Thou Shall Not Use COMIC SANS

GRAPHIC DESIGN 365 SINS AND VIRTUES

A Designer's Almanac of Dos and Don'ts

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GRAPHIC DESIGN

365

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Thou shall have a foreword

Hi. I'm a design school dropout. I lasted all of four weeks in typography class.

A few years ago I decided to go back to school. I wasn't happy as a graphic designer, maybe I wasn't happy as a person. Who can say? But like any self-conscious middle class fauxhemian with a *New Yorker* subscription I had convinced myself that a graduate degree would fix me right up. But those things are pricey, so I thought I'd test the waters first, and enrolled in a night class at Art Center College of Design, where I had studied years before. Unfortunately, by the time I set out on this experiment almost all the fancy classes had filled up. No 3D model making with the laser lathe for me. The one class that still had an open slot was *Basics of Typography*.

Now, by this time I had worked as an officially credentialed graphic designer for about eight years and as a paid dilettante for easily fifteen. On top of that, Art Center's night program was then designed mostly for younger students that needed to build up their portfolio

to get accepted into the degree program. I was feeling pretty solid about my type skills, and downright cocky about the competition. But I thought, "Eh, don't be that way. Pride goeth before destruction, and a haughty spirit before a fall. Besides, we're none of us above revisiting the basics. This'll be fun!"

With this being the trial balloon for my return to life at the academic retreat and resort, I was looking forward to rediscovering the fundamentals with the excitement of a novice and the work ethic of a semi-seasoned pro. Instead of rushing through assignments in fear at the last possible minute, trying to guess what would please my teacher, I'd approach each task with leisurely reflection and joy. This wouldn't be client work. It'd be my little treat to myself each week. It'd be the way I had always dreamed school should be.

Of course, none of that came to pass. I wasn't taking time off from work. I just added this to my giant to-do list in the hopes that it would somehow keep paying gigs at bay. Which it didn't. So I rushed, and I fudged, and instead of learning to see old things with new eyes, I used the same tricks on my new teacher that I was using on my commercial work, too. It was just one more thing I had to get out the door.

That wasn't what made me quit after four weeks, though. I could've done it. I could've pulled through, even though the whole exercise had become somewhat pointless by now. Yes, I was going through the motions, but I was technically a student again, and maybe I'd meet somebody cute on campus. Not a trivial benefit.

But what was the real problem anyway? Was it just the hectic pace? I was used to that. Was it that I had to submit to the critiques from teachers or my fellow students? Nah. That didn't bother me. It was all very good-natured stuff, and I was better for hearing it. No, what did me in was listening to the teacher giving feedback to the younger students.

All of it was highly professional, of course—well-considered, and totally correct: Open up the leading a little. This part over here might need to be kerned a little bit more carefully. Have you considered the negative space you're creating on the page?—Perfectly good stuff. Stuff I've been told a hundred times and that I've said to people a hundred times in turn. But somehow I just couldn't handle seeing it applied to these eager young students just trying to get into school.

"Just leave them alone!," I thought. "Yes, I agree that this isn't the proper way of doing it. But maybe they're on to something! Something new! And fantastic! What would happen if we just let them run with it?"

But they weren't on to anything. They were just stumbling along, trying to get better. What's more, they didn't want to be left alone. They were there specifically to be corrected, to absorb the rules, to learn and play it straight.

Still, I couldn't handle it. It triggered something in me—maybe one too many memories of haggling with clients over one extra point of type size or a logo placement—and I had to leave. I didn't even quit. I just stopped showing up.

In the end, I learned first hand that the old saw is right: No matter if you want to follow the rules or you want to break them, you have to know them first and know them well. And that is, of course, the point of all this.

You can look at this book as a guide to avoiding rookie mistakes, or you can be an ornery bastard like me and see it as a list of "Oh yeah? We'll see about that!" challenges. Either way is good. But the fact is, everything in this book is stuff you need to know, and you're getting it from people who have proven that they know what they're doing.

Everything here is true, and to have it gathered in one volume is simply incredibly useful.

And it's a good thing that all of it is happening in book form, too, because I have to admit that there are at least fourteen things here that I've been doing wrong for years. Would I have ever dared to ask anybody about it? Hell no. Because that's the other thing about school. And life. You don't wanna look stupid. This book will help with that. A lot.

Now let's never speak of this again.

Stefan G. Bucher

P.S. While I don't want to embarrass the authors, they did neglect to add the crossbar to the lowercase t every time the word "shalt" appears. Boy, must lheir faces be red! If you have a few minutes, please get a suitable marker and cross those t's. Your English teacher will thank you. And me. I'll thank you, too.

Imagery and Graphics

Thou shall not use stock images just to save money

Commentary Don't get me wrong here—I love the fact that we can go online nowadays and find 87,000 different shots of two businessmen shaking hands while grinning inanely at each other. This is ultimately a good thing because, if that's the kind of image you need for a project, the bulk availability and lower overheads of online picture libraries mean stock images are now a relatively inexpensive option. However, you should always think carefully about whether or not a completely unique image would serve your client better. Remember that other designers can download the same photos or illustrations you've selected for their own clients, and the better (and therefore more popular) images get pushed to the top of the list when you search by subject. If you think your client can afford original photography or illustration, always try to persuade them to consider that option first. It helps to keep the freelance community in work, too. **TS**

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Thou shall always check to see if a perfect stock photo might be available

Commentary A very famous designer once told me a story about how one of his most iconic posters almost didn't come to fruition. It involved the interaction of a figure with a cityscape, only it had to be a specific city, immediately recognizable. He was limited in his options with the figure, so he joked to the client that should they want to rent a helicopter, he could easily get the image they desired.

They begged him to at least give it a try. He scoffed and thought about just telling them that he researched to no avail, so hopeless seemed the task. Then, he pecked out a quick stock search, only to discover a photographer who specialize in that region, leaving him with a multitude of options and an incredibly happy client, amazed that he could be so diligent in turning up such a difficult image to find. **JF**

Thou shall do your best to use client-supplied images

Commentary I see you staring at me, that slightly out-of-focus shot of the executive director and four other people that seem mildly important. One of them displays his expensive watch, and they're all drinking glasses of wine. I can feel you edging your way toward my precious magazine spread. The one I have been filling up with pull quotes and telling the client that there was no room for you inside. Besides the multitude of image edits you require, I take offense that you have been forced upon me. You can feel my disdain, but you move forward undeterred. When my back is turned, you inch directly on top of my monitor and whisper to me "I pay your salary." A bead of sweat arches across my forehead, as I realize I have been approaching this all wrong. As I turn closer, resigned to making you the best image you can possibly be, open eyes and exorcised drunks to the rescue, you smile and add, "plus, I come pre-approved." **JF**

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Thou shall also show a client better alternatives to their own imagery if necessary

Commentary Most clients have not been educated as designers. They haven't studied the history of photography. They don't understand complex rules of composition. And they don't need to. Clients understand the rules of law, or medicine, or engineering. This may lead to a client supplying really awful imagery. It may be blurry photographs taken by a girlfriend who is interested in photography. It may be awful drawings of a client's pets, drawn by a relative. Or it may be as simple as a photograph that sends the wrong message. When the project is finished, there will be no note on the bad images that reads, "This was chosen by the client." The failure of the project will be the designer's. When faced with bad photography, art, or information graphics, the designer should find a better solution and present it as an alternative. Forcing this down the client's throat rarely works. Tactful and logical explanation, showing both alternatives is the correct approach. **SA**

