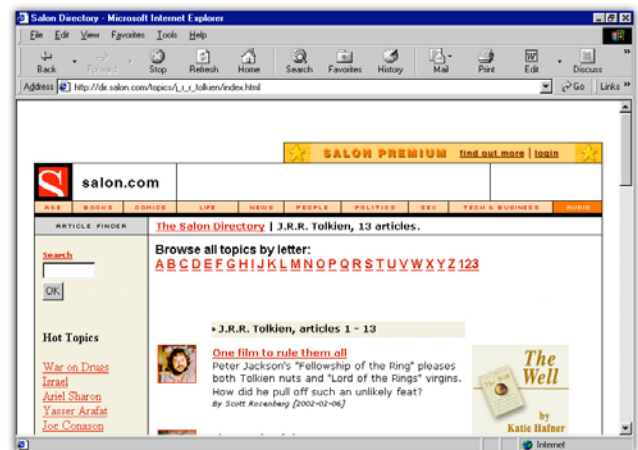# Web Typography

Characteristics

- o Type is displayed at between 72 and 110 dpi, much lower than in print.
- o Pages are rendered on the fly, and presentation varies depending on a number of factors:
    - ▪ Operating system (Mac, Windows, Linux)
    - ▪ Web browser maker (Netscape, Mozilla, Internet Explorer, Safari, Opera)
    - ▪ Web browser version (3.0, 4.0, 5.5, 6.0, etc.)
    - ▪ User preferences (adjustments to the default typeface, size, colors, etc.)
    - ▪ Fonts installed on the end-user's system
- o Consider your typography as mere *suggestions* rather than strict requirements.
- o Browser Samples:
    - ▪ Note the differences in the amount of content displayed and in the size of the fonts between the two operating systems.

Internet Explorer 5.2 on Mac OS X 10.2

Internet Explorer 5.5 on Windows 95

Why is type on the web so bad?

- o Initial goal of the web was to share physics documents with researchers around the world. Academics focused on the structural logic and portability of the information, not the visual presentation.
- o Early HTML documents used container tags (`<h1>`, `<h2>`, `<p>`, etc.) to create a visual hierarchy, not to precisely control the appearance of a page.
- o Older browsers emphasized the ability to customize font settings—it was considered a feature at the time.

Has it gotten better?

- o When designers began working on the web, more visual control was desired.
- o Netscape introduced the `<font>` tag in 1995 to allow for better control of text, including size, face and color.
- o Today, designers are learning and using Cascading Style Sheets (CSS).
    - ▪ Style sheets are the best of both worlds: they preserve the structural logic of a page while allowing for visual control of its' presentation.
    - ▪ Support for CSS is inconsistent across different browsers and computing platforms, though it's better than it used to be.
    - ▪ CSS offer superior control over page layout, but is more technical in nature and can be difficult to learn.

Type differences between operating systems
- o Macintosh and Windows computers use a different default DPI setting.
  - ▪ 72 DPI for Macs
  - ▪ 96 DPI for Windows
- o When font sizes are specified in points, the screen DPI is used to calculator the number of pixels to use to display a character.
- o Because of this, fonts have always looked a few sizes bigger on Windows than they do on the Mac. This has made it difficult to consistently display type, including line breaks and other common typographical adjustments, across operating systems.
- o Even on the same operating system, different browsers will display type and other elements differently.
- o Relative sizes of font display:

Chart from the online version of *Web Style Guide*.

