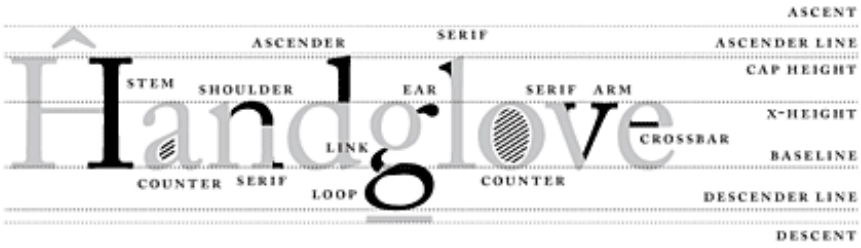
Syntax **Anatomy of Letterform**



SERIF FORMS

Reflexive

ADNATE

ABRUPT

Transitive

TERMINAL FORMS

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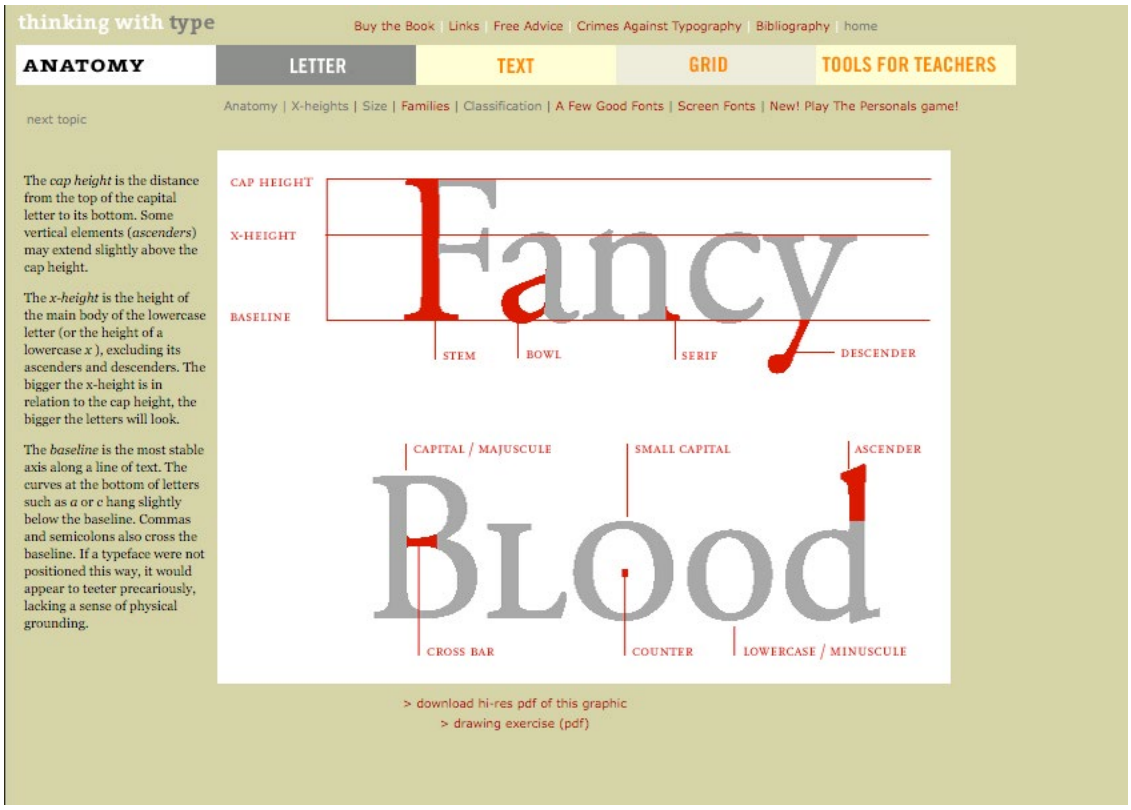

http://www.papress.com/other/thinkingwithtype/letter/anatomy.htm

Typography

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Anatomy | Size | X-heights | Classification | Families | A Few Good Fonts | Screen Fonts | New! Play The Personals game

