

Digital Photography Lesson Plan 8

[2011]

[This lesson is intended as a review of HDR imagery. We will discuss the importance of the HDR effect and its positive and negative attributes within photography. As well, we will look into the aspect of what makes a great portfolio in the design realm.]

HDR/Folios

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HDR Tutorials:

In this tutorial we will take a look at HDR photography. HDR (High Dynamic Range Imaging) was originally used in 3D and is now in full force in photography. Basically it's the process of taking multiple exposures and merging them together into a single image. Ideally it is used for 32 bit images, however due to system restrictions many use it at 8 or 16 bit. Let me explain: A camera is capable of capturing a limited amount of tones in a single photo. Typically we sacrifice elements in a photo when we press the shutter. For example there is a powerful cloudscape and some cliffs. If we expose for the clouds the cliffs become dark. If we set the camera's exposure to capture detail in the cliffs, the brighter sky is blown out and detail is lost. This is because the human eye can see a larger range of tones than the camera can capture on the chip or film in a single photograph.

The solution is to take more than one photograph and bracket the photos. Shoot normal exposure, then under-expose a shot to capture highlights and over-expose a shot to capture shadow detail. Finally, merge these photos together to produce a single image with a larger range of tones that can now show all the details in the shadows and highlights. This tutorial will show you how to complete this process with the minimum fuss.

First we need to get our source images. Typically we will capture these with our camera. You will need to shoot a minimum of 2 photos with different exposure settings.

It has been recommended by Adobe to limit the bracketing by 1 stop and this will help reduce banding. You may also take 5 or more shots with a smaller gap in the bracketing. Personally I feel you get good results from 3 shots. I like to over expose and under expose by 2 stops. I know this is a bigger bracket than most people are comfortable with, but for the type of HDR images I like cityscapes. If you are shooting people, you may want to reduce this to even 3rd stops.

(Note: You can't use a single raw image and exposure it several times as some people suggest, for a true HDR photo. This is known as pseudo-HDR. Photoshop will not allow you to merge these because there isn't sufficient tone detail captured).

1. Start

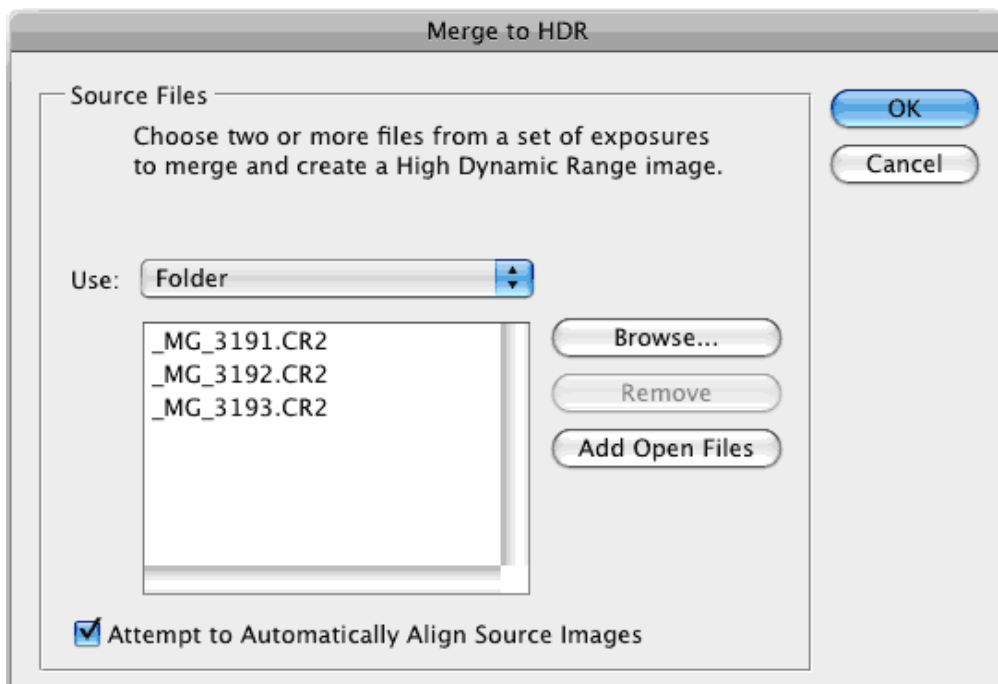
Start with 3 images. One normal exposure, the second underexposed and the third overexposed. In this case I used 2 stop bracketing. If you are shooting rounded and curved surfaces you will want to lower your bracketing to get smoother gradients.



