

For “Education of a Typographer”

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An Introduction to Typography for Students of Graphic Design

I. What is Typography

Typography is the considered arrangement of letters and words in order to convey information and meaning.

II. The Purpose of Typography

- A. Typographic communication can inform, document, persuade, entertain, or elicit a response.
- B. The visual form typography takes can help gain attention, make an impression, and signal intent.

III. Where Type is Found

- A. Typography is associated with all forms of traditional print media including books and other publications, advertising, forms, instructions, and packaging.
- B. Type plays an important part in corporate branding, as well as television, movies, and signage.
- C. New forms of interactive design such as multimedia, electronic games, and the internet also require typography.

IV. How We See Type

- A. Type is perceived through a complex physiological process of the brain processing information from our eyes.
- B. The process of reading is a learned, flexible activity that changes over time and reflects the reader's culture.

V. Influences on Typography

- A. History, culture, technology, and aesthetics all impact the development of type and its use.

VI. The Evolution of Typography

- A. –4000 B.C.
 1. Early man draws and carves images on rocks and cave walls and begins visual communication.

2. These marks are primarily pictographs but are sometimes ideograms.

B. 3000 B.C.–1500 B.C.

1. The need for record-keeping precipitates the evolution of the first writing systems.
2. Marks made by Sumerians using a wedge-shaped stylus on clay tablets establish the visual character of cuneiform.
3. Both the Sumerians and Egyptians begin rebus writing by using pictographs to create phonograms, which indicate sounds in spoken language.
4. Hieroglyphics is one of three writing systems used by the Egyptians, and is considered the first complete writing system.
5. Lines of hieroglyphs could be oriented in different directions, be quite decorative, organized with grids, and be combined with illustrations.
6. The Egyptians not only carve their characters in stone, but also write with brushes and rush pens on papyrus (which they invented) and other materials.
7. The Phoenicians develop a true alphabetical system of writing in which only sounds are represented by characters.

C. 1800 B.C.–1400 A.D.

1. In Asia the Chinese develop calligraphy, paper, printing, and moveable type.

D. 1000 B.C.–500 A.D.

1. The Greeks adopt the Phoenician alphabet, which is the basis of what we use today.
2. In the hands of the Greeks the visual character of the letterforms used in Western civilization evolves, and the direction of reading changes from boustrophedon to left-to-right.
3. The Greeks' use of hard reed pens leads to the appearance of uncial-style characters.
4. The Etruscan alphabet, which is based on the Greek, is adopted by Rome for use with Latin.
5. Serifs on characters are an outgrowth of the Roman process of carving stone inscriptions.
6. Which of the three kinds of Roman capital letters used depended on the material used and the purpose.
7. The codex format, anticipating the modern

signature of paper and made from parchment and vellum, begin to replace papyrus scrolls.

8. To accommodate changes in the language, letters are added to the Latin alphabet until the 12th century when the present 26 characters is reached.

E. 500 B.C.–1450 A.D.

1. During the Dark Ages monks in monastery scriptoria produce thousands of beautiful illuminated manuscripts for the Church. Each manuscript took about a year.
2. The characteristics of quill and reed pens, and the need for increased writing speed precipitate the development of the half-uncial letter, leading to improved legibility and ultimately, lowercase letters.
3. Manuscript pages often contain elaborate illuminated letters, and sometimes calligraphy and illustrations were combined to create images.
4. Carolingian minuscule script, with ascenders and descenders, is introduced and serves as the basis for our lowercase letters, but is soon combined with Roman capitals.
5. Secular illuminators and scribes form guilds and begin to work for the emerging merchant class.
6. Gothic style of lettering emphasizing the vertical stroke of letters and multiple columns emerges. Illustration come into greater use.

F. 1400–1800

1. The availability of paper, advances in metal technology and block printing, along with the demand for books, sets the stage for the invention of moveable type.
2. Johann Gutenberg develops the basic process for casting moveable type and produces the first typographic books.
3. The production of printing rapidly spreads and independent craftsmen prepare page layout structures and illustrations for pages, as well as design typefaces.
4. The Italian Renaissance produces the first pocket-size book and italic type, along with elegantly crafted, legible typefaces.
5. While type is largely organized as a centrally located rectangle on a page, sometimes more

elaborate schemes such as the golden section are used.

6. French type designers develop typefaces that continue to increase clarity and efficiency, and attempt rational typeface designs based on pure geometry.
7. Improvements in metallurgy, engraving tools, printing presses, and paper and ink make it possible to create typefaces with extreme stroke contrast that produce brilliant, clear pages.
8. Different versions of the points system of measurement comes into general use.