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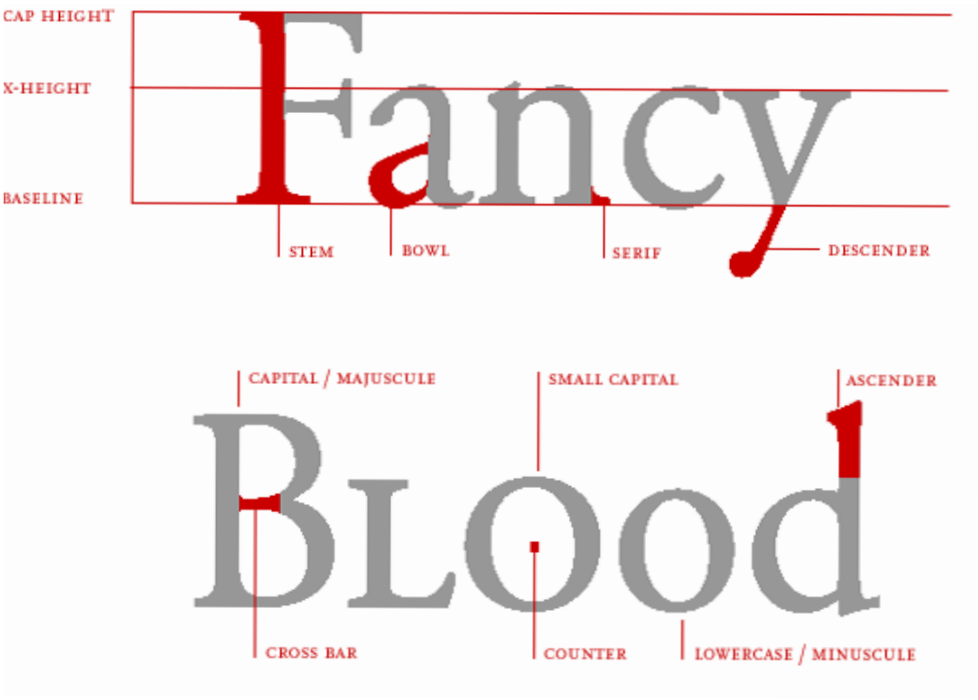
Syntax **Anatomy of Letterform**



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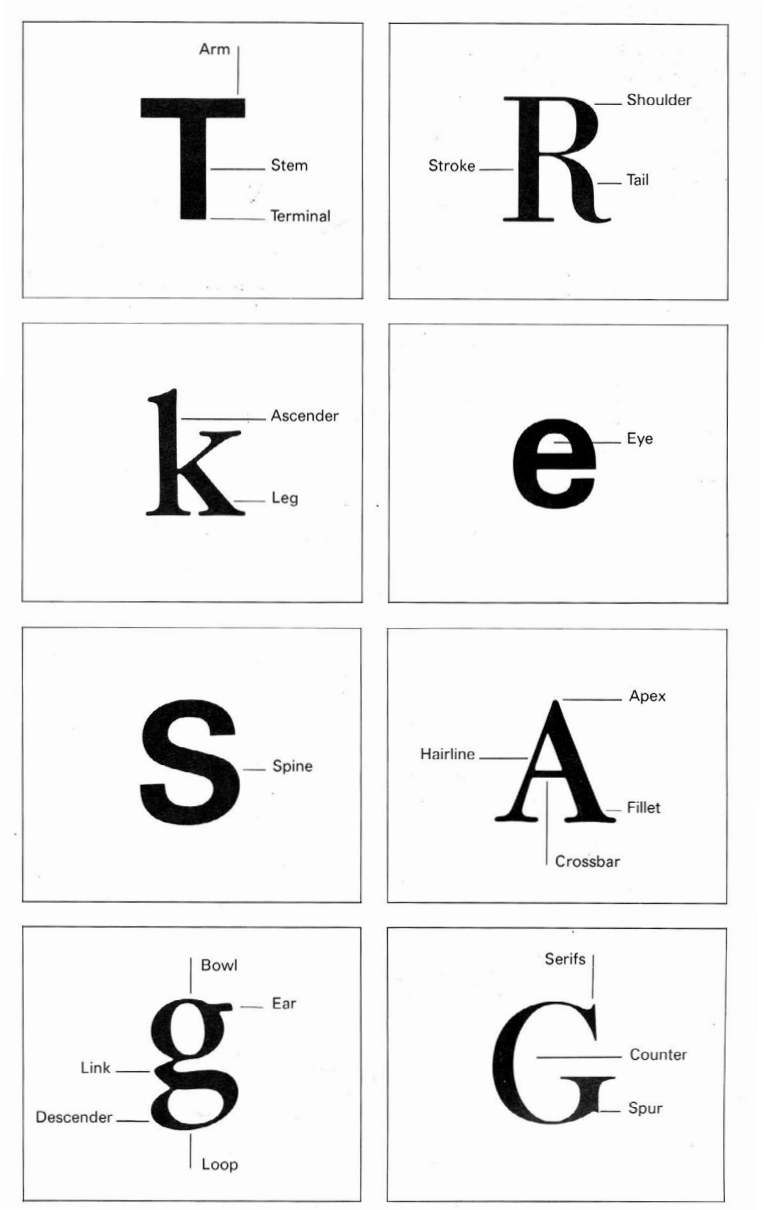
Syntax **Anatomy of Letterform**



