

Alternative Printing Processes

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Why would one rather use outdated photographic procedures, which are complicated and expensive, than produce standard silver-based black-and-white prints, not to mention digital ones? The answer: in order to make platinum-palladium photos. Such prints require a lot of patience, skill, and a little knowledge of chemistry.

The history of making photos by means of precious metals pre-dates that of the silver-based processes. The main concern of early photo-experimenters was the durability of their products. In this area, precious metals were far more promising than silver. Chemical stability of platinum and palladium was a great concern of the pioneers of photography. In the 1890s, William Willis, in England, succeeded to conduct the proper procedure. As a result, his Platinotype Company started to sell platinum pre-coated photographic paper. It was considered easy to use, good-looking, and durable. At the same time, two Austro-Hungarian officers: Giuseppe Pizzigheli and Baron Author von Hubl, developed and patented a procedure for the production of platinum photos in which an image emerges during the exposure with no need for developing solution. For a short period of time, the procedure was commercially accessible, but was later abandoned due to quality control issues.

From its very beginning, photography was not well-accepted in the artistic world. The blame goes in part to its inventors. Daguerre, for example, presented photography to the world as "a process that reproduces nature and gives everybody a chance to register detailed views in only a few minutes." Traditional artists, also, were not ready to accept science-oriented eccentrics. It got even worse when Kodak launched its handy camera for amateurs and photography became easily accessible for public.

As an answer to these challenges, a movement of photographers who turned in the opposite direction from the photographic mainstream emerged. They started to make prints which looked more like paintings than photographs, with difficult processes and with an aesthetic touch. These processes were focused on the photographer, as the final product depended mostly on their skills and knowledge. This was a counter-argument to the critics, who were saying that photography is a fully-mechanical medium. A movement of Pictorialists was formed, and at the beginning of the twentieth century platinotype became one of their major expression media.

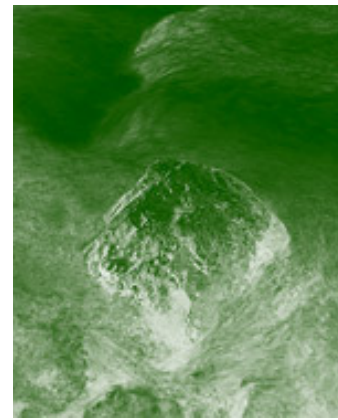
During the first World War, the prices of platinum went sky-high due to its role as a catalyst in the production of explosives, and the process of making photographs with precious metals died away in 1920s. Some photographers, especially in England, however, continued the tradition. As the pre-coated paper was not commercially accessible, the photographers mixed their own emulsion and coated paper, parchment, ceramics, or wood. In the 1970s there was a revival of making photographs with precious metals. Some galleries, especially in the USA, specialized in exhibiting palladium and platinum photographs.

Nowadays, information exchange on the Internet plays an important role in spreading knowledge about "alternative photographic processes." The availability and exchange of information helps many beginners to make progress. It also enables those photographers who seek new challenges to come into contact with techniques that can be hard to trace in literature. Since all photos made with precious metals are contact-prints, which means that the negative needs to be as large as final product, they use to require huge cameras or painfully-difficult enlargements of smaller negatives. With advances in digital printing techniques and with the introduction of quality transparent media, the making of larger negatives became much more convenient.

How to make a digital negative? Just start with a digital black-and-white photo that you are satisfied



with. Since you'll be using ultraviolet light to expose precious metals, plain black and white negative printed on transparent media would not work. Dye-based prints will not work since the dyes were not designed to absorb ultraviolet light, but rather to reflect visible light. Pigment inks were also not designed with that goal in mind, but work much better. Another problem is that different-coloured pigment inks do not absorb ultraviolet light evenly, so the correct mix of colours and a correction curve for image are necessary. The bottom two images on the right are examples of a negative (printed in green) and the resulting positive image. I will not go into great details here, since it is widely available on the Internet. A list of useful links is included at the end of the article.



When you are done producing the negative, it's time for the exposure. Other than being very rewarding to use one's own hands to produce final result, hand-coated photographic procedures also result in prints that are hard to beat with regard to stability and subtle tonal changes. Precious metals prints also exhibit a variety of colours not possible with silver-based printing, that can be very rewarding to an experienced print maker.

Another difference between commercially-available papers and hand-coated ones is the variety of substrates: precious metals emulsion can be applied to ceramics and parchment, hand made papers, Japanese tissue paper and traditional China Kozo paper, etc. As with other "non pre-made" processes, the only limit is the artist's imagination. Since one needs to be curious in the first place to think about "non mainstream" methods, this should be another reason to explore the fascinating world of "alternative" photographic methods.



Useful links:

- [Articles on alternative processes](#)
- [Bostick and Sullivan photo supplies](#)
- [Platinum and Palladium Printing by Dick Arentz](#)
- [Hybrid Photo community](#)

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