

KODAK

Ektachrome

100X 120

A Warmer Transparency Film for Medium-Format Shooters

by Jack and Sue Drafa

PHOTOGRAPHIC'S USER REPORT

Most of Kodak's new film introductions start with the 35mm format and are followed a few months later with the same emulsion in a larger format. Understandably, there is less fanfare for the announcement of the larger-format emulsions. In some ways, this puts these formats at a disadvantage, because most photographers don't consider the larger-format film "new." But, what if films today are so improved that comparisons in 35mm may not show all that a new emulsion has to offer? Maybe you can't really see a difference until you start comparing larger-format films. We have found this to be the case with Kodak's Ektachrome 100X emulsion recently introduced in the 120 size.

THE BIG COMPROMISE

So, what's all this hype about the X films? Basically, the difference is in the form of a color compromise. When you hear the word compromise, you automatically think that something is lost in order to achieve an end. Not so, but in order to understand this new Ektachrome, we need to take a step back and review the Ektachromes of the past. When Ektachrome first hit the market, it tended heavily towards the blues, compared to its Kodachrome brother. As each improved Ektachrome emulsion was introduced, the blue was reduced slightly, especially in the shadow areas.

Then a green competitive box arrived on the scene, and its emulsion leaned heavily toward the warm tones. Many of the "true blue" Ektachrome photographers liked the warmer tones they saw, but found the warmer shift of the green

boxes to be too much. So they ended up with a dilemma. Many photographers started using warming filters to shift the overall color of their Ektachrome slides; some converted to the "green" slide.

Then came the big compromise. Kodak introduced a film with a color balance somewhere between the older Ektachromes and the warmer tones of Fujichrome. The result was an impressive new line of Ektachrome films, designated the X films.

BIGGER IS BETTER

The first X film to be released in 120 size is Ektachrome 100X Professional. Designed for the more serious amateur and professional photographers, this film has qualities that allow it to be used in a variety of photo situations. This daylight-balanced film is designed to maintain neutral tones, from highlights to deep shadows, while maintaining excellent color saturation. The film is recommended for exposure times between $\frac{1}{10,000}$ and $\frac{1}{10}$ second. At one second, Kodak recommends a CC05 red correction filter and a $\frac{1}{2}$ -stop increase in exposure. Exposure times longer than one second are not recommended. Ektachrome 100X can be used under tungsten light with an 80A filter, and under fluorescent light with a CC30 magenta filter.

STUDIO PHOTOGRAPHY

Our first test of Ektachrome 100X in the 120 format was performed in the studio. We used a variety of subjects that consisted of black tones with spots of color against a white background. The resulting images produced clean whites, balanced black and gray tones,

and excellent color saturation in those areas that had color. The grain pattern and resolution resembled those of previous Ektachrome sheet films. We were most impressed with the film's ability to hold detail in the darker shadows, and to keep its neutral tones neutral. When we needed to use multiple exposures for increased depth of field or painting with flash, we used Kodak's recommended exposure and filtration adjustments with excellent results.

We found Ektachrome 100X to be an excellent film for situations in the studio that required the use of tungsten lights. We ran several tests with the recommended 80A filter, and found the film to be well balanced both in the studio and on the copy stand. Increased contrast was attained on the copy stand by pushing the film one stop, with little change in the overall image quality.

LOCATION PHOTOGRAPHY

For our primary outdoor tests, we turned our efforts to documenting an old rail yard and the local fishing harbor. The rail yard presented us with the best test of all. In the middle of the yard we found an all-black locomotive mainly sunlit, but with sections also in full shade. We bracketed our exposures two stops on each side of normal to see just how much latitude this new film possesses. Near the caboose, we found old, peeling paint with crosslighting from the sun. Again, we bracketed our exposures to see how the film handled colors as they crossed from sunlight to shade.

From there, we wandered over to the harbor. We shot close-ups of the various fishing boats and their related equipment to check sharpness and grain



2-stop push (EI 400)



1-stop push (EI 200)



ISO 100

structure. Back at the photo lab, we reviewed the results of our coastal safari. The overall color of the images was definitely warmer than those from past Ektachrome photo expeditions. Most impressive were the neutral tones in the shadow areas of the locomotive photos. Detail in the black objects captured in the shadows was very fine, and seemed to be better than the 35mm counterparts.