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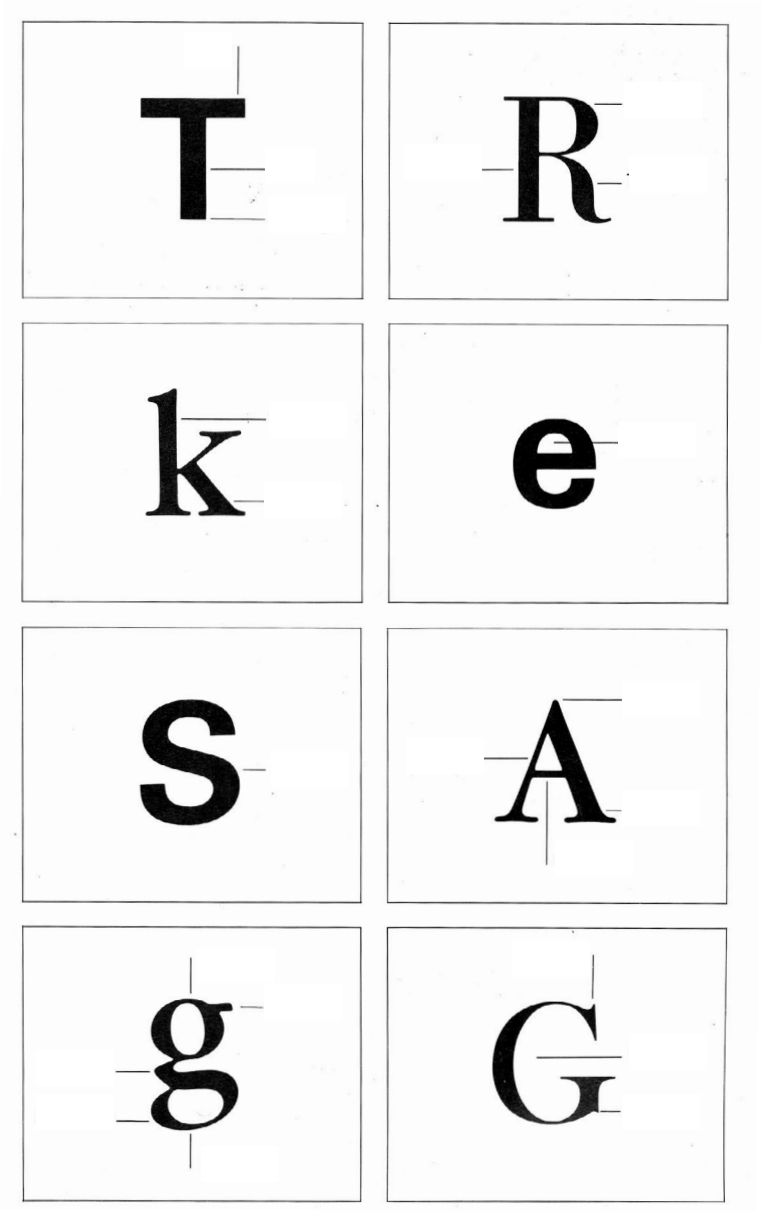
Syntax **Anatomy of Letterform**



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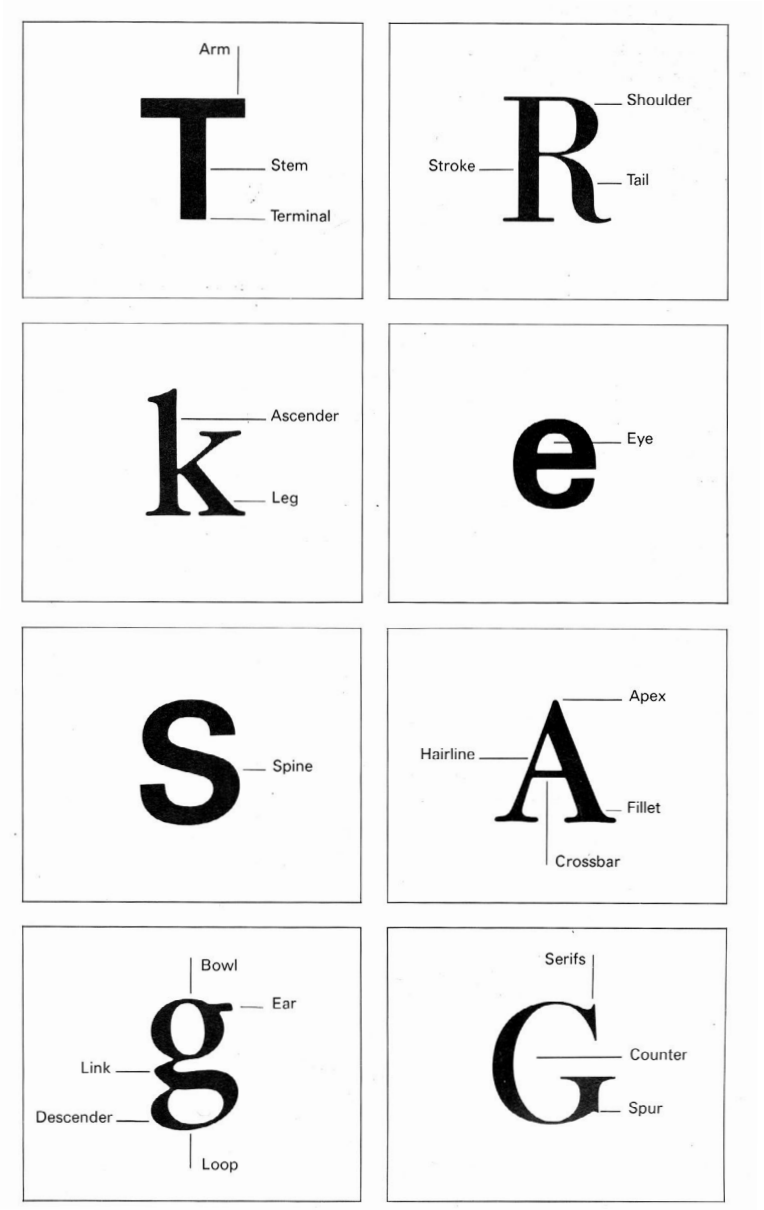
Syntax **Anatomy of Letterform**



