The Photography Collection
The Nelson-Atkins Museum of Art

A Resource Manual for Docents

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Key Gallery Messages

Viewers will gain a general understanding, and appreciation, of the history of photography, with specific focus on:

a. The medium’s leading individual practitioners and the meaning/importance of their work
b. The medium’s major expressive or stylistic movements: its relation to other artistic and historical trends, and its role in giving visual expression to collective values and ideas
c. Contemporary trends
d. The medium’s technical evolution and expressive syntax (or ‘visual language’)  
e. New discoveries: significant artists or works that have not been widely familiar.

Foundational Principles

1. From its invention in 1839, photography has been woven deeply into the fabric of everyday life, with applications in commerce, journalism, science, amateur record making, and art. The camera has profoundly shaped the nature of our cultural memory, and has functioned as a paradigm for our modern notions of (and uncertainties about) fact, objectivity and truth.

2. The message of photographs is a multi-faceted combination of aesthetics and history, interpretation and information. Photographs embody the creative ideas of individual photographers as well as the shared “climate of ideas” within which all artists of a given era work. They radiate references and meaning to matters of biography, sociology, and psychology, and to all facets of history (artistic, intellectual, and social).

3. Fine photographs are image-objects with very particular physical characteristics and histories. Most vintage photographs exist in surprisingly small numbers; they are far rarer than the medium’s apparently “democratic” nature would lead us to suspect. Photographs exist in a variety of states (vintage, modern, posthumous, etc): basic standards of connoisseurship require that we emphasize notions of originality and object-quality.

4. Photography is at once a relatively old and vitally new medium. New discoveries of significant historical works and artists are still being made, as are fresh interpretations of seemingly familiar artists or movements. Many 19th century photographs have a boldness of vision that is easily recognizable as relevant to “modern” concerns. At the beginning of the 21st century, the medium is evolving steadily, becoming increasingly hybridized with digital and electronic processes. Photography is a medium with a long and distinguished history that continues to surprise and challenge us.
History of the Photography Collection at The Nelson-Atkins Museum of Art

The Museum’s photography collection is of international importance. In its breadth, depth, and overall quality, this 7,500-piece holding is matched by only a handful of the largest museums in the United States.

The Nelson-Atkins has long had an interest in photography. The collection was started in 1957 with a superb gift of 60 Edward Weston prints. In subsequent years, private collectors have donated a variety of notable works to the collection. In addition, a number of artists and estates—including David Douglas Duncan, Bruce West, the Harold and Esther Edgerton Family Foundation, the Bequest of Ilse Bing Wolff, the Estate of John W. Gutowski, and the Hall Family Foundation—have donated significant groups of prints.


In December 2005, the Nelson-Atkins was able to acquire the Hallmark Photographic Collection through the generosity of the Greater Kansas City Community Foundation and Hallmark Cards, Inc. Begun in 1964, the collection, with over 6,500 photographs, represents one of the world’s finest private holdings of photographs. With a primary focus on American photography, the collection provides a truly panoramic vision of its subject, from the invention of the medium in 1839 to the present. With the addition of the Hallmark collection, the Museum established an independent Department of Photography.

The Hallmark collection was the product of a sustained and deliberate collecting strategy. A key facet of this strategy was the focus on rare individual masterpieces. A significant number of the collection’s most notable works are one-of-a-kind objects: the only known vintage exhibition prints in existence. These
unique works include Charles D. Fredrick's *Photographic Temple of Art, Broadway, New York*, ca. 1857; William A. Fraser's *A Wet Night, Columbus Circle*, ca. 1897-98; Alvin Langdon Coburn's *House of a Thousand Windows*, 1912; Morton Schamberg's *Untitled (Cityscape)*, 1917; Paul Outerbridge's *Saltine Box*, 1922, and numerous others. A number of other superb prints in the collection are known to exist in editions of less than five examples. Another key collecting strategy was the acquisition of selected bodies of work in depth, in order to present a “definitive” vision of individual artistic styles. A third guiding strategy aimed to expand our knowledge of American photography by celebrating the best works by previously little-known artists.

The collection begins with one of the world’s largest and finest holdings of American daguerreotypes, the first successful photographic technique. All the major photographers of the day are included in this holding, from the Boston team of Southworth & Hawes to Robert H. Vance, in San Francisco. The daguerreotype presents a brilliant mirror of mid-nineteenth-century American life, and all the key themes or genres—from occupational portraits to outdoor views, Gold Rush images, and artistic and allegorical works—are well represented. The collection is also relatively strong in early paper photography of the 1850s, Civil War images of 1861-65, and works by the pioneering landscape photographers of the 1860s-1880s. The other notable works from this era include a pristine copy of *The Arctic Regions* (1873), a weighty album of original photographs made in 1869 by the Boston team of Dunmore & Critcherson.

Recent gifts from the Hall Family Foundation have begun to add a critically important new element to the collection: early European photographs. These welcome new additions include exquisite works by such major British photographers as William Henry Fox Talbot, Roger Fenton, and Peter Henry Emerson, and by such leading French artists as Gustave Le Gray, Charles Negre, Charles Marville, Edouard Baldus, Eugene Cuvelier, Désiré Charnay, and others.

Every important movement and theme in 20th century photography is well represented in the collection, from the refined aestheticism of the Pictorialist era (1890-1915), to the High Modernist and European “New Vision” works of the 1920s, the classic social documentary images of the 1930s, and the poetic introspection of the best work of the 1950s. In addition to works created in the name of art, the applied genres of fashion, portraiture, and photojournalism are also represented in the work of figures such as Edward Steichen, Richard Avedon, Irving Penn, W. Eugene Smith, and Arnold Newman. The major artistic approaches from the 1960s onward—including the influences of Pop Art, conceptual and performance art, and Postmodernism—are extensively surveyed. The collection reaches into the 21st century with works created with the aid of digital technologies.

The highlights of this overall collection are documented in two key books: *An American Century of Photography: From Dry-Plate to Digital* (Abrams, 1999), and *The Origins of American Photography, From Daguerreotype to Dry-Plate, 1839-1885* (Yale University Press, 2007).
General Photography History

Photography is a particular process of producing images on light-sensitive surfaces. The magic of an image represents the translation of what a photographer is thinking visually. Photographs do much more than just "record" reality. They represent both what may be seen with the naked eye, and subjects and effects that we can't necessarily see or perceive. Good photography is about picture making. Good pictures are the result of many decisions: where to put the camera, what lens to use, what point of view to take, the amount of exposure, etc.. The subject may or may not be secondary to this process, but it is always transformed in the act of image-making. It is the interpretation, what the photographer is thinking in visual terms, that makes a good photograph.

A photograph is more than just an image; it is a tangible object. Photographs convey a broad range of meanings, shaping not only our notion of documented fact but also serving as a vehicle for commercial persuasion. The tools a photographer uses are very important: each tool presents a different set of interpretive possibilities. Every period in photographic history has its own set of tools and possibilities. All of these choices have an effect on the nature and meaning of the resulting photograph. The addition of the viewer's own interpretive ideas adds another layer of meaning. It is important to note that the process of photography did not begin crude and get better. From the very beginning of photographic history there has been a wealth of master practitioners, who were pioneers both technologically and artistically.

The Beginning

Photography was invented in the late 1820's. Photographic history follows two lines of investigation; one path focuses on the understanding of light and lenses, while the other path focuses on the chemical preservation of these images. The two lines of investigation intersect in the 19th century with chemical discoveries that made photography possible. The first path starts with the use of the camera obscura. Dating to the 16th century, the camera obscura consists of a light-tight box fitted with an aperture (or lens) at one end. Inside, at the opposite end of the box is a mirror set at a 45-degree angle. The mirror projected an image up onto a ground glass screen on the top of the box, where it could be sketched on
translucent paper. Photography itself was invented (at least) three times by three distinct figures: Joseph Nicephore Niépce, Louise Jacques Mande Daguerre and William Henry Fox Talbot.

**Joseph Nicephore Niépce** was intent on finding a way to replicate images. He began a series of experiments using light sensitive compounds on metal plates. Using the camera obscura he eventually created a photograph in ca. 1827 depicting the view from a back window in his house looking out over the roof tops to the landscape just beyond. Niépce called his process **heliography**. The image was faint in tone, but very highly detailed and permanent. The process, however, was far from practical, as it required an exposure time of about four to five days.

**Louise Jacques Mande Daguerre** was a showman and entrepreneur. He made his living with a theatrical experience known as the **diorama**, using huge paintings and mirrors with different light sources to manipulate the perception of time. Daguerre’s attempts to fix images through the use of the camera obscura grew quite logically out of his theatrical display. He began his own series of experiments independent of Niepce.

Niépce and Daguerre eventually met and forged a partnership in 1829. Their experiments yielded a photographic process that resulted in much shorter exposure times and images with stronger tones. With Niépce’s untimely death in 1833, Daguerre continued their experiments. His **daguerreotype** utilized a completely new process and one that was radically superior to their earlier efforts. The new technique used a copper plate coated with a thin layer of silver. After chemical sensitization, this was placed in a camera obscura and exposed for several minutes. The resulting image was a **direct positive**: each daguerreotype is one of a kind, like a modern Polaroid. The daguerreotype featured a highly polished, mirror-like surface and captured minute details.

**William Henry Fox Talbot** was an English scholar and a scientist. Around 1834, he began his own experiments using light-sensitive materials. Working with the principle of the camera obscura, Talbot made small cameras with big lenses (that his wife called his “mousetraps”). He exposed chemically sensitized paper pinned to the back of the camera to light, creating **negatives** (images with reversed tonalities: the bright sky is black, dark shadows are clear, etc.) on paper. His later refinement of this process resulted in the **calotype** technique (the term technically refers to his paper negative). From the beginning of his experiments, Talbot understood the value of a negative that could be used to produce positive paper prints in multiple. He continued to experiment with different processes and techniques throughout his life.
19th Century Photography—The Daguerreotype and Early Paper

In 1839, the headline of the New Yorker heralded the invention of the daguerreotype declaring, “Wonderful Wonder of Wonders! Here is a revolution in Art!” For twenty years, the daguerreotype was the dominant photographic process. Purchased from Daguerre by the French government, the technology was given free to the world—except to England.

By 1840, the process was on every continent. It was enormously popular in America. By 1843, daguerreotype studios were open in every major American city, such as the studios of Southworth and Hawes and John Whipple in Boston. Itinerant photographers traveled the nations back roads and by 1845 commercial portraiture had become an enormous business.

The vast majority of surviving daguerreotypes are studio portraits. The range of daguerreian portraiture includes individuals and families, celebrities, occupational images, post mortems (or death portraits), and more. To make a good studio portrait required an eye for graceful poses, the ability to use props with taste and a good understanding of light. Amazingly, ninety-five percent of daguerreotypes are by unknown makers. Daguerreotypes depict almost every facet of American life—although not as common as portraits, many outdoor views were created. They represent a democratization of society, documenting an enormously broad socio-economic stratum. By 1860, however, the one-of-a-kind daguerreotype had largely disappeared, replaced by the paper photograph.

Talbot’s early paper process was used by relatively few photographers at first—the public had a far greater interest in the brilliant tones of the daguerreotype. By the late 1840s, however, the calotype paper-negative process was growing in popularity. The calotype technique was particularly valued by artists, because they could alter the tones of the final print by careful retouching (in pencil or watercolor) on the paper negative. By the mid 1850’s, however, the paper negative was largely replaced by the glass negative and a new chemical process. The wet-collodion technique utilized a glass negative coated with an emulsion that had to be exposed and developed while damp. This innovation allowed photographs to be made in larger sizes, in greater quantities and at lower costs. Photographers such as Gustave Le Gray and many others made brilliant use of this new process.

New applications and formats were spawned as a result of new techniques. Beginning in the 1850s, the ambrotype, tintype, stereography, carte de visite and cabinet cards came into existence. These new formats created expanded commercial opportunities, particularly for celebrity photographs and scenic views. As the commercial
possibilities for photography expanded, other applications emerged in science, publishing and advertising.

The golden age of expeditionary and documentary photography began in the 1850s. Photographers such as J. B. Greene, Felix Teynard and many others begin to travel the globe, photographing such exotic locations as Egypt, Greece, Mexico, and the Arctic. In France, **Edouard Baldus** was commissioned by the government to document the country’s architectural history. On the home front, American photographers were striving to capture familiar views of cities, emphasizing commerce and tourist attractions. A new appreciation for the national landscape also began to develop: photographs were made from the White Mountains of New England to the Yosemite Valley in California. But the outbreak of the Civil War interrupted exploration of the west.