Thou shall not assume that an image is good simply because it's been published on Flickr

Commentary Flickr® is a website devoted to the sharing of photographs. It allows people around the globe to upload their own images and share them with everyone else. Flickr and other websites that serve this purpose are remarkable tools to see into the lives of everyday people everywhere. Just because an image has been published online, does not make it good. There is no photography curator at Flickr accepting the wonderful images, and rejecting the bad ones. Flickr is not a source for stock images. Some images are remarkable, others images are horrible. The question one must ask is, "Would I hire my ailing mother to photograph this landscape image? Or would my four-year-old son be a good source for images of a holiday dinner? The answer will be no. Stock image websites are a good source for stock images. Using a photographer to shoot an original image is the best solution. **SA**

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Thou shall not repulse your audience with imagery unless briefed to do so

Commentary Shocking images are a valuable tool for the graphic designer. An image that challenges the audience, or forces them to acknowledge an issue, is one of the strongest forms of communication. Repulsive and aggressive images are part of this canon. In the right context, this type of imagery can create a result that is spectacular. Repulsive images used for shock value alone are pandering.

The solution may receive the attention desired, but the lasting effect will be one of anger and negativity. If the client is the Sex Pistols, this response may be desired. Most clients, however, prefer a positive reaction. No communication is ever neutral. The response will always be clear or confused, positive or negative. The designer's role is to help guide that perception toward positive and clear. SA

Thou shall carefully consider the political content of all image choices

Commentary In the 1930s, the Nazi party began to censor art considered politically degenerate. Obviously, anti-Nazi art was the first censored. As time passed, the political content of 95 percent of art produced was deemed degenerate. In the end, the state only allowed benign landscape paintings to be exhibited. Every image has political content. A photograph of a group of people is immediately deconstructed by race, gender, age, and culture. Even a benign landscape painting can be seen as propaganda. Understanding the political implications of images, icons, and messages is a necessity for each designer. Is the curvaceous woman in a bikini holding a beer simply a picture of someone at the beach? Or is it, according to feminist theory, an example of objectification and oppression from a patriarchal culture? Each designer will need to determine this for him or herself. Purposefully using an image and recognizing its political subtext is a basic skill. **SA**

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Thou shall not run detailed images across the gutter

Commentary A full-bleed image run across a spread in a book or magazine creates great visual impact and some pictures cry out to be used as large as possible. Magnificent landscapes or architectural shots can work really well, especially when they're overlaid with a strong typographic headline to open an article or chapter. Take care though, as it's easy to forget one vital detail—the gutter. When we design spreads we normally work "spread to view" so we can see left and right pages side-by-side. On a flat computer screen we tend to overlook the importance of the gutter because it's represented only by a fine rule, but in a bound magazine or book much of the viewable page immediately adjacent to the gutter can disappear into the spine. Images like those impressive landscapes can usually absorb this, but the cardinal sin is to chop through someone's face while positioning a portrait across a gutter. Don't cut off someone's nose to spite their face. Take care to ensure that gutters only pass through neutral image space. **TS**

Thou shall check that all images have an effective 300ppi resolution

300ppi

72ppi

Commentary The industry standard resolution for printing four-color halftones is 300ppi. I say ppi (pixels per inch) rather than dpi (dots per inch) nowadays as the vast majority of image reproduction involves a digital workflow and pixels are more representative of image resolution. It's generally accepted that the average human eye can't differentiate pixel densities beyond 300ppi, which explains why this is the recommended resolution for high-quality image reproduction. Other factors such as halftone screens (see Rule #228) also influence this choice.

So, you have your 300ppi image at, say, 4 x 6 inches. As long as you import the image to your layout at the same size (or smaller) you'll maintain a resolution of at least 300ppi and the print will theoretically look great. However, if you enlarge the image on the page you'll lose resolution. For example, enlarging the image to 8 x 12 inches halves the resolution to 150ppi, which will degrade the quality of the final print. The trick is, unless you have no alternative, never enlarge a 300ppi image beyond 100 percent within your layout. **TS**
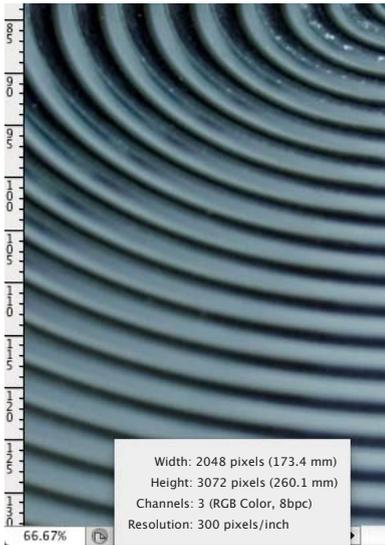
223

Thou shall not import images with too high a resolution

Commentary We know that 300ppi is the industry standard resolution for quality printing, but what happens if we scan a halftone image at 600ppi? You might think it'll look twice as good when printed, but sadly you'd be wrong. It's true to say that in some cases slight improvements can be detected in images printed at a higher resolution than 300ppi but it's more of a fluke than anything else. The truth is, the extra resolution gets wasted and only serves to make the document size larger than it needs to be. In addition to this, banding (an uneven gradation of tone) can occur with images above 300ppi because the resolution doesn't correspond favorably with the commonly used 150 lines-per-inch halftone screen (see Rule #228). If you send PDFs to print rather than original layout files, there's a good chance that any imported images over 300ppi are resampled down to 300ppi anyway, but the issue of document size remains, slowing down all prepress processing and taking up extra space on your workstation or server. **TS**

Thou shall resample all images to 300ppi before importing them to a print document

Width: 2048 pixels (173.4 mm)
Height: 3072 pixels (260.1 mm)
Channels: 3 (RGB Color, 8bpc)
Resolution: 300 pixels/inch

66.67%

Commentary When working on any book design project, I receive hundreds of images to choose from. Invariably, these images will be a mix of resolutions—some high resolution (300ppi) and others that have been shot digitally, which, although large dimensionally, are only 72ppi in resolution. If I were to place these latter images at 100 percent in my layout, I would in effect be placing low-resolution images into the artwork, which are never good enough quality to print with. It is essential, therefore, that you consolidate resolutions to ensure that all images you use are "hi-res." To locate the "lo-res" images before you import them to a layout, use software such as Adobe Bridge and adjust the resolution using Photoshop. If there are a lot, run an automated action in Photoshop to do the same, but make sure that you constrain the proportions with the resolution so that as you make them 300ppi, the images scale down correctly. Following this process means you can guarantee that every image will reproduce at at least 300ppi as long as you do not scale them above 100 percent in the layout. **PD**

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Thou shall learn about digital file formats

