TYPOGRAPHY 101

DANIELA NIKOLAEVA

I dedicate this book to my high
school typography teacher
Valery Alexandrov "Bukvata"
He was the first one to believe
in me, to recognize my talent,
and to give me the
confidence to become an
artist, designer and a teacher.

„подкрепете местния сериф"

"Support your local serif"

— THE AUTHOR

DANIELA NIKOLAEVA

Daniela Nikolaeva is an awards-winning graphic designer and educator, passionate about art, design and typography. In her long career in the creative filed, she has created numerous typographic designs, presented on screen, paper, cardboard, glass, Plexiglas, Styrofoam, and other materials. She has researched, taught, written, and designed extensively, and has exhibited her work world-wide.

Daniela studied typography at The School of Applied Arts and at the Academy of Arts in Sofia, Bulgaria. She holds a Master's Degree in Graphic Design and Advertising and has more than 25 years of industry experience in Europe and USA. At the start of her career, as a graphic designer at ZUM, the largest Department Store in Bulgaria at the time, Daniela created ornate and exquisite merchandise displays that housed top-notch brands, such as Pierre Cardin, Nina Ricci, L'Oréal, Seiko, and others. Daniela's hand lettered and hand-cut typographic design was featured in the German design magazine Neue Verbung.

Daniela taught typography and other design classes at the at The Art Institute of California – San Francisco for more than 15 years. Currently she is a tenured professor at Laney College in Oakland, and the Department Chair of the Graphic Arts Department. There, she teaches typography and design classes, develops curriculum and hosts art and design events.

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THE VOICE OF TYPE

In this lesson, you will learn the following:

- What is typography
- What is the difference between typeface and font, glyph and character
- **How typography "speaks" to the viewer**

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TYPOGRAPHY

Typography is the visual representation of our language. It is the art and technique of arranging type. Typography is about the design of letters and characters, but also about the arrangement of those letters and characters to create typefaces, fonts, paragraphs, pages, etc.

The word, typography, is derived from 2 Greek words: τύπος typos "form" or "impression" and γράφειν graphein "to write."

Its origin could be traced to the first punches and dies used to make seals and currency in ancient times, in other words, used to "**imprint text."**

As you study typography, you will understand that every little detail matter, not only when it comes to identifying individual characters, but also when it comes to arranging text on a page or screen. The selection of point size, line length, and spacing, both on a single line and throughout an entire page or piece of work.

Why is typography important?

Typography is all around us. It is in books, magazines, packaging, billboards, street signs, logos, corporate graphics, and everywhere else you look. It is on paper, plastic, wood, metal, fabric, and on screens large and small. Every day, from the minute you wake up till the time you close your eyes and go to sleep, you look at hundreds of typefaces and read thousands of words, whether you realize it or not.

If you never paid much attention to the numbers and characters you see every day, you have come to the right place. After reading this book, you will gain a vast appreciation for the design work that happens behind the scenes to create the characters you see and to arrange the words you read. You will start recognizing fonts and font families and will learn when to use one font or another.

Even though it might seem trivial at times, the slightest type adjustment can impact the look and feel of text. Companies know that and they are very careful what typeface to use in their products and websites. The choice of a specific typeface is part of the companies' brand, together with the logo, color, slogan, etc. The typeface that it is associate with a company could make or break the brand.

Ponder this:

IKEA is a Swedish company, recognized around the words for its furniture and household items. When I say IKEA, I am sure a lot of you are picturing the giant, blocky, yellow letters that make up its name. One day, in August 2009, an unusual thing happened: IKEA changed its typeface. This was not a strange thing in itself — big companies, from time to time change their typefaces — but the odd thing was that people noticed.

Not only they noticed, they complained. Snarky remarks were posted on blogs and websites, newspapers wrote about it in condescending ways, and there were spirited exchanges on BBC radio. It was strange to hear so many people fired up about typefaces. The place still sold merchandize with Swedish names, the restaurant still offered meatballs, but there was something unfamiliar about the signage in the store and catalogue. People felt that something was wrong all around the store, they could not pinpoint it, but they just did not like the switch.

IKEA had abandoned its elegant typeface **Futura** in favor of the modern **Verdana**. Suddenly, there was a font war. Verdana, the font this book is written in, is a fine font, a queen in legibility, but people simply did not want to part with their beloved Futura. They joked that the round meatballs were a perfect representation of the circular O's in Futura, and now the meatballs had to be made oval to match the O's in Verdana.

The takeaway here? Typography is important and even the little details matter.

Other companies have also redesigned their image. Some were successful and some not.

Look for yourself and decide which redesigns were a hit and which were a miss.

Did you know?

In college, Steve Jobs took a course in calligraphy and typography, which played a critical role in the success of Apple. As he once said in a Stanford University commencement speech, "If I had never dropped in on that single course in college, the Mac would have never had multiple typefaces or proportionally spaced fonts."

