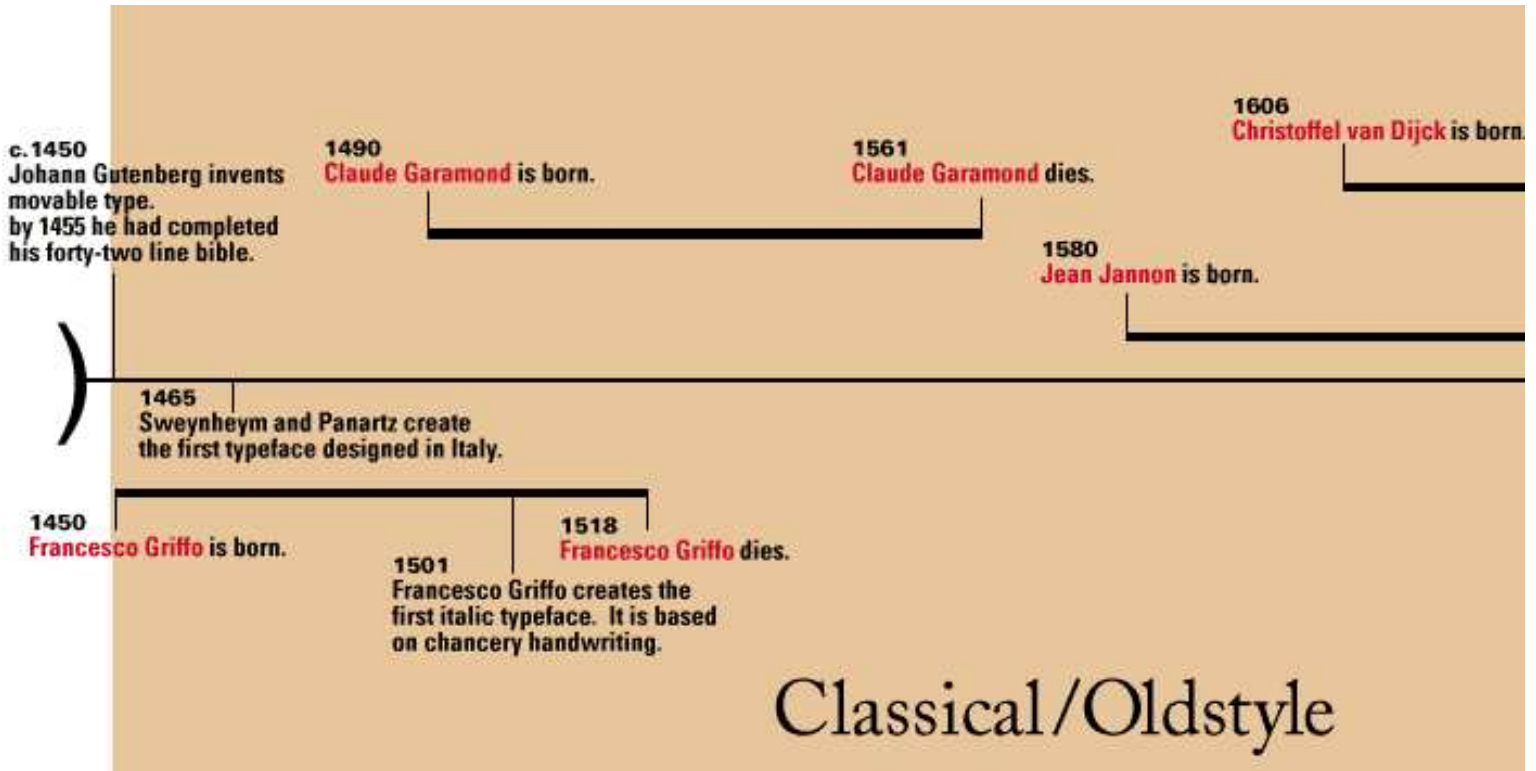History of Typography
Task 3 – Part A

This report is written as a magazine article that includes a three page spread of the typography timeline.

Ideally the article would begin on an even numbered page, with the second page connecting to a bill fold thrird page with the reader would fold out to view the entire timeline.

The formatting of the article would be such that the timeline appears unbroken from pages one through to three.

