



Scholarship ON THE Web

managing & presenting footnotes & endnotes

Note: This demonstration frankly is most useful for modern, CSS capable browsers – (IE 6 (Win), IE 5.2 (Mac), Safari 1.1 (Mac), Firefox 1.0 (Win & Mac), and Opera 7.54 (Win & Mac). These examples will likely fail in older browsers, particularly NN 4.x, (Win & Mac) and IE 5.x (Win) because these browsers do not honor several of the CSS (Cascading Style Sheets) properties or interpret them in non-standard ways. Because CSS is still evolving and because browsers interpret some CSS properties differently, results can also be unpredictable across platforms and across browsers. Readers are advised to consult the documentation accompanying their HTML/XHTML editing software for CSS styling use. These examples are, moreover, aimed at academics who wish to put their research on the web. As such, it employs class selectors in combination with ID selectors for the most part as well as a simple, CSS tableless design. To be sure, this is not the best approach, but it is the most accessible and amenable to visual HTML/XHTML editors. There are also several examples that move outside HTML/XHTML and use other applications to create treatments that can be integrated into a scholarly web project.

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essay

The superscripted footnote/endnote reference mark and its accompanying footnote/endnote text and reference mark are the hallmark of scholarship in the humanities. It is the “breadcrumb trail” that allows scholars to gauge the quality of the evidence underpinning research and to follow the evidentiary path. Annotation, whether in the form of footnotes or endnotes, should be something that the Web should do well, given its linking capability. Readers, if they so desire, can immediately see the nature and source of the researcher's evidence.

Yet, superscripting a footnote/endnote reference mark in the text on a web page is not as straightforward as it might appear. When authors first approached footnoting/endnoting, they used HTML superscript tag <sup>. The <sup> tag, however, did not (and does not) take into account line leading (the space between lines). As a result, the line spacing becomes unsightly and augments the already difficult task of reading or scanning on the Web. Disappointed, early authors turned to the inline, bracketed number and linked the reference marks to their corresponding textual notes with anchors. Nonetheless, some humanists sought to preserve the traditional superscripted reference and line spacing. One major academic press went so far as to con-

catenate annotation information into a single paragraph reference and *subscript* the reference mark to accommodate the line leading.

Such an approach, albeit extreme and wrong-headed, reflects the challenges inherent in the problem and the scarcity of resources. While online queries and examples always provoke a flurry of interest, except for Jean Baptiste Piggen's [Macro-Typography: A Style Guide](#) and [Jukka Kopela's Footnotes \(or Endnotes\) on Web Pages](#), discussions of endnote/footnote presentation are few and far between. For example, "[From Footnote to Sidenotes](#)" uses CSS3 attributes to display the reference text, and a [Webgraphics](#) blog entry furnishes responses to "From Footnotes to Sidenotes." The W3C, the governing standards body for the web, has also debated the endnote/footnote problem from time to time. An early version of HTML, circa 1995, included both a <note> and <fn> tag intended for endnotes or glosses; vendors were not interested in developing the former, and the latter disappeared from the HTML 3.2 specification. The W3C's "[Paged Media Properties for CSS3](#)" (1999) working draft includes an excellent outline of requirements for displaying footnotes/endnotes, but the extended discussion is limited to a single word: "placeholder." More recently, the W3C working draft, "[CSS3 Module: The Box Model](#)" (2002) may contain a partial solution to displaying endnotes in its discussion of additions to the float property. On another front, the W3C XHTML group has discussed the [inclusion of a <foot-note> element](#) (2003) in the XHTML 2.0 specification. All of these discussions, unfortunately, have produced no tangible results.

Aside from these observations, there is a more basic consideration. Web mandarins argue about whether or not footnote/endnote reference marks should appear superscripted on the web. As one W3C expert put it, "Again and again, why do you people need a special element to markup such cases?" Superscripting is, after all, a print-based standard, and the web is a different medium with its own evolving canon. Why superscript at all? There are three rationales:

- First, superscripting serves as a visual marker; it signals to the reader that the material presented in the preceding paragraph, block quotation, sentence, or inline quotation requires attribution or documents the basis for assertion. These concepts form the bedrock of scholarship and their typographical display should reflect that importance. Raising the reference mark above a line of text serves this purpose by setting the attribution or documentation apart.
- Second, superscripting serves as quick, visual shorthand. Because the eye travels from one superscript to the next in the body of the text, a reader can easily locate a signpost on the evidentiary trail. Placing a reference mark inline forces the reader to hunt through the text for the scholarly apparatus.
- Third, superscripting on the web preserves a print standard for material that will ultimately be printed. Most scholars in the humanities prefer to print their material and avoid downloading files when possible. Including superscripting in the screen version saves both the reader and designer a step or two.

