

From the research and informal surveys that I have done, preference seems to be cultural. Europeans and Japanese prefer sans serif; Americans tend to prefer serif. Scientist seem to prefer sans serif; English majors seem to prefer serif.

Part of the "serif is more readable" milieu came from a study in the 1950s or 60s. But they did not test for cultural differences and what people see most.

Sans serif fonts grew in preference here in the States with the use of computers. Mostly due to the limited resolutions of the CRTs. Fonts with serifs displayed poorly.

"Many experts on typography have said that roman type styles are the best for extensive reading. . .

"Type styles to avoid are. . . the sans-serif faces similar to the Univers faces." Makuta, Daniel J., and William F. Lawrence, *The Complete Desktop Publisher*, COMPUTE! Publications, 1896, pp. 121-122.

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"Because sans serif typefaces are simpler, the letters don't have as many distinguishing features, making them slightly more difficult to read." Burnett, Rebecca E., *Technical Communication*, Wadsworth Publishing Company, 1990, p. 201.

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"Most art directors prefer roman to sans serif faces for body copy simply because readers are used to them. . .

"One objection to sans serif used to be that it was too 'vertical'; it did not have serifs to help move the reader horizontally across the line. But the newer sans serifs feature terminals that are sliced horizontally, and this tends to do the jobs serifs do. Also, the strokes of the newer sans serifs vary slightly in thickness, just as roman strokes do; sans serif type is now less monotonous in large doses.

"Sans serifs. . . are especially recommended where printing quality is inferior. Types with intricate serifs need superior printing in order to reproduce well." Nelson Roy Paul, *Publication Design*, Wm. C Brown Company, 1972, p. 104.

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"The only requirement for a successful body text font is that it should promote comfortable reading in relatively small sizes. In the U.S., we reserve serif styles for text. . . In Europe and elsewhere in the world, sans serif styles are used often for body text with equally good results." Browne, David, *Welcome to. . . Desktop Publishing*, MIS: Press, 1993, p. 178.

I've always heard that it makes a difference whether readers are reading on paper or online, and that reading was easier on paper with serif fonts but online with sans serif fonts, but I don't know the studies to cite. One thing to keep in mind is that what people say they prefer is not necessarily the same as what produces the most efficient reading performance.

Human Factors International (www.humanfactors.com) cited the following studies recently about fonts *online*:

Users prefer sans-serif fonts to serif fonts on the Web though there is no significant performance change. (Bernard and multiple other authors in multiple papers)

Users read 12 point fonts faster than 10 point fonts. (Bernard and multiple other authors in multiple papers)

Users read Times and Arial faster than Courier, Schoolbook, and Georgia. (Bernard and multiple other authors in multiple papers)

At font size 10, users prefer Arial, Courier, Comic, Georgia, and Verdana to Times. At 12 point, Arial is reliably preferred to Times. (Bernard and multiple other authors in multiple papers)

Here's a comment about fonts _on paper_ from another STC member, who has some good points:

I've long heard the claim that serified fonts are best for reading in blocks of text. Serified letters presumably have more distinguishing features, which presumably makes them more instantly recognizable as we process strings of words while reading (the latest research I know of on how we read is that we do NOT read word shapes ("bouma" shapes) so much as we parallel process the letters in a word and hence instantly recognize words we do already know; so, we read strings of parallel-processed, um, words). The alleged superiority of serif for paragraph-y texts would seem to be consistent with this research.

However, I say "presumably" and "alleged," because I don't believe the matter is as simple as "serif is better." Good typography, at least of the sort concerned with making our reading experiences less fatiguing, includes questions of type size, line spacing, line length, text blocking on the page, etc., all of which can be varied easily with either Word or Frame.

I can tell you one of the most unreadable journals I've ever seen. It's called boundary 2, and is set in a sans serif monofont that seems to stream together. So, don't forget the importance of kerning and leading. I've seen 6-point Verdana that's readable on screen with the appropriate leading.

Refer to the Chicago Manual.

14th Edition - 18.10

15th Edition - Appendix A, p. 803

It doesn't discuss which one is easier to read, but it gives several reasons for choosing one or the other and why the distinction is necessary. That is, serif for text and sans serif for headings to distinguish clearly between the two.

Usability.gov has a page about fonts:
<http://www.usability.gov/guidelines/fonts.html>

Text below is quoted from that page:

Guideline: Use either a familiar serif or sans serif font to achieve the best possible reading speed. Do not mix serif and sans serif fonts within the text, because it may decrease reading speed.

Comments: Research shows no reliable differences in reading speed or user preferences between 10-point Times Roman, Georgia serif fonts, Helvetica, or Verdana sans serif fonts.

Title: The Influence of Font Type on Information Recall.

Authors: Gasser, Michael1 michael.gasser@uni.edu Boeke, Julie1; Haffernan, Mary1; Tan, Rowena1

Source: North American Journal of Psychology; 2005, Vol. 7 Issue 2, p181, 8p

Title: Your Ph.D. in fonts.

Authors: Bradley, Helen

Source: Home Office Computing; Dec99, Vol. 17 Issue 12, p117, 2p, 3c, 1bw

Abstract: Presents a brief course on computer fonts and how to use them on Web pages and printed pages. Font sizes; Serif font; Freeware and shareware fonts.

Modern Trends in Typography. By: Kibbee, Wallace. American Journal of Economics & Sociology, Jan48, Vol. 7 Issue 2, p215, 6p

In *The PC Is Not a Typewriter*, Robin Williams says, "Extensive studies have concluded that serif type is more readable in extended text than sans serif type." But she does not cite these studies.

Karen Shriver conducted a study to see which type of font readers preferred when reading on paper. The results were mixed. The answer is essentially "It depends."

It depends on the type of document and even the gender of the reader, apparently. And there was always a certain percentage of readers who had no preference at all. She describes this in Chapter 5 of her book, *Dynamics in Document Design*.

Shriver found that her study participants preferred Univers over the other seven typefaces used. This is interesting in light of (in a previous post) Jim Owen's first quote from Makuta, Daniel J., and William F. Lawrence.

She cites studies by Miles A. Tinker from 1939 to 1963 on the legibility of print. Also a study by Zachrisson in 1965.

Here is a link to a study of fonts and readability among older people.
<http://psychology.wichita.edu/hci/projects/elderly.pdf>
