# basics of web design

## Web Design—Contents

### **Basics of Web Design—Joel Johnson**

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### Web Design—Syllabus: Spring 2003

### **Basics of Web Design—Joel Johnson**

### **Faculty**

Joel R. Johnson Fell 276, 438-5339 jrjohns@ilstu.edu

### **Course Description**

This course is designed as an introductory course in the design, evaluation and production of Web sites. The course covers advanced imaging and animation techniques, authoring tools (Dreamweaver in particular), Web site design techniques, and Web site management and maintenance.

#### **Outcomes**

At the conclusion of this course you will

- Define and use Web design terminology
- Evaluate the effectiveness of Web sites in communicating information, skills, and attitudes
- State, define, and apply theories, principles, and practices to the design of Web sites
- Design and develop messages for the Internet
- Present and critique Web products

### **Evaluation**

Assignments (6—15 pts)	90
Exams (2—30 pts)	60
Practicum (2—15 pts)	30
Quizzes (3—15 pts)	45
Web Site Project	75

300 total points A = 270, B = 240, C = 210, D = 180

#### **Textbooks**

Niederst, Jennifer, & Koman, Richard. Learning Web Design. O'Reilly & Assoc., Inc. 2001. ISBN: 0596000367

You must purchase/obtain/share a guide to Dreamweaver 4 for use throughout the semester. One of the following or any similar title will work.

Weinman, Lynda & Green, Garo. Dreamweaver 4: Hands-On-Training. Peachpit Press, Berkeley, CA, 2001. ISBN: 0201741334

Annwn Page, Khristine & Sharp, Wendy. Macromedia Dreamweaver 4: Training from the Source. Peachpit Press. 2001. ISBN: 0201731355

Towers, J. Tarin. Dreamweaver 4 for Windows and Macintosh: Visual QuickStart Guide. Addison Wesley Longman, Inc. 2001. ISBN: 0201734303

Lowery, Joseph W. Dreamweaver 4 Bible with CD ROM. Hungry Minds, Inc. 2001. ISBN: 0764535692

### Web Design—Schedule: Spring 2003

### **Basics of Web Design—Joel Johnson**

### 3 units

Unit 1 Advanced visual skills, Web authoring basics, project design

Unit 2 Advanced project design, Web authoring advanced

Unit 3 Web authoring advanced 2, debugging, presentation, critique

#### Unit 1

#### 1/13/03

Introduction

#### 1/15/03

Photoshop—Buttons, backgrounds, banners ImageReady—Animation Assignment 1—Basic design/HTML Readings (Neiderst Ch. 1-3)

### 1/20/03

### **OFF (Dr. Martin Luther King Jr. Holiday)**

### 1/22/03

Quiz 1 Neiderst Ch. 1-3
Dreamweaver terminology, interface, basics
Site set up
Uploading

Readings (Neiderst Ch. 4-6, Read basics/introductory chapters in Dreamweaver books)

### 1/27/03

Project stages and architecture, hierarchical maps, navigation

### Assignment 1 Due

### 1/29/03

Assignment 2—Column critique Quiz 2 Neiderst Ch. 4-6 Readings (Neiderst Ch. 7-10)

### 2/3/03

Assignment 2 Due Creating continuity, visual metaphors, creating a visual identity

### 2/05/03

Advanced imaging techniques, animation Assignment 3—Frames Readings (Neiderst Ch. 11- 12)

### 2/10/03

Integrating multimedia into WWW Music, Flash, GIF animation, interactivity

### 2/12/03

Exam 1: Neiderst (Ch. 1-12) Readings (Neiderst Ch. 13-15)

### Unit 2

### 2/17/03

Informational sites (examples and discussion) WYSIWYG authoring vs. hand coding

### 2/20/03

First Practicum: Basics of Dreamweaver, Photoshop

### 2/24/03

Marketing sites (examples and discussion) Assignment 3 Due Readings (Neiderst Ch. 16)

#### 2/26/03

Assignment 4 Layers
Dreamweaver—layers, tables, text

### 3/03/03

Quiz 3: Neiderst Ch. 13-16 Web identity

### 3/05/03

Assignment 4 Due Dreamweaver—rollovers, behaviors, image maps Readings (Neiderst Ch.17-18)

3/10/03

**OFF Spring Break** 

3/13/03

**OFF Spring Break** 

3/17/03

Assignment 5 Visual analogy Plug-Ins Readings (Neiderst Ch.19-20)

3/19/03

Second practicum: Dreamweaver, Photoshop, ImageReady

Unit 3

3/24/03

Web Site idea and flow chart due Home page presentation and discussion Assignment 6 Student chapter/subject presentation

3/26/03

Assignment 5 Due Open Lab

3/31/03

Student Presentation 1 Color pallet, font scheme, and written accounts of project stages due
4/02/03
Debugging Open Lab
4/07/03
Student Presentation 2
4/9/03
Open Lab
4/14/03
Student Presentation 3
4/16/03
Open Lab
4/21/03
Student Presentation 4
4/23/03
Open Lab
4/28/03
Student Presentation 5
4/30/03
Exam 2 Comprehensive Neiderst
XX/XX/XX FINAL DATE

Final class—presenting Web projects

### Web Design—Focus Areas for Critique

### **Basics of Web Design—Joel Johnson**

#### Content

- Quality of content
- Quantity of content
- Uniqueness of content
- Cohesiveness of content

### **Navigation**

- Functionality
- Complexity (appropriate)
- Included alternative navigation
- Consistency
- Clarity
- Style

#### Visuals

- Quality of images
- Quantity of images (appropriate)
- Consistency
- Style

### **Design**

- Cohesiveness
- Consistency
- Functionality
- Style

### **Details**

- Follows naming conventions
- Proper home page name
- Contact and credits
- Working links

#### Web site FACES

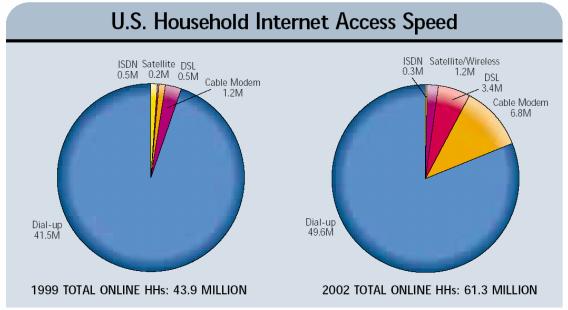
Functionality—does it work correctly? Appropriateness—in context? Consistency—the same every time? Elegance—with a minimum of clutter? Style—with visual flair?

### Web Design—Some Ground Rules

### **Basics of Web Design—Joel Johnson**

Web design is an exercise in communication. Like all communication, Web design has rules, limits, and users. The difference is that the Web is in the formative stage; it lacks the consistencies and history of more established forms of communication. Because of this Web designers are left with considerable flexibility in how a project is approached. This freedom comes with some limitations that are uncommon in other media forms.

Size matters. Byte size (usually listed in thousands-Kb, or millions-Mb) is a huge factor. Modem connections typically bring in about 3 Kb a second. Give this reality thought when creating Web sites or the site will not be able to draw or keep users. Page sizes of at or under 30 Kb (10 second load time) are ideal. High speed connections typically bring in pages at 10 to 50+ times as fast. However, as the chart below illustrates, the number of households that have high speed internet connections is still quite low. This number is somewhat skewed however, because it only takes into account households. High speed users are also accessing from workplaces/schools in numbers rivaling or even surpassing household high speed connections. The bottom line—try to keep the Kb size of individual pages at or below 100 Kb, reuse graphical elements when possible to take advantage of browser caching, and warn site visitors before sending them on any page (or file) larger than 200 Kb. Optional high-bandwidth pages/areas can solve many size issues.



SOURCE: OCT. 1999 INTERNATIONAL DATA CORP.

#### © 2000 ICONOCAST

The end user (and their computer) has a great deal of control over how your design will look. Apple computers and PCs will vary in the way they look and behave. Common screen sizes vary from 15" to 21" (physical size). Common screen resolutions range from

640 x 480 to 1280 x 1024 (pixels dimensions). Common screen color depths range from 8 bit (256 colors) to 32 bit (millions of colors). There are two common browsers: Internet Explorer and Netscape Navigator. These come with several major variations, each with a different functionality. The end user can change the fonts and font sizes, turn on or off many of the advanced page elements; they can even choose to not use image elements. For designers this presents a difficult challenge. Web design work must be able to survive in as many environments as possible with as little distortion as possible. Web sites should fit into the 800 x 600 pixel screen size without horizontal scrolling, color consistency held by the use of Web-safe palettes (where applicable), and browser compatibility achieved through basic browser/platform testing.

The message must drive the media. Without hard rules Web design has become a cornucopia of approaches. JavaScript, Flash, XML, Java, DHTML, Real, QuickTime, Windows Media and others vie to be part of the designer's toolbox. These tools offer many useful functions such as audio/video, data retrieval/dispersal, animation, interaction and other functions. It is far too easy for designers to make messages that highlight the effects that were used, but not the message. Every element will contribute positively or negatively to the objective. The objective (message) must be considered in every aspect of a project.

Design matters. All Web elements, sites, pages, fonts, color schemes, layouts, images, audio/video, navigation, backgrounds, patterns/textures, animations, interactive elements, forms, scripted, plug-in elements, need to work as design. Test each site element for its design FACES (below). Some elements will favor certain design aspects (e.g. fonts and functionality). But elements ultimately need to be looked at in the context of the whole site. A Web site may use images to create the vast majority of the stylistic aspects of a site while other elements (navigation, backgrounds, etc.) serve largely supporting roles.

