An Epidemiologist Looks at Art

Tom Koepsell
January 30, 2012
Art History Project
<table>
<thead>
<tr>
<th>Year</th>
<th>Century</th>
<th>Art eras and movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>15th</td>
<td>Renaissance</td>
</tr>
<tr>
<td>2003</td>
<td>16th</td>
<td>High Renaissance, mannerism, early baroque</td>
</tr>
<tr>
<td>2004</td>
<td>17th</td>
<td>Baroque</td>
</tr>
<tr>
<td>2005</td>
<td>18th</td>
<td>Rococo, romanticism, early American art</td>
</tr>
<tr>
<td>2006</td>
<td>19th</td>
<td>Romanticism, impressionism &amp; post-impressionism</td>
</tr>
<tr>
<td>2007</td>
<td>20th</td>
<td>Abstract art, many -isms: cubism, dadaism, surrealism, expressionism...</td>
</tr>
</tbody>
</table>
Activities

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

expose yourself to 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
OXycodone vs Placebo in Children with Undifferentiated Abdominal Pain

THE CLINICAL SIGNIFICANCE OF ASYMPTOMATIC GROSS AND MICROSCOPIC HEMATURIA IN CHILDREN

COMPLETE TABLE OF CONTENTS ON PAGE 317

Mary Cassatt (1844–1926), shown cradling her son, was a luminous example of an artist who made her mark on the art world through her commitment to her craft.

Cover Art

No doubt the world of art was a driving force behind Cassatt's rise to fame. Her work has since become an inspiration to many, inspiring countless artists to pursue their passions.

Thomas D. Keppel, MD, MPH

Dr. Raul (1920–2002) made his mark in the field of pediatrics, particularly in his work with children in Africa. He founded a hospital in Zaire, which was named after him.

The story of Mary Cassatt's life and work is one of dedication, resilience, and artistic prowess. Her legacy continues to inspire artists and art lovers around the world.
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
“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)
4. Albrecht Dürer: 
*Proportions of an Infant* 
(ca. 1528)
De Symmetria: Lib. III.

In haec facies, lineae eae:

In haec externa, lineae eae:

In haec facies externa, lineae eae:

Cerqua in haec externa, lineae eae:
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 Adam

Creation of Eve

Sacrifice of Noah

Expulsion from Garden of Eden

Deluge

Drunkenness of Noah
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
• 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
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 headscarf
  - Level-2 bullets: Beige head scarf
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*
8. Francisco de Goya: *Carlos IV* (1783)
Art exhibition at Seattle Art Museum

1492
SPAIN
IN THE AGE OF EXPLORATION
1819
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*
September, 2007

—

Paul Strand: 

Boy, Uruapan
<table>
<thead>
<tr>
<th>Vaccine couriers’ names</th>
</tr>
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<tbody>
<tr>
<td>Vicente Ferrer, age 7</td>
</tr>
<tr>
<td>Martín, age 3</td>
</tr>
<tr>
<td>Tomás Metiton, age 3</td>
</tr>
<tr>
<td>Jose Jorge Nicolás de los Dolores, age 3</td>
</tr>
<tr>
<td>Francisco Antonio, age 9</td>
</tr>
<tr>
<td>Manuel Maria, age 6</td>
</tr>
<tr>
<td>Domingo Naya, age 6</td>
</tr>
<tr>
<td>Vicente Maria Sale y Vellido, age 3</td>
</tr>
<tr>
<td>Cándido, age 7</td>
</tr>
<tr>
<td>Gerónimo Maria, age 7</td>
</tr>
<tr>
<td>Benito Vélez, age unknown</td>
</tr>
<tr>
<td>Pascual Aniceto, age 3</td>
</tr>
<tr>
<td>Juan Francisco, age 9</td>
</tr>
<tr>
<td>Juan Antonio, age 5</td>
</tr>
<tr>
<td>Antonio Veredia, age 7</td>
</tr>
<tr>
<td>Clemente, age 6</td>
</tr>
<tr>
<td>José Manuel Maria, age 6</td>
</tr>
<tr>
<td>Andrés Naya, age 8</td>
</tr>
<tr>
<td>José, age 3</td>
</tr>
<tr>
<td>Francisco Florencio, age 5</td>
</tr>
<tr>
<td>Jacinto, age 6</td>
</tr>
</tbody>
</table>
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
Dr. Thuillier’s observations in ~1670

- Caregivers often spared, isolated people sometimes stricken
Dr. Thuillier’s observations in ~1670

- Caregivers often spared, isolated people sometimes stricken
- Poor > rich
Dr. Thuillier’s observations in ~1670

- Caregivers often spared, isolated people sometimes stricken
- Poor > rich
- Rural > urban
Dr. Thuillier’s observations in ~1670

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

- Caused by ingesting sclerotia of *Claviceps purpurea*, a rye fungus
Ergotism

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- Toxins include:
  - Ergot alkaloids, potent vasoconstrictors
  - Lysergic acid
Ergotism

- 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)
“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

Botticelli

Filippo Lippi

Filippino Lippi
Some connections between art and epidemiology
Some connections between art and epidemiology

- Life and death in epidemics
Some connections between art and epidemiology

- Life and death in epidemics
- Bearing witness
Some connections between art and epidemiology

- Life and death in epidemics
- Bearing witness
- Guiding behavior
Some connections between art and epidemiology

- Life and death in epidemics
- Bearing witness
- Guiding behavior
- Design of visual communications
Some connections between art and epidemiology

- Life and death in epidemics
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- Design of visual communications
- Elements of good craftsmanship
Some connections between art and epidemiology

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- Intellectual inheritance
The End