A Brief History of Typography

Article by Paul Yeatman

c.1450
Johann Gutenberg invents movable type.
by 1455 he had completed his forty-two line bible.

1490
Claude Garamond is born.

1561
Claude Garamond dies.

1606
Christoffel van Dijck is born.

1580
Jean Jannon is born.

1465
Sweynheym and Panartz create the first typeface designed in Italy.

1450
Francesco Griffo is born.

1518
Francesco Griffo dies.

1501
Francesco Griffo creates the first italic typeface. It is based on chancery handwriting.

Classical/Oldstyle

Introduction

No discussion on typography is complete without a short discussion on the origin of the alphabet.

Despite some early attempts at written communication in the form of cave paintings, much knowledge was recorded in living people's brains and transmitted verbally through the generations. It was not until humans developed intensive agriculture that symbols really began to be used to record ideas. This combined with the development of a central Government lead to written languages being developed, primarily as a means of record keeping. This is evidenced by the earliest examples of writing being in the form of administrative records.

It appears that a certain level of technology and societal structure is required in order to develop written languages in any structured form - an examination of modern hunter gatherers reveals information is still passed along verbally and structured writing systems do not exist in any notable form.

The earliest form of writing is known as Cuneiform. Another independently developed form of writing was Hieroglyphics.

Representing every spoken word with a unique symbol was not very practical and as the written word developed, the symbols eventually came to represent sounds.

When symbols represented sounds, it was much easier to capture the entire spoken language with a relatively small set of symbols. For example, the English language uses 26 letters of the alphabet (though there are two sets – upper and lower case), and 10 symbols to produce numbers. Several symbols or combination of symbols of the alphabet can be used to produce the same sounds (for example "f" and "ph", "c" and "k", "l" and "el", and several letters can be silent, showing that even less characters could be used. The extreme of this is the Rookas language which comprises 12 letters.

A rough history of the development of the alphabet follows:

- Cuneiform/Akkadian – pressed into clay with sticks
- Proto Sinatic – scratched into stones (the grand daddy of our type)
- Phoenician – written on parchment
- Greek, Etruscan, Latin (stone carved text)
- Roman (used on first printing press).

