

*An Epidemiologist  
Looks at Art*

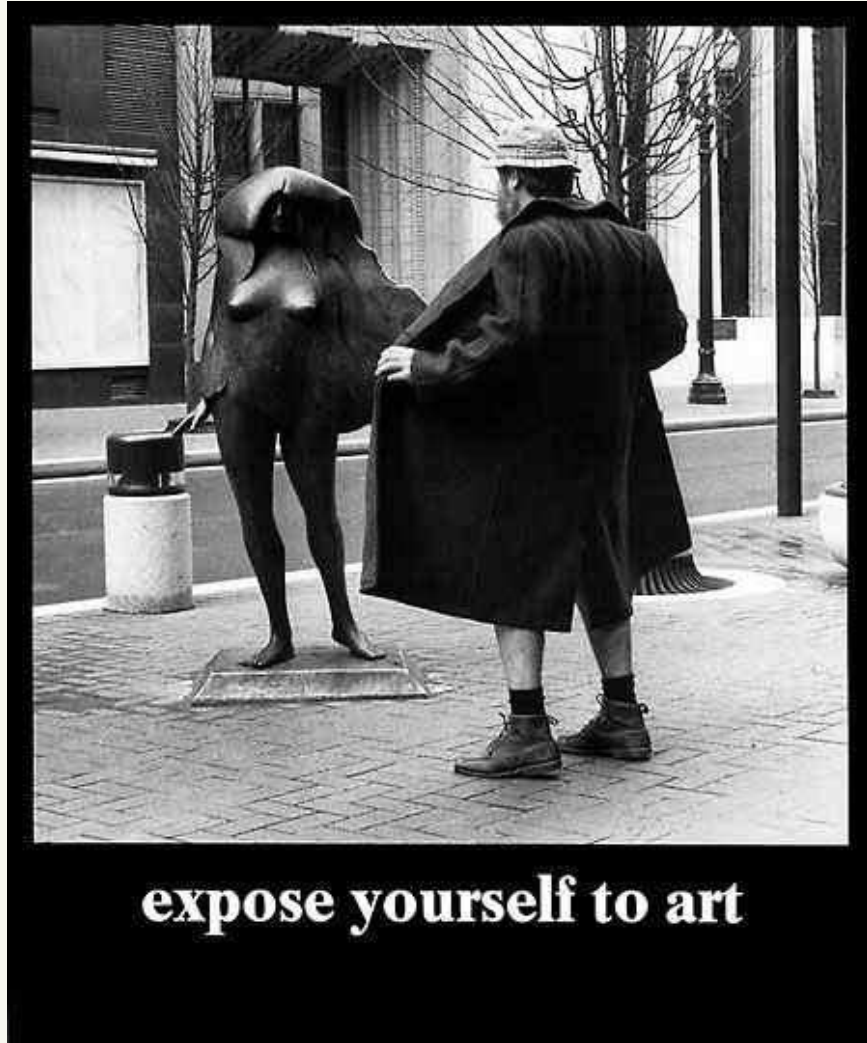
Tom Koepsell  
January 30, 2012

# Art History Project

# Six-year plan

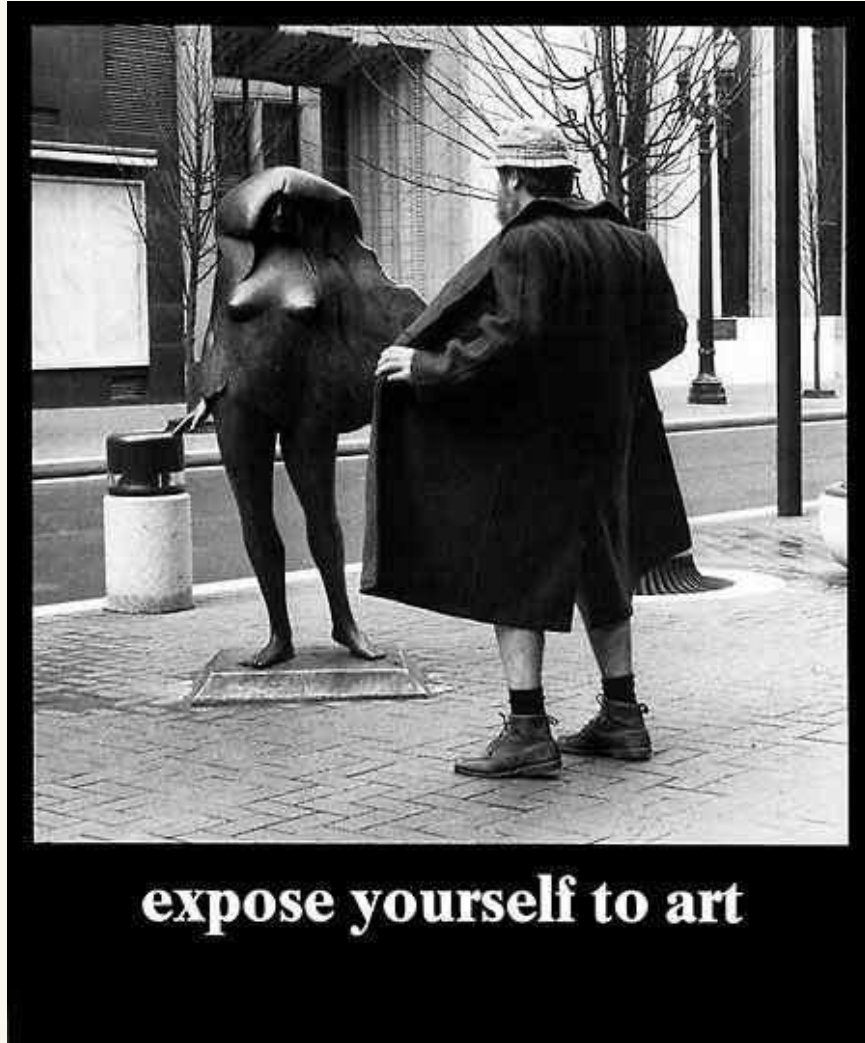
Year	Century	Art eras and movements
2002	15th	Renaissance
2003	16th	High Renaissance, mannerism, early baroque
2004	17th	Baroque
2005	18th	Rococo, romanticism, early American art
2006	19th	Romanticism, impressionism & post-impressionism
2007	20th	Abstract art, many -isms: cubism, dadaism, surrealism, expressionism. . .

# Activities



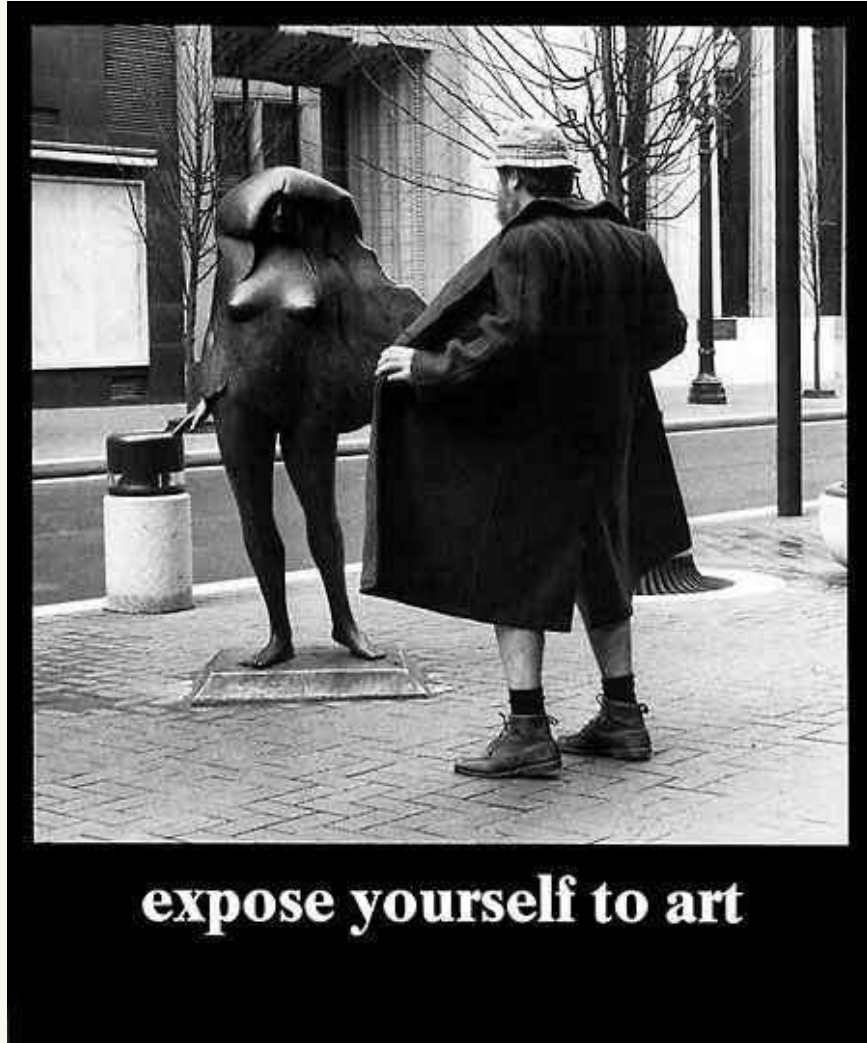
- UW Art History courses
  - Medieval to Renaissance
  - Italian Renaissance
  - Northern Renaissance
  - American Art
  - Art of the Early 20th Century
  - Philosophy of Art

# Activities



- UW Art History courses
  - Medieval to Renaissance
  - Italian Renaissance
  - Northern Renaissance
  - American Art
  - Art of the Early 20th Century
  - Philosophy of Art
- Reading

# Activities

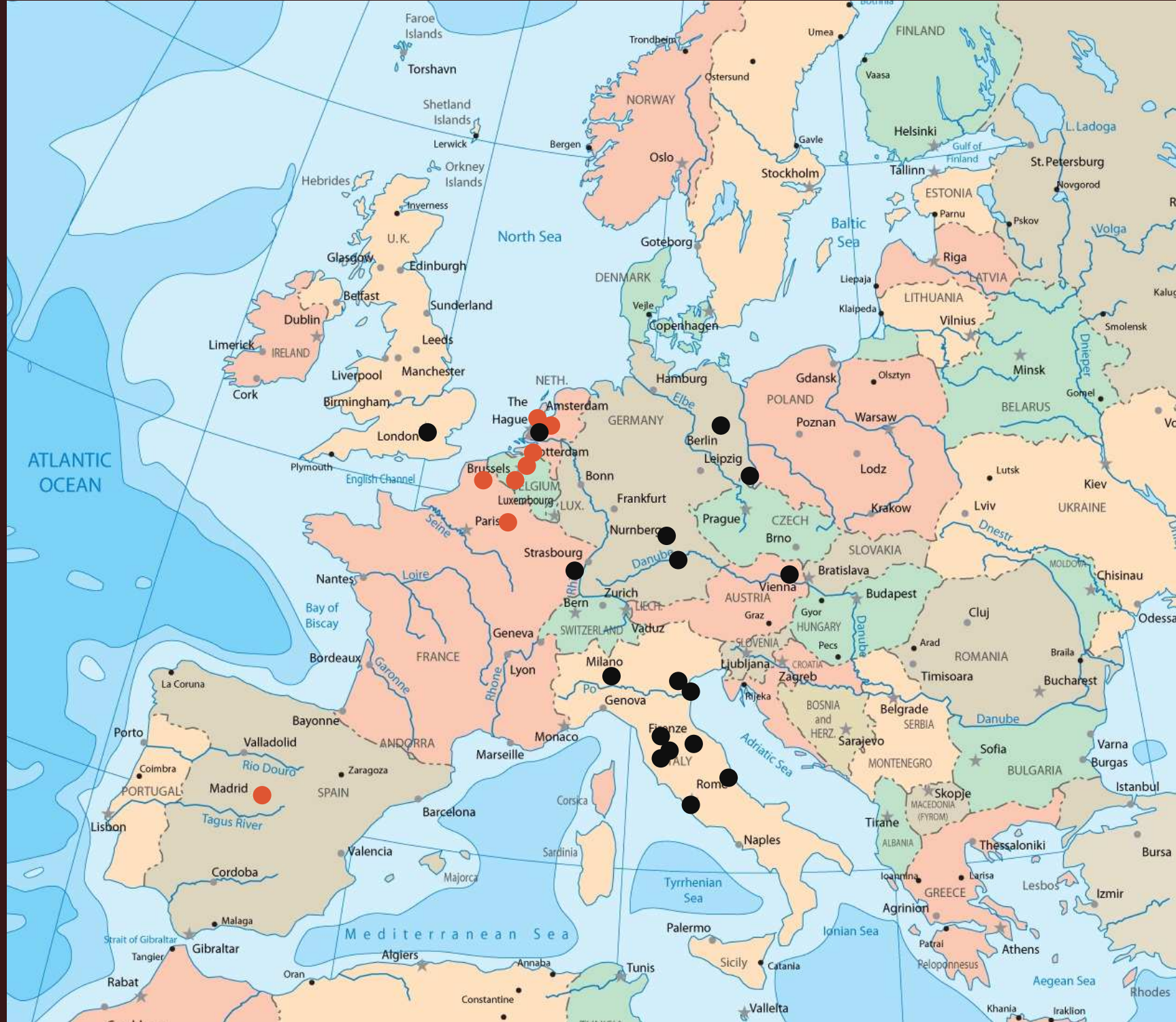


- UW Art History courses
  - Medieval to Renaissance
  - Italian Renaissance
  - Northern Renaissance
  - American Art
  - Art of the Early 20th Century
  - Philosophy of Art
- Reading
- Annual art trip to Europe

















# JAMA<sup>®</sup>

The Journal of the American Medical Association

October 17, 2007



# ARCHIVES

OF

# PEDIATRICS & ADOLESCENT MEDICINE

WWW.ARCHPEDIATRICS.COM

APRIL 2005



Mary Cassatt (1844-1926), *Louise Breastfeeding Her Child*. See page 314.

OXYCODONE VS PLACEBO IN CHILDREN  
WITH UNDIFFERENTIATED ABDOMINAL PAIN

THE CLINICAL SIGNIFICANCE OF ASYMPTOMATIC  
GROSS AND MICROSCOPIC HEMATURIA IN CHILDREN

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# ARCHIVES

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## COVER ART

### Mary Cassatt (1844-1926)

**T**HE PICTURE ON THIS MONTH'S COVER IS about a bond between 2 lives—those of a young mother and the child at her breast. But the story of the picture itself involves the intertwining of 2 other lives—those of Mary Cassatt, who created it, and Gustav Rau, who came to own it.

Born into a wealthy Pennsylvania family, Mary Cassatt was an independent woman who spent most of her adult life abroad in France, pursuing her dream of a career in art. After moving to Paris in 1866 and receiving classical training, she joined the rebel group of Impressionists and exhibited works in several of their public shows until the group disbanded in 1886. She brought a feminine side to Impressionism through her sensitive portrayals of women and children, even though she herself never married or had children of her own. The mother in this picture is her friend and frequent model, Louise Fissier de Fresnaux, shown in a natural moment of intimacy with her young child.

Like Mary Cassatt, Gustav Rau was born into a wealthy family, never married, had no children of his own, and was indisputably independent minded. As an only child, he was groomed to take over the family's auto parts manufacturing business near Stuttgart, Germany, and ran the company for several years. Then, at age 40, he made a most unusual career move. He left the business world, entered medical school, and became a pediatrician. After completing his medical training, he sold off all his factories and used some of the proceeds to set up a medical foundation dedicated to reducing the burden of disease in the underdeveloped world. He moved to Africa and worked as a kind of pediatric Albert Schweitzer, building and working in a hospital in a remote village in Zaire near the Rwandan border. It had the largest pediatric unit in the region.

During his 20 years in Africa, Dr Rau lived simply in spite of his considerable wealth. However, he allowed himself one expensive diversion: collecting art. A few times a year, he flew out of the bush in a rickety airplane and



*Louise Breastfeeding Her Child* (1899).

made his way to Europe or America to bid and buy at art auctions. He served as his own advisor, favoring European art from the Renaissance to post-Impressionism. Over the years, his collection grew to 423 paintings, plus sculpture and other works. In 1986, he purchased the pastel drawing by Mary Cassatt shown on this month's cover.

No doubt it had a special meaning for him in light of his work with mothers and children.

There being no suitable space for displaying a large, expensive art collection in a remote African village, the Rau Collection was kept in storage in Switzerland for many years. Finally, at age 70 and in failing health, Dr Rau retired and returned to his native Germany. In 2001, he authorized a worldwide public tour of highlights from his collection. By then it was valued at \$600 million and was one of the largest and best private art collections in the world.

Gustav Rau died in 2002. He left his art collection, including the picture by Mary Cassatt, to the German chapter of UNICEF. He directed that the collection be sold over a period of years to fund the cause to which he devoted much of his life: providing assistance to distressed children.

Thomas D. Koepsell, MD, MPH



1.

Josse Lieferinxe:

*St. Sebastian Intercedes*

*for the Pest-Stricken*

(1497)







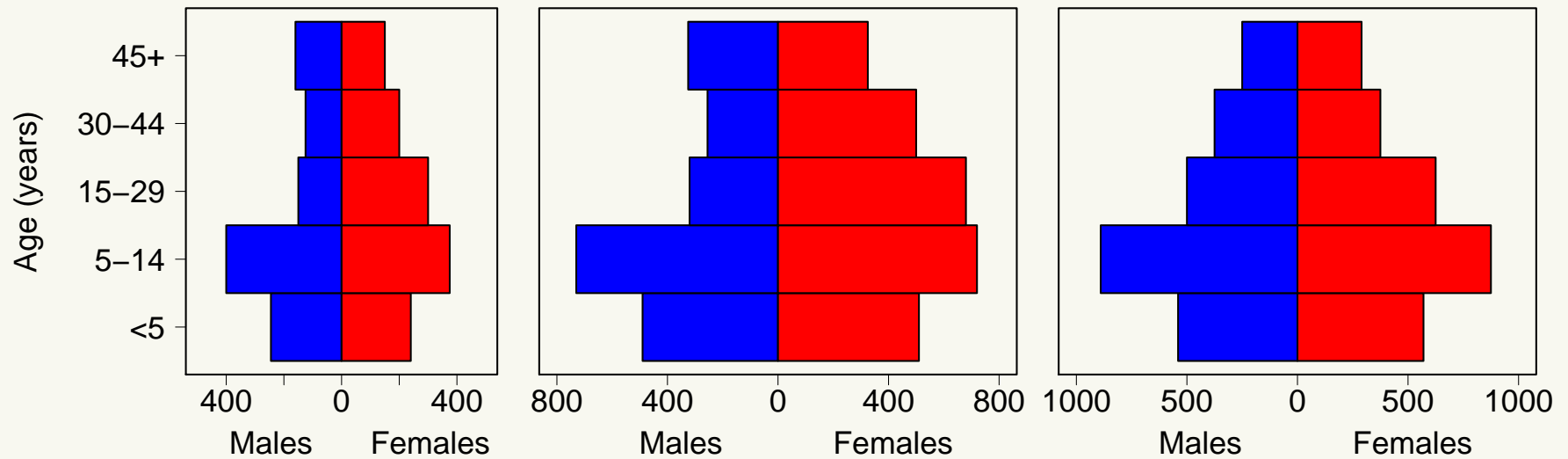
2.

