x-Height

By Allan Haley

THE TERM X-HEIGHT REFERS TO THE HEIGHT OF THE LOWERCASE X in a given typeface at any given size. It provides a way of describing the general proportions of any typeface. Conversely, display typefaces are used to entice a reader into text copy, to create a mood or feeling, or to announce important information.

Point Size Is Different Than x-Height
The point size of a typeface is basically a measure of its overall height, from the top of the tallest character above the baseline to the longest descender beneath the baseline. However, since, over 95 percent of all Latin letters read are lowercase, with proportions that vary from typeface to typeface, their x-height is an important factor in both legibility and readability. It offers a highly practical way to classify the size of the vast majority of the characters read.

Seemingly similar typefaces may in fact have very different x-height proportions. For example, the lowercase characters in the Gill Sans typeface family are noticeably smaller than those of the ITC Avant Garde Gothic typeface family. The lowercase letters in the Plantin typeface family are considered to have a relatively generous x-height, while those in the Bernhard Modern family are usually considered small.

Large x-Heights
Large x-heights generally make a typeface more visible at any given size. Thus, display faces with very large lowercase characters tend to communicate with clarity and emphasis. Text typefaces that incorporate large x-heights generally do so in an attempt to increase legibility and readability. The Spartan Classified font, which is designed to be legible at very small sizes, has a much larger x-height than the Futura typeface it was patterned after, which was intended for text composition within a normal point-size range.

Small x-Heights
Although a large letter size may be preferable in some scenarios, bigger is not always better. This visibility usually comes at a price. As the x-height increases, the length of the ascenders and descenders decreases. Taken to the extreme, this can reduce character legibility. For this reason, a typeface like Antique Olive, for instance, is fairly difficult to read at small sizes.

Typefaces with large x-heights also take up more real estate than those with small x-heights. For example, in any given measure, about 10 percent more copy can be set using a typeface like Perpetua than one like ITC Legacy Serif. A 10 percent longer book or a line of
advertising copy that has to be set 10 percent smaller to fit on a page is a significant outcome to consider.

Typefaces with small x-heights can also save space in another way. If lines of copy are set with no additional line space, the proportionally longer ascenders and descenders of a typeface with a short x-height will create the illusion of more white space between lines of type.

As with most matters typographic, there are few fixed rules regarding the choice of typefaces with various x-heights. Considering the audience, the reading environment, and the typographic application is always an appropriate starting point when choosing typefaces with the right x-height for any project.

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