During the Dark Ages, or Middle Ages, prior to the Enlightenment, scholars wrote books by hand using ink and vellum or other suitable mediums.
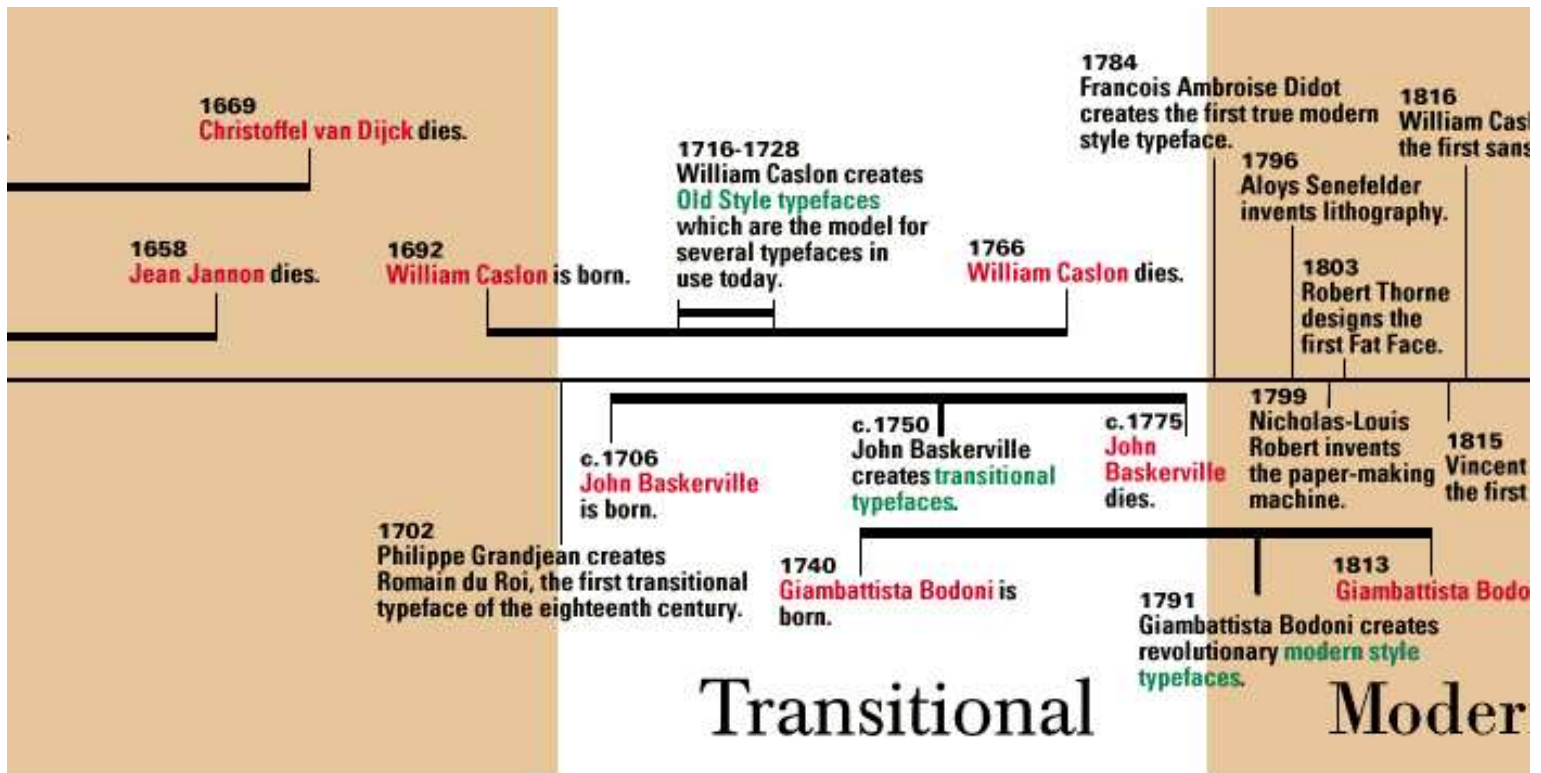
The ages of typography can be classified as:

- Old Style
- Transitional
- Modern
- (Slab Serif)
- Bauhaus Modern
- Contemporary

When the Roman civilisation was dominant throughout Europe and Africa (509BC – 476AD), writing in the form of classical Latin was often seen on walls carved into stone. Such activities peaked during the Roman Empire (29BC-476AD). This lettering was bold and strong, and was a direct result of the need to chisel the letters into a hard surface. Such forms of writing were lost (or perhaps neglected) following the fall of the Roman Empire and the advent of the dark ages which lasted up until the 15 century. During these times, writing was once again done mainly by and by a

Languages of Contrast

Rookas is used in a small area of Papua New Guinea. Here 12 letters of the alphabet exist. Towards the other end of the scale, the Chinese language consists of thousands of separate pictograms. Our 26 modern letters have derived from the original Cuneiform symbol set of around 1500 pictograms with input from . It is very likely that other systems have been incorporated into this over the centuries as civilisations came and went.

1669
Christoffel van Dijck dies.

1658
Jean Jannon dies.

1692
William Caslon is born.

1716-1728
William Caslon creates Old Style typefaces which are the model for several typefaces in use today.

1766
William Caslon dies.

1784
Francois Ambroise Didot creates the first true modern style typeface.

1816
William Casl the first sans

1796
Aloys Senefelder invents lithography.

1803
Robert Thorne designs the first Fat Face.

c.1706
John Baskerville is born.

c.1750
John Baskerville creates transitional typefaces.

c.1775
John Baskerville dies.

1799
Nicholas-Louis Robert invents the paper-making machine.

1815
Vincent the first

1702
Philippe Grandjean creates Romain du Roi, the first transitional typeface of the eighteenth century.

1740
Giambattista Bodoni is born.

1791
Giambattista Bodoni creates revolutionary modern style typefaces.

1813
Giambattista Bodo

Transitional

Moder

select few.

Around 1000AD in China, movable type was in use, first using wood blocks (developed around 200AD) and then ceramic text. Due to the closed nature of China for centuries, this technology did not move outside of this country and so the story of modern typography begins in Europe in the middle of the 15th Century, which all countries adopted.

