

Steve Peter

Steve Peter is a publisher and linguist, does freelance book design and typesetting, and uses \TeX daily. He is also a member of the TUG board.

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Dave Walden, interviewer: Please tell me a bit about your personal history and life independent of \TeX .

Steve Peter, interviewee: I was born and raised in Quincy, Illinois (where, coincidentally, Dan Luecking went to college). Early on, I wanted to be an astronomer, but discovered that physics and I did not mix. I slid one section over in the Dewey decimal system and landed on foreign languages, and found I had talent there.

After high school, I spent a year as an exchange student in Bremen, (then West) Germany. I returned to Illinois, attending the University of Illinois at Urbana-Champaign, where I majored in linguistics and Germanic languages. I did my graduate work at Harvard, working on historical Indo-European grammar.

While I was at Harvard, I met my future wife Susan, who had come for a summer program in Ukrainian. She was a graduate student at the U of I, so I moved back to Urbana to be with her. We were married in 1997, and spent a year in Vladimir, Russia, for her to research her doctoral dissertation.

DW: When and how did you first get involved with \TeX ?

SP: After I moved back to Urbana, I needed to find work. I answered an ad in the local paper, and found myself as a technical translator at Wolfram Research, the makers of Mathematica. One of my co-workers, Bill White, had two great passions: Emacs and \TeX , and he introduced me to both. The company library had past issues of *TUGboat* and numerous \TeX books, so I plunged in.

DW: I know you now live in New Jersey, and I know you are now deeply involved with \TeX ; how did these transitions come about?

SP: My wife teaches at the City University of New York on Staten Island. We had been in New Jersey the year before she got that job, while she was a fellow at Rutgers. Since we knew the area somewhat, we stayed.

After I worked for Wolfram Research, I worked for a database company here in Edison. (Our upstairs neighbors were this little company doing VOIP nobody had heard about at the time — Vonage.) After a while there, I decided to do publishing full time.

I have to take a step back to explain. Already back in graduate school, I had decided

to start my own publishing company with a couple of friends. We had been complaining of the high cost of our academic books, and when we saw two books in particular, we decided we could do better. (One of the books was put out by a major university press, but was mysteriously set entirely in Courier, causing massive [literal] headaches if you read more than a page or two. The other was a book that had a cover set in yellow type against a white background! I will omit the names to protect the guilty.)

One of my jobs at Harvard was as typist to my advisor, Calvert Watkins, who was working on a book (published as *How to Kill a Dragon: Aspects of Indo-European Poetics*). He went to meet with the press, and they asked him if he could provide camera-ready copy. Assuming I was handy with a computer, he told them it was no problem. Then he told me. So my introduction to book typesetting was an accident.

I must admit that we used PageMaker for the book, since I had used it a bit in college for one of the independent student newspapers. Nevertheless, I found that I enjoyed typesetting and typography. After that I set several more books for Harvard colleagues.

As I said, I used PageMaker, QuarkXPress and InDesign in those early years. I dabbled with T_EX, but hadn't felt confident enough to use it for real work. Then one day I got frustrated trying something in InDesign and decided to try the same thing in T_EX. (I don't recall exactly what it was.) It worked, and the solution was simpler. I transitioned away from InDesign, and now only use it when a client makes me. (Ditto for QuarkXPress.)

I got involved with TUG after Karl Berry put out a request for someone to translate an article for *TUGboat*. The more I got involved, the more fun I had, so I've kept at it.

DW: Did you, in fact, start a publishing company, or is your business more book design and typesetting, or both?

SP: I did start a publishing company (together with Ben Fortson), but I continue to do a separate business as a freelance book designer, typesetter, and T_EX consultant.

DW: Please tell me about the spectrum of your use of T_EX and friends today and the hardware and software configurations you use to support this use.

SP: At heart, I guess I'm a fan of multiple ways of approaching a problem. For example, I've studied dozens of languages. When I got in touch with my inner geek, I started to collect operating systems, so I had machines running NeXTStep, BeOS, OS/2, Mac OS, GNU/Linux, QNX, Windows, etc. Today, I'm down to just Mac, Windows, and Linux, but I have T_EX installed on all of my machines. My iBook tends to be my production machine, so I keep the software (Gerben Wierda's distribution) fairly static, updating only between projects. My older Windows/Linux machine I use as a sandbox, installing and uninstalling far too often :-).

I apply the same approach to T_EX formats as well. I learned L^AT_EX first (in the most painful way, using a L^AT_EX 2_ε system and a L^AT_EX 2.09 book). Then I learned Plain T_EX and Eplain, and discovered ConT_EXt. I use all three formats on a daily basis. In addition, I like to play around with other formats like Texinfo and MusixT_EX. I should probably do more real work, but that's life.

