

A brief guide to processes used in Aaron Turner's work in the exhibition, *Refracting Histories*

Cyanotype: an alternative photographic printing process developed by Sir John Herschel in 1842. The process, recognized for its blue hue, usually involves mixing the chemicals Potassium Ferricyanide and Ferric Ammonium Citrate. Once mixed properly the paper, textile, or absorbent material is coated with the solution. A negative or object(s) can be placed onto the light sensitive surface and exposed to UV light or the sun. Once the exposure is complete the paper or textile is washed and left to dry. Similar to photograms, Cyanotypes leave an imprint of the object while areas exposed to light are a deep blue tone.

Daguerreotype: the first successful photographic method invented in 1838 and named after Louis-Jacques-Mandé Daguerre. Daguerreotype are one-of-kind plates that can be used to make multiple prints. The image is fixed onto a polished silver-coated plate of copper that is made light sensitive with iodine vapors and exposed in the camera. It is developed with mercury fumes and fixed with sodium thiosulfate. The images are one-of-a-kind with extreme detail and a reflective background.

Dry Plate contact print: a gelatin process invented by Dr. Richard L. Maddox in 1871. It became so popular that the first dry plate factory was established in 1879. It was more practical than the original wet plate collodion process that required photographers to have access to a dark room immediately after creating an exposure. Dry plates after being exposed could be placed back in the box and developed later. A contact print is an image or proof of a film or glass negative. The negative is placed directly on top of the photographic paper and exposed to create a positive image. A dry plate glass negative can be used to create a contact print hence producing a positive version of the plate.

Gelatin silver print: an imaging process based on the light sensitivity of silver halides, a combination of silver bromide and silver chloride. Before the paper is exposed the layer of the paper consists of clear gelatin holding the light-sensitive silver halides. Exposure to light activates the silver halides and they form specks of metal on the surface. At this point the image on the paper is latent. The paper is then placed into developer, which transforms the silver halides into metallic silver. After the stop bath the paper is placed into a fixer where the image is made permanent. The result is a grayscale photograph.

Lumen print: a photographic method developed in the 1830s by William Henry Fox Talbot. Lumen printing is done by using silver gelatin photographic paper and exposing it to the sun. This method is like a photogram where a variety of object(s) or negative(s) to create a contact print. However, instead of using an enlarger in the darkroom, a Lumen print uses the sun for the exposure.

Palladium Print: a cheaper version of platinum printing, which achieves similar effects. The process is based on the light sensitive ferric oxalate. The ferric oxalate is reduced to ferrous oxalate when exposed to UV-light. The ferrous oxalate then reacts with the palladium.

Photo Emulsion Glass Positive: a positive image on a sheet of glass. Normally this is created using the wet plate collodian process. Wet plate collodian process is a photographic process in which the photographic material has to be coated, sensitized, exposed and developed within 15 minutes. Photo Emulsion Glass positives can also be made through the 'dry' method that did not limit photographers to working in a darkroom free of light exposure. Dry plate Glass negatives can then be re-exposed to create a direct positive image directly on the glass plate.

Van Dyke brown print: a contact printing process, meaning the print is made by placing the negative on top of the coated paper instead of enlarging it. The process is dependent on the light sensitivity of a salt, silver tartrate. The solution is made up of three parts, which are added to one another until the paper is ready to be coated. Then the paper is exposed to UV light. The image is fixed with a solution of 5% sodium thiosulfate with a teaspoon of household ammonium per liter.