- o Recommendations:
  - ▪ Design your pages so that exact text sizes don't matter that much. Design text boxes in which text can freely flow, and be OK with pages that scroll a bit more on a PC than on the Mac.
  - ▪ Use graphic text instead of HTML for areas that require exact type sizing. Navigation elements are often good candidates for this treatment.
  - ▪ Always make sure your smallest font size is readable on the Mac. Small fonts on pages designed exclusively on Windows often are illegible on the Mac. Test your pages on both platforms to make sure they look correct.
  - ▪ Use Cascading Style Sheets and set font sizes in pixels.
- o **Note:** The default DPI setting in current Macintosh browsers is now set to emulate Windows standards (16pt font size, 96 dpi).
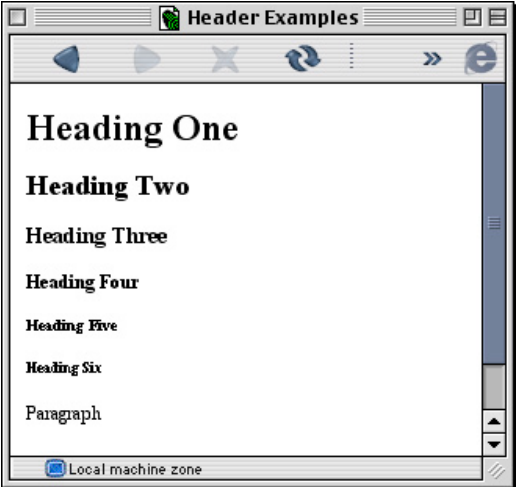
Text Flow
- o By default, text flows as far right as it can before returning and beginning a new line. Without any constraints, this is always the right-hand side of the browser window.
- o As the browser window is re-sized, the text on a page re-flows to fit the new window size.
- o The most common way to restrict text flow is tables.
- o You can use Dreamweaver's Table Layout Design mode to draw cells that can constrain text flow.

Element Classification

Block-level Elements: Headers and Paragraphs

- o Block-level elements were originally the only way to format text, and end-users could control their presentation (font, size, etc).
- o These elements describe the information hierarchy, or structure, of the page.
  - ▪ Header elements contain header or sub-header copy
  - ▪ Paragraph elements contain body copy
  - ▪ List elements contain lists of items (ordered, unordered, term/definition, etc)
- o Block-level elements create a new paragraph when they are closed.
- o Header elements are ranked in order of importance (`<h1>` is first, `<h2>` is second, etc.).
  - ▪ Headers faded in popularity when the `<font>` tag was introduced, but are now making a comeback as browsers improve support for CSS.
- o Why use block-level elements?
  - ▪ Allows you to establish the structural hierarchy of a page.
  - ▪ Allows you to make use of the power of CSS.
  - ▪ Search engines index content better when it is enclosed in block-level elements.
  - ▪ Allows users with disabilities who use alternative HTML readers to access your site.

Default Heading and Paragraph Sample	HTML

	`<h1>Heading One</h1>`
	
	`<h2>Heading Two</h2>`
	
	`<h3>Heading Three</h3>`
	
	`<h4>Heading Four</h4>`
	
	`<h5>Heading Five</h5>`
	
	`<h6>Heading Six</h6>`
	
	`<p>Paragraph</p>`

Browser: Internet Explorer 5.1 for Macintosh, Default font size: 12pt.	

Inline Elements

- o Inline elements live within block-level elements.
- o These elements do not create a new paragraph after they are closed.
- o Common inline elements include anchors (`<a>`), images (`<img>`) and bold and italic (`<b>` and `<i>`).

List-item Elements

- o Defines content as being part of a list.
- o Only includes the `<li>` element.
- o Because they are by definition part of a list, they can be numbered automatically by a Web browser.

Type Formatting Attributes

Typeface

- o In theory, you can use any font you want on a web page. However, the fonts you use **must** be installed on the end-user's computer.
- o Complicating things, operating systems have different fonts installed by default.
- o To ensure pages look the same on any computer, a common group of **font lists** has emerged.

