Kodachrome meets Cibachrome

Archival Quality Color Prints from Slides

Kodachrome 25 and Kodachrome 64 slide films have long been considered the standard by which all other color films are compared. Their cherished qualities of extremely fine grain and excellent sharpness insist that an enlargment be made. Yet how do you go about doing this? In the past there was no easy way to get a print from your slides in the home darkroom. That is, until the introduction of Cibachrome.

The generally accepted method of producing a print from a slide in times BC (Before Cibachrome), was to go through the process of enlarging the slide onto internegative film and then printing the resulting 'interneg' on type 'C' paper. This required the introduction of another set of optics into the system and as a result some general loss of image quality.

An undersirable characteristic of chromgenic or type 'C' papers is that their dyes exhibit a strong tendancy to fade with age and with constant exposure to light, so if archival permanance is an important consideration for your work, type 'C' papers are definitely not suitable.

Previous 'positive to positive' or 'reversal papers' suffered from the same image stability problems because they are basically type 'C' papers. Constituting a major drawback to these processes are the numerous steps involved in processing (generally 5

chemicals and up to 11 steps) and the strict temperature controls

necessary (100□0.5°F for the first developer). Consistent color printing depends on consistent temperature control and at these temperatures it can be both costly in temperature control equipment and fuel bills for hot water washes.

The Dye Transfer process offers archival quality, but due to its' complexity and high cost of materials, it is usually beyond the home darkroom user's willingness to attempt.

Ilford's 1975 introduction of Cibachrome type 'A', an archival quality paper that was easy to process (three chemicals at 75□3.0°F), at last provided a solution to the dilemma of how to achieve prints that look as sharp and as brilliant as the original slide. And due to the materials' wide exposure and processing latitude, it was perfect for the home darkroom user.

The use of the dye-bleach process and longlasting azo dyes are the keys to the brilliance and permanence of this paper. These azo dyes are incorporated into the Cibachrome emulsion during manufacture, unlike conventional chromogenic processes in which the dyes are formed from color couplers during processing. The dye-bleach process yields two important benefits, the dyes are much more saturated and stable than color coupled dyes and they greatly contribute to the reduction of light scatter within the emulsion layers thereby helping to produce sharper prints.

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Cibachrome printing paper is available in two surfaces, Glossy and Pearl. The emulsions used in both the Glossy and the Pearl surfaces are the same, the major difference being in the type of base each is coated onto. The Pearl paper is coated onto a medium weight, resin coated paper base, with a lustre surface. The more expensive Glossy paper isn't really a paper at all, it is an extremely white, opaque polyester base which is chemically inert and is highly tear resistant. Considered as truly archival, the Glossy paper's shiny surface imparts an almost metallic sheen to the dyes and its' extreme sharpness contribute to cause many people to comment that the prints look like 3D pictures. Personally I prefer the Glossy.

The original Cibachromes' suffered from being too contrasty. This problem however, was ingeniously solved several years ago with the introduction of Cibachrome A II. A new self-masking system helped lower the contrast of this new material considerably. Even so, the new material is still more contrasty than most other color materials. Expect to do some dodging and burning or else prepare a mask if you attempt to print a slide that's normal to high in contrast.

I've found this higher contrast to be better suited to the printing of landscapes and nature scenes.