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A basic system for classifying typefaces was devised in the nineteenth century, when printers sought to identify a heritage for their own craft analogous to that of art history.

Humanist letterforms are closely connected to calligraphy and the movement of the hand.

Transitional and modern typefaces are more abstract and less organic.

These three main groups correspond roughly to the Renaissance, Baroque, and Enlightenment periods in art and literature.

Designers in the twentieth and twenty-first centuries have continued to create new typefaces based on historic characteristics.

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HUMANIST OR OLD STYLE

The roman typefaces of the fifteenth and sixteenth centuries emulated classical calligraphy. Sabon was designed by Jan Tschichold in 1966, based on the sixteenth-century typefaces of Claude Garamond.

TRANSITIONAL

These typefaces have sharper serifs and a more vertical axis than humanist letters. When the fonts of John Baskerville were introduced in the mid-eighteenth century, their sharp forms and high contrast were considered shocking.

MODERN

The typefaces designed by Giambattista Bodoni in the late eighteenth and early nineteenth centuries are radically abstract. Note the thin, straight serifs; vertical axis; and sharp contrast from thick to thin strokes.

EGYPTIAN OR SLAB SERIF

Numerous bold and decorative typefaces were introduced in the nineteenth century for use in advertising. Egyptian fonts have heavy, slab-like serifs.

HUMANIST SANS SERIF

Sans-serif typefaces became common in the twentieth century. Gill Sans, designed by Eric Gill in 1928, has humanist characteristics. Note the small, lilting counter in the letter a , and the calligraphic variations in line weight.

SANS SERIF

Helvetica, designed by Max Miedinger in 1957, is one of the world's most widely used typefaces. Its uniform, upright character makes it similar to transitional serif letters. These fonts are also referred to as "anonymous sans serif."

GEOMETRIC SANS SERIF

Some sans-serif types are built around geometric forms. In Futura, designed by Paul Renner in 1927, the Os are perfect circles, and the peaks of the A and M are sharp triangles.

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Syntax **Classification**
pages 36 - 37
Typographic Design Form + Communication

Syntax **Classification**

Syntax **Classification**

TYPE FAMILY: ADOBE GARAMOND

Adobe Garamond was designed by Robert Slimbach in 1988.

The idea of organizing typefaces into matched *families* dates back to the sixteenth century, when printers began coordinating roman and italic faces. The concept was formalized at the turn of the twentieth century.

The roman font is the core or spine from which a family of typefaces derives.

ADOBE GARAMOND REGULAR

The roman form, also called "plain" or "regular," is the standard, upright version of a typeface. It is typically conceived as the parent of a larger family.

Italic fonts, which are based on cursive writing, have forms distinct from roman.

ADOBE GARAMOND ITALIC

The italic form is not simply a mechanically slanted version of the roman: it is a separate typeface. Note that the letter a has a different shape in the roman and italic variants of Adobe Garamond.

SMALL CAPS HAVE A HEIGHT THAT IS SIMILAR TO *the lowercase* X-HEIGHT.

ADOBE GARAMOND EXPERT (SMALL CAPS)

Small caps (capitals) are designed to integrate with a line of text, where full-size capitals would stand out awkwardly. Small capitals are slightly taller than the x-height of lowercase letters.

Bold (and semibold) **typefaces are used for emphasis within a hierarchy.**

ADOBE GARAMOND BOLD AND SEMIBOLD

Bold versions of traditional text fonts were added in the twentieth century to meet the need for emphatic forms. Sans-serif families often include a broad range of weights (thin, bold, black, etc.).

Bold** (and semibold) **typefaces each need to include an italic version, too.

ADOBE GARAMOND BOLD AND SEMIBOLD ITALIC

The typeface designer tries to make the bold versions feel similar in contrast to the roman, without making the overall form too heavy. The counters need to stay clear and open at small sizes.

A full type family has two sets of numerals: *lining* (123) and *non-lining* (123).

ADOBE GARAMOND REGULAR AND EXPERT NUMERALS

Lining numerals occupy uniform units of horizontal space, so that the numbers line up when used in tabulated columns. Non-lining numerals, also called "text" or "old style" numerals, have a small body size plus ascenders and descenders, so that they mix well on a line with lowercase letters.

A *type* **family** CAN BE faked by *slanting,* or **inflating**, or SHRINKING letters.

