History of photography (part 1): age of portraits

CS 178, Spring 2010



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Outline

- invention of photography
- daguerreotypes and the age of portraits
- → more in later lectures...

Nicéphore Niépce (1765-1833)

◆ first photographic image



View from the window at Le Gras, 1826



- bitumen on pewter plate
- 8-hour exposure

→ painter

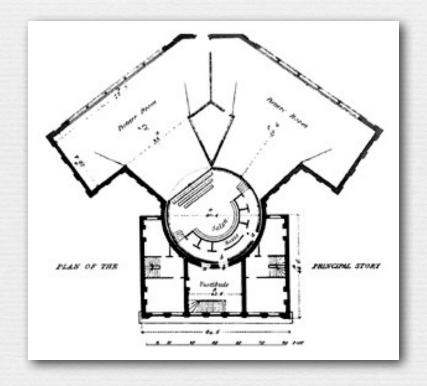


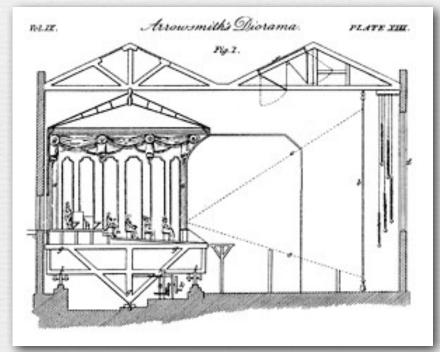




→ inventor of the diorama







Diorama in Regent's Park, London, 1823





modern diorama at the American Museum of Natural History

◆ the daguerreotype





- silver halide on polished metal
- no negative, so cannot reproduce
- tone reversal unless lit carefully

(Newhall)

Still life, 1837

◆ the daguerreotype





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(Newhall)

Still life, 1837

William Talbot (1800-1877)

→ the calotype



Latticed window at Lacock Abbey, 1835



- paper impregnated with silver chloride
- fading arrested with hyposulfite of soda ("hypo")
- negative, so allows any number of positive prints
- name "photography" suggested by F. W. Herschel

The daguerreotype portrait



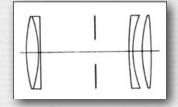
making a daguerreotype, 1843

The formula I gave in class for computing the Fnumber of pre-Petzval lenses was wrong. I stated that Petzval lenses were f/3.7. I also said that Petzval's 20x is about 4 doublings of light, hence about 4 f/stops. These facts are correct. Starting from this number, the correct formula for the pre-Petzval lenses is 3.7 x sqrt(20) = f/16.5.

- sitter's head stabilized with a metal brace
- hands clenched to avoid movement

(Ros

Petzval's lens (1840)
 reduced exposure time 20×



• exposure still long, typically 5-8 seconds

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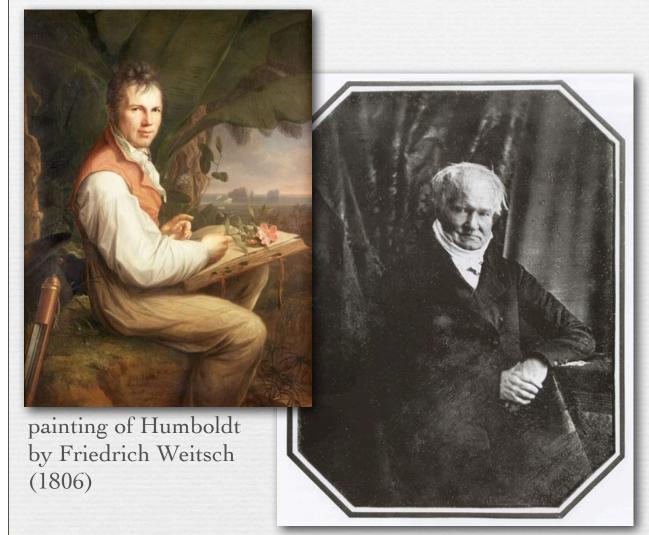
The daguerreotype portrait



(Rosenblum)

Gustav Oehme, Three Young Girls, c. 1845

Pop quiz - who are these people?