### 19th Century War and Documentary Photography

Prior to the Civil War, photography had been used to document several other conflicts such as the Mexican-American War, the Second Burma War and the Crimean War. Documenting these conflicts presented several difficulties, however. First and foremost, unlike painters and engravers, photographers were restricted to what happened in front of the lens. The technology of the day was cumbersome and incapable of recording rapid action. Thus, photographers had to either find or sometimes stage scenes. Moreover, there wasn’t yet a broad market for their work.

**Roger Fenton** supplied extensive coverage of the Crimean War (1854-56). Reacting to journalist's reports that British soldiers were enduring wretched conditions, Fenton was hired by a publishing firm (with the blessing of the British government) to dispel journalist’s reports. Using a special wagon fitted out as a darkroom, he produced over 350 wet-collodion glass negatives. The vast majority of these were officer’s portraits. Other views, however, included the aftermath of battle; a barren roadway strewn with cannonballs. While these images are not “pure” documentary, they suggest the violence of war in a way that had not been seen before.
The Civil War has been described as the first “living room war”—a conflict recorded in words and images in the nation’s weekly papers. Teams of photographers covered various aspects of the war. Mathew B. Brady sent groups of photographers out in special wagons outfitted as rolling darkrooms. Photographs were used as the basis for engravings in periodicals such as Harpers Weekly and Frank Leslie’s Illustrated, bringing news of the war to thousands of subscribers. In addition, cartes-de-visite and stereographs were produced in large numbers for a public audience. A majority of Civil War images are studio portraits or group scenes made in the field. Battlefield scenes are extremely rare and there are virtually no scenes of actual fighting. Nevertheless, views of the aftermath at Gettysburg and other battle sites made a significant impact on the collective American conscious. Photographers such as Brady, Alexander Gardner, Timothy O’ Sullivan and George N. Barnard made photographs that revealed the true carnage of war. Their work forms the foundation of the modern profession of photojournalism.

The birth of the pictorial press is contemporary with the birth of photography, but the use of photographs was hindered by technological problems. It isn’t until the halftone process was perfected in the early 1890s that photographs could be consistently used in books, magazines, and newspapers. The integration of photographs with print revolutionized the cultural impact of the photographic image.

19th Century American West

Photography of the American West began in the Civil War era, and played an important role in western expansion. Carleton Watkins has come to be recognized as the greatest photographer of the 19th century American West. Working under difficult conditions, Watkins made images that were technically perfect and classically composed. He made the first of several visits to Yosemite in 1861, producing an extraordinary set of thirty mammoth plate (18 x 22 inch) views. These views helped convince President Lincoln to sign legislation protecting the Yosemite Valley, leading the way to the National Park system.
Photographers were commonly part of government survey teams. After recording the Civil War, Timothy O Sullivan worked as the photographer for two of the most important government-sponsored expeditions to the American West: the surveys of Clarence King and Lt. George M. Wheeler, between 1867 and 1873. O’Sullivan was the first photographer to record such now famous scenes as the view of ancient Anasazi cliff dwellings. Using a vertical format to record an essentially horizontal subject is an act of aesthetic brilliance—accentuating the rock cliff’s dramatic upward sweep. O’Sullivan’s work serves as the time of exposures began to drop, high-speed studies of motion were made by Etienne Jules Marey and Eadweard Muybridge. Both animal and human motion was documented using multiple cameras positioned at regular intervals. These works reveal continuous action through time, creating effects that are both scientifically true and curiously alien to normal perception. Their studies influenced not only science but also the next generation of painters, including Thomas Eakins, who used his own photographs as studies for his canvases.

By the late 1870s, the first practical dry-plate process was in use by photographers. Dry plates supplanted wet plates because they were much easier to use and (eventually) considerably more sensitive. The factory production of dry plates and of flexible film (in 1884) represented a significant shift in the practice of photography. As the medium’s technological challenges were reduced, the practice of photography grew immensely popular. The introduction of George Eastman’s box camera marks the transition of photography from a largely professional venue to a genuinely popular amateur activity. Eastman’s camera came loaded with film for 100 shots and was mailed back to the company for processing. It marks a new era in which the act of taking pictures becomes separate from the technical concerns of processing them. As a result we have truly new pictures—snap-shots—and a whole new generation of photographers.

**Pictorialism and Social Documentary**

**Pictorialism** was a photographic art movement popular from about 1890 to 1920. Related to the Arts and Crafts revival, the aim of the movement was to elevate photography into the realm of fine art. Pictorialism represented a highly refined...
mode of vision that set itself apart from the practical concerns of commercial photographic work and the typical home snap-shooter. Pictorialists such as Clarence White created highly poetic and subjective images. Their common themes were nature, family, and the home. To some extent, the aesthetic quality and emotional impact of the image was more important than the subject or scene itself. Techniques used to create more painterly effects include soft or muted focus and a combination of printing processes. In 1902, Alfred Stieglitz began the Photo Secession Group, which tended to favor compositions based on the study of paintings and prints. In less than a decade, however, he renounced Pictorialism in favor of a more modern aesthetic.

By the late 19th century, a new concern for sociological documentary emerged. Photographs were seen as tools for social reform. At the forefront of this effort was the work of Lewis Wickes Hine, who documented immigration at Ellis Island and child labor across America from 1905 to 1915. His work was instrumental in changing labor regulations. In the 1930’s, a stylistic change emerges with the work of Dorothea Lange and Walker Evans, as the trauma of the Great Depression prompted a renewed interest in humanist and documentary photography. Lange’s deeply humane photographs are unique in their ability to capture the messages of body language and circumstance. Evans’s photographs can be misleading in their perceived simplicity. He recorded everyday subjects such as working class houses, shops, cemeteries and churches with a highly refined, intellectual precision.

Modernism and the European New Vision

In 1912, Alvin Langdon Colburn made a series of photographs of New York from high vantage points. These were radical pictures, looking down from dizzying heights. The subject of his work is more than architectural engineering; it is about the energy of the modern age. His early work is a harbinger for the photographic trends of Modernism—straight photography with hard edge realism. By the 1920’s there was a modernist reaction against the romantic approach of the Pictorialists. Related to Cubism, Modernism represented a bolder way of seeing with an emphasis on the geometric structure of the image. Where Pictorialists evoked the universal by obscuring details, modernist photographers often used very sharp lenses and glossy surface printing paper to heighten a sense of visual texture and detail.
In the United States the **American or Straight/Purist Aesthetic** emerged with the “f/64” group and photographers such as **Edward Weston, Ansel Adams and Imogen Cunningham**. A loose association of photographers, they pursued various individual paths, but would occasionally exhibit together. In Europe, the new modernist aesthetic encouraged a wide range of experimentation.

Reacting to World War I, European photographers wanted to revolutionize perception using photography as a catalyst for social change. In Russia, new works had a decidedly political emphasis. In Germany, these works tended to be more scientific while in France they tended toward Surrealism. The **European New Vision** movement explored the use of unusual processes and techniques. One of the most important innovations was the artistic use of the **photogram** by artists such as **Man Ray and Laszlo Moholy-Nagy**. The photogram is an image produced without a camera, by shining light (in a darkroom) directly on photo paper. Mostly interested in the differences between camera vision and human vision, Moholy-Nagy and others made compelling use of a variety of techniques, including dramatic vantage points, **photomontage** and **collage**, and the negative image.

**Applied Photography (Fashion and Celebrity) and Photojournalism**

Fashion and celebrity photographs were made from the days of the daguerreotype, but increased significantly from 1925 to 1955. This increase was spurred by the rise of a mass press that included hundreds of weekly and monthly magazines. It’s during this era that photography emerges as the language of commercial persuasion. Fashion photography is a particularly telling indication of social, cultural and sexual mores. At first, American editors used European magazines as models. The magazines **Vogue, Vanity Fair** and **Harper’s Bazaar** dominated the American scene. **Edward Steichen, Richard Avedon** and **Irving Penn** were very influential in shaping the face of fashion and celebrity photography in this era.

The golden age of fashion and celebrity portrait work is correlated with the evolution of photojournalism. It is during the great heyday of picture magazines such as **Life and Look** that a collaborative effort between photographers and editors began. Spot news began to be covered in the 1890s through news agencies; from the 1920s onward, photographers were assigned to special features. Photography played a critical role in WWII, with each branch of the service setting up special photographic branches. Images were monitored and censored but by 1943, the War Department reversed previous policy decisions based on the public needing to know and understand. With both the Korean War and Vietnam War, coverage became increasingly intimate and more realistically grim.
**Post War Movements**

In the years after Word War II, photography received broad institutional acceptance in the United States. Major museums displayed the medium with increasing frequency, and there was a boom in photographic education as universities across the nation created photographic departments. The years 1945 to 1965 represent an era of rapid social change. The use of smaller cameras created a more candid and intimate mode of vision. There was an artistic shift from public to private concerns as photography was employed to convey internal truths. The subject matter ranges from nature, street life and everyday life to symbol and metaphor. It is during this era that the photographers such as Harry Callahan, Frederick Sommer, Minor White, Aaron Siskind and Jerry Uelsmann use the camera in a deliberately interpretative way.

**Contemporary Pluralism (1965 to the present)**

With full institutional acceptance, the dividing line between art and photography begins to break down. By the mid-1960s, photography was both an influence on, and influenced by, contemporary art. Pop artists such as Andy Warhol used photography as a creative tool. Pluralism began to emerge with openness to multiple ideas and approaches in one work. Photographers began to embrace a wide range of materials and techniques, exploring subject matter ranging from the personal to the political. The primary movements of this period include conceptualism and performance art.

One of the foundations of conceptualism is to rescue art from the realm of the “precious object” by emphasizing the structures or strategies of the art-making process itself. Artists such as Ed Ruscha used the camera as a tool for collecting and comparing visual data (“26 Gasoline Stations,” for example), while Sandy Skoglund’s constructed subjects challenged traditional notions of photographic truth.

Performance photography is rooted in Dada and alternative theatre and dance, using the human body as a means and object of expression. Photographer Cindy Sherman often casts herself in works that examine female types from 1950’s “B” grade movies. Her works are at once about everywoman and deeply personal. Other performance photographers examine issues of identity on psychological and cultural levels.

Photographic history continues to be written. Contemporary photographers are blending and enlarging past traditions. Robert and Shanna Parke-Harrison’s work depicting a ravaged world is a mixture of performance and conceptual art, a blend of both old and new technologies. Mark Klett is re-photographing the American west, digitally weaving his images together with those of predecessors such as Carlton Watkins. Today photographers are integrating chemical and digital workflows more and more. The digital imaging process makes it...
relatively easy to produce photographs that are not optically “true.” Digital photography represents an important shift in the making of an image. It is, however, more an evolution than a revolution; it is an extension of traditional photography.