Commentary We're really talking about the various *image* file formats here, all of which differ slightly and provide their own unique advantages. TIFFs (tagged image file format) remain a top choice for print workflows as they can accommodate embedded information such as alpha channels, meaning masks can be imported directly into a layout. Native Photoshop files are also a popular choice for the same reasons. JPEGs (Joint Photographic Experts Group) are great if you need to keep file sizes down but be careful how much compression you apply when saving as quality can suffer. A JPEG is also a bad choice if you think you'll need to edit the image further down the line as quality is lost every time you save a JPEG. Forget about EPS files (encapsulated PostScript) as they're rarely used now—go with native Illustrator files for vectors. PNGs (Portable Network Graphic) are popular formats for online use, offering the advantage of transparency support. I recommend some further reading as you may find you've not been using the best formats in your own image workflow. **TS**

Thou shall learn about bit depth
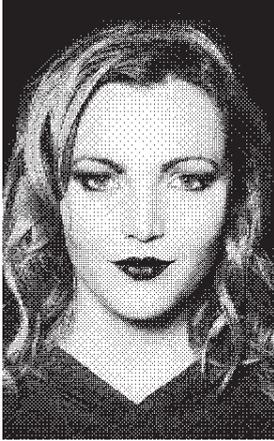
Commentary Bit depth is the number of bits, or binary digits, assigned to each pixel in an image. Bit depth isn't about resolution, it's about color quality—the higher the bit depth, the more tones you can achieve—so subtle color gradations improve as bit depth increases. Pure black-and-white images where each pixel is either on (black) or off (white) are termed 1-bit. Black-and-white halftones with gradations from black to white are 8-bit, so 8 bits of color information per pixel. Color RGB images are 24-bit because there are 8 bits of color information per channel, so 8 x 3 = 24. Photoshop can handle up to 32 bits-per-channel, or 96-bit images, but you'll find that many adjustments and filters won't work at this bit depth, and any extra quality provided may be lost during print. When working with 48- or 96-bit originals, it might pay to create a 24-bit copy for use in your layout. Check with your print supplier to see what they can achieve with their equipment. **TS**

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Thou shall understand the relationship between resolution and image size

100%

600%

Commentary This is a pretty straight-forward relationship, unlike many of the domestic variety, but it's important to understand how resolution and image size affect one another. Any original image as recorded by a camera or scanner has its resolution set by the device. However, if you then resize it in InDesign so it's either more or less than 100 percent its original size, the resolution will change. A 300ppi image won't create more pixels when you enlarge it; the pixels will simply get bigger and more visible, thus reducing the quality of the reproduction.

For example, enlarging a 300ppi image to 600 percent within your layout will reduce the resolution to 50ppi. If you're interested in how the math works, it's 100 ÷ 600 x 300. Alternatively, just set your Links panel to list the *effective* ppi for imported images and you'll easily spot any with a resolution that has strayed beyond acceptable boundaries. You can get away with less than 300ppi if you have to, but don't make a habit of it. **TS**
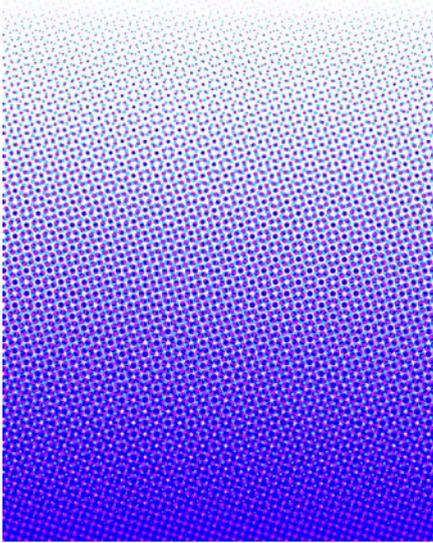
Thou shall understand the relationship between image resolution and halftone screens

Commentary All four-color process images are made from dots and are alternatively referred to as *halftones*. A photographic print isn't made from dots and is known as a continuous-tone (contone) print. *Screening* is the term used to describe how a contone is converted to a halftone. The chosen print method and paper stock must be taken into account when selecting which halftone screen to use, with a higher value providing better print quality. A screen resolution of 150lpi (lines per inch) is standard for quality printing, while a newspaper will use a screen as low as 70lpi. The coarser screen will actually help prevent individual dots merging together when the ink spreads through the more absorbent newsprint. The relationship between image resolution and screen resolution is simple enough in that image resolution should be about twice that of the screen used, hence the industry standard of 300ppi and 150lpi. There's some leeway in the equation. Softer images without many straight lines or angles will stand up to coarser screening than anything containing much in the way of fine detail. **TS**

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Thou shall choose images based on their appropriateness as well as their quality

Commentary Is it better to use a great shot that's not a perfect exposure, or a perfect exposure that's not quite the best shot? Ultimately the decision might not be yours as your client may value slick presentation over content quality, but for me choosing the shot that's the most appropriate is always the better decision. Think about all the wonderful images that have come out of field journalism where getting a perfect exposure hasn't always been the biggest priority. How about those accidental shots when you were doing the right thing by looking down the lens rather than at the settings on the back of the camera. When you look at the very best images, a pattern begins to emerge—content is king. Beautifully exposed images that are exactly right for a cover or spread are of course the perfect option, but it's wrong to choose an image purely because its technical quality is high. The reaction to a shot and the emotion it creates in the viewer must always take precedent. **TS**

Thou shall devise a system for the consistent naming of digital image files

0249_ComS.tif

Commentary It can be difficult when you are working on a large-scale project to manage and identify the many files that have been supplied. In some instances, a client or a publisher will have been very helpful and will have supplied the image files with logical and consistent names and in an organized manner. Often though, you won't be so fortunate, in which case it's worthwhile organizing the files and renaming them yourself before you import them. This will enable you to find and compare images and to maintain the correct links if the files are ever moved between workstations or servers. For book and brochure projects you may choose to use the chapter and folio numbers as a prefix for the image, so when listed alphabetically they appear in running order. However, if the pagination changes at some point this method may cause confusion, so a simple system of unique numbering and/or coding which doesn't follow a page order may prove to be more dependable in the long run. By taking stock of what you have and how the design is structured, a system of organization will become evident. **PD**

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Thou shall work with Camera RAW image files

Commentary Adobe Camera Raw is, in a word, brilliant. If you shoot (or receive a shot) as a JPEG or TIFF it is what it is. You can adjust it, color correct it, resize it within reason, but that's basically it. Camera Raw is like having an old-style film negative because you can go back to the original to create new versions from scratch. A Camera Raw file contains all the raw data recorded by the camera at the point the picture was shot. Camera Raw files aren't compressed, nor are they subjected to any in-camera processing, so you can do a whole lot

more with them right at the point when you first open them up in Photoshop's Camera Raw plug-in. You can reset temperature (or white balance), tint, exposure, brightness and contrast, clarity, and vibrancy, and a whole host of other adjustments. You can even open images at an increased size to the original, which can be very handy indeed. Ask your photographer for, or shoot in, Camera Raw whenever possible. **TS**
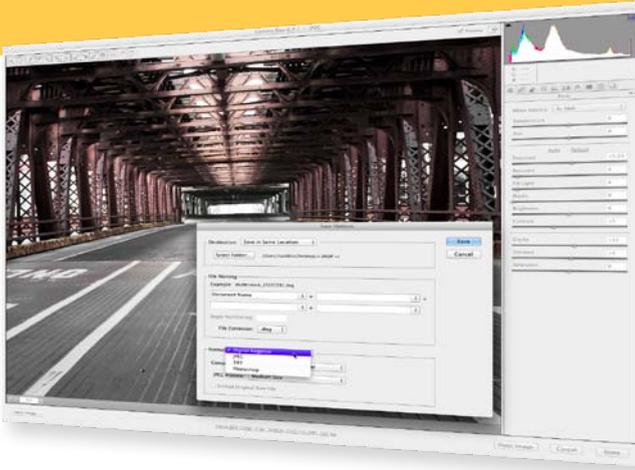
Thou shall utilize Adobe's DNG format when archiving images

