Stop Stealing Sheep
This page intentionally left blank
Stop Stealing Sheep
& find out how type works
Third Edition

Erik Spiekermann
<table>
<thead>
<tr>
<th>Page</th>
<th>Chapter</th>
<th>Section</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>Type is everywhere.</td>
<td>Type exists. It is a fundamental part of our lives. These simple facts are essential to understanding how to communicate more effectively.</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>What is type?</td>
<td>Between type’s past and its future, our present understanding of type is rooted in who we are and how we communicate. Type is a living entity integrated into society’s moods and trends.</td>
</tr>
<tr>
<td>38</td>
<td>3</td>
<td>Looking at type.</td>
<td>Training the eye to recognize type begins with familiar elements on the page. Looking at type from the basic shapes to the finest details is the first step toward understanding how type works.</td>
</tr>
<tr>
<td>60</td>
<td>4</td>
<td>Type with a purpose.</td>
<td>Choosing typefaces for a particular purpose need not be more intimidating than planning your wardrobe. Matching an appropriate typeface with the right task is easy.</td>
</tr>
<tr>
<td>78</td>
<td>5</td>
<td>Type builds character.</td>
<td>Understanding the tone, or feeling, of text is essential in determining what typeface to use, and how it might be arranged on the page.</td>
</tr>
<tr>
<td>102</td>
<td>6</td>
<td>Types of type.</td>
<td>Once understood, basic characteristics of typefaces can eliminate difficulty with typeface identification. Simple distinctions among typefaces are best understood by analogy to human counterparts.</td>
</tr>
<tr>
<td>134</td>
<td>7</td>
<td>How it works.</td>
<td>Legible, readable type depends on a few basic principles: space between individual letters and around words. Choosing the right typeface for the right text also means using the right spacing.</td>
</tr>
<tr>
<td>154</td>
<td>8</td>
<td>Putting it to work.</td>
<td>Considering where type is going to live and work will determine its effectiveness. Follow simple rules of placement to create practical page layouts.</td>
</tr>
<tr>
<td>172</td>
<td>9</td>
<td>Type on screen.</td>
<td>Type on screen used to be the poor sister of type for print. While technical restraints remain, there are no more excuses for choosing an inappropriate typeface for any project that will appear on a screen.</td>
</tr>
<tr>
<td>180</td>
<td>10</td>
<td>There is no bad type.</td>
<td>Type is a basic element of communication. As the means of communicating changes, type evolves in unique and lively ways.</td>
</tr>
<tr>
<td>196</td>
<td>11</td>
<td>Final form.</td>
<td>Bibliography, list of typefaces, index.</td>
</tr>
</tbody>
</table>
STEALING SHEEP? Letterspacing lower case? Professionals in all trades, whether they be dentists, carpenters, or nuclear scientists, communicate in languages that seem secretive and incomprehensible to outsiders; type designers and typographers are no exception. Typographic terminology sounds cryptic enough to put off anyone but the most hard-nosed typomaniac. The aim of this book is to clarify the language of typography for people who want to communicate more effectively with type.

These days people need better ways to communicate to more diverse audiences. We know from experience that what we have to say is much easier for others to understand if we put it in the right voice; type is that voice, the visible language linking writer and reader. With thousands of typefaces available, choosing the right one to express even the simplest idea is bewildering to most everyone but practiced professionals.

Familiar images are used in this book to show that typography is not an art for the chosen few, but a powerful tool for anyone who has something to say and needs to say it in print or on a screen. You will have ample opportunity to find out why there are so many typefaces, how they ought to be used, and why more of them are needed every day.

We see so much type that we sometimes stop looking. This is not necessarily a bad thing, as in the case of this sign, which tells us that we may not enter this street between eleven and six, nor between eleven and six, and certainly not between eleven and six.

This is a sidebar. As you can see by the small type, the copy here is not for the faint of heart, nor for the casual reader. All the information that might be a little heady for novices is in these narrow columns; it is, however, right at hand when one becomes infected by one’s first attacks of typomania.