Outlines of Key Stylistic Periods in Photography

Daguerreotype Era (1839-1860)

1. Daguerreotype was the first successful photographic process
   a. Created by Louis Jacques Mande Daguerre in 1839
   b. Practice spread quickly
      i. By 1840 daguerreotypists were on every continent
      ii. By 1845 photography was a burgeoning business
      iii. Particularly popular in America

2. Each piece is a one of a kind
   a. A daguerreotype is a direct positive image -- no negative, like a Polaroid
   b. Varying sizes:
      i. Whole plate 6.5 by 8.5 inches
      ii. Plates then divided in ½, ¼ and 1/6 plates
      iii. The cost fell over time; by the early 1850s, cost advertised for as little as 50 cents, but actual costs were greater with the inclusion of a protective case

3. The Image
   a. Microscopic detail, brilliant tones
   b. Precious object: Intimate
      i. Protective case: mat, glass
      ii. Meant to be viewed in direct sunlight

4. Subject Matter
   a. Predominantly portraits
   b. Other subjects: outdoor views, artistic and allegorical, Gold Rush
   c. Occupational Port is a unique format important to America
      i. Symbolic as the land of freedom and opportunity
      ii. Represents the importance of work enterprise and commerce
      iii. Represents self-reliance,
   d. Portraits are not just depictions of the face -- so much as a portrayal of the mind.
   e. D-types made to mark benchmarks of life, significant of basic human sentiments

5. Studio portraits required great skills and included an understanding of:
   a. Lighting: natural light — skylights important
   b. Pose/attributes
      i. Some studios had “standard poses”
      ii. It is very “American” to look directly into the lens.
   c. Less than 10% of Daguerreotypes bear maker’s mark

6. Cultural Impact
   a. American society documented 1840-1860
      i. Famous to the banal
      ii. Occupational images
   b. Democratizing,
      i. Giving permanent faces to millions
      ii. Crosses socio-economic boundaries
      iii. Opens visual experience of the world
19th Century Paper Photography

1. Evolution of paper photography
   a. Early paper photography
      i. Invented by William Henry Fox Talbot
         1. Began experiments with light-sensitive materials in 1834
         2. Earliest process: photogenic drawings
         3. Used paper sensitized with silver nitrate
         4. Image produced by the direct action of the sun: no chemical development
      ii. Talbot’s first photographs were actually “negatives”
      iii. Published findings in 1839
      iv. Further experiments lead to shorter exposure times
         1. Learned the phenomenon of reversal from negative to positive: his process allows for the production of reasonably identical positive prints in quantity
         2. Worked to prevent negatives from fading using better fixatives
         3. 1841 Patents his “calotype” process—a much faster process in which the image is produced by chemical development.
   b. Mid- to late-century paper photography
      i. 1850’s Wet Collodion technique had become dominant technology
         1. Use of glass negatives: glass plates coated with light-sensitive collodion
         2. Tedious process, particularly in the field.
            a. Extensive preparatory work
            b. On the spot work to coat and then process negatives
            c. Traveling darkroom if working outside studio
         3. Once fixed, allowed for multiple prints
         4. Process required much shorter exposure times
         5. Improved techniques such as “albumen print” created photos with glossy surface, more crisp detail
      ii. 1880’s Dry plate negatives commonly used
         1. Commercially manufactured
         2. Easier to use
         3. Generally more light sensitive than wet collodion plates
      iii. Small, hand-held cameras
      iv. First roll film camera 1888: the Kodak

2. Innovation of paper photography
   a. Photographs available at a lower cost, greater quantity, variety of sizes
   b. Created new formats
      i. Carte de Visite: beginning late 1850s
      ii. Cabinet Cards: in 1860s
      iii. Stereographs: beginning late 1950s

3. Photography became a culturally integral part of American society
   a. Age of documentary and expeditionary photography
      i. Appreciation for landscape emerges through tourism and westward expansion
      ii. Carleton Watkins photographs of Yosemite are influential in creating protective legislation for parks
      iii. Photographers are part of government funded expeditions
19th Century American West

1. Timothy O’Sullivan is part of King and Wheeler surveys
2. William Henry Jackson and John K. Hillers are part of Hayden and Powell surveys
3. Public sale of landscape photographs is limited
4. Stereographic views are very popular
5. Large format works are for elite collectors or as scientific/historical works
6. Photography was used to document science and development
7. Eadweard Muybridge documented both human and animal motion
8. Astrological and microscopic photography
9. Amateur practice developed in the late 1880’s with two new classes of photographers
10. Snapshot photographer
11. Artistic amateur, leading to the Pictorialist Movement

19th Century War Photography

1. Photography was used to document other conflicts before the Civil War
   a. Mexican American War
   b. Second Burma War
   c. Crimean War
2. Several difficulties were presented
   a. On the beginning of an established market
   b. Photographers were restricted to what happened in front of the lens, unlike painters or engravers
      i. They had to translate the real into the symbolic
      ii. They had to either find or stage evocative scenes
3. Mexican American War (1846-48)
   a. Coincided with the rise of American newspapers
   b. Age of high speed presses
   c. Information carried by courier and telegraph
      i. Public interest accelerated the use of wood engraving illustrations
      ii. Increased popularity of lithographs
      iii. Brought about a change in journalism that affected photography
      iv. First time correspondents dispatched from major papers could rush reports to print
      v. Speedier information diminished influence of Washington newspapers and military as major sources of information
vi. Fostered an appetite for up-to-date news

4. Second Burma War (British and India 1852-53)
   i. Images of officers
   ii. Images of local people emphasizing physical racial characteristics
   iii. Juxtaposed non-western culture with symbols of imperial might

5. Crimean War (Russia and Turks with European Intervention – Britain & France; 1854-56)
   i. Journalists reports depicted wretched conditions for British soldiers
   ii. Roger Fenton to dispel reports
      a. Bank rolled by publishing firm
      b. Approval of Prince Albert

6. Civil war is described as the first “living room war”
   a. Brought home through mass produced cartes de visite and stereographs
   b. Wood engravings from photographs in *Harpers Weekly* and *Frank Leslie’s Illustrated*

7. More than 3,000 individual photographers made war-related images
   a. Majority of works were studio portraits
      i. Tintypes, ambrotypes, cartes-de-visite
      ii. Unremarkable in form/sophistication
      iii. Others were portraits/group scenes made in the field
     iv. Still others were battlefield views and other images of official military interest
        a. Bridges, buildings, vessels and equipment
        b. Battlefield views rarest of all
   b. Many aspects of the war went largely or even entirely unrecorded
      i. Virtually no scenes of actual fighting made
      ii. Civil War photographers were kept a healthy distance from combat
        a. Logistics of travel made it impossible for cameramen to arrive within two or three days after the end of the fighting
        b. Little left to be recorded
        c. Dead buried by victorious army 2-3 days after end of conflict
        d. Despite notoriety, images of Civil War Dead only recorded on seven occasions in four years
        e. Documentation of the war was very one-sided
           a. Union block of southern ports created an economic crisis
           b. Commodities became very scarce
           c. One critic: “Confederate field photography nearly ceased to exist after 1861”

8. Photography and the illustrated press
   a. American appetite for pictures developed in tandem with a revolution in communications
   b. War stimulated a dramatic increase in newspaper circulation
      i. Some 500 writers covered the conflict just from the Northern perspective
      ii. Corresponding effort went in to pictorial documentation
         a. Illustrated papers purchased free-lance work and employed sketch artists
         b. Photographers and sketch artists often crossed paths

9. Brady, Gardner and the Aesthetics of War
   a. Mathew Brady played a central role in Civil War Photography
      i. He helped conceive of the project to document the war
      ii. He was involved in the mass production, sale and reproduction of an enormous number of war-related photos
      iii. His efforts must be understood ultimately as a business interest
a. His gallery in Washington functioned somewhat like the picture agencies and news services of the 20th century

b. It commissioned, gathered and sold images

c. Alexander Gardner, his studio manager was integral to the undertaking
   i. Gardner arranged Brady’s distribution relationship with the Anthony Firm (publishing)
   ii. It was Gardner who put photographers in the field
   iii. Directed efforts of others such as: Timothy O’Sullivan, George Barnard, James Gibson and others

d. Brady opened an exhibition of war photographs in his New York Gallery
   i. Faces and postures of dead were shockingly expressive
   ii. New York Times reviewed the show:

   “Mr. Brady has done something to bring home to us the terrible reality and earnestness of war. If he has not brought bodies and laid them in our dooryards and along the streets, he has done something very like it. You will see hushed, revered groups standing around these weird copies of carnage, bending down to look in the pale faces of the dead, chained by the strange spell that dwells in dead men’s eyes…. The ground where on they lie is torn by shot and shell, the grass is trampled down by the tread of hot, hurrying feet, and little rivulets that can scarcely be of water are trickling along the earth like tears over a mother’s face. It is a bleak, barren plain and above it bends an ashen sullen sky. These pictures have a terrible distinctness.”

10. Photography and the Military
   a. Catering to Soldiers
      i. Camp Photos
         a. Majority are ambrotypes
         b. Troop movements were uncertain and couldn’t work with delay of paper process
         c. Inexpensive and soldiers liked the fancy cases
      ii. Portraits
         a. Three quarter of full length standing views
         b. Weapons often prominent
   b. Official Military Photography
      i. Important element was copy work: replication of maps and documents
         a. Maps photographed in sections so they could be easily updated
         b. Sometimes original documents were copied with the use of the camera through contact printing
      ii. Also important are photos documenting rail lines, bridges, warehouses and fortifications
      iii. Military Medical department also used photography
         a. Documented nature of new war, tracking injuries and recovery
         b. Had two categories
            a. Surgical (wounds from combat)
            b. Medical (disease and environmental maladies)

11. The War of Memory
   a. Photos of the time reflect broad range:
      i. Engineering might
      ii. Political allegories
      iii. Emancipated slave series was made for charitable purposes in 1863/64
   b. Public interest in Civil War photos remained strong for years
      i. Broad public interest for moderately priced works
      ii. Elite interest for limited edition works
12. Retrospect and the role of cameras
   a. In the 1970’s Civil War photography came under scrutiny
      i. A “staged” photo was discovered by William Frassanito, author of “Gettysburg: Journey in Time”
      ii. Devil’s Den Photograph – Home of a Rebel Sharp-Shooter one of the most famous images of the war
   b. First photographers on the scene at Gettysburg were Alexander Gardner, James F. Gibson and Timothy O’Sullivan
      i. 75 percent of their plates were devoted to the dead
      ii. They experimented with compositional possibilities
          a. Recording clusters of bodies
          b. Different vantage points
      iii. Team found body of a single Confederate corpse
          a. Worried burial parities were reducing number of subjects
          b. Rolled corpse onto blanket and moved it, placing prop rifle by the body
      iv. Photographed body four times
      v. Remainder of photos taken at scene would hold up to any modern definition of documentary practice
   c. Staged photo challenged many assumptions about the idea of “documentary” photography
      i. Earliest prints identified dead confederate as a sharpshooter.
         a. Reality is he was most likely an infantryman
         b. Rifle was not that of a sharpshooter
      ii. Resulting fall out has labeled picture differently
         a. Fraud
         b. Artful lie of photography
      iii. Bottom line: Civil War photos cannot be viewed as “simple” bits of historical fact
          a. Represent ideas and emotions of a cultural moment
          b. Illustrate 19th century notion of the meaning and purpose of pictures
          c. Ultimately the photograph is about ideas
             a. Following 19th century thinking
             b. Aesthetic of popular paintings, prints, engravings
      iv. For some, camera’s highest value lay in its ability to stimulate thoughts and emotions
          a. To promote understanding, empathy and moral insight
          b. To allow viewers to establish emotional connections

Art Movements of the 19th and Early 20th Century

Pictorialism
1. Art movement popular from late 19th and early 20th century

2. Aim was to bring photography into the realm of fine art
   a. Artistic “quality of images” more important than subject/scene
   b. Aesthetics and emotional impact most important
c. Techniques used to create more “painterly” effect
   i. Combination printing
   ii. Soft focus
   iii. Manipulation of the negative
iv. Variety of processes used
   1. Platinum favorite printing materials
      a. Velvety, matte surface
      b. Delicate tones
   2. Use of gum bi-chromate
      a. Lessened detail
      b. Produced more artistic image-reddish
d. Related to Arts and Crafts revival
   i. Stressed dignity of pre-industrial labor
   ii. Beauty of fine materials
   iii. Spiritual importance of simple life
   iv. Champions sought to unite art and life
   v. Design and manufacture efforts
      1. Books, furniture, textiles, glass
      2. Photography Example: F. Holland Day Publishing
e. Related to Photo Secession Group
   i. Begun with Alfred Stieglitz in 1902
   ii. Compositions based on study of paintings and prints
   iii. Atmospheric quality of photographs reminiscent of Barbizon landscape paints

Modernism: European New Vision and the American or Straight/Purest Aesthetic

1. By early 20th Century photos were omnipresent in our world
   a. Shaping our notion of documented fact
   b. Asking the questions: Is it art? Can photographs transcend reality?