In this light, the question is not why but how annotation should appear and function on the web. Scholarship on the web should:

- conform to web readability and legibility conventions
- promote usability
- present its scholarly apparatus in accepted typographic format
- bring the annotation closer to its reference mark and, thereby, more accessible to the reader
- accommodate and degrade gracefully in older browsers
- be able to be printed

This project explores several solutions for the problem of annotation on the Web. It also approaches the problem utilizing common XHTML and elementary CSS strategies. Although annotation for the web is possible in authoring programs such as Flash and Director, for most projects, the time and dollars involved illustrate the law of diminishing returns. Nonetheless, there are examples in this essay illustrating some of QuickTime's possibilities.

basics

To get the most from the examples, organize the basic structure of the web page. These examples use a combination of techniques adapted from: Projectseven's, [QuickDrawMacFly](#), MaxDesign's [Floatutorial: Tutorial 8. Liquid Two Column Layout](#), and MaxDesign's [CSS Centering](#). This next step involves setting up the basic styles for the page's parts. Although there is heated debate about the best way to approach font sizing, these examples use Owen Briggs' [Sane Font Sizes](#) proportional scheme to achieve relatively consistent font sizes across browsers and platforms.

The font-family declaration specifies several fonts. Lucida Grande is the system font for Mac OSX, and Mac users will likely have it on their systems. Vera Sans is a free font from the Gnome Project that finds its way onto many systems, and lucida is a Windows system font found on most Windows machines. The rest are standard web-centric fonts. Its initial step creates a baseline size for the body by including a font-size in the body tag. The body text style declares the basic font-family and font size. The **#content** describes the size and position of the container for the main text, and **p** details the leading and margins for the text's paragraphs.

body

```
{
font-size:76%;
background-color:#FFF2BF;
margin-top:0;
font-family:"Lucida Grande", "Bitstream Vera Sans", lucida, arial,
helvetica, sans-serif;
text-align:center;
}
```

```
#content p
{
font-size: 1em;
line-height: 180%;
margin-left: 2em;
margin-right: 2em;
margin-top: 1em;
margin-bottom: 1em;
color: #333333;
}
```

The next steps add a class style for the endnote text within the container as well as a rule that will separate the footnote or endnote text from the main text. The endnote text style “single-spaces” the reference text, makes it slightly smaller than the body text, and adds “space after” the paragraphs. (Actually, the line-height adds a bit more leading to the endnote text.) The div, **#rule**, is placed between the main text and the endnote/footnote text to set one off from the other.

```
#content .fntext
{
line-height: 120%;
margin-left: 2em;
margin-right: 2em;
font-size: 0.9em;
margin-bottom: 1em;
color: #333333;
}
```

```
#rule
{
width: 200px;
margin-left: 2em;
border-bottom: 1px solid #997A00;
}
```

The next step involves setting the link style for the body text or content. These declarations will render the link brown with a subtle, dotted underline, an orange on rollover, and a pale orange after a visit.

```
.content p a:link
{
font-size: 1em;
text-decoration: none;
color: #997A00;
border-bottom: 1px dotted #997A00;
}
```

```

.content p a:visited
{
text-decoration:none;
color:#E6B873;
border-bottom:1px dotted #E6B873;;
}
.content p a:hover
{
text-decoration: none;
color: #FF9900;
border-bottom:1px dotted #FF9900;
}

