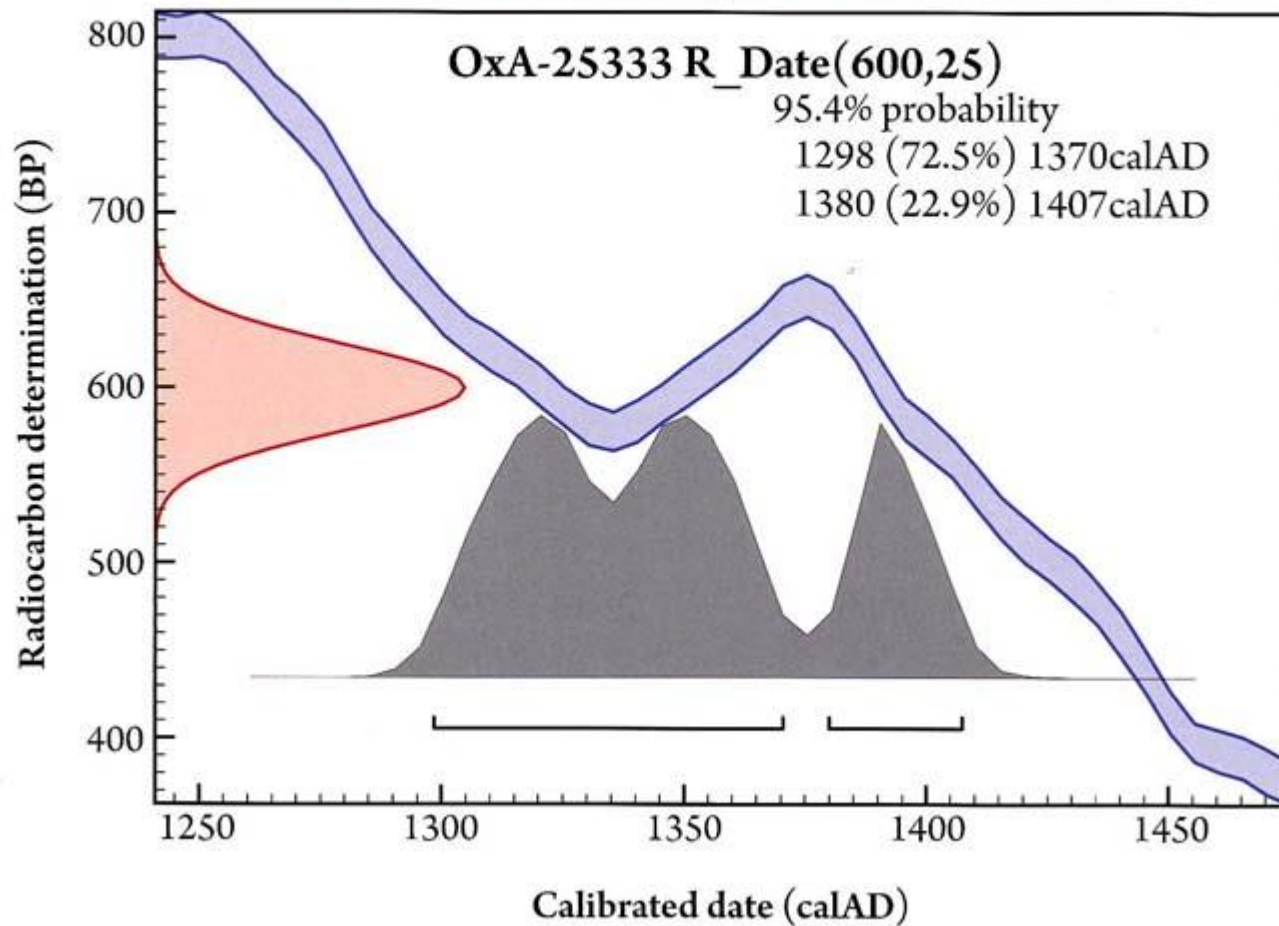


AGED WOODEN SUPPORT