Advent of Modern Typography (1450-1700 approx)
Actual typography was born in 1450 with the invention by Johan Gutenberg of a movable type machine (earlier Chinese and Dutch versions did not spark typography

Gutenberg's Movable Type Machine - circa 1450

revolutions and faded to historical footnotes). Prior to this, anything using text tended to be hand written by educated people as reading and writing was a fairly rare skill, especially after the Roman Empire fell and the Dark Ages began. By casting letters and numbers in metal, a consistent look to each letter could be created. By printing large runs of books with a movable type machine, a consistent look could be given to each book. Perhaps even more important than birthing (modern) typography, Gutenberg gave books to the masses, turning them into commodities, and not rare collectables. Prior to this, due to the time intensive book scribe process, anything larger than several volumes represented an extensive library.

The movable type machine used optically reversed letters, cast in metal, which following the application of ink, were pressed into paper. The machine was operated by hand and was formed from an old wine cask screw to press the type plates to the paper. The type used in this original machine is not considered to be a typeface.

The ink application process remained basically unchanged for centuries. The printing process was refined somewhat with hand operated rotary presses being developed. Here the operator would turn a handle; the plates would swing up then down. White the plates were up, paper could be positioned to accept the ink imprint.

Movable type was based on a written script called Blackletter (also called Gothic
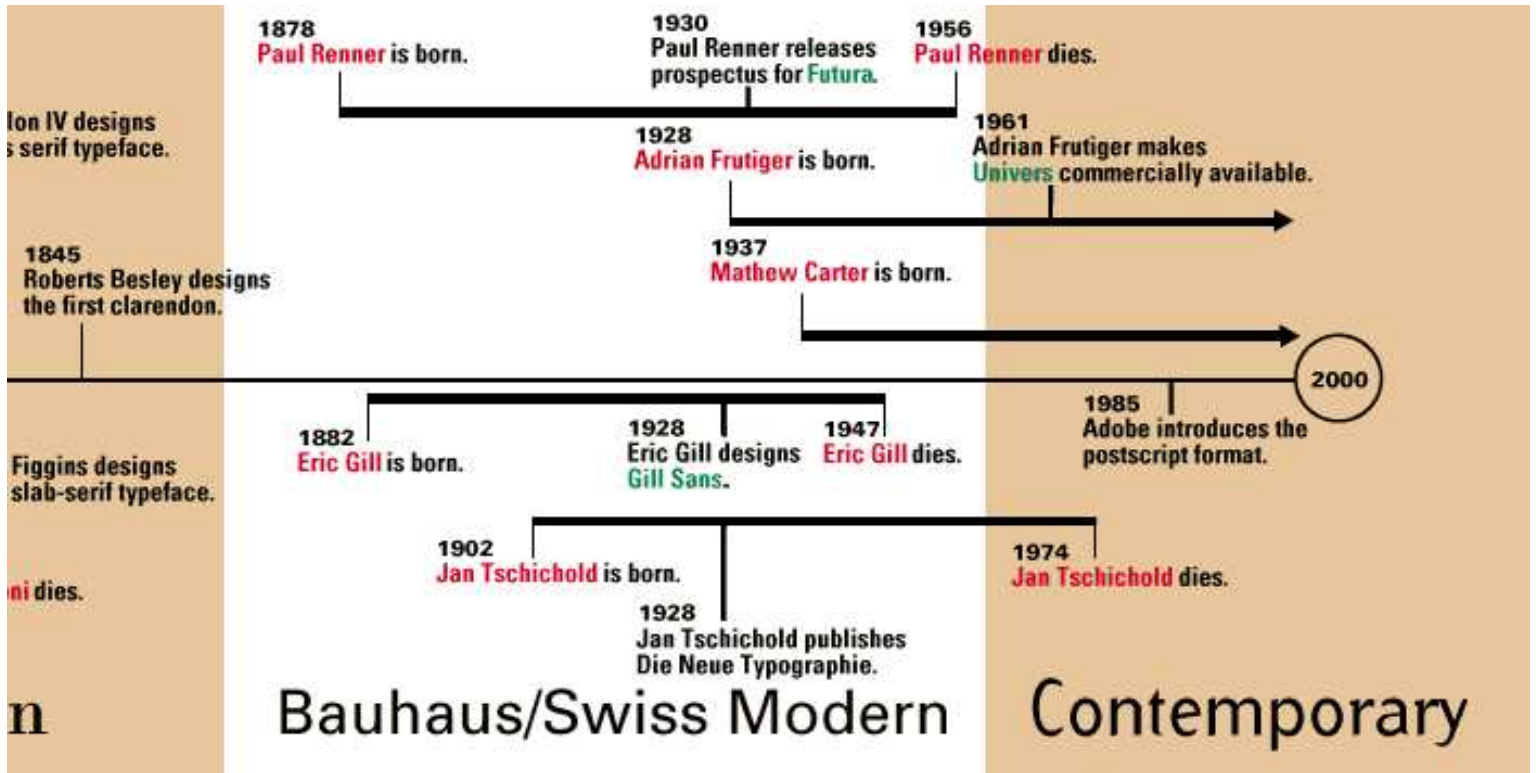
Block, Old English). This was a commonly used during the Middle Ages and is quite difficult to read (at least to modern eyes).

