The history of photography is long and often vague. Due to the complexity of the development of photography, its invention and success cannot be attributed to one specific individual. Certain aspects of photography have been around for about 1500 years. However, one thing is for certain, long before there was ever a "photograph" made with film and photographic paper, pictures were being made with cameras. These pictures were not like the pictures or photographs that we have today, but rather, were images that were traced onto paper after being inverted. The camera used was called a camera obscura.

This rudimentary camera was described by Leonardo da Vinci in the 15th century and later by Girolamo Cardano in 1550 who added a convex lens to improve the image. The camera obscura was simply a box or a room that was fitted with a lens. The subject would be placed outside the box or room. The subject's image would then be projected through the lens to the back of the box or the back wall of the room. The inverted, projected image—although not very clear-- could then be traced by artists and later painted or colored to produce a picture.

The beginning of the photograph as we know it began in the seventeen hundreds when Scheele—a Swedish chemist—repeated some previous experiments of Johann Scholze who discovered that silver chloride reacted with light. Both Johann Schulze and Carl Scheele didn't realize the importance of their discoveries and, consequently, never utilized them.

PORTRAIT OF LIBBIE WHITELOCK BY GEORGE ED ANDERSON

However, sometime between 1800 and 1802 Thomas Wedgwood was able to obtain an image using the same ideas as Schulze and Scheele. His glory was short lived when he was unable to fix the image and make it permanent, thus losing out to Frenchman Joseph Niepce in 1826.

Niepce used a form of asphalt and oil that was hardened by exposure to light. This process was slow (8 hour exposure time), and produced a blurred image of Niepce's barnyard. Nevertheless, it was a permanent image, and although fuzzy, Niepce had produced the world's first photograph. Niepce's glory was also short lived when another Frenchman—Louse Daguerre—made what was known as a Daguerreotype.

Daguerre had worked with Niepce until Niepce's death in 1833. Daguerre worked with the earlier discoveries using silver and its compounds to produce an image. In 1835 the Daguerreotype was developed. The Daguerreotype had an exposure time of 15-30 minutes, which was later reduced to only 30 seconds with the improvement of the lens. The new lens allowed for more light to enter the camera. This print was a reversed image, which had to be viewed in a reflected light. The metal plate was actually a negative, but if held so that the unexposed portion of the photo reflected a dark color, the image would appear positive.

Daguerre had developed the first practical photograph. Practical—and yet not practical. The problem with the Daguerreotype was that the image could not be reproduced. The daguerreotype was a reverse image on a polished metal plate. If a duplicate was desired, another photograph had to be taken.

William Fox Talbot, an Englishman, developed the process of making a photograph or a duplicate of that photograph from a negative around 1835. Talbot's process produced a paper negative from which numerous prints called Calotypes could be made. However, the advantage of multiple copies was outweighed by the fact that the Calotype photographs were not as clear as a Daguerreotype due to the paper negative.

When the Collodian process (referred to earlier as an Ambrotype or Daguerreotype on glass) was introduced in the early 1850's by Robert Bingham—an Englishman—the Calotype photograph lost out.

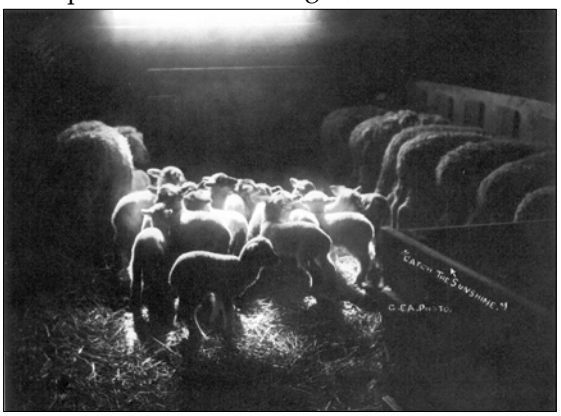
PORTRAIT BY GEORGE ED ANDERSON

The Calotype lost out because the new Collodian process produced clear images like the Daguerreotype, and could produce multiple copies due to the glass

negative. The Collodian Process needed only a 5-second exposure and produced a glass negative that could be reused to produce numerous positive photographs.