2. Merge

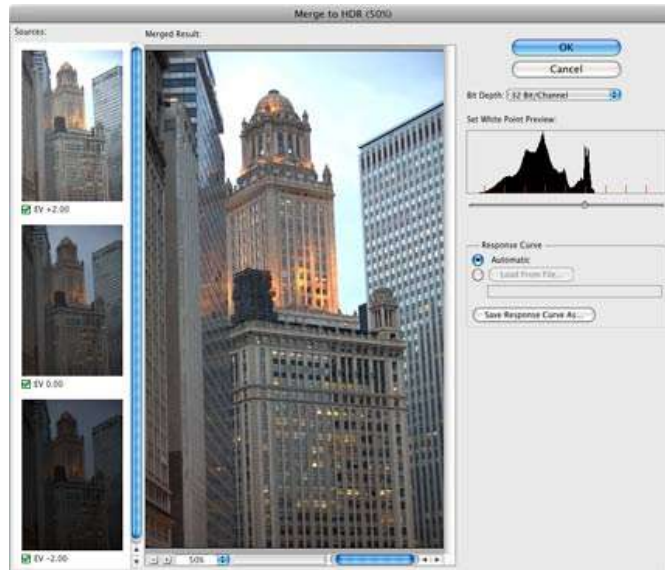
Time to merge the photos together into a single image.

Choose File>Automate >Merge to HDR. This works on Photoshop CS2 and CS3. (CS2 Doesn't have auto align). Choose either images or folder. I organize each set of photos in its own folder so I used the folder option. Select your photos to merge. Turn on Auto Align in Photoshop CS3. Click OK. (Photoshop CS3 uses new Auto-align technology that even allows you to create HDR without the use of a tripod!)



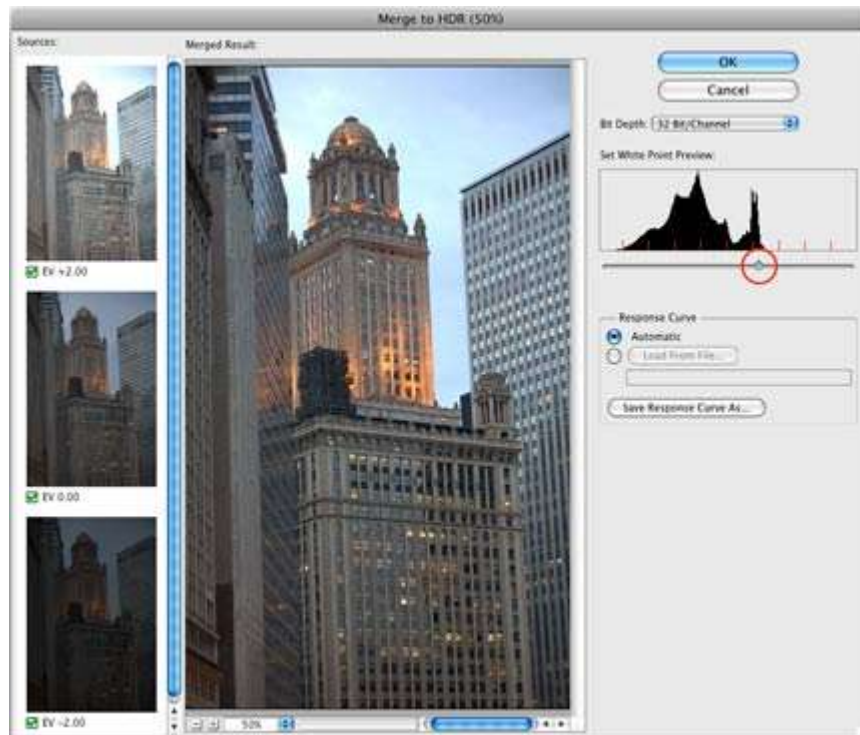
3. Settings

Your images will now be merged into a single photo. You can turn off individual photos by unchecking their boxes on the left filmstrip. If you get some blurring caused by camera shake in the longest exposure, you may want to turn off that photo.