For those who already know something about type and typography and who simply want to check some facts, read some gossip, and shake their heads at my opinionated comments, this is the space to watch.

In 1936, Frederic Goudy was in New York City to receive an award for excellence in type design. Upon accepting a certificate, he took one look at it and declared that “Anyone who would letter-space black letter would steal sheep.” Goudy actually used another expression, one unfit for print. This was an uncomfortable moment for the man sitting in the audience who had hand lettered the award certificate. Mr. Goudy later apologized profusely, claiming that he said that about everything.

You might have noticed that my book cover reads “lower case,” while here it reads “black letter”—two very different things. Lower case letters, as opposed to CAPITAL LETTERS, are what you are now reading; black letter isn’t seen very often and looks like this.

I’m not sure how “black letter” in this anecdote got changed to “lower case,” but I’ve always known it to be the latter; whichever way, it makes infinite sense. By the time you finish this book I hope you will understand and be amused by Mr. Goudy’s pronouncement.

See the changes made to the sign in the last two decades: the small picture on the right is from this book’s first edition, printed in 1992; the one on its left is from the second edition in 2003.
One cannot not communicate.

Paul Watzlawick (1921–2007) is author of *Pragmatics of Human Communication*, a book about the influence of media on peoples’ behavior. “One cannot not communicate” is known as Watzlawick’s First Axiom of Communication.
Type with a purpose.
You know what it’s like. It’s late at night, your plane leaves at 6 AM, you’re still packing, and you just can’t decide what to put into that suitcase.

Picking typefaces for a design job is a very similar experience. There are certain typefaces you are familiar with. You know how they will behave under certain circumstances, and you know where they are. On the other hand, there are those fashionable types that you’ve always wanted to use, but you’re not quite sure if this job is the right one to experiment on. This is just like choosing which shoes to take on your trip – the comfortable ones are not the height of fashion, but the fashionable ones hurt. You might be able to stand them for a short reception, but not for shopping, let alone for a hike into the countryside.

Before you pack your font suitcase, you need to look at the task ahead. Strike a balance between practicality and aesthetics – that’s what design is all about.

While nobody has ever classified typefaces according to their problem-solving capabilities, many typefaces we use today were originally designed for particular purposes. Some of them are mentioned on page 33, but there are many more. Times New Roman was specially produced in 1931 for the London newspaper that gave its name to the typeface. In the late 1930s, Mergenthaler Linotype in the USA (led by Chauncey H. Griffith) developed a group of five typefaces designed to be legible despite the rigors of newspaper printing. They were, not surprisingly, called the “Legibility Group,” and two of them are still very popular today: Corona and Excelsior. It might seem odd that legibility has to be a special concern when designing a typeface, but there are plenty of fonts around that are meant to be seen, not read; these typefaces are very much like clothes that look great but barely protect the wearer from the elements.

Gulliver is Gerard Unger’s solution for many problems in newspaper design and production. It fits 20% more copy into the columns without sacrificing legibility and is sturdy enough to be carelessly printed on recycled paper. Quite a few newspapers around the world use it to good effect.

Coranto is Unger’s latest typeface for newspapers. Designed in 2000, it is being used for The Scotsman as well as newspapers in Sweden and Brazil.

Gulliver

Tobias Frere-Jones’ work on Poynter was sponsored by the Poynter Institute to answer the same question. He asked himself: how to retain copy without losing readers? As we read best what we read most, the designer stuck to familiar forms and returned to Hendrik van den Keere’s seventeenth-century oldstyle roman. As different methods of reproduction and printing may add or reduce weight by a fraction, Poynter Oldstyle Text is offered in four grades.

