

## **CSE 102**

### **Introduction to Web Design and Programming**

Design Basics

<http://www.webstyleguide.com/page/index.html>

## **Web Pages & Design**

- XHTML & CSS allow you to structure content & define presentation of a Web page
  - without a good design it won't be worth much
- There is no magic formula for creating a good design
- We'll discuss design principles to guide us
- Design is a mix of art, communication, & even psychology
- Web sites use many of the same design principles as the publishing world
  - print design in newspapers, annual reports, billboards, television graphics, movie title sequences, & multimedia

## **What is Design?**

- The process of communicating and editing ideas in the visual arts
- Designer's task: to convey an idea & communicate a message on behalf of their clients
- Designers rely on:
  - creativity
  - perception
  - basic principles & elements of two-dimensional form
- Goal of design is to combine all these components into a harmonious whole to achieve unity

## **Design Elements**

- The forms such as logos, icons, text blocks, & photos included in a composition
- The elements must be grouped & organized to create meaning in a given 2D space
  - Elements are the objects in a page
  - Design Principles are guidelines for placing the objects in a particular arrangement (the composition)

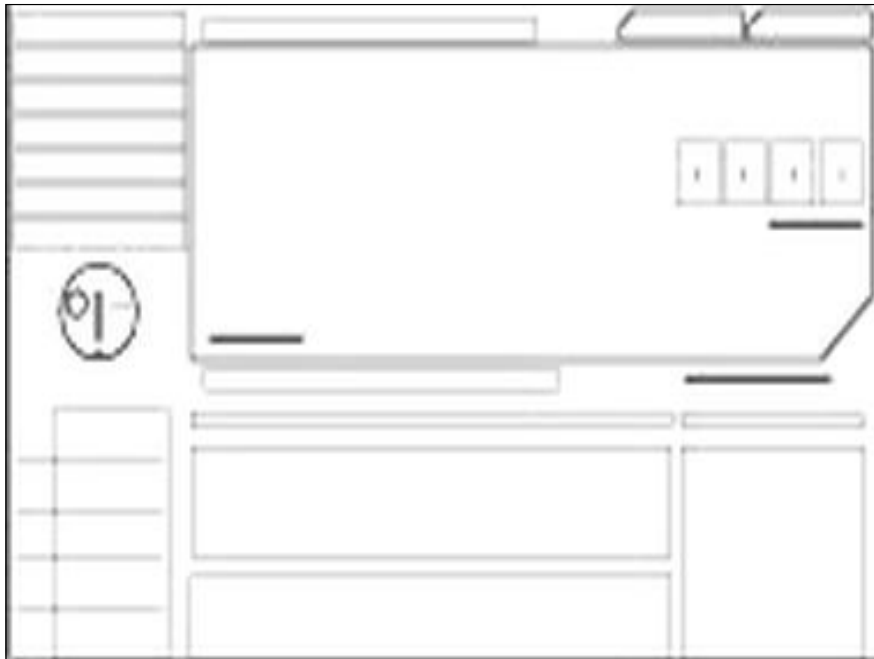
## Fundamental building blocks of form

- Point
  - the smallest element on the page regardless of its shape
  - can be a letter, figure, word, or shape
- Line
  - a mark whose length is considerably greater than its width
- Plane
  - an area
  - a line becomes a plane when it gets too thick to indicate movement
- All compositions can be broken down into these simple elements



## Page Design

- Users seek clarity, order, and trustworthiness in information sources
- The spatial organization of graphics and text on the Web page can:
  - engage the user with graphic impact
  - direct the user's attention
  - prioritize information
  - make the user's interactions with your Web site more enjoyable and more efficient.



## Visual Logic

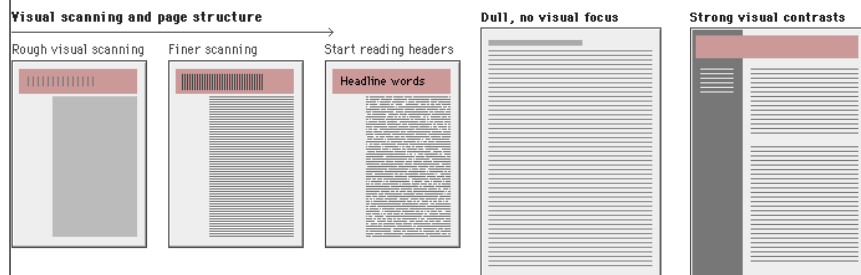
- Graphic design creates *visual logic*
  - seeks balance between visual sensation and graphic or text information.
  - without shapes, colors, and contrast pages are boring
    - will not motivate the viewer to investigate their contents
      - like this slide
  - too many graphics with too little text is also not desirable
    - poor balance between visual sensation & text information
    - overwhelming to web surfer

## Visual Hierarchy

- The primary task of graphic design is to create a strong, consistent visual hierarchy
  - important elements should be emphasized
  - content should be organized logically and predictably
- Graphic design is visual information management
  - uses tools of layout, typography, and illustration
  - leads the reader's eye through the page
- Readers see pages first as masses of shape & color
  - foreground elements contrasted against background
- Only secondarily do they begin to pick out specific information
  - first from graphics
  - only afterward do they start parsing text