Commentary We just mentioned how good Adobe Camera Raw is but it does have its limitations. The format is governed by the make and model of supported cameras, and the Camera Raw plug-in can't guarantee it'll support every camera forever. This means there may come a time when you won't be able to open an archived image. Enter the solution—Adobe's DNG (digital negative) format. Saving your images as DNG files removes the compatibility issue so they become "time proof," making them a much better option for archiving, and you can still open them with the Camera Raw plug-in. The file sizes are slightly smaller too, which isn't a bad thing, and there are cataloging advantages to boot. If you drop a Camera Raw file into an image catalog, you don't see any of the adjustments you may have applied to the image, but with a DNG file the preview honors any exposure and color adjustments. This is a huge advantage if you choose to follow the advice in Rule #233 and create a DAM system. DNG is the way to go. **TS**

Thou shall use DAM to catalog image files

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Commentary What's more boring, cataloging all your photographic images and illustrations or spending all day searching for that great shot that you may or may not still have on file somewhere? Personally I would say the latter is more boring and definitely more frustrating. Digital Asset Management (DAM) sounds like the dull option but it's actually really easy to do once you've got your system in place. You can buy specialist software like Extensis Portfolio, which creates standalone catalogs of all your images, or digital assets, as they all have potential commercial value. If you don't want to fork out for extra software you can use something like iPhoto, which comes as standard with every Mac, or Picasa, which is a free service from Google. Alternatively, you can just file images carefully in named folders and use Adobe Bridge for your image searches. Whatever system you go for, get to grips with *metadata*, which is defined as *data about data*. Use metadata to embed key words into your image files and tracking them down in the future will be a breeze. **TS**

Thou shall always apply some sharpening to digital images

Commentary On close inspection many images shot with a digital camera will appear to be slightly blurred. This happens because, just like the grain produced in shots from old-style film cameras, digital sensors produce a random speckling of tiny electronic dots across the shot known as noise. Digital cameras attempt to suppress noise by setting sharpness to the lowest acceptable level, which means that post-production sharpening is needed. Your photographer may do this for you as part of his or her contract along with any required color adjustments, but if not, the odds are that you'll be using Photoshop to do this yourself, so use Unsharp Mask or Smart Sharpen. Don't use the basic Sharpen filter as it's an all or nothing option and offers no real control over the end result. A word of warning—don't overdo it. Oversharpened images look worse than the "straight from camera" shot, so easy does it. Oh, one more thing, complete any and all image adjustments before you apply any sharpening. It should always be the last thing you do before importing the image to your layout. **TS**

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Thou shall not crop well-composed images excessively

Commentary When an artist sits down at their easel to sketch out the composition of a painting, they're thinking carefully about what's happening at the edges of the work as well as what's happening at the center. Imagine how horrified they would be if they were to walk into a gallery, only to find that a picture framer had decided to chop 6 inches off the top of their work so it lined up nicely with the other paintings on the adjacent wall. Photographers do the same thing when they look through a camera viewfinder and compose the shot before they fire the shutter, and photographic images should be treated the same way as paintings. Sure, not all photographs need to be treated with the same reverence, and some are shot with the intention they be cropped at will, but something like a fine landscape image or an immaculately composed portrait should be treated with respect and cropped as the photographer intended. It's kind of rude to crop heavily without good cause. **TS**

Thou shall not crop landscape to portrait and vice versa

Commentary Another professional's work should always be treated with respect. This is no less true when working with a photographer; their experience and creative "eye" for a good shot contribute to the careful composition and formatting of each photograph they produce. By taking their picture and recropping to a different format, more often than not you are degrading the overall quality of the image and negatively affecting its composition, as well as being disrespectful of their ability! Most photographers I know often take a landscape and a portrait of the same subject matter, with the orientation dictating their choice of composition. So check if there is an alternative before you start laying out your design. This rule goes for any type of image, art reproduction, or illustrated work, too. Meet the challenge and work with what you are given. **PD**

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Thou shall use the right Photoshop tools for color adjustment

Commentary If you feel an image needs some color adjustment, it may well need a bit of tonal adjustment first. Color is directly affected by tonal adjustments because saturation will increase or decrease when darkening or lightening an image, so check *Levels* first. Don't bother with *Brightness and Contrast* as the adjustment isn't sophisticated enough. Drag the black and white point sliders of the Layers dialog in to meet the ends of the histogram to achieve good tonal balance. A *Color Balance* adjustment can solve simple color problems but for better results you need to study the workings of the *Curves* adjustment. It's not that complicated to get your head around and is arguably the most powerful adjustment tool in the whole kit. Read up about the popular S-Curve approach to color adjustment and you'll be well on the way to becoming a real pro. Knowledge of the color wheel will help you here, too. Here's a little side tip for any adjustment procedure. Decide what the worst issue is and deal with that first. It may be all that's needed. **TS**

Thou shall always edit images nondestructively

Commentary Since they were first introduced way back in 1994, Layers have always been one of the best things about Adobe Photoshop. In 1996 the functionality of the Layers panel took another leap forward with the addition of Adjustment Layers. Now, can you think of any reason why you wouldn't want to take advantage of what's termed *nondestructive* editing by using those wonderful Adjustment Layers? It's nondestructive because if you change your mind about any of the edits you apply you can readjust them or take them out completely, so this is a bit of a no-brainer, to be honest. However, some folks still manage to forget all about them and either apply adjustments directly to an original image or make endless saved-as versions of files in case they want to go back to an earlier version. This is, of course, completely crazy and pretty much inexcusable! As you can see I feel quite strongly about this one, so check out those Adjustment Layers and use them well, even for basic Levels or Curves adjustments. **TS**

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Thou shall worship Smart Filters
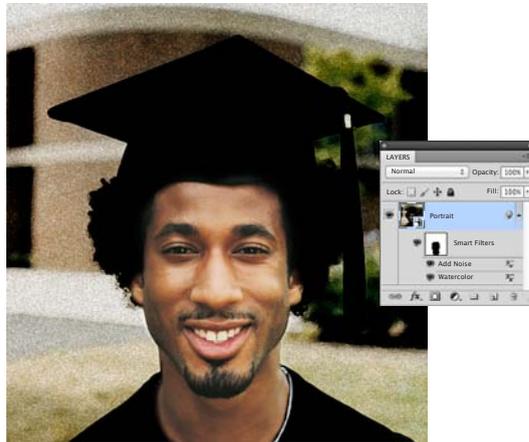
Commentary We know that non-destructive adjustments are the way to go, as Rule #238 demonstrates. But what happens when we want to apply other effects without permanently changing the original image. When Photoshop® CS3 was released in 2007 it was the end of a long wait (after the arrival of Adjustment Layers) for the brilliant Smart Filters. Smart Filters are possible because of Smart Objects, introduced in CS2 to allow more flexible ways of working with scalable vector graphics, and are basically Adjustment Layers for filters. All you have to do is open your original as a Smart Object and apply whichever filters you care to choose. Each applied Smart Filter links in a stack to the selected layer and can be edited with Blending Options or reordered as many times as you like, or deleted completely if you decide you don't need it after all. They're applied as a Layer Mask, so you can also paint areas out to reveal the original image, without the applied filters. What's not to like about that? Smart Filters deserve the attention. **TS**