Example of Blackletter

One important driver of the form of type used in Gutenberg's machine was the ink used and medium used to hold the ink. The form of the type had to be designed so the ink would be applied consistently, and not be over or under applied. The type also needed to be formed in such a way as to not punch holds through the medium to which the ink was being applied. The original movable type was a thick slab like typeface best suited to thick inks and poor paper quality. The large ascenders and descenders were less likely to punch holes through paper and the use of thick ink required thick lines as fine lines would have resulted in a gluggy or splotchy application on ink, due to it's sticky nature.

As we will see, the refinement of inks and mediums has driven the development of typography through the years.

1878
Paul Renner is born.

1930
Paul Renner releases prospectus for Futura.

1956
Paul Renner dies.

lon IV designs
s serif typeface.

1928
Adrian Frutiger is born.

1961
Adrian Frutiger makes Univers commercially available.

1845
Roberts Besley designs the first clarendon.

1937
Mathew Carter is born.

2000

1985
Adobe introduces the postscript format.

Figgins designs
slab-serif typeface.

1882
Eric Gill is born.

1928
Eric Gill designs Gill Sans.

1947
Eric Gill dies.

ni dies.

1902
Jan Tschichold is born.

1974
Jan Tschichold dies.

1928
Jan Tschichold publishes Die Neue Typographie.

n

Bauhaus/Swiss Modern

Contemporary

Many of the terms used in typography were coined from movable type. An example is Leading, which is so called as the space between lines of text on movable type machines was formed using strips of lead.

Humanist Typography 1460-70
Humanist type (also called Venetian) was developed at the same time as the first roman types. They were based on the more open letterforms of Italian humanist writers, rather than the heavier forms of the dark gothic scripts that used Blackletter.

The Humanist period saw the development of the first typeface which is attributed to Italians Sweynheym and Pamartz.

Humanist type is characterised by:

- a sloping crossbar on the lowercase "e"
- a relatively small "x" height
- low contrast between think and thin strokes
- dark page colour (if one squints at a page)

An example of such type is Centaur. One can clearly see that the type is based on a nib based pen, but is substantially finer than Old English, with fewer embellishments.

Humanist typefaces are not used much at present, though they did experience a small revival in the early 20th Century.
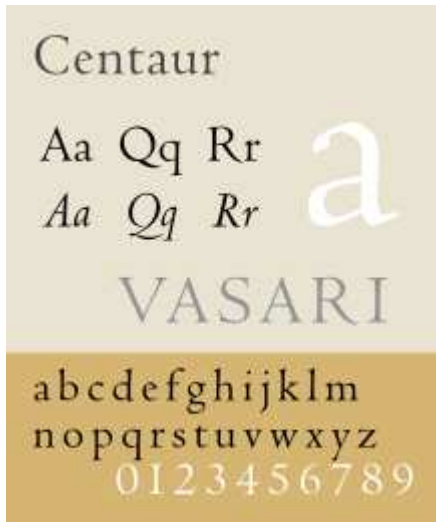
Old Style Typography 1470-1700
During this period (1501) the first italicised typeface was developed. Rather than used to emphasize words as it is today, italics were designed for use as the sole text in small format books.