Pablo Picasso:

*Guernica*

(1937)

# Population pyramids in 3 Darfur refugee sites



Zalingei

Mumei

Niertiti

## Concluding paragraph of Darfur survey paper

“In humanitarian emergencies, field epidemiology can, in addition to helping to orient and evaluate aid programmes, provide key scientific testimony about past events. Overwhelming epidemiological evidence on the consequences of armed conflicts, including that provided here, should be a tool to advocate respect for international humanitarian law.”







# Goya: *May 3, 1808*



3.

Jan Steen:

*The Young Ones Chirp as  
the Old Ones Sing*

a.k.a. *The Artist's Family*  
(ca. 1665)



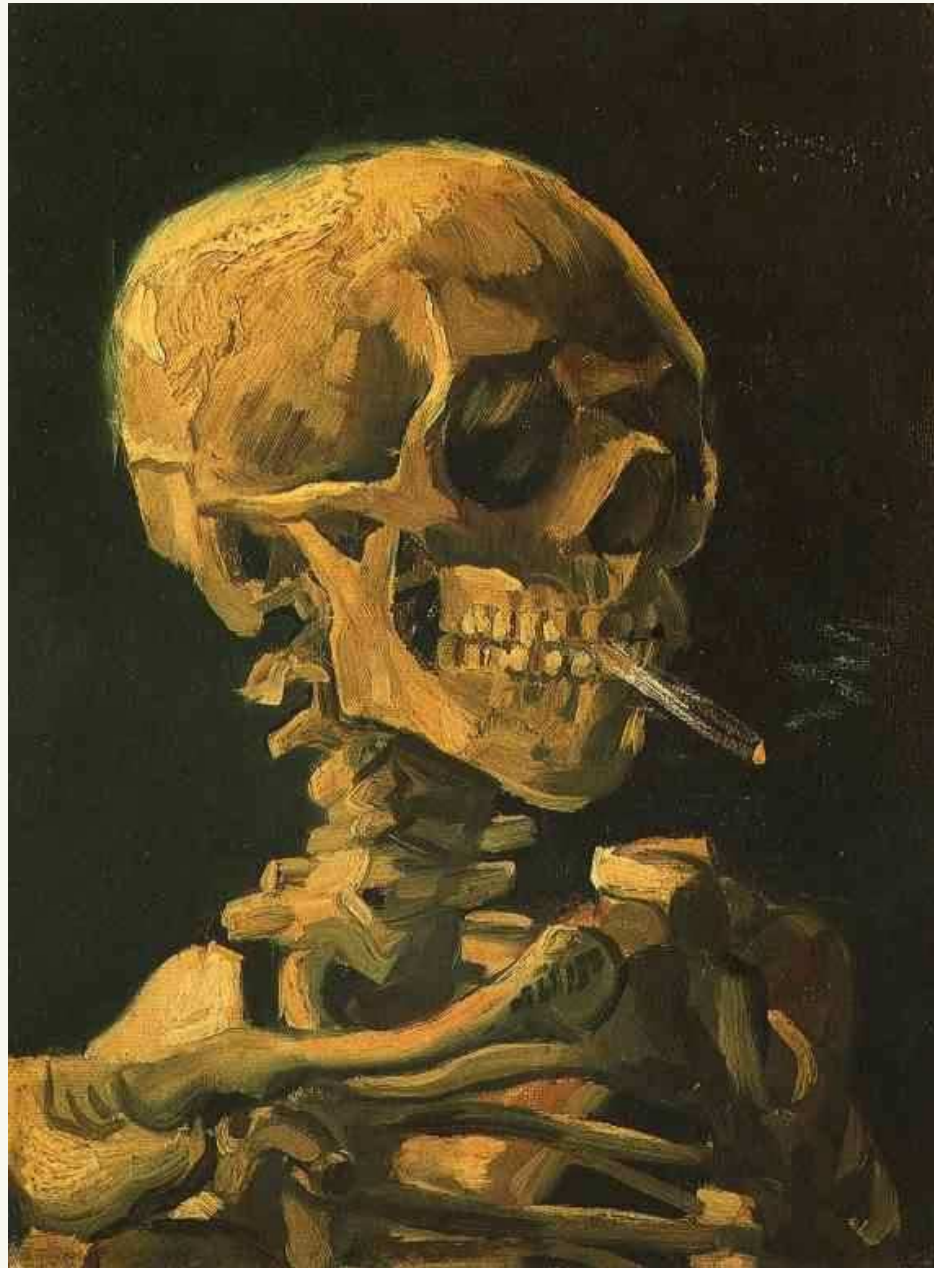






“As we sing, you’ll  
have to chirp  
It’s a law the whole  
world knows  
I lead, all follow suit  
From baby to  
centenarian...”

# Van Gogh: *Skull and Cigarette* (1886)



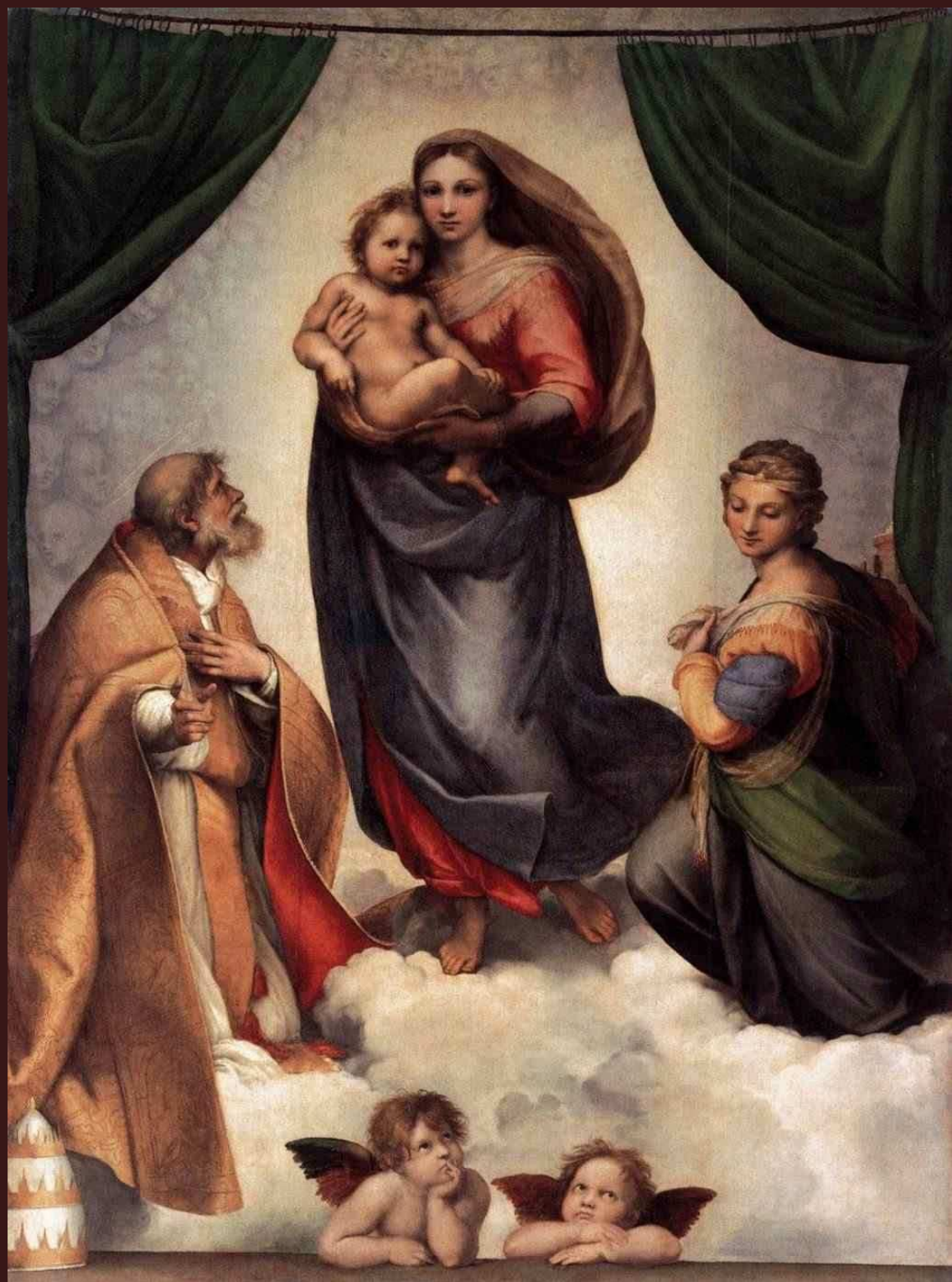


# Bosch: *Seven Deadly Sins* (ca. 1480)





trula









4.

Albrecht Dürer:

*Proportions of an Infant*

(ca. 1528)

August, 2003

Albrecht Dürer:  
*Proportions of an Infant*

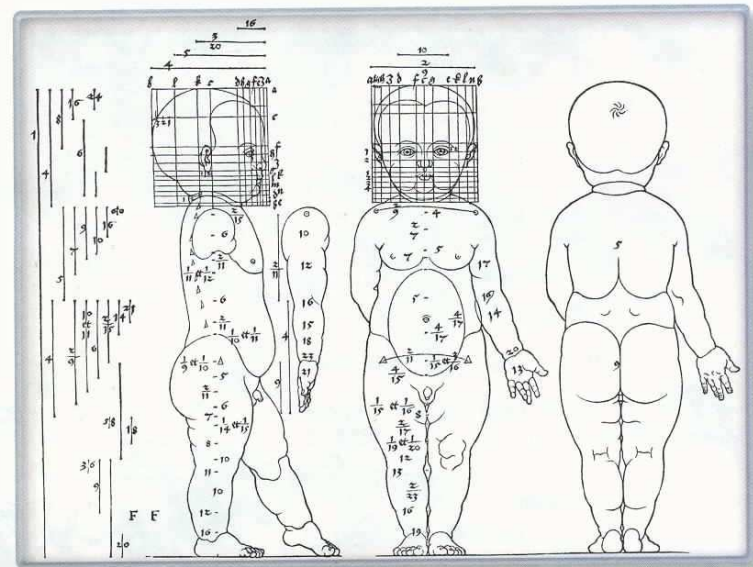
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AUGUST 2003



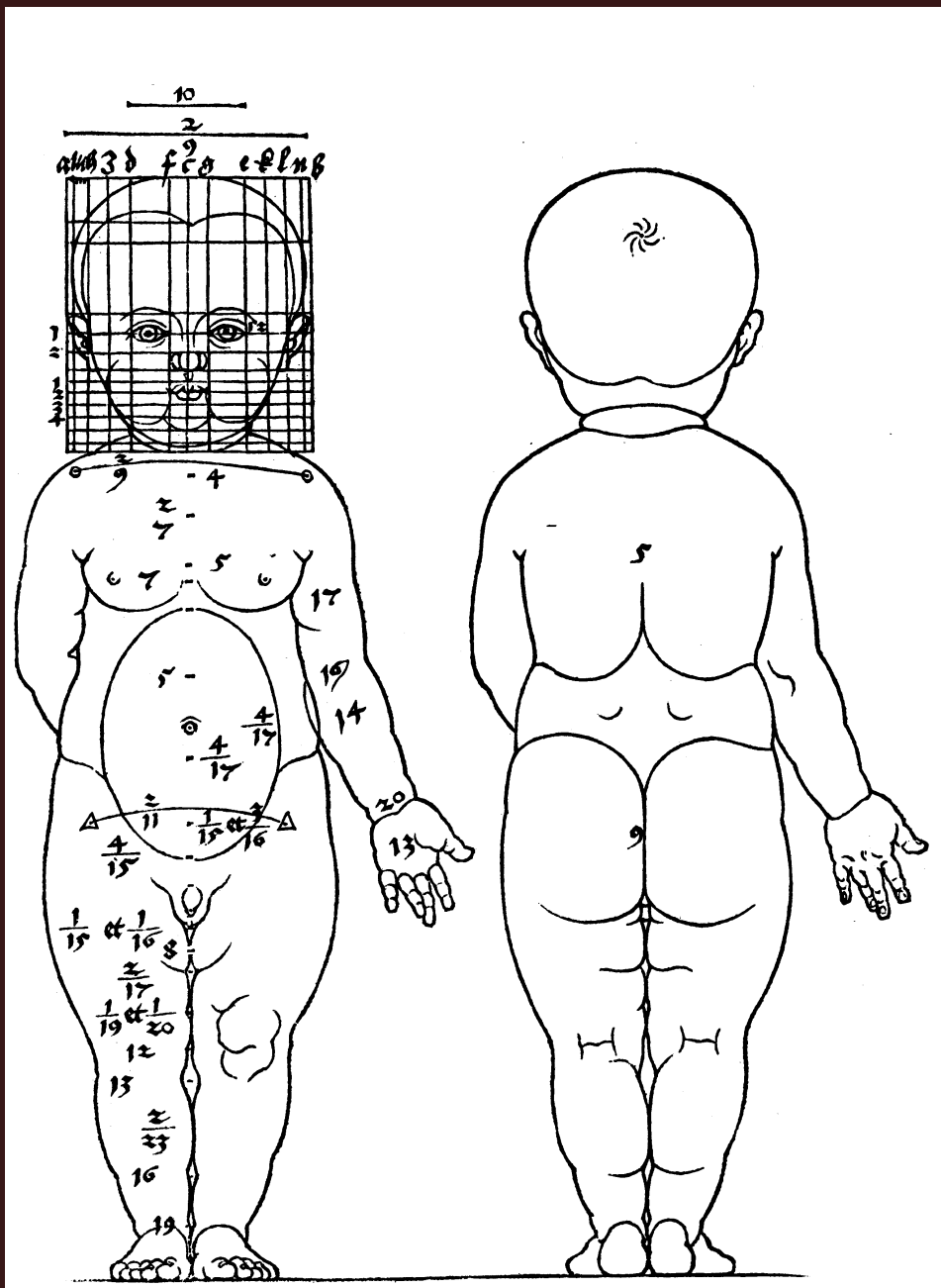
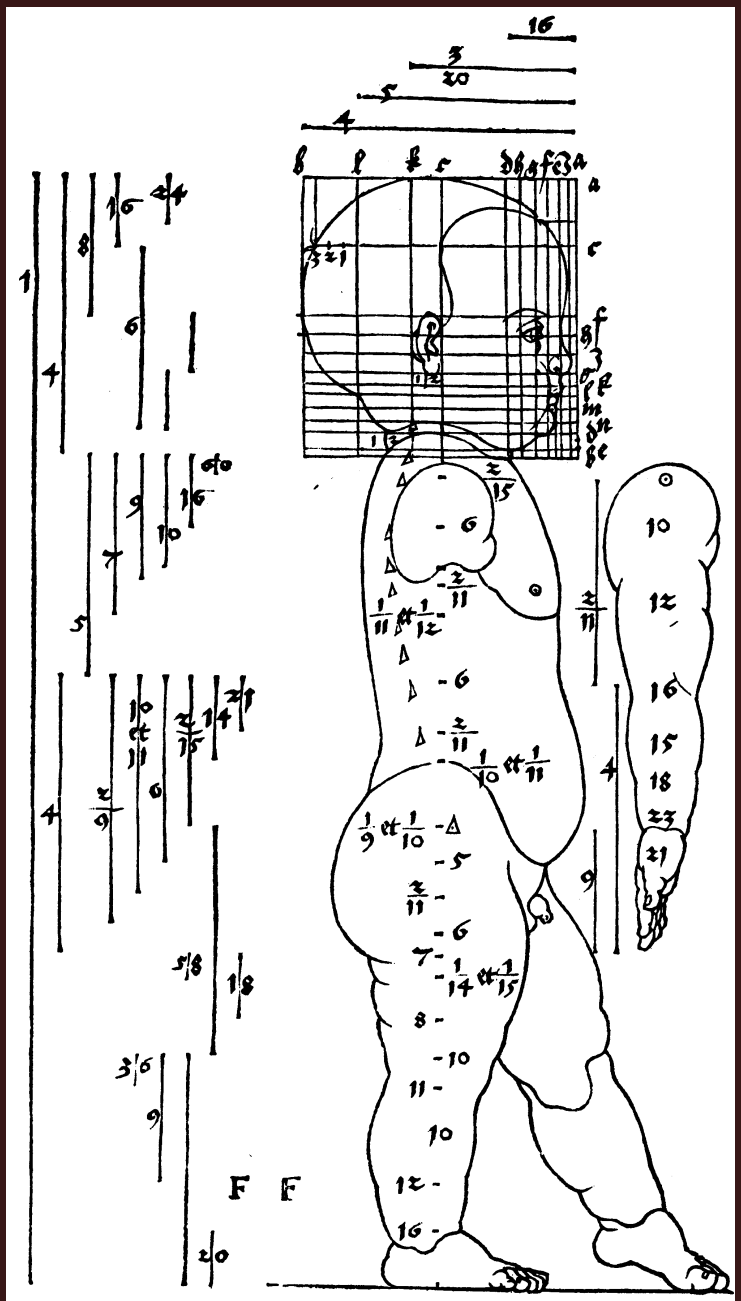
Albrecht Dürer (1471-1528), *The Proportions of an Infant* (ca 1528). See page 718.