2. Ideas about Modernism begin to emerge
   a. Straight photography: Emergence of hard edge realism
      i. Bolder way of seeing
      ii. Crisp detail/ Glossy surface
      iii. Related to modern art movements such as Cubism and Surrealism
   b. Function of changes in technology
      i. Films much faster
      ii. Cameras much smaller

   a. Ideas of “Utopia” -- European photographers wanted to re-invent the world
      i. Reaction to WWI
      ii. Idea was to create a new visual experience and in the process a new society
   b. Photography meant to be catalyst for social change
      i. Russia: works with political emphasis
      ii. Germany: scientific basis
      iii. France: surrealism tendencies
   c. Explored creative potential of photography through new venues
      i. Optical and chemical processes
      ii. Utilized a variety of techniques
         1. Photomontage
         2. Solarization
         3. Negative images
         4. Multiple exposures
         5. Aerial perspectives
         6. Extreme close-ups
d. Photogram was one of the most important discoveries/innovations
   i. Images produced without a camera directly on photo paper
      1. Technique was simple and inexpensive
      2. Each work was a one-of-a-kind creation in concert with
         a. Chance and intuition
         b. Artist’s intentions
   ii. Negative images
      1. Light produces darkness
      2. Shadows register as white
      3. Flat objects record in actual size/silhouette
      4. Dimensional objects can be undecipherable
      5. Ambiguous pictorial space
   iii. Technique only used as form of artistic expression after WWI
      1. Man Ray began using the process in 1921-22 in Paris
         a. Named his creations “rayographs”
         b. Actively marketed and published his works
      2. Laszlo Moholy-Nagy used process in Germany
         a. Partnered with his wife
         b. Explored themes of light and geometry

4. American or Straight/Purist Aesthetic (1920-50)
   a. Reaction to the romance and poetry of Pictorialism
      i. Pictorialists evoke universals by obscuring details
      ii. Straight photographers find transcendence through
          hyper-real magnification
   b. Tied to the Salon system
      i. Systematic exhibitions
      ii. Peer support
      iii. Diversity of techniques and subjects
   c. Style
      i. Deliberate departure from previous styles
      ii. Celebrates photographic tools and materials
         1. Bold
         2. Crisply focused images
         3. Smooth surface photogenic papers
         4. Glossy surface
         5. Great clarity, little loss of details
   d. Artistic choices
      i. Photographers still following personal paths
         1. Varied subject matter
         2. Varied artistic choices
      ii. Group f/64
         1. Loose association of photographers (7 original members)
         2. Interested in straight photography
         3. Exhibited together
         4. Manifesto: Simple and direct presentation of purely photographic
            a. Did allow for use of filters
            b. Allowed for burning-in and dodging

Social Documentary, Photojournalism and Applied Photography (1900-1950)

Social Documentary
1. Roots of social documentary begin to emerge in mid-19th century
   a. Images of working people photographed early on, both in America and throughout
      Europe
   b. Inexpensive cartes de visite and other formats
2. Tied to advances in printing technology and growth of popular press
   a. Development of halftone process crucial to reproduction of photographs in magazines and newspapers
   b. Wide growth of popular press created new interest in the world at large

3. Large printing firms produced views of social life around the globe
   a. All types of people photographed: workers, people in exotic dress
      i. Large format photographs had limited audience
      ii. Stereographs very popular
   b. Goal of “documentation” comes into question
      i. Original scope of such projects were to emphasize the disparity between cultures
      ii. Inadvertent benefit was one of social education
   c. Context of social documentation is extremely important

4. By late 19th century social documentary was part of reform movements
   a. Photography was used as a tool to provide evidence to improve social conditions
   b. Photographs were presented in groups of images as a part of lectures or in fliers
   c. Many photographers had their own personal agendas and used their work to help effect change.
      i. Lewis Hine photographed immigrants at Ellis Island and children in factories.
      ii. Hine’s work helped establish new labor laws

5. Evolution of social documentation was intimately tied to changes in prevailing belief systems
   a. Victorian view associated poverty as a punishment for sinful behavior
   b. Education and emergence of labor unions signaled a shift in understanding about the impact of industrialization and immigration
   c. Basic foundation of documentary style began to evolve with the understanding that the viewer provides their own syntax

6. Photographic projects during Great Depression re-defined idea of social document
   a. Two historic photographic projects documented the scope of the depression over approximately ten years
      i. FSA or Farm Security Administration photographed rural America
         1. Created over 270,000 mages
         2. Supplied prints and reproductions for press
         3. Images controversial as “truth” or “propaganda”
         4. Impact was eye-opening
      ii. WPA or Works Progress Administration
         1. Employed artists and photographers to create artworks
         2. Works represent broad scope and vision

7. Documentary was to become a particular style or approach
   a. Images should provide visual facts/be as objective as possible
   b. The underlying principle that division between art and document is nearly impossible to separate—is openly acknowledged

Photo Journalism
1. Birth of pictorial press contemporary to birth of photography
   a. Slow growth in use of photographs due to technological problems
      i. Existing reproduction processes could not be printed on a press together with type
      ii. Printed sheets had to be bound separately in books or magazines
   b. Stylistic trend toward illustrations
2. Revolution in printing and photography  
   a. Half-tone process first demonstrated in 1880; becomes practical in the early 1890s  
      i. Converts a photograph into a series of dots  
      ii. Allowed use of etched plate in concert with type height  
   b. Dry plates, roll film and hand cameras make photography easier  

3. Illustrated Magazines and Newspapers  
   a. Integration of photographs with print called “photojournalism”  
   b. Widespread publication of magazines, worldwide  
   c. Newspapers slower to adapt  

4. American photo journalism  
   a. Based on European models—Look, Life and Harpers most popular  
   b. Utilized “mind guided camera” [I don’t know what this term means or where it’s from]  
      i. Spot news through news agencies  
      ii. Features  
   c. Represents collaborative effort between photographers and editors  

5. War Coverage  
   a. Photography, film played critical role—WWII  
   b. Each service branch had special photographic branches  
      i. Images were monitored and censored  
      ii. Pictures reviewed by both military and civilian authorities?  
      iii. Pictures released only when deemed not to pose threat  
      iv. Images tended to be up-lifting in the beginning  
      v. By 1943, War Department reverses policy based on public need to know/understand  
      vi. Korean Coverage  
         1. Military censors less concerned with sanitizing record  
         2. First to be recorded using 35 mm  
            a. Gritty, granular image  
            b. Intimate  
      ii. Vietnam Coverage  
         1. Closest views of horrors of war ever seen before  
         2. Shift to television coverage  

Applied Photography: Fashion and Celebrity  

1. Fashion and celebrity work present throughout the history of photography  
   a. Fashion imagery is an indication of social, cultural and sexual attitudes  

2. Fashion magazines were the earliest to use “editorial” photographs  
   a. In 1913 “Vogue” evolved from a society journal to a magazine devoted to fashion with photographs of “elegant style”  
   b. In 1923, Edward Steichen joined Conde Naste publications—Vogue and Vanity Fair—  
      i. Created a whole new look—artful groups, display  
      ii. Rise of fashion photography  
   c. Post WWII Styles very different  
      i. More inventive approaches to typography and page design  
      ii. New photographic styles and “vision”  
      iii. Richard Avedon and Irving Penn very influential  

3. Celebrity features were primarily pictorial biographies  
   a. Throughout the 1920’s and 30’s celebrity work attempted to interpret the personality of the sitter  
   b. The focus of celebrity work shifts to commerce subsequent to WWII
4. By the 1950’s the marketplace was saturated with professional photographers
   a. Magazines provided a tremendous market for photographers
   b. Editorial control over photographs became an increasing problem
   c. Books provided new opportunity to develop and share a body of work.
      i. Subjects range form historical ad scientific to travel and celebrities.
      ii. The coffee-table book emerges in the 1960’s, a marriage of art and commerce

5. By the 1970’s-80’s celebrity is being explored in an entirely new way as “Celebrity” is being
   examined in a sociological context as an “identity”

*Post War Artistic Movements (1945-1970’s)*

1. Golden age of fashion, portrait and photojournalistic work
   a. Hey-day of great picture magazines: *Life, Look*
   b. Collaborative efforts between photographers and editors
   c. Utilized “mind guided camera”

2. Beginning of institutional acceptance
   a. Landmark photographic shows in major museums
   b. Photographic departments in universities

3. Era of rapid social change
   a. Artistic shift from public to private concerns
   b. Photography used as a metaphor for internal truths
      i. Personal and introspective
      ii. States of being
   c. Used camera in a deliberate interpretative way

4. Technology
   a. Smaller cameras
   b. Faster films

5. Subject Matter
   a. Nature
   b. Street life
   c. Everyday life
   d. Symbol/metaphor

*Contemporary Pluralism 1965-Present*

1. Photography achieves full institutional acceptance

2. In the Art World, the dividing line between art and photography breaks down
   a. Photography is influenced by contemporary art
   b. Photography transforms contemporary art
      i. Photography is used as a tool in artists such as Andy Warhol, Ed Ruscha and
         Robert Rauschenberg
         1. Warhol used the silkscreen process to incorporate photos into his
            paintings
         2. Ruscha used the camera to make snapshots studies for his paintings
            and later went on to issue his own book of snapshots
         3. Rauschenberg incorporated photographs in his works called “combines”.
      ii. A pluralism begins to emerge
         1. Openness to a variety of ideas
         2. Many approaches found within one work
3. Techniques
   a. Wide range of materials and techniques are embraced
      i. Photographic film and paper
      ii. Digital images and inkjet printing
   b. Integration of different media

4. Subject Matter
   a. From personal to political
   b. From discovery to creation of new worlds

5. Primary Movements:
   a. Conceptualism
      i. Wanted to rescue art from the domain of the precious object
      ii. Photographs considered ideal because for many people they were believed to be of little value
         1. Based on the idea that photographs are uninflected records of information
         2. A photograph, then, is what ever light reveals, the lens embraces or chemicals make visible
      iii. Conceptual arts often worked in large scale formats
      iv. Works were presented in pairs or sequences or even photos within photos, enlarging the supposed reality of the camera
      v. Original emphasis was placed on language and perception, avoiding personal comment on subject matter
      vi. Later works shift emphasis toward personal, social or political issues
   b. Performance Art
      i. Influenced by several factors
         1. Roots in Dada movement
         2. Alternative theatre and dance
         3. “Happenings” of 1950’s
      ii. Human body serves as a means and object of expression
         1. Notions of self and cultural roles are examined
         2. Photographer often part of examination, cast in roles as self-portraits
      iii. Historical precedent in the 1890s
         1. F. Holland Day portrayed himself as Jesus
         2. Different focus, but still deeply personal

6. Contemporary works continue to be fueled by individual exploration and politics
   a. Landscape photography is influenced by both aesthetic and political factors
      i. For some the cultural meaning of the landscape has shifted
      ii. Manifest destiny has been surpassed by conservation concerns
      iii. Current works range from straight photographs to incorporation of landscape studies from 19th century
   b. Themes revolving around the body and identity continue to be examined in concert with shifting cultural mores—such as gender and celebrity
   c. “Local Knowledge” --examination of everyday experience -- associated with people, place and routine -- focuses on the constructs of society and individual interpretation

7. Digital Revolution
   a. Digital imaging was made possible through the invention of electronic analog computers in 1945
   b. NASA further enhanced the process using computer technology to enhance space photographs
c. By late 1970’s computers became digital allowing information about light and shade to be stored electronically in small cells called pixels
   i. Digital encoded image sometimes called “electronic photography” or “still video”
   ii. Digital image is very different from a traditional photographic image
       1. In traditional photographic images changes in tone are continuous, gradually shifting
       2. In a digital image, changes in tone are registered minutely in individual pixels
   iii. Digital image files can be made in a variety of ways
       1. Digital camera
       2. Scanner
       3. Software graphics programs
   iv. Editing of digital images
       1. Unlimited ability to manipulate image
       2. The “digital image” is not optical fact, in the same sense as a traditional photograph
   v. Printing digital images as hard copy
       1. Printing equipment: dot matrix, inkjet, laser printers
       2. Transfer to film for printing on paper, fabric, etc.
       3. Print quality is directly related to quality of equipment
Process, Equipment & Formats

Early Photography

Daguerreotype
1. Highly detailed image formed on a sheet of copper thinly plated with silver
2. First step: cleaning and polishing of silver
3. A two-step sensitization process; plate exposed to iodine and then bromine in closed containers
4. The vapors from iodine + bromine united with the silver to produce a light sensitive surface
5. Sensitized plate (in light-proof plate holder) transferred to camera
6. Exposure: Early days: exposure for as long as 25 minutes; by early 1850s, this had dropped to as little as a few seconds
7. Development: plate was placed over a dish of mercury heated to 180 degrees.
   a. Mercury vapor reacted with silver iodide to produce a visible image
   b. Image made permanent (fixed) by immersion in a solution of salt or hyposulfite of soda and toned with gold chloride to improve color, tonality, and permanence
8. Highly vulnerable to damage from abrasion and chemical damage from tarnishing
9. Protected by a metal mat and a glass cover—which were sealed and fitted into a case
   a. To be seen, image must be held at an angle to minimize reflection
   b. Process invented by Louis Jacques Mande Daguerre in 1839

Camera Obscura
1. From Latin meaning “dark chamber”
   a. Ancestor of modern camera
   b. As early as the 9th century it was observed that when light rays from a bright object center a small hole in a darkened room, they produce an inverted image of that object on the opposite wall.
   c. By 17th century, a portable camera obscura had been created as an aid for drawing
2. Description:
   a. Oblong closed box fitted at one end with a lens that could be adjusted to focus image
   b. Inside the box at the other end was a mirror attached at a 45 degree angle
   c. Mirror projected the image up onto a ground glass screen that had been set into the top of the box
   d. It was on this glass screen that an image could be traced on thin paper
   e. This view was a true [?] image—the mirror served to reverse the image

19th Century Paper Photography

Calotype
1. Process for making paper negatives
   a. Invented by William Henry Fox Talbot
   b. Patented in 1841
2. Direct ancestor of modern photography—a negative/positive process
   a. Negative could be used to make multiple positive prints
   b. Improvement over photogenic drawing process: far more sensitive
   c. Production of the negative image was completed by development rather than “printing out” by sunlight alone
3. Process
   a. Silver nitrate solution brushed onto one side of a sheet of high quality paper, then drying it
b. By candlelight, sheet was floated on a potassium iodide solution, then dried again—in the dark

c. Just before exposure, the paper was again swabbed with silver nitrate mixed with acetic and Gallic acids—to produce genuine light sensitivity.

d. Sensitized sheets could be used damp in the camera
   i. Exposure times vary from 10 seconds to 10 minutes
   ii. At this point the image is not visible but "latent" in the paper

e. To develop the image the sheet was again dipped in a bath of silver nitrate and acetic/Gallic acids

f. The negative image was rendered permanent by "fixing" in hypo; it was then washed and dried.