Functionality—does it work correctly? Appropriateness—in context? Consistency—the same every time? Elegance—with a minimum of clutter? Style—with visual flair?

Content is everything. Everyone who uses a site does so because of something the site offers. Bad navigation can keep a site user from getting the latest Janet Jackson tune in a database, but good navigation won't get them to the same tune if it isn't part of the content. The point here is that good design cannot keep a site afloat. Valuable content is required if a Web site is to be successful. There is no substitute for doing the homework. Research the subject (online and traditionally) and electronically archive the findings. Find out what similar or competing Web sites offer for content, critique and electronically archive the findings.

### Web Design—Project Stages

### **Basics of Web Design—Joel Johnson**

### Idea/Project

- Product Ivory Soap Kenmore Appliances Coca Cola Antiques
- Service Web design Catering Medical advice Auctions
- Organization IRS Philip Morris NAACP AOL/TimeWarner
- Person Bob Dole Madonna Steve Jobs Joel Johnson
- Ideology Animal rights Campaign Finance Reform
- Instructional Objective Increase SAT scores Demonstrate surgical proficiency

#### **Needs Assessment**

- Not all visual design projects have determined a need even exists
- Complete at least a basic needs assessment even if one exists
- Projects that do not fill a real need should be avoided
- Be aware that a need may not always be readily apparent; modern audiences have shown a propensity for audiovisual stimulation even at the expense of content

#### Research

- Research all aspects of the project, particularly previous or similar visual approaches
- Diversity of resources will show The Web Library resources –Personal interviews Personal knowledge Government documents
- Don't overlook the value of broad topic knowledge; fine details are the professional's domain

### **Proposal**

• Projects should be proposed in writing (type written 12 pt font) to outline the needs, objectives, process (print, multimedia, Web, etc), and evaluation measures

### **Visual Treatment**

- Begin with storyboarding/digital roughs
- Gather photo/digital images, audio/video, and other content
- Use existing and original visual component and design prototypes

### **Prototypes/Evaluation**

- Creating and evaluating prototypes moves a project to fruition
- Unsatisfactory results may require a return to Visual Treatment, Research, Needs Assessment, even the Project/Idea stage

### **Analysis**

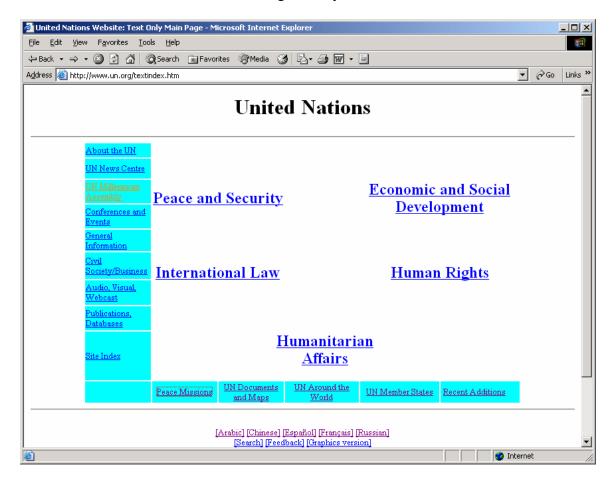
- Were objectives met? Why, or why not (Based on feedback, surveys, etc.)?
- What might be added that could have improved the project?
- Were any techniques discovered that could prove useful later?

### Web Design—Site Types

### **Basics of Web Design—Joel Johnson**

### **Text Only**

- Most basic type of Web site
- Used as a starting point for site design
- Makes a highly accessible alternative to primary site
- Within standard HTML text design is very limited



http://www.un.org/t extindex.htm

http://www.yale.edu/text-only/

http://www.nasa.gov/textonly.html

http://www.fresnobee.com/print\_version/

http://www.ipl.org/index.text.html

http://pbskids.org/textonly/

http://ccc.commnet.edu/grammar/textonly.htm

http://www.nytimes.com/info/help/textpath.html

http://www.irs.gov/plain/

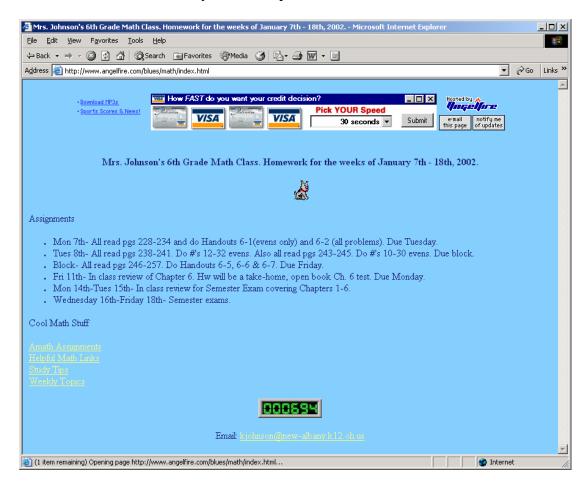
http://iwin.nws.noaa.gov/iwin/textversion/main.html

http://www-2.cs.cmu.edu/~cil/txtvision.html

http://msowww.anu.edu.au/~ralph/OPTED/

### Basic Design/HTML Project 1

- Simple HTML code and design elements used
- Most amateur sites are designed using basic design/HTML
- Code level simplicity usually leads to high browser compatibility
- Sites often lack the dynamic and polish of more advanced sites



http://militaryspouse93.com/cooking.html

http://www.geocities.com/omoikiru2002/WOMENS\_STUDIES.html

http://tedeboy.tripod.com/tedeboy/

http://members.tripod.com/~bpador/index.html

http://www.ilstu.edu/~shagberg/

http://bayoudogs.freeservers.com/

http://www.angelfire.com/on2/poopokemon/

http://www.angelfire.com/blues/math/index.html

http://www.angelfire.com/vt/mountaintop/geology.html

http://www.envy.nu/valdiron/

http://hometown.aol.com/cowpoke459/myhomepage/resume.html

http://hometown.aol.com/woodtreas/index.html

http://hometown.aol.com/lillieanne72/index.html

### Advanced Design/Code

### Columns (print style) Project 2

Column style is a method carried over from newspapers and magazine design. Using relatively narrow columns tends to help readability and is a format with which viewers are very familiar. Often sites with very dense information will use this style in order to present a lot of information on a single page. This is both an inherent strength (due to its ability to organize information) and an inherent flaw as putting so much information on a screen can be overwhelming.





http://www.nashscene.com/

http://www.nyt.com/

http://www.pantagraph.com/

http://www.notes.net/

http://www.flawebdeb.com/webconf1.htm

http://www.netscape.com/

http://www.salon.com/

http://www.stern.de/

http://www.time.com/time/

http://www.shutterbug.net/

# Frame-based Project 3

Frames allow multiple HTML documents to exist in a single window (or frame). They allow the designer to fix elements on screen that will not reload or change as the user moves throughout the site. This allows for navigation, banner, logo, header, and footer elements to stay fixed on screen while content elements change in a separate frame. Frame-based design has been villainized in part because of browser/screen compatibility and in part because of its added complexity. Used correctly, frames can be a real asset because they fix commonly used element on screen. Used poorly, they can destroy a site and trap site viewers in a virtual black hole.



http://projects.dartmouth.edu/the\_room/index.html

http://www.math.ilstu.edu/saolear/

http://www.hallas.demon.co.uk/HuddersfieldSingers/frames.html

http://msdn.microsoft.com/library/

http://www.clyde-group.com/Frames/Findex.html

http://www.costaricatours.co.uk/default.htm

http://www.sudburywolves.com/

http://www.k9-rx.com/index.html

http://www.monitor-computing.pwp.blueyonder.co.uk/bmrg/main.htm

http://www.epi-net.com/

http://www.bmw.com/ (many links are black holes)

# Compartmental (Web style) Project 4

Compartmental or Web style is a category encompassing a number of common Web design styles. Television and Movies are horizontally oriented because they are emphasizing the visual field which is horizontal in nature. Magazines and newspapers are vertically oriented because they emphasize text which is vertical in nature. Web style can adapt to blend the advantages of the horizontal (visual field) and the advantages of the vertical (print field) by compartmentalizing different areas of the site.



http://www.apple.com

http://www.presentations.com/presentations/index.jsp

http://www.fmctraining.com/

http://www.gateway.com/index.shtml

http://disneyworld.disney.go.com/waltdisneyworld/index

http://www.1800flowers.com/

http://www.green.com

http://www.carpet.com/

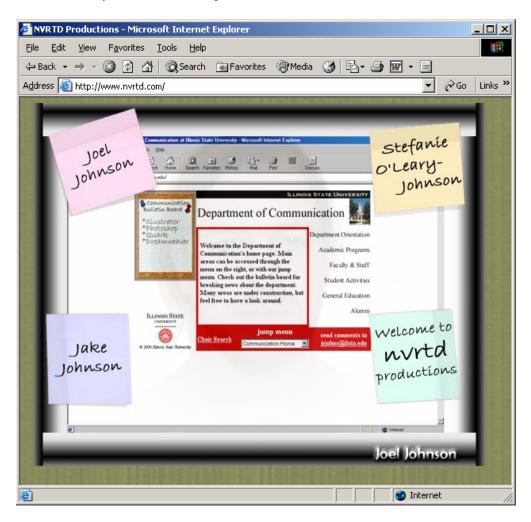
http://www.petsmart.com/

http://www.bowling.com/

http://www.marketwatch.com/

### Visual Analogy Project 5

As you begin to work on your visual treatment consider any visual analogies that might serve to reinforce your site or an element within it. The site below is an attempt to mimic a computer screen. The Post-its are the links, the background is a wall, and my face is reflecting off the "screen".