```

example #1: css simple

Example 1: CSS Simple— Academic web designers have approached scholarly annotation by avoiding the <sup> tag, using the more scientific form of the reference mark— a number enclosed in brackets, and linking the reference mark to the note with anchors. This iteration begins with the basic inline “bracket” with a twist. Instead of brackets, this strategy uses CSS to create a colored box around the reference number in the main text and a change in box color when the mouse rolls over the reference mark box.

```

#content p .refbox a:link
{
font-weight: bold;
color: #333;
background-color: #FFE680;
margin-right:0.1em;
margin-left:0.1em;
padding: 0.1em 0.3em 0.1em 0.3em;
font-size:0.8em;
text-decoration: none;
border:none;
}

```

```

#content p .refbox a:visited
{
background-color: #E6B873;
}

```

```

#content p .refbox a:hover
{
background-color: #FF9900;
}

```

What remains is creating a box for the endnote/footnotes. Notes that this technique chains several class styles together.

```

#content .fntext .endrefbox a:link
{
font-size: 0.9em;
font-weight: bold;
text-decoration: none;
line-height: 0;
color: #333333;
background-color: #FFE680;
padding: 0.1em 0.3em 0.1em 0.3em;
margin-left: 0.1em;
margin-right:0.2em;
border:none;
}

#content .fntext .endrefbox a:visited>
{
background-color: #E6B873;
}

#content .fntext .endrefbox a:hover
{
background-color: #FF9900;
}

```

Advantages: To implement this strategy is fairly straight forward, using the anchor element in an HTML editor. In that sense, the endnotes are readily available. The text is tidy, bereft of unsightly line leading disruptions and the awkward (and ugly) [1]; the body text and endnote text are proportional to one another; and the note box provides a larger “click zone.” This iteration also adds subheads to improve scanning. Anchors allow access both to and from the endnote reference mark and endnote text. **Disadvantages:** While this strategy tidies up the body text, it creates several other problems. First, the reader must jump back and forth between the main text and endnote. As a result, the reader may become disoriented. Although this approach is fairly easy, anchors are also often problematic. Too often designers forget to tag the return anchor and, in consequence, the reader is left at the bottom of the page and must scroll to his or her initial position. Second, except for the cursor switch, the viewer receives is no visual feedback. Finally, baseline reference mark format does not correspond to the standard common to the humanities. **Comment:** Different fonts have possess different default font sizes. Using a different font, Georgia or Trebuchet, for example, will involve some experimentation with the font-size.

example #2: CSS+

Example 2: CSS— This example will superscript the refererence marks in both the main text and in the endnote/footnote text by making two small changes — highlighted in orange. In this iteration, the reference style for the body text specifies the superscripting of the reference mark by combining vertical-align (super) and line-height (0) CSS properties. Essentially, the line-height property “pushes down” the vertical-alignment. As a result, the superscripted endnote refer-

ence mark does not disturb the line leading. The link definition and its kin furnish the rollover effect as they did in the previous example.

```
#content p .refbox a:link
{
vertical-align:super;
line-height:0;
font-weight: bold;
color: #333;
background-color: #FFE680;
margin-right:0.1em;
margin-left:0.1em;
padding: 0.1em 0.3em 0.1em 0.3em;
font-size:0.8em;
text-decoration: none;
border:none;
}
```

```
#content p .refbox a:visited
{
background-color: #E6B873;
}
```

```
#content p .refbox a:hover
{
background-color: #FF9900;
}
```

```
#content .fntext .endrefbox a:link
{
vertical-align:super;
line-height:0;
font-size: 0.9em;
font-weight: bold;
text-decoration: none;
line-height: 0px;
color: #333333;
background-color: #FFE680;
padding: 0.1em 0.3em 0.1em 0.3em;
margin-left: .1em;
margin-right:.2em;
border:none;
}
```

```
#content .fntext .endrefbox a:visited
{
background-color: #E6B873;
}
```

```
#content .fntext .endrefbox a:hover
{
background-color: #FF9900;
}
```

Advantages: Implementing this strategy is fairly straightforward, and easily accomplished with a commercial HTML editor, such as Freeway, Dreamweaver, or GoLive. Readers have access to the notes, and the document can be easily printed. **Disadvantages:** Because this strategy depends on CSS, some investment of time is required, but HTML editors have made using CSS much easier. Despite considerable ease of use, this strategy does not solve the problem of the reader's having to bounce back and forth between endnote and main text.