Thou shall eschew deletion in favor of masking

Commentary Returning to the theme of nondestructive editing, creating cutouts can also be given the same treatment through the use of Layer Masks. I prefer to keep as many previous workings of an image as is practical because you may for whatever reason need to return to an earlier version. On the flip side, I don't really like keeping dozens of files labeled version 1, version 2, and so on, so a mask carries the advantage of not deleting any data from an image. You can always revert to the original if needs be. In addition, tiny adjustments can easily be made to a Layer Mask with a small brush, and Photoshop's excellent *Refine Edge* function provides options for detecting, adjusting, smoothing, and feathering any selection. The one thing you always have to remember if you create a cutout with a mask is to check the *Save Transparency* box when you save the image. You also have to save as either a TIFF or PSD as JPEGs can't contain multiple layers. **TS**

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Thou shall create clipping paths in Photoshop— not in InDesign

Commentary It's easy to create a quick clipping path in InDesign® using the built-in functionality, and it's equally as easy to create a frame directly from the resulting clipping path. This is fine for a quick one-off job that needs to be turned around in double quick time, or for something you're unlikely to come back to or edit. However, it's not really the best way to create a proper clipping path as it only affects the picture box used in your layout. Additionally, it's unlikely that the InDesign® clipping path will be quite so accurate as one you've first created in Photoshop® as part of the original image. Photoshop® provides so many more options for creating all kinds of paths, and allows you to refine and feather edges in ways that InDesign® doesn't. Remember, too, that if you use the image again elsewhere your cutout work is already done. Never try to create a clipping path from a polygonal picture box drawn directly in InDesign®. It's a really shoddy way of working and your print supplier will hate you forever so best not to, I reckon. **TS**

Thou shall always include a photography or illustration credit where it's due

Image © Tony Seddon 2011

Commentary A good editorial layout depends very highly on skillful use of space, good typography, and an eye for structure and navigation. However, if the piece is also illustrated, the images are more than likely the element that first elicits a response from a reader. The best layout in the world will never fully succeed if the images are only okay, and will fail miserably if the images are just plain bad. Given this, it's really only proper (and polite) to make sure the person creating great photographs or illustrations for a piece gets a credit somewhere. It doesn't have to be in 16pt text underneath every image, but if someone wants to check who shot the images for the fashion article or who created the cool vintage-look illustrations for the music feature, they should be able to do so. The majority of photographers and illustrators are freelance and need to publicize themselves constantly through the work they do for others, so it's important to try to provide that platform for anyone you work with. **TS**

243

Thou shall allow a photographer or illustrator to input creatively whenever possible

Commentary I've been fortunate to work with some incredibly gifted professionals in my career. These individuals are specialists in their fields and are extremely creative, knowledgeable, and experienced. So I've found it's always worthwhile listening to what they have to say, whether it be a suggestion or an observation. Invariably, their comments will add value and improve your project. Of course, you don't have to take on every suggestion they make, but it pays to listen as you never know what may come out of the discussion.

There have been a number of occasions when I've been on a photoshoot and the photographer and myself have struggled to get an image of a product to work. Despite our efforts, the shot just wouldn't come together, even though the initial idea was great! It's at times like these that open communication and a willingness to listen will benefit all parties and result in solutions that lead to successful work. **PD**

Thou shall not edit an illustrator's original work without permission

Commentary As with a photographer's work, it is important to be respectful of an illustrator's output. I've worked with many; if you brief them correctly and thoroughly, the work they produce will tick all the required boxes and often exceed your expectations. However, there will be the odd occasion where changes need to be made to the illustration, whether it's adding or removing elements, altering colors, or adjusting the size. In these situations, you should go back to the illustrator and ask for the changes to be done.

Not only is it more professional to do so, but the commissioning contract will often include a clause stating that you are not allowed to modify their work without permission. The last thing you want to do is start breaking the terms of a contract for what would appear to be a simple change. Go back to them, explain the situation, and they will nearly always accommodate any alterations. **PD**

245

Thou shall not do it yourself if you have a budget to commission

Image courtesy of Nikon

Commentary If there's a good argument to support why you should personally create illustrations or shoot photographs for a layout you're working on then fair enough. Perhaps you're genuinely the best choice for that particular task—no reason why you shouldn't be—but there's more to it than illustration and photography skills. Time is also a major factor and the more you decide to do yourself, the more time you'll need. I have a confession to make—in the past I've made bad decisions about how much I should personally take on for a project when I could easily have delegated work to others while staying within budget. These decisions are sometimes driven by a desire to increase your personal stamp on a project, or simply that you really enjoy creating the images. Take a step back and answer the following question: Am I truly the best choice for the work and do I want to be in the office until 2a.m. tomorrow morning? If the answers are "maybe" to the first part and "no" to the second, pick up that phone. **TS**

Thou shall learn to use an SLR camera in case you have no budget for photography

Commentary Part of my education required that I take a color and black and white photography class. In retrospect, it was probably one of the three most important classes I have ever attended. Not only did it teach me some visual framing techniques, but more importantly, it made me comfortable holding a decent camera in my hands and expecting decent results to come from it. Little did I know that I would find myself jumping in to budget-ravaged assignments, shooting band portraits for CD packaging, menu photos for small restaurants, and anything desired, but financially unobtainable. I always use top people when needed, but that isn't always possible. Now, with everything digital, I shoot my portfolio as well, and not a day goes by when I don't shoot something for reference, or to use as a base to manipulate for an image or a texture in an illustration. I love my camera and it loves me back. **JF**

247

Thou shall not use your cell phone to shoot images for a project

Commentary I've often had to shake my head at the poor quality of images that have been supplied by some clients and have had to graciously return the images and ask them to resupply them. A common misconception is that pictures taken on low-grade cell phones will be of a good enough quality for high-end print purposes. Possessing limited resolution and lenses, these photos should be seen more as a "capture" than a photograph. Their lower quality will be evident when printed using offset litho or some other professional printing process and that's only acceptable if the project brief actually calls for this treatment. However, as with all things digital, technology moves on and many of the newer smart phones now available are capable of producing good-quality, high-resolution images which, up to a point, will be good enough to use. So, if you do need to use a cell phone for photography, ensure that the resolution of the built-in camera is high enough to capture detail and try to avoid camera shake when shooting. **PD**

Thou shall not use Photoshop filters to disguise a low-quality image

Commentary In school, a common excuse for missing homework is "the dog ate it." In graphic design, a common excuse for using the Solaria filter is, "the project needed it." Both excuses are obvious and pathetic. Nobody is fooled by the dog story. Nobody believes the image was wonderful, but the designer decided to Solarize it. Bad images are bad images. Low-resolution images are low-resolution images. There is no hiding from bad quality. This is an instance when requesting a better image is needed. Alternatively, a new image can be photographed. A solution can be executed with pencil, or cut-paper. And if all else fails, and a poor-quality image is the only option, use it big. Print it out and photograph it as a physical snapshot. Make the poor quality highly apparent and use it as part of the solution. **SA**