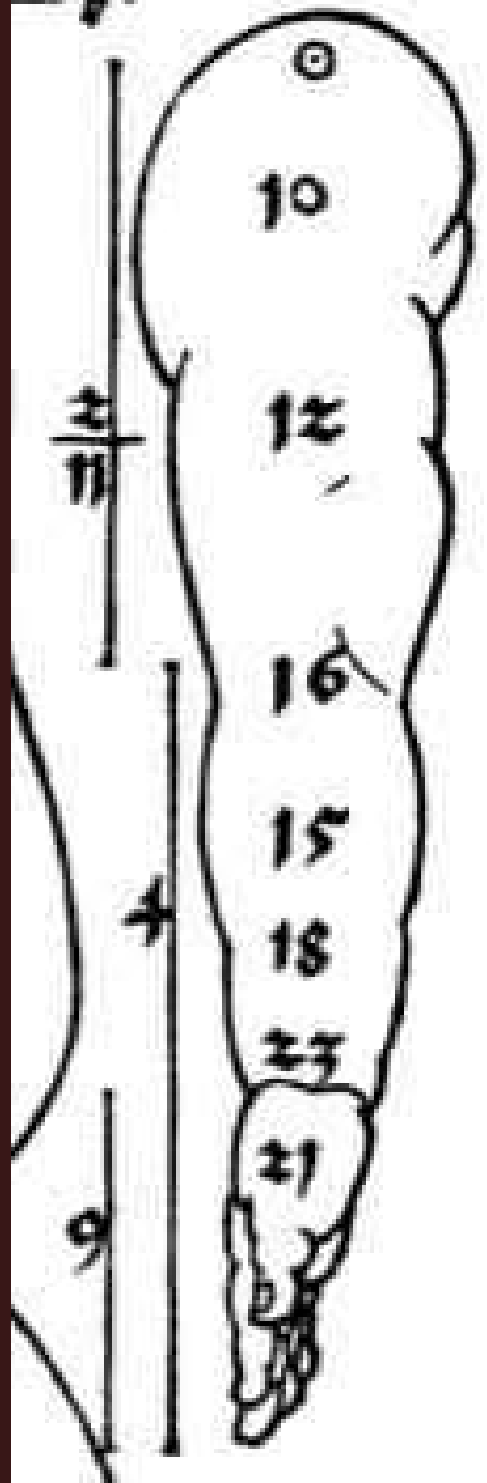
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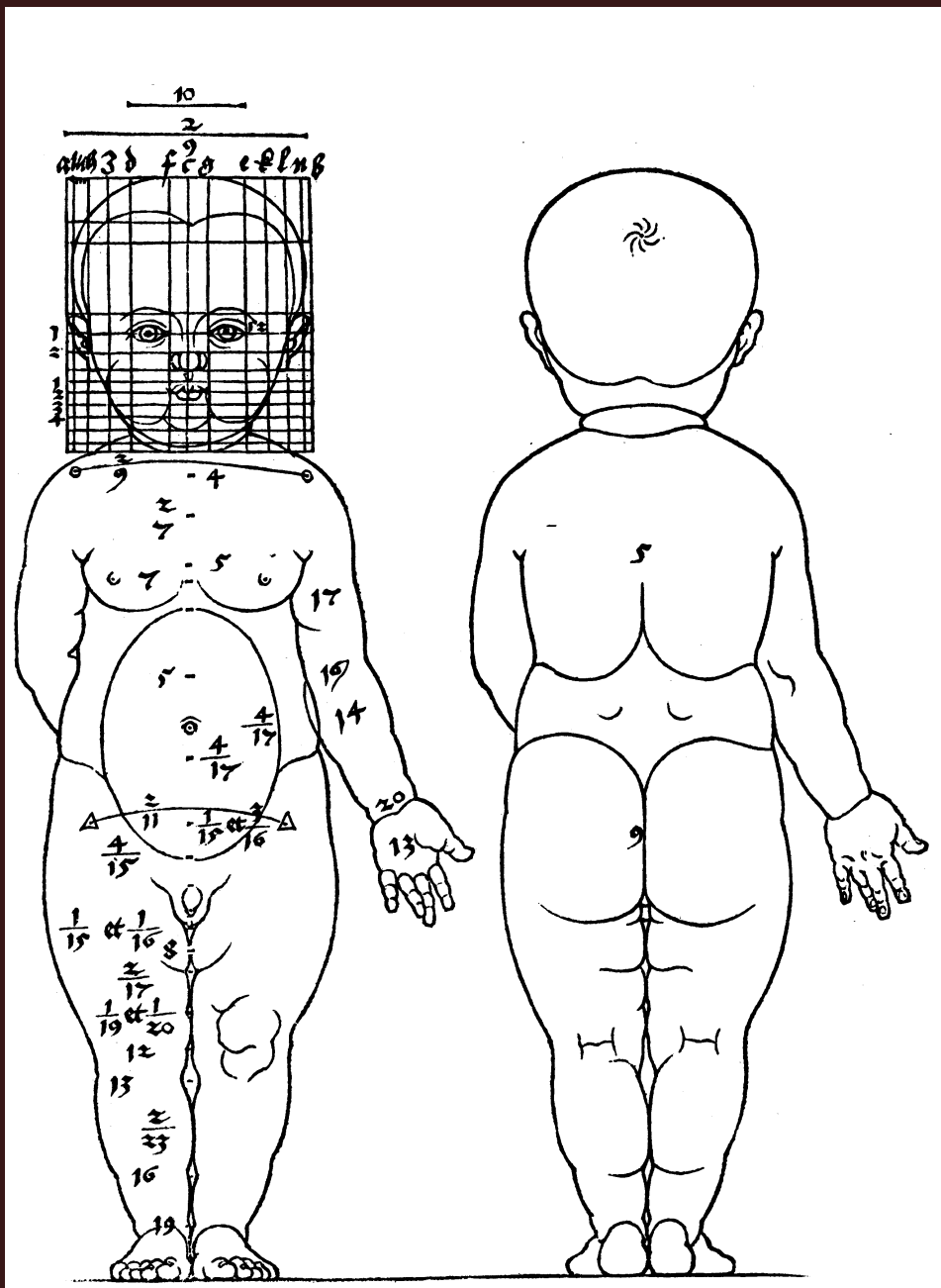
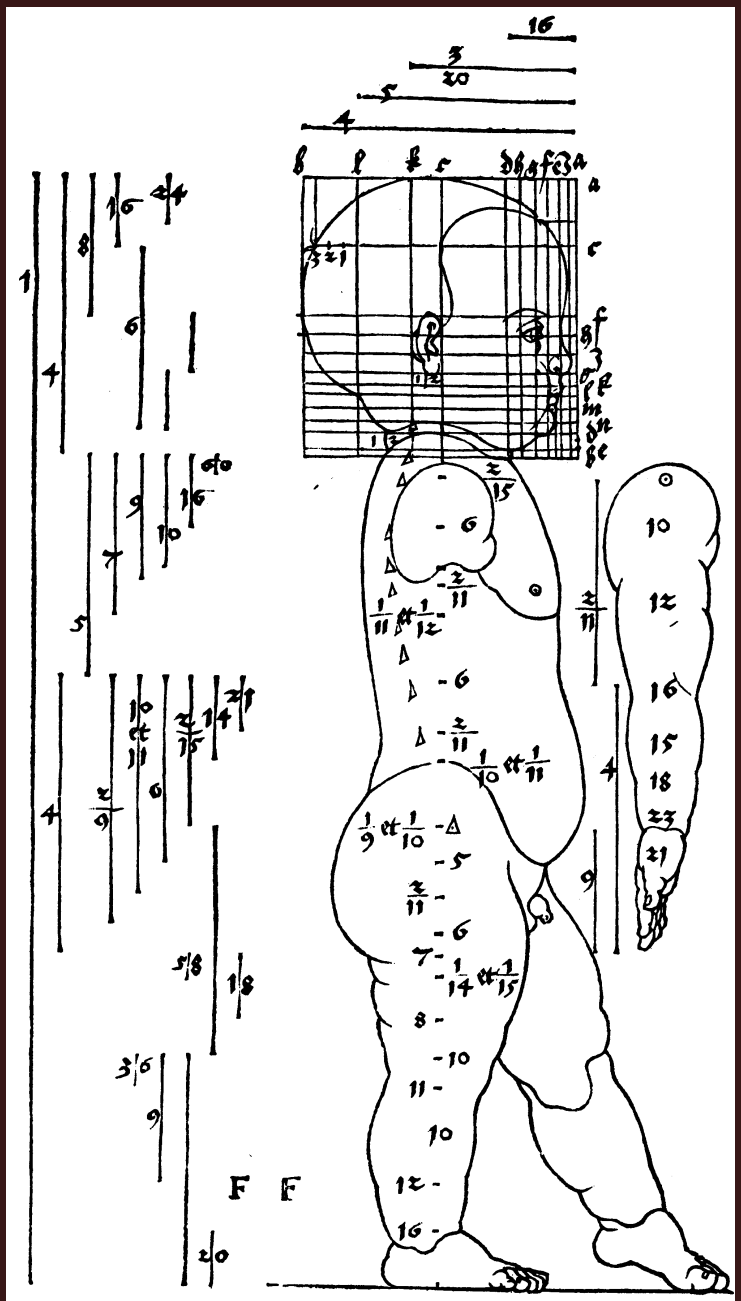
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Proportio faciei temperatae  
prope (moderata)



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12

Proportio faciei  
immoderata



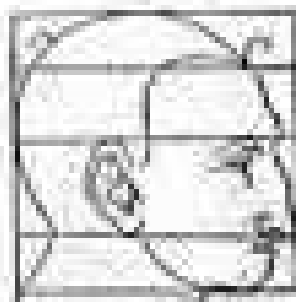
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Proportio faciei moderata  
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Proportio faciei moderata  
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Proportio faciei moderata  
vultu immoderata



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Proportio faciei moderata  
vultu moderata



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5.

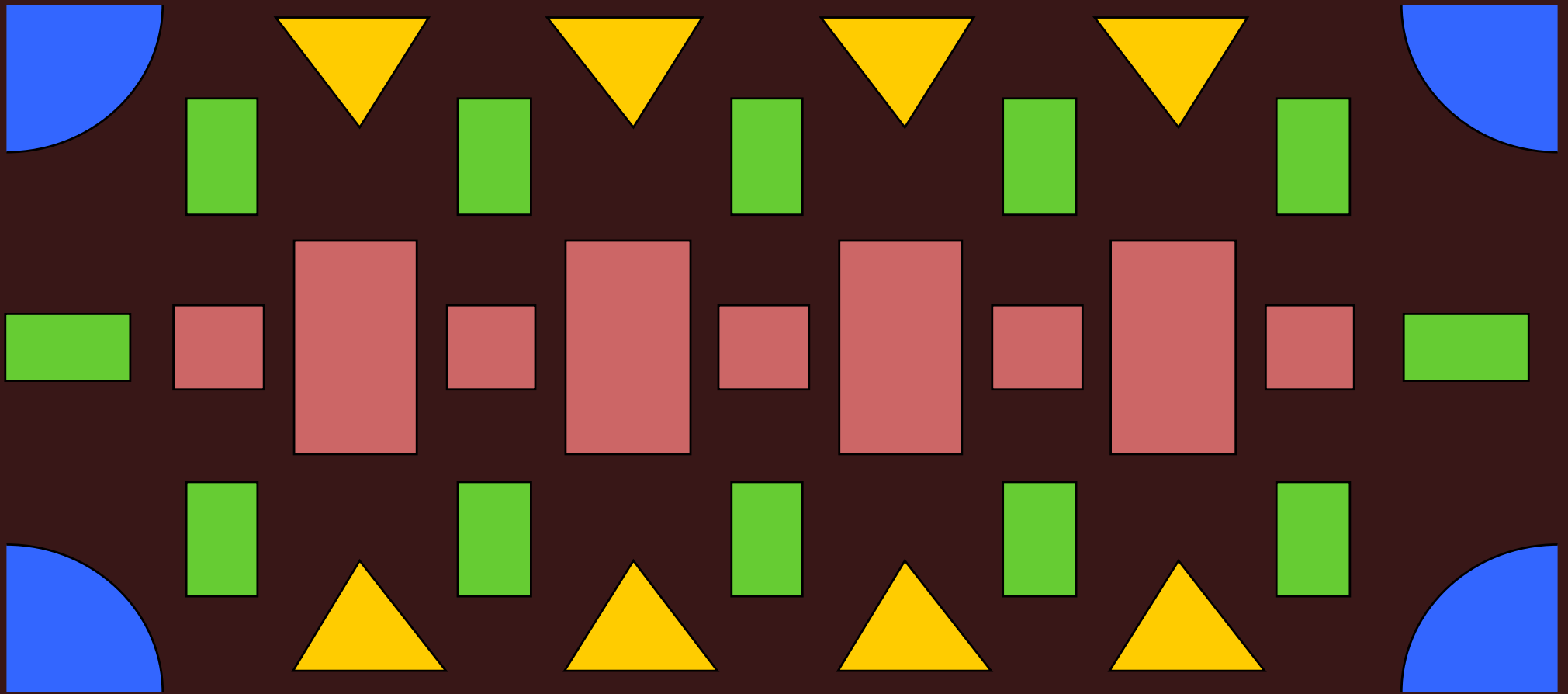
Michelangelo:





*Ceiling of the Sistine Chapel*

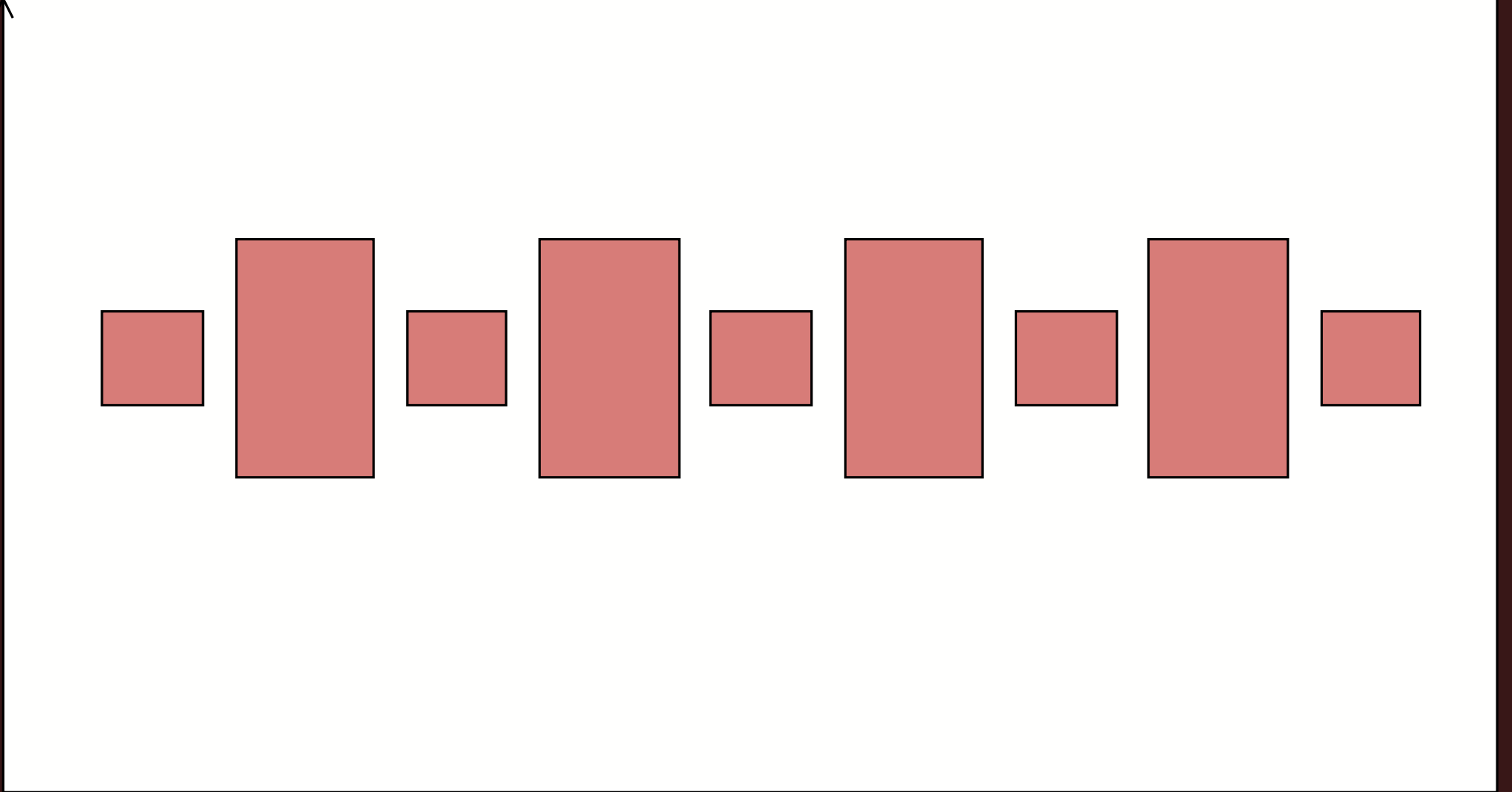
(1508–12)







-  Scenes from Genesis
-  Prophets and Sibyls
-  Ancestors of Christ
-  Corner spandrels



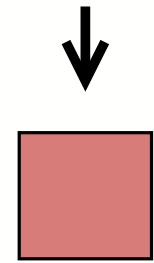
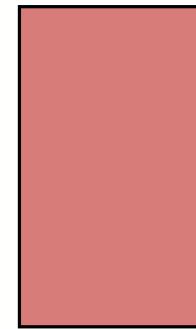
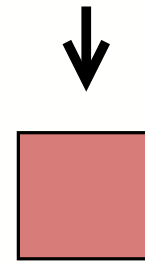
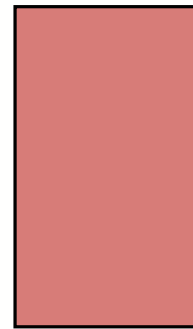
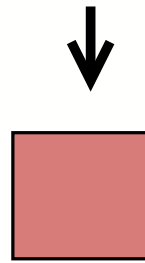
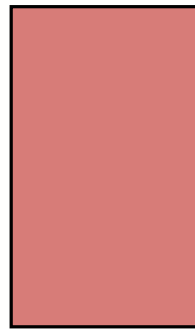
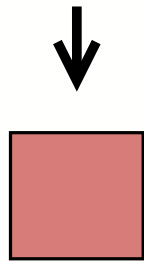
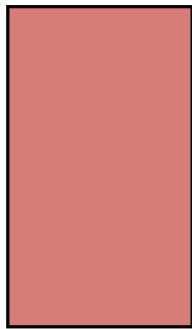
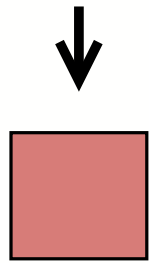
Separation  
of light  
and dark