DW: A while back you recommended to some of us that we buy and read Bringhurst's book, *The Elements of Typographic Style*, to get some general understanding of what typography is all about. I bought the book and on a recent pair of cross-country plane flights, I dipped into the book in many places. I'd like to ask you some questions about how what Bringhurst says relates to T_EX use. For instance, he discusses kerning. I found his basic explanation quite helpful—that kerning is about how tight pairs of letters fit together, such as the letter “a” being tighter against the bottom of the letter “v” in the

sequence “Va” to the point where “a” overlaps “V”, but that “o” cannot overlap “A” in the sequence “Ao”. He then discusses “kerning tables” that are part of some typesetting software that he has in mind. He describes these kerning tables as including all pairs of sequences of two letters with information about how tightly the letters in a pair should be packed together. He also notes that the person doing a quality typesetting job may want to make manual adjustments to what the software did based on the kerning tables. For me this discussion immediately raised the question, “Does T_EX have something equivalent to such kerning tables, or what ‘automatic’ support does T_EX have for kerning?” Also, “To the extent that manual kerning adjustments are needed when using T_EX, how do you handle them with T_EX?”

SP: Kerning tables are actually part of fonts, and when you install fonts for use with T_EX, you install the kerning information (in the form of TFMs). So, T_EX has and uses kerning table information.

Not all fonts have good kerning information. Sometimes, just a few pairs are missing. For example, I find that many otherwise well-kerned fonts lack kerning pairs for en-dashes and numerals; thus, in a page range like 1–6, the en-dash will appear to be too far from the 1 and/or too close to the 6. Other fonts (usually the cheap ones) are a complete mess, providing only the most basic kerning information.

How to approach this depends on how often you hit the pair, what license the font has, and how devoted you are to hacking a good solution. For something that comes up infrequently, you can use T_EX’s `\kern` primitive (e.g. `1--\kern.01em6`). You can also edit the TFMs, either via the virtual properties or via font software like FontForge or FontLab.

But the most exciting thing in T_EX is what Hàn Thế Thành added to pdfT_EX in terms of microtypographic extensions and the hz algorithm. These allow for very subtle variations in the width of characters and protrusion of punctuation to achieve a better paragraph.

DW: Well, that brings up the obvious questions, “What are microtypographic extensions?” and “What is the hz algorithm?”

SP: The answer to that requires a book-length treatment, or at least a thesis-length one. Fortunately, Thành wrote that thesis, called *Microtypographic extensions to the T_EX typesetting system*, which is available online (<http://tug.org/TUGboat/Contents/contents21-4.html>).

One of the easiest extensions to grasp is hanging punctuation. If you look at a page of text typeset in the ordinary manner, with the right edge of all the character bounding boxes lined up to form the right margin, it won’t look perfectly straight if there are lots of sentences that end with periods on the margin, or lots of hyphens. So, to produce the *effect* of a straight edge, it is necessary to allow those visually smaller characters to protrude a bit. This is described in Thành’s article from the 2004 Practical T_EX Conference <http://tug.org/TUGboat/Articles/tb25-1/thanh.pdf>.

Hermann Zapf, to my mind the greatest living type designer, created the hz algorithm in work done with URW. You might want to look at Frank Mittelbach’s laudatio for Zapf, which was reprinted in *TUGboat*: <http://tug.org/TUGboat/Articles/tb22-1-2/tb70laud-revised.pdf>.

DW: Is there any general advice you can give on how a naive user can find a “good font” rather than one that is “a mess”, or does each person have to figure this out for himself?

SP: Alas, there is none. The main advice is to avoid any of those “10 gazillion fonts on CD for \$4.99”, since they will likely be bad. Most good foundries and font vendors like Adobe, Linotype, Terminal Design, Munchfonts, OurType, etc., offer PDF samples so

you can see. Any good vendor will also answer questions, and the smaller foundries are generally very friendly. On the free side, the Polish T_EX Users Group has released some excellent types.

More important to me when I shop for fonts is the glyph coverage. To do proper book typography, in my opinion you must have several things. For example, true small caps. If you mechanically fake small caps by scaling down regular caps, the resulting small caps are too anemic. (If the font family has a very large range of weights, you can get away with mechanical scaling by selecting a reasonable heavier weight—but most font families don't have the required range to do that.) Also, for non-technical texts, I find hanging numerals to be necessary. I avoid the term “old-style numerals”, as if good quality typography were somehow old fashioned and quaint. Finally, the typeface must have a full range of ff ligatures (or its design must be such that it does not require them).

DW: Bringhurst's book has about 75 pages (pp. 213–287 in my edition of the book—version 3.1 published by Hartley & Marks) of brief descriptions of fonts and suggestions of when they might be used. I was excited to contemplate the use of some of these fonts, but then the questions arises of which of these are easily usable with T_EX. Can you say something about this?