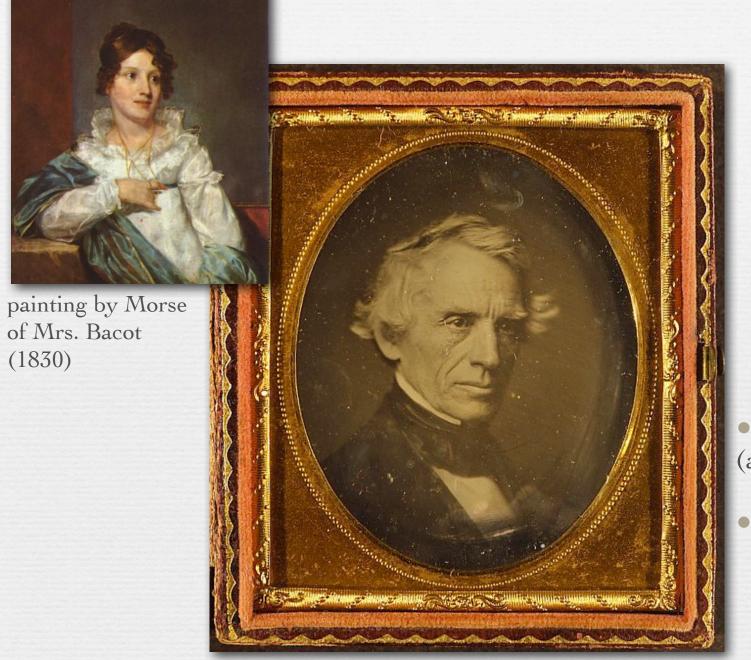


(Rosenblum)

- naturalist and explorer of Central and South America
- father of modern meteorology
- magnetic declination,
 igneous origin of rocks, etc.

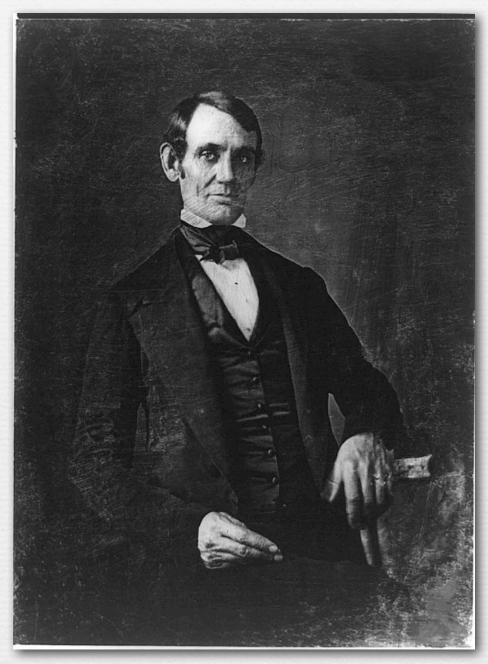
Alexander von Humboldt, 1847

(photograph by Hermann Blow)

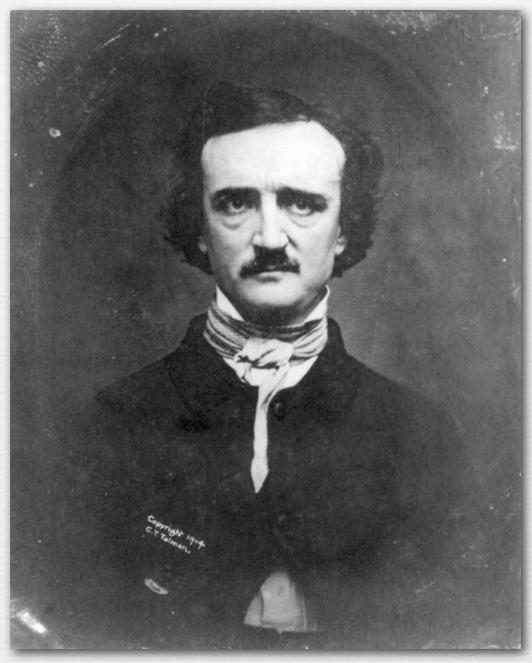


- inventor of telegraph (and Morse code)
- painter

Samuel Morse, ca. 1845

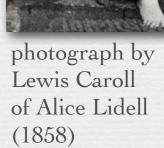


Abraham Lincoln, c. 1846 (photograph by Nicholas Shepherd)



Edgar Allen Poe, 1848 (photograph by W.S. Hartshorn)

(Rosenblum)





Lewis Caroll, 1863 (photograph by Oscar Rejlander)

- mathematician and author of children's books (Alice in Wonderland)
- albumen print (from here on)

(Rosenblum)



Sarah Bernhardt, 1865

(photograph by Gaspard Tournachon)

• most famous actress of the 19th century ("divine Sarah")



Slide credits

- Newhall, B., The History of Photography, Little, Brown & Co., 1982.
- Rosenblum, N., A World History of Photography (4th ed.), Abbeville Press, 2007.
- ♦ http://wikipedia.org

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