Creation  
of earth  
and  
waters

Creation  
of  
Eve

Sacrifice  
of  
Noah

Drunken-  
ness of  
Noah



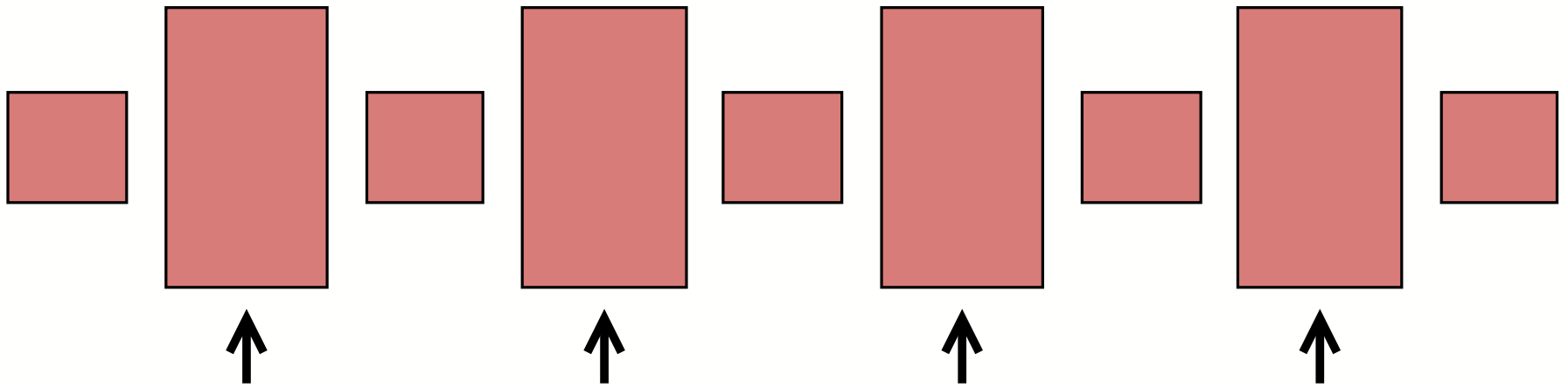
Creation  
of sun,  
moon,  
and plants

Creation  
of  
Adam

Expulsion  
from  
Garden  
of Eden

Deluge



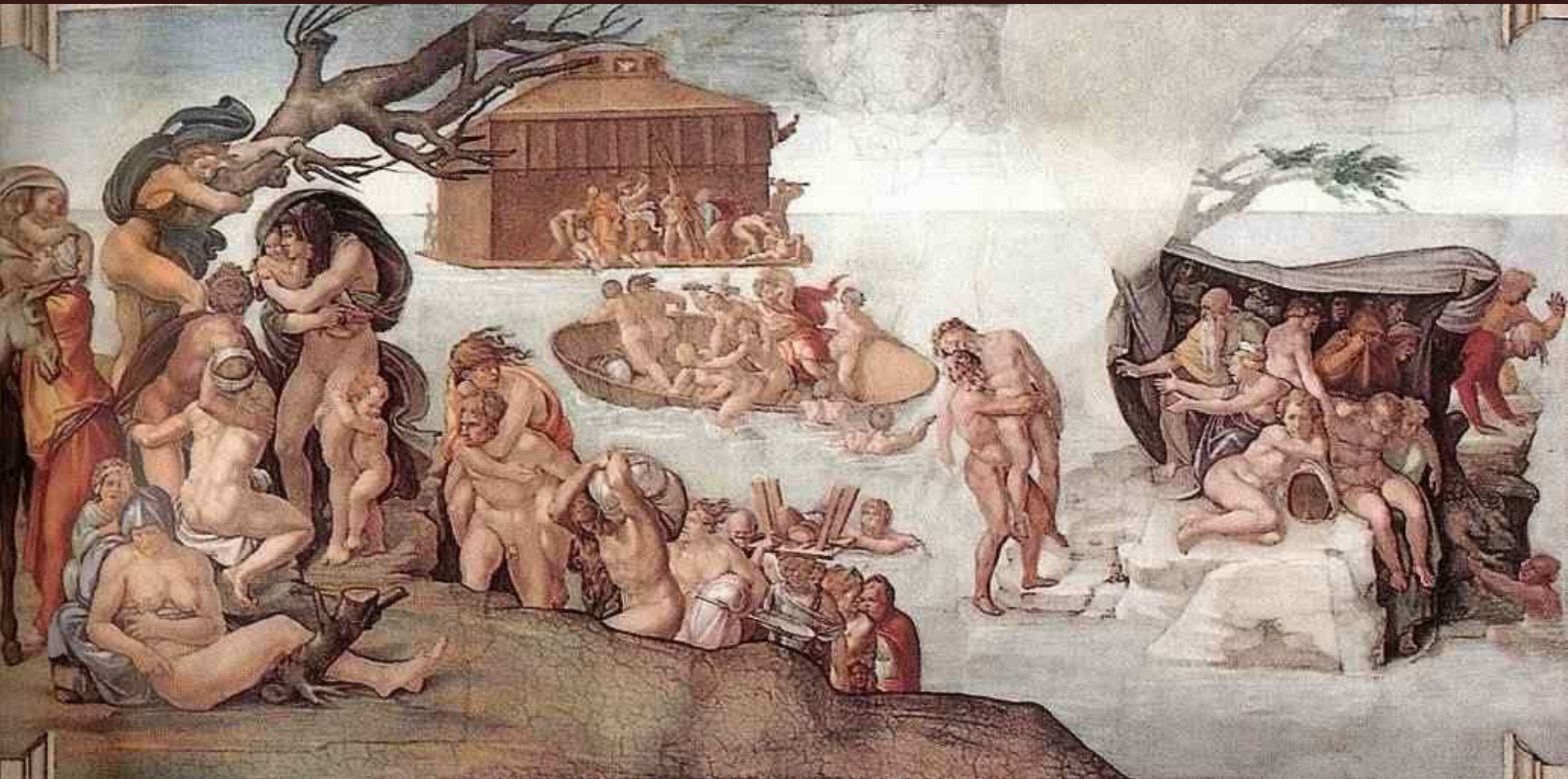


Creation  
of sun,  
moon,  
and plants

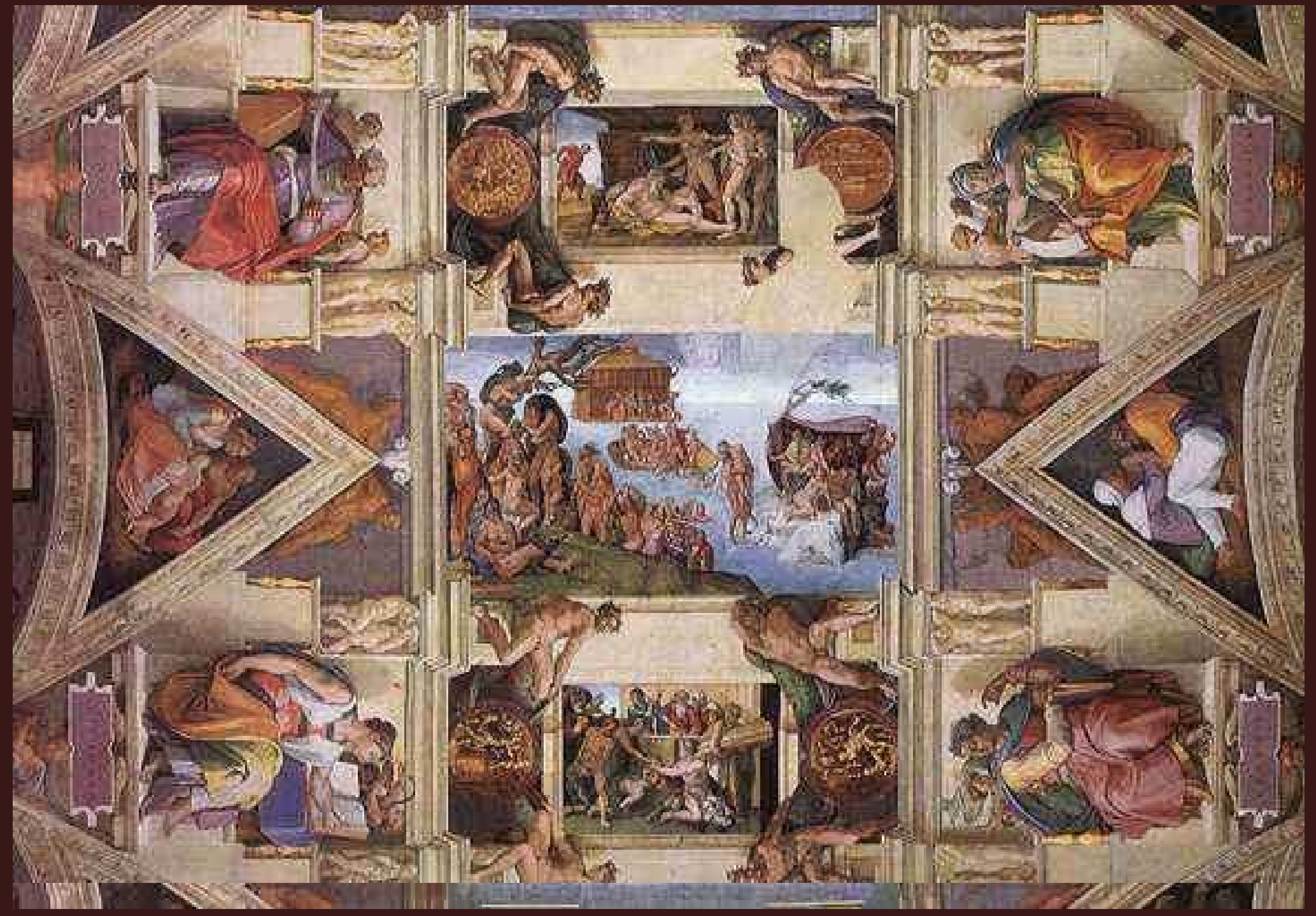
Creation  
of  
Adam

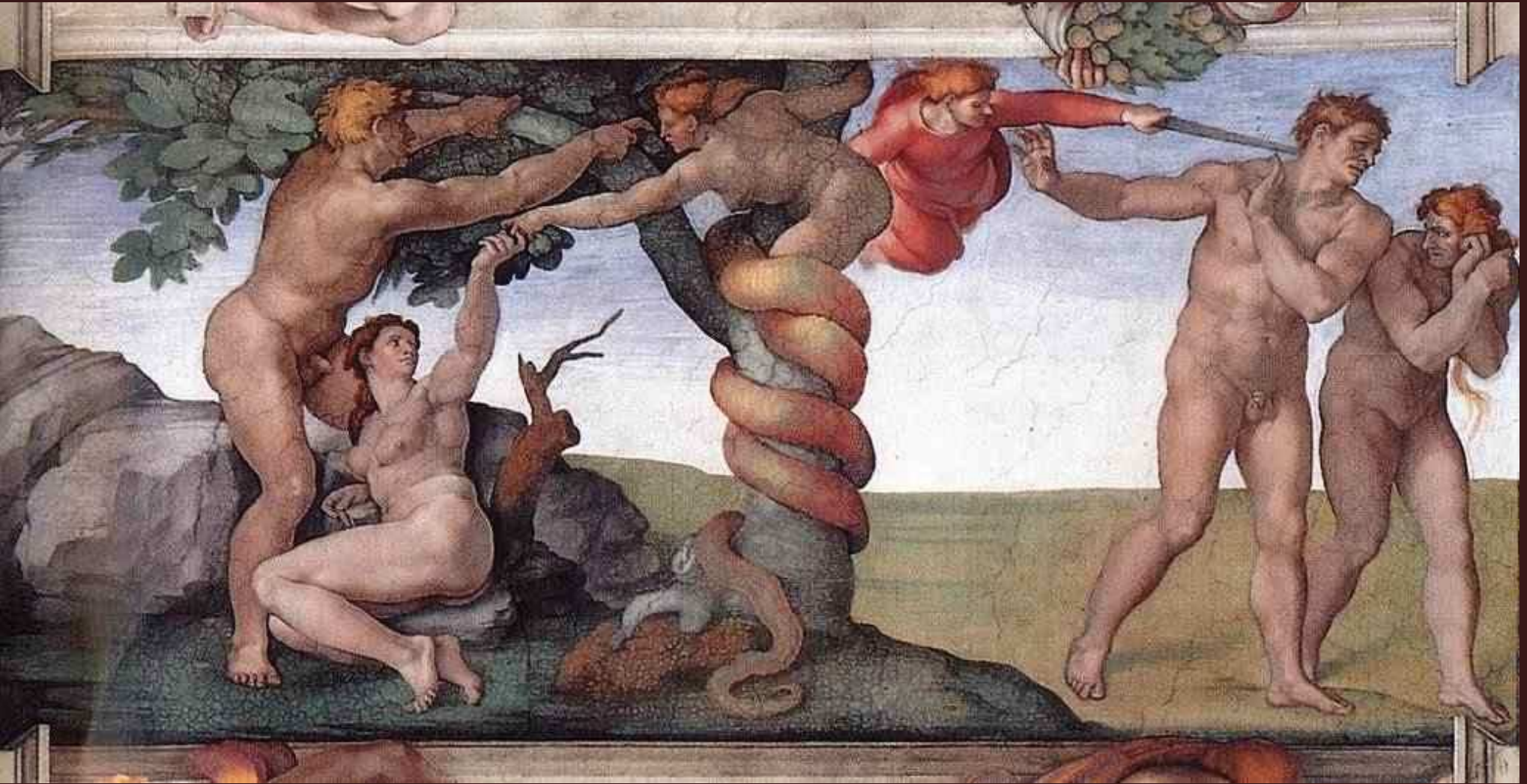
Expulsion  
from  
Garden  
of Eden

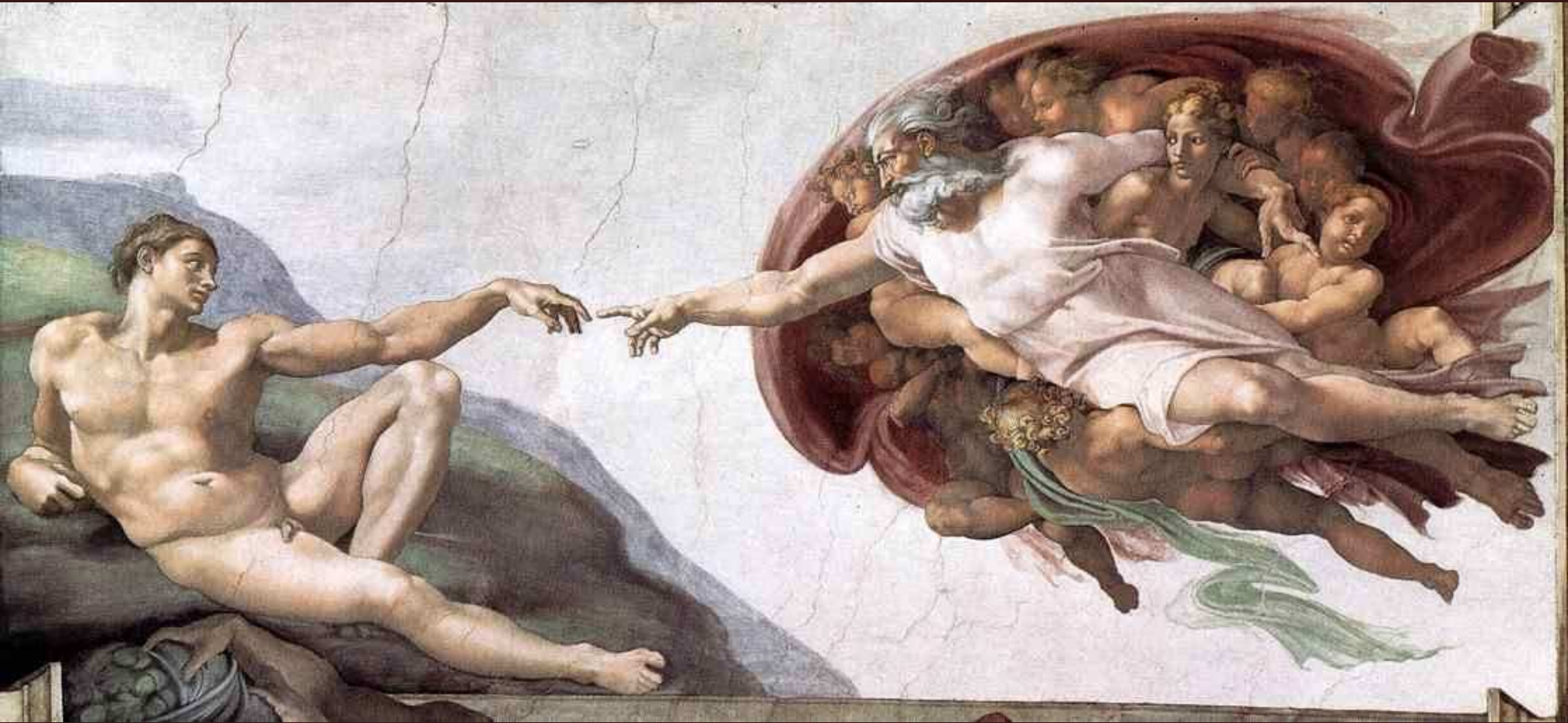
Deluge

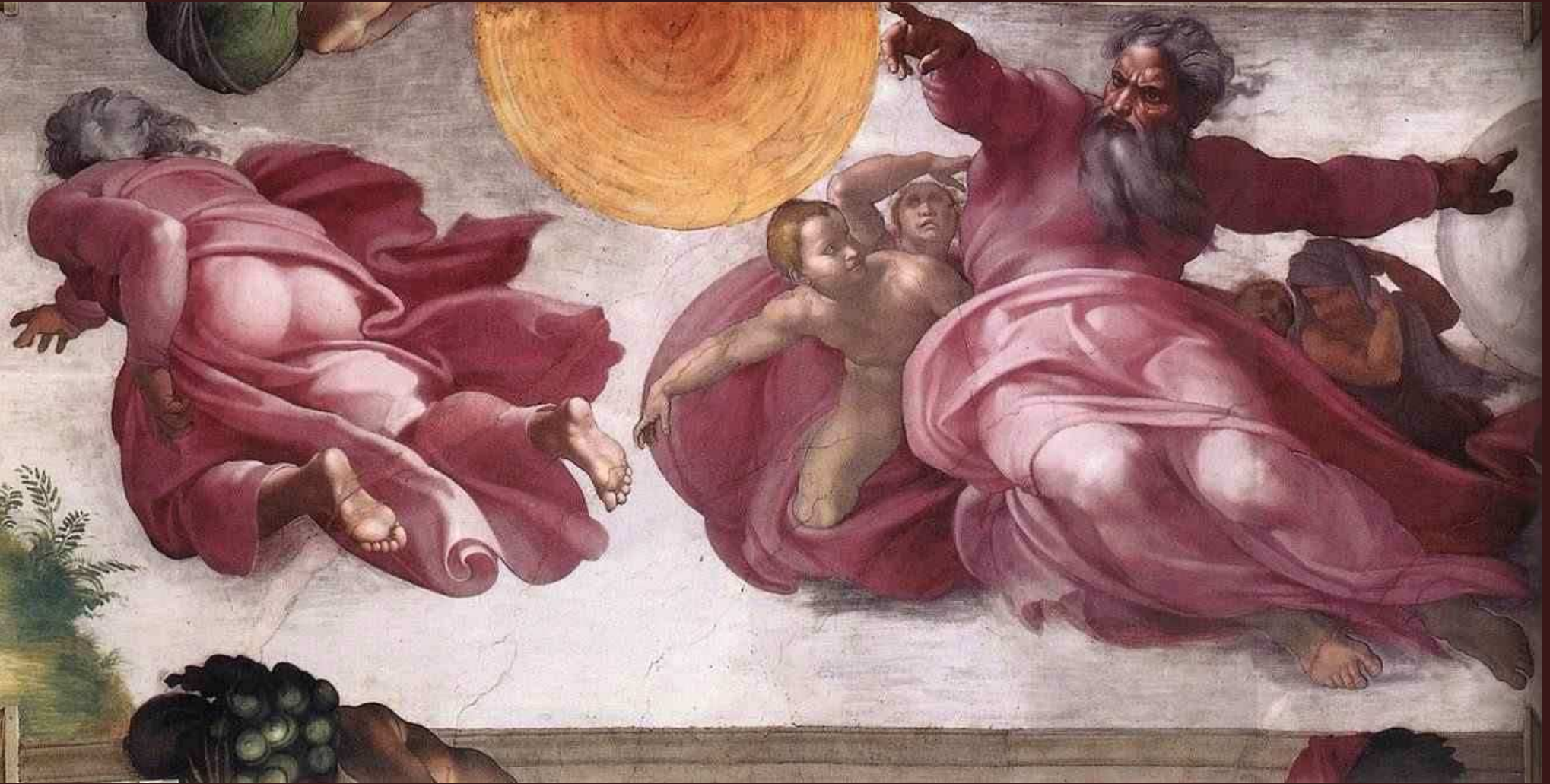


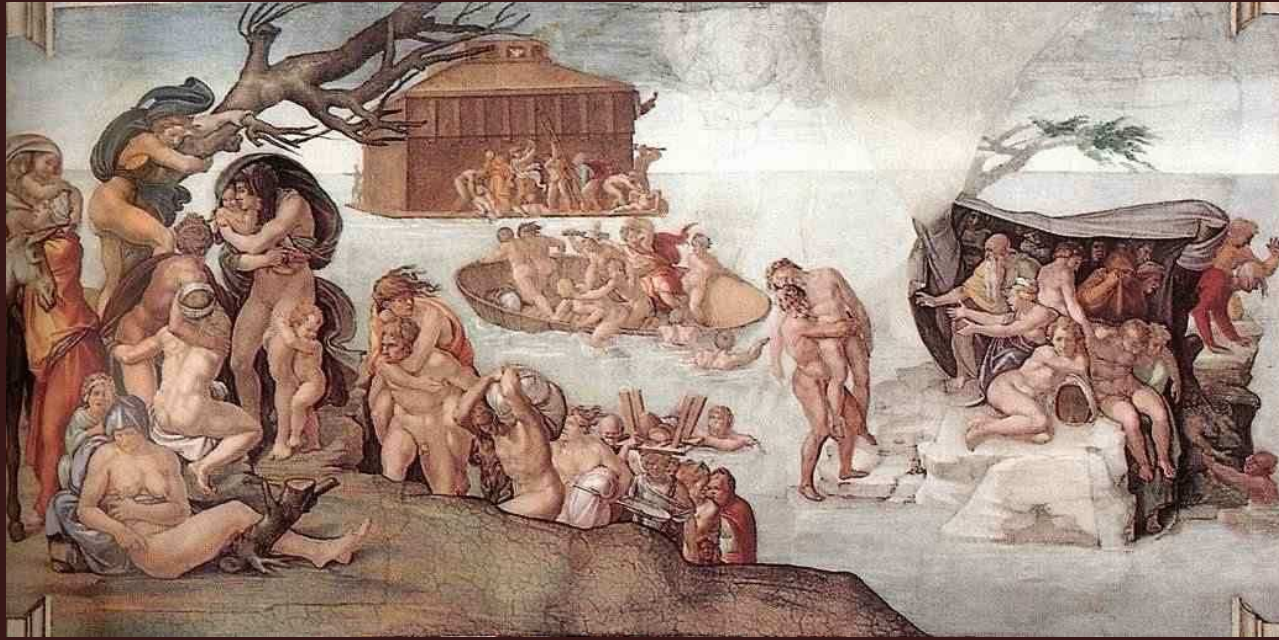




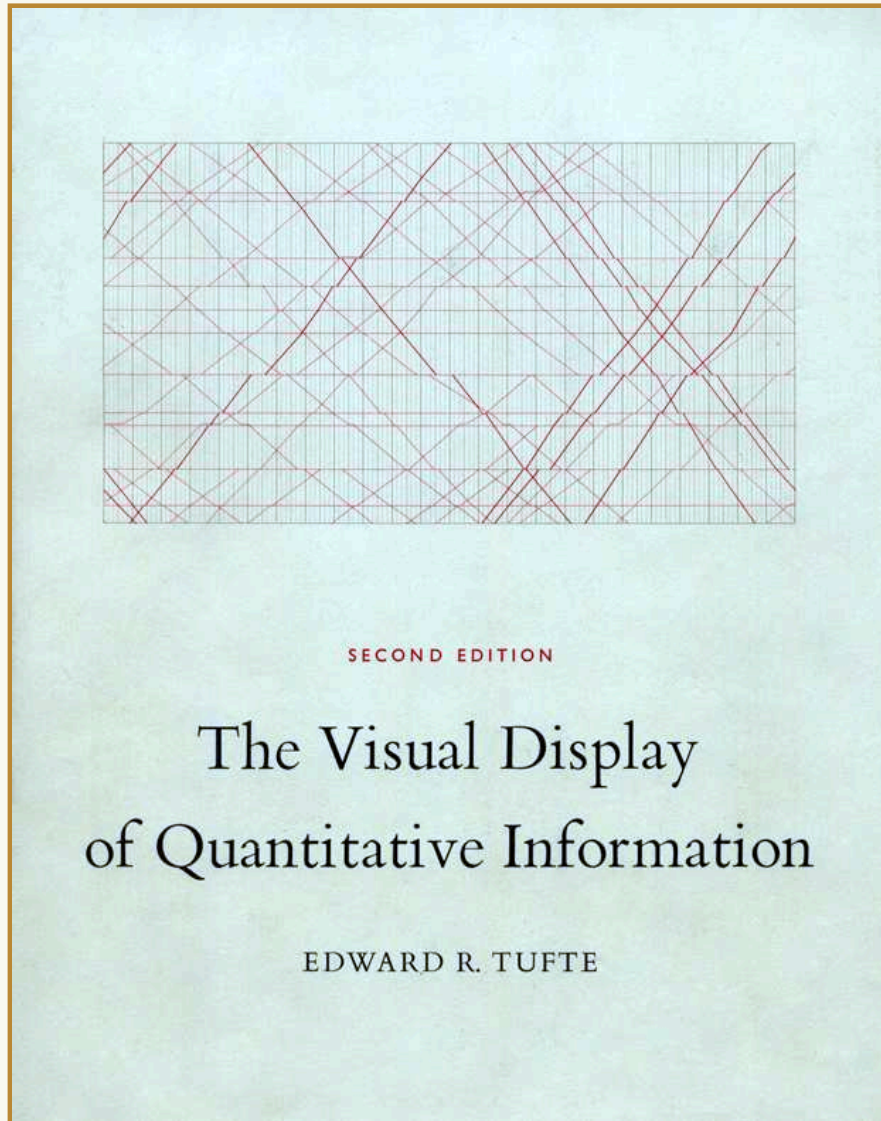






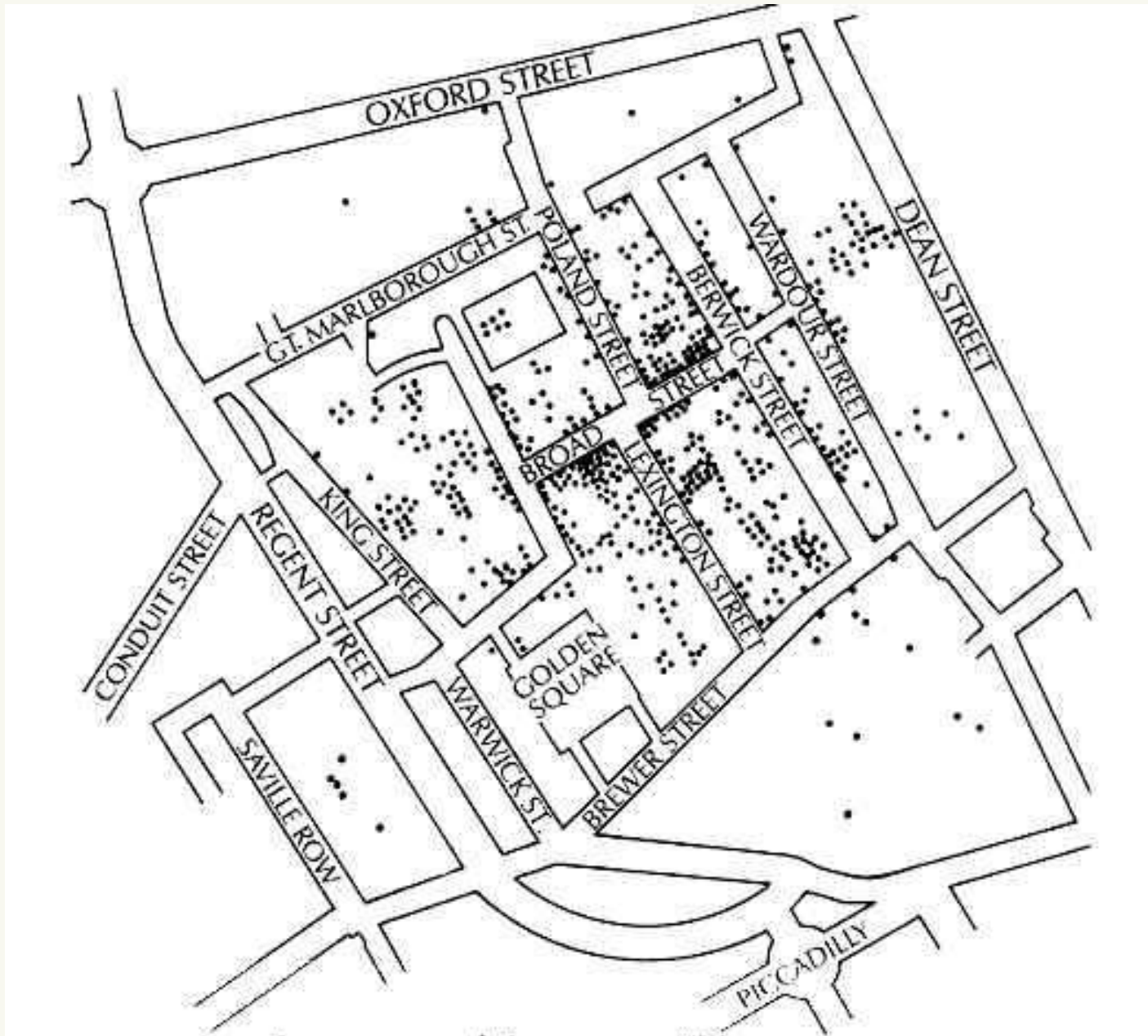


# Visual communication in epidemiology



- Figures in scientific papers
- Presentations at scientific meetings
- Teaching

# John Snow's map of cholera



Ugly slide #1  
(omitted here)



Ugly slide #2  
(omitted here)

Ugly slide #3  
(omitted here)

# *Paintings* slide style

# *Paintings* slide style

- Simple, consistent slide design

## *Paintings* slide style

- Simple, consistent slide design
- Black text on white background

# *Paintings* slide style

- Simple, consistent slide design
- Black text on white background
  - Sans-serif font (Helvetica)