The finer forms of Old Style typography can be attributed to finer metal working tools (punchcutters) and higher quality inks. Finer tools lead to less sticky ink, letter forms could also be thinner. With more control over the ink application process, there was less chance of punching through the paper.

The main characteristics of Old Style Typefaces are:

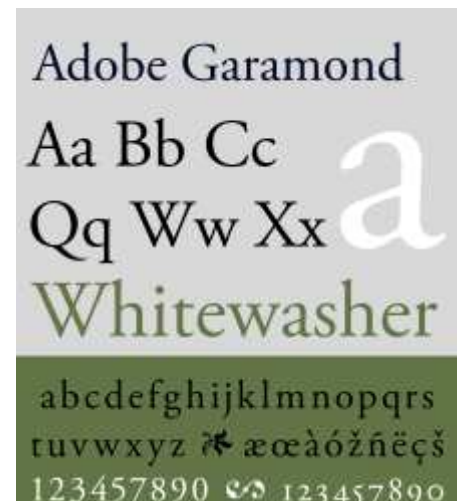- Greater contrast between thick and thin strokes
- Generally sharper and more refined in appearance than humanist
- Serif of ascenders more wedge shaped
- Stress on letterforms is upright
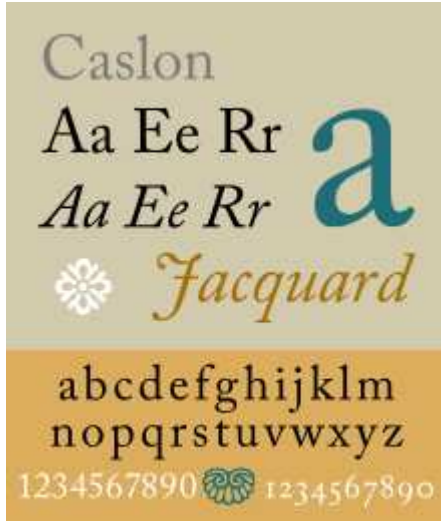Cross bar on "e" horizontal

This form of typography can be broken down into four periods which are defined by a notable typographer of each period:

- Italian (Francesco Griffo circa 1495)
- French (Claude Garamond circa 1540)
- Dutch (Christofell van Dijck circa 1600)
- English (William Caslon circa 1725)

The Old Type period developed types that remain popular, such as Garamond devel-

oped during the French Period and Caslon developed during the English Period. A number of more recently developed typefaces such as Sabon (Jan Tschichold, 1960's) and Calisto (Ron Carpenter 1986) are follow the forms of Old Style typogra-

phy.

Besides improvements in punchcutting and ink formulation, no technological advancements are noted during this period.

Transitional 1700-1792

The 1700's was around the time that the Dark Ages ended and the Enlightenment began. This coincides with the beginning of transitional fonts. In France in 1692, King Louis XIV commissioned a typeface that came to be called King's Roman and though often accredited to Jacques Jaugeon was designed by committee. The Enlightenment saw a large resistance to the old ways, and so, this typeface was designed with little reference to written script. It was instead designed the French Academy of Science using a 48x48 grid of squares which where then engraved on copper. At this time, a typesetter called Grandjean began to produce italic type from his own designs.

In England, John Baskerville as well as creating the Baskerville typeface, was working on perfecting spacing. Only after meeting with Benjamin Franklin, who took his typefaces to the US, were his types popularised.

During the transitional period, the point system was developed by Pierre-Simon Fournier. William Caslon, a notable Old Style Typography creator, would give rise to modern typefaces more accurately described as transitional.

The main characteristics of Transitional Typefaces are:

- Vertical (or almost) stress on the lower case letter bowls
- Greater contrast between thick and thin substrokes
- Head serifs tended towards the horizontal more so than old style serifs

To confuse matters, typefaces may be given names not reflective of their style, such as Bookman (Old Style), which is close to transitional, than Old Style.

As was the case during the Old Style type period, there were no major technology advancements.

