

Design for Developers

RailsConf 2008

Brian Hogan

Design for Developers: RailsConf 2008

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Chapter 1. Introduction

This course is meant to be a hands-on experience. The goal is to get you familiar with the process and the tools involved in developing a functional, attractive site or application.

We are going to move fast!

There's too much to cover in such a short time, so some things are going to be glossed over. If you have trouble keeping up, be sure to ask your neighbor for help, or catch the instructor sometime during the conference.

Materials are available online at <http://colors.napcsweb.com/railsconf>

1. About Your Instructor

Brian Hogan has been developing web sites and web applications since 1995. He has worked with small businesses, startups, and a regional state university, developing pages that are both functional and accessible. He is an active member of the Ruby on Rails community and will always help you out if you ask.

Brian is the owner of New Auburn Personal Computer Services LLC, a small consulting firm that specializes in Ruby on Rails development and training. He is a co-author of *Deploying Rails Applications* and is in the process of writing a book on web design which is based off of this workshop.

1.1. Contacting the Presenter

Contact the presenter at <brianhogan@napcs.com> or via chat at bphogan@gmail.com

Chapter 2. Layout

Before you can draw a layout, you should be aware of some of the basic concepts behind layouts.

1. Requirements Gathering

Find out everything you can about the site before sketching.

1.1. Sample Questions

What is the site's purpose?

Describe the target audience

What is your competition?

What's your revenue model?

2. Sketches

Come up with three sketches for the site.

2.1. Sketch 1

This sketch should be as simple as you can get.

2.2. Sketch 2

Go all-out here. Be creative. Try doing something that's not as popular, like right-side navigation.

2.3. Sketch 3

Take elements from the first two sketches and see what you can create.

Chapter 3. Choosing Colors

It's really important to understand colors and color theory when you're designing your site. Choosing the wrong colors can send the wrong message to your end users.

1. Colors and Emotion

People associate colors with feelings, experiences, and emotions.

1.1. Red

Red can be love, lust, anger, rage, passion, or caution.

Red is great for drawing attention to things

1.2. Orange

Orange is natural and cheerful, but can be arrogant and superior as well.

1.3. Yellow

Yellow is happiness and intelligence.

1.4. Blue

Blue is calming, soothing, relaxing, but also sad.

1.5. Green

Green is nature and hope. It can also be envy or sickness. Don't forget money, either.

1.6. Purple

Purple is royalty and mysticism.

1.7. Black

Elegance, prestige, but also mourning, sorry, elitism, despair, and brooding.

1.8. White

Purity and perfection, cleanliness

1.9. Brown

Hunger, health, simplicity, dependability, and nature. Watch out for associations with dirt.

1.10. Beige

Relaxation

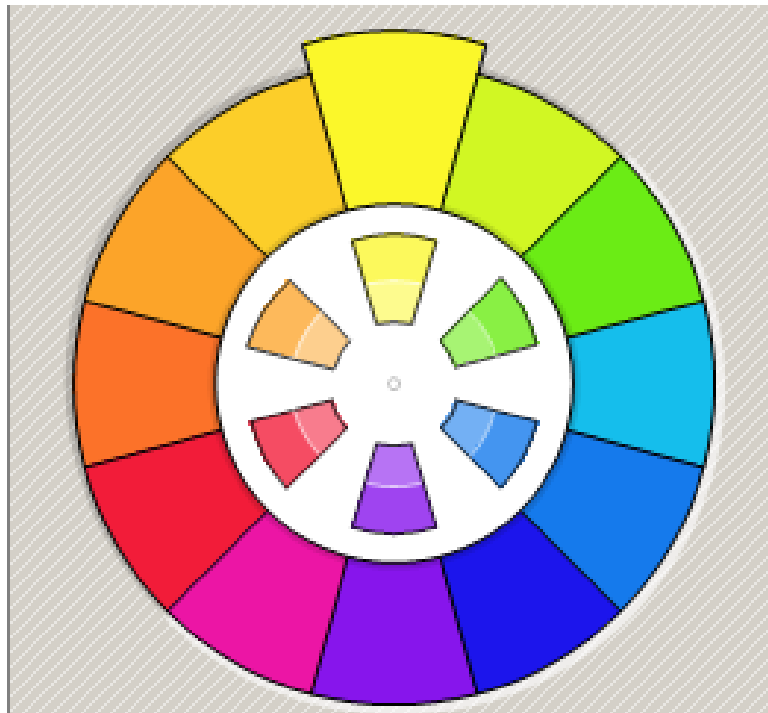
1.11. Grey

Gloom and mourning

2. Color Schemes

You can use color theory to build your color palette. The color wheel is used to associate colors.