ITALIC BOLD SMALL CAPS

TYPE CRIME: PSEUDO ITALICS
The wide, ungainly forms of these skewed letters look forced and unnatural.

TYPE CRIME: PSEUDO BOLD
Padded around the edges, these letters feel blunt and dull.

TYPE CRIME: PSEUDO SMALL CAPS
These shrunken versions of full-size caps are puny

This page from *Thinking with Type* is provided as a PDF to facilitate classroom discussions. The PDF can be viewed on screen and blown up as needed.

http://www.papress.com/other/thinkingwithtype/text/kerning.htm

Typography
Demonstrations
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JACQUES DERRIDA'S theory of *deconstruction* asks how representation inhabits reality. How does the external image of things get inside their internal essence? How does the surface get under the skin? WESTERN CULTURE since PLATO has been governed by such oppositions as *inside/outside* and *mind/body*. If writing is but a copy of spoken language, typography is even further removed from the primal source of meaning in the mind of the author. Typography includes not only the letters of the alphabet but also numerals (1, 2, 3, 7, 8, 9 or 1, 2, 3, 7, 8, 9). DERRIDA used the term *grammatology* to name the study of writing as a distinctive form of representation.

small caps
caps
caps
old style or non-lining numerals
lining numerals
small caps, upper and lower case

Text adapted from Ellen Lupton and J. Abobtt Miller, "Deconstruction and Graphic Design," *Design Writing Research: Writing on Graphic Design* (London: Phaidon Boooks). Written in Scala, 1996.

http://www.papress.com/other/thinkingwithtype/letter/anatomy.htm

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12 points
equal 1 pica

6 picas
(72 points)
equal 1 inch.

A typeface is measured from the top of the capital letter to the bottom of the lowest descender, plus a small buffer space.

In metal type, the point size is the height of the type slug.

Make it bigger. Paula Scher

Amateur typographers tend to make their type too big. In contrast, experienced typographers tend to make it too small. Clients will often ask you to "Make it bigger."

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Basic type anatomy

We have seen how language related to the subject of understanding type in general can be beneficial. Deconstruction of the various letter-parts associated with type will enable a greater understanding and confidence when working with type.

Some of these may have different labels according to time and culture; however, establishing some basics is necessary for the beginner.

Fig 1.23

ascender
bowl
counter
descender
terminal
diacritic (umlaut)
shoulder
ear
flag
link
loop
aperture

Fig 1.24

Typography

Demonstrations

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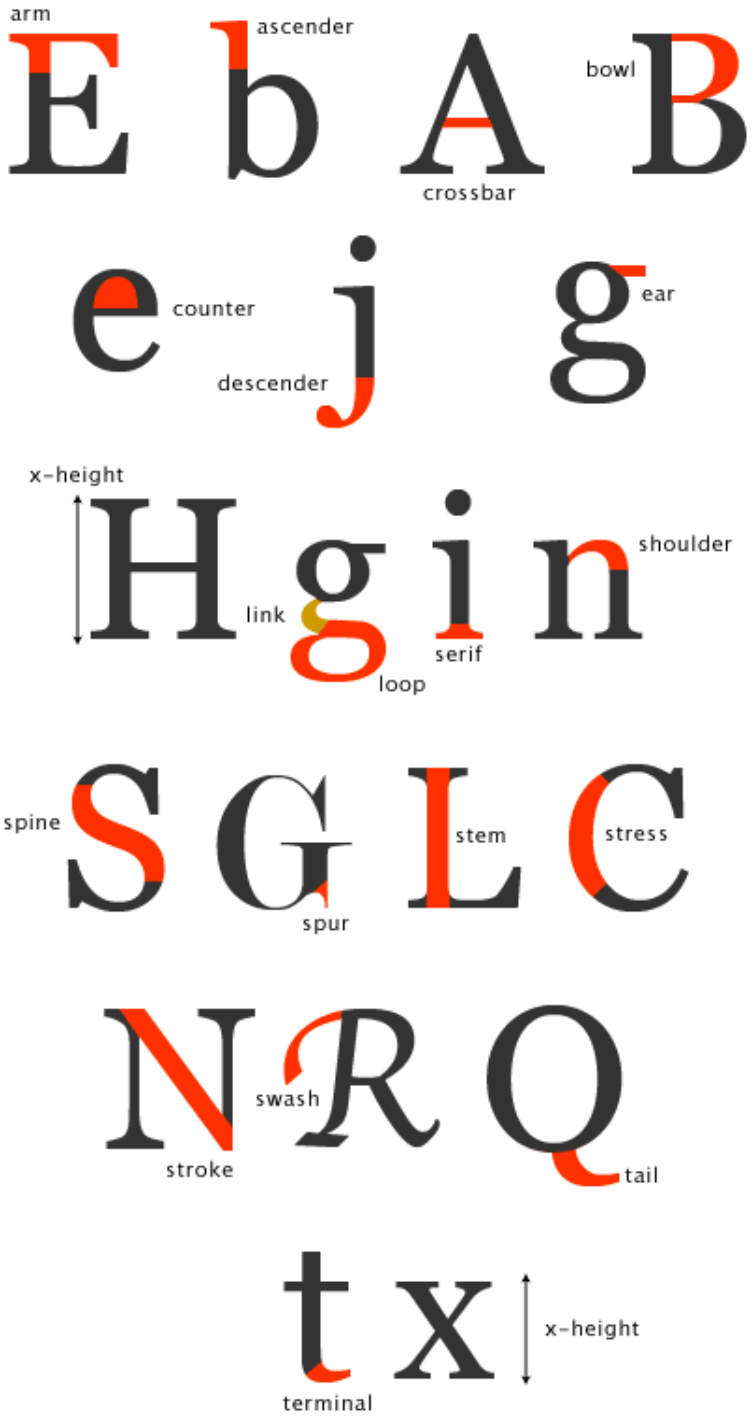

