

On Paper

BY CONSTANCE J. SIDLES



Roughing It

I USED TO PRODUCE A SERVICE MAGAZINE that had delusions of coffee-table grandeur. We were strapped for cash, so we printed the body of the magazine on the cheapest stock available. If #5 is the worst grade of coated paper, then we were a 5.9. All except for the center section—we reserved that for an eight-page photo gallery printed on a #3 sheet.

One month, the ad director sold a late two-page ad. The only place for it was the last page of the #3 paper and the first page of the adjoining #5 signature. The ad showed a luxury car tooling through scenic Big Sur. At least, it was supposed to. In our version, the half of the car on the left looked great. The right half looked like a beater that had taken one too many surf safaris. The problem was the result of the papers' different surface characteristics. The #3 sheet had a thick and glossy coating that evened out all of the tiny gaps between the paper fibers. When light hit this surface, it was reflected to the reader's eye at a uniform angle, preserving most of the color information. The coating also sealed the paper, allowing ink dots to dry on the surface and preserving detail and color fidelity.

The #5 sheet had a thin wash that was a coating in name only. Ink sank right through the wash, and the dots spread out into a kind of corona. When light hit this surface, some of the light came back to the reader's eye, but much was scattered randomly. And the dot gain blurred the

images. So the rough sheet lost both color information and detail.

This was a classic illustration of why experts always tell you to select smooth, glossy paper for high-quality color. But despite our debacle, you shouldn't shy away from rough-finished papers; they add the sense of touch to your designs. And while I would never advocate mixing a #3 and a #5 sheet to achieve good results (live and learn, after all), you *can* get good color on rough-surfaced paper. Here are some tricks.

Compensate for dot gain. Talk to your separator about decreasing the size of the separation dots to allow for dot gain on press. Depending on the design, Mohawk Paper recommends that you eliminate highlight dots up to 4 percent and reduce the dots in the 6 percent highlight areas to 2 to 3 percent; reduce 50 percent midtone dots to 45 percent; and decrease the darkest shadow dots to 85 percent.

Compensate for dryback. Sheetfed printing looks brighter when the ink is still wet. As the ink dries it sinks into the paper, especially if it's uncoated. Mohawk recommends that you compensate for this by okaying color at an acceptable level while it's still wet and then asking the printer to increase all ink fountains by five points on the densitometer scale.

Consider opaque inks. Flexography and silk screening have come a long way recently, conquering registration problems and allowing you to design with finer screens.

Add fluorescent inks to your process inks. Mohawk has achieved good results by adding fluorescent magenta to process magenta and fluorescent yellow to process yellow (1:1). This brightens reds, purples, oranges, yellows, and greens. (For a sample of this effect, call Mohawk at 800-843-6455 and ask for their brochure, "Mohawk Navajo.")

Try dry. Waterless printing uses no fountain solution, so ink dots sit on the surface of the paper. Dot gain is much less and colors stay brighter.

Think about soy-based inks. They tend to be cleaner and brighter.

Use undercoats. Apply one or two passes of opaque white or foil to the live areas of your design. Then overprint with process inks. This process is costly and time-consuming and can present tricky registration problems but, executed correctly, can produce spectacular results.

Accept the effects. Use the characteristics of rough-surfaced papers to achieve effects impossible to duplicate on smooth, bright paper. If you know that ink spreads out on uncoated papers, plan softer, more approachable designs. If dot gain makes inks look less saturated, design with colors whose subtlety beguiles, not blasts, your audience.

After all, isn't that what Monet did? His pastel haystacks at sunrise are just as beautiful as Van Gogh's blazing sunflowers at noon. Both of these styles have a place in art—and in your designs. ♦

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