http://www.nvrtd.com

http://www.gateway.com/index.shtml

http://www.xbox.com

http://www.beef.com/

http://www.snow.com/

http://www.nationalgeographic.com/

http://www.originalhooters.com/

http://www.scuba.com/

http://www.freefall.com/

http://www.wingspandesigns.com

http://www.cocacola.com/

# Advanced Techniques Project 6 Advanced Web Techniques (student taught)

### **Plug-Ins**

### Flash/Shockwave

Flash and Shockwave are vector based animation tools. Being vector based allows them to create files that are resolution independent, meaning they can be expanded or contracted without loss of quality. These tools also allow the use of sound, timeline style editing, and pixel based graphics. Flash is more specific to Web development and is somewhat easier to learn and use than the similar Shockwave. Despite the advantages many mainstream sites avoid the use of anything requiring a plug-in, and so do some site visitors. They also tend to have longer load times (A/V).



http://www.nick.com/

http://www.twix.com

http://www.eclecticlemonade.com/

http://www.shockwave.com

http://www.mnh.si.edu/africanvoices/

http://www.shorn.com/

http://www.balthaser.com

http://www.eminem.com

http://www.cartoonnetwork.com

http://www.comedycentral.com

http://www.noggin.com

### Real, QuickTime, Windows Media Player

These three products have a lot in common. They are all capable of playing a wide variety of popular audio, video, and image formats, and they all possess the capability of streaming audio and video, even being interactive. QuickTime is an Apple product and Windows Media Player is a Microsoft Product. These two are very similar and both can generate (at very high Kb size) terrific video and sound. Despite the fact that these two players come standard on 99% of the consumer machines sold, Real has made a niche for themselves. They have done this by using an excellent compression scheme (though arguably not the best), and by creating a player that is fairly imposing on your media and aggressive about gathering and sharing information. All of them are relatively easy to create projects for.



http://www.real.com http://www.nba.com http://www.weather.com http://www.cnet.com

### QuickTime

http://www.vrway.com

http://www.apple.com/trailers

http://www.quicktime.com

http://www.apple.com/qtv/radio

### Windows Media Player

http://www.mtv.com

http://www.windowsmedia.com

http://www.musicsteps.com

http://cnn.com

The Web is a constantly changing beast in its infancy. Many tools develop and change on a weekly basis. What follows is a very small list of some of the other areas of advanced techniques.

**JavaScript** 

**DHTML** 

**XML** 

**SMIL** 

**CSS** 

Java

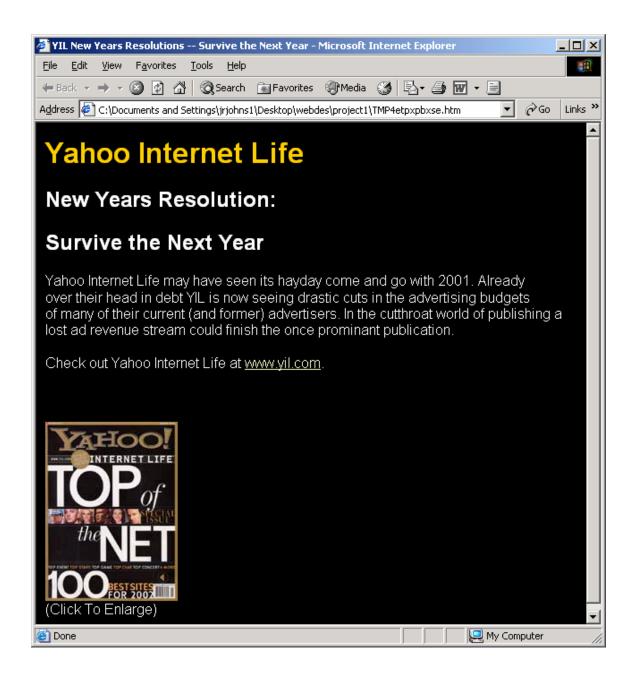
**Forms** 

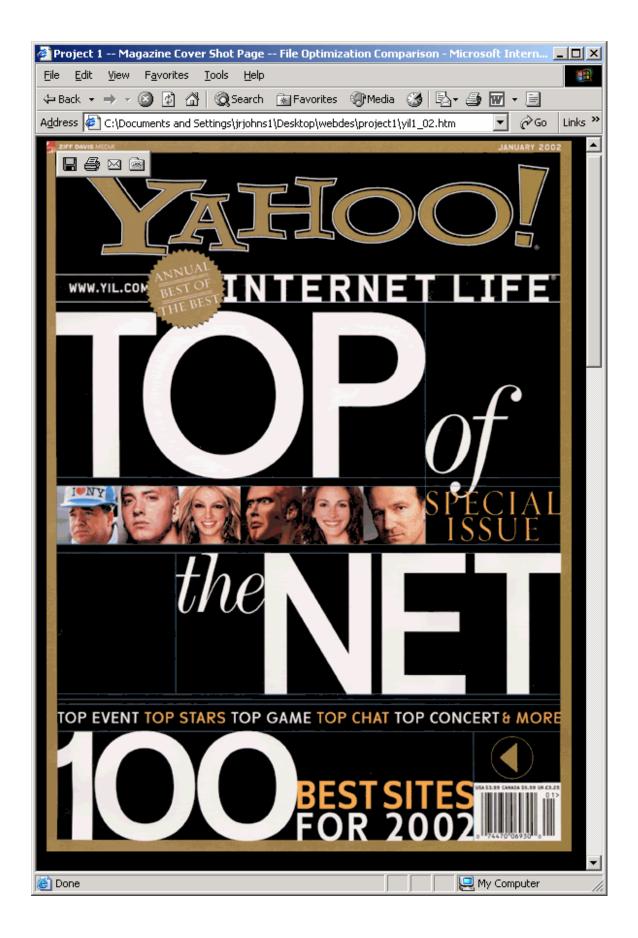
**PERL** 

### Web Design—Project 1 Basic Design/HTML

### Basics of Web Design—Joel Johnson

Project 1: create a basic HTML page. Scan one current magazine cover, "Save for Web" in Photoshop, and make a link to this image and to the magazine's Web site. These pages should have the appearance of a critique of the magazine, design, topics, etc. You do not need to seriously research these topics, just present a clean professional appearance. Make up text content here or credit sources if you want to gather external content. An example is provided below of this two page assignment.





Yahoo Internet Life

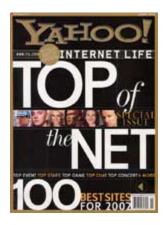
New Years Resolution:

Survive the Next Year

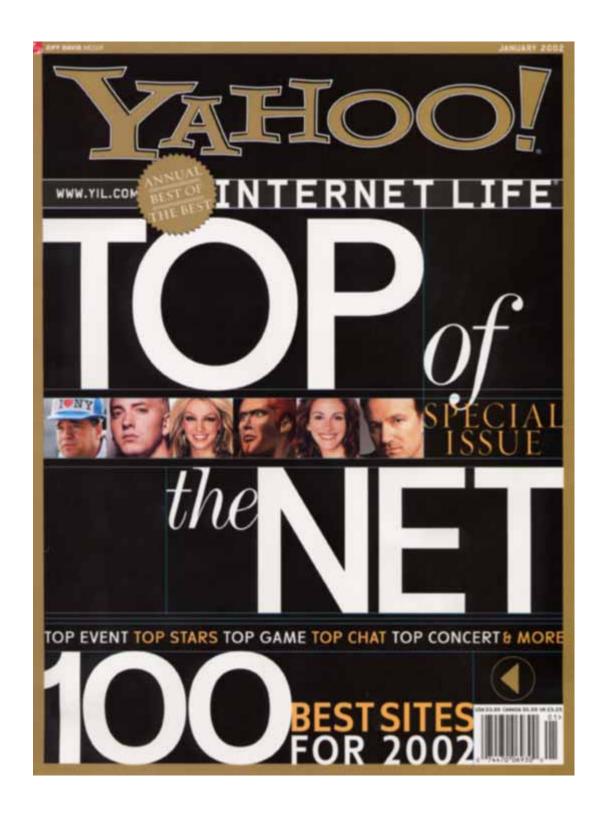
Yahoo Internet Life may have seen its heyday come and go with 2001. Already over their head in debt YIL is now seeing drastic cuts in the advertising budgets of many of their current (and former) advertisers. In the cutthroat world of publishing a

lost ad revenue stream could finish the once prominent publication.

Check out Yahoo Internet Life at www.yil.com.



(Click To Enlarge)



### Web Design—Project 2 Columns (print style)

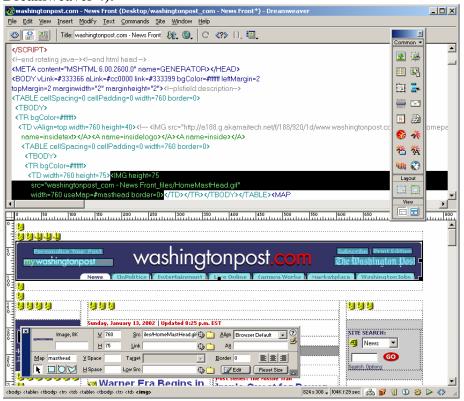
### **Basics of Web Design—Joel Johnson**

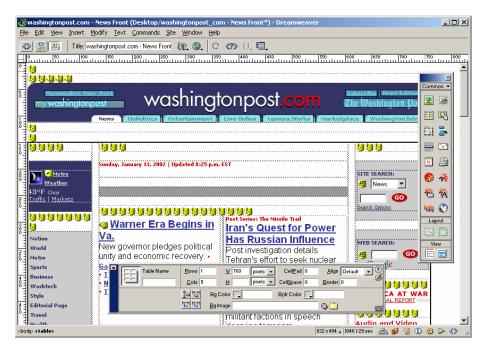
Project 2: Dissecting columns. This project requires the use of two column style pages. Compare and contrast the two approaches used. Consider column width, white space, visual appeal, areas of focus, and of course FACES. Don't forget to open these sites in Dreamweaver, check browsers, screen resolutions, platforms, etc. Try to use pages that rely heavily on column based design. News/Information sites are often laid out this way. Make sure to save the sites as "Web Page Complete (Internet Explorer)" in order to evaluate them in Dreamweaver.