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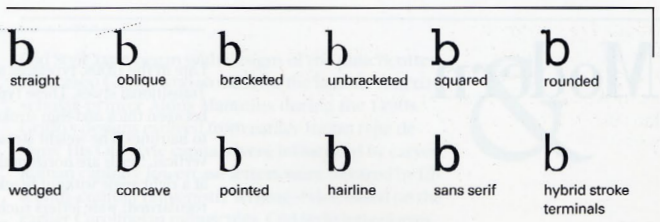
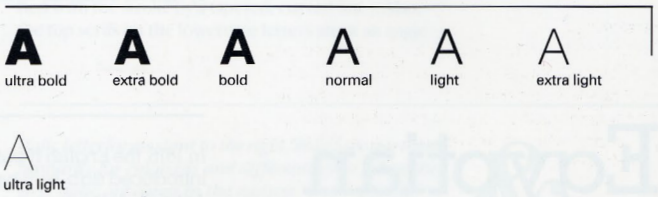
Typographic **Variations**

tion system derived from the visual features common to letters throughout the typeface kingdom. It may be used for comparative purposes to pinpoint the most dominant traits of specific typefaces. Type designers use these variations to create a family of typefaces. The type family is discussed on pages 37-39.

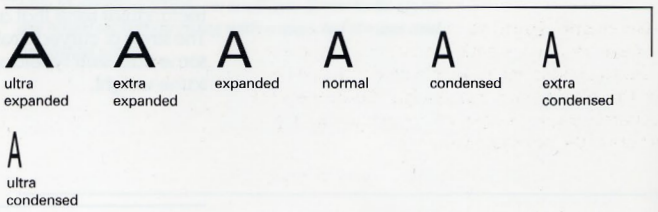
Serifs:
Serifs provide some of the most identifiable features of typefaces, and in some cases they reveal clues about their historical evolution. The serifs shown are those that appear most frequently in typefaces.



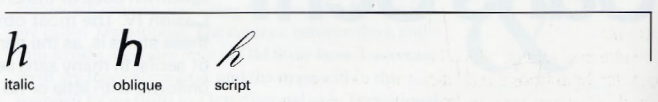
Weight:
This is a feature defined by the ratio between the relative width of the strokes of letterforms and their height. On the average, a letter of normal weight possesses a stroke width of approximately 15% of its height, whereas bold is 20% and light is 10%.



Width:
Width is an expression of the ratio between the black vertical strokes of the letterforms and the intervals of white between them. When white intervals appear larger, letters appear wider. A letter whose width is approximately 80% of its height is considered normal. A condensed letter is 60%, and an expanded letter is 100% of its height.

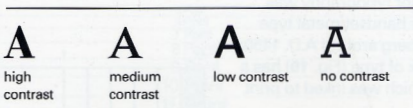


Posture:
Roman letters that slant to the right but are structurally the same as upright roman letters are referred to as oblique. Italic letters, which are based on handwriting, are structurally different from roman letters of the same type family. Italic letters with connecting strokes are called scripts. The angle of posture varies from typeface to typeface; however, a slant of approximately 12% is considered to be normal.

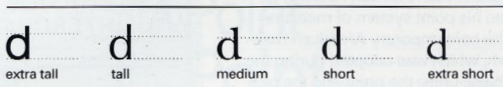


Typographic **Variations**

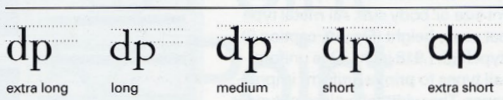
Thick/thin contrast:
This visual feature refers to the relationship between the thinnest parts of the strokes in letters and the thickest parts. The varying ratios between these parts produce a wide range of visual textures in text type.



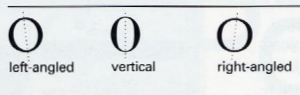
x-height:
This proportional characteristic can vary immensly in different typefaces of the same size. Typically, x-heights are considered to be "tall" when they are at least two-thirds the height of capital letters. They are "short" when they measure one-half the height of capital letters.



Ascenders/descenders:
Ascenders and descenders may appear longer in some typefaces and shorter in others, depending on the relative size of the x-height. Descenders are generally slightly longer than ascenders among letters of the same typeface.



