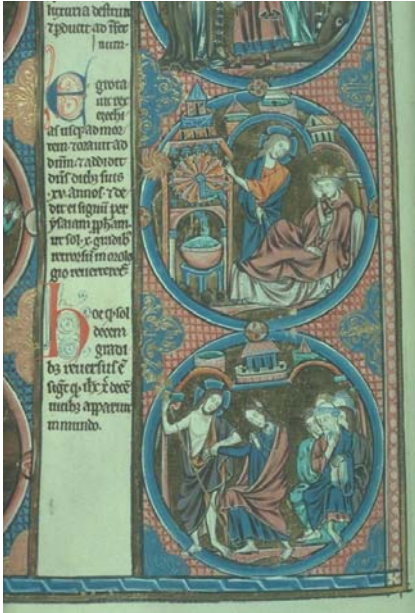


Lecture 2: Typography

European History

Before the development of the printing press in 1454, books were produced by hand by scribes. Primarily a monastic occupation, entire monasteries (called Scriptoria) were formed, devoted to the production and reproduction of books. Many of the oldest books in existence today are monastic creations from many centuries ago.



*Doubting Thomas, from the Bible Moralisee
Paris, c. 1235-45*

<http://www.muldermedia.com/gallery/ms02.html>

Vellum (stretched calf-skin) was incredibly expensive, so many of the books created were made with parchment; sheep skins stretched and cleaned into very thin sheets.

Due to the expense of pages, scribes needed to minimise the space their writing consumed, so they developed a style of writing called 'Gothic' which is thinner than the standard script of the time, and allowed greater utilisation of each page.

The copying of a book was a laborious task which could take a whole team of monks over a year to complete. In addition, many of the monastic books were illustrated and 'illuminated' – a technique where gold, silver and copper were added to decorate the pages.

As such, books were financially beyond the reach of everyday people; a fact which was reflected in low literacy rates. Generally only the very rich and the clergy could read and write, and before the advent of the printing press, a "well read" person may have only ever seen a dozen books!

Although 'rag' paper had been produced in China since around 105 A.D., this did not find its way to Europe until the thirteenth century. Although still expensive, paper was significantly cheaper than either vellum or parchment, and this made the production of books for a wider audience more viable.

Accordingly, academic scribes started to produce books on more varied topics than the religious material favoured by religious scribes. Scholars began to read more widely, and literacy rates were slowly starting to climb (although still largely limited to the wealthy).

As well as being more varied in topic than the monastic texts, the books created by academic scribes tended to be less decorative. This was due, in part, to the subject of the material, but is also thought to have been in an attempt to keep the prices of books lower through reducing production time, maximising paper usage and lowering the level of skill scribes needed to possess in order to reproduce books.

In the early 1450s Johannes Gutenberg, a goldsmith in Mainz, Germany, created the first moveable type printing press. Although a similar technique is thought to have been used several centuries earlier in China, Gutenberg's invention is noteworthy in that it opened literacy up to the European masses. Indeed, within 50 years of the invention of the printing press, there were over 1,000 printers in 200 cities across Europe, and literacy had spread from the elite to the growing middle classes.

The Early Typefaces

Although the advent of the printing press furthered the spread of literacy, initially it had a relatively minor impact on the style of text used within the new printed books. Gutenberg created his type to mimic the handiwork of the monks and academic scribes, so the same style of gothic text previously used by scribes is evident in the early books created using the new technology.

abcdefghijklmnopqrstuvwxyz

Gothic Textura Prescisus

aaabcdefghijklmnopqrstuvwxyz

Gothic Textura Quadrata

9abcdefghijklmnopqrstuvwxyz

Wylliffite Bastard

abcdefghijklmnopqrstuvwxyz

Bastard

abcdefghijklmnopqrstuvwxyz

Gothic Cursive

abcdefghijklmnopqrstuvwxyz

Quickly written Gothic Cursive

<http://www.octavo.com/collections/essays/gthmanu.html>

“The first printed types exemplify what most people think of as medieval or “old English” lettering, with ornate capitals, roughly diamond-shaped serifs, and thick lines. As a group, these typefaces are called ‘blackletter’.