In Dreamweaver click around the page (particularly on table borders indicated by dashed lines) while watching the properties window to examine details of each site. Look for column and row widths and heights, color schemes, font schemes, navigation type, whatever you can discover. If you select something on the page and then view the code Dreamweaver will highlight the code that generated the selection (shown below in Dreamweaver 4).

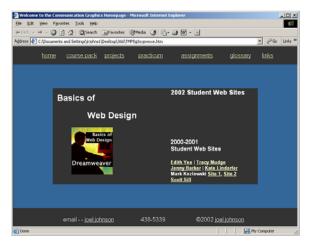


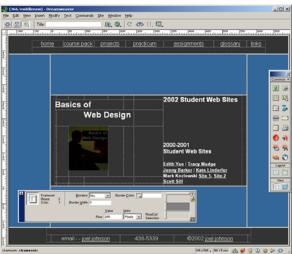


### Web Design—Project 3 Frames

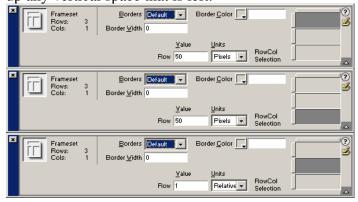
### Basics of Web Design—Joel Johnson

Frames are considered out of bounds by many Web designers. They can lead to some very major usability issues if they are used poorly. Used correctly, frames can allow site elements (e.g. navigation and banner) to exist as separate HTML documents. They allow a designer to fully compartmentalize a site. Navigation, banners, headers, footers, logos, etc. can be fully separated from other page elements. This can bring high levels of site consistency and rapid load times. The page below is about 30 Kb everything is generated using HTML code except the animation (25 Kb). Project 3 will require you make a basic frame-based page. This project can be a frameset as visually simple as this example below and using frames as simply as the k9-rx site example. Place a navigation system in a frame or use framesets for headers and footers. Try to keep this page relatively simple, frames will not tolerate the many things that tables and layers will and there are several significant properties unique to frames that must be understood to use them.

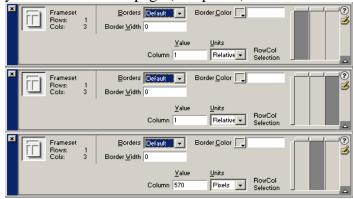




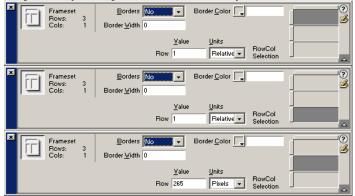
The page above is comprised of 3 framesets, one inside another and that one inside the third. Below are shown the properties of the first frameset: three rows and one column. The top and bottom rows here are designed to block off the header and footer areas giving each 50 pixels of space. The middle row is given a value of 1 relative and will take up any vertical space that is left.



Here are the three columns and one row that make the second frameset. It is inside the middle row (nested) of the frameset above. In this frameset the left and right columns each take up 1 relative meaning they will split any leftover horizontal space and center horizontally the center column. The center column defines the width of the center area you see on the final page (570 pixels).



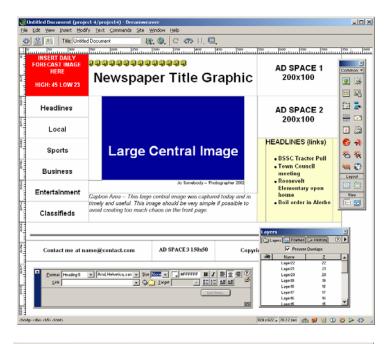
The final frameset is inside of the middle column of the second frameset. It has three rows and one column as well. The top and bottom row each take up 1 relative meaning they will split any leftover vertical space and center vertically the center row.

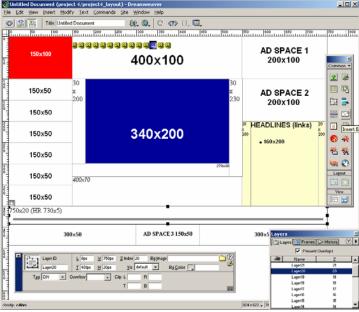


### Web Design—Project 4 Compartmental

### **Basics of Web Design—Joel Johnson**

First create a rough design outline on paper (or digitally) of how the compartmental areas will be laid out. Keep track of every pixel and keep the total width inside of 750 pixels. Generate this design in Dreamweaver using only the most basic elements (text, plain button/banners, etc.). Get a feel for the design and spacing of the layer-based design, and then write up a brief one page rationale for the layout. This project will require a basic understanding of layers to complete effectively.





### Web Design—Project 5 Visual Analogy

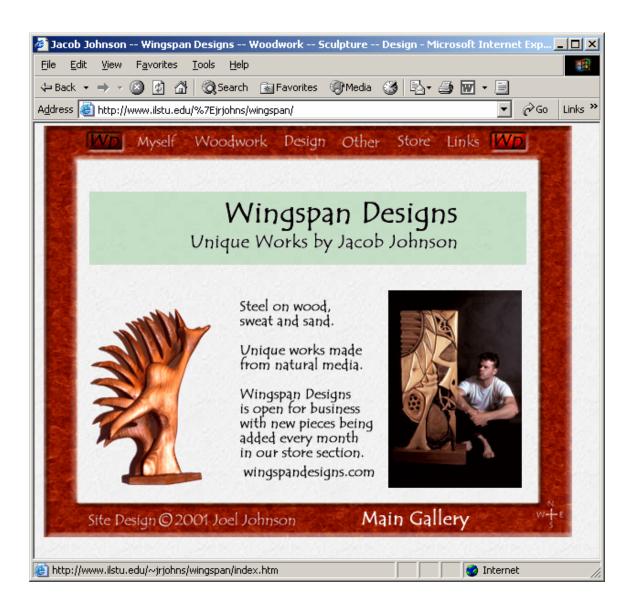
### **Basics of Web Design—Joel Johnson**

Visual analogies can be some of the most difficult elements to include effectively in any media. This project follows a set of instructions to generate a page that uses the visual analogies of frames and wood to create a unique and interesting look. This page will use some extensive graphics work in Photoshop, complex slicing techniques, JavaScript rollovers, and layer-based design. This is a tutorial explaining how to create the frame (plus its "over" state). Included are the three unique images used to create this page. The font used throughout this site is Tempus Sans. The width of the final frame is going to be 700 pixels and the height is 600 pixels. Change this initial height to change the size of a site.



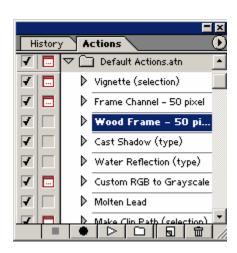


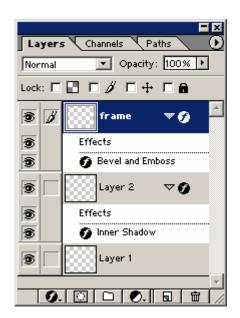




Step 1. Make a folder and name it "woodweb". In this folder, make a folder called "up" and a folder called "over".

- Step 2. Begin by creating a new Photoshop document that is 600 x 500 (WxH) pixels, 72dpi, and RGB color.
- Step 3. In the Actions window (below, left) Play the Wood Frame Action.

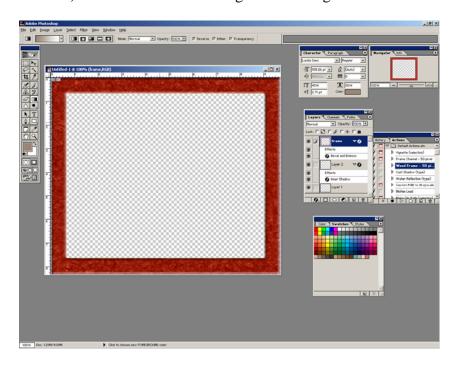




Step 4. Make sure the frame layer is active (above, right) and then apply (with default settings) the Filter Brushstrokes < Crosshatch.

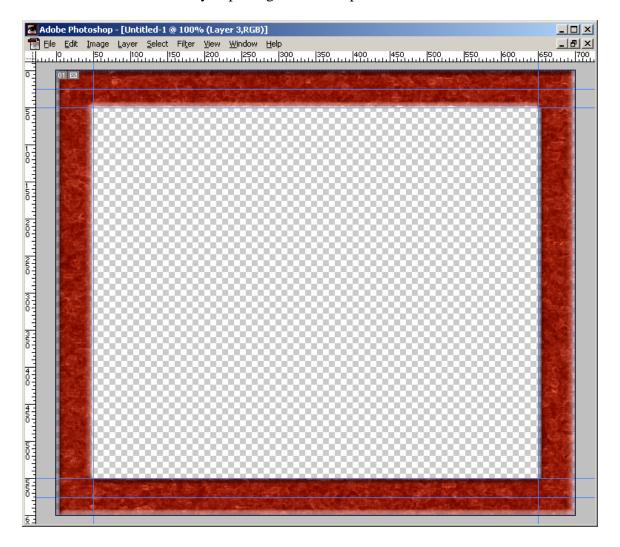
Step 5. Apply the Filter Brushstrokes < Accented Edges.

