History of photography (part 1):
age of portraits

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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
Louis Daguerre  (1787-1851)

♦ painter

The Effect of Fog and Snow Seen through a Ruined Gothic Colonnade, 1826
Louis Daguerre (1787-1851)

- inventor of the diorama

Diorama in Regent’s Park, London, 1823
Louis Daguerre (1787-1851)

modern diorama at the American Museum of Natural History
Louis Daguerre (1787-1851)

- the daguerreotype

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

Still life, 1837

(Newhall)
Louis Daguerre (1787-1851)

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Still life, 1837

(Newhall)
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

- sitter’s head stabilized with a metal brace
- hands clenched to avoid movement
- Petzval’s lens (1840) reduced exposure time 20×
- exposure still long, typically 5-8 seconds

The formula I gave in class for computing the F-number of pre-Petzval lenses was wrong. I stated that Petzval lenses were f/3.7. I also said that Petzval’s 20× 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 × sqrt(20) = f/16.5.
The daguerreotype portrait

Gustav Oehme, Three Young Girls, c. 1845

(Rosenblum)
Pop quiz - who are these people?

- 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)
Samuel Morse, ca. 1845

- inventor of telegraph (and Morse code)
- painter

painting by Morse of Mrs. Bacot (1830)

Samuel Morse, ca. 1845
Abraham Lincoln, c. 1846

(photograph by Nicholas Shepherd)
Edgar Allen Poe, 1848
(photograph by W.S. Hartshorn)
photograph by Lewis Caroll of Alice Lidell (1858)

Lewis Caroll, 1863
(photograph by Oscar Rejlander)

• mathematician and author of children’s books (Alice in Wonderland)
• albumen print (from here on)
Sarah Bernhardt, 1865
(photograph by Gaspard Tournachon)

- most famous actress of the 19th century ("divine Sarah")
Julia Jackson, 1867
(photograph by Julia Margaret Cameron)

• mother of author Virginia Woolf

Virginia Woolf
Slide credits

- http://wikipedia.org