SP: All of them are easily usable with T_EX, once you get past the initial hump of learning how to install fonts for T_EX (or use a system like X_YT_EX). I highly recommend Philipp Lehman's excellent Font Installation Guide (on CTAN—<http://mirror.ctan.org/tex-info/Type1fonts/fontinstallationguide/>). A word of warning though: don't expect to read it through once and understand everything fully.

Hans Hagen also has a nice tool for font installation called TeXfont, which is included in the ConT_EXt distribution (for the manual, see <http://www.pragma-ade.com>).

DW: Another question from Bringhurst's book: he describes random variation on pages 188–190. Is this another microtypographic extension such as we were discussing earlier, or is this another category of fine typesetting? Does T_EX have any capability for this?

SP: It's not really an extension of the kind we discussed above, and I don't think T_EX has any special capacity for it, at least none that I have ever used.

Metafont, however, is an excellent tool for type designers to experiment with random variation as Bringhurst discusses. It's a shame Metafont isn't more widely used among type designers.

DW: Tell me about your process for selecting a set of fonts for a book you are designing. Do you think in terms of anything like Bringhurst's chart on page 55?

SP: Most books on typography will have some trite recommendation like, “If you're setting a 19th-century romance novel, use a 19th-century font.” Well, fine, that's easy, but what about a textbook on Etruscan? Or what's a good typeface for a book about T_EX?

To be honest, the first thing I do is see if one of the fonts I already have is suitable for the project. Since most of the books I do are designed for continuous reading, I favor a good serif. As I said above, I usually require that the font have hanging numerals, ff ligatures, true small caps, etc.

An issue I face often in typesetting linguistics is matching different writing systems. This has two facets. First, I often need to have a roman typeface that includes a matching set of IPA (International Phonetic Alphabet) symbols. Not all that many typefaces do, so I sometimes need to mix and match. Second, there are times I have to come up with a roman typeface that looks good with a completely different writing system, like Hebrew, Arabic, Cherokee or Etruscan. In those cases, I simply try out as many typefaces as I can,

looking over specimen books, etc. By now, I've trained my eye to spot good combinations.

DW: I am not a professional in any aspect of the publishing world. I just want documents I write to look pretty good. What basic set or two of fonts (roman, sans serif, typewriter, etc.) would you recommend to me, and where might I get quality versions of these for free or, if I have to pay, where should I buy them and how much should I pay?

SP: I think a good collection of fonts will have one or two good typefaces from the major categories. You might try hanging around the Typophile web site for interesting discussion (<http://typophile.com/forums>).

For what it's worth, our last book was set in Adobe Caslon Pro, our current book is being set in Carter and Cone Galliard, and our next is being set in Terminal Design Rawlinson. If you have the chance, buy directly from the type designer.

Once you get away from the more conservative tastes of book typography to display fonts (among which I generally include sans), fashion takes over, and what is a great choice this year will look dated next.

DW: You said you have "studied dozens of languages". Does this mean you know enough about the alphabet, punctuation, etc., to be able to typeset a language, or do you actually speak or read many of these?

SP: Many of the languages were ones I studied when I was a graduate student in linguistics, which means lots of dead languages. However, I do speak and read a number of modern languages, and can (and generally love to) typeset them all.

DW: As a professional book publisher, book designer, and typesetter, what can you say about your future use of \TeX ? Do you foresee using it into the indefinite future? Are you under pressure to use something else? What do you think the \TeX vendor and development communities need to provide to keep \TeX viable for you?

SP: For my own work and for clients who don't require me to use a specific program, I will continue to use \TeX until it isn't available for current processors (which is to say, forever). I rarely feel pressure to use anything else, although I do try to keep up basic skills on both InDesign and Quark, since there are a few of my clients who require them.

The main challenge I see for the present involves \TeX being able to take advantage of OpenType and all the features that are being thrown together in that format.

One thing that would make my life easier would be to have an option to suppress hyphenation from recto to verso (i.e., over a page turn), but allow it from verso to recto (i.e., across a spread). I don't know of any typesetting system that can do that automatically, but I'd love to learn if anybody has hacked it.

DW: I think I have about exhausted my technical questions for now, but please tell me a little bit more about your personal life—what you do when you are not working in the world of publishing.

SP: Outside the world of \TeX , but still broadly in the world of publishing, I'm quite interested in font design, and I'm working on a couple of designs right now. From time to time, I try my hand at programming, too, but I'm still very much a beginner.

I'm an avid reader. Aside from the technical stuff, I enjoy science fiction and travel books. I like to cook, adapting all kinds of recipes to make them vegetarian.

Most of all I enjoy spending time with my wife hiking, traveling, exploring new restaurants, and going to concerts.

DW: Thank you for taking the time to do this interview. It's very interesting to learn how you—a publisher and designer—use \TeX .