

Photographic Techniques

Albumen prints are the most common type of photographs from the 19th century. The process involves coating a sheet of paper with albumen (egg white), which gives the paper a glossy, smooth surface. The albumenized paper is sensitized with a solution of silver nitrate, then exposed in contact with a negative. Albumen prints are "printed-out," meaning that the image is created by the action of light alone on light-sensitive paper, without the use of chemical developers.

Ambrotypes are sharply detailed, one-of-a-kind photographs on glass, packaged in protective cases similar to those used for daguerreotypes. An ambrotype is essentially a collodion on glass negative that is intentionally underexposed so that the negative image appears as a positive image when viewed against a dark background.

The **cabinet card**—a popular format for 19th-century photographs—is a photograph mounted on heavy card stock and measures approximately 6-1/2 x 4-1/4 inches. Cabinet cards are usually studio portraits, and cabinet cards of celebrities, a favorite subject, were widely collected in the last quarter of the 19th century.

The **carte-de-visite**—a paper photograph mounted on a thin card measuring approximately 4 x 2-1/2 inches—was the most popular format for portrait photography in the 19th century. A carte-de-visite was roughly the same size as the visiting cards that gave the format its name. Cartes-de-visite were often exchanged between friends and family members and were collected in specially made albums. The term is of French origin meaning "visiting (or calling) card."

A **C-print or chromogenic print** is made on photographic paper that has three silver emulsion layers sensitized to the primary additive colors of light (red, blue and green). During the developing process, dye couplers bond with the exposed and developed silver halides to produce complementary subtractive color dyes (cyan, yellow and magenta). The silver is bleached away, leaving a full-color positive image.

A **Cibachrome print** (a silver dye bleach print) is made on paper containing three emulsion layers, each sensitized to one of the primary additive colors of light (red, blue and green), and each containing a full density of the complementary subtractive color dye (cyan, yellow and magenta). During development, the silver and the unnecessary dyes are selectively bleached away, leaving a final positive print. The process is used for making prints from color transparencies and is noted for its stability, image clarity, and color saturation.

Collage is a technique of an art production, primarily used in the visual arts, where the artwork is made from an assemblage of different forms, thus creating a new whole.

Collodion negatives, usually on glass (ambrotypes) or on metal (tintypes) were made by coating the surface with collodion, a sticky substance to which light-sensitive silver salts could adhere. The sensitized plates were exposed in a camera, then developed in chemical baths.

Cyanotypes are photographic prints distinguished by their bright blue color. The process involves soaking a sheet of paper in a solution of iron salts, then exposing the paper in contact with a negative or objects. The part of the paper exposed to light turns blue, while the unexposed areas remain white. The image is fixed by washing the paper in water, which rinses off unexposed chemicals and intensifies the blue color. The process was invented in 1842 by Sir John Herschel.

Daguerreotypes are sharply defined, highly reflective, one-of-a-kind photographs on silver-coated copper plates, packaged behind glass and kept in protective cases. Introduced in 1839 by Louis-Jacques-Mandé Daguerre, the daguerreotype process was the first commercially successful photographic process, and is distinguished by a remarkable clarity of pictorial detail. Daguerreotypes were popular through the 1840s and into the 1850s, especially for portrait photography.

A **digital print** derives from a digital based image printed directly to a variety of media (paper, cardboard, cloth, etc.) via a laser or an inkjet printer.

A **dye transfer print** (or dye imbibition print) is a color print made of dyes transferred from three gelatin matrices onto a sheet of paper coated with gelatin. To make a dye imbibition print, three separation negatives are made of the three primary additive colors (red, blue and green). From these negatives, gelatin matrices are created that are capable of absorbing and releasing dyes of the primary subtractive colors (yellow, cyan, magenta). When placed in exact registration on the paper, the transferred dyes create a full-color image.

A **photogram** is made without the aid of camera or lens and is the most elemental of photographic techniques. It is produced by placing objects in contact with the surface of sensitized paper or film and then exposing it to light. The resultant image, after processing, reveals a photographic tracing of the object's form, with dark tonality in areas exposed to light, and light tonality in unexposed areas.

A **pigment print** involves any one of a number of photographic processes (such as carbon prints and gum bichromate prints) that utilize pigments and

bichromated colloids rather than light-sensitive metal salts in the creation of print images.

A photolithograph

Salt prints are the earliest photographic prints on paper. They are often distinguished by their lack of precise image details and matte surface. Salted paper print images are embedded in the fibers of the paper, instead of being suspended on the surface of the paper, as in the later albumen prints and gelatin silver prints. Salted paper prints were "printed-out" in contact with paper negatives; the image was formed solely by the action of light on metal salts, without chemical developers.

A **silver gelatin print** (or **silver emulsion**) is produced on paper coated with a gelatin emulsion containing light-sensitive silver salts. Gelatin silver prints are generally "developed-out" instead of "printed-out;" the paper registers a latent image that only becomes visible when developed in a chemical bath. Developed at the end of the 19th century, gelatin silver printing has been the dominant black-and-white photographic process of the 20th century

A **stereograph** comprises two nearly identical photographic prints that have been recorded with a specially designed camera that has two lenses that are eye-width apart. Stereograph negatives are exposed simultaneously and later printed on heavy card stock. When a stereograph is viewed through a special viewer called a stereoscope, the viewer sees the image with a third dimension, giving a sense of depth and "reality" to the scene. They were a popular form of entertainment from the 1850s to the 1920s. In the 20th century stereography found renewed popularity in the form of Viewmaster reels and viewers.

A **tintype** is a non-reflective, one-of-a-kind photograph on a sheet of iron coated with a dark enamel. Its most common use was for portrait photography. Like ambrotypes, tintypes rely on the principle that underexposed collodion negatives appear as positive images when viewed against a dark background. Less expensive and more durable than either ambrotypes or daguerreotypes, tintypes did not require protective cases and were often kept in simple paper frames or folders. Tintypes first appeared in the United States in 1856, and remained popular well into the 20th century.

The majority of these definitions are adapted from a glossary produced by the George Eastman House, <http://www.geh.org/taschen/htmlsrc/glossary.html>.