4. This negative could be used to produce positive images
   i. Transparency of image could be improved by waxing.
   ii. The image was contained in the paper—having soaked in.
      i. Therefore, the fibers of the paper tended to show in the positive print.
      ii. This caused a subdued sense of exact detail.
   iii. Process popular from 1841 until the 1850's, when replaced by the Wet Collodion on glass process.
   iv. Technique revived in early 1900's by Pictorialist photographers—who liked the light diffusing effect created by the paper fiber

The word calotype is technically used to refer to the paper negative only; the positives made from calotype negatives are salt prints. At times, however, "calotype" has been used to refer to both paper negatives and prints.

Salt Print

1. The earliest positive prints
   a. Made by contact printing
   b. Usually made from paper negatives (calotypes)
   c. Occasionally from collodion negatives on glass

2. Salt print is made by
   a. Sensitizing a sheet of paper in a solution of salt (sodium chloride)
   b. Then coating it on one side only with silver nitrate
   c. Light sensitive silver chloride was thus formed in the paper
   d. After drying the paper was put sensitive side up directly beneath a negative under a sheet of glass in a printing frame.
   e. The paper/negative/glass sandwich was exposed, glass side up outdoors in the sunlight—i.e. —it was contact printed
   f. Length of exposure was by visual inspection—sometimes up to two hours
   g. When the print reached desired intensity it was fixed with hypo, which stopped the reactions. It was then washed and dried.

3. Finished salt print has a matte surface (no gloss), and is reddish brown in color

4. The print could be toned with gold chloride for greater permanence and richer tones.
   a. If toned, it can be purplish brown.
   b. If faded, yellowish brown.
   c. Highlights are usually white
   d. Sometimes varnished with a thin coating of albumen to get a glossy surface

5. Salt prints were made until about 1860

Wet Collodion Process

1. Invented in 1848 By F. Scott Archer
2. Prevalent from 1855 to the mid-1880s
3. Valued because of detail in prints; shorter exposure times
   i. Finished negatives used to produce albumen prints
   ii. Glass plate same size as finished print
4. Process  
   a. Collodion poured directly onto clean glass plate  
      i. Collodion was made from gun cotton—ordinary cotton soaked in nitric and sulfuric acid and then dried.  
      ii. Photographer dissolved gun cotton in a mixture of alcohol and ether to which potassium iodide had been added  
      iii. Result was a syrupy mixture  
   b. When set, but not dry, plate was sensitized by a bath of silver nitrate  
   c. Plate was then placed in camera and exposed while still “wet”  
   d. After exposure, plate was immediately developed  

5. Development  
   a. Darkness required for sensitizing and developing steps; photographers had to take dark tents/wagons, chemicals and glass plates into field  
   b. When enough detail visible on negative, it was removed from the developer  
   c. Fixed with a solution of sodium hyposulfite to remove excess undeveloped silver iodide  
      i. Thoroughly washed to remove sodium hyposulfite and dried  
      ii. Protective coat of varnish added—negative ready to make prints  
   d. Washed with fresh water to remove all residual chemistry

Ambrotype  
1. Collodion Positive on glass (1851)  
2. Often confused with daguerreotypes  
   a. Similar in size, packaging  
   b. Dull-toned, but sharply defined images  
   c. Used primarily for portraiture  
   d. Produced a unique image (one of a kind)  
3. Variant on wet-collodion negative technique  
   a. Underexposed and then developed collodion negative on glass  
   b. Then backed with an opaque coating,  
   c. Appears as a dull-toned positive image  
4. Advantages:  
   a. Fewer surface reflections  
   b. Highlights are soft and pearly, rather than clear and crisp  
   c. Easier to tint  
   d. Faster and cheaper to make and sell  
5. Rapidly replace daguerreotypes in the late 1850’s  
6. Later replaced by Tintypes and Cartes de viste in the 1860’s

Albumen Print  
1. Invented in 1850 by Louis Desire’ Blanquart Evrard  
   a. Prevalent from 1850 to 1890  
   b. Made from a collodion negative on glass  
   c. Made more finely detailed image than salt paper prints  
2. Process  
   a. Made by floating a sheet of thin paper on a bath of egg white, containing salt  
   b. Produced a smooth surface  
   c. After drying, the albumenized paper was sensitized by floating it on a bath of silver nitrate solution or by brush with the solution  
   d. Paper was again dried, this time in the dark

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David Woodbury, American, act. 1860s  
_Military Bridge across the Chickahominy, Virginia, 1862, Albumen print, Gift of Hallmark Cards, Inc., 2005.27.203_
The paper was then put into a wooden hinged back frame, in contact with the negative—usually made of glass but sometimes waxed paper.

It was then placed in the sun to print.

Progress could be checked by opening the back of the frame.

Resultant proof was fixed in hypo and then washed in fresh water.

Variations in tone and hue were made by toning.

After 1855 albumen prints were almost always toned in gold chloride—enriching color and increasing permanence.

Finished print ranges in color from reddish to purplish brown and is usually glossy.

**Dry Plate Process**

1. In general, refers to any glass plate coated with dry light sensitive emulsion.
   a. First true dry plates were glass coated with albumen containing silver salts.
      i. These had poor light sensitivity.
      ii. Required longer exposure times than wet collodion plates.
      iii. Rarely used.
   b. Dry collodion plates—also required longer exposures than wet plates—and also little used.

2. First practical plates of this type were invented in 1871 by Richard Maddox.
3. By the mid-1880s, they were in widespread use.
4. Supplanted wet plates as they were easier to use and more sensitive.

**Gelatin Silver Print**

1. By ca. 1890, papers coated with a gelatin containing silver salts for making black and white prints were made.
   a. Silver salts laid on paper are generally:
      i. Silver bromide—more light sensitive, thus used mainly for enlargements.
      ii. Silver chloride—less light sensitive, thus used for contact printing.
   b. Gelatin silver prints displaced albumen prints by 1895.
      i. They were more stable.
      ii. They did not yellow.
      iii. They were simpler and quicker to produce.

**Tintype: or “Ferrotype”**

1. A collodion negative made on a thin sheet of iron, coated with an opaque black or chocolate brown lacquer or enamel.
   a. This lacquered sheet was commercially available.
   b. It was coated with wet collodion containing silver salts just before exposure in the camera.
   c. Development immediately followed.
   d. Later refinements led to the use of a dry collodion coated metal plate.

2. It appeared as a dull-toned positive image.
   a. Unique image that could only be reproduced by being photographed.
   b. Typically used for portraiture.

3. Popular because they were inexpensive.
   a. Sometimes placed in small cases.
   b. Have limited tonal ranges and appear flat and dull in comparison to daguerreotype or ambrotype.
   c. Sometimes made by street vendors.

**Carte-de-Visite**

1. Stiff piece of card about 4.5 by 2.5 inches—
   a. About the same size as a formal visiting card of the 1850’s with attached photo of nearly same size.
   b. Nearly always albumen prints from wet-collodion on glass negatives.
   c. Made by the millions worldwide.
   d. Sometimes collected in albums for personal use.
e. Wide range of subjects, celebrity portraits, scenic views, etc.

**Stereograph**
1. A pair of photographic images on a single support
2. When viewed through stereoscope, give the appearance of a single image with three dimensions
3. Standard stereograph
   a. Stiff card from 3 to 4 " tall and 7 " wide with two albumen prints side by side about 3 " each
4. Photographs are not identical—they reveal a slight lateral shift
   a. Photos are made by dual lens camera
   b. Centers of lenses are same width apart as the center of human eye
      i. Each photo is an image of what each eye would see
      ii. When viewed through the stereoscope, the images combine approximating human binocular vision
      iii. In order to convey the illusion of depth, a strong foreground is desirable
   d. Very popular from late 1850’s to 1900’s
   e. Topographical views most common, but subject vary widely

**Cabinet Card**
1. Introduced in 1860’s, eventually replacing carte-de-visite
2. Larger in scale than carte-de-visite
   a. Stiff card stock measuring 6 ¼ by 4 ¼ inches
   b. Image nearly three times size of carte-de-visite
3. Generally portraits, made in studio
   a. Subjects range from celebrities to oddities displayed
   b. Photographer’s name and insignia prominently displayed
4. Millions sold—Popularity declines in the 1890’s
5. Collected and displayed in albums

**Color Photography**

The quest for colored photography occupied researchers for decades. In reality, “color” photography has existed from early on—but in more nuanced ways than we would normally tend to think about.

**Cyanotypes** and **bi-chromate prints** and even **platinum prints** all had definite color tones. Throughout the second half of the 19th century researchers worked with a variety of techniques using screens, filters and refracted light to capture a “full” color spectrum. The first commercially viable technique, the **autochrome**, was invented at the turn of the century.  

An autochrome photograph is a transparent image on glass.  
Louis Lumiere patented the process in 1904. A glass plate was first coated with a sticky varnish, then coated a second time with minute grains of translucent potato starch. The grains had previously been
separated and dyed red-orange, blue-violet or green. Another layer of varnish was added and then a layer of emulsion. The results were beautiful but to view the photographs you had to hold them up to a light source. This technique, which was very expensive, was used into the 1920s.

The quest for a viable color photography method continued following two general lines of inquiry; transparencies, and prints on paper. A color transparency process marketed under the name Dufaycolor was introduced in the early 1930’s. Soon afterward, two amateur musicians developed a second system, known as Kodachrome. While both systems created images of remarkable beauty they had distinct limitations. In order to be viewed, they either had to be projected on a screen or viewed through a light source. A succession of new printing techniques soon followed such as the three-color carbro-print, and the dye transfer prints. Both of these processes tended to be laborious and expensive. Accordingly, throughout the 1930’s and 40’s color work was tied almost exclusively to advertising. Few amateurs had the training or equipment necessary to work in color.

By the 1950’s, color imagery had become increasingly commonplace. The covers of magazines were in color, a majority of movies were now color, and color television began to be broadcast as early as 1953. Leading photographers, however, were slow to adapt. Exhibition quality color prints were very difficult to master. The introduction of Kodacolor “Type C” or Ekta color paper in 1955 was meant to inspire a “revolution” in color photography. This didn’t really happen, however, as the process remained finicky and expensive. Thus, there is a scarcity of color photography in post-war exhibitions. The most influential color photographers of this era were working in fashion, advertising and photojournalism.