# *Paintings* slide style

- Simple, consistent slide design
- Black text on white background
  - Sans-serif font (Helvetica)
  - Large font size

# *Paintings* slide style

- Simple, consistent slide design
- Black text on white background
  - Sans-serif font (Helvetica)
  - Large font size
- No extraneous decoration



# Skater palette



- Gilbert Stuart: *The Skater* — *Portrait of William Grant*, 1782
- Color sources:
  - Text: Hat
  - Background: Collar
  - Title bar and level-1 bullets: Ice
  - Level-2 bullets: Right cheek

# Pearl Earring palette



- Johannes Vermeer:  
*Girl with a Pearl Earring*, 1665/6
- Color sources:
  - Text: Pupil of eye
  - Background: Sclera of left eye
  - Title bar and level-1 bullets: Blue head scarf
  - Level-2 bullets: Beige head scarf

# Syndics palette



- Rembrandt van Rijn:  
*The Syndics of the Clothmakers Guild*,  
1662
- Color sources:
  - Text: Hat
  - Background: Collar  
of rising man
  - Title bar and level-1  
bullets: Tablecloth,  
lower right
  - Level-2 bullets:  
Tablecloth, lower left

6.

Giorgio Vasari:

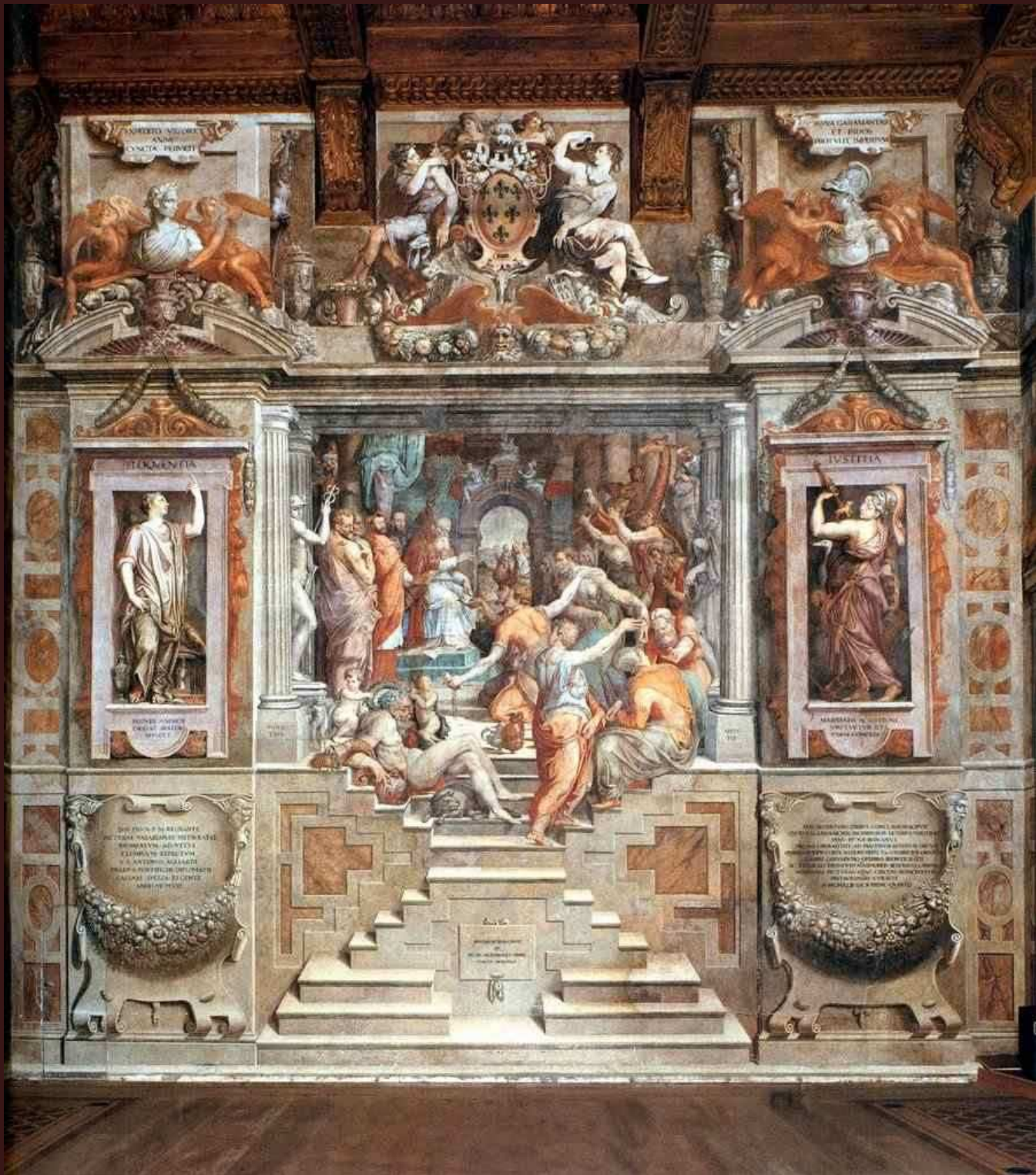
*Cancelleria*

(1546)













# Some attributes of a good artist

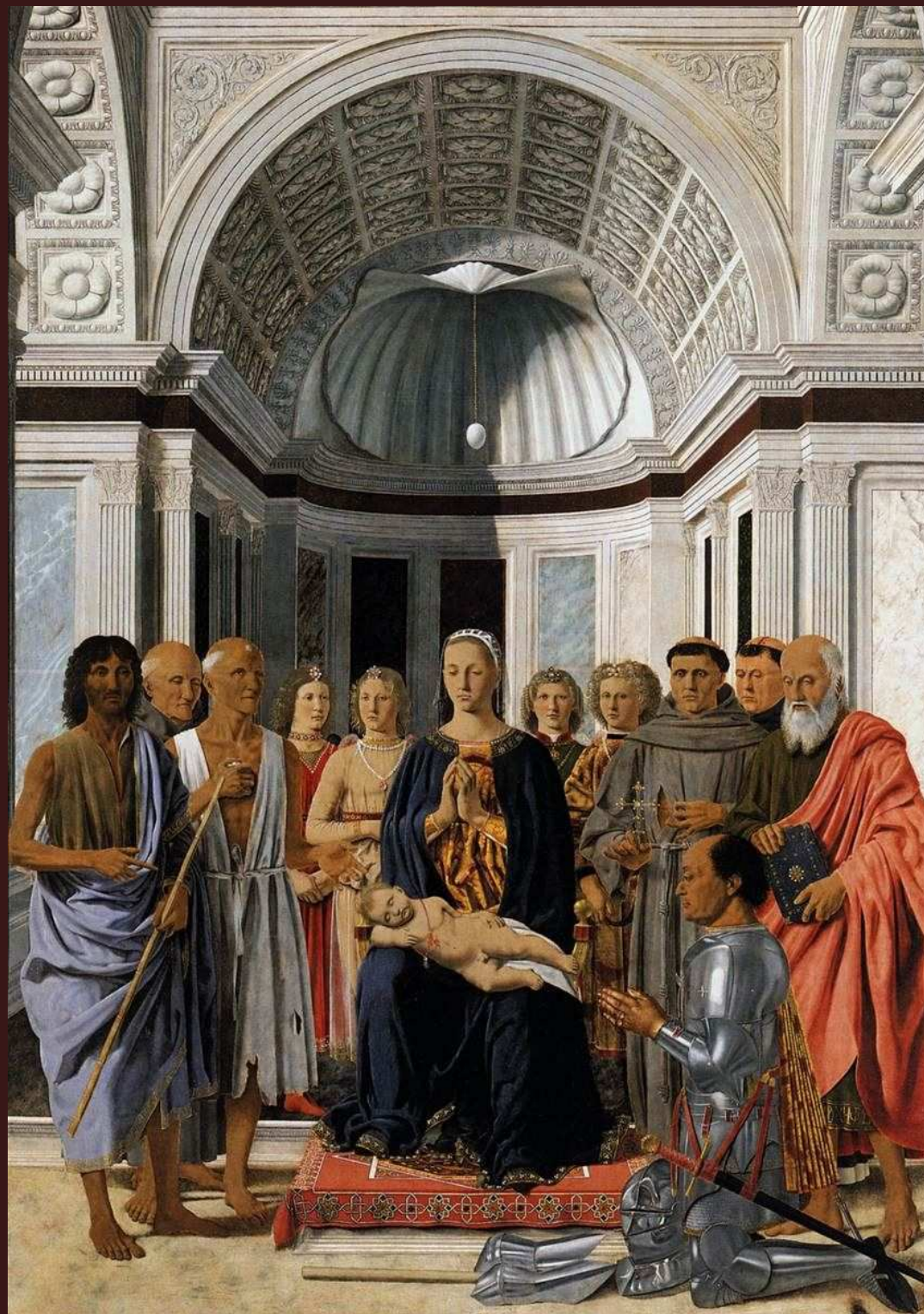
- Good technical skills
- Ability to adapt and extend them as needed
- Creativity

7.