During the next 50 years numerous individuals attempted to modify and improve the Collodian process. Many met with failure, some with success. In 1878 Charles Bennett discovered that by heating the emulsion on the negative the sensitivity to light was increased, reducing the time needed for an exposure, thus making hand-held exposures possible for the first time.

The progress continued when in 1887 flexible film was introduced by Hannibal Goodwin--an American. Since 1887 the improvements to film have continued. In 1954 the first high speed black and white film, Tri-X was introduced. In 1987 T-Max as well as other new high quality films were also introduced to the market. Research and Development departments of all major film producers are continually attempting to improve film and to make it faster, finer grained, and higher contrast. In conjunction with the introduction and development of flexible film the introduction and development of today's 35mm camera began.



"CATCH THE SUNSHINE" BY GEORGE ED ANDERSON

The development of the modern camera began in the 1890's when George Eastman introduced the Kodak camera. This camera was simply a box with a lens and enough film to take 100 photographs. When the film was exposed the camera was returned to the manufacturer who would develop and print the photographs, re-load the camera and return it to the owner.

In 1924 35mm photography was born when Dr. Leitz introduced the Leica camera, the first 35mm camera. Since the introduction of the Leica, 35mm cameras have continued to gain popularity up to the present day. The 35mm format is the most popular choice for both amateur and professional photographers alike. Since the introduction of the Leica, basic camera designs or looks haven't changed significantly, but, technology and electronic features continue to simplify and refine the 35mm format. The first Leica camera didn't have a Rangefinder, but this feature was soon added to succeeding models. As competition for sales of 35mm camera grew, so did the features on the cameras. The most significant change to the 35mm Camera during the 15 years following the introduction of the Leica was the development of the S.L.R. or Single Lens Reflex camera in the late 1930's.

The SLR feature allowed the photographer to look directly through the lens. The SLR feature was first found on the Exacta camera. The Exacta camera was the only camera that used this new feature for many years because most thought that the SLR design was just a passing fad that would never replace the rangefinder design. However, during the 1950's and the 1960's SLR cameras began to gain popularity and soon became the standard in the industry. Over the next 20 years the design of 35mm cameras remained virtually unchanged with the exception of more electronic features, outer designs, and the introduction of computer technology. In the late 1980's and early 1990's the digital camera was introduced to the mass market.

The digital camera makes digital images of a photograph rather than storing the images on film. This allowed the images to be down loaded into a computer and manipulated with various software packages. At this stage there are basically 2 levels of digital cameras. The first or consumer level takes relatively good quality photographs for the price of the equipment ($400 - $1,500). The upper end cameras, however, are able to reproduce excellent images and are used by larger companies and newspapers. These cameras and their accessories can cost over $20,000 and are thus out of range for the average photographer. Over the next few years as technology continues to improve, the quality of the lower end digital camera will no doubtably improve. The only other major change to 35mm photography came in 1995/96 when most major photographic companies combined their resources and came up with the new Advanced Photo System (APS).

APS utilizes a new camera, film format and canister. This system allows the photographer to take regular or elongated photos from the same camera and film. When the film is developed it is stored in the original container--thus eliminating scratches, etc. on the negatives--and the consumer is given a proof sheet of all the photos on the roll of film. The two major disadvantages of this format are that the film is slightly smaller than that of a regular 35mm SLR camera. Thus the negatives are smaller resulting in poorer enlargements. The other disadvantage is that the film can only be processed in a specialized facility impacting those amateur photographers or hobbyists that currently use their own darkrooms for regular 35mm photography.

See page 7 for your assignment.

After reading the History of Photography Handout, complete the following time-line using **<u>one or two</u> sentences** describing or listing important dates, names, information and developments.

TIME-LINE

1. **NIEPCE**

2. **DAGUERREOTYPE**

3. **CALOTYPE**

4. **COLLODIAN**

5. **FLEXIBLE FILM**

6. **TRI-X**

7. **KODAK**

8. **LEICA**

9. **EXAKTA**

10. **APS**

11. **DIGITAL**