



Colour, Graphics & Layout



- How we see
- Colour systems
- Graphic files
- Composition

digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout

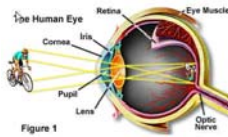
How the Eye Sees Color

1. All the invisible colors of sunlight shine on the object.
2. The surface of the object absorbs all the coloured light rays, except for those corresponding to and reflects this color to the human eye.
3. The eye receives the reflected light and sends a message to the brain.

digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout



human eye can see 7,000,000 colors.

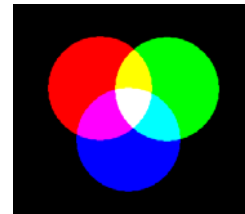
digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout

Color Systems

Additive Color
The RGB Color System



digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout

Subtractive Color
Red Yellow Blue



Primary Color



Secondary Color



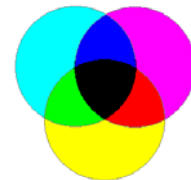
Tertiary Color

digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout

The CMYK Color
System
Cyan, Magenta,
Yellow and Black



digital imaging and web design ©2006, Mark Rayner



Colour, Graphics & Layout

Terms to know

- Hue/Color
- Value
- Saturation
- Contrast
- Brightness or Tint



digital imaging and web design ©2006, Mark Rayner



Colour Themes

Colour Themes:

Complementary colors:
colors on the opposite side of the color wheel

digital imaging and web design ©2006, Mark Rayner



Colour Themes

Colour Themes:

Analogous or similar
Colours next to one another on the wheel

Monochromatic
One colour, or one plus black

digital imaging and web design ©2006, Mark Rayner



Colour Themes Complementary



digital imaging and web design ©2006, Mark Rayner



Colour Themes Analogous



digital imaging and web design ©2006, Mark Rayner



Web-Safe Colour

Some browsers use 8-bit monitors
That means they can only see 256 colours
Gets worse: of those, only 216 are "safe"

- Across platforms, browsers, etc.

digital imaging and web design ©2006, Mark Rayner



Figure 1


Web-Safe Colour

The image on the left demonstrates unwanted dithering, while that on the right shows a solid, nondithered color.


Not using web safe: you could end up with dithering



digital imaging and web design ©2006, Mark Rayner




The Web-Safe Palette



- Web-safe (or browser-safe) color palette
- Tool at: www.visibone.com/colorlab

digital imaging and web design ©2006, Mark Rayner



Graphic Types

Bitmap Vs Vector files


Familiar bitmap formats: psd, pict, bmp, or Tiff

- The artwork is stored in a series of values (pixels).

Vector: Illustrator, Quark Xpress, EPS and Postscript

- The artwork is stored as mathematical instructions. These are not used in the non-Flash pages.

digital imaging and web design ©2006, Mark Rayner




Graphic Types

Bitmap Vs Vector files


- Vector - look good scaled.
- Bitmap - look terrible scaled.
- Vector - better for line art, type, illustrations.
- Bitmap - photos, soft edges, drop shadows, gradients, etc.
- Flash is the only web-based vector format that is supported by browsers, so we will be using **BITMAP** images.

digital imaging and web design ©2006, Mark Rayner



Graphic Types

Close-up of vector and bitmapped art



Kinds of bitmapped web files:

- JPG
- GIF
- PNG

digital imaging and web design ©2006, Mark Rayner



Web graphics

JPG – for photographs and images with continuous tone, gradients, etc.

GIF – for line art, cartoons, text, and any image with large chunks of solid color

If the artwork contains both photos and text, try both kinds of compressions, and see which works best!

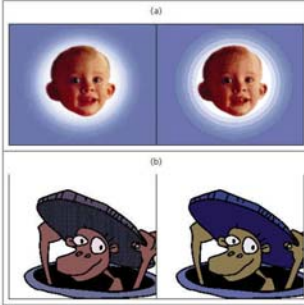
digital imaging and web design ©2006, Mark Rayner



(a) Image enhanced by dithering—bands are eliminated in the left-hand image; (b) image ruined by dithering—flat color images should not be dithered.

Graphics

Other terms:
Dithering – good & bad



digital imaging and web design ©2006, Mark Rayner



Graphic Types

Other terms:
Alias vs Anti-aliasing

Aliasing versus Anti-aliasing

no anti-aliasing

smooth anti-aliasing

digital imaging and web design ©2006, Mark Rayner