Figure 3.1. Color wheel

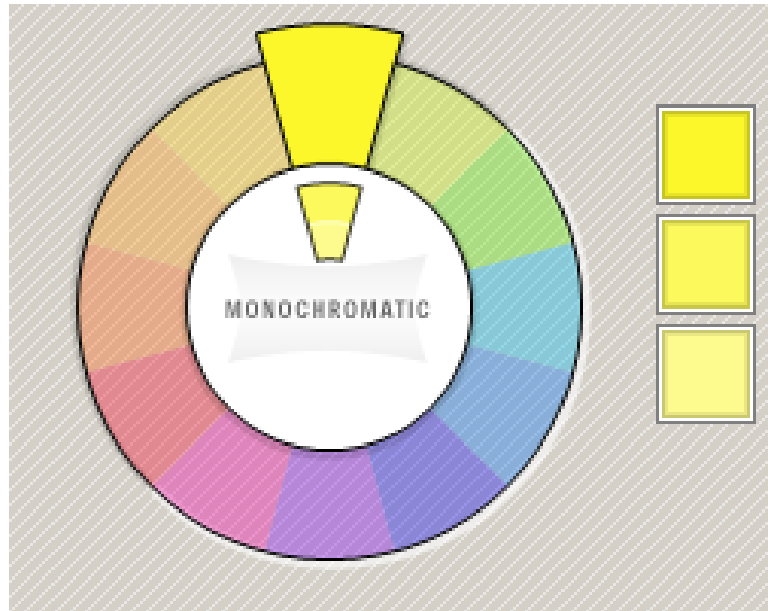


The RYB color wheel

2.1. Monochromatic

Pick a color on the wheel and use various shades to build the scheme.

Figure 3.2. Monochromatic

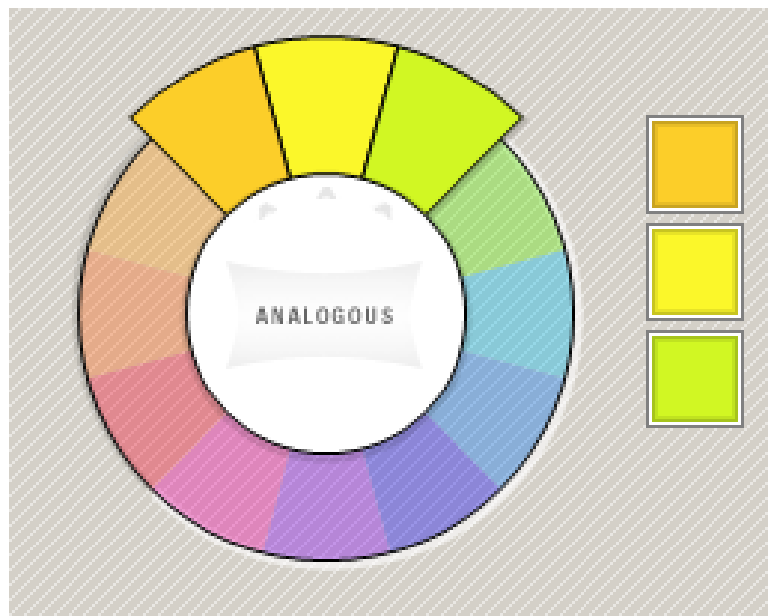


Monochromatic scheme

2.2. Analogous

Pick a color and its two neighbors and then use various shades of those colors.