Stress:
The stress of letters, which is a prominent visual axis resulting from the relationships between thick and thin strokes, may be left-angled, vertical, or right-angled in appearance.



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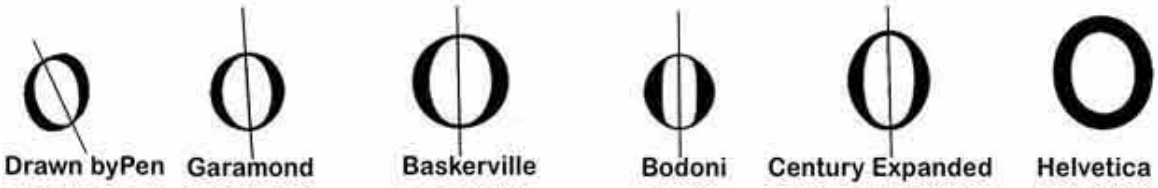

Variations in Stress

Variations in thick and thin strokes

Variations in serifs

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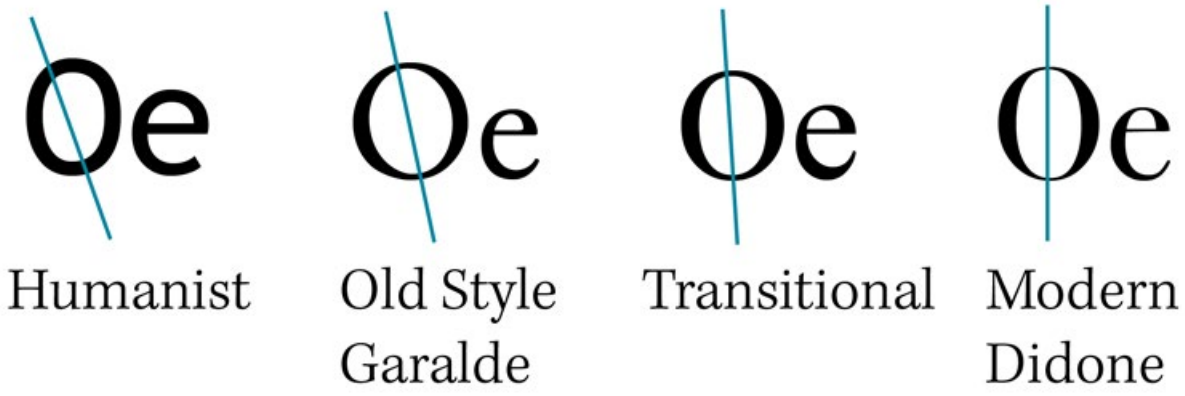

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Syntax **Classification**

Typographic measurement

Our measurement system for typography was originally developed for the handset metal type invented by Johann Gutenberg around A.D. 1450. The rectangular metal block of type (Fig. **19**) has a raised letterform on top, which was inked to print the image.

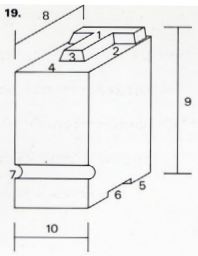
Metal type measurement

The small sizes of text type necessitated the development of a measuring system with extremely fine increments. There were no standards for typographic measurements until the French type designer and founder Pierre Simon Fournier le Jeune introduced his point system of measurement in 1737. The contemporary American measurement system, which was adopted during the 1870s, has two basic units: the point and the pica (Fig. **20**). There are approximately 72 points in an inch (each point is 0.138 inches) and 12 points in a pica. There are about six picas in an inch.

Metal type exists in three dimensions, and an understanding of typographic measurement begins with this early technology. The depth of the type (Fig. **19**, caption 8) is measured in points and is called the point size or body size. All metal type must be the exact same height (Fig. **19**, caption 9), which is called typehigh (.918 inch). This uniform height enabled all types to print a uniform impression upon the paper. The width of a piece of type is called the set width (Fig. **19**, caption 10) and varies with the design of each individual letter. The letters *M* and *W* have the widest set width; *i* and *l* have the narrowest. The length of a line of type is the sum of the set width of all the characters and spaces in the line. It is measured in picas.

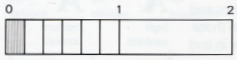
Before the development of the point and pica system, various sizes of type were identified by names, such as brevier, long primer, and pica; these became 8-point, 10-point, and 12-point type. The chart in Figure **21**, reproduced from a nineteenth-century printers' magazine, shows the major point sizes of type with their old names. Type that is 12 point and under is called text type

19.



