That's what designers ought to be saying about OpenType and a the tricks it has up its seeve. Typography guru ene Strizver demystifies this enigma and shows how it can make your designs work I ke magic.

BY ILENE STRIZVER

ABRA CADABRA! TA-DA!

The magician pulls a rabbit from his hat. The psychic sees the future in a crystal ball. And the designer? The designer has his own brand of magic. Think for a moment about all that you could ever want from a font, as if a genie were here to grant that wish. You'd list things like: lots more characters—small caps, old style figures, swashes and ligatures, and maybe even some ornaments; perhaps a font format that works on both a Mac and a PC; maybe even a font with a brain that knows when to use beginning and ending swashes and other case-sensitive characters. Well, brace yourself, because your wish has been granted.

OpenType is an exciting font format jointly developed by Adobe and Microsoft (yes, they actually worked together on this!). It's a kind of superset of Type 1 and TrueType font formats with added enhancements. You ve probably already heard of OpenType fonts and might even be using some, but not enough designers know why this font format is so different from, and superior to, Typel and TrueType. Quite

The purest honest
- discretionary ligature
- triplet
- discretionary ligature

thoughts come from
- alternate

children. Ask any
- alternate
- alternate

child if they believe
- triplet

in magic and they
- triplet
- triplet

will tell you the truth.
- triplet

Scott Dixon
- discretionary ligature

SEEING IS BELIEVING
Sportivo Bold, designed by Matteo Bologna of Mucca Typo, a division of Mucca Design, includes some fantastic alternates, ligatures and triplets.

TYPOGRAPHIC HOCUS-POCUS

Without question, the most valuable feature of Open-Type for most designers is its greatly expanded character set, which can include thousands (quite an improvement over the 256 we're used to with Typel and TrueType fonts). This is possible because Open-Type fonts are based on Unicode, as opposed to the ASCII system used by Type! and TrueType fonts. Unicode is a cross-platform standard that assigns numbers to all the characters in a font and can technically accommodate 65,000 such characters, even though most OpenType fonts max out at a few thousand. Still, this provides for a variety of non-standard characters: Old style figures, true-drawn small caps, extended ligature sets, swash and alternate characters, fractions, ordinals, proportional and tabular figures, dingbats and symbols, as well as extensive foreign-language support all can be supported in a single font.

Here's a closer look at some of these non-standard characters and how they can be used in OpenType.

Alternates An alternate character is a separate and distinct version of the regular, or primary, character. The difference between regular and alternate characters can be as subtle as a slightly longer descender or a slightly raised crossbar, or as obvious as a totally different design, such as a one-story 'g to complement a two-storied regular character. Alternates can add personality, individuality and character to your work. Prior to OpenType, alternates were only available as part of an expert set or a supplementary font. Now that there's room for thousands of characters, many more type designers and foundries are enhancing their fonts with alternate characters of ever}' shape and style.

Contextual alternates A contextual alternate is one that's intended for use in certain situations, such as next to specific characters to improve spacing or connections, as in script typefaces. Contextual alternates are a great new feature of some OpenType fonts, which not only have room for them, but also have the built-in intelligence to know when to apply them when selected from the OpenType menu.

Stylistic sets Some OpenType fonts that have numerous alternate characters organize the alternates into "stylistic sets," which arc easily accessed from the OpenType menu or palette. This eliminates the tasks of knowing which alternates look best together and then selecting each character individually—very time-consuming, especially in large blocks of copy. Remember that you can always override and replace individual characters using the Glyphs palette.

Standard ligatures A ligature is two or more characters combined into one. Standard ligatures arc combinations of letters—typically including the letter 'f'—that would otherwise collide with each other. Typel and TrueType fonts only have room for two ligatures, the 'fi' and 'FT. For all the other problematic pairs of letters—including 'ff', 'ft', 'ffi' and 'FIT—ligatures have either been unavailable because of the font's lack of

space (reaching that 256-character limit) or were only available in expert sets, which require the time-consuming tasks of loading and selecting a separate font for the offending characters.

OpenTypc, conversely, makes standard ligatures a piece of cake, assuming that the font in question supplies these typographic niceties. One needs only to turn on standard ligatures in the application, and they'll automatically appear.

Discretionary ligatures Discretionary ligatures are just that—ligatures you use at your discretion. They're more ornamental than standard ligatures and are designed to add elegance and refinement to your work. Common discretionary ligatures arc 'ck', 'sp', 'st' and 'rt', as well as some historical forms, such as long *'s'* combos, which look like 'f's with shortened or nonexistent crossbars. Discretionary ligatures, when available, are not for everyday use but, when appropriate (and turned on in your application), can lend an air of sophistication to your work.

Swashes These decorative characters have a flourish or extended stroke, which is typically found at the beginning or the end of the character. They're often available in addition to the regular characters and can add elegance and emphasis to your type. When available, swash characters are easy to use: Turn the feature on and off in the OpenType menu, or select them individually from the Glyphs palette.