Step 7. Give it some life with Image < Adjust < Brightness/Contrast; bring down the Brightness and bring the Contrast up (to adjust the colors go to Image < Adjust < Color Balance). It should look something like the image below.



Step 8. Create guides to create a working area. Place guides 50 pixels from each edge (to set rulers to pixels go to Edit < Preferences < Units and Rulers and change Ruler to

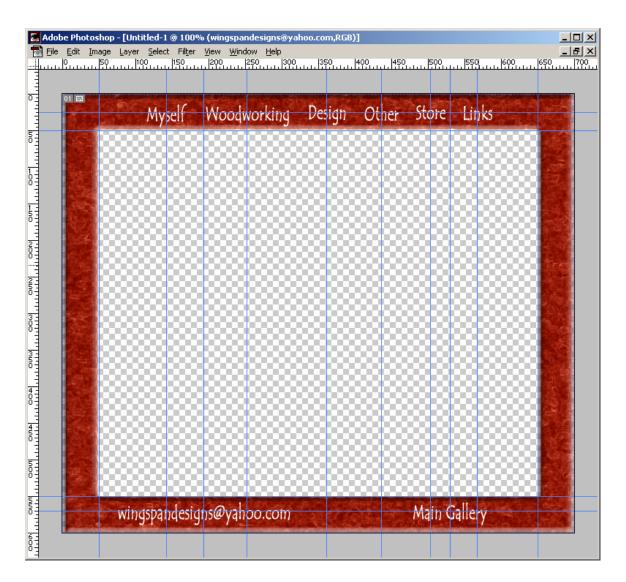
Pixels). Also create guides along the middle of the top and bottom of the frame to line up text. Hold down shift when you place guides to snap to ruler marks.



Step 9. Create a button in white text (Tempus Sans 60 pt.). Make the button with an average width first to allow adequate spacing. Then Duplicate Layer the new Text layer 8 times.

Step 10. Change the text to the correct words then move them into visibly good position and create guides at the center of these new elements. Remember, guides will only snap to active layers. These guides will help you place new text in the buttons later if the categories change.

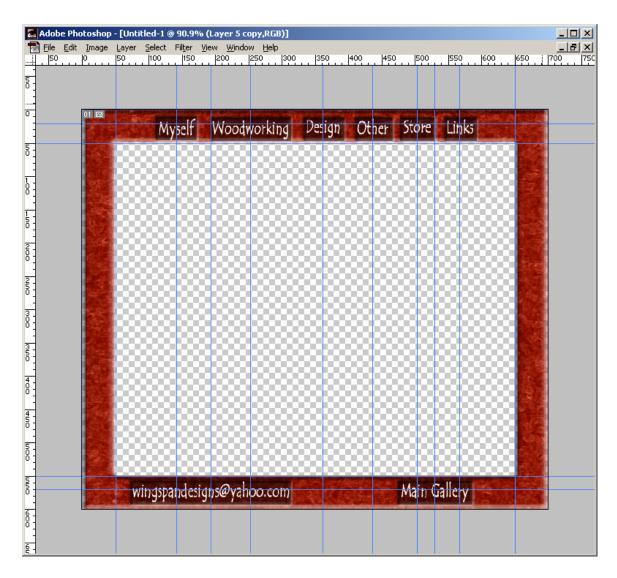
Step 11. Save this file, name it "frame1" in your "up" folder.



Step 12. In a New Layer on top of all the others create a rectangular marquee that is a Fixed Size of 120 x 30 pixels. This rectangular selection will seem too tight but the small size allows for maximum letter size in the frame space available. This is the height of all of the text and the width of "Woodworking". It may be better to move "Woodworking" to the outside of the frame to de-emphasize its size. Each word or group of words will need a different width rectangular selection. Move this marquee over "Woodworking" until it covers it. Move the center guide line in these steps if it is necessary to keep the marquee in the frame area. Use the arrow keys if it is difficult to move things with the mouse.

Step 13. Select the Paintbucket tool (opacity 50%) with black as the color and paint the selection.

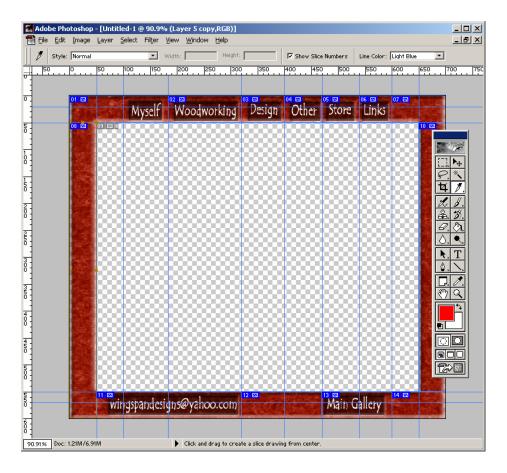
Step 14. Apply the Layer Effect (default setting) outer bevel to the rectangle. Arrange the layers so that the rectangle of black is behind the lettering. Repeat steps 10, 11, and 12 for all of the words on the frame. Alternately—duplicate the first layer eight times and use Edit < Free Transform (Cntrl T, Command T Mac) to size each rectangle to each word.



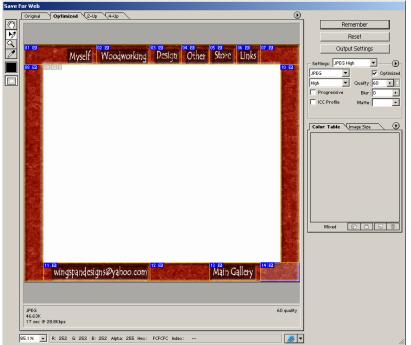
Step 15. \*\*Save As\*\* [NOT SAVE] this file as "frame2" in the "over" folder.

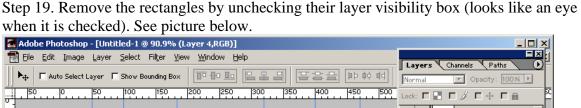
Step 16. Plan a way to slice this image up into pieces with a maximum height **or** width of 50 pixels. Use guides to mark out the slices on screen and remove any guide lines that do not represent cuts. Hold shift as you move the guides to snap to Ruler marks.

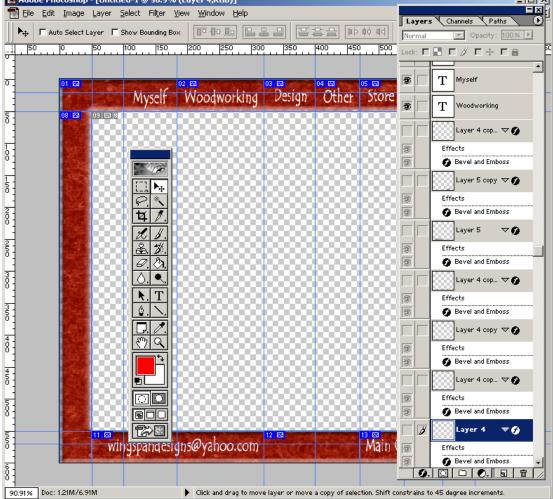
Step 17. Use the Slice tool to partition your frame. It will snap to your guides.



Step 18. File < Save For Web will bring up the window below. Use the Slice Select tool to select all but the center slice (hold down shift to select multiple slices). Make sure to save in the "over" folder.





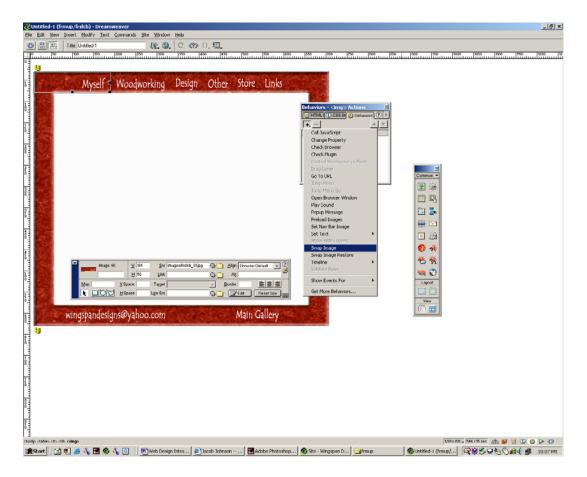


Step 20. Save for Web again (in the "up" folder) and the page is ready for construction in Dreamweaver.

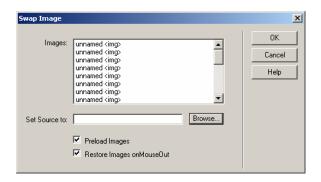
Step 21. Because Photoshop has saved an HTML table, this part is very simple. In Dreamweaver open the HTML document Photoshop created located in the up folder. Make sure the Behaviors window is open and select the image in the upper left hand corner.

Step 22. Go to Site < Define < New and define this site as "woodweb". In Local Info, and Site Map Layout make the root folder "woodweb" and make the home page the HTML document Photoshop put in the "up" folder (browse to locate this file).

Step 23. Select a slice. Click on the + (plus sign) in the Behaviors window and select Swap Image. This will cause a rollover effect when the area has a mouse cursor over it.



Step 24. Browse for the matching image in the "over" group of slices.



- Step 25. Repeat Step 23 and 24 until you have created rollovers for each active area (do not do the parts of the frame that do not change).
- Step 26. Go to File < Preview In Browser to test your page.
- Step 27. In Dreamweaver, select Modify < Convert < Convert Tables to Layers
- Step 28. Replace the center (white) layer with, the text and the photos. Add the background image.

