

# Alternative Printing Processes



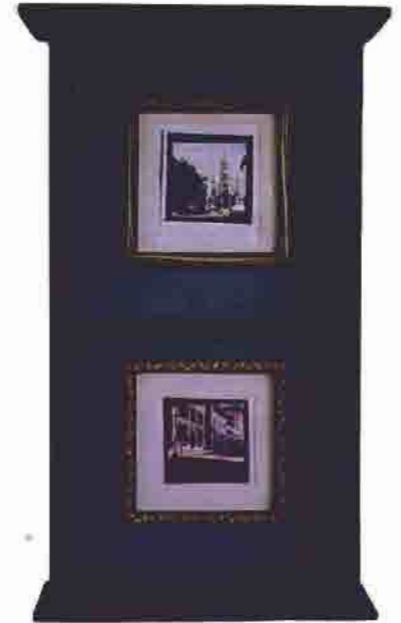
*"Ruelle sans fin" —Cyano/Gum-Bichromate print with watercolors.*



*"Perpetual Forks of Time" —Cyano/Gum-Bichromate print with watercolors.*



"Reflections of Oneself"—Cyano/Gum-Bichromate print with watercolors.



"Les Images de l'Esprit"—Cyano/Gum-Bichromate print with watercolors non wood and cardboard oils.

## Rainer Wenzl

AS AN ARTIST AND photographer, it is not uncommon to examine critically one's work on a regular basis. In my case, looking back in time for inspiration and direction was beneficial. In order to aid the development of my most recent work, I chose to revive some of the historical non-silver printing techniques. My current work is, thus, a culmination of both past and present photographic techniques and processes. The creative process for these works, coming up with the photographic image and then executing it, was complex, though the results were exciting and satisfying.

### *Ruelle sans fin*

I had been working with a black and white Polaroid with negative film and a medium format camera. The spontaneity of the instant development process, subsequent manipulation of the image, by either adding to or subtracting from the negative, and then contact printing the negative, are what produced the images that I was using. I felt that the expressive nature of these images could be further enhanced with the addition of color. The images could be printed using historical non-silver processes, adding color, by the nature of the various chemicals and watercolor pigments, inherent to these

processes. The processes that I have had the most success with in the past were cyanotype and gum-bichromate prints.

### *Perpetual Forks of Time*

The cyano process is the oldest non-silver photographic printing process. It incorporates the use of a ferric salt emulsion that was invented by Sir John Herschel in the early 1800s and has had numerous revivals since then.

The cyanotype print yields a Prussian blue color which is derived from the reactions of ferric ammonium citrate and potassium ferrocyanide with sunlight. The color of this ferric salt emulsion can be further altered through chemical toning. The use of ammonia or tannic acid will change the color of the final print to either a purple or red-brown tone. I chose to use the deep blue color for my work.

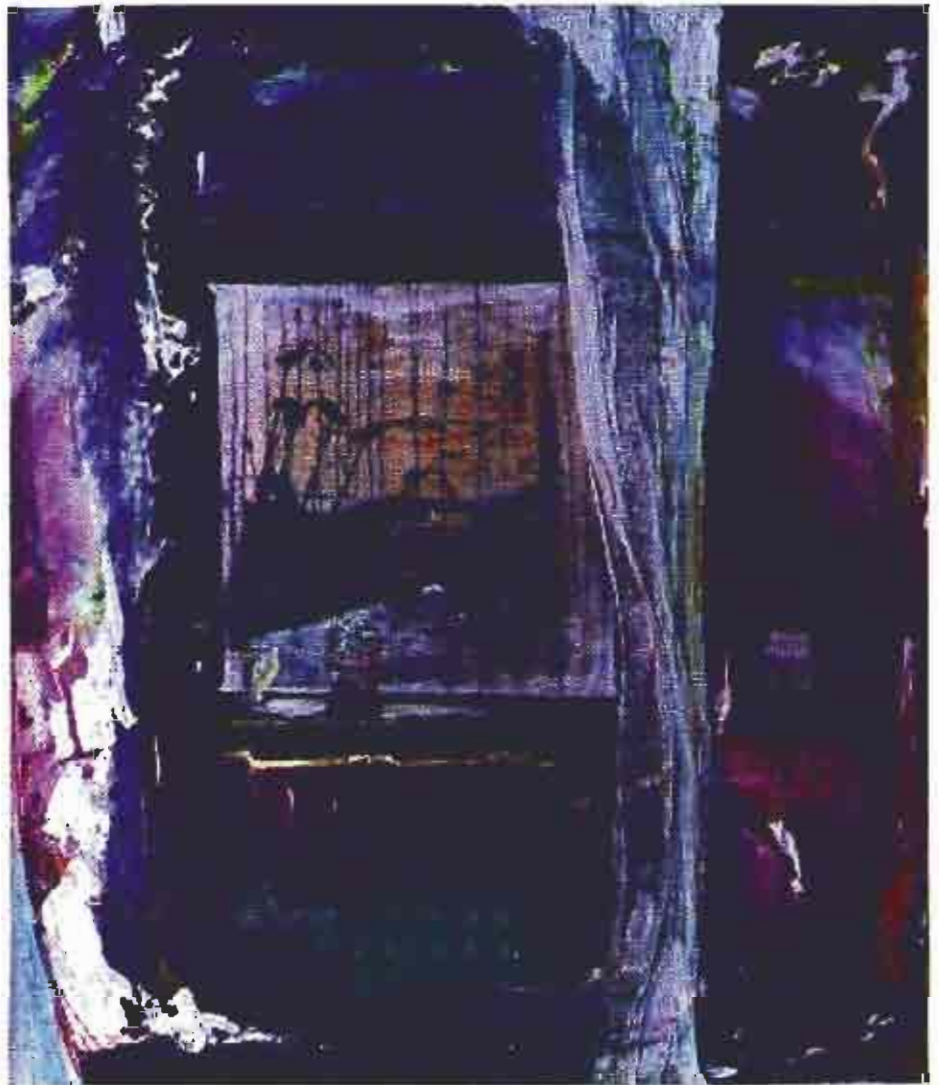
The cyanotype is a contact-printing process that requires a negative that is the actual size of the final print. Cyanotype or blueprinting can yield an image on a variety of media, my choice being a premium quality printmaking paper such as BFK Rives or Arches. These papers contain a high percentage of rag fiber, are well known for their durability and the sizing of the paper is not necessary.