Figure 3.3. Analogous

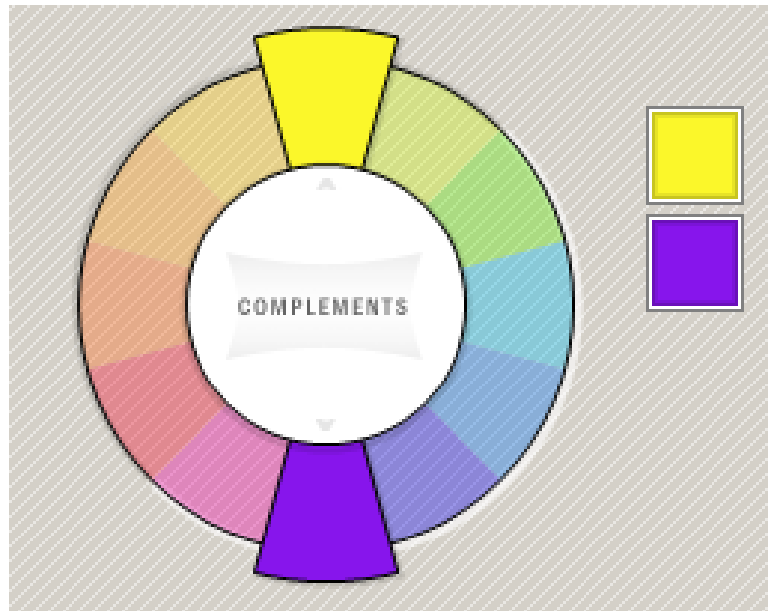


Analogous Scheme

2.3. Complimentary

Pick a color and its compliment (directly across on the wheel) and then use various shades of those colors to make the scheme.

Figure 3.4. Complimentary



Complimentary scheme

3. Exercise

3.1. Choose a scheme

Choose a color scheme and build a palette by visiting <http://colors.napcsweb.com/> and use the online color schemer to select a color scheme.

Choose colors for

- Header
- background
- Headings
- Subheadings
- footer
- links
- visited links
- body text

- sidebar
- main content

Table 3.1. Colors for elements

Element	Color
Headers	
background	
Headings	
Subheadings	
Body text	
Links	
Visited Links	
Sidebar	
Main content	
Foter	

Chapter 4. Fonts

It's important to understand fonts because that's what you're going to use to render your content. What you pick determines whether or not people will stick around to read what you're selling.

1. Section Title

paragraph
p

2. Font types

There are lots of types of fonts, but there are two types you should know about.

2.1. Serif

Great for legibility if it's big enough, and great for print. Not so good for main-body text on a web page though because it dithers.

Figure 4.1. Serif fonts



The image shows the word "hello" in a serif font. Below it, the letters "h" and "e" are shown in a larger size to highlight their serifs. The "h" has a vertical stem and a curved top with a small tail. The "e" has a vertical stem and a curved top with a small tail.

A serif font has “serifs”, or tails.

2.2. Sans-serif

Sans-serif fonts are good for body content, though they can be harder to read in print.

Figure 4.2. Sans-serif



Sans-serif fonts don't have tails.

3. Choose A Font

Let's use a serif font for headings and a sans-serif font for the body text, links, etc.

3.1. Exercise: Choose fonts and sizes

Choose fonts and sizes for the headings and footers.

Table 4.1. Fonts

Section	Font	size	line-height
Heading			
Subheading			
Body text			

Chapter 5. Logo Design with Illustrator

1. Keyboard Shortcuts

Besides the obvious keyboard shortcuts like **CTRL+V** for **paste** and **CTRL+X** for **cut**, Illustrator has many keyboard shortcuts that can be very helpful to you.

Table 5.1. Illustrator CS3 Keyboard Shortcuts

Tool	PC	Mac
Hand tool	Space	Space
Selection Tool	CTRL	Command
Zoom In	CTRL+Space	Command+Space
Zoom Out	CTRL+ALT+Space	Command+ALT+Space
Toggle Rules	CTRL+R	Command+R
Toggle Grid	CTRL+'	Command+'
Create Outlines	Shift+CTRL+O	Shift+Command+O
Duplicate Last Command	CTRL+D	Command+D
Paste In Front	CTRL+F	Command+F

Chapter 6. Mocking up with Photoshop

1. Photoshop Keyboard Shortcuts

Photoshop has a lot of keyboard shortcuts too. Many of them are similar to the ones in Illustrator.

