

TYPE AND LETTERS

Before 1455 books were made by hand. Only the wealthy could afford a book. A book could cost as much as an acre of land. Say! you bought two books for this class that will be \$800,000 each, please. Then Johann Gutenberg invented the letter press and the world changed.

By the 1700's the printing business was in full swing. People were learning to read and though books were still valuable at least they were affordable. As books increased in popularity, a new business began, the letter designer. To make their books different, the letter designers started making new types of type. Many of the type faces designed in the 1700 and 1800 are still in used today:

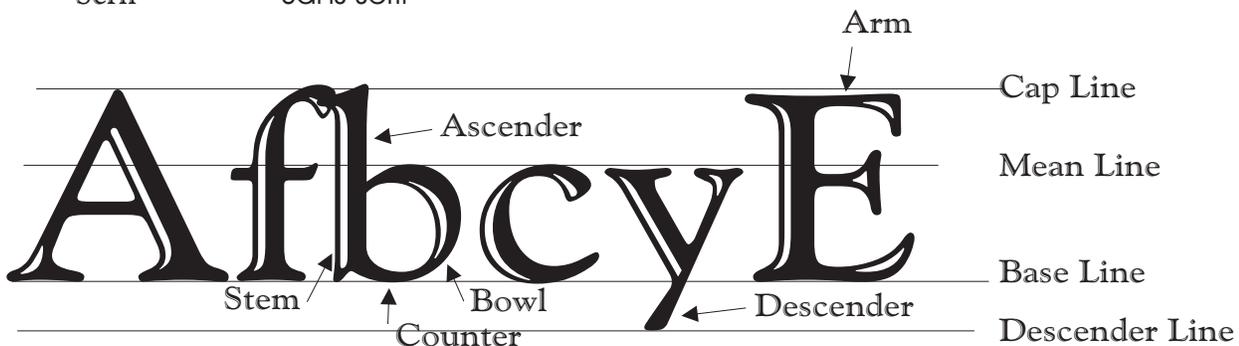
Romans by Nicholas Jenson, Baskerville and others by John Baskerville in 1850's, Bodoni by Giambarrista Bodoni.

In the late 1800's hot type, a machine set

type formed from hot molten lead cast into letterforms, was invented. Leading (pronounced leading) is the term used today for the space between rows of letters comes from the line or slug of lead from the Linotype machine that separated each line of type. The word leading is still on some computer menus and is used to adjust the space between rows of letters.

Cold type took over in the 1950's. This is type produced by a photographic process. This process was much faster and efficient. The field of phototypesetting began to give us as designers more control over type. Digital type began with the use of the computer. Now the designer has control for the first time since Gutenberg. This revolution in type gives us a chance to design or even change the type to the way we want it.

The Anatomy of a letter



TYPE AND LETTER GLOSSARY

Arm= The short horizontal Stroke from the stem... L.. E F.

Ascender= The part of a lowercase letter that is above the mean line..b..h..d

Bar= The horizontal bar found in letters A.. H..

Baseline= The bottom edge of an invisible line on which type sits.

Bowl= The curved line that forms an enclosed or almost enclosed part of the letter P, R, d, a, c

Counter= The shape created by the enclosed space in a letter. It is between the bowl and stem. See diagram.

Descender= The part of a lowercase letter that extends below the baseline..j,y, p,q,y

Stem= A full-length vertical or diagonal line or stroke. L, I

Stress= Thickening direction of a curved stroke. R. P.

Stroke= The curves and stem that gives letters their basic form w, y,

Swash= A flourish that adds decorations and replaces a serif: R. L.N

Tail= An angled short stroke. Q.. R.

X height= The height of lowercase letters. The distance between the baseline and mean line.

Leading=The vertical space between the rows of letters.

Kerning=The space between the letters on the row.