They evolved from the Carolingian (so-called because of their adoption by the Emperor Charlemagne (late 10th century) as a standard for education) by a gradual movement towards narrowing and thickening of lines. The general sort of blackletter used by Gutenberg in his first Bible is called *textura*.

The other sorts of blackletter are *fraktur*, *bastarda* and *rotunda*. Probably the most common blackletter revival typefaces in use today are *Cloister Black* and *Fette Fraktur*”.

(<http://www.redsun.com/type/abriefhistoryoftype>)

The Evolution of Typeface

Old Style or Neo Classical

The renaissance had a major impact on typeface. Indeed – a range of typefaces (now termed ‘old style’ or ‘neo classical’) were created in this period. Old style typefaces still in use today include:

AaBbCcDdEeFf

Centaur

AaBbCcDdEeF

Bembo

AaBbCcDdEeFf

Jenson

AaBbCcDdEe

Garamond

“The Renaissance was typified by an obsession with things “classical,” in the Greco-Roman sense, which had major implications for typography. The neo-classical letterforms were somewhat more condensed than the Carolingian shapes, but much rounder and more expanded than the blackletter.

Old style type is generally considered “warm” or friendly, thanks to its origins in Renaissance humanism. The main characteristics of old style typefaces are low contrast with diagonal stress, and cove or “bracketed” serifs (serifs with a rounded join to the stem of the letter)”.

(<http://www.redsun.com/type/abriefhistoryoftype>)

Transitional

AaBbCcDdEe
Baskerville Roman

AaBbCcDdEeF
Bell

The quick brown fox jump
Fournier

Another style of typeface (called transitional due to its chronological emergence between the old style and modern type styles) started to emerge in the early 1700s.

These typefaces are recognisable by their vertical stress and horizontal serif when compared to the old style typefaces.

“Later transitional types begin to move towards ‘modern’ designs. Contrast is accentuated, and serifs are more flattened”

(<http://www.redsun.com/type/abriefhistoryoftype>)

Modern Typefaces

The ‘modern’ typefaces emerged in the late 1700s and early 1800s. These were created by a range of designers, and are distinguishable by thin serifs and horizontals.

AaBbCcDdEe
Didot

AaBbCcDdEeF
Bodoni

AaBbCcDdE
Walbaum

Noticeably different from the transitional or old style typefaces, ‘modern’ typefaces (or variations thereof) are still regularly seen today.

The horizontals in ‘modern’ typefaces are usually much thinner than the vertical areas.

Additionally, the serifs are often more stylised than those evident in the old style and transitional typefaces.

Sans Serif

Around 1815, one of the biggest innovations in typeface design occurred; the emergence of ‘sans-serif’ and ‘slab serif’ typefaces. Stemming from the French word ‘sans’ (meaning without), as the name implies, sans serif fonts are identified by their lack of serifs.

AaBbCcDdEe
Helvetica

AaBbCcDdEe
Univers

AaBbCcDdEe
Franklin Gothic

Studies suggest that due to the lack of the serif, sans serif fonts are harder to read in print, although paradoxically other studies suggest these typefaces have greater legibility on the screen.

Although there are few original sans serif typefaces in existence, there are many derivatives still commonly in use today, including Helvetica, Univers, Franklin Gothic, Avant Garde and Arial.

Slab Serif

AaBbCcDdEe

Glypha (which is the serified version of Univers)

AaBbCcDdEe

Univers

AaBbCcDdEe

Lubalin Graph (which is the serified version of Avant Garde)

AaBbCcDdEe

Avant Garde

Another category, Slab Serif fonts, “have block-like rectangular serifs, sticking out horizontally or vertically, often the same thickness as the body strokes. There is some debate about the origin of slab serif typefaces: did they originate by somebody adding serifs to a sans face, or were they conceived independently?”