4. Adjustments

The merged result is a floating-point image. You can adjust the overall tones by sliding the White Point slider. Easy with it, a little movement goes a long way!



5. Double Check

Click OK to merge the photos into an image. Now is a good time to save your file.



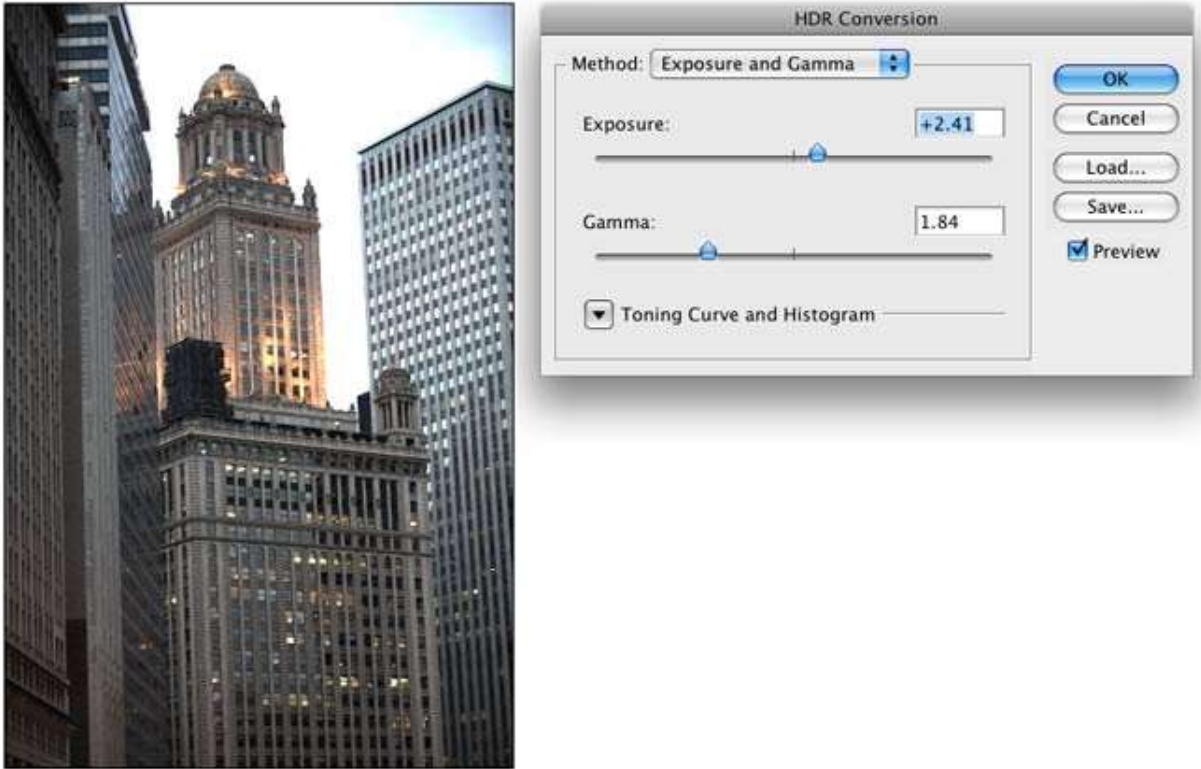
6. Conversions

In order to use the photos, you'll need to convert them to 16 or 8 bit images if you were using a higher format. When we convert them we will create what I call interpretations of the photo. The reason I say this is because we have unlimited ways we can make the photo look. While we have this huge dynamic range available in 32 bit, we will no longer have those options after conversion. Always work from the saved 32 bit version, and then convert and save versions (personal interpretations). Avoid overwriting the 32 bit image, it's our master and we may want to go back to it many times.

Choose Image>Mode>16 bit (or 8 bit). Now we get to play with some fun options. You're now at the tone mapping part of the process. This is where all the creativity can ooze.