Modern (or Didone) 1792-1870
Major changes to typography came with the advent of the Industrial Revolution. The operation of printing presses improved when automation began to be introduced into their operation. Steam (1814) was used to drive the process rather than human operators. Rotary operation was developed in 1868. Rather than use hand cut printing plates, developments in optics allowed for plates to be photo engraved by a process called lithography (invented by Aloys Senefelder in 1796). A paper making machine (invented in 1799 by Nicholas-Louis Robert) increased the speed and quality of the manufacture of paper. Such technological advancements meant many printing jobs could be performed with huge time gains on the previous time methods. This advancement caused consolidation of the typesetting industry. In the USA, for example, American Type Foundry resulted from the merger of 23 separate type foundries.

Modern foundry techniques enabled finer types designs to be cast. This resulted in the contrast between thick and thin substrokes becoming about as extreme as possible. The continued refinements in inks complimented this process allowing finer and finer application of pigment to paper.
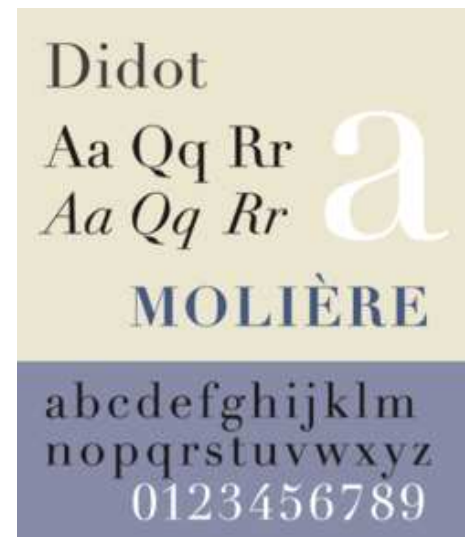
The reason that Modern typefaces are also known as Didone is due to Frenchman Firmin Didot developing the first of them, called, you guessed it, Didot. The quintessential modern type, Bodoni, was created by an Italian punch cutter and printer by the name of Giambattista Bodoni. This type was based on King's Roman from the transitional period. It is said that Bondoni has the most number of digital versions (or fonts as they are called) of his typeface than any other typographer. As well as this Bodoni was prolific, developing hundreds of typefaces, including variants such as Arabic, Greek, Russian and italics.

The characteristics of Modern Typefaces are:

- High and abrupt thick and thin stroke contrast
- Unbracketed, thin serifs
- Vertical axis
- Horizontal stress
- Small aperture

Modern typefaces require generous leading and margins to look their best.

During the early 1800's, slab serif was developed. This is a notable subset of Modern as it was developed purely to be noticed. It was created in England and was designed to for use in short burst of copy,

Typeface showing slab serif letterform

where it would stand out, such as on newspaper covers.

Though often called Egyptian, this has nothing to do with actual letterform as during this period, Egypt was trendy and was tagged into the typeface to make it appeal to the masses.

Robert Thorn (circa 1800) designed the first 'fat face' serif and created the term Egyptian to describe it. Fat Face has been described as a modern typeface on steroids. This early typeface was quite extravagant. Later, slab serif became more suited to being used as typefaces as their contrast was reduced along with some thinning out of the serifs. This enabled the newer style slab serif to be use comfortably at smaller sizes.

Bauhaus Modern 1870-1958
1885 saw the invention of a pantographic printing process which enabled the creation of cutting punches to be automated and offered a crude scaling system so text would proportionally scale. This scaling primarily preserves the thin lines within a typeface so they do not shrink out of existence when the typeface is shrunk.

Around 1890, line-casting machines were developed by Monotype and Linotype. Here, rather than needing to reset the printer after run of the same page had been printed, type was automatically recirculated within the machine. This sped up the printing process a huge amount (by 85%) and reduced the amount of outlay a printer needed. Recirculating type reduced the number of physical letters printing machines required.

Bauhaus period typographers include: Moholy-Nagy who considered typography to be primary a means to communicate; Herbert Bayer who designed a universal typeface which was a simplistic sans serif and also decided there was no need for upper and lower case letter, so he used lower case only.

Joseph Albers created a typeface using 10 basic shapes that was supposed to be cheap and easy to both produce and learn.