Piero della Francesca:

*Brera Altarpiece*

(1460)



December, 2006

Piero della Francesca:  
*Brera Altarpiece*

# ARCHIVES

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OF

## PEDIATRICS & ADOLESCENT MEDICINE

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DECEMBER 2006



Piero della Francesca (ca 1415-1492), *Madonna and Child With Saints*. See page 1204.

TOBACCO MARKETING AND USE IN FILMS AND  
CHILDREN'S USE OF TOBACCO

RISKY ALCOHOL USE, AGE OF DRINKING ONSET,  
AND ADVERSE CHILDHOOD EXPERIENCES

IMPACT OF INFLUENZA VACCINATION DURING  
PREGNANCY ON RESPIRATORY ILLNESS IN INFANTS

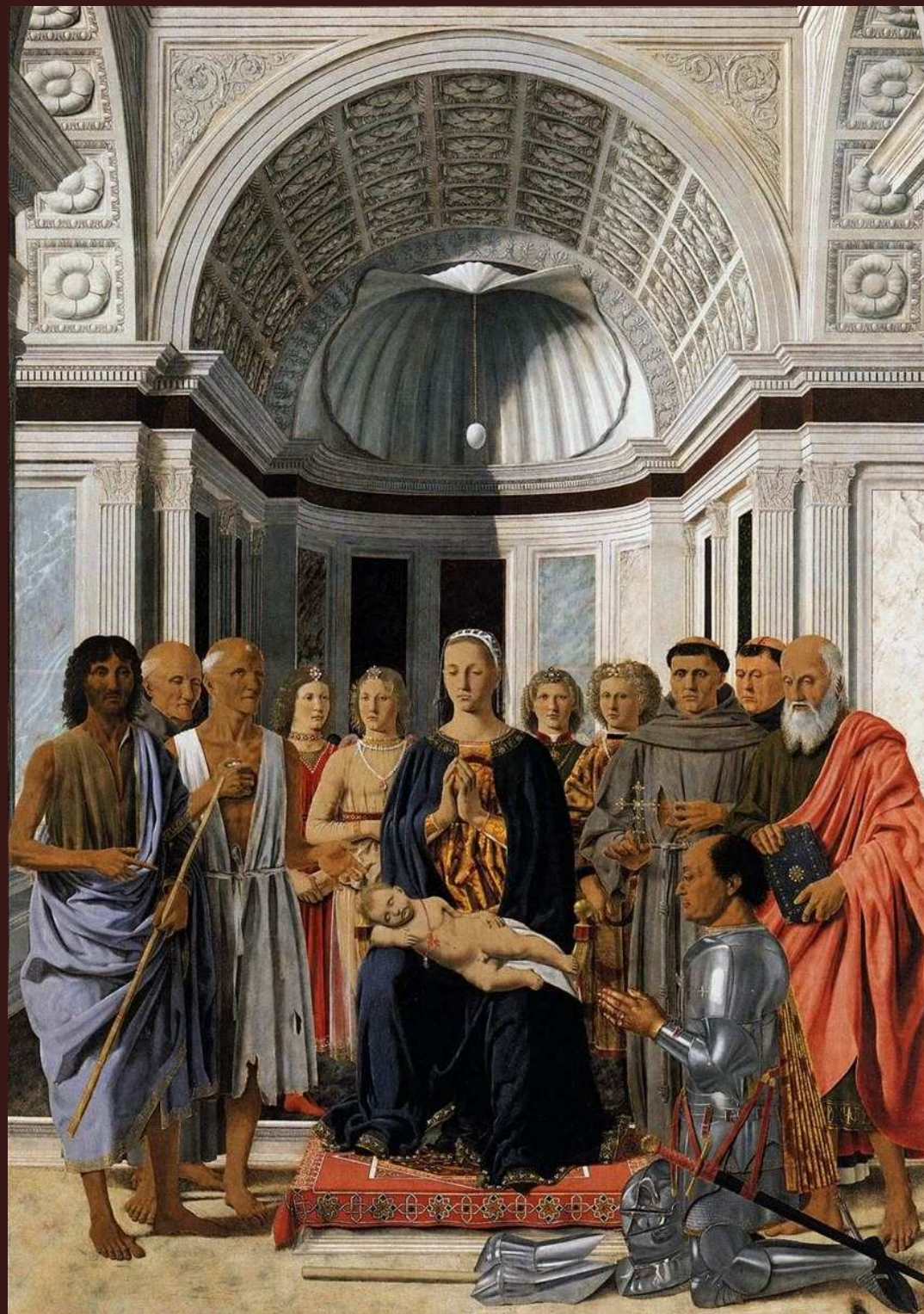
DEXTROMETHORPHAN ABUSE IN ADOLESCENCE,  
1999-2004

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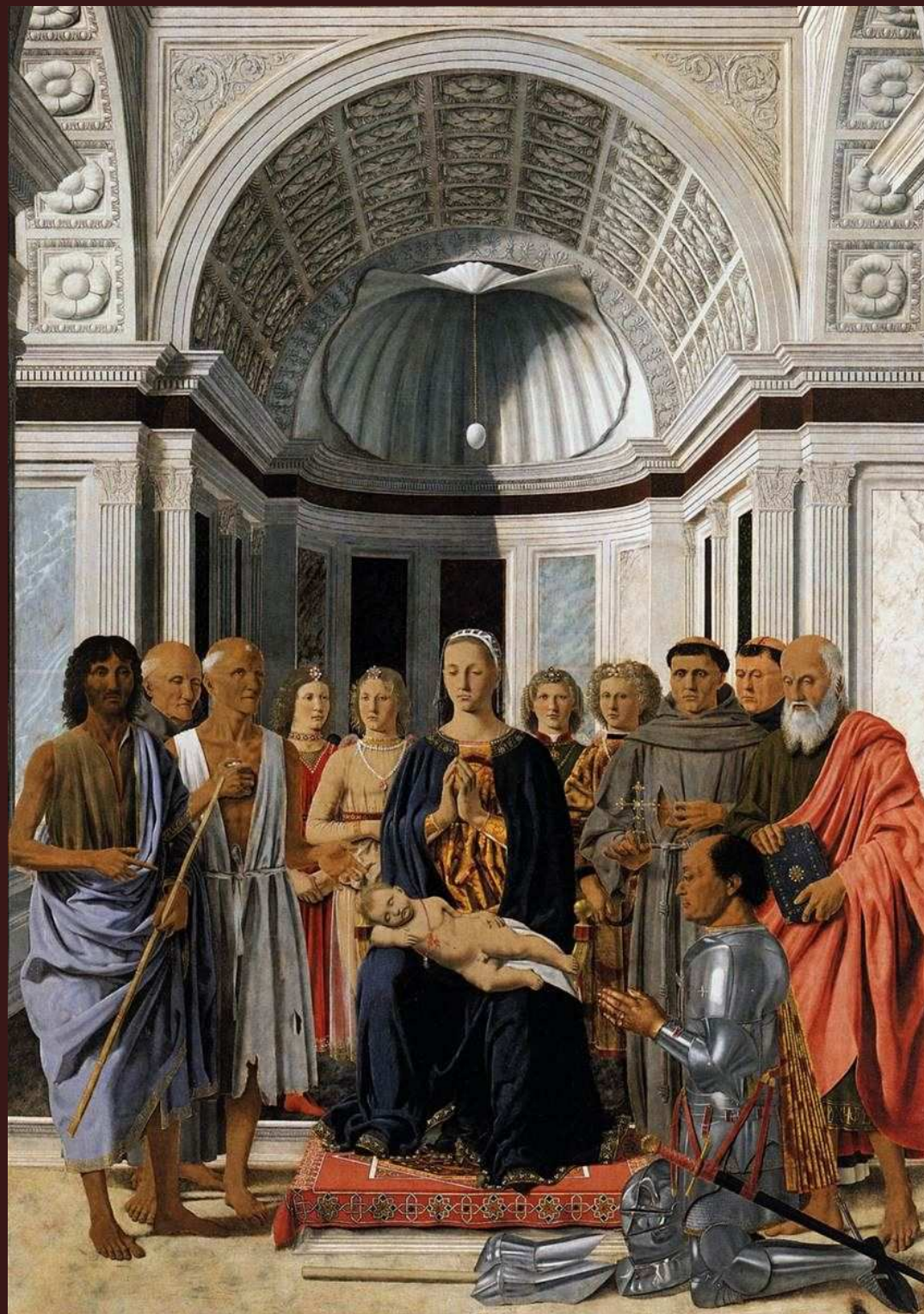












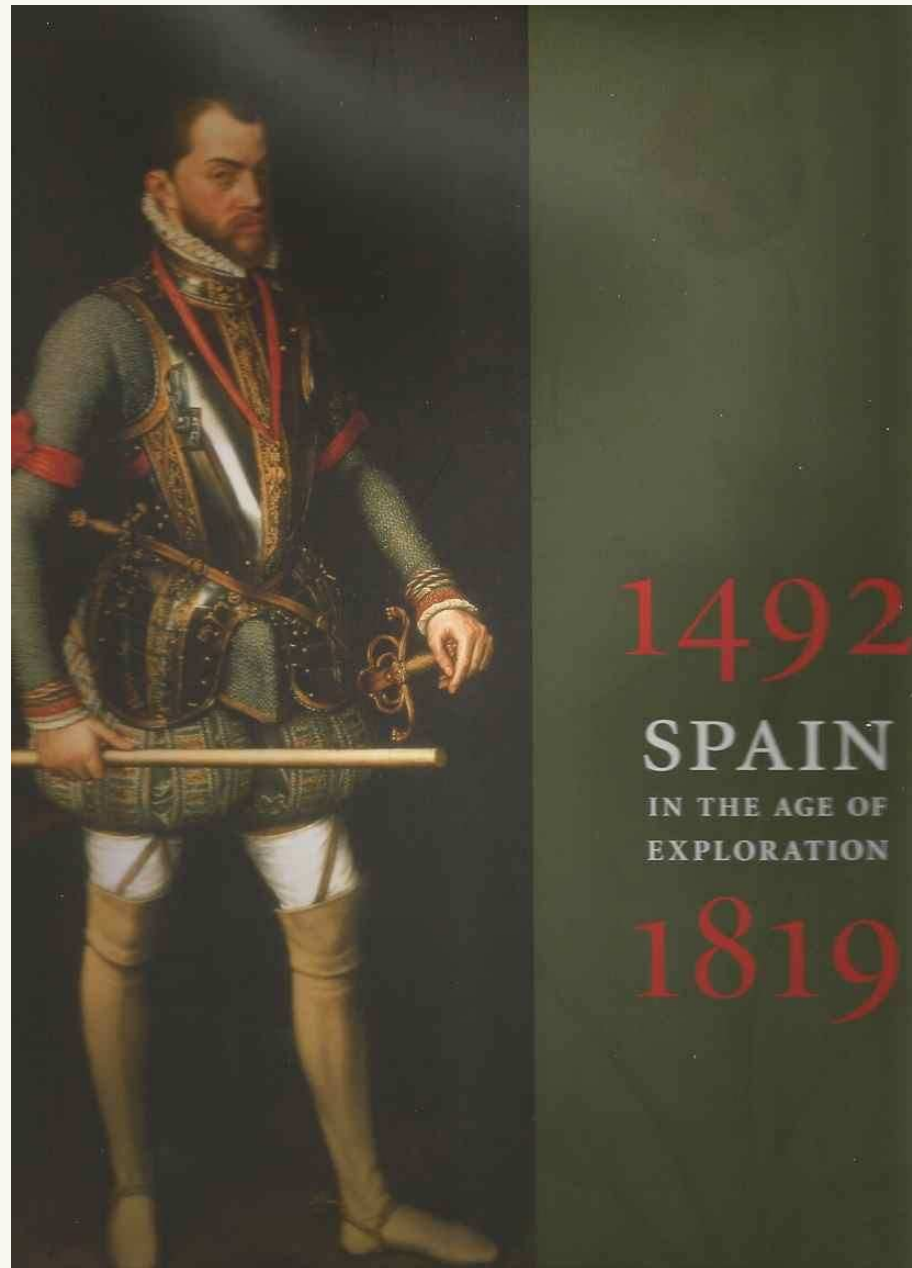
8.

Francisco de Goya:

*Carlos IV*

(1783)

# Art exhibition at Seattle Art Museum



# Carlos IV



# Carlos IV



“In 1803, concerned with the serious health problem posed by deadly smallpox epidemics, King [Carlos] IV organized and financed the first large-scale international public health operation. Known as the Royal Philanthropic Vaccine Expedition, it was the most fruitful of all the Enlightenment expeditions characteristic of the late eighteenth century. . . .”

# Diego Rivera: *Portrait of Ignacio Sanchez*



# ARCHIVES

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WWW.ARCHPEDIATRICS.COM

SEPTEMBER 2007



Paul Strand (1890-1976). *Boy, Uruapan*, Michoacan, Mexico, 1933. See page 826.

The Role of Health and Chronic Illness  
in Inpatient Care Experiences

*J. W. Mack, MD, MPH, et al*

Cluster Randomized Trial to Improve  
ADHD Treatment Outcomes

*J. N. Epstein, PhD, et al*

National Prevalence, Recognition, and Treatment  
of Attention-Deficit/Hyperactivity Disorder

*T. E. Froehlich, MD, et al*

Exposure to Smoking Depictions in Movies  
and Adolescent Smoking

*J. D. Sargent, MD, et al*

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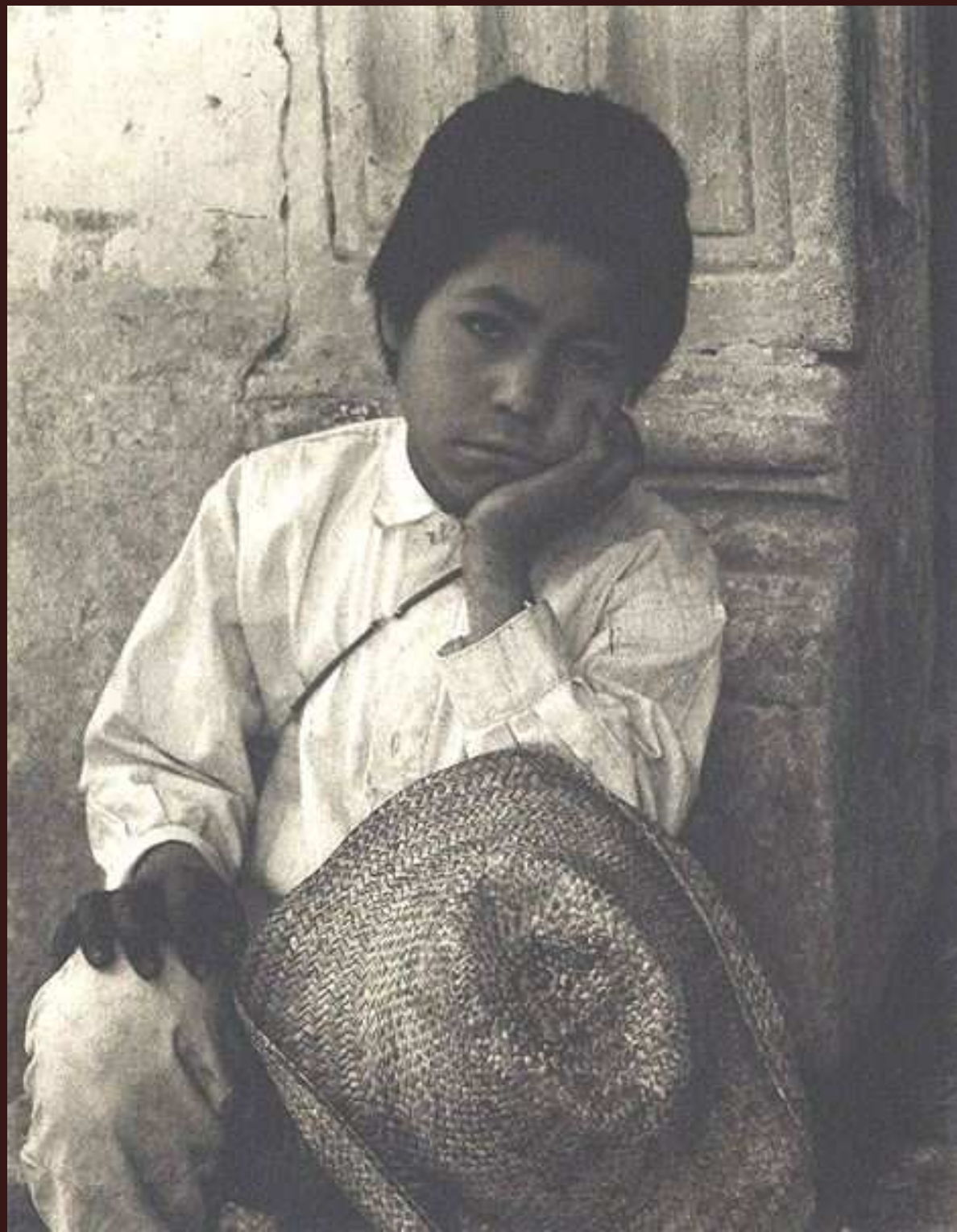
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JOURNALS  
American Medical Association