## Visual Scanning

- Graphic balance and organization is crucial to drawing in the reader
- Proportion and "appropriateness" are the keys to successful design decisions,



## Direct the reader's eye

- Top of page is always the most dominant location
- Subtle pastel shades make the best choices for background or minor elements.
- Avoid bold, highly saturated primary colors except in regions of maximum emphasis.
- Type must always contrast sharply with any background color.
- If you have a dramatic or complex graphic scheme in mind, hire a professional graphic designer to execute it.
- If you are not a designer and must do things yourself, keep everything conservative, conventional, and simple.

## Consistency

- Establish a layout grid and style for handling text and graphics
  - stick with it across all the pages of your site
- Repetition is not boring
  - it gives a site a consistent graphic identity
  - makes your site more memorable.
- **Style-setting:**
  - you should decide on site settings
    - navigation bar, fonts, inter-paragraph spacing, the size of subheads, etc ...
    - create a style sheet to help you maintain these settings throughout your site



## Graphics Dimensions

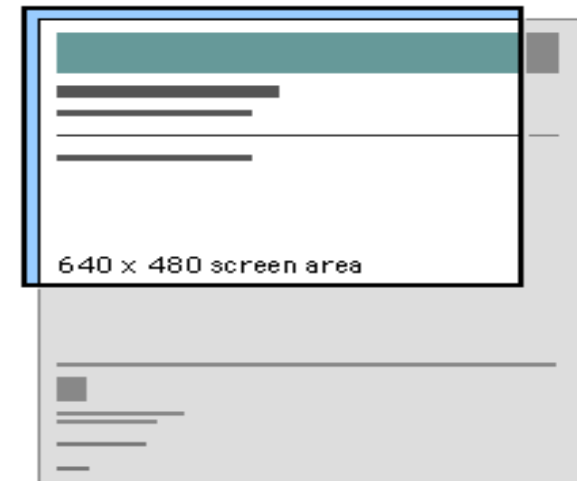
- Use careful layouts of text and links with relatively small graphics
- These pages load quickly, yet still achieve a substantial graphic impact



## Page Dimensions

- Graphic designers often create page grids that look great on their extra-large monitors
  - most users cannot display more than about half of the typical Web page at any one time
  - only 10% of Web surfers ever scroll the page.
- Computer screens are typically smaller than most books or magazines
- A common mistake:
  - horizontal width of page too wide
  - try to design site so max number of users can view it properly

## Horizontal Width of Page



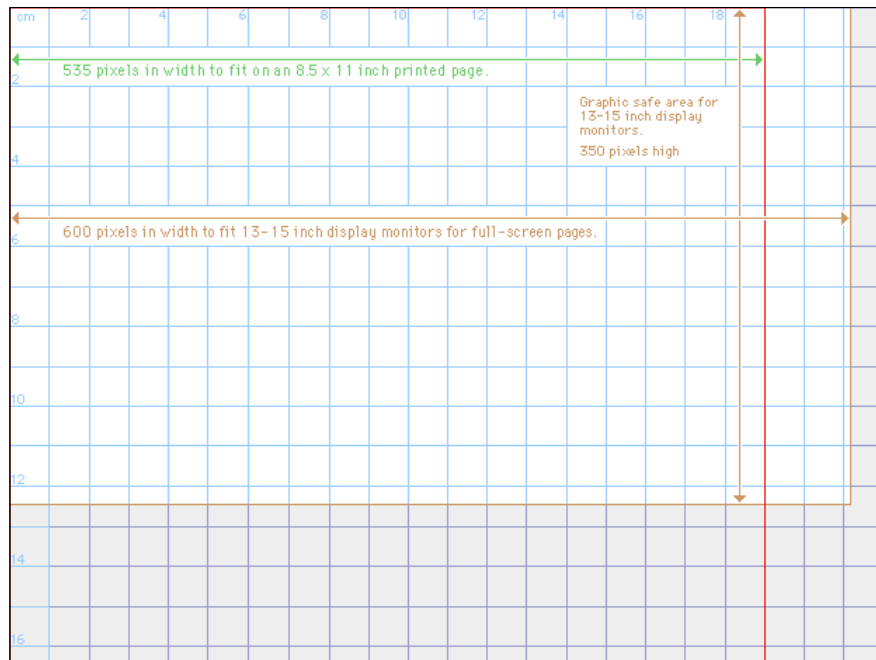
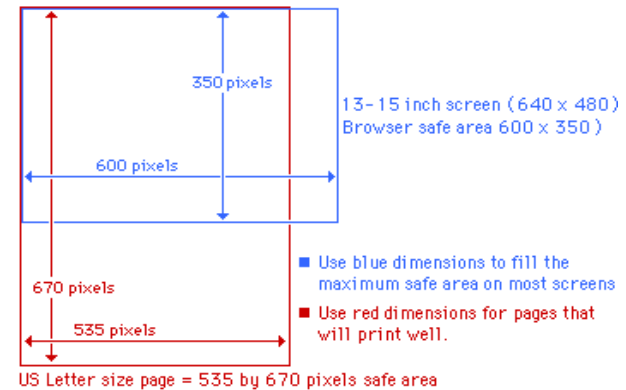
## Page length rules of thumb