Glyph substitution This capability, which is built into certain OpenType features, goes hand-in-hand with the expanded character set. OpenType fonts are "smart" and can be programmed to know when to insert certain characters, such as alternates, swashes or discretionary ligatures.
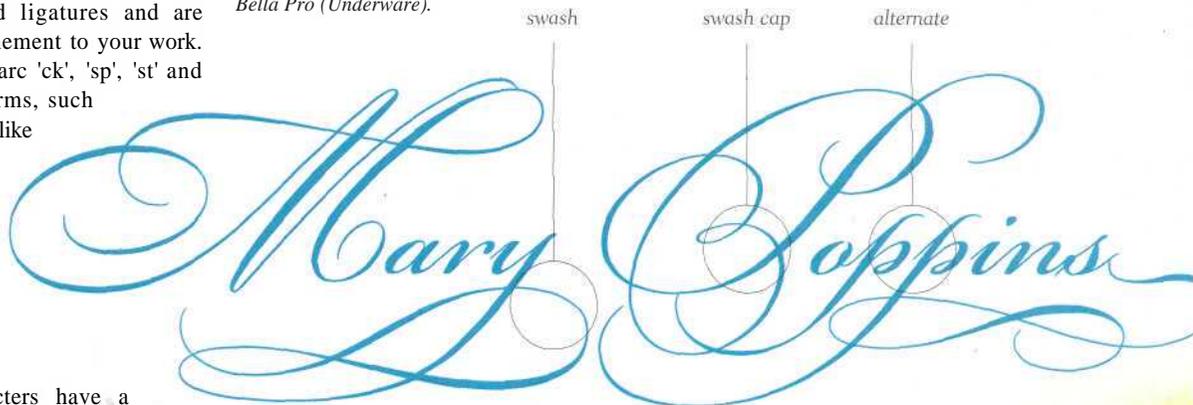
For instance, some swash characters are intended for use only at the beginning or the end of a word to avoid crashing into neighboring characters. When the glyph substitution feature is in effect, the correct swash will be automatically used. If the copy changes, the swash character will change as necessary.

Glyph substitution can be used in other ways, too, including automatically changing characters to their alternates. This can be used, for example, to mimic the randomness of handwriting and create a more rhythmic, balanced flow with the copy. It's important to note that this capability occurs automatically for some features selected from the OpenType menu (such as swashes, discretionary ligatures and stylistic sets) but isn't automatic when individual characters are accessed from the Glyphs palette.

Numerals Prior to OpenType, a font could only accommodate one set of numerals. For text faces, tabular lining figures (all of the same cap height) were the kind most often featured. With tabular spacing, all numerals have equal spacing around them so that they'll

swash   swash cap   alternate

SLEIGHT OF HAND

Matteo Bologna, founder and creative director of award-winning Mucca Design, is a huge fan of OpenType. !n fact, he's such an enthusiastic supporter that he forbids his designers from using anything else. "Once I discovered the mind-blowing possibilities of this amazing technology, it didn't make sense to use anything else."

Bologna is that rare breed of designer who designs custom typefaces for his work when he can't find a suitable font. One such case is the menu he did for Schiller's Liquor Bar. The design goal of the menu (see page 90), as well as the entire graphic identity of this Lower East Side New York City restaurant, was to create a feeling of warmth, familiarity and informality. To accomplish this, Bologna designed Francesco, a custom typeface reminiscent of the hand-printed menus of bygone days.

in order to mimic the individuality and spontaneity of handwriting, he designed three variations of each character. By using the contextual alternate capability of OpenType technology, the instances of any character occur randomly to achieve that handwritten look. If you look closely at the word *Egg* in the menu, you'll see that the characters vary in design and spacing. Bologna's attention to typographic detail goes a long way toward helping this restaurant achieve the authentic "mom-and-pop" feel it was striving for.
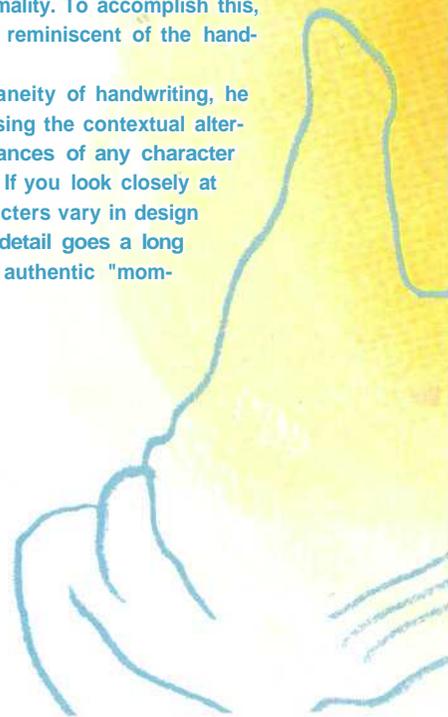
*A*ny sufficiently advanced

