



Dissecting individual letters

From a type designer's point of view, fonts are more than just items in a menu. They're art.

• **BY BRIAN WILLSON**

You can edit a paragraph, diagram a sentence, conjugate a verb. You can fix typos, neatly print the alphabet, hand-stencil a sign. But if you really want to dismantle the written language to its most fundamental elements, to peel each letter down to its tiniest essentials — each bump and serif, each stroke and curve — you've got to become a type designer.

A type designer is a person with an artist's eye, a perfectionist's obsessions, and the patience of a monk. It also doesn't hurt to have a cloister, where you'll end up mumbling to yourself such interesting terms as "kerning" and "ligature", "ampersand" and "dieresis." But chiefly, you've got to love the teensy subtleties of written language — each bowl and descender, the dots on each j and

i. By manipulating these wee bits and pieces, given sufficient effort and time, you can end up with a full complement of characters in several weights and styles, a typeface with a voice as unique and personable as a distant ancestor or the teenage kid next door.

First a disclaimer: I happened onto type design in a roundabout way: communication school, broadcast journal-

ism, the editorial department of a magazine. Along the way, I picked up an interest in graphic design and began noticing fonts' peculiarities. I have no formal typographic training, and my designs tend to be casual or fanciful, handlettering faces or reminiscences on historic themes. (My personal favorite is Texas Hero, based on the fine, legible penmanship of Thomas J. Rusk in the first half

of the nineteenth century.) But I've taken pains with a text face or two, have done my share of wee-hours fiddling, have gone bug-eyed over kerning pairs.

Consider Pumpkinseed. Inspired by a certain style of almost architectural handlettering, Pumpkinseed nagged me until I dropped everything and commenced to making its letters. I worked with paper samples at first, digitized with a flatbed scanner. As with most of my work, I ended up hand-tracing each curve and line of every enlarged letterform using a vector drawing program — software that defines shapes mathematically through manipulation of a series of curve and corner points. Like a font, these mathematical definitions will scale to any size.

Working with vector art takes practice, a steady hand, and a technician's precision. But it's the artist's eye, that look askance, that seems to take the most concentration. I spent hundreds of hours on the standard 200-plus characters of Pumpkinseed. (Don't stop at the upper- and lowercase alphabets — there are punctuation marks, numerals, accents, and plenty of cryptic symbols you've never heard of.) I revised several letters three or four times before the head-tilt went away. And then I felt a need to add light and heavy weights

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Attic Antique
Bonsai
Cedar Street
CHROMOSOME
DINGOS
Marydale
Oak Street

Professor
Pumpkinseed
Schooner Script
SpeedBump
Texas Hero
TreeFrog

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to the face, with oblique styles of all three. Most font-making software (I use Macromedia Fontographer) will automate much of this process — you can fatten up or slim down a series of characters with a mouse click or two — but you'll end up with an inferior font that has a machine-generated look. Type designers have spent centuries refining the subtle relationships of ascender to x-height, of em-square to baseline. It pays to follow their lead.

Then there's kerning. Certain pairs of letters need to be close to each other, like A and V or T and o; other pairs benefit from a little distance, say D and C. Essentially, kerning pairs take into account such relationships whenever they occur in a typeset sequence, ensuring that the copy is pleasing to the reader's eye. But think for a minute how

many letters in an alphabet — or a font. Think of all the combinations. Kerning takes some time.

But ample opportunity arises for design challenges: true italics, with their urgent curl; ligatures and swash characters, for that extra stylishness; picture fonts for entertainment.

Eventually, finally, it'll be time to generate your working typeface family. It's anticlimactic: you push a couple dialog-box buttons, and you've got your finished fonts, in whatever style, for whatever platform. But it's rewarding, too, to see your hard work just as you envisioned it on the printed page. Chances are the folks who end up using your typeface will have no idea just how hard you eyeballed every bump and serif, each curve and kerning pair. But that's O.K. It's a type designer's secret, after all.

ASSIGNMENT

DIRECTIONS: The spacing of letters and words is critical to maintaining readability. Find two examples of poor kerning, letter or word spacing in a headline and then find two examples of poor letter or word spacing in body copy (kerning is too difficult to spot at small sizes). Place your samples in your design clip file.

A V
AV
AV

KERNING

Some letter pairs (such as A and V as illustrated) need to be moved closer together to be optically pleasing. Kerning is the process of removing the excess space between certain letter pairs. Some fonts are programmed to do this automatically. Other fonts require manual kerning. The top illustration shows negative kerning, the middle no kerning. The bottom is a tightly kerned character pair.

Whitewater
Whitewater

LETTER AND WORD SPACING

The spacing between entire groups of letters and between words can also be adjusted. The top sample shows no adjustment (no tracking), the bottom, tight tracking. The specific amounts of letter and word spacing can also be modified within PageMaker or QuarkXPress.