Coranto

Handgloves

Poynter Oldstyle Bold

Handgloves

Poynter Two

Handgloves

Poynter Three

Handgloves

Poynter One
Going on vacation doesn’t necessarily mean traveling to a warm climate, but it always means we can leave behind many of our conventions, including the way we normally dress — or have to dress, as the case may be. You pick your clothes according to what is practical: easy to pack, easy to clean, and according to what is fun: casual, colorful, loose, and maybe a little more daring than what you would wear in your hometown. The typographic equivalents are those typefaces that are comfortable to read, but which may be a little more idiosyncratic than your run-of-the-mill stuff. Serifs, too, can be casual, and “loose fit” is actually a type-setting term describing letters that have a comfortable amount of space between them. As it happens, quite a few of the very early typefaces from the Renaissance and their modern equivalents fit that description. They still show their kinship with Italian handwriting, which by necessity had to be more casual than rigid metal letters. If you were a scribe in the papal office and had to write hundreds of pages every day, you wouldn’t be able to take the time to fuss over formal capitals. So the scribes developed a fluent, cursive handwriting, which today we call italic, because it was invented in Italy. You will have noticed that this whole page is set in a script font, and it feels quite comfortable. A conventional rule says that you can’t set whole pages, let alone books, in the italics of a typeface. The only reason it might not work is because we’re not used to it. As pointed out on page 41, we read best what we read most. But that’s no reason not to take a vacation from our daily habits and look at something different, at least once a year.

Some typefaces have a leisurely look about them while conforming to everyday typographic expectations. Others were born with unusual, yet casual, shapes and make the best of it. Stempel Schneider combines friendly letter shapes with high legibility — you can use it every day without it becoming restrictive like a necktie.

A typeface that looks casual, even “nice,” but is still good for real work is ITC Flora. It was designed by the Dutch type designer Gerard Unger in 1980 and named after his daughter. Ellington, released in 1990, is a design by Michael Harvey, the English lettering artist and stone carver. Both typefaces are quite unusual and therefore not often thought of as useful text faces. But they are.

Many typefaces designed to look “friendly” tend to appear patronizing. They can be so nice that you quickly get tired of them. When you’re looking for casual typefaces, the obvious candidates are, of course, the scripts. Most, however, are not suited to long spells of reading, just as sandals are very comfortable, but not when walking on rocky roads.

To make a typeface look as casually elegant as FF Fontesque takes a lot of experience and effort. Nick Shinn designed Fontesque in 1994. It wasn’t his first design, and it shows. Cafeteria indeed started on Tobias Frere-Jones’ napkin, and he managed to balance activity with legibility in this freeform sans serif face.
Most type is used for business communication of one sort or another, so it has to conform to both written and unwritten rules of the corporate world. Just as business people are expected to wear a suit (plus, naturally, a shirt and tie), text set for business has to look fairly serious and go about its purpose in an inconspicuous, well-organized way. Typefaces, such as Times New Roman and Helvetica fit this bill perfectly, not by their particular suitability but more by their lack of individualism.

However, just as it is now permissible in traditional business circles to wear fashionable ties and to even venture into the realm of Italian suits that are not black or dark blue, typographic tastes in those circles has widened to include other typefaces, from Palatino to Frutiger.

Generally, it is very simple to classify a particular business by the typefaces it prefers: the more technical a profession, the cooler and more rigid its typefaces (Univers for architects); the more traditional a trade, the more classical its typefaces (Bodoni for bankers).

The trouble is that there is no law against speculators employing a true classic, trustworthy typeface in their brochures, lending these unsavory entities typographic credibility, although nothing else.

To show the subtle differences between fonts at this size, we’ve set the copy at left in a variety of types, one for each paragraph. Handgloves at the bottom of this column shows them in sequence.

Frutiger, originally designed in 1976 by Adrian Frutiger for the signage at the Charles de Gaulle airport in Paris, has become one of the most popular typefaces for corporate use.

Palatino, designed by Hermann Zapf in 1952, owes its popularity – especially in the USA – largely to its availability as a core font on PostScript laser printers. It is nevertheless a welcome alternative to other, less suitable, serif fonts.