example #3: css super

Example 3: css super – This iteration streamlines the CSS by styling the <sup> itself.

```
#content sup a:link
{
font-size:1.5em;
line-height:0;
font-weight: bold;
color: #333;
background-color: #FFE680;
margin-right:0.2em;
margin-left:0.1em;
padding:0.1em 0.3em;
font-size:0.8em;
text-decoration: none;
border: none;
}
```

```
#content sup a:visited
{
background-color: #E6B873;
}
```

```
#content sup a:hover
{
background-color: #FF9900;
}
```

Advantages: To implement this strategy is, again, fairly straight-forward in most HTML editors. The key for those who use this technique is to add links or dummy links to the tagged reference marks. Otherwise, the effect will not be displayed. **Disadvantages:** The technique uses anchors to move between the text and the note.

example #4: pop-up

Example 4: pop-up – This version combines approaches outlined by Eric Meyer and further developed by Jean Baptiste Pignon. Because browsers interpret the sup tag's contents as smaller than the base text, the reference mark font size must be increased. Otherwise, the reference marks in the endnote/footnote text becomes illegible. **Advantages:** This strategy obviates the need for scrolling or jumping back and forth between the endnote reference and the endnote

text. Unfortunately, the anchors are no longer available. The endnotes still appear at the bottom of the page, however, the notes can be printed along with the text but not readily accessed by a sight-impaired reader. **Disadvantages:** Despite its sophistication, the pop-up method can be tedious; much of the heavy lifting is in the code and nesting the various tags demands extraordinary attention to detail. The position of the note must also be set at absolute, so the notes are not always near their reference marks. The italics and other text embellishments also disappear in current (7.5x) versions of Opera.

a span

```
{  
display:none;  
}
```

a:hover span

```
{  
display: block;  
background-color:#FFf2bf;  
font-weight:normal;  
font-size:1.3em;  
font-family: "Lucida Grande", "Bitstream Vera Sans", lucida, arial,  
helvetica, sans-serif;  
color:#333;  
line-height:120%;  
position: absolute;  
margin:0;  
padding:10px;  
left: 350px;  
width: 25em;  
z-index:200;  
}
```

example #5: quicktime 1

Example 5: quicktime 1 – Are there other ways of displaying text? Yes, one of them is QuickTime. This particular example was created in Ezedia QTI, a powerful but easily learned program. **Advantages:** QuickTime produces a more elegant presentation. The note is near the reference mark and within the browser port. Although this example, is not accessible to a sight-impaired reader, QuickTime is capable of meeting accessibility requirements. **Disadvantages:** The file is large – 1MB and is, therefore, only suitable for visitors with broadband internet connections.

example #6: quicktime 2

Example 6: quicktime 2 – Keynote, the Mac presentation program, can export QuickTime movies in a variety of formats, and Keynote manages text very well. This particular example was exported with the PNG codec to preserve the color and avoid the color shifts often associated with video codecs. **Advantages:** Keynote is plain easy. Anyone who does presentations in the program will be at home. **Disadvantages:** Keynote creates a large QuickTime file at 660K, albeit smaller than Ezedia QTI.

conclusion

It should be clear that there are a good many ways to achieve proper, well-formed, typographical correct annotation without resorting to bracketed numbers. Some, to be sure, are more difficult than others. Of the available options, the most well-rounded and versatile is Example #2, the combination of CSS and anchors to achieve superscripting. Any intermediate web designer can manage the CSS; the trick is to style the endnote reference mark with both vertical alignment (super) and line height (0). For those who have the expertise, CSS Pop-Up furnishes an elegant solution.

Many designers argue that long text pieces or text that cannot be broken into small paragraphs not appear on the web at all but be in a form that can be downloaded and printed. In their opinion, Adobe PDF technology offers the best solution. In a PDF, text and notes appear in typographically correct form, but a scholar must have Adobe Acrobat or other means to achieve the best possible results.

There may be occasions when a research paper or conference presentation needs to be on the web immediately, and providing a means to download a PDF file is one way to accomplish this. In any case, a scholar or designer should always furnish a version that can be printed either via PDF or a print style sheet. Information revolution or not, scholars are still “people of the text – the printed text.

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