Color photography continued to gain popularity throughout the 1960’s and 1970’s. Throughout the next two decades color film sales boomed. Cibachrome paper allowed prints to be made directly from color transparencies. Other manufactures followed suit with improved papers and processes. Polaroid introduced the SX-70 system in 1972, creating color photographs in mere minutes. More and more artistic photographers began to embrace the medium, particularly from the mid-1970s on.
Key Figures

Daguerreotype Era

Joseph Nicephore Niépce, French, Inventor
1. Made first permanent photographs
2. Began experimenting with light sensitive compounds in 1816
   a. Coated limestone slabs and later pewter plates with asphaltum, a mineral resin that hardens when exposed to light
   b. Lengthy exposure time (four to five days)
   c. Created detailed images, but very faint in tone
3. By 1827, created earliest extant photograph
   a. View from a window across rooftops to landscape beyond
   b. Called his process heliography
   c. Traveled to London to promote his discovery
      i. French government believed photography to be a manifestation of nature
      ii. English patent laws far more lenient
      iii. Nothing came of his efforts
4. Began new series of experiments with Louis Jacques Made Daguerrre
   a. Created new technique known as physautotype
      i. Used silver plate covered with light sensitive resin
      ii. Shorter exposure time (three to eight hours)
      iii. Created a latent image, revealed through chemical development
   b. Stronger tones than heliograph
5. Dies in 1833

Louis Jacques Mande Daguerre, French, Inventor
1. Public figure, with background in art and theatre
2. Owned and operated the “Diorama”
   a. Fascinated with theatrical illusions
   b. Used light to manipulate perception of space and time
3. Began his own photographic experiments independent of Niepce
   a. Upon his partner’s death, continued his own research
   b. “Daguerreotype” produced a greatly superior image
      i. Created a brilliant, mirror like image
      ii. Exposure time much shorter: minutes instead of hours
   c. Kept secret of process for four years, worried about French patent law
   d. Scientific community embraced his work as true discovery
   e. French government buys his technology
4. Daguerreotype becomes known to world in 1839

Albert Sands Southworth & Josiah Johnson Hawes, American
a) Boston studio
b) In business from 1843 to 1862
   a. New kind of portraits—mellow tones and full of life
   b. Catered to a wealthy clientele
   c. Sought to capture the “best possible character and finest expression”
   d. Made over 1,500 likenesses
   e. Southworth patented a sliding plate holder to create a medallion portrait—a series of oval images
John Adams Whipple, American
1. Boston studio
2. Interested in expanding frontiers of medium
3. Partnership in fine portrait practice
   a. Attempted to make daguerreotypes by artificial light
   b. Experimented with images on albumen coated glass
      i. Special interest was in astrophotography
      ii. Created image of the moon in March 1851
      iii. Realized early on the future of paper photography

19th Century Paper Photography

William Henry Fox Talbot English, (1800-1877)
1. 1834 began experiments with light sensitive materials
   a. First pictures created with light are the shadows of plants, textiles
   b. Eventually made pictures by exposing sensitized paper through a lens fitted to a wooden box
      i. Pictures were created by direct action of sunlight on sensitized paper
      ii. No chemical development was performed
   c. Called these images “photogenic” drawings
   d. These works very unstable—some darkened, some lightened
2. 1840 Discovers how to shorten the exposure time and increase the speed a negative can be made using chemistry
   a. Made it possible for him to exploit the negative-positive potential of photography: the production of multiple positive prints from each photographic negative.
   b. 
   c. Talbot had to devise ways to prevent negatives from fading by using improved fixatives and short exposure times.
3. Patented his process as “calotype” meaning “beautiful picture” in 1841
   a. Previously he had allowed his sensitized paper to remain exposed to light until an image became visible
   b. He discovered that the invisible or “latent” image produced by a short exposure to the sun could be amplified or made visible by chemical development.
   c. This principle is known as “the development of the latent image”

J.B. Greene, American archeologist, photographer
1. Studied photography under Le Gray
2. Helped found the Societe Francaise de photographie
3. One of the archeologists to use photography to document his work

John Adams Whipple, American, 1822-1891, Family of Elizabeth Mann Whipple, ca. 1850, Daguerreotype, mammoth plate, in period wall frame (Overall: 10 x 12 inches), Gift of Hallmark Cards, Inc., 2005.27.398

John B Geene, Vue du Portique Luxor, 1854, Salt Print from calotype negative, 394-2-95
4. Made series of calotypes of Egyptian monuments 1854
5. Works were published by Blanquart-Evrard (94 photos)
6. Died in 1856 at the age of 24

**Gustave Le Gray, French, (1820-1884)**
1. Trained as a painter
2. Improved calotype process using waxed negatives
   a. His process made the paper more conducive to fine detail
   b. Improved definition and tonal sensitivity
3. Throughout his life he was always working to overcome technical shortcomings
   a. Later thought to have used combination printing using the collodion technique
      i. Took two negatives
         1. One exposed for earth bound features
         2. Second exposed for sky/clouds features (shorter exposure)
      ii. Through careful masking, printed both negatives on a single sheet of paper
   b. Seascapes using this method show his emphasis on light—later echoed in the art of the Barbizon painters and the Impressionists
4. Wrote “A Practical Treatise on Photography”
5. Influential teacher to many photographers

**Édouard Baldus (1813-1889) German, working in France**
1. Originally studied painting in Paris
   a. Self taught
   b. Worked outside Ecole des Beaux-Arts and atelier system
2. Began experimenting with photography in late 1840’s
   a. Utilized the negative-positive process for paper photographs invented by Talbot
   b. By 1851 recognized for his technical prowess
3. Chosen as one of the five artists selected by the Commission des Monuments Historiques—to document France’s architectural history
   a. Sent south to Fontainebleau, through Burgundy, the Dauphine’ and Lyonnais, Provence
   b. Pictures were very impressive for clarity, beauty and scale
      i. Some printed from multiple negatives
      ii. Some up to three feet in length
   c. In a single decade Baldus created the model for photographic representation in genres that barely existed before him.

**Carleton Watkins, American, (1829-1916)**
1. Early Career
   a. Worked first as teamster, then as a carpenter for dry goods establishment
   b. At 25 became interested in photography—asked to stand in for an absent employee in a photography studio
2. Landscape photography: Yosemite
a. 1861 commissioned special camera to make mammoth sized negatives 18 x 22 inches in size
b. He also used stereoscopic camera
c. Traveled with cameras, tripod, dark tent, glass, chemicals and processing trays, plus provisions for several weeks.
   i. Equipment, et al, carried by mules over precarious tracks, up mountains, along passes
   ii. Later used railroad: one car for equipment, second car for animals
d. Congress based decision designate Yosemite as a national park on Watkins Photographs
   1. Visited Yosemite many times throughout his career
   2. 1867 won award at Universal Exposition in Paris
   ii. Additional series include Mendocino, Columbia River, Pacific Coast
e. Career: spanned more than 50 years
f. Extraordinary quality of his work, both technically and aesthetically

19th Century War Photography

Roger Fenton (1819-1869), English
1. English, lawyer by trade
2. Well known for architectural views and still life studies
   a. Queen Victoria requested he photograph the royal family and estates
   b. Became official photographer of British Museum—producing hundreds of prints of artifacts
   c. Principal founder of the Photographic Society of London
3. Print seller Thomas Agnew & Son commissioned him to photograph war in the Crimea

Note: Crimean War: War between Russia and the Turks with intervention involving the British and French. Journalist’s reports depicted wretched conditions for British soldiers—who were dying of cold—having never been issued winter uniforms. In attempt to discredit these reports, Fenton was sent to cover the war. He was funded by a publishing firm and blessed by Prince Albert.
4. First extensive coverage of war
   a. Supplies
      i. Wagon fitted out as a darkroom
      ii. 700 glass plates, five cameras, chemicals, rations, etc
      iii. Used wet collodion process
   b. Produced over 350 negatives
      i. Majority of these are officers portraits
         1. Felt compelled to take portraits—lest he had no help in moving his photographic van to different locals
         2. Other views show vast fields strewn with cannonballs
5. Images are controversial
   a. Visual expressions of the suffering of destruction
   b. They are not pure documentary [not sure what this means: what is “pure” documentary?]
      i. Partly due to the limitations of the wet collodion process
      ii. Partly due to the fact that he was sent to dispel charges of mistreatment

Mathew Brady, American, (1823-1896)
1. Originally daguerreotypist—very successful
   a. 1845-1850 created: “A Gallery of Illustrious Americans”
      i. Abraham Lincoln one sitter
ii. Photo reproduced and circulated during 1860 presidential campaign. Lincoln remarked "Make no mistake, gentlemen, Brady made me President!"

2. Civil War photography
   a. Set up as many as 20 photographers with "darkroom" wagons
      i. These known as "What is it Wagons"
      ii. Used wet collodion technique—which limited scope of photos. No action shots
   b. Proviso that all photographs would bear his name as photographer—as he was employer
      i. Photographers such as Alexander Gardner and Timothy O'Sullivan worked for him
      ii. These photographers later left his employ
         1. Pictures of many aspects of the war—battlefields, ruins, officers, artillery, corpses, ships, railroads
         2. 7,000 images taken

3. After the war
   a. Planned to sell images from war to recoup expenses
      i. Suffered a series of financial setbacks
      ii. He lost his businesses
      iii. One set of negatives was acquired by T. and E. Anthony
      iv. Second set of negatives (5,000) bought U.S. for $2,840
      v. Government later awarded him $2,500 in honor of his "achievement"

George N. Barnard, American, (1819-1902)

1. Opened Daguerreotype studio in Oswego, NY
   a. Became nationally known for his portraits
   b. 1851 made daguerreotypes of a fire—one of the first "spot news" photographs
2. 1857 invented method where a collodion negative could be printed directly onto woodblock
3. Civil War:
   a. 1861-62 photographed military activities in northern Virginia
   b. 1864 became official army photographer, for General William Tecumseh Sherman’s Military Division of Mississippi
      i. Documented the aftermath of Sherman’s march across Georgia
      ii. Best known for his album, "Photographic Views of Sherman's Campaign" (1866), which contains 61 original albumen prints
      iii. Known to have double-printed clouds into his skies to enhance the aesthetic quality of his scenes.
   c. After the war
      i. Worked in Chicago for a while: studio destroyed by 1871 fire
      ii. 1873-1880 studio in Charleston, SC, completed series on black workers reconstructing the south
      iii. Also did work in stereograph
      iv. 1880 returned to NY worked for George Eastman, as a spokesman
**Pictorialism**

**Julia Margaret Cameron, Amateur photographer, English, (1815-1879)**

1. Took up photography in mid-life (age 48) when daughter gave her a camera
2. Social position as aristocrat/diplomat led to famous subjects
3. Known for dynamic portraits, religious and allegorical subjects and costume pieces
4. Works considered:
   a. Generally blurred, out of focus
   b. Echo paintings
   c. Emphasis on sentiment, emotion

**Alfred Stieglitz, American, (1864-1946)**

1. Important 20th century photographer and advocate for the arts
2. Early Career
   a. 1902 creates publication “Camera Work” (1902-1917)
      i. Advocates for acceptance of photography as a art form
   b. Creates Photo-Secession Group with friends in 1902
      i. Promotes Pictorialist style
      ii. Abandons style by 1917
      iii. “Steerage” pivotal in transition to “modern” aesthetic
   d. Opens Gallery 291, representing wide array from Avant-garde to African art
   e. Avid collector, amassing some 650 works between 1894-1910
3. Later Career: Most productive phase of career begins with closing of Gallery 291 in 1917
   a. Begins 15 year project photographing Georgia O’Keeffe
   b. 1922 begins “Equivalent” series, photographing clouds for eight years
   c. Final work depicts New York City and family property at Lake George
4. Final word: long career with several shifts of emphasis. Very high sense of ideals, technical standards, etc.
ii. Part of loose knit group with Alvin Langdon Coburn
   1. Dedicated to a more inclusive view of artistic photography
   2. Organized exhibitions
2. 1914 Founded Clarence H. White School of Photography
   a. White School emphasized
      i. Graphic composition
         1. Balanced between light and dark, mass and void
         2. Subtly rather than boldness
      ii. Visual Relationships
      iii. Subject matter secondary
      iv. Idealist not transcendence
         1. Contemplative, not provocative
         2. Pictorial harmony symbolic of human accord
      v. Balance between individual expression and collective values
   b. Helped train generation of talented photographers
      i. Embraced broad influences
      ii. Encourage variety of approaches

**Alvin Langdon Coburn ,English [b. in US] (1882-1966)**

1. Early Work:
   a. Associated with Stieglitz and Photo-Secession Group
      i. Influenced by Whistler
      ii. Japanese tone and perspective
      i. Focused attention on NYC and London
      ii. Felt structures to be a metaphor for the triumph of human intelligence over nature
   c. Early work harbinger for 1920s Modernism
      i. Utilized geometric angles and unusual viewpoints