Best of all, when a solid color crossed from sunlight to shade, it only changed in density. With past Ektachromes, the shadows shifted blue. We also noticed that the 120 version had less contrast; this means that less fill lighting will be necessary when you use the 120 film, compared to the 35mm version. We found that the +1 and -1 bracketed exposures both produced acceptable results. Using a 10X loupe, we were hard pressed to find any grain, and observed that the overall sharpness was excellent.



ISO 100



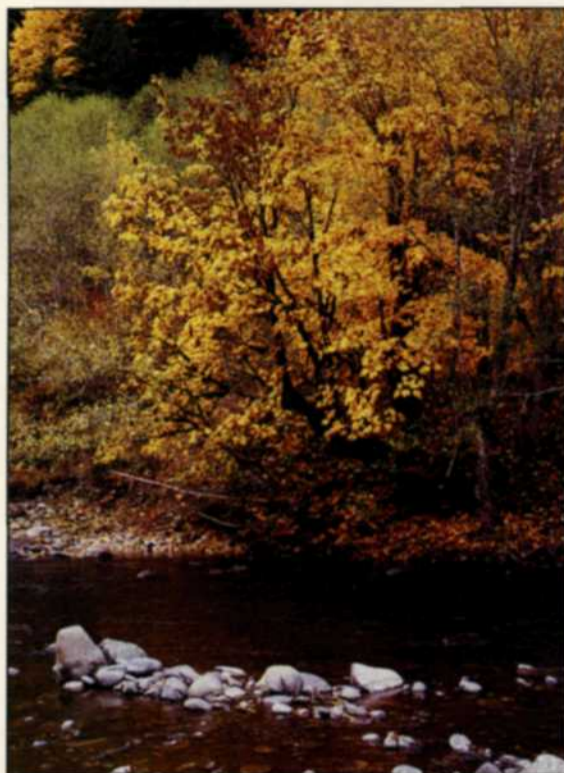
ISO 100

KODAK

Ektachrome

SPECIFICATIONS

FILM: Kodak Ektachrome 100X Professional
TYPE: Color-transparency film
BALANCE: Daylight
PROCESS: E-6
ISO SPEED: 100
FILM EDGE CODE (35mm): EPZ/5024
FILM EDGE CODE (120): EPZ/6024
FILM BASE (35mm): 5-mil acetate
FILM BASE (120): 3.6-mil acetate
RECIPROCITY RANGE: $\frac{1}{10,000}$ – $\frac{1}{10}$
PUSH-PROCESSING: $\pm \frac{1}{2}$ -stop latitude at EI 200; $\pm \frac{1}{2}$ -stop latitude at EI 400
FLUORESCENT FILTER: CC30M + $\frac{1}{2}$ stop
TUNGSTEN FILTER: 80A +2 stops
DIFFUSE RMS GRANULARITY: 11
RESOLUTION: 100 lpm (1000:1 test object); 50 lpm (1.6:1 test object)
DISTRIBUTOR: Eastman Kodak Co., 343 State St., Rochester, NY 14650; telephone 1-800-242-2424



2-stop push (EI 400)



ISO 100



ISO 100

PUSH-PROCESSING

On our trip back from the coast, we found ourselves in the middle of fall colors, and decided to make some additional tests. The fog had settled in the trees, and the lighting and contrast were very low. We exposed several rolls of 100X at EI 200 and EI 400, then push-processed them one and two stops, respectively. The results from these processing tests were most impressive. The grain and sharpness with the one-stop push showed very little increase over normal processing. There was a slightly warmer color shift, but the result was very pleasing.

The results from the two-stop push had higher contrast and a slight increase in grain size. A significantly warmer shift in color was apparent, but the images were still very acceptable. The increased ISO was worth the higher contrast and overall warmth. The biggest disadvantage to pushing this film was the $\pm \frac{1}{2}$ -stop latitude at 1 stop under and $\pm \frac{1}{2}$ -stop latitude at the 2-stop underexposure. This made correct exposure of the film critical.

CONCLUSIONS

We feel that Kodak has finally come up with a "compromise" 120-format film that will satisfy amateur and professional photographers alike. The improved film technology of Ektachrome 100X has made it the best Ektachrome that Kodak has ever produced. The only way to prove it to yourself is to run a roll and see why the pros are switching to "brand X" film. □