(If you want to make the adjustments without converting, choose view>32 Bit Preview Options. You can use several of Photoshop's tools in the Image>Adjustments menu. The most important of these is the Exposure control)

You'll see an HDR Conversion Dialog box. Exposure and Gamma is the default option. Best way to approach this? Set the gamma first, then adjust the exposure to suit. If you want an image with lots of contrast, lower the gamma. For less contrast raise the gamma. Finally, adjust the exposure to get the desired brightness. If you want more control, read on... otherwise press OK to convert.

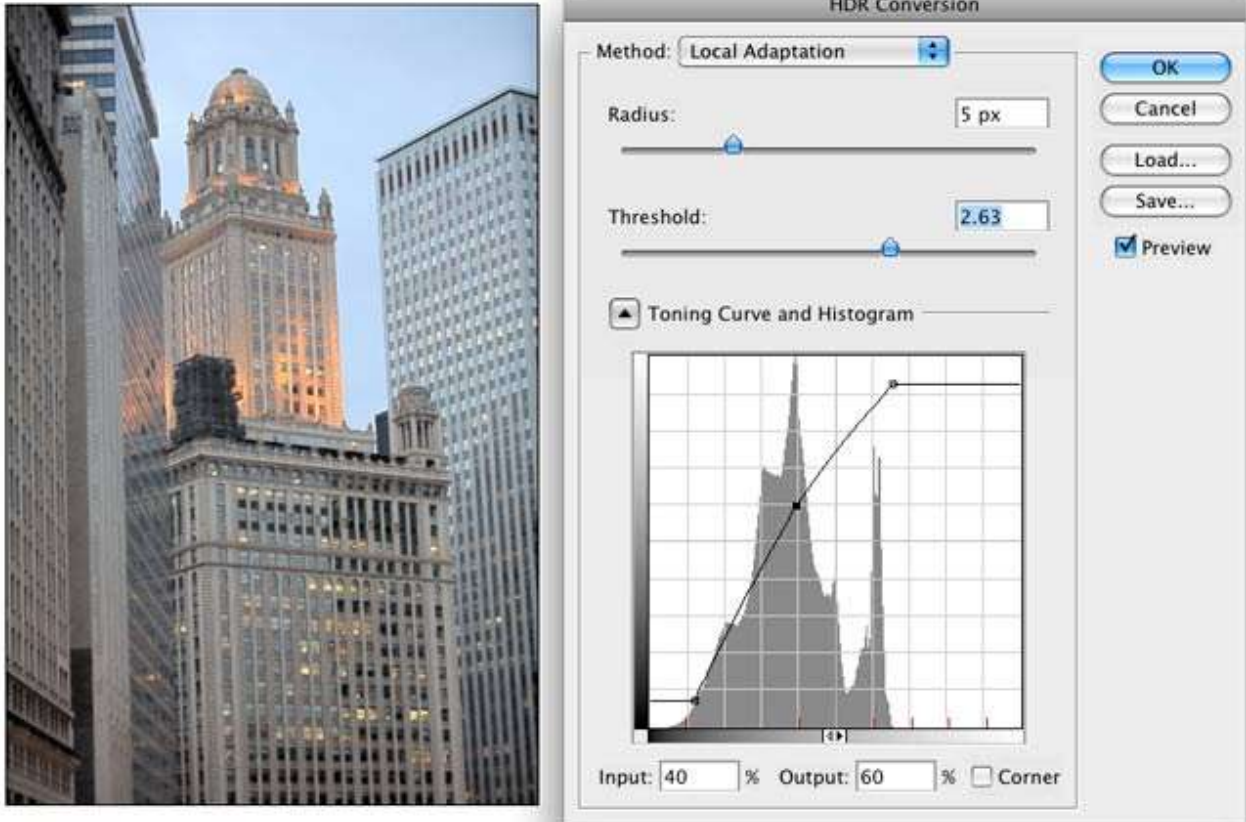


7. Adaptions

Change the Method to Local Adaption. (There are 4 available methods, but these are the only 2 with user input).