But even if they had a separate genesis as a family, it is certainly the case that many of the most common and popular slab serif forms have been created by adding slab serifs to sans faces by the same designer”

(<http://www.redsun.com/type/abriefhistoryoftype>).

Decorative and Display Type

There is a huge range of decorative and display types, which are broken down into the following categories:

- **Fat Face**

‘Fat Face’ types were an offshoot of the moderns, intended for display purposes (that is, to be attention-getting for use in large sizes, particularly advertising). The first such types appeared from 1810-1820. They further exaggerated the contrast of modern typefaces, with slab-like vertical lines and extra emphasis of any vertical serifs, which often acquired a wedge shape.

AaBbCcDdEe

Normande

- **Wood Type**

Wood type answered some of the needs of display advertising during the industrial revolution. It derives its name from the fact that instead of being made of metal, the type is carved from wood, cut perpendicular to the grain. It is distinguished by strong contrasts, an overall dark color, and a lack of fine lines. It may be unusually compressed or extended. Many wood types have an ‘Old West’ feel, because they are most strongly associated with America in the 1870 -1900 period.

AaBbCcDdEe

Juniper

- **Script**

Script typefaces are based on handwriting; but often this is handwriting with either a flexible steel nib pen, or a broad-edged pen, and is thus unlike modern handwriting.

AaBbCcDdEe

Snell

- **Brush**

Brush typefaces look as if they were drawn with that instrument, which most of them were, at least in the original design from which the metal/film/digital face was created. Some of them resemble sign-painting lettering

AaBbCcDdEe

Brush Script

- **Italic**

Although modern typography typically relegates the italic to a second-class citizenship subordinate to the roman, there are still some italic typefaces designed as such in their own right.

AaBbCcDdEe

Zapf Chancery

- **Freehand**

Freehand or handwriting fonts have recently become popular. There are a huge range of freehand fonts now available, varying in style and legibility.

AaBbCcDdEe

Farrah's Hand

- **Art Nouveau**

The late Victorian era, from 1880 to World War I, was characterized by this ornamental style of art, with its organic, asymmetrical, intricate and flowing lines. This "Art Nouveau" (French, meaning "new art") produced similarly distinctive typography, which saw a revival during the 1960s.

AaBbCcDdEe

Arnold Boecklin

- **Art Deco**

Art Deco was perhaps about finding beauty in geometric simplicity. First appearing in the 1920s and 30s, Art Deco made a comeback in the 1970s and 80s as well. Almost by definition, Art Deco meant sans serif type.

AaBbCcDdEe

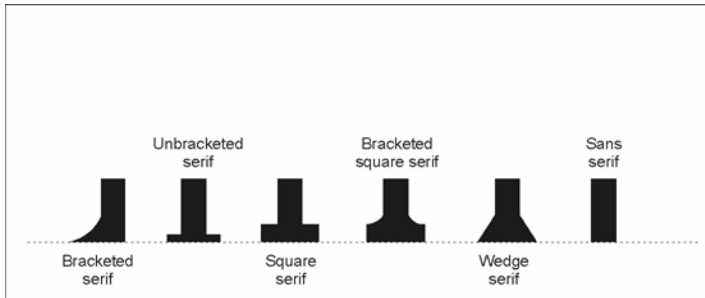
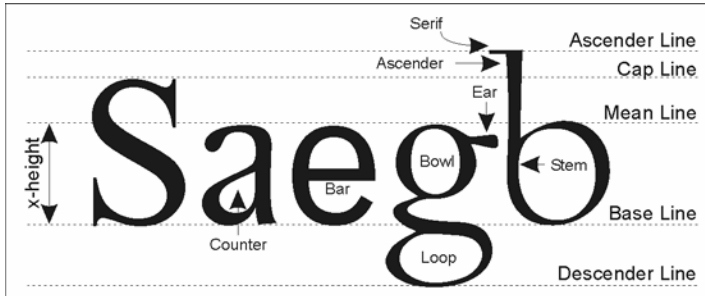
Futura

- **Synthesis**

Many of the most interesting typefaces of the twentieth century do not fit any of the above categories, or at least not easily. The reason is that they reflect not merely a single style, but cumulative experience, and the merger of different styles. There are numerous examples of this, particularly amongst the typefaces being developed by independent font makers and modern font foundries.