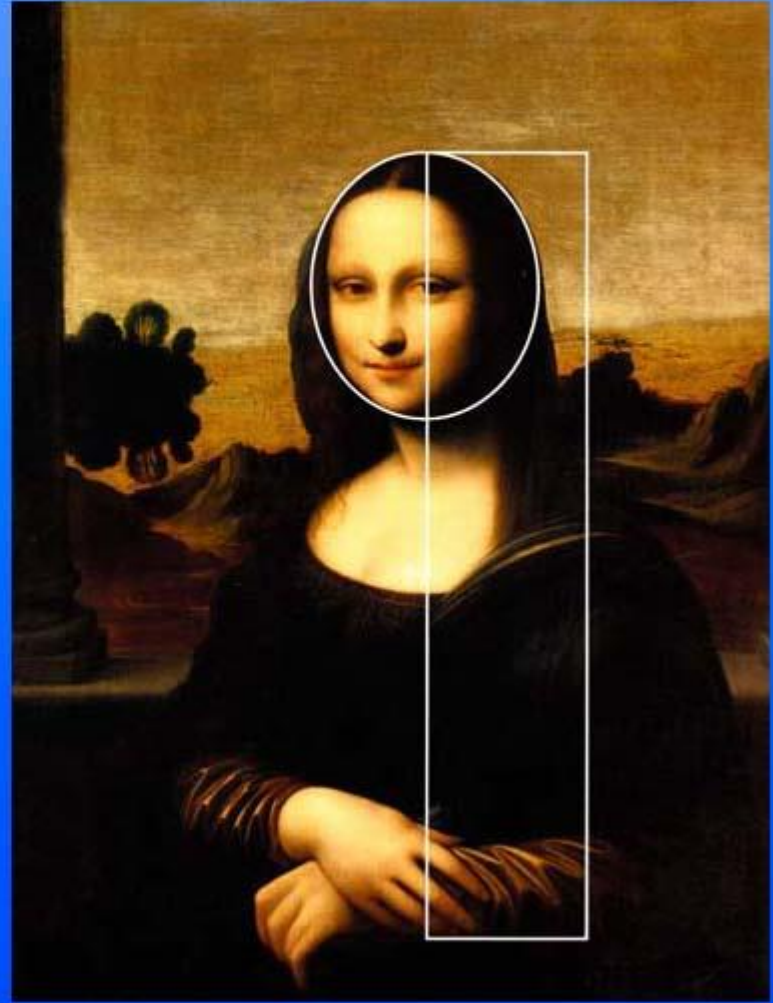
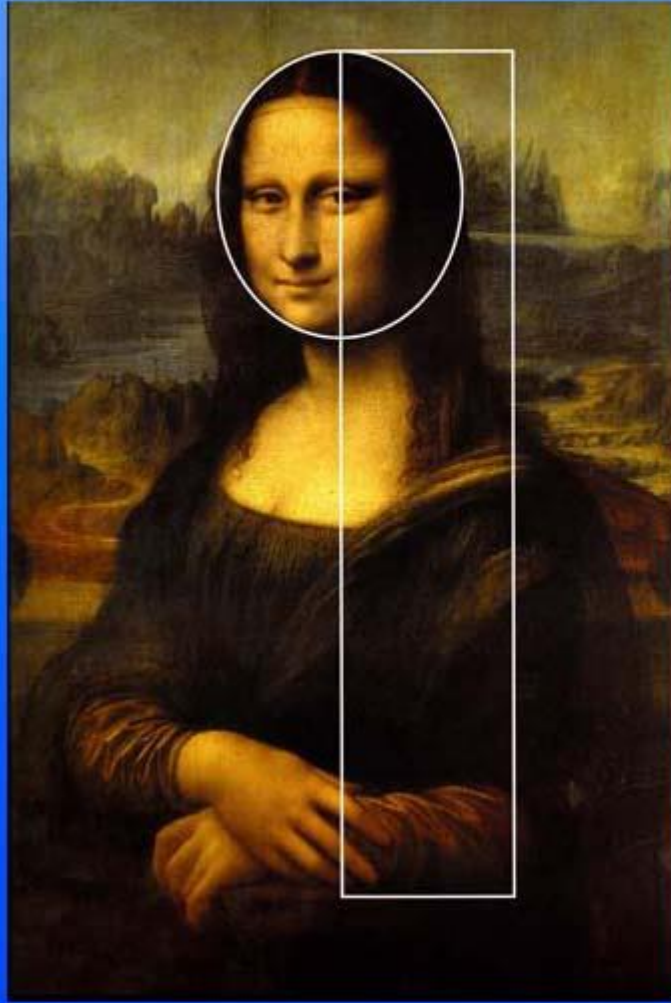