# Web Design—Project 6 Advanced Topics

# **Basics of Web Design—Joel Johnson**

This project is designed to explore some advanced Web design elements. Flash, DHTML, XML, SMIL, Real, QuickTime, Forms, CSS, and any other Web design related topics will work for this project. This project is exploratory in nature so topics do not need to be applied. Define what the topic is, what can be done with it, working examples, web links, and required software.

Two sample projects are presented below (These are dated, but the links are good).

# Advanced Concepts XML

## WHAT IS IT?

A Web ready trimmed down version of SGML that can be used to control a wide variety of applications.

- XML Web workshop--Developers Guide--Demos Interactive tutorial is very helpful
- WHAT CAN YOU DO WITH IT?

XML can be used for a variety of specific purpose applications such as Chemical Markup Language used for managing and presenting molecular and technical information over a network and Open Financial Exchange, a financial transaction application. SMIL is also XML based.

- WORKING EXAMPLE (WITH HTML CODE)
- XML Film Reviewer

Tutorial How to Make A XML Film Reviewer

WEB LINKS TO MORE INFORMATION ABOUT TOPIC

FAQ site of basic XML questions

SGML XML Home Page

XML Information Site

- WHAT SOFTWARE IS REQUIRED, WHERE DO YOU GET ACCESS TO IT, AND HOW MUCH DOES IT COST?
- XML and SGML Authoring HotMetal Pro Get a demo version here for free or buy it for \$130.

# **Advanced Concepts DHTML**

# • WHAT IS IT?

DHTML or Dynamic HTML is a combination of HTML 3.2 JavaScript Cascading Style Sheets (CSS) and the Document Object Model (DOM). DHTML is able to keep file sizes down and create very dynamic web pages. Requiring a major browser version 4.0 or higher but no plug-ins, DHTML carries comparatively little baggage.

# • WHAT CAN YOU DO WITH IT?

With the framework of Cascading Style Sheets and the programming ability of JavaScript, this offspring of HTML is capable of remarkable interactivity using relatively small files (see online examples).

# • WORKING EXAMPLE (WITH HTML CODE)

JavaScript Galaxian

Paletteman Web Pallette Color Tester

**DHTML** Interactive Birdbath

Warner Bros. Home Page Created Using Dreamweaver

# WEB LINKS TO MORE INFORMATION ABOUT TOPIC

<u>Inside DHTML an in-depth newsletter about all things DynamicHTML</u> Articles, discussion groups, techniques, very thorough.

• Project Cool Developer Zone

Tutorials on Dynamic HTML in Internet Explorer 4

• DHTML Demos

A comprehensive site on DHTML with step by step tutorials

WebCoder

A site that will teach you JavaScript and DHTML

- http://www.dhtmlplanet.com/
- WHAT SOFTWARE IS REQUIRED, WHERE DO YOU GET ACCESS TO IT, AND HOW MUCH DOES IT COST?
- <u>Dreamweaver DHTML Authoring/Editing Software</u>
  Get a 30 day trial of Dreamweaver here, or visit their gallery and take a look at what is being done with it. Buy it for about \$300, academic \$100.

# Fall 2000 Student-generated Topic Exam Questions

# **Templates and Libraries**

Name two reasons why templates are used.

Site consistency

Maintenance restrictions to protect design

What's the difference between templates and libraries?

A template is a design model putting limits on site changes; a library is a storage area for site elements.

#### **Forms**

Why are forms one of the most important elements of a Web site?

They allow interaction between the site managers and the site users.

What does CGI stand for?

Common Gateway Interface

What is a jump menu used for?

A jump menu offers rapid access to site areas while taking up little on-screen space.

# **DHTML**

What does DHTML stand for?

Dynamic HTML

What does DHTML offer for Web sites?

DHTML offers Dynamic, interactive content, high levels of design control in a plug-in free environment.

Name three technologies that are included in DHTML.

HTML

**CSS** 

JavaScript

## Commands

Name two commands Dreamweaver comes installed with.

Clean up Word HTML Create Web photo album Color Scheme Optimize Image In Fireworks

Explain what one of the commands you listed enables you to do.

- -Clean up Word HTML allows you to remove Microsoft specific code allowing easier maintenance within Dreamweaver.
- -Color Scheme allows you to choose and change the color scheme for the background and text of a web page.
- -Create Web Photo Album allows you to quickly create a Web page in which you can display pictures in a folder.
- -Optimize Image in Fireworks allows you to optimize images in Fireworks which makes the file size smaller.

#### Automation

Name at least two things that the history palette is good for.

- shows you what you've done so far
- can make changes without clicking undo/redo all of the time
- can make the same changes from one document to another without retyping

# **CSS** (Cascading Style Sheets)

For what purpose would one use CSS?

You would use CSS to achieve a high level of text and design control.

# Web Design—Practicum

# Basics of Web Design—Joel Johnson

# Sample Practicum I

- 1. Create a folder (named after you) on the Mac server in the practic2 folder inside of the 366 folder. **Copy** the images you need into this folder.
- 2. Open Dreamweaver and name your file so that it is the default home page for most servers.
- 3. Make your page title "Your Name's Practicum 2", and make the background a shade of blue.
- 4. Create 4 layers one for a banner, one for navigation, one for a logo and one for the main area of your site.
- 5. Create a text link in the navigation area to your email address.
- 6. Make these 4 layers equal 590w x 400h (pixels) in total area. Leave no gaps and place the entire group in the upper left corner.
- 7. In the banner layer, type the word "banner" in a san serif font, as large as possible, justify center, italicize it, and make it a shade of yellow.
- 8. Insert logo1.gif and then create a rollover state using logo2.gif.
- 9. Add the image main.jpg to the main area and link this to ISU's home page.
- 10. Convert to a table, centering in the process and then save.

# Web Design—Final Project

# **Basics of Web Design—Joel Johnson**

The final project is a complete Web site. It should have at least 12 active pages. A typical site will have a home page, 5-7 links to interior sections, and at least one interior area that is substantial on its own.

Accompanying the final project (Web site) should be a document containing:

- Site idea
- Needs assessment
- Research (notes, citations)
- Proposal (with flow chart)
- Visual Treatment (fonts, colors, designs)
- Evaluation (self, client and field testing)
- Analysis

# **Points Breakdown**

Documentation	15
Navigation	15
Visuals	15
Design	15
Content	15
Details	15

# Glossary

#### Acrobat

A program used to interpret and create Adobe PDF files.

#### Actions

In Photoshop you can record what you do as an action in the actions window. For example In the Actions window in Photoshop you can create a new action and record a series of image changes on an image and save that recording to play on other images.

## **ALT (Alternate text)**

Your alt tags give you the small text boxes that explain what your mouse is over if you hover in one place long enough. In Dreamweaver the alt commands are located in the properties window.

#### Anchors

Anchors are invisible elements that mark areas of a page you might want to return to. They are used to return to the top of long documents and can be used to enter a long document in the middle.

#### **Animated GIF**

GIF files can store multiple images in a single GIF file and play them in sequence. Animated GIF files contain information about delay between individual image frames and decay style between frames to create simple animations and even small movies.

## **Authoring tool**

An authoring tool is a software program that allows you to author Web material. Dreamweaver 3.0 is the authoring tool we will use in this course.

#### **Banners**

Standard sized images (usually 468x60 pixels) that are used as advertisements for a Web site. Often these are exchanged among Web authors to generate cross traffic between each other's sites.

## **Batch processing**

Batch processing is taking a group of files and processing them all in a single group. A large group of uncompressed graphics could be prepared for the Web in a single batch process.

#### Behaviors

Behaviors are JavaScript actions. In Dreamweaver the behaviors window allows you to utilize a wide variety of JavaScript behaviors including image swapping (rollover), and plug-in compatibility.

# Bit depth (color, audio)

In color bit depth refers to the total number of colors (depth) in audio it similarly refers to the depth of the sounds.

# **Bitmap**

A style of graphics that uses pixels to create images.

## **Borders**

An area outlining a table, frame, or image.

# **Browser compatibility issues**

Different browsers feature slightly different versions of Web site compatibility. Frames, CSS, and plug-ins, have compatibility problems with certain versions of certain browsers.

# **Browser/plug-in checks**

Using the behaviors menu in Dreamweaver you set up a JavaScript action that will check for browser versions and/or plug-ins your audience might need. Theses scripts allow for a redirect of your audience if they do not have the appropriate browser or plug-in. This type of device can solve many browser compatibility issues.

# **Burning**

The term used for writing to a CDR.

#### **Buttons**

Buttons have become a standard web linking device. Essentially a button is a linking image, usually beveled at the edges, and often oval, rectangular, or tablet shaped.

# **CDR**

Recordable CD

#### **CDROM**

Normal computer CD (non-write)

## **CDRW**

Re-writable CDR

#### Client-side

Most web elements occur as client side elements. When you go onto the internet you enter into client/server connections. Most actions that occur are executed by your browser and so are therefore client-side content.

#### **CMYK**

Cyan, magenta, yellow, black. These are the four primary paper printing colors.

# **Color continuity**

Using a specific color scheme throughout a project causes color continuity. Site users can instantly recognize key areas through the use of well-chosen color scheme.

# **Commenting (html)**

Commenting is another Web courtesy. Messages put in comment tags can help designers and programmers (or you) to navigate the code used to create a site.

# **Continuity**

Continuity is about consistency of message, media, fonts, graphics, colors, style, and tone throughout a project.

# **Converting layers to tables**

Dreamweaver allows you to quickly and easily convert a table into a layer, and vice-versa. Using this technique you can easily take a layer-based design and convert it to tables for greater browser compatibility.