- Page length should be no more than about one to two 640x480 screens worth of information
- **In general, you should favor shorter Web pages for:**
  - home pages
  - menu or navigation pages
  - documents to be browsed and read online
  - pages with very large graphics.
- **In general, longer documents are:**
  - easier to maintain
    - they are all in one piece, with fewer links
  - more like the structure of their paper counterparts
    - not chopped up
  - easier for users to download and print.

## Graphic dimensions for web pages

- Web page graphics should not be more than 535 pixels wide or more than about 320 pixels high
  - graphic will be too wide to print on letter size paper

Safe dimensions for Web page graphics



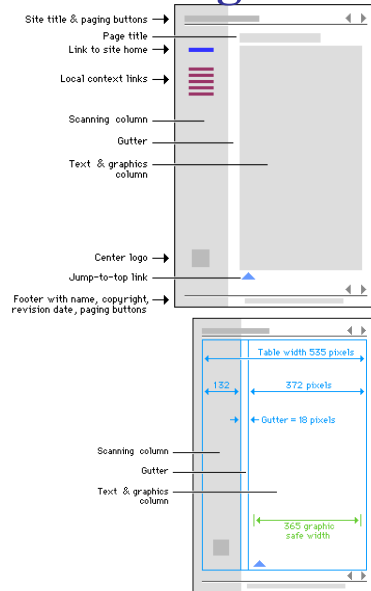
## Establish a basic grid

- Grids bring order to a page
  - no one design grid system is correct for all pages
- First step is to establish a basic layout grid
- With this graphic “backbone”, you can determine how the major blocks of type and images will regularly occur in your pages

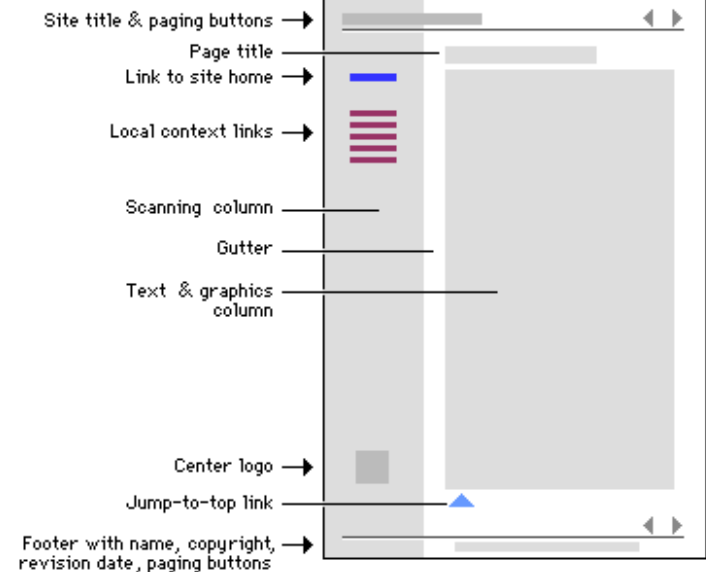


## Design Grids for Web Pages

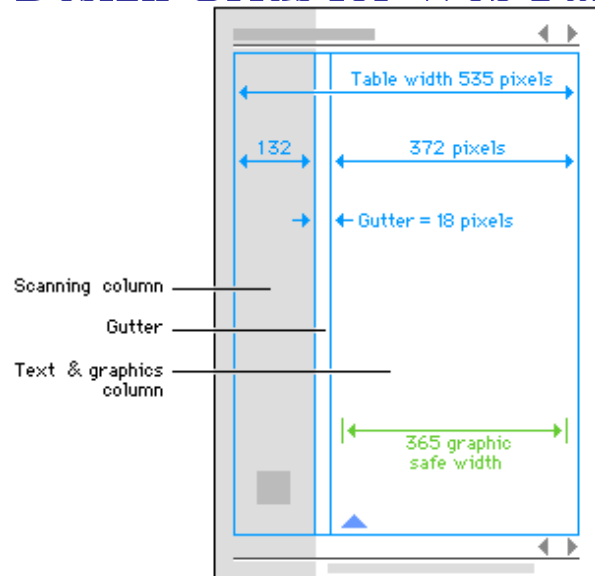
- Incorporate an image map menu at the top and bottom of every page
- A "scan column" along the left:
  - provides space for local links to related material
  - gives visual relief by narrowing the right text column to about 60 - 70 characters per line



## Design Grids for Web Pages



## Design Grids for Web Pages



## Tables for layout

- Tables can allow for more control over the layout of the pages
- With web authoring tools, you don't have to worry about how this is done
  - We'll soon use Dreamweaver