AGE OF THE CANVAS

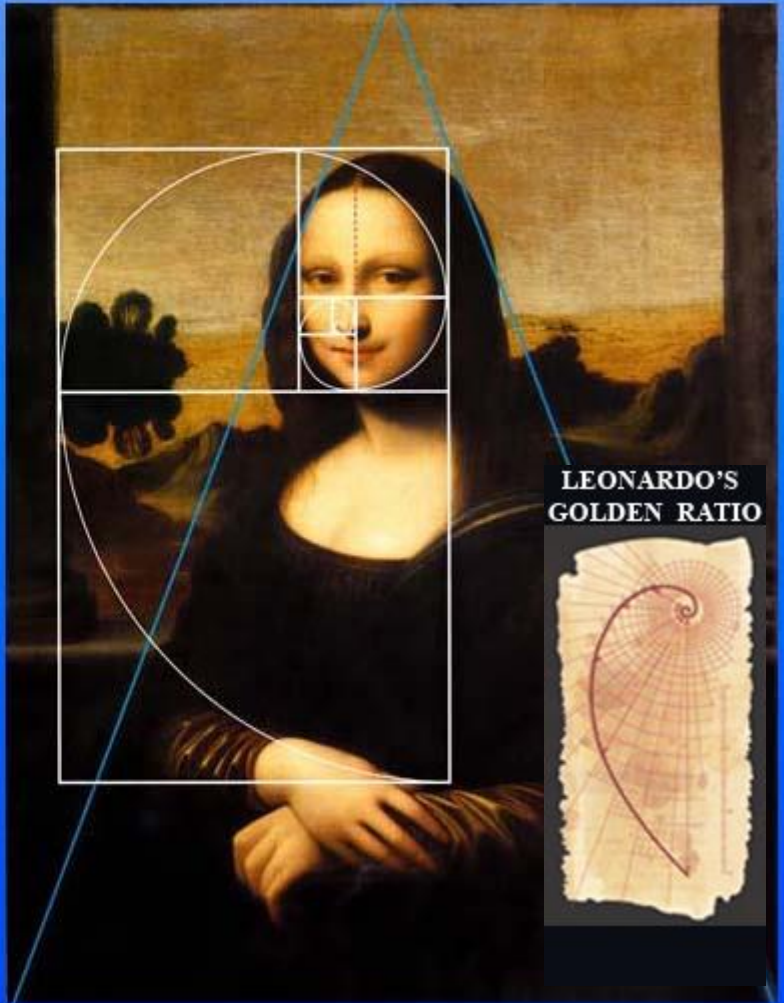
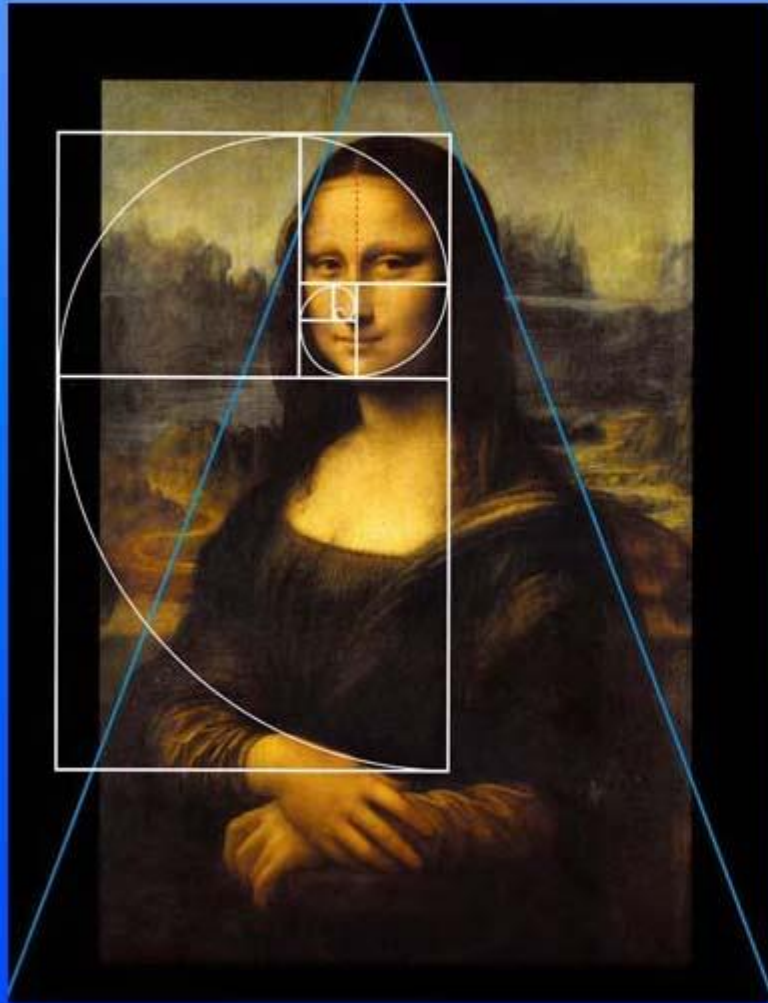
Result of CD14 test, dating the 'Earlier Version' canvas.