# **Converting tables to layers**

Dreamweaver allows you to quickly and easily convert a table into a layer, and viceversa. Using this technique you can easily take a table based design and convert it to layers for greater design flexibility.

# **Custom JavaScripts**

Custom JavaScripts are scripts that are written in JavaScript for a specific task, like navigation bars, or even games.

# **Design Issues**

All mediums have medium-specific design issues. Some Web design issues are browser compatibility, font compatibility, and user specific browser settings.

## **DHTML**

Dynamic HTML or DHTML is an evolving technology that is a conglomerate of numerous modern Web protocols such as Javascript, Cascading Style Sheets (CSS), Document Object Model DOM, and others. Browser compatibility issues continue to make standardization difficult.

#### **Download**

To copy data from a primary source to a secondary one. You can download information from a server to a workstation, or from the Internet to your laptop.

#### DPI

Dots-per-inch; often used to describe print, and scan values.

#### Dreamweaver

WYSIWYG web authoring tool from Macromedia.

# DV (digital video)

Digital video is video that is captured, changed, or edited digitally.

#### **DVD**

Digital Video Discs are reverse compatible with the CD format. These discs hold 4.7 to 14 GB.

## **DVDROM**

A read-only DVD.

#### Email link

An email link is a link (mail to:jrjohns@ilstu.edu) that activates the end-users email account instantly addressing a letter to the desired recipient. The parenthetical example would go into the link line of the properties window in Dreamweaver to email a letter to me.

# **Explorer**

Microsoft's Web browser.

# Export

To send from one program or device to another.

# Fill (transparent 1x1)

Transparent 1x1 pixel GIF file can be used as placeholders in HTML. Changing the width and height properties of the object allow you to make it any size you need its transparency keeps it out of the visual scene.

#### Fill/patterns

In Photoshop we can create patterns out of any part of an image that can be used to fill any selected area in that image or others. Patterns can be used to help generate consistency across a Web site by filling all buttons, banners, etc with a pattern.

#### Flash

Flash uses vector-based imaging, and timeline based editing that allow for a variety of sophisticated Web techniques to be used relatively reliably. Flash relies on a plug-in, which must be downloaded by the end-user in order to run.

#### Flow chart

A flow chart is a representational model of a hierarchical structure. These models can also represent the digital file folder structure located within windows giving you a map to the various elements within your site.

## Forms

A form is any area in a Web document that a user can enter information. This information can then be sent to a program to process the information.

# Frame delay & disposal

Animation options that are part of the GIF file standard.

#### **Frames**

Compatible with all modern browsers, frames are a method for splitting the single window that is your browsers viewing area into multiple windows or frames. Groups

## Frameset

A group of frames is called a frameset; also in HTML <frameset></frameset> establishes/ends a group of frames.

#### **FTP**

File Transfer Protocol. An internet protocol used to send and receive files.

#### GIF

Graphics Interchange Format. Gif files are bit mapped, lossless, and they can contain transparency and animated commands. Their downside is that they have a limited number of colors to make images with. Highly photographic images or images with high levels of graduation do not make good .gif files.

# Grayscale

A grayscale image uses only black & white and shades of gray to represent an image. On most computers that limits you to 256 shades of gray, usually more than enough to get decent results.

## Hand coding

Hand coding is generating Web content without the aid of a Web authoring tool like Dreamweaver. WYSIWYG doesn't always get you what you need, particularly if you are working with many complex elements. Sometimes hand coding can be the only way to get what you really want.

## Hard drive

A device that reads and writes data onto a hard disc or discs about the size of a CD. Hard discs come in two major standards IDE and SCSI. SCSI are typically faster and more expensive drives.

#### Hierarchy

A rank ordered series. Most Web sites are arranged hierarchically, having a main area leading to 6 sub-areas and so on.

## Home page

Your home page is the first HTML page users will see when they enter your site through the front door. Typically these files are named index.htm(l)

#### Horizontal rule

In Web design a horizontal rule creates a horizontal border edge that can be used to separate page elements.

#### HTML

Hyper Text Markup Language. Language and protocols used to write documents on the WWW.

# **HTML** tags

HTML tags (e.g. opening and closing tags for tables) are the words of the HTML language.

## <a href="URL"></a>

Creates a hyperlink

# <body></body>

HTML tag indicating the visible on-screen objects.

#### <head></head>

HTML tag that sets off the title and other information such as javascripts.

# <img src="name">

HTML tag that adds images

## <meta>

HTML tag that is used to reference information on your site to indexes

## <noframes>

HTML tag that is only seen by browsers that are not frames compatible. Considered a courtesy if much of your audience is running pre- 3.0 Browsers.

## 

HTML tag indicating a table.

#### <title>

HTML tag that places the document name on the title bar.

# Image map

An image map is a graphic that has specific areas that are user selectable. In Dreamweaver if you have selected an image in its properties window you can click on the mapping shapes to create selectable areas. Remember when using this technique to also incorporate the alt text in to help cue the site visitor. In this way one image of a radio could link you to the channel numbers on the dial if you clicked in the different number's areas.

# Image optimization (gif, jpg, psd)

Images can be optimized for the Web in two major formats .gif, and .jpg. In Photoshop you use the File<Save for Web command to optimize your files. Keep in mind that working files are optimally psd files. These files maintain Photoshop specific information, like layers and transparencies.

# **Import**

To bring in from another device (like a scanner), or another program (like OCR).

#### Indexed color

Indexed color is a limited palette color scheme (max. 256) used to limit the size and maximize the accurate reproduction of your sight.

#### Internet

The Internet is a Global network connecting millions of computers. Most users connect through an ISP.

#### **Intranet**

Small private network using the same protocols as the Internet but restricted to internal use.

## **Invisibles**

Invisibles are html elements that are not seen on screen through the browser. Anchors and comments are invisibles.

## **ISP**

Internet Service Provider is a company that provides access to the Internet.

# Java (applets)

Java applets are programs downloaded from a server designed to run within a browser. They can be ideal for complex user interactions because they can contain complex instructions for data gathering, navigation, or curser interactions.

## **JavaScript**

JavaScript is a scripting (programming) language developed by Netscape to allow for more dynamic Web site design. Similar in some ways but unrelated to Java; JavaScripts are embedded into the HTML and can be reused for other purposes.

#### JPG(jpg, jpe, jpeg)

Joint Photographic Experts Group. Jpg is a lossy compression scheme that is able to reproduce photorealistic images with massive compression ratios.

## Jump to editor

Some programs allow you to jump to useful related software by using a jump to button or command. Jumping to an image editor from a Web authoring tool and back again, for example.

# **ImageReady**

Adobe's ImageReady is an image finishing program that is bundled with Photoshop. It can be used to create animations, rollovers, and imagemaps.

#### Kbs

One thousand bytes-per-second.

# Layers

In Photoshop layers stack image elements to allow you to change layers independent of each other. With your text on its own layer you can apply layer effects (bevel, shadows, etc) to the text without applying it to all other layers.

#### Links

A link (or hyperlink) connects one area of a Web site to another, or to the rest of the Web.

# Logos

A Web Logo can be a powerful graphic device. Logos can be used on every page for a link to the home. A logo can be the design base or element in all backgrounds, buttons, banners, and even text fields.

# **Lossless compression**

Lossless compression schemes do not lose any information in the compression process and can be decompressed without loss of quality. Gif, png, wav and tiff, are all lossless compression schemes.

## Lossy compression

A lossy compression scheme often can reproduce higher quality images and sounds with smaller file sizes. The downside, of course is that you lose some quality if the image is decompressed because to achieve higher compressions like jpg and MP3 files you have to throw out certain information.

## Measurements (MB, GB, Kb, byte, bit)

A bit is a single unit of information (1 or 0), a byte is comprised of 8 bits, a kilobyte (1,024 bytes), megabytes (1,048,576 bytes), and gigabytes (1,073,741,824 bytes). Floppies, for instance hold 1.4 million characters (1.44MB, or 1440Kb), approximately 3,000 pages of text.

# Megapixel

Measurement for digital photography. A 1 megapixel image is an image that is comprised of one million pixels. Digital cameras are measured in part by the megapixels they can capture in a single image.

#### MHz

Megahertz. One MHz represents one million cycles per second. The speed of microprocessors, called the clock speed, is measured in megahertz. The clock speed determines how many instructions per second your computer can handle and with that is a key determinate of its power.

#### **MIDI**

Musical Instrument Digital Interface. Midi is musical a standard for controlling digital devices like synthesizers and sound cards. Because midi files only contain the musical information related to the sound (tone, pitch, instrument, etc) and not the sound itself they are very small compared to most other Web sounds. Most midi files are not recording masterpieces and most soundcards do a poor job of reproducing musical instruments well, and so midi files are not common Web media.

#### MP3

MP3 is short for Moving Picture Experts Group, Audio Layer III, and is a compression format that shrinks audio files with little sacrifice in sound quality. A standard MP3 compression is at a 10:1 ratio, and yields a file that is about 3-5 MB each track.

# **Naming conventions**

Different servers use different file naming conventions. It is important to know what these conventions because you may not be able to upload and/or use files names outside the naming conventions of your server. If you always keep all file names 8 characters or less all lower case your files will work within all common naming conventions.

## **Navigation**

Navigation refers to all on screen devices used to move a user from one area of a site to another. Site navigation is one of the crucial elements for site usability.

## **Navigator**

Netscape's Internet browser.

#### **Nested framesets/tables**

A frameset that is inside another frameset, or a table that is completely within another table cell is considered nested.

#### Netscape

James H. Clark and Marc Andreessen founded Netscape Communications Corporation in 1994. Their principle product was and is Web browsers.