September, 2007

—

Paul Strand:  
*Boy, Uruapan*

















N. NA 3090



N. NA3090





N. NA 3090



Gulf of Mexico

CARIBBEAN SEA

PACIFIC OCEAN

SAN LUIS POTOSI

YUCATAN

QUINTANA ROO

CAMPECHE

TABASCO

BELIZE

CHIAPAS

GUATEMALA

HONDURAS

EL SALVADOR

NICARAGUA

SAN LUIS POTOSI

VERACRUZ

CIUDAD DE MEXICO

PUEBLA

OAXACA

Mérida

Cancún

Campeche

Chetumal

Villahermosa

Tuxtla Gutiérrez

BELMOPAN

S. SALVADOR

TEGUCIGALPA

MANAGUA

Lago de Nicaragua

LA HABANA  
Pinar del Río

San Luis Potosí

Guanajuato

Toluca

Chilpancingo

Acapulco

Poza Rica

Martínez de la Torre

Xalapa

Veracruz

Orizaba

Coahuila

Minatitlán

Villahermosa

Tuxtla Gutiérrez

GUATEMALA

S. SALVADOR

TEGUCIGALPA

MANAGUA

Lago de Nicaragua

LA HABANA  
Pinar del Río

San Luis Potosí

Guanajuato

Toluca

Chilpancingo

Acapulco

Poza Rica

Martínez de la Torre

Xalapa

Veracruz

Orizaba

Coahuila

Minatitlán

Villahermosa

Tuxtla Gutiérrez

GUATEMALA

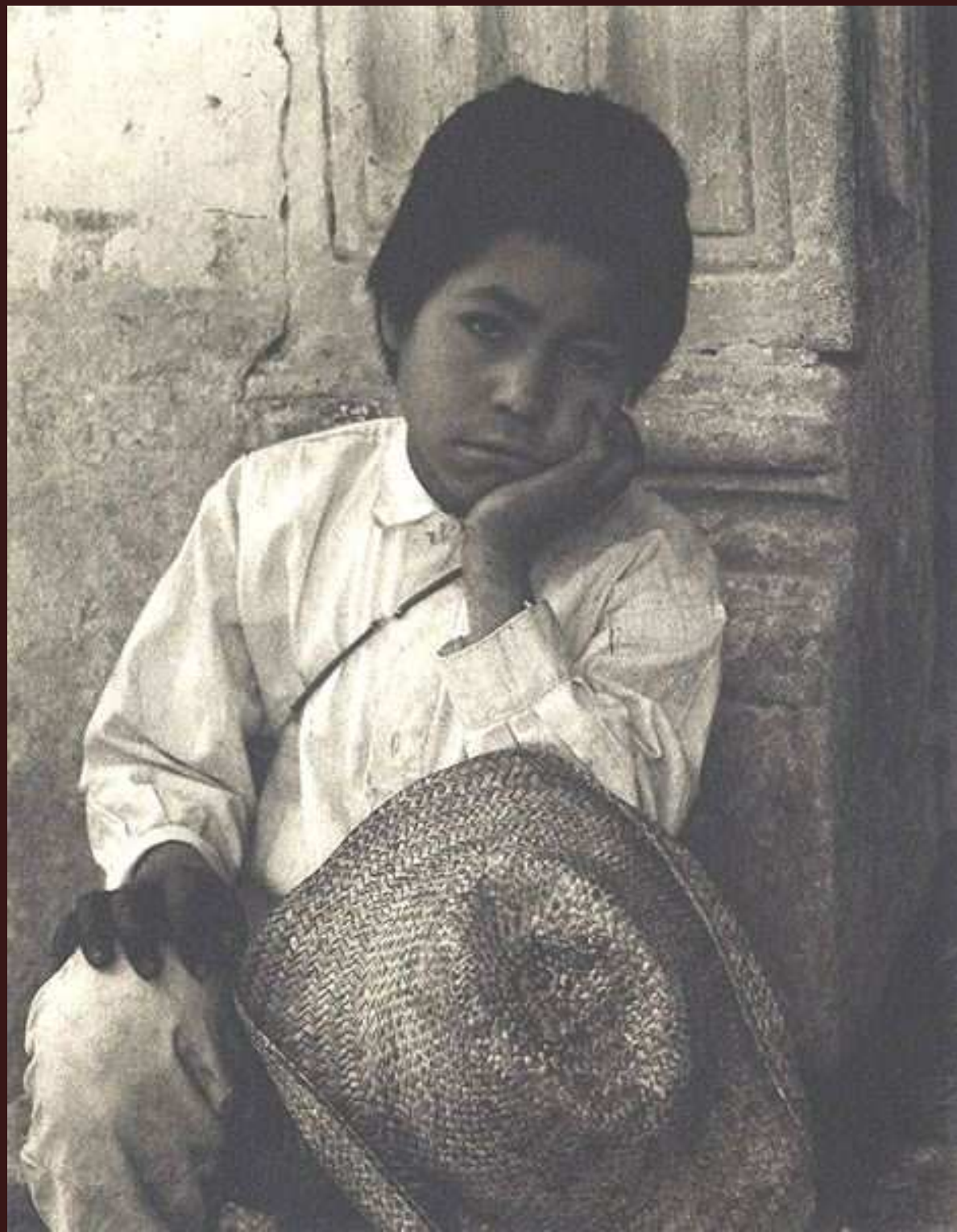
S. SALVADOR

TEGUCIGALPA

MANAGUA

Lago de Nicaragua

LA HABANA  
Pinar del Río



# Vaccine couriers' names

Vicente Ferrer, age 7

Martín, age 3

Tomás Metiton, age 3

Jose Jorge Nicolás de los Dolores, age 3

Francisco Antonio, age 9

Manuel Maria, age 6

Domingo Naya, age 6

Vicente Maria Sale y Vellido, age 3

Cándido, age 7

Gerónimo Maria, age 7

Benito Vélez, age unknown

Pascual Aniceto, age 3

Juan Francisco, age 9

Juan Antonio, age 5

Antonio Veredia, age 7

Clemente, age 6

José Manuel Maria, age 6

Andrés Naya, age 8

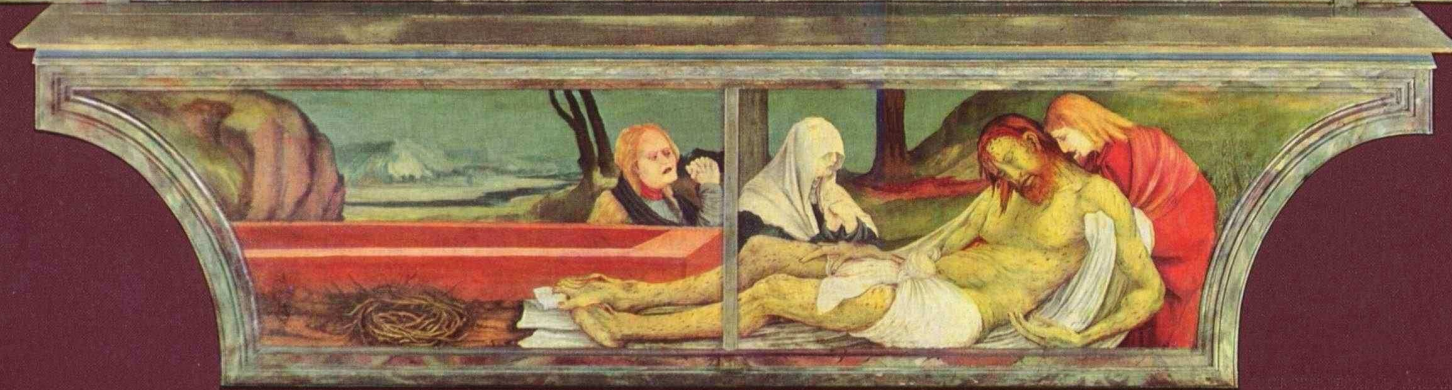
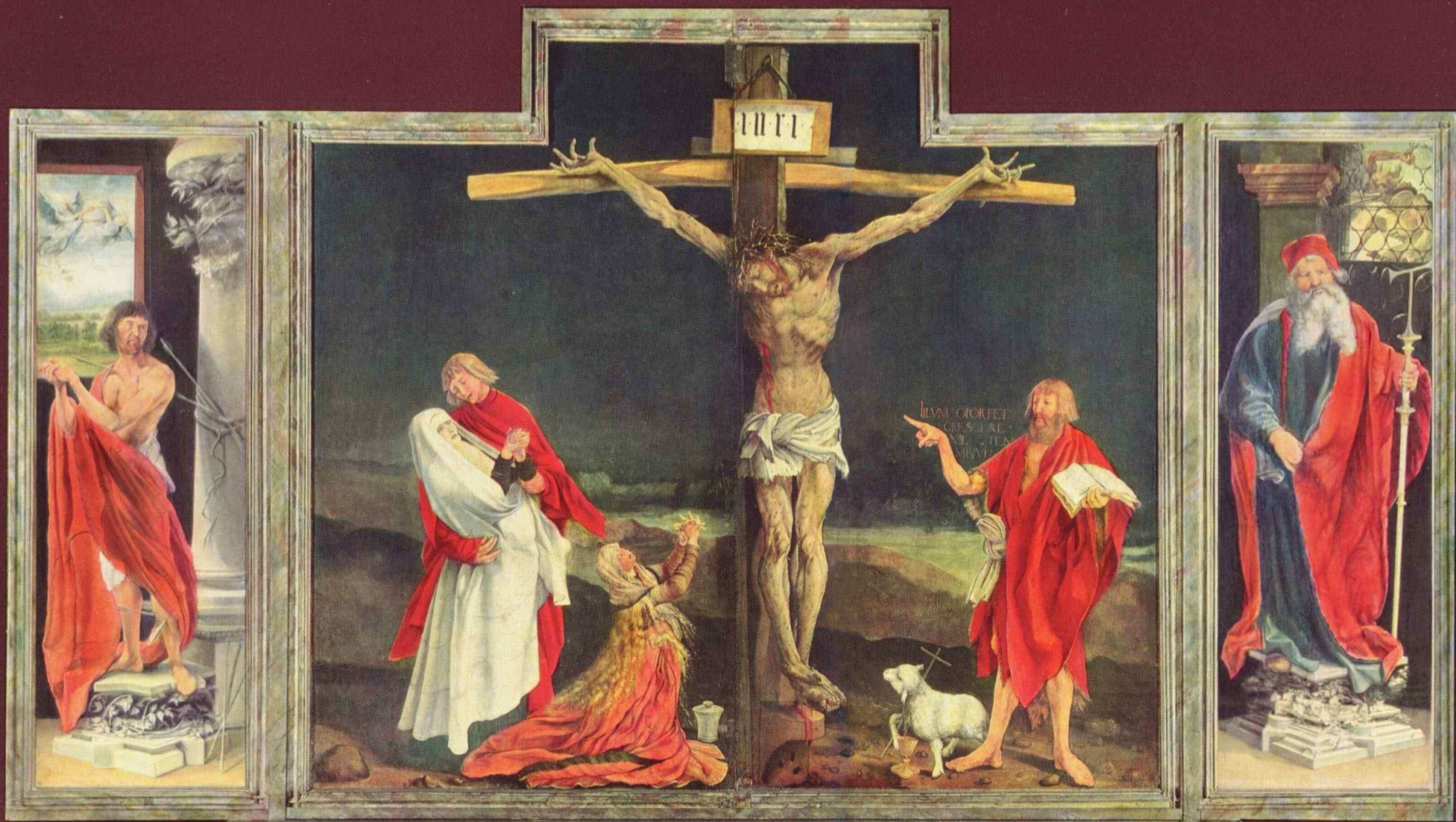
José, age 3

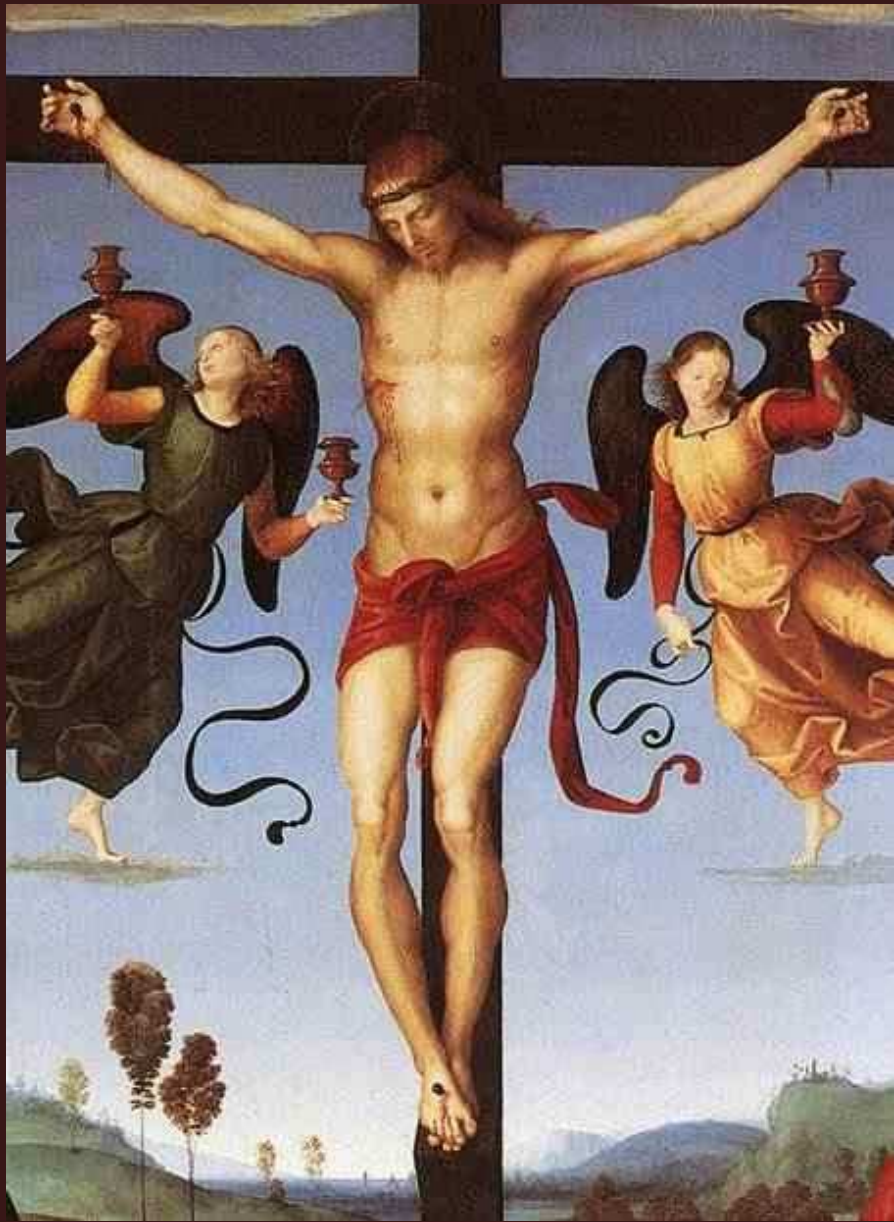
Francisco Florencio, age 5

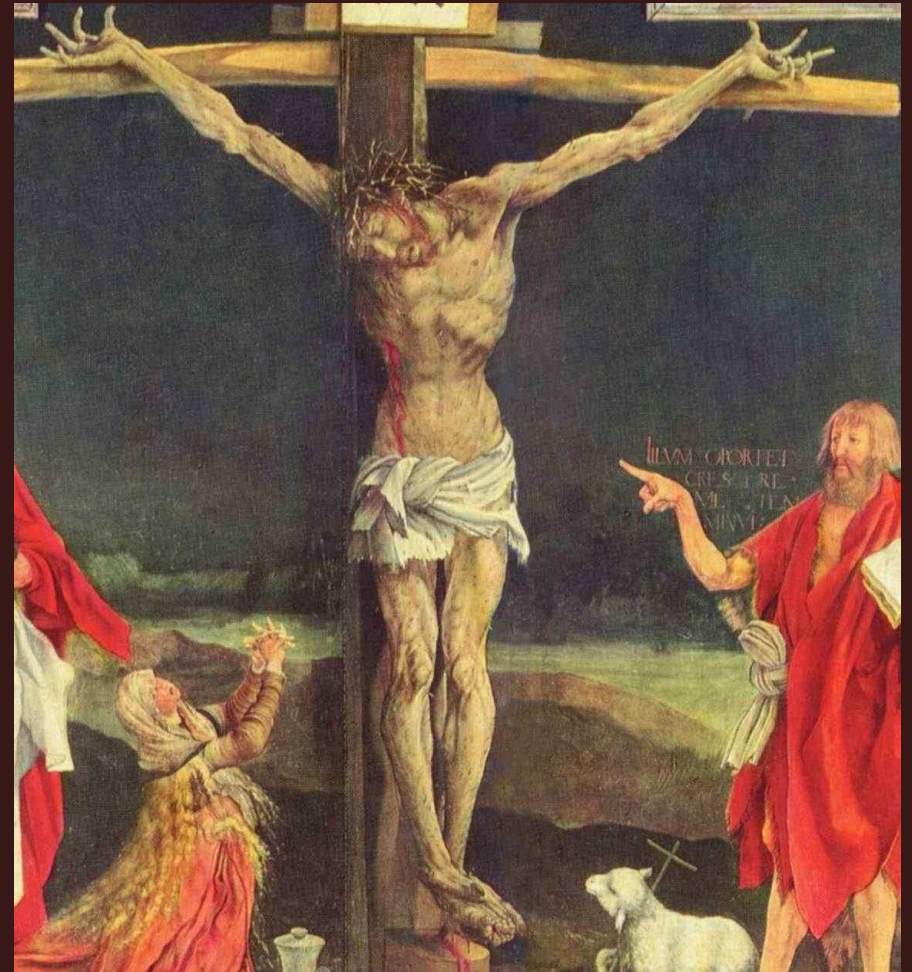
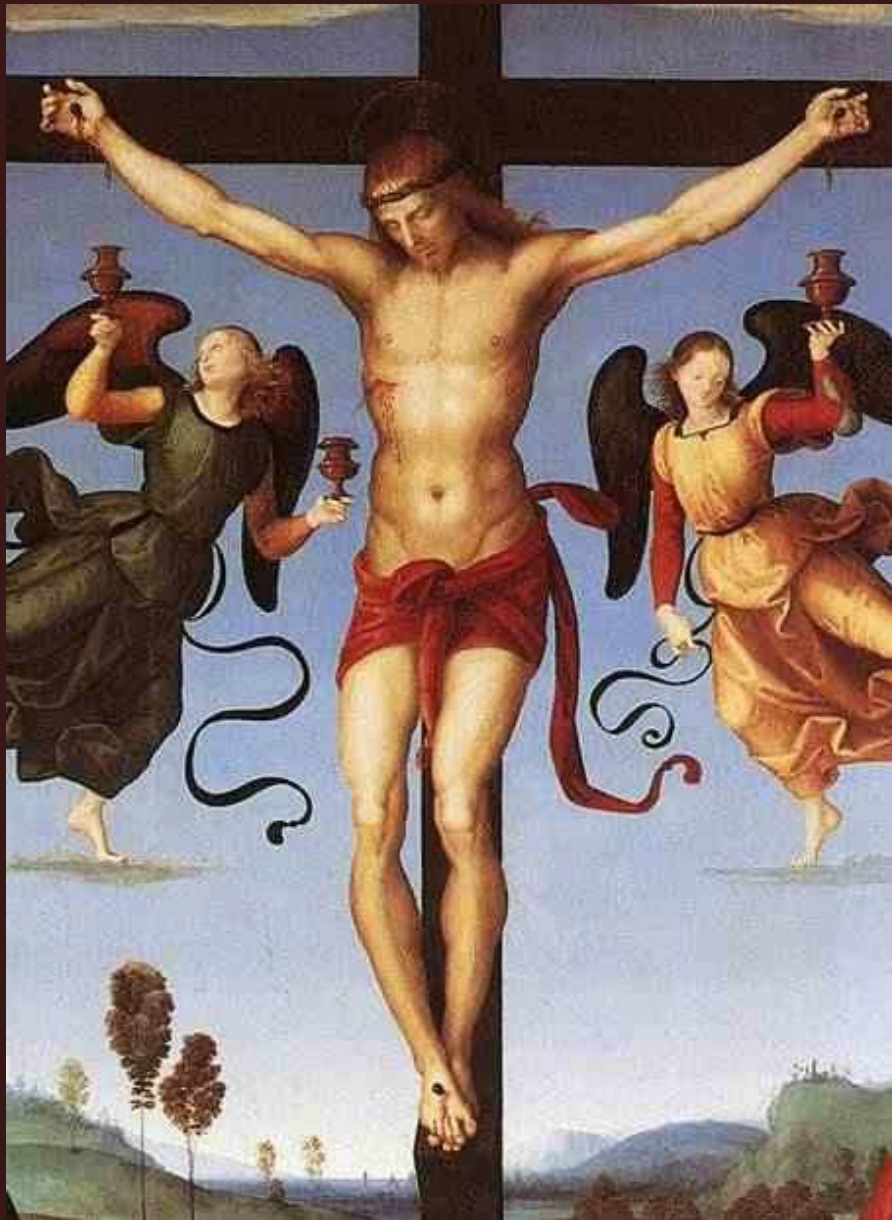
Jacinto, age 6

9.

