Adobe Print Publishing Technical Guides

Typography basics: Anatomy of letterforms

Understanding the fundamental principles and concepts of typography is the first step to being a successful typographer. The most basic component of typography is the letter, and each letter of the alphabet is distinguished by its unique shape, or letterform. This technical guide includes definitions for and illustrations of the individual parts that compose letterforms, as well as the boundaries by which letterforms are delineated.

**Boundaries**

*baseline*
The imaginary horizontal line upon which the majority of the characters in a typeface sit.

*capline*
The imaginary horizontal line resting upon the tops of the uppercase letters.

*meanline*
The imaginary horizontal line that designates the height of lowercase letters.
x-height
Traditionally, the height of the lowercase letter x. As a general rule, x-height is the height of the body of lowercase letters of a typeface, excluding the ascenders and descenders. Some lowercase letters may extend a little bit above or below the x-height as part of their design, even without ascenders and descenders. X-height can vary considerably among typefaces with the same point size, which is based on the width of certain uppercase letters.

Letterform parts

apex
The peak of an uppercase A.

arm
A horizontal portion of a letterform, one or both ends of which are unattached to the vertical portion(s).

ascender
The portion of a lowercase letterform (e.g., k, b, or d) that ascends above the x-height of the typeface. Contrast descender.
beak
Akin to a spur, but slightly larger, the projection that extends from the end points of an uppercase L, T, or E.

\[ E \]

bowl
A curved portion of the letterform that encloses a counter. The exception in the lower curved part of a lowercase g (see loop).

\[ g \]

bracket
The curve that connects the serif to the stem or stroke. May also be referred to as a fillet.

\[ f \]

counter
The negative space of a letterform. A counter may be either fully or partially enclosed.

\[ dG \]

crossbar
The horizontal part of a letterform that connects, for example, a stem to a hairline.

\[ H \]
cross stroke
The horizontal part of a letterform that intersects the vertical part.

descender
The portion of a lowercase letterform (e.g., y, p, or q) that descends below the baseline in a typeface. In some typefaces, the uppercase J and Q also descend below the baseline. Contrast ascender.

ear
The small decorative projection from the upper right side a lowercase g.

eye
The enclosed portion of a lowercase e. Similar to a counter.

hairline
The thinnest line of a typeface made of varying line weights.
leg
The lower, angled stroke of a k.

link
The part of a lowercase g that connects the loop to the bowl.

loop
The curved part of a lowercase g that encloses the lower counter. Similar to a bowl.

serif
Small decorative lines added to the end of a letterform's stem and stroke. Serifs improve readability by leading the eye along a line of type.

spine
The main portion of the letter S—both lowercase and uppercase—that curves from left to right.
**spur**
The projection that extends from the end point of the curved portion of a letterform (e.g., from the top or bottom of an uppercase or lowercase S or C). A spur is smaller than a serif.

**stem**
The main vertical or near vertical portion of a letterform.

**stroke**
The main diagonal portion of a letterform, though this term is often used to refer to any of the main portions—vertical, near vertical, or diagonal—of a letterform.

**tail**
The stroke or loop at the end of a letterform, such as the tail of an uppercase Q or the stroke on an uppercase R.

**terminal**
The end, or termination, of a stem or stroke with no serif.