249

Thou shall not try to repair a bad image by desaturating

Commentary Desaturating an image is criminal. Perhaps, it is not legally criminal, but it is wrong. One of the tenets of modernism is to let materials be what they are. This means wood should look like wood, metal should be metal, and stone should be actual stone. There is no faux-painted marble in a Mies van der Rohe house. Bad images are bad images. Attempting to disguise one by desaturating it has one effect. It makes a bad image look desaturated. Sepia-toned photographs from the late 19th century look good because they are actual sepia-toned photographs. Taking an image photographed in the 21st century and making it sepia results in an image that is clearly artificially created. If the imagery is artificial and attempting to deceive me, why should I believe any of the text? The entire solution is compromised and has lost integrity. **SA**

250

Thou shall not scan a commercially printed image that has been screened
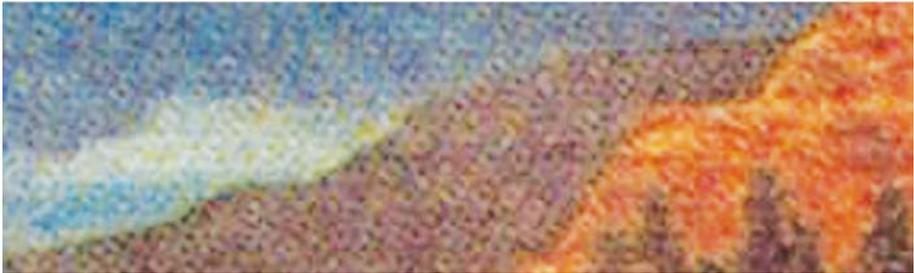
Commentary When a piece is commercially printed, the collection of CMYK dots that make up the base of the image form the visual you see. They can also form a moiré pattern when scanned afterward. Where a photo or a slide might be smooth and continuous, the printing process fragments this. It works to perfection on the intended final presentation, but when you try to drop that magazine cover in to your layout straight from the scanner, be prepared for a bizarre visual pattern to emerge instead of the hoped for image. The trick is to create a photograph of the image needed. Light that printed piece and be sure that it is squared up and as flat as is possible, with no flares or shadows. Take several photos, select the best, sharpen it digitally, and then you have a perfect file to work from. The extra steps are more than worth it. **JF**

251

Thou shall not enlarge images excessively "in layout"

Commentary When you're placing hi-res images in a layout, it's essential that you don't overscale them. Your hi-res files should have an image resolution of at least 300ppi, this being the correct resolution for screen rulings used in the litho printing process (see Rule #228). Increasing the scale of the placed image will reduce the image's effective resolution when printed. By way of an example, enlarging the image to 200 percent will reduce the resolution by half to 150ppi due to the doubling in size. If you need a larger hi-res to achieve the best layout—and you have knowledge that there may be better available—it's worth asking the client or the image source if one is available. If no replacement is forthcoming, then work with what you have. However, there is a small amount of leeway available. If the quality of the image is high you should be able to increase the scale when placed by up to 120 percent. You will find the majority of the detail, as long as it is not too fine, will be retained when printed, providing you with some flexibility in crop and scale. **PD**

Thou shall enlarge images incrementally in Photoshop
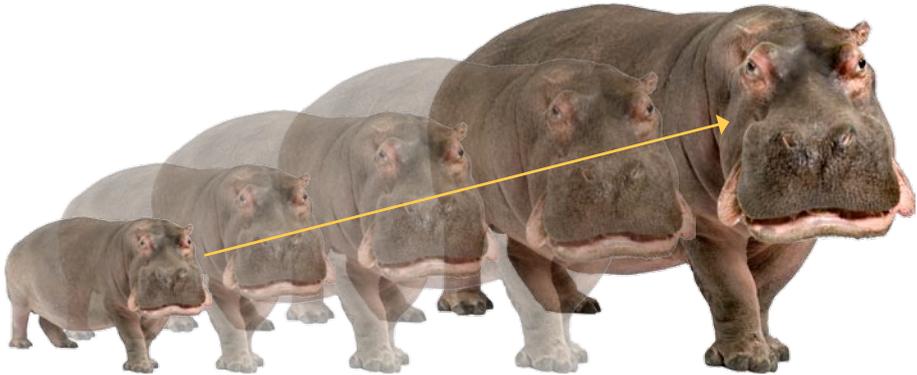
Commentary Take a look at the Image Size dialog in Photoshop and you'll see that there are different options to select when resampling an image. Photoshop has to create or delete pixels using clever things called *algorithms* when you resize an image. Extra pixels are based on the existing pixels, and a *Bicubic Smoother* is recommended for enlargements. This setting can give good results for enlargements of a fairly high percentage, but there is a limit. Some say as much as 200 percent is acceptable but I would say the practical limit is actually lower. If you ever need to enlarge a digital image beyond, say, 50 percent it's a good idea to consider using the incremental enlargement technique. It's a simple process involving gradual increases in size of between 1 and 5 percent. Using small increments means Photoshop doesn't have to create as many new pixels for each enlargement, so color accuracy and clarity is maintained. For the best results always enlarge images in Photoshop first—never enlarge them in layout. **TS**

253

Thou shall choose images that support the text without repeating it

Commentary Many of us have attended a lecture where the speaker shows slides of his or her work. The worst speakers tell us what we see on the screen. A poster with a red headline and image of a hat appears on screen. The speaker says, "Then I made the headline red, and used a hat." If the audience is sight-impaired, this is acceptable. The best speakers show the work and expand on it with a story, situation, or hidden meaning. Text used as captions or headlines should give the viewer additional information. They should not repeat the obvious content of the image. As an example, a portrait of a man might have a headline such as "Wesley Thornton, Hero of the French and Indian Wars." A headline such as "Portrait of a man with a black shirt" only tells us what we already know. Images support the text, and the text supports the image. Each adds strength and information to other. **SA**

Thou shall keep icons simple and only expect them to convey a single idea

Commentary The Merriam-Webster dictionary defines an icon as follows: a sign (as a word or graphic symbol) whose form suggests its meaning. Successful icons communicate a singular and typically simple idea. A car on a winding road conveys the message, "Ahead, winding road." Poor icons attempt to communicate multiple ideas. In addition to the car and winding road, boulders may appear to be falling, and children may be seen running across the road. This is no longer an icon. This is now a painting. Many clients will want to say many things at once. The designer filters this information and returns with a clarified and more legible solution. **SA**

Thou shall know the difference between similar, example, symbolic, and arbitrary icons

Commentary We adore icons. As designers, we help place them all around us. It is important to know that icons fall into four specific categories, and to understand the separation. *Similar* icons are usually very literal and use simple objects, actions, or concepts. Many road signs fall into this category. *Example* icons usually convey a complex action in a single image. They usually use an image that we readily associate with a larger range of activity than the image itself, like a plane for an airport. *Symbolic* icons are used when an action or concept can be conveyed with a recognizable shape and are more conceptual, as the image often doesn't literally do what it is explaining, like a padlock for security. *Arbitrary* icons use imagery that must be learned to understand the meaning and bear little immediate connection to the concept that they convey. An obvious example is the icon for radioactive materials. **JF**