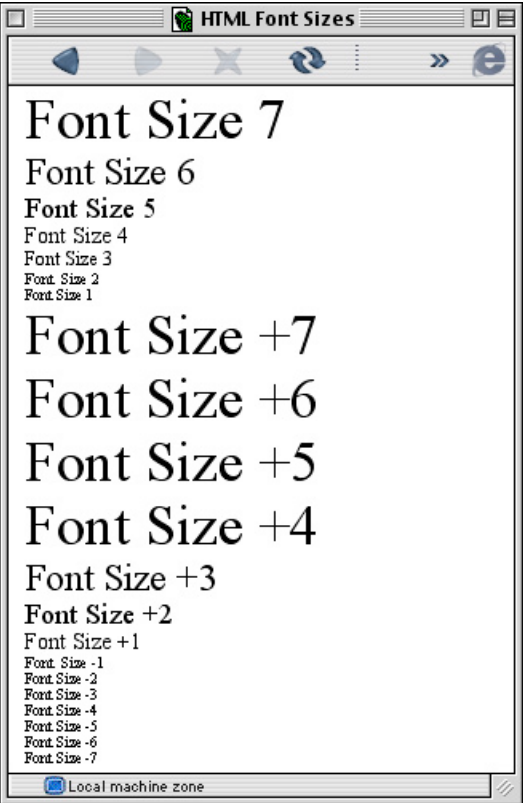| Font	Font List
Arial	Arial, Helvetica, sans-serif
Times New Roman	Times New Roman, Times, serif
Courier New	Courier New, Courier, mono
Georgia	Georgia, Times New Roman, Times, serif
Verdana	Verdana, Arial, Helvetica, sans-serif

- o Font lists help ensure that text will look similar to what the designer intended, even if the end-user lacks precisely the desired font.
- o How they work:
  - ▪ If a user's computer does not have the first font in the list installed, then it will try the next one. It repeats this until it reaches the end of the list.
  - ▪ If it finds none of the fonts in the list, the last item specifies the *font style* and applies the user's defaults for that style.
  - ▪ In the Verdana example above, if a user does not have Verdana and Arial but does have Helvetica, then the browser will display the text using Helvetica.
- o You can create and modify the default Font Lists in Dreamweaver, but the default sets are the most common and are strongly recommended.
- o Browser Defaults
  - ▪ The default font is Times, though users are able to alter this setting.
  - ▪ Users can also set defaults independently for proportional, serif, sans-serif and fixed-width fonts.
- o Using specific fonts other than the standard sets:
  - ▪ If you must have a specific font that is not part of the common sets, it's best to set the text in Photoshop or ImageReady and save it as an image.
  - ▪ However, you should only use graphics for small areas of text.
- o Font of choice these days: Verdana

Color

- o Colors can be applied to any text selection.
- o HTML text uses Hexadecimal colors.
- o Changing a font color in Dreamweaver:
  1. Select the type you wish to change.
  2. Select either Text > Color…, or click on the Color Box in the Properties panel.
- o You can also use CSS to set colors by defining classes and applying them using the CSS palette.

— Web Typography —

Size

- o HTML fonts sizes are significantly different than print sizes.
- o Font sizes are determined by their relationship to the default font size, called the **Base Font**.
- o An HTML font size of 3 displays the Base Font at the default point size. This is also the default font size.
- o Base Font Size Comparisons:
    - ▪ Macintosh: Size 3 == 12 point == 12 pixels on screen
    - ▪ Windows: Size 3 == 12 point == 16 pixels on screen
- o HTML allows for 7 steps of font sizes: 1 – 7 (don't ask why).
- o You can either specify the font size directly (`size="2"`), or specify how many steps larger or smaller than the base font the font size should be (`size="+3"`).
- o HTML Font Size Samples:
    - ▪ Note that +4, +5, +6 and +7 all produce exactly the same size fonts. The same goes for sizes −2 through −7.

HTML Font Sizes	HTML

	``Font Size 7
	``
	``Font Size 6
	``
	``Font Size 5
	``
	``Font Size 4
	``
	``Font Size 3
	``
	``Font Size 2
	``
	``Font Size 1
	``
	``Font Size +7
	``
	``Font Size +6
	``
	``Font Size +5
	``
	``Font Size +4
	``
	``Font Size +3
	``
	``Font Size +2
	``
	``Font Size +1
	``
	``Font Size -1
	``
	``Font Size -2
	``
	``Font Size -3
	``
	``Font Size -4
	``
	``Font Size -5
	``
	``Font Size -6
	``
	``Font Size -7
	``

Browser: Internet Explorer 5.1 for Macintosh, Default font size: 12pt.	