Adrian Frutiger designed Univers in 1957. It was the first typeface to be planned with a coordinated range of weights and widths, comprising twenty-one related designs, recently expanded to 59 weights (see page 89).

ITC Bodoni is one of many redesigns of Giambattista Bodoni’s classic typefaces from the late eighteenth century. It shows more color and stroke variations than other Bodoni revivals, and is available in three versions for different sizes.
If it were just a little heavier, News Gothic by Morris Fuller Benton, 1908, would be a favorite workhorse typeface. ITC Franklin Gothic, a 1980’s re-design of Benton’s original typeface from 1904, has more weights as well as a condensed and a compressed version plus small caps.

Lucas de Groot designed his Thesis family from the outset with 144 weights. The Thesis Sans family has become an alternative to Frutiger in corporate circles, as it is both neutral and versatile. Lucida Sans, by Kris Holmes and Charles Bigelow, 1985, has sturdy, rugged letter shapes. Its sister typeface, Lucida, remains one of the best choices for business communications printed on laser printers and fax machines.

FF Meta has been called the “Helvetica of the 90s.” While that may be dubious praise, Meta is a warm, humanist alternative to the classic sans faces. Lots of detail make it legible in small sizes and “cool” rather than neutral. You should also look at the condensed weights of Frutiger as useful, but underused alternatives.

FF Profil is one of a new generation of modern sans faces. Designed by Martin Wenzel in 1999, PTL Skopex Gothic is Andrea Tinnes’ take on the classic Angloamerican genre, it gives News Gothic an interesting twist.

Calling a typeface “a real workhorse” doesn’t mean that others don’t work, it just means that it is one of those that don’t look very glamorous and is consequently not likely to be known by name; such types, however, are used every day by designers and typesetters because of their reliability.

If you set a catalog for machine parts, or instructions for using a fire extinguisher, you’re not worried about subtly curved serifs or classicist contrast. You need letters that are: clearly distinguishable; compact, so enough of them fit into a limited space (is there ever enough space?); and sufficiently sturdy to withstand the rigors of printing and copying. Here’s what is needed in a hardworking typeface:

① A good regular weight – not so light that it will disappear on a photocopy (everything, it seems, gets copied at least once these days), and not so heavy that the letter shapes fill in.
② At least one bold weight, with enough contrast to be noticed, to complement the regular weight.
③ Very legible numerals – these must be particularly robust because confusing figures can be, in the worst of cases, downright dangerous.
④ Economy – it should be narrow enough to fit large amounts of copy into the available space, but not actually compressed beyond recognition. A typeface fitting this description would also fare very well when faxed.
There is no category known as “formal fonts,” but a number of typefaces come from that background. The text at the left is set in Snell Roundhand, a formal script from the 1700s, redesigned in 1965 by Matthew Carter. Apart from formal scripts such as Snell, Künstler Script, and others like it, there are the aptly named copperplates. They look formal and distinguished and are even available in a range of weights and versions, but they all lack one important feature: lowercase characters.

Other typefaces that owe their appearance to the process of engraving into steel as opposed to writing with a quill or cutting into wood are Walbaum, Bauer Bodoni, or ITC Fenice. They can look formal and aristocratic enough to make a favorable impression when printed on fine paper.

While ff Scala Jewels is an extension of the ff Scala family by Martin Majoor from 1993, which is a contemporary interpretation of classic book typefaces, Mrs. Eaves is Zuzana Licko’s idiosyncratic take on Baskerville, as seen from Berkeley, California in 1996. It is named after Sarah Eaves, the woman who became John Baskerville’s wife. Licko’s Matrix Script Inline from 1992 gets closer to American vernacular, and Rudy VanderLans’ 1993 Suburban connects classic scripts with, well, suburban neon signs. And, as VanderLans proudly proclaims, Suburban is the only typeface in existence today that uses an upside down ‘l’ as a ‘y’.
What makes typefaces trendy is almost unpredictable – much to the chagrin of the people who have to market them. A corporation, a magazine, a TV channel can pick a typeface, expose it to the public, and a new typographic fashion can be born. But, like with fashion and pop music, it usually takes more than one designer in the right place at the right time picking the right font off a web site or out of a catalog.

