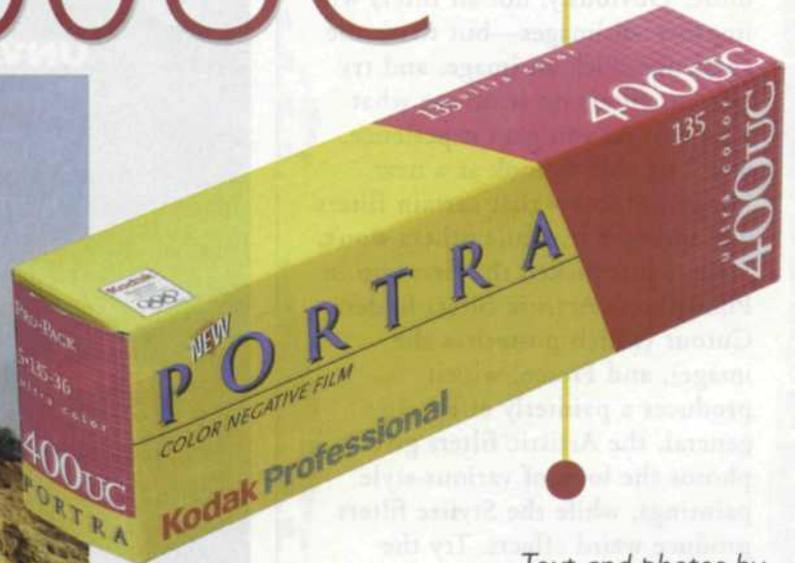
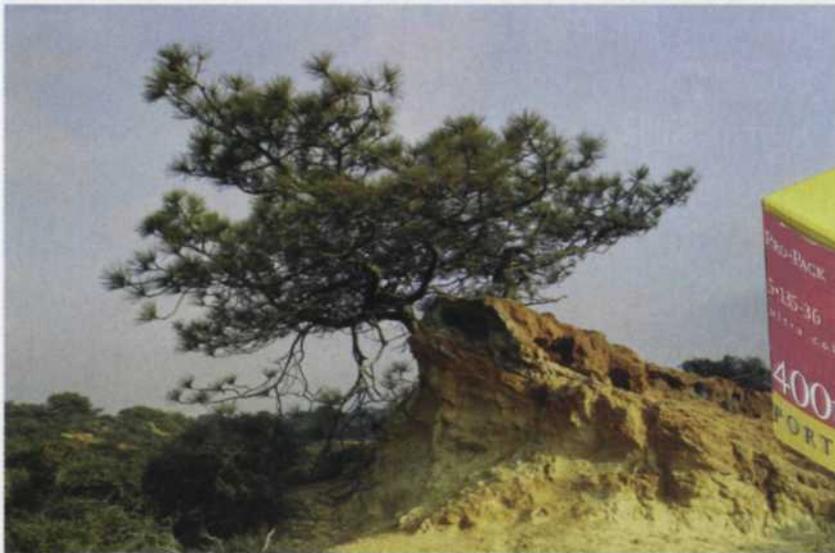


Kodak Professional Portra 400UC



Text and photos by
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The film-family concept has been a cornerstone to Kodak color-negative films since its inception. The idea behind it is to offer a variety of film speeds, contrast levels and color-saturation levels yet have all generations work together as a group. Each film in the family complements the others by covering every shooting and lighting situation that photographers will encounter. One of the most critical aspects of the film-family concept is the ability to print all films from that grouping with one printing channel, and have the resulting prints look like they were all printed from one film emulsion. Since many photographers now scan their film images and convert them to digital files, film families are also designed to scan using minimal changes from one emulsion to the next within a film family.

The Kodak Professional Portra family has now grown to eight members with its latest addition, Portra 400UC. This new member concentrates its efforts on achieving

fine grain and increased color saturation. Before we take a closer look at this new kid on the block, it's time for a reunion with the other members of this large film family.

In the beginning, Kodak



Portra adds saturation to subtle colors (top), and enhances colors even in shade (above).

introduced Portra 160NC, 160VC, 400NC and 400VC color-negative films. The 160NC and 400NC emulsions were offered as solutions for normal and lower-light situations, respectively, where natural flesh tones were the main concerns for accurate color reproduction. The 160VC and 400VC were used for the same lighting situations, but where an added vivid color rendition was required. As the technology was perfected, Portra 800 was introduced for low-light situations like existing-light work at weddings. For situations where tungsten lights were the main light source, Portra 100T was the answer, allowing photographers to shoot without light-robbing correction filters. Finally, for those who like to mix in some black-and-white images and print them on the same color paper, Kodak offered the chromogenic Portra 400BW emulsion.

So, that brings us back to the newest member, Portra 400UC, and our test report.

Using some of the latest emulsion



Portra 400UC's extra-fine grain and higher color saturation give a little added "punch" to a variety of subjects—you certainly don't have to limit its use to portraits.



technology, Kodak was able to create a new-high speed color-negative film with the grain structure of the 160VC Portra film, and color saturation boosted beyond the VC films. The result is a specialty film that covers photo situations where you want the maximum color saturation, high speed, and fine grain.

Portra 400UC incorporates Kodak's famous T-grain technology, has a wide exposure latitude, works extremely well in mixed lighting, and is balanced to provide excellent flesh-tone reproduction. Portra films pride themselves upon being able to reproduce those difficult colors and hues that appear in both man-made objects and Mother Nature's world.

We reviewed the Print Grain Index to compare grain size from prints made from color negatives at 8x10 size, and found that Portra 400UC has the same index (62) as the Portra 160VC emulsion. The full range in the Portra

family starts at an index of 58 for Portra 160NC and ends at 72 for Portra 800.