2. Best known for Vortographs
   a. Vortocism was a highly nationalistic British art movement begun just before WWI
      i. Rejected romanticism and sentiment of Victorian era
      ii. Fused French Cubism and Italian Futurism
   b. Suggests power and efficiency of the machine
      i. Tends to be geometric
      ii. Non-representational
   c. Coburn’s “Vortographs” are the first body of artistic photos to embrace total abstraction
      i. Used arrangement of mirrors placed over camera lens, producing refracted images
      ii. Critical response was disappointing
   d. Coburn had metaphysical leanings
      i. Interested in infinity, four-dimensional reality
      ii. Union of mind and matter

**Modernism: European New Vision and American or Straight/Purest Aesthetic**

**Man Ray (Emmanuel Radnitsky) American Expatriate, (1890-1976)**
1. Artist of varied talents: Photographer, painter, sculptor, filmmaker
2. Profoundly influenced by Cubism, Dadaism, Surrealism
3. Most progressive photographer in France in 1920’s
a. Earned living as portrait and fashion photographer
b. “Discovered” principle of the photogram 1921-22
c. Christened discovery “Rayograph”

4. Rayographs
   a. Range from abstract to anecdotal
   b. Used everyday objects—flat to 3-dimensional
      i. Results vary from “realistic” to extremely abstract
      ii. These works are “classic” Surrealist images

5. Explored other effects to subvert realism of object/medium
   a. Odd juxtapositions of figures and objects
   b. Drew on images
   c. Printed through textured scenes
   d. Unusual viewpoints and cropping
   e. Solarization:
      i. In developing stage, exposure of print to a brief flash of white light
      ii. Process creates a partial reversal of tone
         1. Shadows turn white
         2. Mid-tones remain unaffected
   f. Enlargements (great enlargement of small segment of negative)

**Ilse Bing 1899-1998 (Born Germany, moved to US)**

1. Queen of the Leica
   a. Took up photography in 1929 (after receiving doctorate in art history)
   b. Small camera revolutionized practice of photography
      i. Pictures made rapidly
      ii. Unobtrusively
   c. Moved to Paris in 1929
      i. Inspired by Modernists/avante garde
      ii. Successful commercial/journalistic practice

**Lazlo Moholy-Nagy (1895-1946)**

1. Central figure in German Avant-garde of 1920’s
   a. Native of Hungary
   b. Served in army
   c. Painter, who turned to photography 1922
2. Photograms—first works
3. Begins teaching at Bauhaus 1923
4. Wrote book: *Painting Photography Film* 1925
   a. Praised amazing possibilities of
      photography citing:
      i. Picture making potential of light
         sensitive materials: photogram & rayograph
      ii. Power of scientific images: x-ray, microscopic, astronomical
   b. Photograph represented a new standard of visual truth
   c. Photography holds key to social change
5. Personal production was widely varied
   a. Photograms
      i. Early works geometric form like his paintings
      ii. Interested in light and transparency
   b. Photomontage, et al
6. Intrigued by difference between camera vision and human vision
   a. Understood camera created scientific images alien to normal vision experience
   b. Made extensive use of negative images
   c. Used dramatic vantage points
Edward Weston, American, (1886-1958)

1. Career begins in 1911
   a. Opens studio portrait studio in Los Angeles
   b. “Romantic and Decorative photographs” win many awards
2. By 1920’s enters full artistic maturity
   a. Works through interest in tonal delicacy and graphic design
   b. Focuses upon precisionist renderings of volumetric form
   c. 1922 makes first pictures of “modern Industry”
3. Moves to Mexico makes new series 1922-23
   a. Monumental portraits made with hand-held 4x5” camera
   b. Crisp images of clouds, landscapes, buildings
   c. Bold geometric still-life and nudes
     i. All have new intensity of vision
     ii. Concentration on simplified forms
     iii. Purist use of medium
4. Returns to California in 1926, entering new phase in career
   a. Remarkable close ups of organic forms (1927-1934)
     i. Seashells
     ii. Vegetables: peppers, onions, etc.
     iii. Trees and rocks
   b. Close up view removed objects context from every day life
   c. Close vantage points tended to make scale ambiguous
   d. Monumental still lives influenced by many sources
     i. Grandeur of Bach's music
     ii. Brancusi's sculpture
     iii. Works by contemporary painters
   e. Weston's approach is distinctive
     i. Application of straight photography on an essentially mystical project
     ii. Depictions of timeless and universal life rhythms
5. Conceived a broader approach in late 1930’s-40s.
   a. Whole nude figures vs more tightly cropped body parts
   b. Whole vistas vs single rocks or trees
   c. Works also show occasional notes of irony and surrealism
   d. Death and decay: awareness of his own mortality
6. Eventually gave up photography due to illness: Parkinson's Disease
7. Part of Group f/64

Ansel Adams, American, (1902-1984)

1. Early Years
   a. Takes up photography in 1916 at the age of 14 years visiting Yosemite
   b. Early works as a Pictorialist
   c. Switches to a simpler style and crisper vision by 1929
   d. Becomes associated with f/64 group
2. Straight aesthetic fully realized by 1932
   a. Begins publishing technical articles in Camera Craft in 1934
   b. First book Making a Photograph issued 1935
3. Mature Work
   a. Characterized by meticulous technique
   b. Dramatic celebration of the natural world
     i. Viewed landscape of American West as awesome, beautiful and untouched
     ii. Sought to depict particular moments of heightened visual and emotional experience. Ex. Old Faithful Geyser
   c. Co-founds Aperture magazine with Minor White, Beaumont and Nancy Newell and others in 1952
4. His work was central to the establishment of the modern photography market in 1970’s
   Price of “Moonrise” often used in this period as a market indicator
5. Spokesman for preservation of nature: long-time member of Sierra Club
6. Photography and music analogy:
   a. Negative is the composer’s score
   b. Print is the performance

**Imogene Cunningham, American, (1883-1976)**

1. Early Career
   a. Opened own portrait studio in Seattle in 1910
   b. Moved to San Francisco in 1917
   c. Befriends Weston, Dorothea Lange, and others
2. One of the most experienced and experimental members of f/64
   a. Used Multiple exposures
   b. Semi-abstract plays of light and shadow
   c. Crisp focus on botanical forms

**Social Documentary**

**Lewis Wickes Hine, American, (1874-1940)**

1. Employed photography for social reform
   a. Educated as sociologist
   b. Had great empathy for working class
   c. Firm belief in education
2. Early Photography
   a. Employed as teacher at Ethical Culture School in New York
   b. Began using camera as educational tool
   c. 1904 begins photographing Ellis Island
   d. 1906 begins working for National Child Labor Committee
      i. Travels across country
      ii. Records children working in mines, mills, workshops and factors
      iii. Often had to employ subterfuge to gain entry
3. Impact of photographs
   a. Reproduced widely in newspaper and magazine articles
   b. Used in his own lectures/exhibitions
   c. Controlled meanings with written descriptions
   d. Work was instrumental in changing labor regulations
4. Strength of images
   a. Photographs unite fact and empathy
   b. Strove to convey the physical and emotional reality of subjects
   c. Rendered memorable as both individuals and symbols

**Walker Evans, American, (1903-1975)**

1. Background
   a. Raised in affluence
   b. Rebellied against smug prosperity of 1920’s
2. Turned to photography in 1928
   a. Used small camera
   b. Created New Vision semi-abstractions
   c. Soon switched to more straightforward approach and larger cameras
3. Early 1930’s
   a. Focused on unfashionable subjects
      i. Advertising signs
      ii. Commercial buildings
      iii. Streets of small towns
   b. Reacted to optimism of “the modern”
   c. Devotion to Americana/folk art
   d. Simplicity of style very misleading
      i. A highly intellectual and precise approach
      ii. Keenly aware of the difference between mainstream documentary photography
          and his own “documentary style”

4. Resettlement Administration/Farm Security Administration Work (RA/FSA)
   a. Most celebrated pictures of his career
   b. Produced during 15 month period from 1935-36
   c. Photographed many states: West Virginia, Pennsylvania, Mississippi, Louisiana, Alabama, Georgia and South Carolina
   d. Recorded working class houses, shops, cemeteries, churches, dumps, etc.

5. Collaboration with James Agee in 1936
   a. Commissioned by Fortune to investigate plight of Southern tenant farmers in Hale County, Alabama
      i. Spends month with two neighboring households
      ii. Agee wrote detailed accounts/Evans took photos of people, places, interiors
      iii. Pictures reveal order and dignity in abject poverty
   b. Project was rejected by Fortune
   c. Collaboration was published as a book in 1941 “Let us Now Praise Famous Men”: innovative union of pictures and text

6. Museum of Modern Art Show
   a. 1938 Evans first photographer to be give a one man exhibition
   b. Museum printed book to accompany show “American Photographs”

7. Evans work is among the most individual and cerebral ever made

Dorothea Lange, American, (1895-1965)
1. Early Works
   a. Entry level positions in NY studios
   b. Brief attendance at Clarence White School of Photography
   c. Moved to San Francisco 1918
   d. Successful portrait business

2. Photographic Maturity 1932-34
   a. Began taking photos of unemployed on streets/in bread lines
   b. Felt compelled to record social tragedy around her
      i. As a child suffered polio
      ii. Sensitized to the suffering of others
      iii. Made her keenly aware of expressive language of the body

3. 1932-45 Lange worked for various state and government agencies
   a. Photographed nearly every region of the country except New England
   b. Work shapes our collective memory of Depression-Era America
   c. Key to Work:
      i. Ability to distill complex situations with a single powerful motif
      ii. Sought to effect social change
      iii. Photographed subjects exactly as she saw them
      iv. Recorded their comments as well as gestures

Photojournalism and Applied Photography

Edward Steichen (Born Luxembourg, USA as infant) (1879-1973)
1. Began as Pictorialist
a. Apprenticed as a lithographer in Milwaukee
b. Painted and photographed
c. Submitted works to Pictorialist salons in 1890’s: these were highly praised

2. Painting to photography
   a. Spent years in Paris prior to WWI painting
   b. Greatly influenced by Symbolism and other modernist movements
   c. Destroys all his paintings in 1910s

3. Began collaborating with Alfred Stieglitz ca. 1900
   a. Worked on “Camera Work” (designed cover)
   b. Installations at Gallery 291

4. WWI director of Aerial Photography for Allied Forces

5. Sheds Pictorialism for more “modern sensibility”
   a. Joins Conde Naste in 1923 (*Vogue* and *Vanity Fair*)
   b. Works in fashion/celebrity photography

6. WWII serves as director of Naval Combat Photography

7. 1947 head of Photography Department, Museum of Modern Art
   a. Organized and promoted exhibitions
   b. Wrote articles
   c. Published books

8. 1955 Organized “Family of Man” Exhibition and catalog
   a. Believed show pinnacle of his career
   b. Highly popular with the public; in the photo world, a somewhat controversial (and still often misunderstood) project

**IrvingPenn, American, (b. 1917)**

1. Trained as a commercial artist

2. Photography:
   a. Begins making personal photographs in the late 1930’s
   b. Hired by Vogue in 1943
   c. Works with equal facility in fashion, portraiture and still-life
   d. Unmistakable hallmarks:
      i. Soft, even light
      ii. Casual poses and props
      iii. Sensitivity to line
      iv. Technical precision
      v. Spare, serene elegant

3. Fashion images
   a. Abstract
   b. High style with focused attention on clothing

**Richard Avedon, American, (1923-2004)**

1. Began working for *Harper’s Bazaar* in 1945

2. Photos had different sense of vitality/surprise
   a. Interest in models, not just clothes
   b. Reputation for boldness: Dovima with Elephants
   c. Achieved celebrity status: Inspired movie “Funny Face”

3. 1950’s embraces all kinds of photography
   a. Fashion, portraiture, advertising
   b. Street scenes

4. 1960’s produces two books of photographs
   a. *Observations*
5. Stated desire “never to bring the same mental attitude toward the same problem twice”

Post War Movements

Harry Callahan, American, (1912-1999)