Typography is as much a mirror of what goes in society as the styling of cell phones or cars. Cars still take half a dozen years from concept to production, so their designers have to anticipate trends. As cars are the icons of our mobile society, their design, in turn, does create trends. While technology allows us to produce a font in weeks – if not hours – from rough sketches or ideas, it still takes a few years for a typeface to get to market and to the attention of the font-buying public. Right now, early in the 21st century, we are seeing a return to the time-honored classics and their modern interpretations. We have also learned to live with bitmaps, both as a necessity and as a fashion statement. Most industrial styles have been exploited, from monospaced typewriter faces through electronic font generators to industrial signage. And some of the most used typefaces were first produced for the signs above or freeways. Interstate is Tobias Frere-Jones’ interpretation of the white-on-green letters in the USA, while ff Din expands the model used on Germany’s autobahn. Ironically, if a typeface has been designed for one particular purpose, it seems to look really good on anything else.

There are typefaces that are only suitable for the more occasional occasion. They might be too hip to be used for mainstream communication, or they could simply be too uncomfortable – a bit like wearing very tight jeans rather than admitting that they don’t fit us any longer. Very often these offbeat fonts are both – tight in the crotch and extroverted.

The entertainment value of this sort of typographical work is often higher than that of the straightforward corporate stuff, so there’s a great deal of satisfaction gained not only from the words, but also from the fun of being able to work with really unusual fonts.

One thing leather jackets have on trendy typefaces is that the jackets get better as they get older, which is more than can be said about some of the typefaces we loved in the 1980s but would be too embarrassed to ask for now. Like all fashions, however, they keep coming back. Don’t throw away your old fonts – keep them for your kids.

Fashionable faces
As long as you print on paper, the choice of typeface is first and foremost governed by the content of the message, then the intended audience, and only lastly by technical constraints.

When we move from almost limitless resolution on paper to images generated by cathod rays or liquid crystals, we enter a world of optical illusions. Those have to make up for the lack of high fidelity and trick our eyes into seeing life-like images rather than spots of colored light (see page 132). On the screen, colors are not mixed from CMYK: cyan, yellow, magenta, and black (the k really stands for key), but are broken down into RGB: red, green, and blue; letters are composed of course lines or dots, and black is not an ink, but the absence of light. Typefaces have to work very hard under these conditions. There is no room here for leisure fonts, nor for scripts or some of the trendy faces that hide more than they reveal. The workhorses for “old” media work well in the new. Rugged construction, clear counter spaces, easily discernible figures and well defined weights have all been mentioned before as being prerequisites for anything which has to be read under less than ideal circumstances. And whatever progress technology brings in the future – staring into light coming from a screen is not what human eyes were made for.

Handglove
Look at these faces at very small sizes and you get an idea of how they will perform on screen.

Handglove
Look at these faces at very small sizes and you get an idea of how they will perform on screen.

Handglove
Look at these faces at very small sizes and you get an idea of how they will perform on screen.

All those minute details that make a good typeface pleasant to behold and easy to read, actually add noise. The absence of these details would make the type look cold and technical, as if generated by machines and legible only for machines.

The designer of typefaces suitable for on-screen reading has to balance the requirements of the precise but cold medium (light emitted by all sorts of tubes, crystals, diodes, and plasms) against our need for subtle contrast and soft shapes. And as most of what we read on screen eventually gets printed as well, these alphabets have to offer enough traditional beauty for us to accept them against the competition we’ve grown used to over 500 years.

Slightly extended lettershapes have more open counters and are thus more legible, but need more space. Subtle contrast between thin horizontals and thicker verticals doesn’t translate well into single pixels and tiny serifs may look delicate in display sizes, but on a screen will only add noise at 10pt or less.