We were curious about how much the saturation was really increased in this new emulsion. Was it so high that you could only use it for special situations, or was it just a little bit more than the 160VC? We made a quick search on the Kodak Web page, and found a very complete file displaying the film's various characteristic, spectral, and modulation curves for comparison with other film emulsions. We could see a slight increase in saturation from the 160NC to 160VC, but a marked increase for the 400UC emulsion. Most noticeable in the graphs was the increase in the spectral sensitivity curves in all three color dye layers.

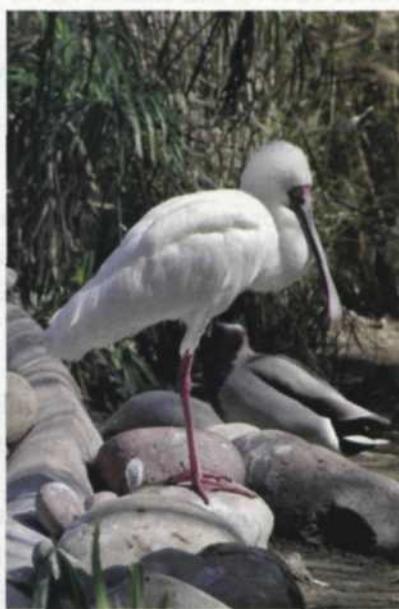
Now it was time to put the Portra 400UC to the real test and run a few rolls through our lab. We picked several varied locations for the Portra

400UC tests which started at a local farmer's market, proceeding on to the San Diego Zoo, and finally ending up in Las Vegas. The weatherman predicted good weather for all locations, so we were off and running on another Kodak film test.

Our first subject had a body filled with straw and he had a squash for a head. Yes, you guessed it. A scarecrow was sitting patiently in a chair ready to be part of our film test. The light level was low and flat, which would be offset by the high color saturation of the 400VC. As we moved around the farmer's market, we located several other straw people and some other colorful doll displays. The higher ISO 400 speed allowed us to use smaller



Portra 400UC works well with underwater subjects (above—the hippos were underwater; the camera wasn't), and on contrasty subjects (left). It also maintains clean white tones (below), often a tough trick for a high-saturation color film.



lens apertures and high shutter speeds even with the low light levels.

A couple of rolls later and we were jetting off to the San Diego Zoo. It has been years since we've been there and somewhere along the way we had

forgotten how much area it covered. After a couple of hours of wandering the pathways, we started to question if those heavy lenses and extra camera bodies were really necessary. Whew!

Our target subjects for this part of

the test were flamingos, but it took some hiking to locate them. Along the way we stopped to catch our breath and snap some pictures of a variety of hoofed animals, birds, and even a couple of hippos taking a dip in the pool. Most of those animals featured color that wasn't very saturated, so it would be interesting to see how the new film would handle these subjects. Finally, we located the flamingos and boy were they pink! We hadn't realized just how color-saturated they really were and started to be concerned that the film might not be able to handle this extreme saturation. Well, darkroom time would tell the whole story.

After a short visit with our daughter attending graduate school in San Diego, we were off to Las Vegas, the city of glitz and bright colors. We only had a limited time in the city, so we concentrated our efforts around New York, New York and the adjacent hotels.

As we walked by the Statue of Liberty, we couldn't help noticing the hundreds of firemen t-shirts and sweatshirts covering the fence in front of the American flag. It was quite an



More good stuff: Portra 400UC holds detail well in high-contrast scenes (left), provides needed punch in flat lighting (above), and captures beautiful saturated color (right). And it does it all with amazingly fine grain for its high ISO 400 speed, which makes it easy to get great image quality with a wide range of subjects in a wide range of shooting conditions.



emotional experience. The very first shirt that caught our eyes was one from an Oregon fire department. Since we are based in Oregon, we quickly turned the camera into the vertical position so that we could capture the shirt, flag, and the Statue of Liberty. This would be an excellent test for the Portra 400UC, because the lighting was very contrasty and the colors were extremely bright.

As we traveled home, we found that the seasons were turning again. The leaves were taking on the vivid colors as they fell from the trees and the shortened rays of the sun provided cool, contrasty lighting. This was a perfect way to end a film test.

Back in the lab, we took our first look at the new emulsion. Upon initial inspection on the light box, the negatives didn't look any different from other emulsions. So we scanned a few in using the color pack we had used for previous Portra emulsions. Magically, no modification was needed, so we scanned in more rolls for analysis.

Our original concern that the film might oversaturate some of the images was completely unfounded as they

looked great. The flamingos were pink and vivid, but the images still held an excellent detail range from highlight to shadow. Although the saturation was higher than we had seen from images with other Portra emulsions, there was a nice feeling to the colors. In fact, many of the zoo subjects with lower color saturation levels looked terrific with this new film.

The grain structure and image detail were much like those of ISO 100–200 films from our previous tests. The images taken in Las Vegas had excellent color saturation, with some of the gold-leaf subjects looking better than we had ever seen before. Even subjects in both sun and full shade were still holding the detail.

We were able to determine that the exposure latitude was a little less on the under side than we had seen on normal-saturation films. Our best estimate is a -1.5 to $+4$ stop latitude. To be sure, a $+1$ stop bracket on critical shots would guarantee that you wouldn't miss any shots due to poor exposure calculations.

Our final assessment of Portra 400 UC is that even with the higher color

saturation, this film can be used for just about every photographic situation you would encounter. This new member of the Portra family will put a little more zing into your photos. For more information on Kodak Portra films, log onto the Web at www.kodak.com. ■