Table 6.1. Photoshop CS3 Keyboard Shortcuts

Tool	PC	Mac
Hand tool	Space	Space
Selection Tool	CTRL	Command
Zoom In	CTRL+Space	Command+Space
Zoom Out	CTRL+ALT+Space	Command+ALT+Space
Toggle Rules	CTRL+R	Command+R
Toggle Grid	CTRL+'	Command+'
Create Outlines	Shift+CTRL+O	Shift+Command+O
Select All	CTRL+Shift+A	Command+Shift+A
Select Inverse	CTRL+Shift+I	Command+Shift+I
Select All Layers	ALT+CTRL+A	ALT+Command+A
Image Size	ALT+CTRL+I	ALT+Command+I
Canvas Size	ALT+CTRL+C	ALT+Command+C

Chapter 7. Building the HTML

1. Doctype

Using the right doctype is important for validation. It also helps IE decide how to render your page.

```
1
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://
www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3
4
```

2. Sample XHTML Skeleton

```
1
2 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
3 "http://www.w3.org/TR/html4/strict.dtd">
4 <html xmlns="http://www.w3.org/1999/xhtml"><!-- InstanceBegin template="/
Templates/colors.dwt" codeOutsideHTMLIsLocked="false" -->
5 <head>
6 <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
7 <title>SpotFinder</title>
8
9 </head>
10
11 <body>
12
13 <div id="page">
14
15 <div id="header">
16 <h1>SpotFinder<span></span></h1>
17 </div> <!-- header -->
18
19 <div id="navbar">
20 <ul>
21 <li><a href="#">Apartments</a></li>
22 <li><a href="#">Houses</a></li>
23 <li><a href="#">New Construction</a></li>
24 <li><a href="#">Contact Us</a></li>
25 </ul>
26 </div> <!-- navbar -->
27
28 <div id="middle">
29
30 <div id="sidebar">
31
32 </div> <!-- sidebar -->
33
34 <div id="main">
35
36 </div> <!-- main -->
37
38 </div> <!-- middle -->
39
40 <div id="footer">
41 <p>Copyright &copy; 2008 SpotFinder</p>
42 </div>
43 </div> <!-- page -->
44
45
```

```
46     </body>
47
48
49     </html>
50
51
```

Chapter 8. Graphics on the Web

1. Graphic formats

There are three types of graphics you can use on the web

1.1. GIF

A GIF, pronounced “jiff” is a graphics format that uses a palette of up to 256 distinct colors from the 24-bit RGB color space. Because of this limited color space, you don't use it for photographs, but it's great for logos. It also supports animation, but you're not going to use animated GIFs, right?

1.2. JPEG

A JPEG (pronounced “JAY-peg”) is a compression format for photographic images. It's used a lot on the web for photos and complex images. It's widely supported but it uses a lossy compression so artefacts can be created if you compress too much or recompress multiple times.

1.3. PNG

A PNG (pronounced “ping”) is a bitmapped image format that uses lossless compression and was designed to replace the GIF. It supports only RGB colors and is designed for use on the web. It also supports transparency quite well. Unfortunately it's only supported in newer browsers. However, don't be afraid to use it, because it's awesome.

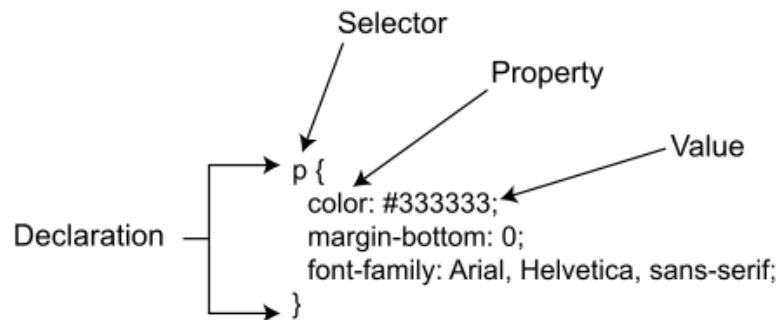
Table 8.1. Choosing a Format

When you have this...	...use this
A company logo	GIF or PNG
A photograph	JPEG
A complex gradient	JPEG or PNG
A badge	PNG