The screen fonts offered by Microsoft and Apple work well under all circumstances, but have become too ubiquitous to lend an individual note.

Matthew Carter’s Verdana has become a very successful face on paper as well, while Bigelow & Holmes’ Lucida, initially designed for laser-printers in 1983, looks also great in high-resolution and is one of the best screen fonts around. FF Typestar by Steffen Sauerteig has those rugged shapes reminiscent of typewriter faces and suited for rough conditions on screen or paper.

Handgloves
Look at these faces at very small sizes and you get an idea of how they will perform on screen.
Brands have to speak their own authentic language. Type is visible language. Using a bland or overused typeface will make the brand and its products or media equally bland and even invisible. Having an exclusive typeface designed or adapted used to be expensive, technically challenging, and difficult to implement. Not anymore. Whether it’s just one weight for a packaged product or a large system for everything, corporate fonts have become a major source of work for type designers.

Some companies take an existing face and simply change the name to make it more identifiable—license models exist for that purpose. While they’re at it, they often add their logo or other glyphs that can then be accessed via the keyboard. And if the chairman (or his wife) doesn’t like the shape of a certain character, that can also be adapted. All with the blessing and preferably the involvement of the original type designer. As a lot of these people are no longer available (think Bodoni, Caslon, or Garamond), the foundry that has the license for the particular typeface will be happy to help.

In 1990, Kurt Weidemann designed a trilogy of faces for Mercedes-Benz that was, in fact, a comprehensive system for all their brands and subbrands. Corporate A stands for Antiqua, the serif version for the car brand; S is Sans, intended for the trucks division; and E is Egyptienne, the slab typeface for the engineering group. This was the first typographic tribe, a family of families. It is no longer exclusive to Mercedes-Benz, so every backstreet garage can now have at least a premium name over the door.

Silicon Valley Bank took the easier route: they chose ff Unit and ff Unit Slab, changed the name for easier recognition, and got a license to distribute it to their suppliers and branches.

When General Electrics started work on its new brand position in 2004, it commissioned an exclusive typeface to express the new direction, perhaps too transparently named GE Inspira. It works well for a large company that makes everything from jet engines to lightbulbs.
No, Watson, this was not done by accident, but by design.
Index

A
accents, 13
Adobe CoolType, 133
Adobe Creative Suite, 117
Adobe Illustrator, 17
advertisements, 83, 93, 143, 187
Aicher, Otl, 121
alphabets, 29, 33, 137
alternate figures, 117
anger, 52, 53
Arabic type, 13
architectural type, 75
Arrighi, Ludovico degli, 33
arrows, 101
ascenders, 107
audience, 29
backlit signs, 23, 99, 165
Bankhead, Tallulah, 26
bar codes, 21
Baskerville, John, 71
Bauer, Konrad, 53
Baum, Walter, 53
Benton, Morris Fuller, 47, 53, 69, 91
Berlow, David, 47, 53, 93
Berra, Yogi, 196
bibliography, 200–202
Bigelow, Charles, 69
bitmap fonts, 59, 75, 183
bitmaps, 37, 59, 73, 133
black typefaces, 47, 53, 125
Bodoni, Giambattista, 67, 179
bold type, 69, 111, 125
books, 15, 81, 111, 157, 159
branding, 77
Brody, Neville, 47
brushstroke typefaces, 187
business communications, 19, 67, 87
business forms, 19, 89, 167
Butterick, Matthew, 93
C
capitals, 105
captions, 161
Carter, Matthew, 71, 75
Caslon, William, 81
casual typefaces, 65
character sets, 113, 117
charts, 119
Chinese type, 13
classic typefaces, 40, 51, 195
classifying type, 55
ClearType technology, 133
coffee table books, 157
color, text, 149
column width, 157
computers, 85, 165, 189
condensed typefaces, 85, 127
contrast, 127
cookbooks, 163
CoolType technology, 133
copperplates, 71, 183
corporations, 87
counters, 125
cursive fonts, 65, 185, 191
descriptions, 29
D
de Groot, Lucas, 69
descenders, 107
design book, 157
design, 29, 85, 185
invisible, 15
sign, 23, 25, 99, 165
type, 59, 77, 195
digital typefaces, 29, 133
DIN standard, 23, 25
discretionary ligatures, 117
doubt, 46, 47
Doyle, Sir Arthur Conan, 78
Du Carrois, Ralph, 179
Dulkinys, Susanna, 49
Dwiggins, William Addison, 154
dynamic range, 129
E
eaves, Sarah, 71
eggs, type on, 21
e-mail messages, 175
emotions, 21, 47–53
EOT format, 177
ergonomics, 131
Excoffon, Roger, 49, 53
expert sets, 113
F
families, type, 111, 121
fashion, 35
figures, 171
flat screens, 133
font editor, 59
fonts
bitmap, 59, 75, 183
cursive, 65, 185, 191
expert, 113
formal, 71
jobbing, 93
monospaced, 19, 21, 137
OpenType, 117, 119, 171
outline, 195
screen, 37, 75, 179
web, 177
See also → typefaces
food packages, 17
formal fonts, 71
forms, 19, 89, 167
fraktur, 31
Franklin, Benjamin, 80, 81
Frere-Jones, Tobias, 63, 65, 73
Freud, Sigmund, 38
Frutiger, Adrian, 67, 89, 121, 123
G
Garamond, Claude, 179
Germanic typefaces, 31
Gill, Eric, 102, 121
Gillespie, Joe, 59, 75
Golden Section, 35
Goudy, Frederic, 7, 93, 134
graphic design, 29, 85, 185
Greek inscriptions, 51
Griffith, Chauncey H., 63
Gutenberg, 31, 33

