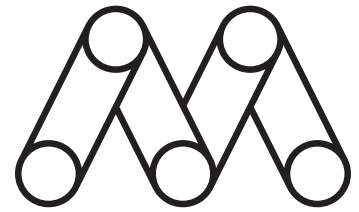


PHOTOGRAPH SELECTION TIPS



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Translating images into print is a complex process. For high-end jobs, such as annual reports, photographers shoot images under optimum lighting conditions. After these images are scanned, entire teams of experts color-adjust and edit the images digitally before they go to press.

However, for everyday projects and budgets, thorough prepress involves selecting the right photographer, the best transparencies and using a scanner to correct the photos electronically.

EVALUATING TRANSPARENCIES

The quality of the images will ultimately determine how well they reproduce on press. Time invested early in the design process will certainly pay off later. Try to always use originals and avoid grainy or blurry transparencies that won't reproduce well when enlarged. The larger the transparency, the better the final resolution when scanned. Using a light table, be sure to select transparencies with a good amount of contrast. A color cast can generally be corrected with photo editing, but contrast problems are harder to correct. See the side bar for more tips.

Digital Photography

Digital photography has gone through revolutionary changes. Today, the quality of a digital image can match, and sometimes, exceed that of film. The critical issues are the quality of the photographer and the quality of the camera and related software. It's also essential when working with digital photography to work in a color-managed environment.

Digital photography offers the designer some clear advantages--best of which is that you see exactly what you are going to get and you bypass color separations. A top-quality digital photo can be enlarged many more times than a conventional photo, because a digital image consists only of pixels--a scanned transparency consists of grain and pixels. In addition, a photographer can control the image itself--lighten it, darken it and change it in ways that were not possible when shooting film. If you are shooting your own digital images, use a professional-quality camera, at least 6 megapixels, and be careful not to set the camera on such a high compression that you compromise the files.

A color managed workflow will also be necessary. When evaluating digital images, be sure the profiles are set correctly. Rely on the histogram, not the monitor, to judge good tonal reproduction. And remember, the color that you view on the monitor will not necessarily be matched with CMYK inks at the printer. Use image-editing software such as Adobe Photoshop® to look for neutral grays. Images with neutral grays need less color correcting than those with grays that are out of balance.

SCANNING/RESOLUTION

When an image is scanned, or digitized, it is chopped into zeros and ones. These numbers are then translated into "dots" called pixels. Pixels can be added to the file but the computer is just guessing what they should look like based on the data it already has. It's like coloring in a blank space with markers. No matter what you do, adding more pixel capacity is not going to add details that aren't in the film already. That's why, even in the digital world, you can't enlarge your final output too much.

continued

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COLOR BALANCE

It is best to start with a well-balanced original when possible. You can fix a picture's color cast on the computer, but keep this in mind: When you adjust a tone on your computer, the computer adjusts all areas of an image that have this tone. The process can snowball as each adjustment requires another.

EXPOSURE

Sometimes a photo is too dark or too light. Photoediting software is great for working on the brightness and contrast in a photo. If the photo has a good amount of detail it may work out fine.

SHARPNESS

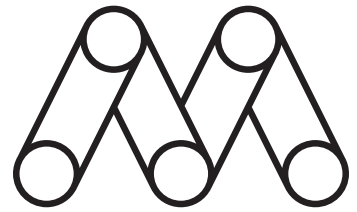
The printing process diminishes detail, so start with the sharpest details you can get.

GRAIN

A really good photo, shot with larger-format film, should show little or no grain when enlarged. If you start with a grainy image, do not enlarge it.

SIZE

The more you blow up a picture, the greater the loss of detail.



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Photograph selection tips, continued

The best way to increase the number of pixels a computer has at its disposal is to scan at an appropriate resolution so you have plenty of pixels--but not so many that you can't run your software programs efficiently. If you enlarge a 35mm original too much, the final output will look grainy or out of focus. But, if you start with an 8x10 transparency, the scanner can still chop up the photo into the same small bits of numbers that it used for the 35mm original. It will just give you much more data to work with.

Once you are confident that you have created an image that is in line with your expectations and specifications for size, consider the substrate and process you will use to produce it. There are no exact rules that govern what you can print on. The truth is you can print just about any image on any type of paper. The key is marrying your expectations with the paper and process used to achieve it. Your printer and paper merchant can provide the best guidance.

CORRECTING YOUR IMAGES STEP BY STEP

To adjust a recently scanned image using Adobe Photoshop or a similar program, follow these steps:

ALL IMAGES:

1. Crop the image precisely
2. Set the correct resolution
3. Set the black and white points
4. Set brightness and contrast

COLOR IMAGES:

5. Set the color balance
6. Set hue and saturation

ALL IMAGES:

7. Do all application selections, masks, etc.
8. Save the image if it is going to be archived and used for other projects
9. Sharpen the image with Unsharp Masking

COLOR IMAGES:

10. Separate the image based on the print prerequisites

ALL IMAGES:

11. Save in the appropriate file format (TIFF or EPS)

For information and samples, please contact your local merchant or call Mohawk at 1 800 the mill. www.mohawkconnects.com

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DETAIL

Always use a loupe or magnifying lens to check whether a picture is in focus. You can sharpen the focus in two ways: by increasing the contrast between pixels or by scanning with Unsharp Masking. But neither one will fully compensate for lack of detail in the focus.

RANGE OF TONE

Look for details in the shadows, in the highlights and for plenty of midtones in between. Check the range of tone on your computer by using a histogram.