Matthias Grünewald:  
*The Isenheim Altarpiece*  
(1506/15)

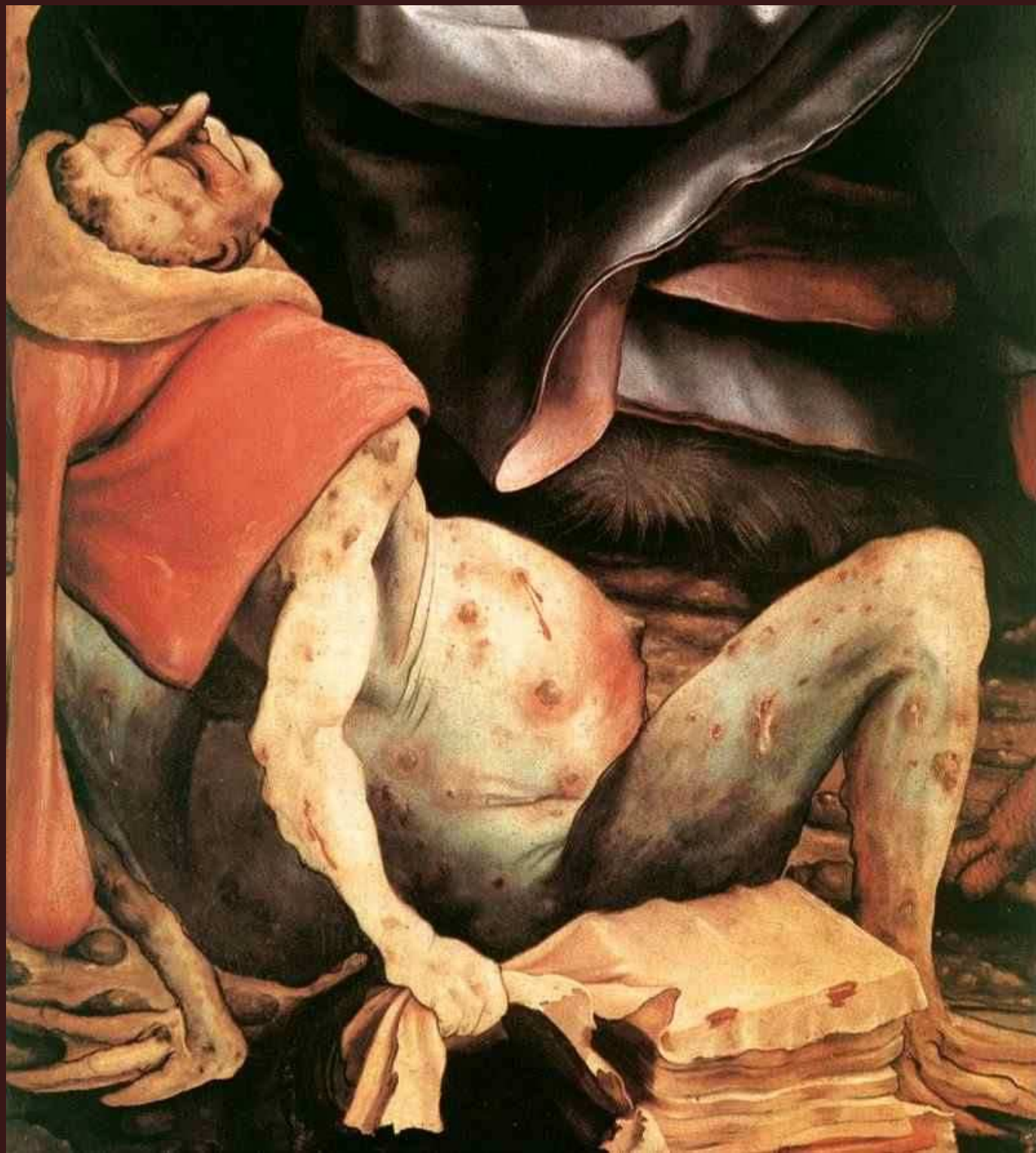












# St. Anthony's Fire

- Clinically horrible
  - Mental derangement: psychosis, dementia, seizures
  - Painful skin lesions
  - Dry gangrene
  - Death, often by suicide
- Outbreaks in Europe throughout recorded history



# Dr. Thuillier's observations in ~1670

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- Caregivers often spared, isolated people sometimes stricken
- Poor > rich
- Rural > urban
- More common in years with bad weather, poor crops



# Ergotism

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- Caused by ingesting sclerotia of *Claviceps purpurea*, a rye fungus
- Toxins include:
  - Ergot alkaloids, potent vasoconstrictors
  - Lysergic acid
- Sclerotia in soil germinate in spring, releasing millions of spores
  - Carried to rye blossoms by air currents and aboard water droplets in fog
  - Also spread from plant to plant by insects



10.

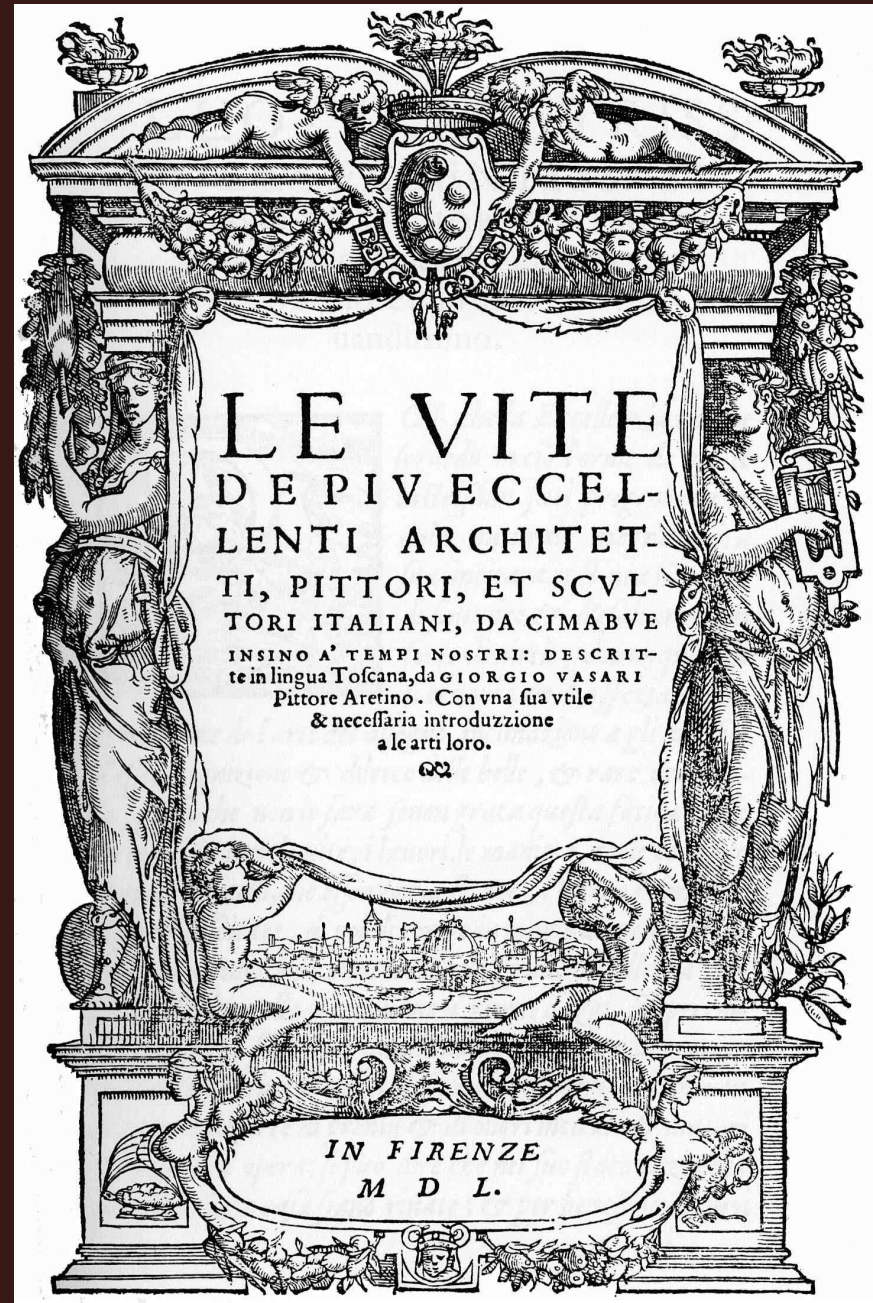
Andrea del Verrocchio:

*Baptism of Christ*

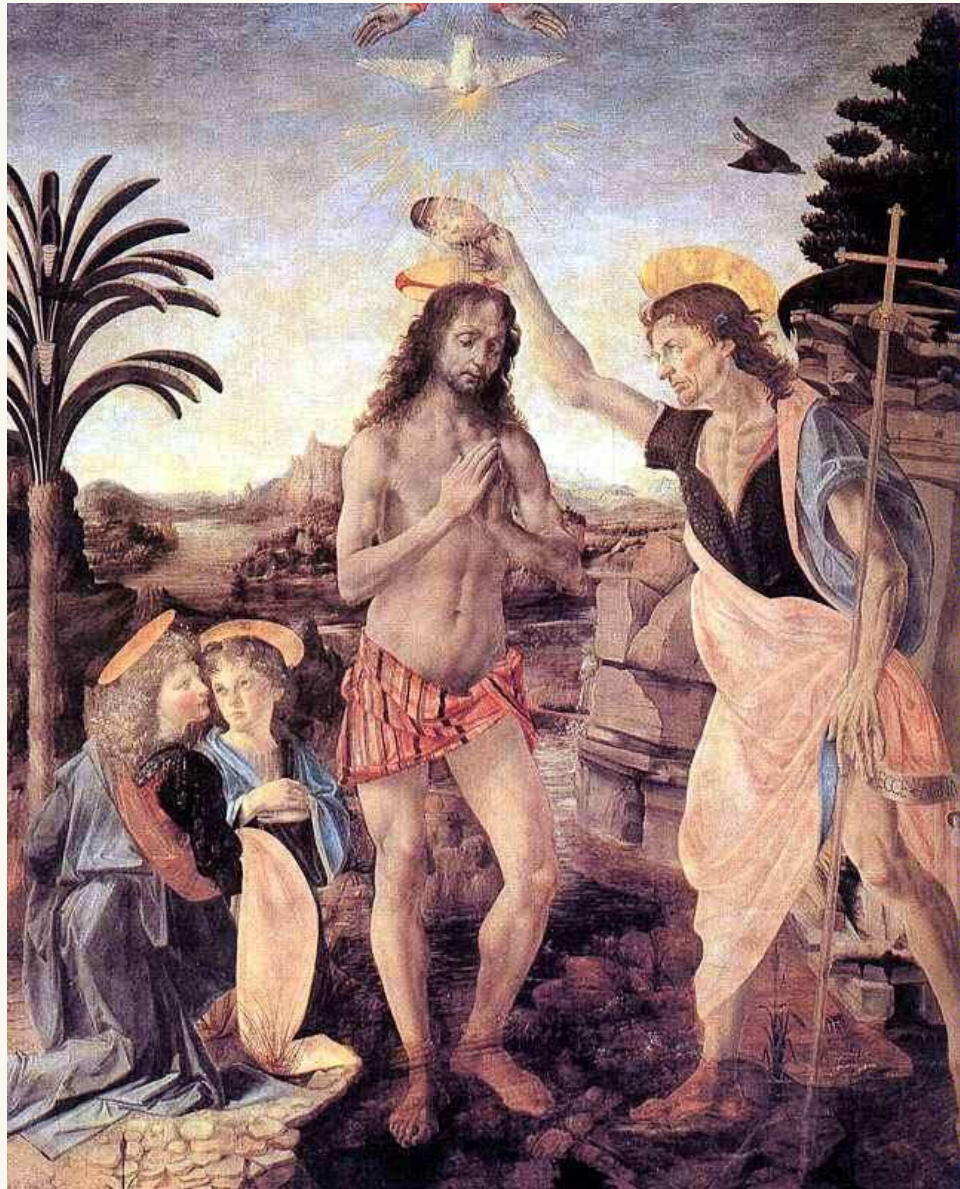
(1475)







# Vasari on Andrea del Verrocchio



“So shortly afterwards [Verrocchio] did another panel picture. . . showing the Baptism of Christ by St. John. In this work he was assisted by the young Leonardo da Vinci, who was then his pupil. The angel which Leonardo painted was so superior to the rest of the work that Andrea resolved he would never take up a brush again, seeing that the young Leonardo had shown himself to be a far better craftsman.”



# “Intellectual inheritance”

Fra Angelico



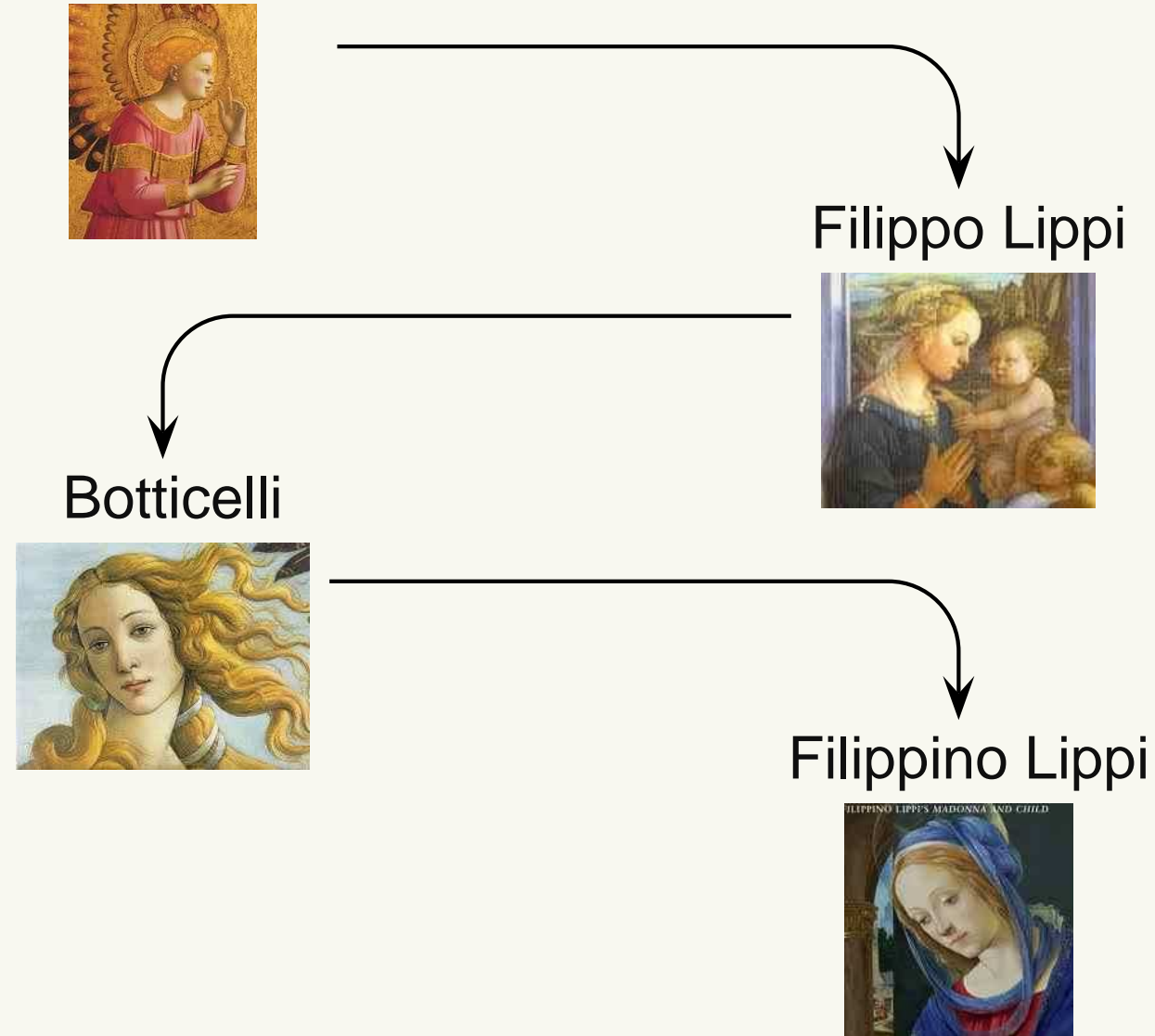
Filippo Lippi



Botticelli



Filippino Lippi



# Some connections between art and epidemiology

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- Life and death in epidemics

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- Bearing witness



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- Life and death in epidemics
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- Elements of good craftsmanship
- Intellectual inheritance



The End