Take look at online ads that have been arranged in a creative way. On the left is just the text. On the right is the text with typographic treatment. How would you arrange the same ads?

Creators
Of Great
Websites

Taste Rewind Your music turned back in time. Let's rewind	
2016 Utah Park city February 8-12 4 epic days	
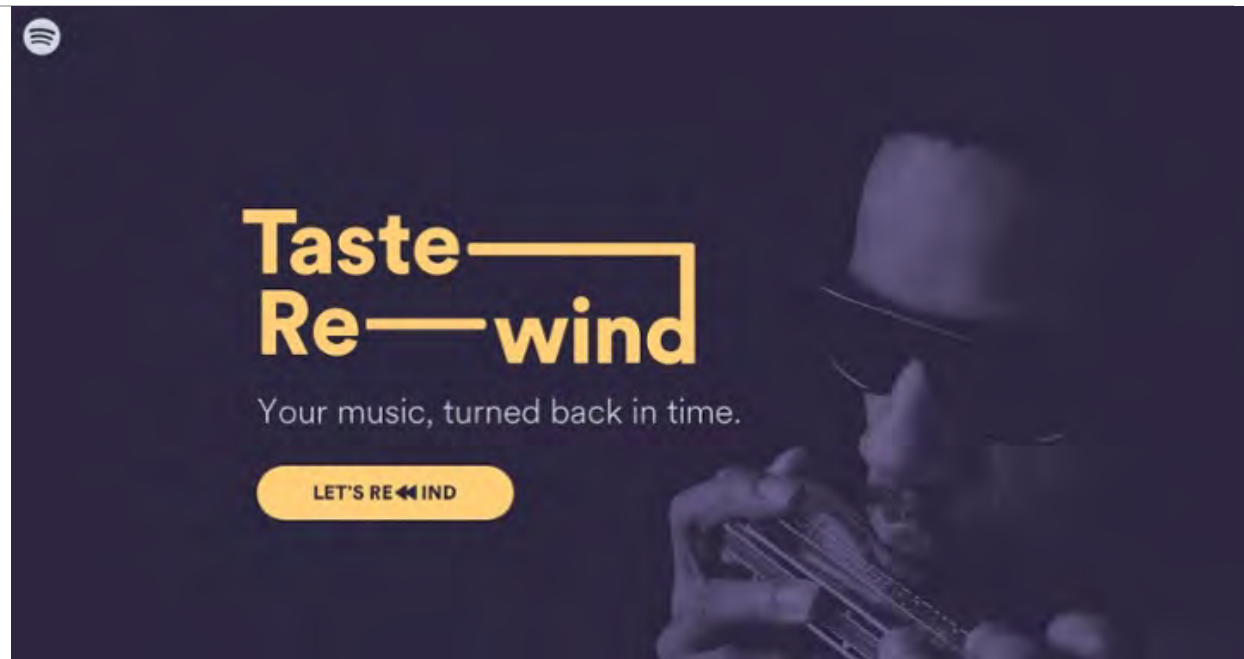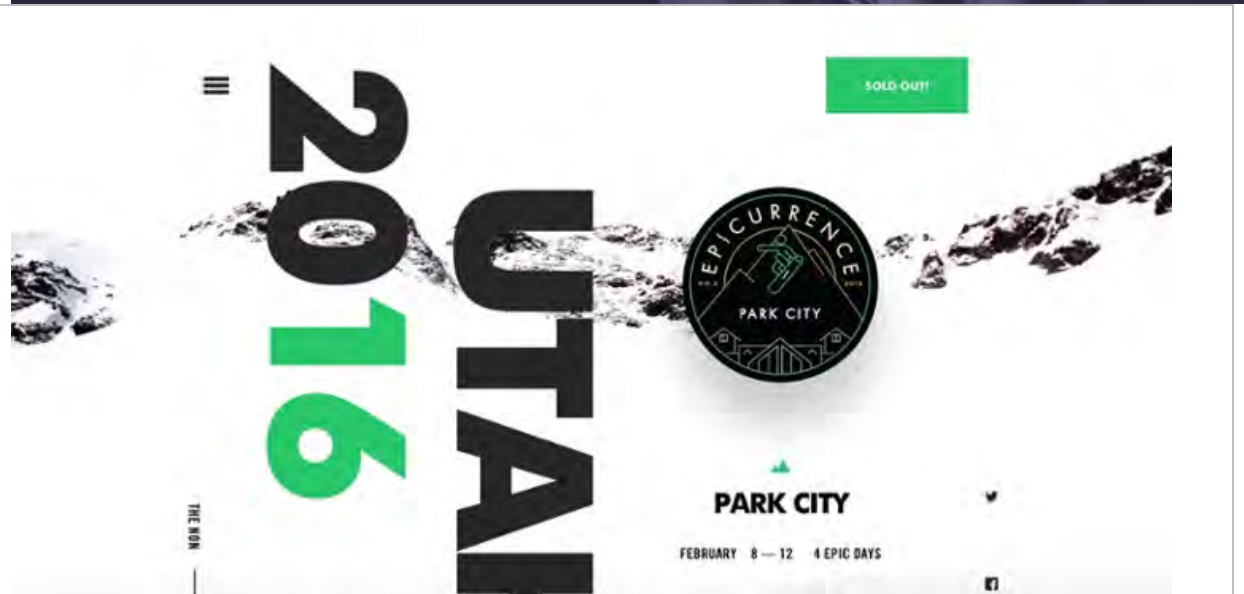
TYPEFACE VS. FONT