#### OCR

Optical Character Recognition. OCR is software designed to create electronic versions of scanned documents. These electronic versions can be opened in standard word processing software.

# **Page Properties**

The page properties window in Dreamweaver allows you to insert your titles and page backgrounds, text and link colors, and other basic properties.

#### **Palette**

A palette is a group of colors used for a specific purpose. Web site continuity is greatly enhanced through the use of a palette of site-wide colors. Palettes can be set up to imply areas just as colors can as well. Giving each area a different set of colors, or palette, can be a way to cue users in on where in the site they are.

#### **PDF**

Portable Document Format. PDF format is designed to allow desktop publications to be transported and shared over the internet but maintain the look, font, spacing, and printability of the original file. Adobe Acrobat is used to read and write PDF files the reader is free.

# **Photoshop**

Photoshop is the preeminent imaging software in the world. From magazine photography, to Web design, Photoshop is the tool for finishing images.

#### **Pixel**

Short for picture element. A single point in a graphic.

#### Pixel based

Pixel based graphics a generated by placing colored pixels in positions on a grid. Photorealistic images are always pixel based graphics.

## Plug-in

A plug-in is a program that attaches to another (usually) more significant program to perform specific functions. Flash, QuickTime, and many other media players are plugins.

#### **PNG**

Portable Network Graphics. "Ping" files are very similar to gif files, except that it can use millions of colors. This format shows a lot of promise, but not a lot else. Few designers have utilized the format because of compatibility issues, and because of the high quality of the current standards jpg and gif.

## **Prevent layer overlaps**

Prevent layer overlaps is an option in the layers window of Dreamweaver. Checking this option forces your layers not to overlap one another. Overlapping layers cannot be converted into tables. Checking this option allows you to make a clean conversion to tables.

#### **Preview**

Previews in software are used to allow you to check your work in its intended environment. Dreamweaver allows you to preview your work in your browser. Word lets you preview what your document will look like on a page.

# **Properties**

Property is a term used within most software. Property options usually allow changes to specific objects in a given software environment, Fonts, images, pages, printing, and other objects can be manipulated through accessing their properties.

#### **PSD**

Photoshop Document format. Always save original graphics in PSD format. In their native format PSD files support all available image modes (Bitmap, Grayscale, Duotone, Indexed Color, RGB, CMYK, Lab, and Multichannel), guides, alpha channels, spot channels, and layers (including adjustment layers, type layers, and layer effects).

## Pull down menus

Pull down menus are navigational devices that expose a list of options (often beneath a row of text options with a letter underlined) when the user rolls their cursor over a trigger.

## QuickTime

Media player, and media format developed by Apple. Quick time is among the leaders in the video market online. Preloaded and integrated into Apple computers, QuickTime also finds its way onto millions of PCs.

#### **RAM**

Random Access Memory. Memory that can be accessed at any point. Unlike disc based memory such as a hard drive or floppy, which has to move a read head along a platter or disc of information, RAM can access any point of its data without traveling through other portions.

## Real

Real is a media player and format. Real supports video and audio compression and will play almost any other form of media as well. Real also can incorporate SMIL which allows it to be used interactively much like flash.

# Resolution

Resolution is the sharpness and clarity of an image. In the digital realm resolution is measured in dots-per-inch, and pixels-per-inch.

#### RGB

Red, green and blue. RGB colors are the colors used to generate images on the Web.

#### Rollovers

Rollovers are common JavaScript behaviors generally used to highlight links.

# Sample rate

The rate per second that music is sampled. CD quality sound is sampled at 44Mhz (44,000 samples/second).

# **Scanning**

Scanning is the process of digitally recording an image by passing a photo sensor over it. Typically scanners are used to scan books photographs and negatives, but they can be used to scan 3D objects and some scanners can ever scan in 3D.

## **Screen resolution**

Your screen resolution is the number pixels wide by the number high. Some common screen resolutions are 640x480, 800x600 and 1024x768. Usually people with larger screens use higher resolutions because they allow for larger work areas in menu driven software. Small screens reduce text size to unreadable when set at too high a resolution.

# **Scrolling**

Scrolling occurs when you use a scroll bar, mouse scroll wheel or your arrow keys in a document. Scrolling can occur both horizontally and vertically. Web designers must make all attempts make sites only scroll in one direction for as many screen resolutions as is possible.

# Search engine

Search engines are the most common entry points into the Web. Web sites like Yahoo! Excite, HotBot, Lycos, and countless others allow users to enter keywords in order to locate Web sites.

#### Server-side

Server-side elements are elements that are generated and dealt with on the server end of the Internet. Server-side applications are reserved primarily for data collection, secure information retrieval, and other specialized applications.

#### Site map

A site map is a hierarchical model of a Web site in a very basic (Windows-like) form. Dreamweaver will generate a site map for you if you define your site for it by answering a few basic site questions (where's it at, where's it start, etc).

## Size issues (bandwidth)

The technology level of the average computer user has grown exponentially over the last five years the speed at which that same user connects to the Internet has barely moved. As a result many potentially great ideas are not advancing as quickly as they might otherwise. If all things were equal consumers prefer sites that interact, move, dance, and sing, but all things are not equal. Sites have reworked their content because consumers have said they would rather see it now than see it beautiful.

#### Source code

Source code is instruction set your computer receives in order to generate the Web sites you go to. Essentially the source codes combined with the graphics (or media) in the correct folder structure (hierarchy) are the web site.

# Splash page

A splash page is a front page that presents a simple logo or graphic and possibly a loading animation. A splash page allows you to check them for browser compatibility and present a simple, straightforward, and quick first impression. Done well these pages set the tone for the whole site.

# **Streaming**

Streaming is a term for media and players that are able to play a file before it is completely downloaded. QuickTime 4, for instance will play a video as soon as it thinks it has enough to keep playing ahead of the download.

# **Style Sheets**

A style sheet is a file that defines the layout of a page, everything from kerning and leading, to fonts sizes and colors.

# Swap image

Swap image is a JavaScript behavior that is used to create rollovers.

# **Targeting**

In HTML you can target a link to open in any one the frames you might use in a frameset. Using targeting in this way you can leave navigational elements on screen constantly to allow for instant navigation to your entire site at all times. Targeting can also be used to break out of a frameset when leaving a frame-based site. By targeting Top you can cause your links to break out of their frameset so they do not load within your site.

# **Templates**

Templates exist in most production software. You can use templates in Photoshop to create new categories of buttons. In Dreamweaver you can save your site as a template and restrict areas from changes for ease of maintenance, site consistency and stability.

# **Tiling**

Tiling is repeating an image in order to fill up a shape. Backgrounds are usually tiled elements to reduce size.

# Transparency

Some image formats allow parts or layers of an image have transparency options. GIF files can use transparencies on flattened images, and PSD files can have very sophisticated layers of transparent elements.

## **Troubleshooting**

Going through a list of common, easy solutions to a given problem. Alternately troubleshooting can mean searching through a site to find any problems.

## **TWAIN**

TWAIN is the standard interface between scanners and software. It is also becoming a standard interface for digital cameras. It's supposed to be a rumor that it stands for Technology Without An Interesting Name, but a good way to remember it just the same.

#### **Unusual characters**

HTML can produce all kinds of unusual characters. Copyright symbols, Trademark symbols, British pound symbols and many other non-standard text characters. In Dreamweaver these can be accessed through the objects window in the characters pull down. All characters are represented in HTML form as well and can be found at many online, and text sources.

# **Upload**

Moving data from a secondary source (such as a personal computer) to a primary source (such as a server) is known as uploading.

#### URL

Uniform Resource Locator. Address of all Internet items.

#### **Vector based**

Vector based graphics are defined and reproduced mathematically and therefore are resolution independent. This means that you can enlarge them to twice the size of the screen and they will still be the same size in bytes as a 1-inch version. Vector-based graphics are what make Flash so flashy and are certain to prove useful in future aps.

# Visual metaphor

A visual metaphor is a design concept that uses a related object for structural elements of a site. An example would be a library site using the metaphor of the card catalog as a navigational element.

## **WWW**

World Wide Web. Worldwide system of Internet servers and surfers who use HTML to transfer create Internet messages.

#### WAV

Sound format developed by Microsoft and IBM.

#### Web safe colors

Each browser supports 256 colors; unfortunately only 216 of these colors are the same for both browsers. This subset of colors is known as Web safe colors.

#### **WS-FTP**

One of the most common software devices used to FTP files on a PC.

#### **WYSIWYG**

What you see is what you get.

#### **XML**

Extensible Markup Language. XML is a powerful tool for formatting Web pages and may supplant HTML if the standard takes hold.

#### **YAHOO**

According to Headline News (Jan. 11, 2001), Yahoo has 180 million users. It is the most common port of entry for users, and the most used site.

# Zip

Zip is a disc and a drive from Iomega that can be used as an extremely large and durable floppy disc. A Zip disc holds 90Mb of information or about 70 floppies worth. Zip is also a term used for a file that has been compressed using the Zip format (unrelated).

# Web Design—Course Links

# **Basics of Web Design—Joel Johnson**

The "learningwebdesign.com" Web site http://www.learningwebdesign.com/

Best price book search <a href="http://www.bookfinder.com">http://www.bookfinder.com</a>

Javascript.com a great source of JavaScript information and code <a href="http://javascript.com/">http://javascript.com/</a>

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C|Net is a great source for technology news, reviews, and price searches <a href="http://www.cnet.com">http://www.cnet.com</a>

Google is one of the best search engines out there, clean, simple, and effective <a href="http://www.google.com">http://www.google.com</a>

The World Wide Web Consortium—the last word on what the Web really is <a href="http://www.w3.org/">http://www.w3.org/</a>