H
hand lettering, 17
“Handgloves” typography, 41
handwriting, 31, 33, 191
Harvey, Michael, 65
headlines, 145
Herrmann, Ralf, 25
hinting, 133, 177
historical forms, 117
Hoffmann, H., 47
Holmes, Kris, 69
Holmes, Sherlock, 78
Houston, Keith, 115
how-to manuals, 163
HTML formatting, 175
Huber, Jürgen, 53
human body, 35
Hunt, Paul D., 179

I
icons, 101
invisible design, 15
italic type, 65

J
Japanese type, 11
jobbing fonts, 93
joy, 50, 51
justified text, 137

K
Kaden, Joel, 183
kerning, 139
Koch, Rudolf, 51
Kochel, Travis, 119
L
laser printers, 165
LCD screens, 133
Le Corbusier, 35
leading, 15, 193
legibility, 63, 137, 169, 171, 175
Leonardo da Vinci, 57
letterforms, 51, 105, 195
lettering artists, 189
letterpress printing, 93, 193
letters
history of, 137
spacing of, 137, 139, 152
Licko, Zuzana, 37, 53, 71, 183
ligatures, 113, 117
linear reading, 157
lines
length of, 141, 143, 145, 149
spacing of, 15, 141, 147, 149
lining figures, 169
magazines, 91, 161
Majoor, Martin, 51
Manutius, Aldus, 31
margins, 81, 159
Marx, Groucho, 180
master designs, 129
Meier, Hans-Eduard, 51
metal type, 57, 93, 131
Microsoft ClearType, 133
Middleton, R. Hunter, 183
Miedinger, Max, 123
Modulor system, 35
monospaced fonts, 19, 21, 137
Montalbano, James, 25
Mulligan, Gerry, 60
multiple master typefaces, 129, 131

N
nature, 35, 139
neon signs, 185
Ness, Helmut, 25
netiquette, 175
newspapers, 13–15, 40, 63, 95
nostalgia, 93
numerals, 69, 113, 169, 171

O
old style figures, 113
OpenType fonts, 117, 119, 171
ordinals, 117
outline fonts, 59, 195