PROPORTIONS

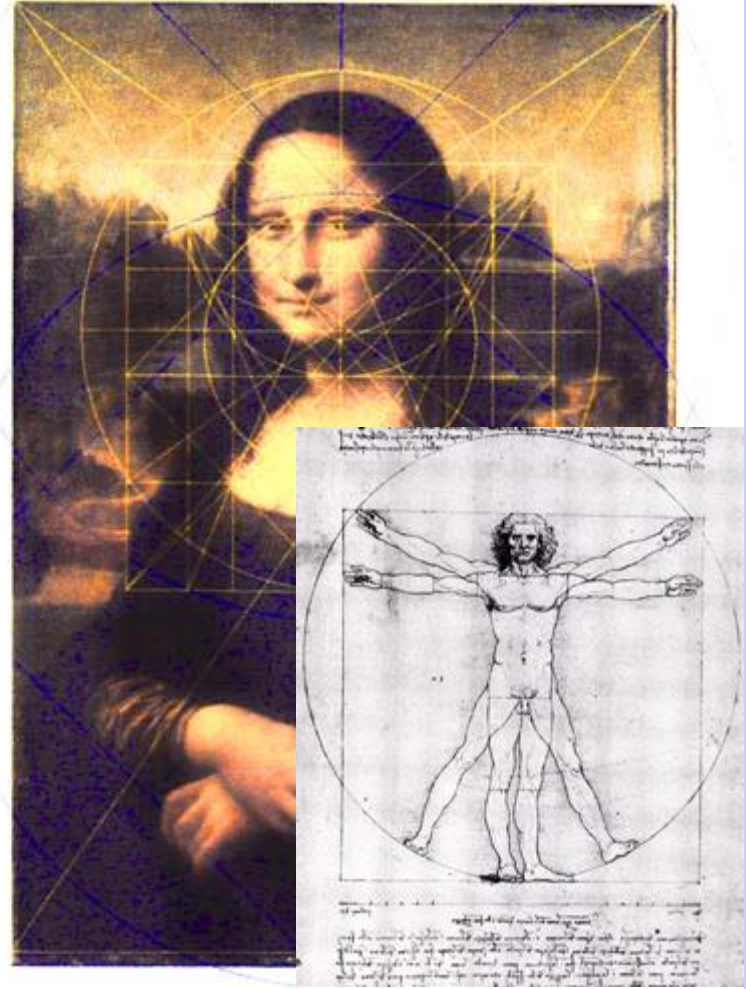


LAYOUT AND PROPORTION

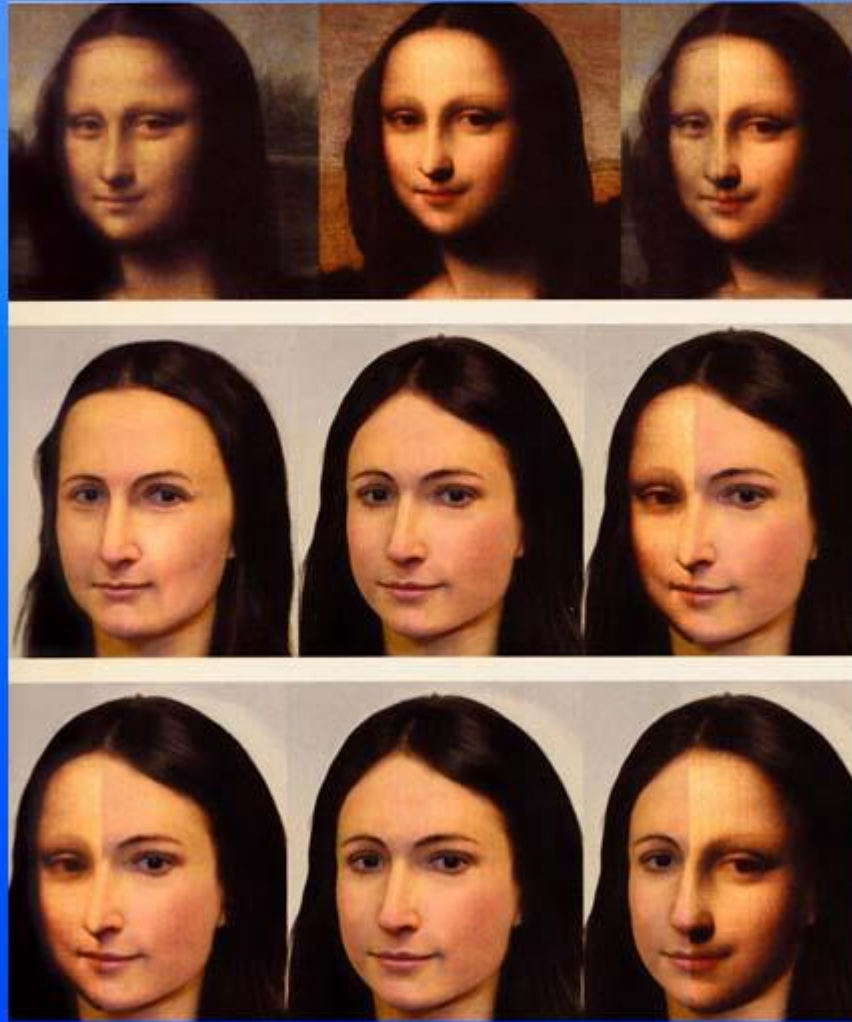




VITRUVIAN PROPORTION



FBI AGE REGRESSION (1513 - 1503)



OPINIONS OF THE EXPERTS

Two Mona Lisa's? Isleworth by Leonardo?

Gian Paolo Lomazzo (1584)	Y	?
Hugh Blaker (1913)	Y	Y
P.G. Konody (1913)	Y	Y
John R. Eyre (1915, 1926)	Y	Y
Lorenzo Cecconi (1922)*	?	Y
Arduino Colansanti (1922)*	Y	Y
Giulio Cantalamessa (1922)*	?	?
San Martino di Valperga (1922)*	Y	Y
Commendatore Marini (1922)*	?	Y
Anto Sciortino (1922)*	?	?
Ludovico Spiridon (1922)*	Y	Y
L. Roger-Miles (1923)	Y	?
A.C. Chappelow (1956)	Y	Y
Guy Isnard (1957)	?	?
Henry F. Pulitzer (1960)	Y	Y
Kenneth Clark (1973)	?	?
John Asmus (1990)	Y	Y
Frank Zoellner (1993)	?	?
Pascal Cotte (2012)*	?	?
Martin Kemp (2012)	N	N
Mauro Natale (2012)	N	N
Carlo Pedretti (2012)	Y	?
Atila Soares (2012)	Y	Y
Alessandro Vezzosi (2012)	Y	?
Alfonso Rubino (2012)	Y	Y

15/25

13/25

* Literature Survey: Not Documented

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CBS NEWS

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FOLLOW THE EYES



FOLLOW THE EYES



FOLLOW THE EYES



LAST WORD

PRESS CONFERENCES (2012)