The second printing process that I

chose to use, a gum-bichromate process, became popular near the end of the nineteenth century. It introduced the photographer of the time to a full color palette. The gum-bichromate process is similar to the cyano print, as it too, is a contact-printing process, reacts to sunlight and involves the use of water for the developing of the image. For a gum print, the emulsion, gum arabic with a light sensitizer (an ammonium dichromate solution) and ordinary watercolor pigments, are applied on media such as the previously mentioned watercolor or printmaking papers, though for my purposes, over a previously printed cyanotype image.

The results of this process are varied, to say the least, as the list of variables for both printing processes are numerous. Keeping notes and recording results of the numerous attempts are a must. As is the case for any multiple printing process, numerous images are destroyed in the process, therefore it is best to start with many multiples of the image.

Both emulsions have a low sensitivity to light, therefore the use of a darkroom is not required when sensitizing the paper. Sensitized papers should be stored in a dry, dark area until they are completely dry and should be used shortly thereafter. The use of enlargers and chemicals for development are also not neces-



*"The Artist's Studio"* Cyanotype. Sifton watercolor print with watercolor.

*"The Artist's Studio: The Synthesis of Text and Address"* Liquid light, cyanotype on canvas.



ray. Sunlight is used as a light source (although for more predictable results a sun lamp is more suitable), contact-printing frames and water washes for development are all that is required.

When creating multiple print images, using both processes in conjunction, it is necessary to print the cyanotype first, as its development requires running water to wash out unexposed areas. The gum-bichromate process, on the other hand, requires that the image be sealed in water baths, with gentle agitation to release the unexposed emulsion from the gum arabic, which settles at the bottom of the developing tray.

The initial negatives were of a very fine grain, and therefore, as both processes work best with a higher contrast negative, it was necessary to produce new negatives. The nature of multiple printing processes requires that negatives of different densities are used, one for each new layer. To produce these negatives three methods can be used: the first and most traditional is to contact-print

an image with sheet film, such as T-MAX 400 5x7-in. film; the second method requires the use of a process or stat camera whereby the image is exposed on a reversal film such as Agfa Copyprint CP19; the third process incorporates the use of a computer. When using a computer, the image is scanned into a computer and a negative is made by using programs, such as Photoshop, and printed to a transparency with the aid of a laser printer.

I use the process camera to create my negatives. The process camera and reversal film produce medium to high contrast negatives from the initial contact print. By varying the exposure time, a variety of densities can be achieved providing a separate negative for each layer that is to be printed. Negatives with the most detail are used for the initial print, the cyanotype, forming a rich deep blue base over which the higher contrast negatives with less detail are used for gum-bichromate processes and the different pigments. Generally, I add two to three different layers of different colored gum prints over the cyano print, being conscious of the colors that are being used due to the transparent nature of watercolor pigments.

#### *Reflections of Oneself*

In order to highlight or accent certain areas, watercolor pencils and watercolor paints were used. This further manipulation, the use of additional pigments, lines and shapes, was incorporated into the image in between the multiple layers, and as each subsequent layer was processed, these additions of color would blend into the image and overlap previous layer, creating richly layered textures of color.

#### *Red Dawn over Lakeside Park*

In addition to working with the image and these printing processes, I found myself also working on the framing of these pieces, integrating the artwork into the framework. Found objects, scrap wood and numerous other materials contributed to the construction of framing devices. Old window frames, stripped and refinished, became inexpensive frames that added to the character of these images. Further integration with other media included the use of canvas and acrylic paints, as well as other chemicals such as Liquid Light.

#### *The Idealistic Aperture: ...*

These non-silver processes and their integration with other mediums has

opened the door to unlimited creative exploration. The resulting images provide a new and exciting way of interpreting and expressing a multitude of themes ranging from conceptual to realistic. Familiar subjects such as landscapes and also portraiture can be explored and expressed in a manner that more clearly transmits the essence of the subject, as

well as the artistic, creative powers of the photographer.

*Quinn Wentz is an educator and freelance artist/photographer residing in the greater Toronto area. Educated at York University, and the University of Toronto, Wentz has worked in Graphic Arts and Education for 24 years, frequently focusing on producing artwork in the photographic medium, working collaboratively with interactive printing processes.*

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