G. 1800–1900

1. The birth of modern advertising leads to the use of large decorative wood display type. Sans serif and condensed typefaces come into use.
2. The Industrial Revolution brings automation and color to printing presses, photography is invented, and complex mechanical typesetting machines begin to replace hand-set type.
3. Several art and cultural movements lead to elaborate letterforms and dense, highly ornate pages.

H. 1900–2000

1. European artists and poets undertake free-form type experiments, and designers begin to take a rational, systematic approach to typographic layout.
2. Revolutionary Dutch and Russian aesthetic movements cause a shift towards an animated two-dimensional page space. Photography and typography are integrated.
3. In Germany the new page space is combined with the quest for rational organization of information and typographic clarity, and new geometric typefaces are developed.
4. European designers emigrate and radically influence American design and type aesthetics, as well as design education.
5. Exploiting the freedom provided by photo-mechanical printing and type technology, designers combine the new page space with expressive typefaces and type compositions, and integrate type with illustrations and photography.

6. Rationalized, modular, gridded page space and ordered type families from Switzerland and Germany influence typography and design internationally and provide the foundation for what becomes known as information design.
7. Inexpensive desktop computers, combined with new digital type and page software, move typographic production from trade shops into the studio and become the vehicle for radical new typefaces and graphic design.
8. Interface and interactive design and the World Wide Web emerge as major new media based primarily on typographic communications.

VII. Type Terminology

- A. A typeface is a specific design or drawing of the alphabet and various other associated characters in a series of standard variations.
- B. The possible variations, or styles, and weights of a typeface are: Roman or regular, italic, bold, demi, heavy, condensed, extended, and various combinations of these.
- C. Type families are more elaborate hierarchical collections of variations of a typeface.
- D. The basic typeface categories are: serif, sans serif, script, outline, shadow, text, display.
- E. Typefaces generally belong to loose historical and stylistic classifications such as: Old Style, Italic, Transitional, Modern, Egyptian, San Serif.
- F. The various parts of an individual type character include: baseline, capline, meanline, x-height, apex, arm, ascender, bowl, counter, crossbar, descender, ear, fillet, hairline, leg, link, loop, serif, shoulder, spine, spur, stem, stroke, tail, terminal.
- G. Type characters can be: capitals or uppercase, lowercase, small caps, lining figures, old style figures, superior figures, inferior figures, fractions, ligatures, digraphs, mathematical signs, punctuation, accented characters, dingbats, monetary symbols.
- H. Other characters besides letters are used in typography: rules, dashes, boxes, dingbats, underscore, leader, bullets, ornaments, borders.
- I. In addition to serving as another term for a typeface, the word "font" also refers to an assortment of pieces of type in metal or the digital code or outlines of a typeface for use with computers.
- J. A standard font of a single weight of a typeface consists of a character set that includes an upper and lowercase alphabet along with numerals, punctuation, and some special characters, symbols, and accents.
- K. Expert fonts can contain items such as old style figures, small caps, fractions and other special characters.
- L. Many different measurement systems and terms are used with type including: inches, points and picas, agate, didot, units, en, em.
- M. Different kinds of spacing are referred to in typography: leading or line spacing, letter spacing, word spacing, tracking, kerning, line length, column depth.
- N. Type can be aligned in several ways: flush left/rag right, rag left/flush right, justified, or flush right and left, centered, asymmetrical, run-arounds, contours, tabular.
- O. Paragraphs can be indicated in many ways: indentation, paragraph spacing, hanging indent, paragraph marks.
- P. Marking how type is to be set and what corrections are to be made to proofed type is done using various proofreading marks and terms.

VIII. Using Type

- A. Selection of a typeface depends on the purpose of the communication, its utility, and visual appropriateness
- B. Basic criteria for using type include the typeface, style, size, line length or column width, leading, alignment, and letter spacing.
- C. The arrangement of type on a page can create an visual composition that can help communicate a message.
- D. The arrangement of type on a page can provide an underlying visual structure or order to a page.
- E. Contrasting typeface, style, size, and placement can establish a visual order, or hierarchy, that aids in communicating information.
- F. The legibility of type involves the character and style of the typeface, the color and contrast of the letters in their surroundings, the size, letter spacing, line length, and leading of the type, as well as the distance and angle from which it is viewed.

IX. Aesthetics of Type and Design

- A. Type can be used as the sole means of communication in graphic design, be compositionally integrated with photography and illustration, or serve as an accompaniment to other media.

- B. Graphic designers approach the use of type with different philosophies, history, training, and attitudes.
- C. Different typefaces can imply various messages and reinforce various aesthetic approaches.
- D. The arrangement of type can communicate different meanings as well as control the way one reads.
- E. While most typography is executed using precision tools and techniques, optical corrections are necessary to every aspect of type and typography.
- F. Craftsmanship and attention to detail are an important part of typography.

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