Habitat
polymer plate photogravure/hand colouring
2009
varied edition of 20
Brian Holden

Polymer plate photogravure

The study titled **Habitat** originates from a photograph that was taken by the artist using a digital camera.
The image was manipulated using photo editing software on a pc where it was converted into a grayscale photo.
Traditional photogravure would have a negative made from a photo then it would be exposed and then developed onto a coated metal plate using chemical baths in a darkroom.
With modern polymer coated plates an image is exposed as an opaque black image (photograph or line drawing on film) onto the polymer surface using ultra-violet light. The UV creates a chemical reaction in the polymer, but where it is blocked by opaque black this reaction will not occur and the polymer in these areas will wash off the plate using warm water and gentle scrubbing with a soft bristle brush.

For translating photographic imagery the plate is first exposed to a sheet of plastic containing a very fine microdot half tone that is called an aquatint screen. These tiny dots on the plate breaks the opaque black positive image into tonal gradations. After the aquatint screen is exposed for a calculated amount of time the grayscale positive (generally an inkjet or laser printed image on a transparent plastic sheet) is placed on the polymer plate and is exposed for another calculated amount of time. UV light sources may include natural sunlight, blacklight or special mercury vapour lamps.
When an exposure is finished the plate is quickly removed and set into a bath of tepid water. It is gently scrubbed by hand while immersed in the water so that the areas where the opaque image made contact will wash away leaving a depression in the polymer surface to which printing inks can be applied. The plate is quickly dried with a little warm air and then it is post exposed under UV light once more which causes the polymer to achieve a state of permanent hardness
The plates are inked in the same fashion as an etching would be using a piece of card to force ink into the recessed areas. The artist wipes the plate using tarlatan bundles and polishes the surface with tissue paper or yellow pages from an old phone book. The inked plate is set on the bed of an etching press where dampened paper is set over top of the plate. A set of wool felt blankets are placed over top and the bed is then passed under the top roller which is set for a tight squeeze.
The pressure of the roller forces the dampened paper down into the lower recesses of the plate picking up the ink and transferring it to the paper surface.
The paper is carefully lifted up to reveal the printed image.
The print is then allowed to dry by either placing under blotting sheets with a weight set over top or by securing it to a board using a gum back tape.