

Martin Becka's portfolio « Dubai, transmutations » was printed in the dust grain (or aquatint) photogravure process. The name used in French for this process is « héliogravure au grain ». It is an intaglio printmaking process discovered in the 19th century and considered as one of the most beautiful forms of photo-reproduction.

Photogravure played an important role in the discovery of photography to which it is still bound. In around 1826, Niépce discovered the photosensitive properties of Jude's bitumen. Using the photomechanical process he realized the first reproduction of an etching of the Cardinal of Amboise which was engraved onto a plate of pewter. Thereafter, for about 50 years, the process was improved by Talbot, Nègre, Poitevin, and other great pioneers of photography. Finally, in 1879 a Viennese printer Karl Klic find the right way to produce images with degrees of subtle grey from engraved copperplate plates.

Photographers such as Peter Henry Emerson, Alfred Stieglitz, Alvin Langdon Colburn, Edward Curtis and Paul Strand were seduced by the qualities of this process and chose it for their prints.

Since the end of the Second World War, photogravure has become rarified and is now actively practiced in only a few studios around the world. In the eyes of photographers, it remains the finest process to transcribe their images.

#### *The techniques of photogravure*

*The photogravure plates preparation go through several stages :*

- A positive halftone film is made from an original image*
- A pigmented gelatin tissue is sensitized by immersion into potassium dichromate solution*
- After drying the gelatin tissue is exposed to UV light under the positive halftone film*
- A pure copper plate must be thoroughly cleaned and polished.*
- A resin is dusted on the plate and the plate is heated*
- Then the gelatin tissue is transferred and adhered in wet state on the grained copperplate plate*
- Hot water bath is used to remove the unexposed gelatin and the photographic image appear on the plate in different thicknesses of gelatine*
- Remaining gelatin picture on the the copperplate is dried*
- The copperplate is etch in a succesion of Ferric Chloride baths from different concentrations. The darkest areas are attacked first, then the middle tones and lastly the high light areas: the blacks are deeply engraved whilst the light greys are not.*
- This stage is followed by the steel-coating of the copper plate which allow to the plate to resist under the great pressure exerted by the printing press.*

#### *Hand printing of the engraved plates*

- Intaglio printing ink is applied to the engraved copperplate surface with a rubber brayer*
- The plate is first wiped with tarlatan to remove the great excess of ink*
- Then the plate is wiped quickly by the palm of the hand, that leaves ink only in the etched areas.*
- The plate is then placed onto the printing bed of an intaglio press.*
- A sheet of dampened rag paper is placed onto the plate and all is covered with wool blankets.*
- Then it's run through the press, the pressure transfer the ink on the paper.*
- The paper is peeled off the plate and let slowly drying between blotters.*
- For each printed sheet all this steps needs to be repeat.*

*–Before the printer can start the print run a Bon a Tirer (in french “good for printing”) have to be signed by the artist.*

*–When the proofs are finish printed, all off them are examined by the artists before be definitively approved.*

*– The finished prints are inserted into a portfolio which is numbered and signed by the artist.*

Whilst the photogravure remains faithful to the original negative film, variations of the image can be obtained in the choice of ink, paper, tints...The possibilities are endless. Photogravure is an exceptional process. The artistic qualities found in photogravure can not be compared with any other press technique. This process allows the translation of the image into subtle and nuanced shades of grey and produces an unrivalled deep rich, velvet black. Opting to use photogravure for a edition of a portfolio permits to attempt a exceptional quality to produce a rare Bibliophile's object.

The dust grain photogravures plates have been engraved by Fanny Boucher from the Hélió Studio, Meudon-Paris

Printed by Caroline Giffard, Taille-douce Studio, Paris, under the supervision of the artist.

The Portfolio Box was designed by Mariam Khalil at BeirutWorkshop, Beirut, Lebanon

Courtesy Philippe Blache, Fanny Boucher