P
Page, William Hamilton, 93
paperbacks, 40, 81, 157
picas, 193
pixels, 59, 133
planning process, 29
point size, 57, 157
positive type, 23, 99, 165
PostScript, 85, 99, 165
Powell, Gerry, 183
prime marks, 115
printing
hand, 31
letterpress, 93, 193
proportion, rules of, 35
proportionately spaced fonts, 137
quotatution marks, 115
reading
book design for, 157
list of recommended, 200–202
long- vs. short-distance, 141, 143, 145
typefaces designed for, 33
Renner, Paul, 83
reversed type, 23, 99, 152, 165
rhythm, 127
Rickner, Tom, 93
road signs, 7, 23, 25
Roman alphabet, 29, 33
Roman numerals, 171
Rottke, Fabian, 53
sans serif, 53, 85
Sauerteig, Steffen, 75
Schäfer, Ole, 53
Schneider, Werner, 25
screen displays, 21, 59, 75, 101, 133
screen fonts, 37, 75, 179
script fonts, 65, 71
sensationalist newspapers, 95
serifs, 65, 179
Shaw, George Bernard, 81
Shinn, Nick, 65
shoes, 42–45
sidewbars, 7
signage systems, 23, 99, 165
signs
neon, 185
product, 187
road, 7, 23, 25
Slinbach, Robert, 33, 69, 111, 131
small capitals, 117
small print, 40
Smeijers, Fred, 91
spacing
letter, 137, 139, 152
line, 15, 141, 147, 149
word, 141, 153
special characters, 115
special purpose typefaces, 41
Spiekermann, Erik, 53, 121, 179
spoken language, 127
spreadsheets, 169, 171
sprint reading, 143
Stan, Tony, 183
stencil typefaces, 183
stylistic alternatives, 117
surprise, 48, 49
symbols, 101
Sysmälainen, Julia, 191
tabular figures, 171
Tam, Keith Chi-hang, 25
technical constraints, 19
technical standards, 177
television, 15, 37
text
  color of, 149
  long vs. short, 141, 143, 145
  reversed, 23, 99, 152, 165
  white vs. black, 152
Thompson, Greg, 47
tracking, 139, 152
trendy typefaces, 73
Twombly, Carol, 29, 51, 69, 81
type
  advertisement, 83, 93
  architectural, 75
  book, 15, 81, 157, 159
  digital, 29, 85
  email, 175
  food package, 17
  form, 19, 89
  magazine, 91, 161
  newspaper, 13–15, 40, 63, 95
  sign, 23, 99, 101, 165
  spreadsheet, 169
  web page, 167, 177
typefaces
  black, 47, 53, 125
  bold, 69, 111, 125
  brushstroke, 187
  business, 19, 67, 87
  casual, 65
  choosing, 17, 45, 63, 109
  classifying, 55
  condensed, 85, 127
  describing, 57
  designing, 59, 77, 195
  digital, 29, 133
  emotions and, 21, 47–53
  families of, 111, 121
  formal, 71
  future of, 37
  history of, 29–33, 137
  legibility of, 63
  mixing, 121
  multiple master, 129, 131
  nostalgic, 93
  point size of, 57, 157
  special purpose, 41
  trendy, 73
  weight of, 123, 125
  workhorse, 69
  See also →fonts
typewriters, 113, 115, 137, 183
typing pools, 165, 167

UI applications, 101
Unger, Gerard, 63, 65
van Blokland, Erik, 183, 187
van den Keere, Hendrik, 63
van Rossum, Just, 183, 187
VanderLans, Rudy, 71
vector data, 119
Watzlawick, Paul, 8
web fonts, 177
web pages
  fonts for, 177
  text viewed on, 167
Weidemann, Kurt, 77
weight, 123, 125
Welk, Lawrence, 121
Wenzel, Martin, 69
woff format, 177
words
  outline of, 107
  spacing, 141, 153
work spaces, 165, 167
workhorse typefaces, 69
x-height, 107
Zapf, Hermann, 67
Zapf, Hermann, 67