Typography

Old Style

Old Style typefaces tend to have a warm peaceful appearance. They are best choice for readable lengthy bodies of text. Classic old style doesn't distract from the communication. This means that it is easy to read, it doesn't tire out your eyes. All old style faces have serifs. The Serifs connect to the main strokes with a curve. The strokes make a gentle transition from thick to thin, as the broad pen made naturally. Oldstyle type as a diagonal stress.

Caslon Minion

Garamond Times Palatino

Modern

Modern typefaces have a sparkle and an elegance, but they also tend to have a severe and cold appearance. They lack readability and are not very good for lengthy text or small text. They have a strong thick/thin contrast which creates an effect called "dazzling" that is hard on the eyes. Modern has serifs but the serifs are horizontal and very thin, with little or no bracketing. The stress is very vertical.

Onyz Jimbo, Bodoni, Bodoni Poster.

Slab Serif

Slab Serif has Serif that are horizontal heavy fat slabs. The Stress, when there is any, is vertical. The typefaces are heavier than Oldstyle. These typefaces were designed during the time that Napoleon was in Egypt and so instead of naming the faces after the designers they were named after places in Egypt. This Typeface is used for advertising and is difficult to read in large body of text.

Clarendon Memphis New
Century Schoolbook Candida
Candida Bold

Sans Serif

In 1816, type designer William Caslon took the serifs off typefaces because he hated the Slab serifs. These type faces were not a big hit until the Bauhaus school of design, where "form follows function", came into style around 1919. Sans Serifs doesn't have serifs, the strokes has no visible change from thick to thin. Sans Serifs tend to have a large x-heights and so present quite a presence on the page.

**Futura Flyer Condensed
Formata Trade Gothic**

Fringe Type

With the advent of the computer and desktop publishing there was a sudden interest in type and type faces. The demand for new typefaces exploded, and all type of typefaces was invented. With the power to invent personal typefaces and to enlarge and shrink just by the click of mouse.

Fringe type (ie grunge, garage, deconstructive, edge, lawless, or just plain ugly) are typically distorted, schizophrenic, deliberately trashed, often difficult to read.

Scripts

Script and decorative typefaces have popped up in just about every period of typographic history. Script faces of course emulate handlettering in many varieties--blackletter (as in many of the Bibles handlettered by scribes), calligraphic (as in weddings invitations), drafting (as in architects' drawing), cartoon and so on.

Decorative

Decorative are quite noticeable as well. Letter made of ballet shoes or bananas. These typefaces are only used to decorate or emphasize the content.

Letterforms

Type set in all caps is difficult to read. This is because the human eye doesn't read by seeing each letter separately. In large body of text uppercase and lowercase is much easier to read. You should only use all caps in titles or if you must emphasize something.

San serifs type presents the eye with identification problems similar to all caps. Without serifs the eye struggles with the identification of words.

Serif type is easier to read because the serifs present the eye with more visual cues. The serifs also lead the eye from one word to another.

Letters with the x-height of the lowercase letters that are slightly taller than half of the size of the capital letters are easier to read in body text.

Typefaces with small x-height are a little hard to read. They tend to bother reading flow because the overall impact of the letters is vertical, and we read along the horizontal.

Type faces with a large x-height are also hard to read. The tops of the x-high letters begin to interfere visually with the tops of the ascenders, confusing the eye.

Be careful when using italic type in large copy blocks, especially as smaller point sizes. The flourishes and the angled letters can create eye fatigue rather quickly. Also note that there is a difference between real italic type and computer-generated type that has been slanted. Real italic type alters the shape of the letterforms so as to proportion them better. Slanted type merely leans them over.

Boldface type can be quite effective when used in small amounts but if you use bold type in large blocks of copy, you create a bouncing effect on the eyes. The heaviness of the letter strokes begins to compete for attention with the negative space around each letter, causing the type to "sparkle".

Reverses

White type reversed out of a solid background can be very effective when used in small amounts.