([http:// www.redsun.com/type/abriefhistoryoftype](http://www.redsun.com/type/abriefhistoryoftype))

Anatomy of Type



Weight

"Some typefaces are dark and heavy, others, light and slender. Still others are of "average" build. Type weight influences the way (type) faces appear. Numerous weight classes exist, including the general classes with which you may already be familiar: regular, bold, and light. Regular is the average weight class, simple and unadorned. Bold is heavier and slightly wider than regular typeface and is used to emphasize text. Light typeface is slender, and as its name implies, lighter than regular typeface. It also has a subtler impact than regular or bold forms and can help achieve a minimalistic look.

Width

Typefaces can have a variety of widths. The two most common type widths, which are somewhat self explanatory, are condensed and expanded. A condensed, or compressed, form has a tighter letterform width than the standard version, and an expanded, or extended, typeface is wider than the standard version.

Type size and proportion

Another consideration when working with typefaces is their size and proportion to one another - and to other elements on a page. Type is measured in a variety of ways, including points or pixels. Point measurement is based on print measurement, whereas pixel measurement uses a computer's "picture element" standard.

The proportions of any given typeface compared to another are important. Proportional relationships help indicate what role each typeface plays on a page. Larger type is used for headers, medium sizes for body text, small sizes for notes, mailto:, and less-emphasized information on Web pages such as copyright and related legal notices.

Orientation

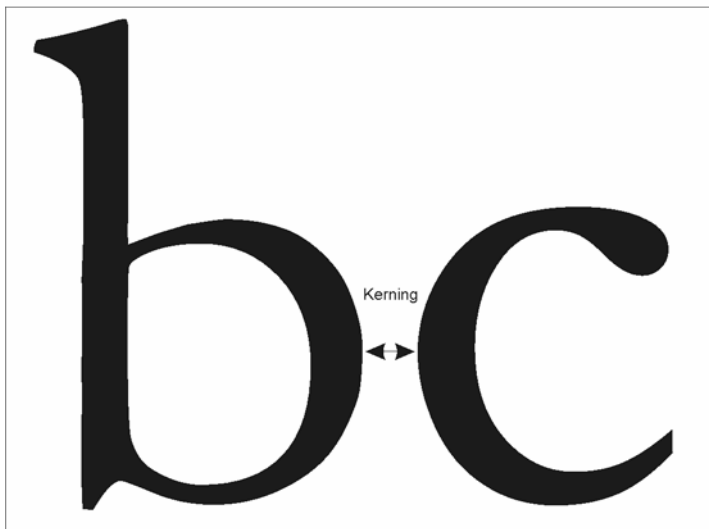
The direction in which your typeface runs significantly impacts the way the type is perceived. Type direction is referred to as orientation. Standard type runs horizontally, but type can also be vertical, reversed, upside-down, or rendered in a shape. Horizontal type is more stable, involving little or no movement. That's why it's used as body text. When designing for impact, however, you should think about pursuing other orientation options. Type orientation can provide a sense of energy and intrigue."

(<http://www.ablestable.com/resources/library/articles/technical/technical009.htm>)

Arranging Type

One of the most important things to understand about type is how it can be manipulated to increase legibility as well as aid in the visual appearance of the printed page. “Two of the most commonly misunderstood and ignored elements in typography are leading, the amount of space between lines of type, and kerning, the amount of space between individual characters.”

