## A Nomenclature for the Letterforms of Roman Type

## Philip Gaskell

While the the organization of nomenclature for the elements of letterforms has had a long history, there is today no fully codified system. This paper attempts to define all of the necessary terms for naming the parts of the printed images of roman types in one self-consistent system, and to illustrate their use.

The discussion of typefaces requires a system of nomenclature for the elements of the letterforms so that individual parts of printing types can be referred to. The authors of the fifteenth-and sixteenthcentury treatises for sign-writers and calligraphers had to refer to individual parts of the letters of the roman alphabet, and they found or invented terms in French, German, Italian, and Latin for stroke, serif, thick, thin, and so on; and it is likely that these or similar terms were used by the early makers and users of roman type. The first published nomenclature for typographical letterforms, however, was the group of English terms explained by Joseph Moxon in the section on letter cutting in his Mechanick Exercises of $1683 .{ }^{1}$ Moxon defined the imaginary horizontal lines which join certain repeated elements of a typeface, calling them the top-line, head-line, foot-line, and bottom-line, and went on to speak of fat and lean "stroaks," stems, toppings and footings (meaning double ascender and descender serifs), beaks (meaning single serifs, and also the shoulder of $\mathrm{f}, \mathrm{f}$ and the ear of g ), and tails (meaning not the descending tails of $\mathrm{g}, \mathrm{j}, \mathrm{y}$, etc., but the base-line serifs and terminals of $\mathrm{d}, \mathrm{t}, \mathrm{u}$, etc.).

Most of Moxon's terms have been superseded by new ones, and there is today a generally accepted, though until now not fully codified, system of nomenclature for the letterforms of roman type used in the English-speaking countries. There have been two important attempts to organize and explain these terms: Joseph

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Thorp's "Towards a Nomencalture for Letter Forms" (1931), ${ }^{2}$ and the British Standard specification for typeface nomenclature, 1958 (BS 2961), revised in 1967. Thorp's paper, though it deals with the description of serifs, terminals, etc., in great detail, omits to define some important terms (e.g., stroke, tail) while including others which may be dispensed with (e.g., loop, spine). The 1967 revision of the British Standard is satisfactory as far as it goes, but it is too scanty, defining only some ten terms for typeface nomenclature. Neither Thorp's paper nor the British Standard gives comprehensive illustration of the roman letterforms with all the parts named.

This paper attempts to define all the necessary terms for naming the parts of the printed images of roman types in one self-consistent system, and to illustrate their use. ${ }^{3}$ Wherever possible it conforms with current English usage, and it is much influenced by the precedents of Thorp's paper and the revised British Standard. This has resulted in the inclusion of terms of widely different origin, so that stroke (a calligraphic term) is found along with diagonal (geometric) and arm (anthropomorphic). Several of the terms (e.g., counter, kern, ligature, titling) may refer both to actual printing types (or to parts of them) and to their impressions; while a few others (body, fount, set, sort) refer primarily to printing types but are included because they may be used in discussion of the impressions of type. But terms which are used only for actual types (beard, foot, nick, etc.) are excluded, as are the terms which chiefly concern the classification of typefaces (family, grotesque, lineale, etc.).

This system of nomenclature is intended for use with undecorated roman typefaces, and with roman inscriptional lettering of similar form. Some modification is required for describing italic typefaces, in which there is no clear distinction between vertical and diagonal strokes. Most gothic typefaces are based on entirely different graphic elements and they require a separate terminology.

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## Glossary of terms

The following modifiers are used:
thick, thin
vertical, diagonal, horizontal
right, left
top, bottom
upper, middle, lower
single, double
first, second, third, fourth
arm a horizontal stroke
ascender the extended stem of $b, d, f, h, k, l, f$
ascender line the imaginary line which would join the tops of the ascenders

| bar | the crossing stroke of e,f,t,A,H,T |
| :--- | :--- |
| base line | the imaginary line which would join the bases of the | letters other than $g, j, p, q, y, J, Q$

body the depth of the metal shank on which the types are cast (see illustration)
bowl a curved stroke enclosing an area (but the lower part of $g$, which may be open or closed, is called a tail)
bracketed (of serifs) with the angle between cross stroke and main stroke filled in
calligraphic forms deriving from pen-drawn letters
capital line the imaginary line which would join the tops of the capitals
capitals the large or majuscule (as opposed to the small or minuscule) letters
contraction a symbol representing two or more letters (\& ē, etc.)
contrast the difference between the thick and the thin strokes, which may be much, or little, or none at all
counter the area enclosed by a bowl, or by the closed tail of $g$, or by the bar of A
descender the extended stem of $\mathrm{p}, \mathrm{q}$; and the tails (except R )
descender line the imaginary line which would join the bottoms of the descenders
diagonal a stroke between vertical and horizontal
diphthong the characters æ, œ, Æ, ๔E
ear the small stroke to the right of the bowl of $g$
face see typeface
fount a group of typecast letters, numerals, signs, etc., all of one body and typeface
hair-line (of serifs) much thinner than the stem, and unbracketed
inscriptional forms deriving from stone-cut letters
kern
shoulder of $f, f, f f, f f$, the tail of $j, Q)$

