

# DESIGNING FOR DIGITAL

THEO PETTARAS of Digitalpress has some handy tricks for getting it right with digital printing.

## IS THAT BANDING?

Digital printing is changing the way designers approach their work. You can see its impact in all forms of contemporary print design. Sophisticated clients are demanding work that takes advantage of digital printing's ability to reproduce brilliant colour, rich textures, sharp photos, crisp text and line art – and all with a speed and flexibility that's become the new industry standard.

In the not-so-distant past, you could identify quick turnaround or short-run print jobs because they used limited colours and had a more conservative design. Variable data printing (VDP) was not even an option. In short, the technology of traditional printing methods partially determined the creative look. Today, digital printing presses such as the Kodak NexPress, HP Indigo and Xerox iGen digital production colour presses have created new opportunities for visual communicators. Everywhere you look, you now see designs that call on multilayered effects to set a tone or create a mood. Some designers turn to textures to add visual interest, depth and richness. Others use photorealistic, illustrational effects to mimic the look of textured paper or textiles. Some even create their own textures from leaves, seashells or other natural elements to evoke an organic feeling.

In addition to the many good visual reasons to use textures, they also play an essential role in assuring the best quality digital output. Textures help eliminate the appearance of unevenness or banding artifacts when printing large areas of solid colour, tints and gradient blends. I hope from my experience in providing commercial digital printing to the creative community for some years now, I can share with you some creative insights and advice on how to get maximum benefits from your digital printer. In this master class, you will read more about how you can achieve technologically superior results and reduce the risk of digital print banding.

## WHEN TO USE DIGITAL TEXTURE?

The experience you gain when working with your digital printer will be your best guide on when to incorporate texture to control digital artifacts. As a starting point, however, consider the following as generally accepted guidelines:

- You'll want to add texture to solid colour areas and gradient blends, although if the area is a small one you may not find it necessary
- For best results, limit blends to less than a 50 percent tint change over 50 to 100 millimetres
- Add texture whenever using tints less than 40 percent; avoid using tints of less than 10 percent, and
- Some colours are more susceptible to visual banding than others – use caution when working with large areas of blue or grey.

The good news is that most digital presses produce proofs quickly, easily and affordably. You can experiment to see for yourself when you need to add texture, and exactly how much or how little you need for a particular print job.



If your design calls for a dramatic value change within a gradient blend, you'll want to add texture to assure a smooth transition from light to dark.

A very subtle texture, or a little digital noise, is all that's needed here because the value change from top to bottom is less than 50 percent.

Consider adding texture to any large area of solid colour, and use it for tints of 40 percent or less.

## HOW TO ADD DIGITAL TEXTURE?

There are several easy ways to add texture to your designs. These include:

- Adding noise
- Vector-based effects
- Raster-based effects, and
- Creating your own textures.

If you're new to digital printing, you may not have had the opportunity to use some of these techniques. Once you start exploring, you'll find a host of possibilities to incorporate visually rich and distinctive textural effects in your work.

## ADDING NOISE

The most basic approach to handling large areas of solid colour or gradient blends is to add digital noise. In a raster-based software program such as Photoshop, select the 'Noise' option in the 'Filter Menu' and choose one of the lower levels as a starting point. Keep in mind that your job will look 'more noisy' on the screen than it will on the printed page. You may need to increase the amount of noise, especially for narrow-range blends or very large solid areas. Noise will do the job of quieting digital artifacts, but there are many more creative possibilities you'll want to explore.



Even the simplest approach, adding noise, offers room for creative options in the amount and type of noise to add. Every image is different, so you'll want to experiment with different settings to find the best choice.

## VECTOR-BASED EFFECTS

Vector-based graphics offer another range of texture options. Software, such as Illustrator, can be used to create line art that acts as a textural element. It can be as simple as a grid or a pinstripe, either horizontal or vertical. A graphic can be repeated or enlarged and cropped.

Typography can also work as a texture or background element. Experiment with different typefaces, colours, leading and kerning options to find a look that suits your needs.

Avoid creating blends in vector programs, however, because when output as PostScript files they have a tendency to produce banding effects when printed. Instead, it's best to build blends in raster-based programs like Photoshop and then add noise using the raster effects as described above.