With local Adaption, you can adjust the curves. Set these like you would normally work in curves, but don't be afraid to clip the histogram a little. You can clip because you're working with a larger dynamic range than you're used to. Bring out the detail in the image, but don't forget to put some shadow in there or it will look washed out and fake. Once you're happy with the curve, adjust the radius and Threshold sliders to make sure there are no halos in the photo. **(Converted HDR images have a glow around the areas of contrast if not processed correctly "hint hint".)** The radius controls the mask blur while the threshold decides what gets blurred and what doesn't.

Click ok to convert.



8. Completion

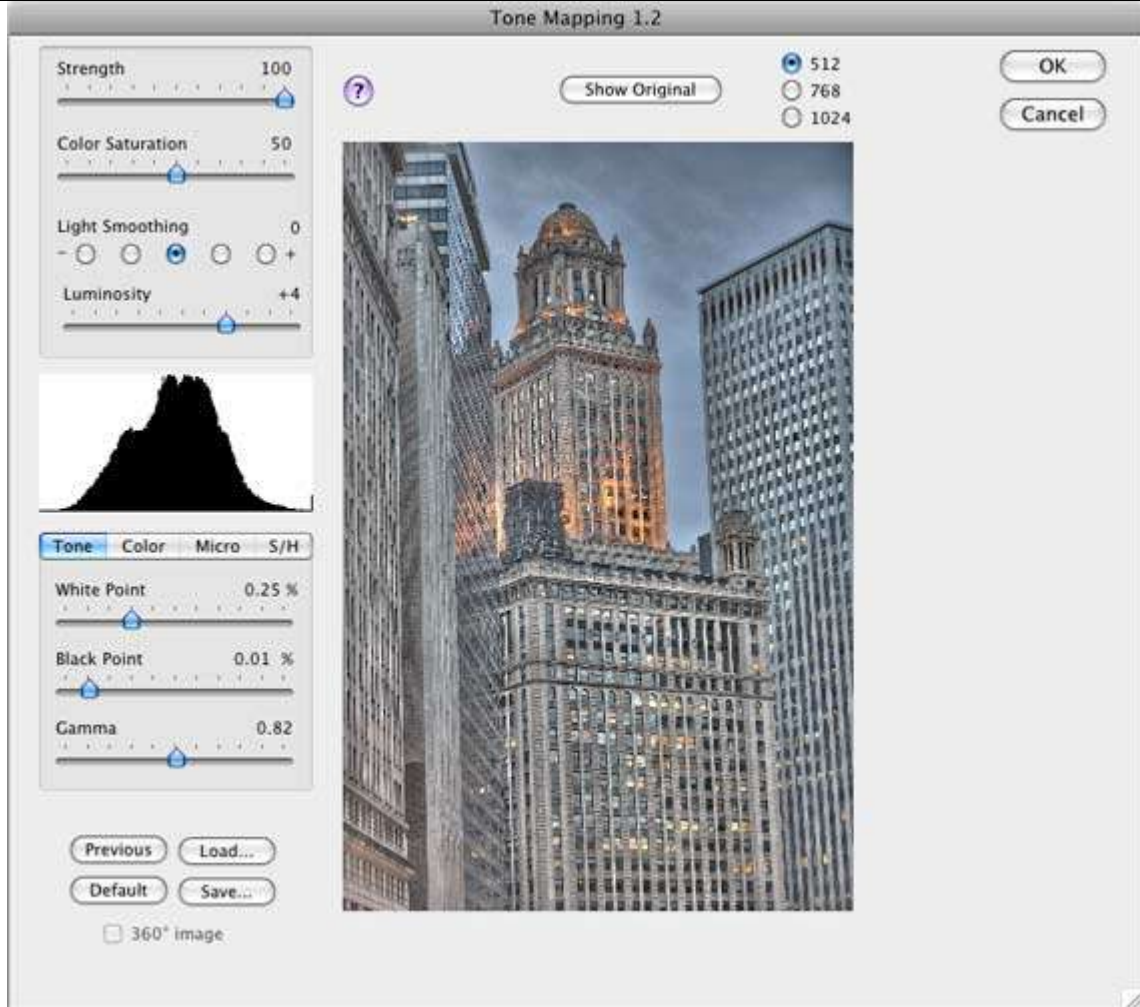
Here we have a merged image from HDR. The second image is a variation. In the second variation, I applied exposure, curves and sharpening settings while in 32-bit mode (Highlight Compression Method). Photoshop is great for producing very realistic HDR images.