- o Size Recommendations:
    - ▪ ~~In general, it's visually more consistent to specify the font size directly (2, 3, 4) instead of using the increase or decrease modifier. (+2, +3, -4, -3)~~
    - ▪ ~~Use size 2 or 3 (the default) for body copy.~~
    - ▪ ~~Use size 1 for captions, footers and other small text.~~
- o **New Recommendations:** Use Cascading Style Sheets to control font sizes.

Alignment
- o HTML primarily allows left, center and right alignment.
  - ▪ Text justification is possible but not recommended.
- o Alignment is applied to any text within a paragraph.
  - ▪ Insert a paragraph break (return/enter key, `<p>`) to isolate a section of text and apply alignment independently of other paragraphs.
  - ▪ Copy connected by soft returns (shift-return/enter, `<br>`) will align together.

Indents
- o HTML provides simple paragraph indenting using the `<blockquote>` tag.
- o Indents bring a paragraph's margins in about five characters from both the left and right of a paragraph.
- o Multiple indents can be used to increase the level of indentation.
- o In Dreamweaver, first select the paragraph you wish to indent, then select Text > Indent (Apple-Option-] on the Mac, Control-Option-] on Windows).
- o First-line indenting of paragraphs is generally not done on the web.

Styles
- o HTML supports most common type styles.

Style	HTML
Bold	`<b></b>` or `<strong></strong>`
Italics	`<i></i>` or `<em></em>`
Underline	`<u></u>`
~~Strikethrough~~	`<strike></strike>`
Super^{script}	`<sup></sup>`
Sub$_{script}$	`<sub></sub>`

- o Styles can be found under Text > Style.
- o Bold and Italic are also found in the Properties panel.

Special Characters
- o Dreamweaver includes a Character tab in the Insert palette that includes common special characters
- o Select special characters:

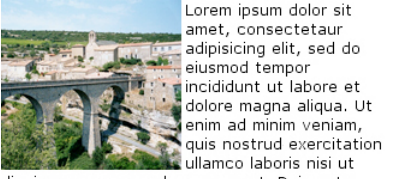| Character	HTML
< >	`< >`
©	`©`
®	`®`
™	`™`
"" (Curly Quotes)	`“` and `”`
Non-breaking Space	` `

- o About the non-breaking space:
  - ▪ Web browsers ignore any occurrence of two or more spaces in a row.
  - ▪ Multiple spaces are treated and displayed as a single space.
  - ▪ To force the browser to display more than one space, type **option-space** to insert a non-breaking space.

Lists
- o   Allows you to create formatted and intended lists.
- o   Similar to outlines in word processing programs.
- o   List Types
  - ▪ Ordered Lists (1, 2, 3, n; `<ol></ol>`)
  - ▪ Unordered List — aka Bulleted List (•; `<ul></ul>`)
  - ▪ Definition List (Word/Definition combinations; `<dl></dl>`)
- o   List can have multiple levels of indentation.
- o   List items must have paragraph returns (return/enter key) between each item, *not* a soft return (shift-return/enter).
- o   There are many other list styles that can be found under the List Item… button in the Properties Palette.

Image Alignment
- o   HTML allows you to place images inline with text.
- o   Images are anchored to a specified place in the text, and that position in the text is based on the text flow.
- o   You cannot float images above text like Illustrator or Quark.
- o   By default, the bottom of an image is aligned with the text baseline.
- o   Recommended Alignment Options:

Lorem ipsum dolor sit amet, consectetaur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut	Lorem ipsum dolor sit amet, consectetaur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut	Lorem ipsum dolor sit amet, consectetaur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut
Bottom (default) Aligns the baseline of the text to the bottom of the image	**Middle** Aligns the baseline of the text to the middle of the image	**Top** Aligns the image to the tallest part of the object (image or text)
Lorem ipsum dolor sit amet, consectetaur adipisicing 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. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.	Lorem ipsum dolor sit amet, consectetaur adipisicing 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. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.	
Left Left-aligns the image and wraps text to the right	**Right** Right-aligns the image and wraps text to the left. Note the placement anchor at the top-left of the text.	

- o   The Left and Right option create the most natural-looking text wrap.
- o   Note: Options presented in Dreamweaver that are not in the table above are *not* standards and will not work in future browsers.