(Blatner, D. “Spacing out with your type; leading and kerning” Vol. 14, Macworld, 09-01-1997, pp.158)



Character Width

The term character width refers to how wide each actual character is. By default, most programs set the width of each character to 100%, however designers can modify this to create visual effects using type.

Leading

”The term leading (rhymes with wedding) originally referred to strips of metal (lead) that typesetters placed between lines of type in order to space them out. Leading, or line spacing, is almost always specified in terms of the space from one baseline to the next (the baseline is the imaginary line that the text sits on): for instance, 11/15 describes 11-point type with 15 points of space from baseline to baseline.

When you read, the spaces between lines isolate the line you're reading from the lines above and below it. Each row of space guides your eyes from the end of one line to the beginning of the next. If there is too little or too much space, you get lost along the way and have to work too hard to take in the information.

Most programs automatically set leading at 120 percent of text size, so 10-point text, for example, gets 12 points of leading. Unfortunately, programs usually use the largest character in a line to set the leading, so if you enlarge one character, the leading for that line differs from that of the rest of the paragraph. The solution is to specify absolute values for leading (rather than relative or automatic values) to force the program to use the same leading throughout a paragraph. In most desktop publishing programs, leading is a paragraph format; that is, a change in leading affects the entire paragraph.

Kerning

The human eye is extremely good at recognizing breaks in a regular pattern. On encountering too much or too little space between characters within a word, the reader's eye stumbles. Kerning is the art of adjusting the space between characters in order to ensure a smooth flow of information from the text to the brain. Good kerning brings the characters within the word together into a single unit.

Fortunately, the font designer and the page-layout software take care of most kerning for you via automatic kerning pairs. For instance, a typeface may have a built-in kerning pair for the characters Yo, so that the o tucks under the arm of the Y. Note that many word processors ignore kerning pairs - just one more reason to use a page-layout application to get good-looking type.

Nonetheless, you almost always have to perform manual kerning - especially for larger headline text - because the automatic kerning pairs rarely cover every pair possibility. The key is to look at each word's color (spacing). Is it consistent? Does your eye jump to one spot that appears too light (too much space) or too dark (too little space)? You need to remove or add space to eliminate those confusing spots.

Adjusting Automatic Kerning

If you find yourself doing a lot of manual kerning, it might be time to go in and change the font's automatic kerning pairs yourself. You can use software such as Macromedia's Fontographer to create your own kerning pairs within a font. Just remember that you're customizing the font, so if you move a document containing that font to another computer - say, at a service bureau - you have to send the font, too. While the computer can spec leading and kerning automatically, you don't have to accept these settings. Ultimately, where design is concerned, your eye is a better judge of space than your computer.

Kerning Tips

- Characters should rarely touch each other, though if it looks better, go for it.
- Apply varying degrees of kerning to make the best use of your time. Automatic kerning is better than none at all; apply it to everything. In areas where letterspacing is most noticeable - say, headlines - it's worth your while to manually fine-tune the automatic kerning.
- Words that are in all caps or reverse type (white letters on a dark background) need a little extra space between each character. Use tracking (sometimes called range kerning) to achieve this effect.
- How much space does each character in a word need? It depends on the character shapes involved.

Leading Tips

- In general, don't let descenders (like the tail of the y) and ascenders (like the stem of the h) touch; however, in some headline text this can work.
- Set the leading so that the space between each line is bigger than the spaces between the words to keep the reader's eye from getting lost.
- The longer the line of text, the more leading you need to guide the reader's eyes.
- Automatic leading can create inconsistent line spacing if all characters aren't in the same size type; specify absolute leading to force even spacing.
- Don't be afraid to use halves or tenths of a point when specifying leading; often a minor change makes the text look just right.
- Leading doesn't have to be greater than text size; headlines often benefit from tight leading"

(Blatner, D. "Spacing out with your type; leading and kerning" Vol. 14, Macworld, 09-01-1997, pp.158)