However, in large blocks of copy it makes reading more difficult for two reasons. First: people just aren't as used to seeing it, so it slows them down. Second: the eye bounces due to the contrast between the letters and the dark background. This become even more of a problem with serifs

and small type, the letters start to halo which makes it difficult for the eye to focus.

Reverses on a four color background has all the problems of reverses on a black background plus the problems of registration. If you do not have perfect registration you can have the colors creep into the letter and fill them in. The smaller point size become even worse.

If you must reverse type out of a four colors, use larger point sizes, sans serif type and chokes or spreads in the film. This means that the type in the reverse of the first ink laid down is fatter than the type in the other plates. The type in the next plate is fatter than the remaining plates, but more narrow than the first, and so on. If you trap your type this way, the edge of color next to the letter will be a different color than the rest of the background. But the difference will not show up as much as filling in the letters.

If you reverse type out of a four-color photograph make sure the background is dark enough to provide contrast to the white type.

If you overprint type over a four color photo, make sure the photo is light enough so that the black type stands out.

Spacing

Tight letter spacing or word spacing forces the reader to struggle to distinguish where one word ends and another begins. If you must set tight, consider using a condensed typeface, which is proportioned for less spacing.

Loose spacing also presents a readability problem. Not only is the eye's natural rhythm thrown off, but sometimes the type is so loose that vertical rivers of white space are created that run down the length of the paragraph.

Alignment

Because we read from left to right, our eyes become accustomed to beginning every line on the left. It's easier for the for the eye to track from one line to the next if it can return to the same left hand point each time. The easiest alignment to read is flush left, ragged right.

Justified type is also fairly easy to read as long as the line length allow words to be spaced fairly evenly, with a minimum to hyphenation. Hyphens

slow the reader because the word fragments either carry no inherent meaning at all or they carry a meaning at odds with the context.

Hardest of all to read is type that is aligned flush right, ragged left. When the eye finishes one line it must hunt for the next line.

Center type is also hard to read for the same reason. The reader must hunt for each line. Stay away from setting type across the gutter, especially if your design is perfect bound.

Line length

If lines are too long, the reader will lose track as the eye moves back and forth from the end of one line to the beginning of the next. There is no one best line length for the readability. Optimum line length depends on the size of the type and the design of the letterforms. Generally, the ideal line length measures the equivalent of an alphabet and a half, when an alphabet is set with normal letter spacing. Another rule of thumb is to set line length as the point size multiplied by two. Type with wide letterforms should be set longer. Type with narrow letterforms should be set in more narrow lines.

Lines that are too short are hard to read because sentences are broken up too much, word and letter spacing is often disturbingly uneven, and the eye bounce along too rapidly from one line to the next. If you must set lines short, then choose as small a point size as you can. Don't justify the type (that only worsens the problems), and avoid excessive Hyphenation.

Leading

The amount of space between lines, called leading, is an important factor in readability. If the lines are set too closely together, type on one line interferes with type on another line. Usually the best leading for smaller point sizes is one point larger than the point size of the type. So 10 point type should have 11 point leading. (This is the default on most desktop systems). You can vary the leading, however type with a small x-height can be set quite legibly as solid meaning the same size leading as the x-height. On the other hand, type with a large x-height might require an extra point of leading. Any type face with a vertical focus should be set with a point of two of extra leading. This includes most sans serif faces which lacking serifs, don't flow

horizontally very well. Finally larger point sizes (above 12 point) look best when given an extra point of two of leading.

Too much space between lines slows down reading considerably as the eye struggles to find where the next line begins. This problem is made worst at small point sizes and with long line lengths. If you like the look of a lot of extra leading, confine yourself to small amounts of type set flush left or at least justified.

Spelling

Never let a block of type go out of your office without checking for spelling first. But don't rely on your computer's spell checker alone. Read the copy too. The spell checker will not catch the words that are spelled right but are used wrong, but your reader will.

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