Chapter 9. CSS

1. Style Sheets Basics

Figure 9.1. A CSS Rule



The breakdown of a CSS rule

1.1. Where Styles Go

Stylesheets can be defined three ways: inline, in-page, or in a separate file

1.1.1. Inline styles

Using the `style` attribute of an element, you can define a css rule.

```
<div style="color:#f00; font-size:12pt; font-weight:bold">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor
  incididunt
  ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud
  exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.
</div>
```

Please avoid this whenever possible. You want to separate design from content whenever you can.

p

1.1.2. In-Page styles

You can use the `<style>` tag in the document header to embed a stylesheet in your page.

```
<head>
  <style>
```

```
#page{
  margin:0px auto;
}

#header, #footer{
  height:100px; display:block; background-color:#ffe;
}

</style>
</head>
```

Keep this to a minimum. It's great for defining one-off styles, where you just have to override something on a page. If you use the same rules on more than one page, don't use this method.

1.1.3. Stylesheet File

Place your CSS in its own file and include it in your document.

```
<head>
  <link href="stylesheets/layout.css" rel="stylesheet" type="text/css"
media="screen" />
  <link href="stylesheets/style.css" rel="stylesheet" type="text/css"
media="screen"/>
  <link href="stylesheets/print.css" rel="stylesheet" type="text/css"
media="print"/>
</head>
```

You can then have fine-grained separation of your styles. Styles are also cached by the browser so your bandwidth goes down. You're only serving content instead of content and presentation on every request.

Chapter 10. Accessibility

1. Accessibility Checklist

Before you launch, go through this list to make sure you've covered all the angles:

- Check that all pages in the site have valid XHTML
- Verify that all stylesheets are valid
- Ensure that all image tags have *useful* and describing alternate text.
- Test that our pages are legible and useable in a text-based browser like Lynx.
- Check to see if your pages are legible in older browsers.
- Turn off JavaScript and see if your pages are useable.
- Throttle your connection and see how fast your pages load, or use a speed-testing tool to catch large unoptimized images.
- Ensure that tabindexes are used appropriately.
- Turn off images and test every page to ensure that no important text is rendered solely as an image.
- Get a demo of JAWS or WindowEyes, turn off your monitor, and try to navigate your site.
- Have a third party review your site's content for spelling, gramatical, and content issues.
- Search and remove any references to “click here”, as not every user has a mouse.
- Use a service like <http://colorfilter.wickline.org/> to test your site for various forms of colorblindness.
- Ensure that you don't have any rapidly-flashing elements on your pages.

Spend the money to get some usability testing done. Get people's feedback and reward them for their time.
p

Chapter 11. Resources

1. Software Download Links

- Photoshop CS3
<http://www.adobe.com/downloads/>
- Illustrator CS3
<http://www.adobe.com/downloads/>
- Mozilla Firefox
<http://www.getfirefox.com/>
- Firebug
<http://addons.mozilla.org/firefox/addon/1843>
- Web Developer Toolbar
<http://addons.mozilla.org/firefox/addon/60>

2. Additional Resources

These additional resources might be useful to you as you learn more about design.

2.1. Books

- Web Design for Developers
Coming soon from Pragmatic Bookshelf!
- The Elements of Color
<http://www.amazon.com/Elements-Color-Johannes-Itten/dp/0471289299>
- Grid Systems in Graphic Design
<http://www.amazon.com/Systems-Graphic-Design-Josef-Muller-Brockmann/dp/3721201450>
- Design Accessible Web Sites
<http://pragprog.com/titles/jsaccess>

2.2. Web sites

- Web Design for Developers (Forthcoming book)
<http://colors.napcsweb.com>
- CSS Zen Garden

<http://www.csszengarde.com>

- A List Apart

<http://www.alistapart.com>

- Adobe Kuler

<http://kuler.adobe.com>

- Colorblind Website Filter

<http://colorfilter.wickline.org/>

Chapter 12. Notes