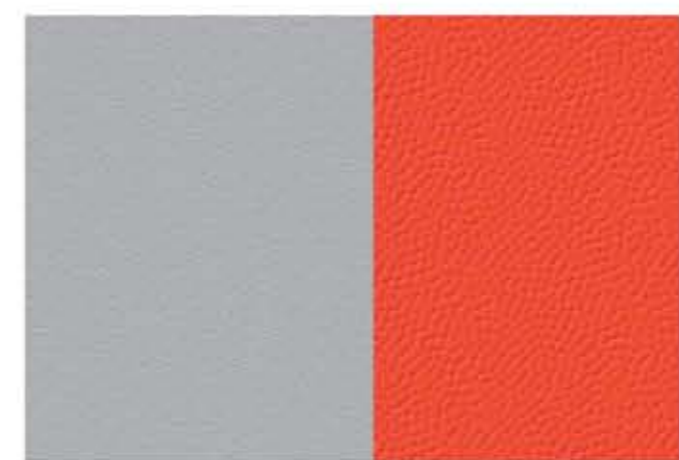


Line art, typography and other vector-based art can work well as textures, then you keep the scale of the elements small enough to create the effect of an overall pattern.

## RASTER-BASED EFFECTS

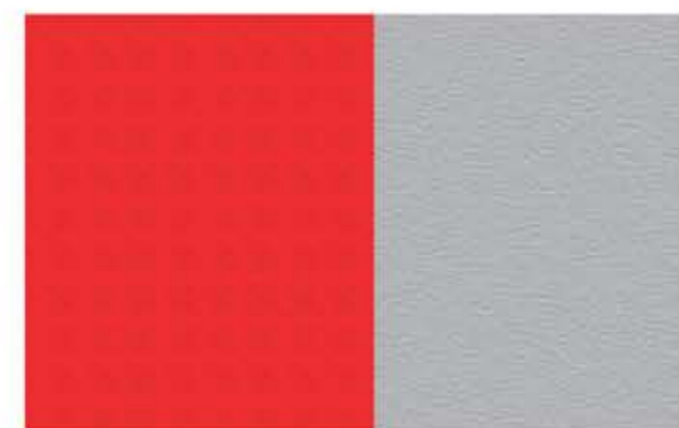
Photoshop and other raster-based software programs offer several easy ways to add interesting textures. With Photoshop software, in the 'Filter' menu under 'Texture' you can access the default textures as well as a choice labelled 'Texturiser'. The Texturiser option allows you to load additional textures from third-party plug-in suppliers.

Each texture has several variable attributes that control its appearance. In addition, after you've applied the texture, you can fade its intensity through the Photoshop 'Edit' menu.



These two textures were created using the filters named 'Weave' and 'Leather' found in Adobe Photoshop software. Fading the opacity of the texture makes it more subtle.

Most raster-based image editing programs offer several different options for adding texture fills. Experiment to find the ones that work best for you.



These two textures were created using the 'Texturiser' filter and loading the 'Zebra' and 'Glucoc' textures found in Photoshop software's 'Pre-sets' folder.

## CREATE YOUR OWN DIGITAL TEXTURE

For unique textures that you won't find anywhere else, don't be afraid of the obvious solution of making your own. It's easy to use your scanner or digital camera to capture distinctive, realistic textures and patterns. Almost any photograph can be manipulated to work as part of an interesting graphic background element. Try ghosting a photo, or a combination of photos, over a tint or blend.

When you need a large area of texture such as marble or wood grain or grass, creating your own texture is the only way to go. Filters create textures by repeating ('tiling') a small image; however, sometimes this

repetition is noticeable and distracting. Yet when you create your own, you can work with large images that have different variations in pattern across the page.

Refine your work in a raster-based program such as Photoshop and save it as a grey scale tiff file. You can then bring it into a page layout program, such as Quark or InDesign software and combine with colour overlays to create a file for printing.



Stock photography or your own existing photo files contain a wealth of interesting images that will work as textural elements. Try ghosting an image over a colour tint.



Your imagination and your scanner or digital camera will let you create limitless original material. Start a folder and begin collecting your own library of favourite texture images.

The range of possible texture effects is vast, and this only begins to suggest some avenues for you to explore. But as you expand your design options you will also enhance your ability to create the best possible digital printing files.

Make sure you get your printer to work with you, and don't be shy to ask for test prints. That's the only way you and your printer will know what works and what doesn't. I am sure you will drive them mad, but that's what they're there for. Certainly! **DT**

## USEFUL LINKS

- www.digitalpress.com.au
- www.superscreen.com.au
- www.heroprint.com.au
- www.finsburygreen.com.au