9. Post Processing

If you are desiring a more surreal result there are different plug-ins that you can use. You can just get the tone mapping plug in for Photoshop which works great.



10. Photomatix (3rd party software)

This image shows an image after tone mapping using Photomatix pro.



11. Comparison

Here you can see comparisons between a single image, subtle Photoshop HDR and a radical Photomatix effect. Whatever result your after, hopefully this tutorial has helped demystify the HDR process.

Portfolios:

When most people think of a portfolio, they imagine an artist with a huge document case with samples of her work inside. When I was in art classes, I had a huge one that contained all of my best work as well as copies of my work in progress (you never know when you'll have the opportunity to start getting charcoal all over everything!). But for Web designers a portfolio is slightly different.

The basic aspects of a Web portfolio are:

- Screen shots of your *best* work.
- Descriptions of the work done on the projects.
- Links to the live documents or copies.
- Very rarely, color printouts of the projects.

Use Only Your Best Work in Your Web Portfolio

A Web portfolio is meant to show off your skills and talents to prospective employers. For this reason, you don't want to provide them with samples of low-quality work. Quantity is not quality. If you only have 3 sites that you're really proud of, then your portfolio should only have 3 sample sites.

Use your portfolio as an opportunity to brag. I like to explain both how a project was difficult as well as how I solved it. Don't be modest in a portfolio. But don't lie. If you worked with a team of designers to come up with the ground-breaking design concept - don't present it in your portfolio as all your own work. It's fine to use Web projects where you only worked on one aspect of the project, just be sure to clarify what you did.

Know Your Audience - Perhaps Create Multiple Portfolios

Web designers and developers often have to "wear different hats" to get their work done. But this can be very confusing in a portfolio. I divide my portfolio into sub-categories, which are something like mini-portfolios all to themselves. For example, I might have portfolio pieces on the following different aspects of my work:

- Web design
- Writing and content creation
- Content management

By separating them out into categories, I can direct prospects to the portfolio that best describes how my skills match their needs. So if I'm applying for a writing job, I point out my writing portfolio or if it's a JPG photography job, I point to my photography portfolio. Having one portfolio now is not enough, unless it is a job where you will work in various areas, ie Graphic Designer.

What to Include in Your Portfolio

The advantage to a Web portfolio is that you can include nearly anything in it that you can include in a Web page. Some key elements are:

- **A screen shot of the design.**
Even if you're highlighting the code you wrote, a screen shot is important to engage interest. But make sure that it's an *excellent* screen shot. If the designer did a bad job on the project, leaving off the picture will help your audience focus on the code.

- **A link to the working page.**
This can be the page live on the site it's still on, or better yet, a copy of the site on your own server (get permission from the owner before you do this). It's important, especially if you're highlighting dynamic elements or programming, that you have a working copy. I like to link to it on my own site whenever possible, so that if the original site changes or goes down, my portfolio isn't ruined.
- **A description of the work and your role in creating it.**
Many Web portfolios forget this step. They often hope that the work will "speak for itself," but it's often hard to tell what is special about a design just by glancing at it.

The Most Important Portfolio Element

As I said at the beginning of this article, the most important element of your portfolio is that it be of your *best* work. If you can't decide which items are your best work, ask a few friends to help you choose.

Put Your Best Foot Forward in a Graphic Design Portfolio

In general, you want to show that work which best shows off your skills and expertise. If you aren't comfortable with a piece (even if the client loved it) you're probably better off leaving it out of your graphic design portfolio.

1. Actual samples

Whenever possible, use actual samples. That is, if you did a four-color brochure for a client, put one of the original brochures in your graphic design portfolio rather than an inkjet copy. Anytime you do a job for a client, request extra copies in the print run. Some clients might be willing to part with a few *gratis* but normally you'd pay for extras yourself. It may be wise to stipulate in your contract how many portfolio or sample pieces you'll receive. Use these in your graphic design portfolio and as non-returnable samples sent to potential clients.