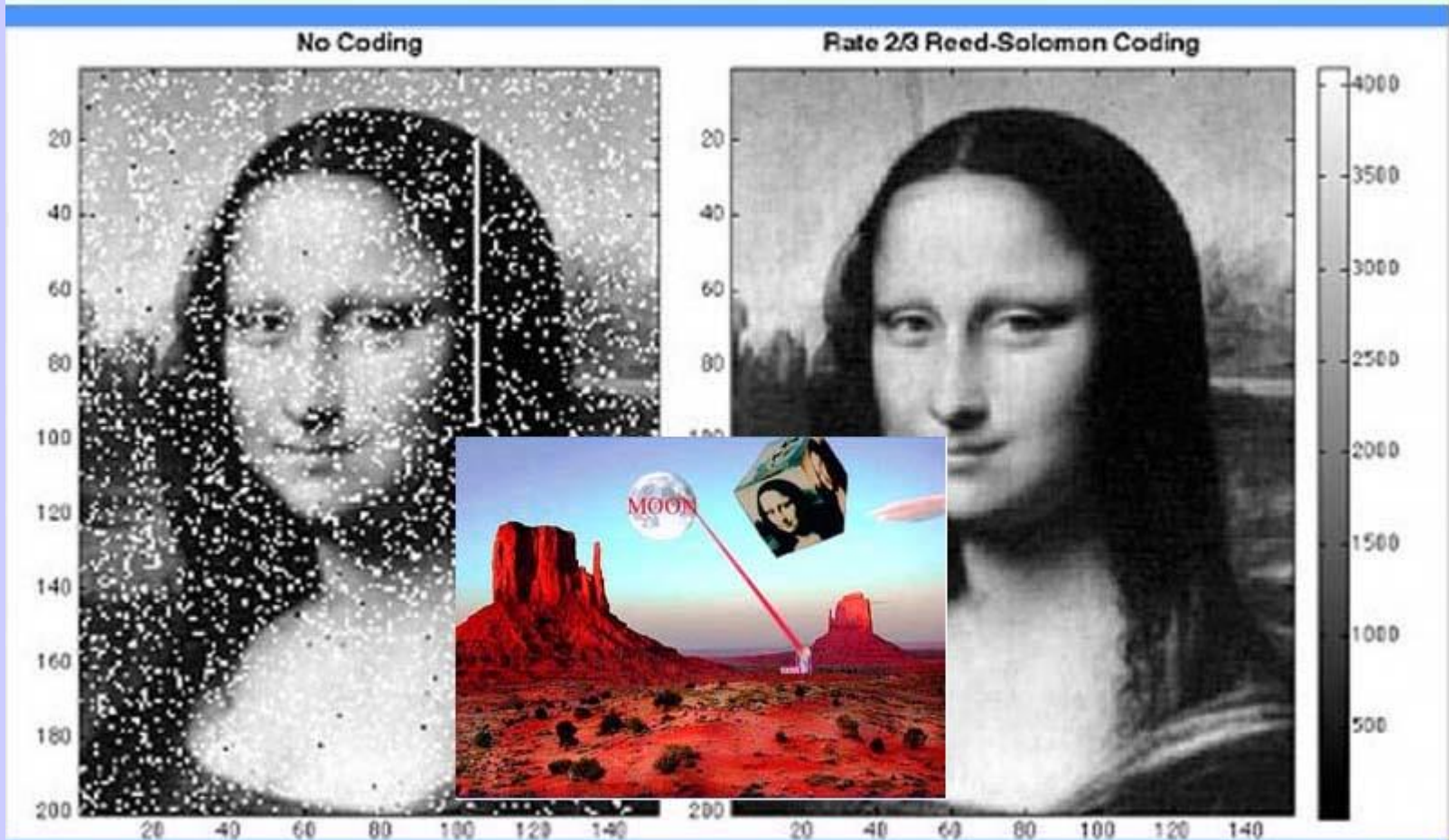
PUBLIC UNVEILING IN GENEVA (9/2012)

ON WORLD TOUR (2013-15)

(JAPAN, AUSTRALIA, USA, CANADA, UK, GERMANY)

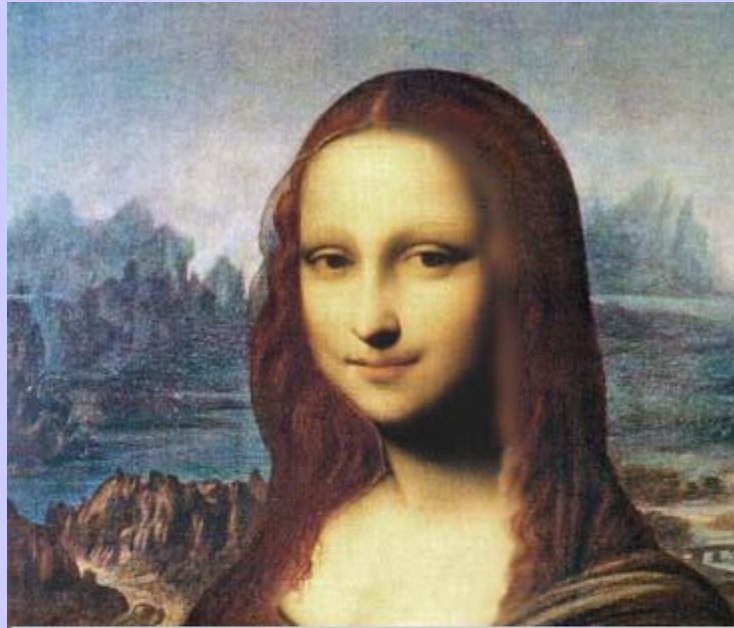
< *THE END* >

FIRST NASA/JPL LUNAR LASER TRANSMISSION



**“FLY ME TO THE MOON
AND LET ME PLAY AMONG THE STARS.....”**





“Orion will rise from the ashes again” (Los Alamos Nat. Lab.)
Thank you for allowing me to share with you: past, present, and future of rocket science.