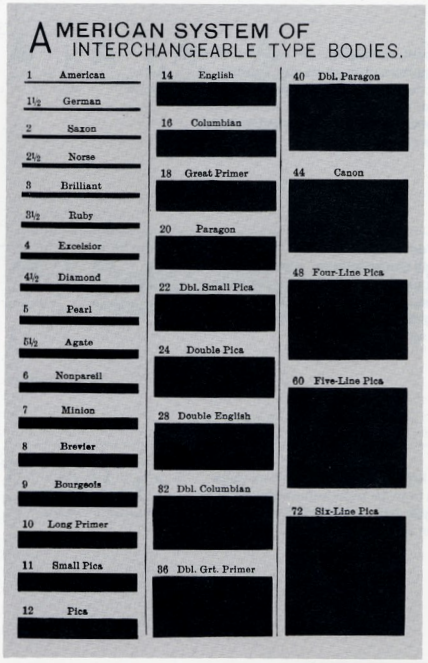
1. Face (printing surface)
2. Counter
3. Beard
4. Shoulder
5. Feet
6. Groove
7. Nick

8. Point size (body size)
9. Type-high (.918" height)
10. Set width



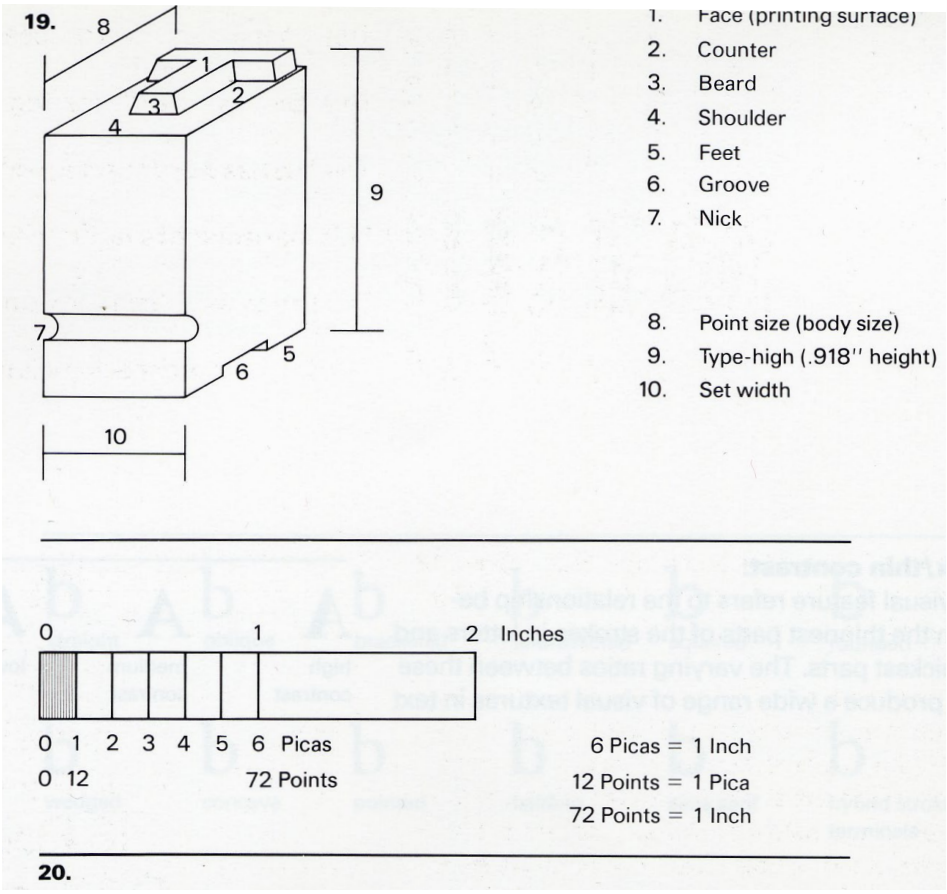
6 Picas = 1 Inch
12 Points = 1 Pica
72 Points = 1 Inch

20.



21.
Reproduced actual size from *The Inland Printer*, April 1885.

Syntax **Classification**



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A *type* **family** CAN BE faked by *slanting,* **inflating**, or SHRINKING letters.

ITALIC | BOLD | SMALL CAPS

TYPE CRIME: PSEUDO ITALICS
These skewed letters are wide, ungainly, and unnatural.

TYPE CRIME: PSEUDO BOLD
Padded letters look blunt and dull.

TYPE CRIME: PSEUDO SMALL CAPS
Shrunken caps appear puny and starved.

Adobe Garamond type family, designed by Robert Slimbach, 1988

The roman font is the core or spine from which a family of typefaces derives.
Adobe Garamond Regular

Italic fonts, which are based on cursive writing, have forms distinct from roman.
Adobe Garamond Italic

SMALL CAPS HAVE A HEIGHT THAT IS SIMILAR TO *the lowercase* X-HEIGHT.
Adobe Garamond Expert (Small Caps)

Bold (and semibold) **typefaces are used for emphasis within a hierarchy.**
Adobe Garamond Bold and Semibold

Bold** (and semibold) **typefaces each need to include an italic version, too.
Adobe Garamond Bold and Semibold Italic

A full family has two sets of numerals: *lining* (123) and *non-lining* (123).
Adobe Garamond Regular and Expert numerals

http://www.papress.com/other/thinkingwithtype/letter/anatomy.htm

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ADOBE GARAMOND PRO

CAP HEIGHT

X-HEIGHT

BASELINE

Draw these letterforms!

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