

How is your Color Theory?

Once upon a time a graphic designer had to worry about only one sort of color, CMYK. Now because we are manipulating images on our computers, placing them on web pages, and printing them to desktop color inkjet printers as well as to high-end offset presses, we have to understand color in all of its variations through the processes, and we must know which color model to choose not only for the end result, but for the steps along the way.

1. What does **CMYK** stand for?
2. What does **RGB** stand for?
3. When do you want to **use** CMYK images and when do you want to use RGB images?
4. When would you **scan** an image in CMYK vs. RGB?
5. What happens on the screen when you **change the color mode** from RGB to CMYK?
6. What is **bit depth**? How does it affect the printed image?
7. How does the **pixel-per-inch** count (**ppi**, sometimes referred to as **dpi**) affect an image displayed on a screen, as on a web page? That is, will a 300 ppi image look better on the screen than a 72 ppi image?
8. How can you improve the **resolution** on your monitor?

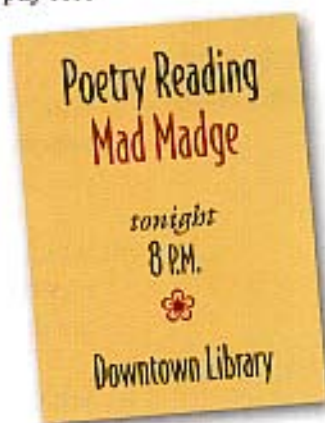
If you cannot answer these questions, you might want to read *From Design into Print: Preparing Graphics and Text for Print*, by Sandee Cohen.

What about Printing?

In this book we might use some of the terms found in these questions. We have to assume that, if you bought this advanced design book, you know what we are talking about if we say something like “notice the moiré pattern,” “the halftone screen is too coarse,” or “call the printer and find out what lpi they want to use.” Not knowing these sorts of things will not prevent you from using and learning from this book! We just want you to know where you can get that information if you discover you need it.

If you cannot answer these questions and want to know all about printing and production so your great designs look great in print, read *From Design into Print: Preparing Graphics and Text for Print*, by Sandee Cohen.

1. Is this book **printed** in three-color, four-color, five-color, or full-color?
2. What is **spot color**?
3. What is **process color**?
4. How do the **dots-per-inch (dpi)** affect an image printed on a page? That is, will a 300 dpi image look better in print than a 72 dpi image, even if they are both full color?
5. What is a **linescreen**? How does lpi affect a printed image?
6. What is a **halftone**?
7. What is a **duotone** and how do you make one?
8. What is a **moiré** pattern? Why do you want to avoid it? How can you avoid it?
9. What are **separations**?
10. What is a **color tint**?
11. What is the color **registration** and when would you use it?
12. Is the flyer shown below a one-, two-, or three-color job? How many **ink colors** did the designer have to pay for?



Do you know File Formats?

In this book we will mention EPS files and TIFF files and GIF files and JPEG files, and we have to assume that you know what they are, which programs create which sorts of file formats, what a native file format is, and how to work with each of them.

If you cannot answer these questions, read *From Design into Print: Preparing Graphics and Text for Print*, by Sandee Cohen.

1. What is a **native** file format?
2. What is a **raster** format?
3. What is a **vector** format?
4. What is an **EPS**?
5. What is a **TIFF**?
6. What is a **GIF** and when would you use one?
7. What is a **JPEG** file?
8. What is a **compression scheme** and when would you need to use one?
9. Which of the above-mentioned file formats are **compressed**?
10. Which file format, **EPS** or **TIFF**, prints better to a non-PostScript printer, like a color inkjet? Why?
11. In which file format is it best to **scan** photographic images for a print project?
12. Is the image below most likely a **TIFF** or an **EPS**?



What do you know about Fonts?

It used to be so different. A designer didn't have to know anything about "fonts" and very little about typography, but now most designers have to do everything. Knowing how to deal with your fonts technically is important so your work prints properly.

You don't **have** to know any of this stuff to be a great designer—but you have to know it if you produce your own work, **or** if you oversee the work of someone else and they don't know about font technology and **you** have to recognize the resulting problems.

If you cannot answer these questions and you use a Macintosh, read *Real World Mac OS X Fonts*, by Sharon Zardetto Aker.

Windows users (and Mac users), read *From Design into Print: Preparing Graphics and Text for Print*, by Sandee Cohen.

1. What is a **PostScript** font?
2. What is a **TrueType** font?
3. What are **OpenType** fonts and what is their advantage?
4. Which font files can be used on both Macs and PCs?
5. What is a **PostScript printer**? How can you tell if your printer is PostScript?
6. If you have a huge collection of fonts, you need a **font management utility**. Can you name three Mac font management utilities or two PC utilities?
7. How do you **install** new fonts if you are not using a font management utility?
8. In which situation do you want to avoid **TrueType** fonts?

Mac users only:

9. Each PostScript font has two parts. What are they?
10. Where must the two separate parts of a PostScript font be stored in relation to each other? (Knowing this answer will solve 98 percent of font problems.)

Do you plan to do Web Design?

The basic principles of design apply to all media. But each medium has its own peculiarities about how people work within it, how they use it, how they find what they need in it. The web is particularly different from any other medium. For instance, while watching a television commercial, a user does not need to figure out how to get from one part of the commercial to another—they just sit there and it happens. Most people know how to use a book and its table of contents and index to find what they need. But on a web site, it is the designer's job to make it easy for a visitor to **navigate** from one part of the site to the other, something we don't have to do in any other medium. Because we have covered this sort of material plus all the technical stuff about building web sites in another book, we won't be discussing it in this one, but we want you to know where to find that information.

1. Name at least five ways that **web design is different** from print design.
2. Does a web page look better with a horizontal **layout** or a vertical layout for the main design elements?
3. Are **graphics** on the web RGB or CMYK?
4. Which **file format** is most appropriate for photographs on the web?
5. Does a 300 **ppi** image look better than a 72 ppi image on the web?
6. Some **monitors** display photographs better than other monitors. What is it about a monitor that would make a photo look better or worse?
7. What **fonts** can you use safely in default text on a web page? What fonts can you use in your web graphics?
8. What is an **optimum file size** for a web page, including all the images?
9. What is **CSS** and why is it important?
10. What is **anti-aliasing** and how does it affect web graphics?

If you cannot answer these questions, read the *The Non-Designer's Web Book, third edition*, by Robin Williams and John Tollett.

11. Name six features of the web page below that give it an **amateur** look. Granted, few web pages really look this bad (well, probably more than we like to admit), but many pages have one or more of these features that scream, "I am visually illiterate!"

