## PRINT

The selection and organization of letterforms and other graphic features of documents is the concern of typography. Traditionally, the design of books was the main concern of typographers. The 19th-century information explosion meant that other printed documents (e.g. leaflets) vied for the reader's attention. Today, typography is concerned with the organization of documents of all kinds - including databases of information distributed electronically (p. 195). Typographers deal with all matters relating to the appearance and effectiveness of documents: the shapes and sizes of letters and other symbols; the spaces between letters, words, and lines; the length of lines and size of margins; the extent and location of illustrations; the use of colour; and all other matters of spatial organization, or 'configuration'. In addition, typographers need to be involved in such matters as the choice of paper and method of printing, aspects of software use in the preparation and delivery of documents, and the means of electronic distribution of non-printed texts. These issues must all be evaluated in their own right, as part of an overall judgement about the appropriateness of the design for its intended use.

The design of individual letters is traditionally the main concern of specialists called 'type designers'. Originally, in the western tradition, letterforms were devised to reflect the properties of the main 15th-century manuscript hands – the roman, cursive, and

black-letter styles (p. 188). Since then, there has been a remarkable proliferation of styles, especially in recent years since the technology required to design type has been available on personal computers. It has been estimated that well over 30,000 typefaces have been designed since the invention of printing – a variety that has so far prevented the development of any system of classification.

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ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 0123456789 & @ £ $ % () [] { } Punctuation . , ; : ' " ! ? / _ - - ... " " ' ' ' " ^{\prime} "
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SCRIBAL ABBREVIATIONS.

ã a bb b b c c c c c c d d e e e f f f g g h h

p̃pppβ̃qqqqr̃šŝtítt

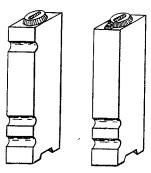
ũ ũ ũ v v w x x y y z z

& e 7 9 9 1 3 3 9 ; 5 e 9

ĀDĒĪŌMPPPRV

Left: The set of characters in a typical typeface that can be accessed from the keyboard of a personal computer – usually around 180.

Below Left: In 1916, L. A. Legros & J. C. Grant (in their survey, *Typographical Printing-Surfaces*) suggested that 275 characters could form the basic set for printing in Latin-based languages. They showed many additional special characters, including these to aid the printing of scribal abbreviations.



Metal type Traditionally the surface of the type would be inked and the ink transferred to paper by applied pressure.



Modern digital type has no 'body'. Letters are mathematically stored (as a series of outline co-ordinates and control points) as digital data. The letters are not seen until output by a device (e.g. a laser printer) capable of interpreting the digital data. A typical data format is PostScript (p. 195).

## TYPOGRAPHIC MEASUREMENT

A wide range of typographic terminology has developed to handle the many kinds of typeface and setting, but this continues to be subject to professional scrutiny. It is argued that several terms and concepts originally devised for use with metal type are no longer clearly applicable in the context of digital typography (e.g. the point size of pieces of type, or the notion of leading the spacing between lines of type).

Several proposals have been made for alternative systems of measurement based on the characteristics of the printed image (as produced by any method) rather than on the characteristics of the 'body size' of the traditional piece of type, but these have proved to be controversial. Draft proposals for an international standard were drawn up in the late 1970s, based on the

height of capital letters, but no agreement proved possible.

A more recent approach argues that any new system should be based on the height of small letters, which predominate in most printed text. It proposes a four-level system, using the notions of 'x height' (the height of the small letter x), 'ascenders' (a part of a letter that extends above the height of the letter x, as in h) and 'descenders' (a part which extends below the x, as in p). The approach is in principle applicable to other (nonroman) writing systems. Greek and Cyrillic require no modification. The mean height of Arabic, Hebrew, and Indian scripts can be aligned with the roman x height. And Chinese, Korean, and other oriental scripts can be aligned with capital height. (From S. Ó Brógáin, 1983.)