Paint *Haus*

Thou shall create logos that identify rather than describe

Commentary Each of us has a name. That name identifies us to the rest of society. Our first name may indicate our gender and origin. Our surname may indicate our cultural background. When introduced to Comte de Meux et Chalon Robert De Vermandois I might presume this person is a man from a French family. Queen Alfgifu of England would appear to be female and from a British family. Beyond these facts, however, I know nothing else. The names do not tell me if Comte De Vermandois is nice or mean, if Alfgifu is generous or

thrifty. Good logos do the same job. Good logos identify an organization. They do not tell the viewer everything there is to know about the organization. The logo is the foundation of the visual system. It must exist in a variety of contexts. It should be able to withstand an advertisement to sell a product and a letterhead expressing condolences. Logos that describe are rarely legible, memorable, or accurate. **SA**

Thou shall create logos that work in print and online

Commentary Twenty years ago, designers made logos for print, and occasional environmental needs. The visual system required a two-color, one-color, and reversed version. Today, logos are applied to print, environment, broadcast, and online applications. The good news is that designers are now able to animate a logo, use a broader color palette, and think three-dimensionally. The bad news is that every logo needs to be legible on a printed piece and reduced to a small number of pixels online. A logo previously spent most of its life in a static two-dimensional world. Four-color logos were difficult and expensive to reproduce. A simple black and white logo with a two-color variation was preferred. Now, multicolored and three-dimensional logos are possible online. But, as in traditional print design, small hairline rules, delicate and tiny typography, and complex colors will not reproduce in print, and will fall apart on-screen. **SA**

258

Thou shall never use pixels when you can use vectors instead

Commentary Vector graphics have one massive advantage over pixel-based images—they're not resolution dependent, meaning you can enlarge them as much as you like with no loss in quality. Vectors are made using geometrical primitives, which are points, lines, curves, and polygons, and mathematical equations calculate how everything intersects. It sounds complicated but don't worry, the software does all the tricky stuff—all you have to do is draw the lines. They're not so good for the fine tonal gradations and subtle color shifts that bitmaps can handle, but for diagrams or logos they're perfect, and you can avoid the troublesome EPS (Encapsulated PostScript) file format nowadays as native Adobe Illustrator files can be imported directly into page layout programs. If it's possible to use vectors for an illustration or graphic (i.e., one that doesn't require the typical properties displayed by a photographic halftone), choose a vector approach every time and you'll never have to worry about any of the issues associated with resolution and image size. **TS**
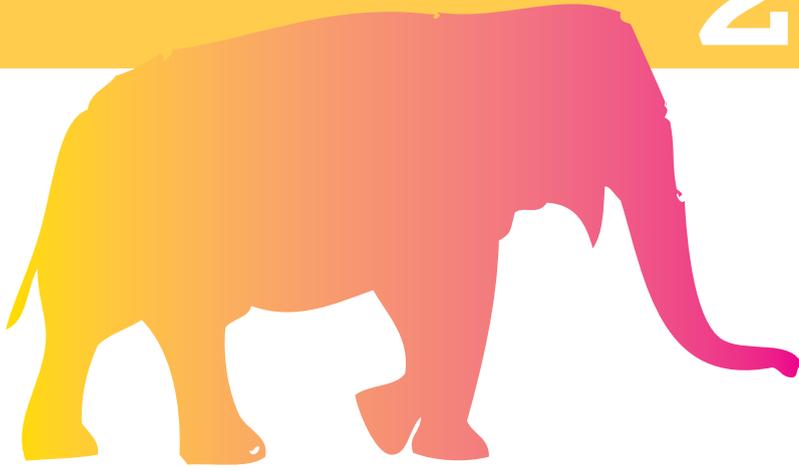
Thou shall avoid Live Trace— it makes you lazy

Commentary Some designers are remarkable at drawing. These people were the students the art teacher asked, "Did you trace that?" This was not intended to be a compliment. This question pointed to laziness, deceit, and trickery. While Live Trace is an incredible tool technologically, it begs the question, "Did you trace that?" It is the tool of the weak and lazy. And it will always look like Live Trace. Especially disturbing are examples of handwritten letterforms that have been subjected to the rigid abuse of Live Trace. Recalling modernist tenets, allow something to be what it is. If handwritten text is necessary, write it, scan it, and use it. Using Live Trace will create forms that appear inauthentic. This deletes any spirit of spontaneity, or life. If an object needs to be drawn as a vector form, the designer should use the pen tool and draw the form. This controls any odd curves and stray points. It is the difference between a sloppy, careless approach and a meticulous and energetic solution. **SA**

Thou shall know that things that are noticeably different tend to be remembered

Dinner

Commentary When we stop and solve a problem, we are forced to engage with the issue. Elements that are unexpected or out of place create a problem that we must solve. Using an image of a baby with the word "Baby" below it, asks us to do little. Using an image of a baby with the word, "Dinner" below it, creates an emotional response, and we are left to question its meaning. This example will be remembered. While many people in the world may seem remarkably stupid while driving around us, typically they are able to solve problems. Speaking to the audience with a remedial tone is condescending and forgetful. Good design should not function like reading flash cards with simple icons and simple words to describe them. Good design asks questions, poses a point of view, and asks the viewer to complete the thought. **SA**

Thou shall understand the Face-ism Ratio

FABIAN
Artistic Director
Dance Institute of Washington
www.danceinstitute.org
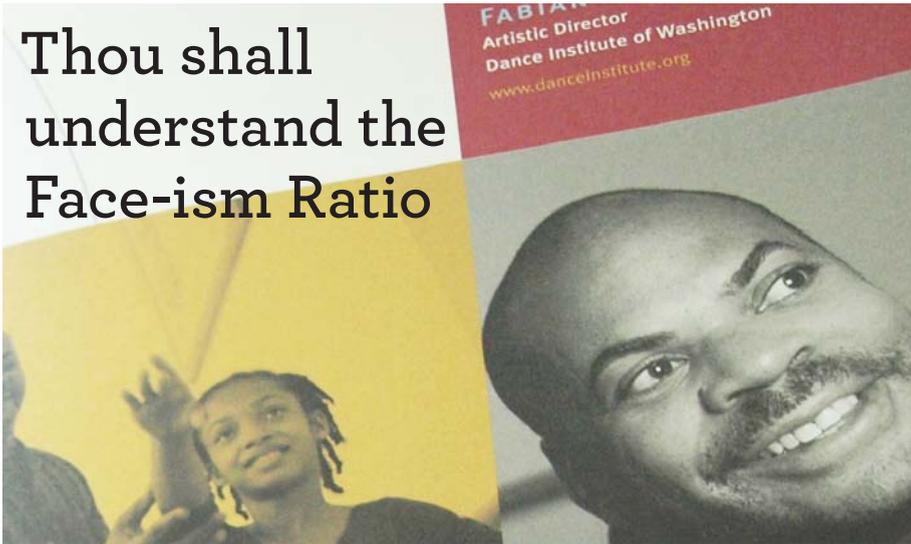
Commentary Quite simply, the Face-ism Ratio is the ratio of face to body in an image, and how it influences the viewer in how they perceive the person in the image. The more face one can see in an image, the higher the Face-ism Ratio. There is specific math involved, if you are so inclined, but we are going to talk about the significance. This equation is hotly debated in terms of how it is used in regards to gender. In history, our images of men tend to be dominated by the face, emphasizing their personality and intellectual qualities, and focusing squarely on character. Our images of women tend to show significantly more body, often the entire figure, focusing on their physical attributes and often with a sensual undertone. This is consistent across almost every culture. The point, as a designer, is paying attention to how much face you show in a cropped image, and being careful about what that conveys to the viewer. **JF**