ligature

technology is *indiſtinguishable*

discretionary ligature

small caps

from magic. ⁊ARTHUR C. CLARKE

ornament

OPEN SESAME

OpenType fonts can have many typographic features that can be accessed when using software that supports them. This screengrab shows the navigational path for locating the OpenType palette in Adobe InDesign CSa. All possible features appear in the list, but only those without brackets are available for any particular font. Adobe Arno Pro contains almost all available OpenType features except swash and titling alternates. It also has all four types of numerals, as shown at the bottom of the palette.
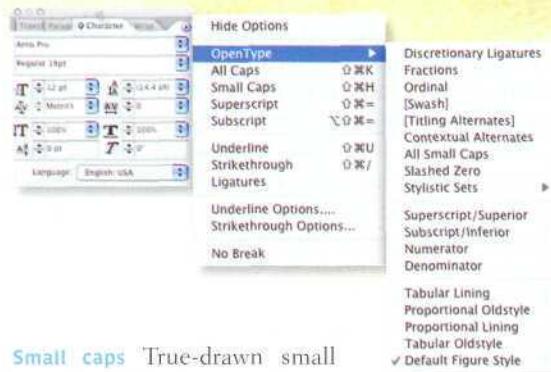
align vertically when set in columns. Only a small percentage of design work requires columns of numbers, though. When the numbers are set within a large block of text, the tabular spacing tends to create gaps and uneven spacing—especially around the '!'. Their large cap height also causes problems in text, making them stick out and look obtrusive. (Old style figures, which approximate lowercase, blend in much better.)

To counter those problems, many OpenType fonts have four styles of numbers (tabular lining, tabular old style, proportional lining and proportional old style), giving the designer the option to choose whichever works best for the task at hand. You can actually use all four styles in one document (assuming the font includes them all); just keep in mind that the manufacturer sets one style as a default—usually the tabular lining figures—so take notice and alter as necessary.

Small caps True-drawn small caps (available in many Open-Type fonts) are superior to computer-generated small caps, which are simply reduced capital letterforms that look too light and narrow. True-drawn small caps, on the other hand, are drawn to match the weight, color and proportion of the regular caps. They're easily accessed in the OpenType menu and don't require loading or selecting a separate font.

Multi-language support Typel and TrueType only include a standard range of the most-used Latin characters and a narrow assortment of foreign characters and floating accents. OpenType format, though, can support more languages and can have a full range of

THAT OLD BLACK MAGIC HAS ME IN ITS SPELL,

contextual alternates off

contextual alternates on

THAT OLD BLACK MAGIC THAT YOU WEAVE SO WELL.

COLE PORTER

Central and Eastern European characters, including Turkish, Polish, Cyrillic and Greek characters. Some may even be available with Chinese, Japanese, Korean, Hebrew or Arabic characters, although it's important to note that languages that don't read from left to right may require special applications, utilities and/or system support to function properly.

Cross-platform support OpenType's Unicode foundation means the same font can run on both Mac and PC platforms: Unicode's character-numbering system is the same for both Macs and PCs, eliminating problems such as the appearance of "mystery characters" (like when apostrophes and f-ligatures become question marks or accented capital X)'s) that arise when a document is transferred from one platform to the other. That's quite an improvement over Typel and TrueType fonts, which need to be purchased separately for either a Mac or a PC—a real convenience when your office uses both platforms or you use one at work and the other at home.

TECHNICALLY SPEAKINg

While all of this may sound new, the reality is that you're probably already using some OpenType fonts and don't even know it. How can you tell? OpenType fonts typically end with the suffix .otf, although the ones that come automatically with your system sometimes end with .ttf. Also, many font manufacturers are adding Pro to the end of feature-rich font names, particularly those that include extended multi-language support. Some use the abbreviation Std (Standard) to indicate a font without all these added features. It can get confusing, because some Typel fonts are

re-released as Std OpenType fonts and then released again with a more expanded character set and designated as Pro. Just make sure you know what you're getting (and paying for) before making a purchase.

In order to access OpenType's most advanced features (including the expanded character sets), you have to use an application that supports it (including QuarkXPress 7.0, Adobe InDcsign and most othcr Adobe design programs that have been released in the past couple of years). But, even if you're using older software, the fonts are backward-compatible, so they'll run in their most basic form, even though the advanced features won't appear.

Fortunately, more and more OpenType fonts are becoming available every day. Some foundries, such as Adobe, have converted their entire type library to OpenType. Other foundries are releasing new typefaces in OpenType and converting existing libraries more slowly, sometimes even adding to the fonts' original character sets. When deciding to purchase an OpenType font, do your research carefully to find out which additional characters are available.

OpenType has made fine typography not only possible, but also easier. This groundbreaking technology has become the new industry standard and is catapulting digital font technology and good typography into the future—no magic required. HOW

llene Strizver, founder of The Type Studio, is a typographic consultant, designer, writer and educator. She was formerly the director of typeface development for International Type/ace Corp. (ITC), where she developed more than 300 notable text and display typefaces, www.thetypestudio.com