It was during this period that *The New Typography* was written by Jan Tschichold. This book serves as the basis for how text is displayed up to the current day, including the form of poems, books, reports and more.

Rather than any specific letter forms, Bauhaus Typography is based on general statements such as:

- Functional requirements dictate shape
- Communications must be to the point
- Typography needs to be structured (eg headings and internal document

structure)

Perhaps the most widely used of these typefaces is Helvetica, (Eduard Hoffmann – 1957). It is a sans serif of neutral tone that has become the default typeface to use
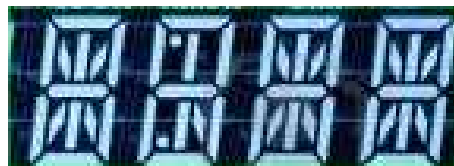

Early computer screen text display.

for almost any application.

Contemporary 1958-present
During the Contemporary period, electronic computers were developed and continually improved. Displays were initially single colour, with the not lit sections representing negative space. The numbers of colours screen could display gradually increased as did the number of dots they could display. This meant that text which had to be very basic on early displays, could become more and more complex. Today a font could be designed out of lolly snakes for example and be reproducible both on screen and on paper.
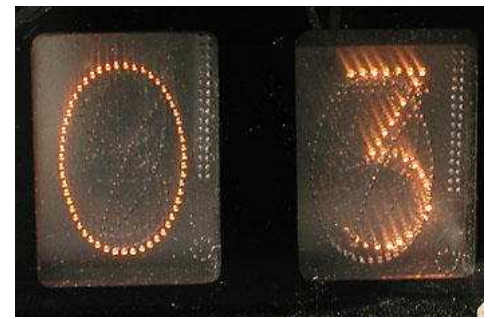
Early LED display.

As computers proliferated, desktop publishing was born and anyone with a computer could conceivably design a typeface and circulate it as the digital representation known as a font. As home based printers developed, printing moved from two tone, poor resolution dot matrix printers to those today that can produce photographic qual-

Recent computer display

ity images.

The characteristics of Contemporary Typefaces are that there are no defining characteristics, though many are designed either on, or for use on a display screen. Contemporary fonts may contain design elements of previous typography periods (generally one period), or they may deviate entirely from them or mix up all periods as may be the case with decorative fonts, which have become more widespread thanks to computers. Here, if one were harsh, it could be said that all poorly designed fonts are decorative as they follow no strict design rules, which contrasts with a well designed decorative font which does follow its own rules of form.

Some notable, but accursed contemporary, arguably decorative fonts are:

- Comic Sans (Vincent Connare -1994)

Comic Sans
Aa Bb Cc
Aa Bb Cc
Kidz Korner
abcdefghijklm
nopqrstuvwxyz
0123456789

- Hobo (Morris Fuller Benton - 1910)
- Papyrus (Chris Costello - 1982)

Many contemporary typefaces are actually redesigns or copies of previously developed typefaces and have been created specifically for use with computers. Notoriously, amongst typographers, Arial (Robin Nicholas and Patricia Saunders - 1982)

Arial
Aa Ee Rr
Aa Ee Rr
Deliverable
abcdefghijklm
nopqrstuvwxyz
0123456789

was a knockoff of Helvetica.

Conclusion

Over the centuries, typographic techniques have been transformed from taking years to produce an "extensive library" of a dozen or so books at great expense, to today, where entire libraries of thousands of books can be acquired for virtually nothing, carried in one's pocket and displayed on a portable device such as a phone or tablet.

References

CATC provided PDFs and timeline
Wikipedia entries on Sumer, Rookas
Years of experience.
Ilovetypogaphy.com
Designhistory.org

http://1.bp.blogspot.com/_Yg7NDtgzu4I/R72V-z6WPQI/AAAAAAAAN0/FbW0B6EkfNs/s320/gutenberg-s-press.gif
http://us.123rf.com/400wm/400/400/snehit/snehit0910/snehit091000128/5782045.jpg
http://www.vintagecalculators.com/assets/images/Canon130_104.jpg
http://t3.gstatic.com/images?q=tbn:ANd9GcQA2fjRi_jrtpNQb8VQuFqyZ7NaLnx0Xqgk_cV8mAVl55IUSrKvWQ