1. Came to photography without formal training in the arts
   a. Bought first camera in 1938
   b. Worked casually with photography for a few years
   c. Involved with local photographers group in Detroit
   d. Inspired by teaching/works of Moholy-Nagy
2. Breakthrough
   a. Attends Ansel Adams workshop in 1941
   b. Realizes photography could be a means to explore life and to express one’s self
      i. Subjects include nature, architecture, city life and his family
      ii. Uses cameras of various sizes, 35mm to 8x10”
      iii. Multiple exposures
      iv. High contrast printing
      v. Use of both black and white/color film
3. Uncommon vision
   a. Weed in the snow
      i. High contrast printing alters form
      ii. Becomes equivalent of Zen drawing
   b. Alley, Chicago
      i. Multiple exposures transform solidity of things
      ii. Vision of transparency and weightlessness
4. Influence upon others huge
   a. Teaching
      i. Hired to teach at Chicago Institute of Design in 1946
      ii. At Rhode Island School of Design, from 1961 to 1976
      iii. Instructed by example as much as by words
   b. Exhibitions
5. Transcendence in the Commonplace
   a. Deeply personal visions/quests
   b. Straight photography charged to new levels, mythic

Minor White, American, (1908-1976)

1. Early Works
   a. Architectural studies
   b. 1938-39, WPA art program
2. Influences and Inspirations
   a. Straight photography with personal expression
   b. Influenced by
      i. Stieglitz idea of Equivalence
      ii. Weston’s purist clarity
      iii. Adam’s devotion to the natural landscape
   c. Inspired by:
      i. Catholicism; Christian mysticism
      ii. Zen, Tao

Minor White, American, (1908-1976), Warehouse Area, San Francisco, 1949,
iii. Jungian Psychology and Hypnosis
iv. Astrology

3. Perceived world through language of symbol and analogy
   a. Attracted to elemental things
      i. Rocks, trees
      ii. Human figure
   b. Found suggestions of larger forces
   c. Evocations of his own feelings
   d. Meanings of images lay beyond “objective” subject matter
   e. Meanings lie in realm of simile, metaphor and symbol
   f. Meanings were dynamic; reflect moods/ideas of individual viewers

4. Teacher, editor, artist
   a. Worked at George Eastman House
   b. Taught at Rochester Institute of Technology
   c. Lectures and workshops
   d. Writer (alter ego Sam Tung Wu)

5. Aperture
   a. Quarterly magazine begun in 1925-1975
   b. One of several avant garde visual/literary magazines
   c. Limited subscription for serious practitioners

Robert Frank (b. Switzerland) (1924-)

1. Early work
   a. Hired by Harpers/Junior Bazaar 1947
   b. Photographed in Peru and Bolivia 1948
   c. Photographed in Europe 1949-53
   d. Receives Guggenheim Grant 1955

2. Personal discovery: The Americans
   a. Traverses USA 1955-56
   b. Exposes 800 rolls of 35 mm film
   c. Chooses 83 images for book
      i. Gritty, unflattering
      ii. Limited to natural daylight
   d. Motivated by Steichen’s “Family of Man” but decidedly different in character
      i. Deliberately avoided newsworthy subjects
      ii. Avoided evidence of good life
      iii. Recorded people in states of boredom, wariness or vacancy
      iv. Embraced wide range of themes: birth and death, class and privilege, youth and age; race relations, etc
      v. Attracted to America outside the cultural mainstream

Aaron Siskind, (1903-1991)

1. Early Works
   a. Social documentary
   b. Part of Photo League in NY

2. New interest in the form
   a. Shift from document to metaphor
   b. Mundane subject matter
   c. New works with no documentary content
   d. Extreme close ups
      i. Tension
      ii. Asymmetry
      iii. Ambiguity
   e. Trivial subjects can take on new meaning,
symbolic of human condition
f. Underline existential belief that life is uncertain
g. Few works deal with people: *Pleasures and Terrors of Levitation*

3. Close ties with avantgarde artistic community
   a. Friends with leading painters-Abstract Expressionists
   b. Exhibited with them

4. Taught at both Institute of Design, Chicago, and RISD, in Providence

**Frederick Sommer b. Italy, (1905-1999)**

1. Original voice
   a. Educated as landscape architect
   b. Worked in variety of mediums: drawing, watercolor and musical composition
c. Over-riding interest in photography by 1930’s

2. Photography: Truly original voice
   a. Desert views
      i. 8x10 inch camera
      ii. Eliminates horizon line
      iii. Frame filled with rocks and cactus
      iv. No clear center of interest
      v. New way of seeing
   b. Dead animal series
      i. Coyotes and rabbits depicted
      Surreal arrangements
      ii. Contrast of technical beauty and the grotesque
   c. Found objects arrangements
      i. Titles drawn from literary of mythological sources
      ii. Defy interpretation
   d. Abstractions
      i. Non photographic reproduction: prints from non-camera generated matrices
         (placed in enlarger like ordinary negative)
         1. Smoke on glass
         2. Oil paint on cellophane
      e. Cut-paper images:
         i. Created elegant networks of cuts on large sheets of paper
         ii. Carefully illuminated and photographed
         iii. Unites painterly interest in abstract beauty of line and tone with technical precision

**Diane Arbus, American, (1923-1971)**

1. Background:
   a. Grew up in NYC
   b. Privileged life

2. Early Work:
   a. Fashion photographer for Glamour, Vogue, et al
   b. 1957 dissatisfied with commercial work
c. New focus for the “odd” or forbidden

3. 1960’s
   a. Works for several magazines: Esquire, Harpers, Glamour, NY Times, etc
b. Subjects range from circus performers to transvestites  
   i. Viewed with sympathy  
   ii. Depicted as forlorn and forgotten, not alien  
   iii. Recurrent themes include masks, facades  

c. Tension between appearance/meaning  
   i. Questions notions of identity and reality  
      1. Represents what is already a representation  
      2. Suggests uncertainty of visual truth  
   ii. Testifies to the fantasy and fraud that run throughout society

**Jerry N. Uelsmann, American, (1934-)**

1. Creates "photographic fictions"  
   a. Studied with Minor White at Rochester Institute of Technology  
   b. Henry Holmes Smith at Indiana University  
   c. Begins making mysterious/allegorical photos in 1959  
      i. Initially overlapped negatives in his enlarger  
      ii. Created images that resembled convention double exposure  
   d. Multiple prints grew more sophisticated  
      i. Instead of overlay, he fused negatives together seamlessly  
      ii. Composite images read like naturalistic "wholes"  
      iii. Objective records of impossible things  

2. Critical response  
   a. Ambiguous content, allusive titles perfect subjects for "readings"  
   b. Critics found work imbued with allusions to art history, mythology and comparative religion  


**Contemporary Pluralism**

**Cindy Sherman, American, (b. 1954)**

1. Early Works: Performance Art  
   a. Untitled Film Still Series -1977-1980  
   b. 69 photographs, black and white 8x10  
      i. Self as model  
      ii. Close attention to details  
         1. Lighting,  
         2. Makeup and clothing  
         3. Pose etc  
   c. Complex in Meaning  
      i. Cultural stereotypes,  
      ii. Role playing,  
      iii. Mythical narratives,  
      iv. Photographic representation  

2. Subsequent work unexpected and unsettling  
   a. Preoccupation with monsters, sex, death and decay  
   b. Removed herself from subject, using dolls  

Jerry M. Uelsmann, American, b. 1924, Small Woods Where I met Myself, 1967, print ca. 1980, Gift of Hallmark Cards Inc.

Cindy Sherman, American, b. 1954, Untitled Film Still #16, 1978, Gelatin Silver Print, Gift of Hallmark Cards, Inc., 2005.27.177
Sandy Skoglund

1. Took up camera in 1974
   a. Has MFA in painting and filmmaking
   b. Influenced by Ed Ruscha, William Wegman

2. Early work:
   a. Boldly patterned still-life
   b. By 1979 creating room-sized installations to photograph
   c. Creates complex sets in which every element is handmade or arranged

3. Installations
   a. Dramatic in scale
   b. Surreal humor
   c. Larger meanings more subtle
      i. Juxtapositions of nature and culture
      ii. Question relationship between natural and manmade environments

4. Union of surrealism and conceptualism: constructing a reality for the camera

5. Straight photography
Bibliography


Curatorial and Guest Lectures:

Keith Davis, *Introduction to Photography*: December 12, 2006


Keith Davis, *Developing Greatness Installation*, May 14, 2007


April Watson, *Time in the West Installation*, October 26, 2007

Vocabulary

**Ambrotype:** A slightly underexposed wet-collodion negative on glass which, when backed with black, appears as a somewhat dull-toned positive image.

**Autochrome:** A full-color transparency on glass, similar to a slide, typically of about 4x5 or 5x7-inches in size. These were introduced in 1907 and were produced into the 1920s; it was a very expensive process. To view, an autochrome held up to the light.

**Carbro Color:** (Ozobrome, tri-chrome Carbro, dye transfer print) a permanently colored (less often, monochrome) photographic print popular in the 1920s and 1930s, produced in a system similar to the carbon print, but with three bromide transfer images stacked in registration to produce a single full-color image. The color separation negatives are made by photographing through a red, a green and a blue filter. The name Carbro comes from the first three letters of carbon and bromide; about 5-6 images may be made from the original bromide print. This was an expensive and difficult process, typically done only in professional studios.

**Daguerreotype:** The first successful photographic process, publicly introduced in 1839, in which an image is made on a silver surface sensitized with iodine and bromine, and developed by exposure to mercury vapor. The daguerreotype was popular from about 1840 to 1860; by the early 1860s, few photographers were still producing daguerreotypes.

**Dry-collodion process:** On glass, was in limited use from the mid-1850s to the mid-1860s. It was a variant of the wet-collodion process, but the exposure time was almost six times as long and this process never became widely popular.

**Dry-plate:** A generic term for the factory-made dry emulsion processes (typically on glass plates) that became available in the late 1870s, and which completely replaced the wet-collodion technique by the mid-1880s. These ready-made plates allowed photography to become a truly amateur activity.

**European New Vision** (ca. 1920-1935): A specific kind of Modernism, technically and aesthetically quite adventurous. This approach was characterized by the use of cameraless images, unusual vantage points, and other "non-purist" approaches.

**Glass-plate:** The support for photographic negatives, beginning in the wet-collodion era of the early 1850s, but also extending well into the 20th century, with various dry processes.

**Kodachrome:** A highly popular color transparency film introduced by Kodak in the late 1930s; the first genuinely popular and affordable mass color photographic technique. Very stable and permanent.

**Modernism:** The deliberate departure from tradition and the use of innovative forms of expression that distinguish many styles in the arts and literature of the 20th century. A bolder, more precise way of seeing, usually indebted to the geometric clarity of machine forms and engineering; a vision which recognizes and celebrates what is uniquely "photographic" about photographic tools and materials. In a narrow sense, photographic modernism is sometimes restricted to the period of roughly 1915-1935.

**Negative:** The primary photographic image created by the light striking a sensitized surface. The tones are "reversed": strong light produces dark tones, while dark shadows register as clear areas of the image. When put in a photographic enlarger and projected onto photographic paper, the result is a re-reversal of tone, or a positive print.

**Occupational Images:** Photographs of an individual with some obvious evidence of their occupation, trade, or special interest.
**Pictorialism**: An idealized mode of vision, with an emphasis on the aesthetic over the documentary or merely factual. Classic Pictorialism was an international style between about 1895 and 1915, while “late Pictorialism” dominated Salon work into the 1950s.

**Pluralism**: An openness to a variety of expressive ideas and approaches; a characteristic quality of international art from about 1965 on.

**Post-Mortem**: A photographic "portrait" of a deceased subject; very popular in the min-19th century.

**Social Documentary**: Photography used as a tool to examine various aspects of society, the underclass, how real people live, etc. This approach was dominant in the 1930s, as a logical response to the sobering realities of global depression.

**Stereoscope**: An optical instrument with two eyepieces used to impart a three-dimensional effect to paired photographs of the same scene taken at slightly different angles in a stereo camera. Stereo imaging was introduced in the early 1850s and remains popular today.

**Wet-collodion process**: In use from about 1851 to 1885. This technique used a hand-applied light-sensitive emulsion (collodion sensitized with silver nitrate) on a glass plate. The sensitivity of the plate depended on the use of the emulsion while damp. Thus, the plate was immediately placed in the camera, exposed, and then developed. This required every photographer in the field to carry their entire darkroom equipment with them and to set up a portable "dark tent" at the scene to be recorded. This process was valued for its fine detail and because exposure times were considerably shorter than for daguerreotypes or calotypes (dry paper negatives).