Thou shall not allow any images above 105 percent to go to print

105%

Commentary In Rule #224 we discussed why you should ensure that images are 300ppi before you import them to a layout. In addition to this, you should ensure that the scale of the image does not increase beyond an acceptable amount once it has been placed. The rule that we are applying here is, never bigger than 105 percent. This is due to the fact that, as you increase the scale of the placed image, you are in effect decreasing its resolution, and therefore its quality. For example, if I place a 300ppi image at 150 percent, the image has increased by 50 percent in size over the original, or you could say the original takes up two-thirds the width of the scaled image. This now means that the resolution of the scaled image when output has decreased is no longer 300ppi but two-thirds the resolution, or 200ppi. This is a significant decrease and, when printed, the image quality will degrade. At a push, and if the image is very good quality, then 110 percent can be achieved, but stick with 105 percent and you'll be safe. **PD**

Thou shall not print images that are less than 300ppi

300ppi

Commentary When sending a project to print, it's imperative to check that all images have a minimum 300ppi resolution. When publications and books are litho-printed, the printer will employ a screen ruling of 150–175lpi (lines per inch) to create the printing plates for the various colors. In order to calculate the required image resolution for the printer's screen ruling, simply double the lpi figure. Resolutions lower than 300ppi can sometimes be acceptable, depending on the project and paper stock, but it is generally accepted that 300ppi will work for most screen rulings, including finer screens of 200lpi, which would be considered for use on art books and monographs. The above, when coupled with the previous rule of not over-scaling images when placing into layout, will help to ensure that everything prints well. A quick and easy way to check your images is to use Adobe Bridge to collate and identify any files with stray resolutions. **PD**

264

Thou shall convert all images to CMYK before sending to the printer
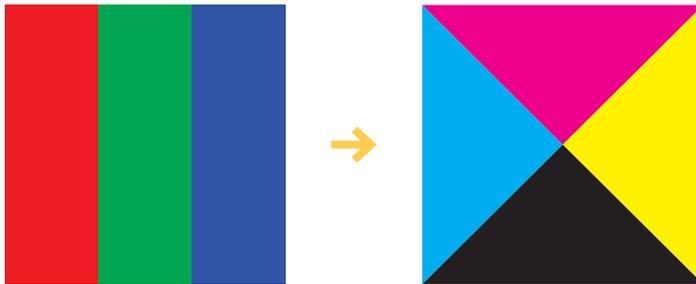
Commentary As has been discussed elsewhere in this book, the color printing process uses four colors: cyan, magenta, yellow, and black (CMYK), to reproduce color images and graphics. Many of the image files supplied to you, such as digital photographs, will have been created in RGB (red, green, and blue) mode, which is incompatible with the printing process (RGB-formatted images are used for screen-based graphics such as websites). Before you embark on converting them all, it is a good idea to talk to your printer. Not only is it possible to convert the images to CMYK—you can also add the correct CMYK profile to the images, which will be a great help to the printer, particularly if there are a lot of images. Simply find out which CMYK profile the printer intends to use and then carry out the conversion in Photoshop, thereby killing two birds with one stone. If there are a large number of images, you can run a batch of them through an automated action, saving you a lot of work and affording you the time to go and have a cup of tea. **PD**

Thou shall use a mixed RGB and CMYK image workflow

Commentary There's a vicious rumor kicking around that all images must be converted to CMYK before they're sent for reproduction and print. This isn't actually true—it's fine to implement a mixed RGB and CMYK workflow as long as you use color profiles. Color profiles (for example, *Adobe RGB 1998* or *FOGRA39*) contain data that describes how any one device, which could be a screen or a printer, will deal with the color information contained in an image. They use LAB, a device-independent color model (see Rule #163) to closely preserve colors that move from one color space to another. As most of us now send our artwork to printers as PDFs we can set Color Conversion to *Convert to Destination (Preserve Numbers)* when we export a PDF, helping to ensure that any RGB images in a layout convert automatically to CMYK while maintaining color consistency with the RGB original. This cuts out the need to convert all your images beforehand, and makes it possible to keep RGB originals which are better suited to color correcting and manipulation in Photoshop. **TS**

Author biographies

Sean Adams [adamsmorioka.com] is a partner at AdamsMorioka in Beverly Hills, California. He has been recognized by every major competition and publication including; Step, Graphis, AIGA, The British D&AD, and the NYADC. Adams has been cited as one of the forty most important people shaping design internationally in the ID40. Sean is President ex officio of AIGA. He is a Fellow of the Aspen Design Conference, and AIGA Fellow. He teaches at Art Center College of Design. Adams is the author of *Logo Design Workbook*, *Color Design Workbook*, and the series, *Masters of Design*. AdamsMorioka's clients include The Academy of Motion Picture Arts and Sciences, Adobe, Gap, Frank Gehry Partners, Nickelodeon, Sundance, USC, and Disney.

Peter Dawson [gradedesign.com] has nearly 20 years experience in the UK design arena and cofounded his practice, Grade, in 2000. He has won a number of awards for his work including ISTD Certificate of Excellences, and, most recently, Best Jacket/Cover Design at the 2010 British Book Design and Production Awards. He is a Fellow, and former Chair, of the International Society of Typographic Designers and has also acted as a visiting typography lecturer at a number of Universities in the UK and overseas.

John Foster [badpeoplegoodthings.com] is the Principal, Superintendent, and assorted other big words at Bad People Good Things. He is a world-renowned designer, illustrator, author, and speaker on design issues. His work has been in every major industry publication, hangs in galleries across the globe, and is part of the permanent collection of the Smithsonian. He is the proud recipient of a gold medal from the Art Directors' Club as well as a Best of Show from the ADDYs. Breakthrough projects for everyone from Coca-Cola to Hasbro, Americans for the Arts to The Nature

Image credits:

by rule number

Conservancy, ESPN to Chronicle Books, and so many more have established Mr. Foster as a constant force in the industry. He spends far too much time in his office, behind a giant desk for designering, drawering, and computering, with the world's goofiest foxhound at his feet.

Tony Seddon [tonyseddon.com] graduated in 1987, and during the following 12-year period lived and worked in London, UK, first for a multidisciplinary design consultancy, then as senior art editor for an illustrated book publisher. In 1999 he relocated to the south coast and has continued to specialize in book design and art direction. Tony now works as a freelance designer, project manager, and writer. He has authored three books: *Images: A Creative Digital Workflow for Graphic Designers*, *Graphic Design for Nondesigners*, and *Art Directing Projects for Print*. He lives in Alfriston, East Sussex, with his wife and his ever-present greyhounds.

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