| ligature ${ }^{\text {t }}$ | two or more letters cast on one body, with some combination of form (ff, ffi, \&, etc.) |
| :---: | :---: |
| link | a stroke joining two letters, also the middle stroke of $g$ joining bowl to tail, and the stroke joining the displaced tail of Q to the bowl |
| majuscules | see capitals |
| mean line | the imaginary line which would join the tops of the minuscules without ascenders |
| minuscules sanserif | the small (as opposed to the capital or majuscule) letters without serifs |
| serif | a small cross ending a main stroke; serifs may be single (on one side only) or double (on both sides) ; see also bracketed, hair-line, sanserif, slab |
| set | the width of the metal shank on which the types are cast (see illustration) |
| shoulder | the curved stroke springing from the stem(s) of $\mathrm{a}, \mathrm{f}, \mathrm{h}$, m, n, r, f |
| slab | (of serifs) as thick as the stem, and unbracketed |
| sort | each variety of letters or other symbols in a fount; used by printers to mean individual pieces of type |
| spur | a small projection, usually pointed, from a stroke or terminal |
| ste | a vertical stroke |
| stress | the directional tendency of contrast (stress is diagonal when one set of diagonals-usually those running from upper left to lower right-are thick and the others thin, the vertical and horizontal strokes being intermediate in thickness; and is vertical when the vertical strokes are thick, the horizontals thin, and the diagonals intermediate) |
| stroke | a single line, straight or curved |
| tail | the parts below the base line of $\mathrm{g}, \mathrm{j}, \mathrm{y}, \mathrm{J}, \mathrm{Q}$; also used for the diagonal of R |
| terminal | stroke-endings other than serifs, described as bulbous, pointed, or sheared; sometimes cupped or hooked |
| titling ${ }^{5}$ <br> typeface | capitals cast full on the body, without room for descenders the uniform design of a set or sets of letters, numerals, signs, etc., for printing |
| weight | the degree of contrast of a typeface, described as light, medium, or bold |
| x-height | the distance between the base line and the mean line |

Note on the term "ligature"
Up to about 1900 English printers called the ff, etc., sorts either "ligatures" or "double letters," without much preference for one term over the other. Thus Fell called them ligatures in 1671/2, Moxon called them double letters in 1683, and Smith used both terms interchangeably in $1755 .{ }^{6}$ During the present century, however, the term "ligature" has prevailed over "double letter"which may in fact refer to a combination of three letters-and it is therefore used here.

The British Standard specification of 1958 called these sorts "logotypes," and used "ligature" to mean a joining stroke-a link -connecting any two letters; but in the revision of 1967 logotype was dropped and ligature was used for the sorts and for the joining strokes. Logotype (a word invented by about 1810 by Earl Stanhope $^{7}$ to describe his quite different two-letter sorts which were not joined by links) is in any case an unsuitable term for the ff, etc., sorts, as it is widely used nowadays to mean individual trademarks in particular typographical styles. ${ }^{8}$

It may be added that fifteenth- and sixteenth-century printers and type-founders sometimes cast letter-group sorts from special matrices which were made without margins and were placed side by side in the mould; and that they also achieved a similar effect by filing down the sides of individual pieces of ordinary type so that they abutted closely.

1. Ed. H. Carter, and H. Davis, 2nd ed., Oxford, 1962, pp. 131-3.
2. The Monotype Recorder, $\mathbf{x x x}$ (1931), 9-19.
3. I am most grateful to James Mosley and to John Dreyfus for help in evolving and refining this nomenclature.
4. See note on the term "ligature," below.
5. Formerly called two-line letters.
6. H. Hart, Notes on a Century of Typography, Oxford, 1900, repr. 1970, p. 165; J. Moxon, Mechanick Exercises, ed. Carter and Davis, p. 338; J. Smith, The Printers' Grammar, London, 1755, repr. 1965, p. 56. Both Moxon and Smith included the diphthongs as double letters or ligatures.
7. Information from Michael Turner. The earliest dated use of the word he has found so far is in a letter written in French by Stanhope to J. P. Poterat on 19 Sep. 1814.

usually abbreviated as "logo," rhyming with no go.

## CAPITALS

stroke (with upper,
middle and lower parts)


stroke (with


bowl (with upper, lower, left, and right parts)

(A splayed M would have
1st, 2nd, 3rd, and 4th diagonals; cf.W)


## MINUSCULES



stroke (with
upper, middle and lower parts)








$\begin{array}{cc}\text { wer stem } & \text { lower diag } \\ \text { serif } & \text { serif }\end{array}$

## bowl

(with upper, lower, left,
 and right parts)








## LIGATURES





## CONTRACTION



## SERIFS


single bracketed

double bracketed

slab

hair-line

sans serif

## TERMINALS


bulbous

hooked (and pointed)

sheared

cupped

pointed

## Spurs <br> $\underbrace{n+1}_{m}$

## LINES



CONTRAST

much contrast

little contrast

no contrast



Alphabet Goodhumor-Cloth Study, 1972-73. Claes Oldenburg, American, born 1929. Canvas, kapok, wood, paint, H. 37 inches. The Detroit Institute of Arts, Gift of the Friends of Modern Art The Founders Society (75.13)