"When I work, I stipulate that I am permitted to use their project for portfolio use, then I ask for a few copies of the finished product to add to my collection."

2. Tear sheets

If your work involves items that appear in some other larger publication (such as ads in newspapers or yellow pages or illustrations used in a magazine) get your hands on multiple copies of the original publication. Tear out the page where your work appears.

3. Copies

If you can't get originals then use proofs printed from your digital files to your desktop printer. Or, make the best photocopies you can of the original printed pieces.

4. Photographs

If your work involves designs that are too large or odd-shaped to fit in traditional graphic design portfolios (large boxes, billboards), get the best photographs you can of the finished pieces. You might also want to accompany these photographs with smaller printouts of the digital files you worked from.

5. Screen shots

If your work involves Web design or other non-print designs you can still put together printed portfolios. Make screen shots of the work or print Web pages from your Web browser. Since screen resolution may not always print crisp and clear you may want to include high-resolution printouts of special logos or other graphics you created for screen display.

If you have a large body of work to choose from, your toughest decision is deciding which pieces to include and which to omit. However, when just starting out you may have little — or nothing — to put in your portfolio. Beginner's design portfolios may require a bit more creativity but it can be done. Designers who want to change their focus or who want to fill in gaps in their portfolios can also use the beginner's portfolio tips.

After you've decided what will go in your graphic design portfolio (and created those pieces if you're just starting out) you'll need to decide how best to present those samples. Portfolio cases can be plain or fancy.

Let Your Samples Dictate Your Graphic Design Portfolio Case Size

The style and size of your graphic design portfolio case should be dictated by the type of pieces you have to display rather than the other way around. A letter size case is easy to carry and showcases smaller works such as business cards, postcards, greeting cards, and simple lettersize fliers nicely. However, you may find that larger sizes allow more flexibility in presenting even these small items, allowing you to display several matching pieces on one page. And if your design samples are large, choose a graphic design portfolio case that lets you present the full sample without folding, if feasible.

Also, keep in mind the type of clients you seek as well as where and how you'll present your graphic design portfolio. Too-large portfolio cases can overwhelm some smaller clients and can also be awkward to carry or present when you meet clients at a coffeshop or in a small, cramped office.

"Spend time on the mounting of your work. The massively large portfolios are really out. Try something about 11" x 14". No Art Director or Creative Director wants you to take over his or her whole desk, besides, if it's smaller, your viewing is much more intimate and personal."

Many of those new to desktop publishing start with nothing more than a three-ring notebook and sheet protectors to hold their samples. This is perfectly acceptable although I would recommend avoiding cheap plastic binders. Also, use quality sheet protectors. Some of the cheap ones show scratches or tear easily.

You may not need a physical graphic design portfolio case at all. Web designers or those who cater primarily to long-distance clients can present their graphic design portfolios electronically. The PDF format or online Web portfolios are options on their own or in combination with traditional print graphic design portfolios.

The way in which you place samples in your graphic design portfolio is just as important as the case and its contents. Draw careful focus to the entire package as a whole. If you miss one aspect of it, it will cause your entire package to suffer. However, having a hard copy and web portfolio makes your more accessible. It will also hinder your performance if both the hard copy and web folios do not blend with each other.

On one final note, your portfolio is just that, yours. You must be content with what you have included in it. You have to love the work you have submitted into it, or no one else will. The best course of action is to always have 3 separate portfolios at all times. It does take a lot of time to develop a portfolio, but once you have 3 similar yet segmented templates to work with, the time saved will be exponential. As well, it will make for easy transitions of pieces and files for each portfolio.

Sites to View Portfolios:

www.carbonmade.com – online designer portfolios

www.deviantart.com – online artist portfolios

www.ihaveanidea.org – online advertising portfolios

- **Gatsbyproductions.com**
- **Designforfun.com/ - Bernard Barry**
- **Steveleggat.com/index.php/home - Steve Leggat**
- **Sandradussault.com/#/home/ - Sandra Dussault**