In casual conversations designers and non-designers use the words font and typeface interchangeably, but they mean two different things. A designer should know the difference and should use the proper terms.

I will try to explain the difference with an analogy. Let's say you created and image in Photoshop. You would call it an "image" not a "psd", although technically it is a .psd file. You would say, "I created a beautiful image," not "I created a beautiful .psd." The image you created is composed of different pieces that work well together as a whole. A typeface is an image composed of different parts too (we call them glyphs), while a font is piece of software, the file that is loaded into your computer, which makes it possible to display letters, numbers, punctuation marks, etc.

A typeface is the *design* of the letters, the concept, how the letters are drawn on paper. Use the word "typeface" when describing what you see - the creative work. For example, Helvetica is a typeface.

A *font* is a piece of software, loaded into your computer and ready to type with. Use the word "font" when describing the collection characters, you type. For example, Helvetica Bold and Helvetica Light Oblique are fonts.

Here is how you could use these two terms in a sentence:

*"The **typeface** you chose brings elegance and sophistication to the business card you have designed. I recommend you lower the **font** size to 10pt. to make it fit."*

TYPEFACE

A typeface is the visual design of a collection of characters, like letters, numerals, symbols, etc.

Legally (in the U.S. at least), you can't copyright a typeface – only a font. If you think about it, a typeface is the visual idea of the letters, so it's like trying to copyright the alphabet.

FONT

A font is a piece of software you install on your computer that allows you to use a typeface. In ancient days before computers, a font was a collection of metal pieces you would use to set the type.

Fun fact, they were stored in super organized wooden cases, hence the terms upper-case and lower-case.

Image Source for typeface, font and glyph: Michael Rich,

CHARACTER VS. GLYPH

The character a can be represented by many glyphs set in different typefaces. In addition, more than one glyph can represent one character in the same font. For example, a lowercase n character may be represented by glyphs of a standard lowercase n, a small cap n, and a swash n. However, a cap N and an italic n are different characters.

A glyph essentially, is a drawing of a character. A font is made up of glyphs — which are individual drawings of characters.

A character is the symbol representing a letter.

A glyph is the specific shape, design, or representation of a character

GLYPH

A glyph is the drawing of a character. For example, an uppercase "Q" is a character, but it can be expressed with either a straight tail or a wavy tail (like above). Each of these are the same character but the designs of the letters are different glyphs.

(Above) The lowercase b character is represented by four glyphs in Jenson italic: The standard b, an alternate, a small cap, and the superscript. (right) The capital B is a different character.

Did you know?

There may be more than half a million fonts out there. Whatfontis.com is a free font search engine and here is their statement: "We indexed 632,342 fonts. Find yours now."

Main Points:

- **Typography is the visual representation of our language. It is the art and technique of arranging type.**

- **A typeface is the *design* of the letters. Helvetica is a typeface.**

- **A *font* is a piece of software, loaded into your computer and ready to type with.**

- **A character is the symbol representing a letter.**

- **A glyph is the specific shape, design, or representation of a character.**

Watch this 6.23-minute introductory video by GCFLearnFree.org
to learn more about the basics of working with typography:

THE
VOICE
OF
TYPE
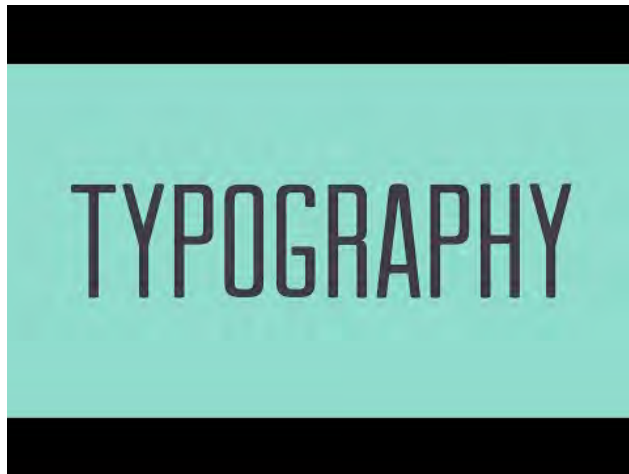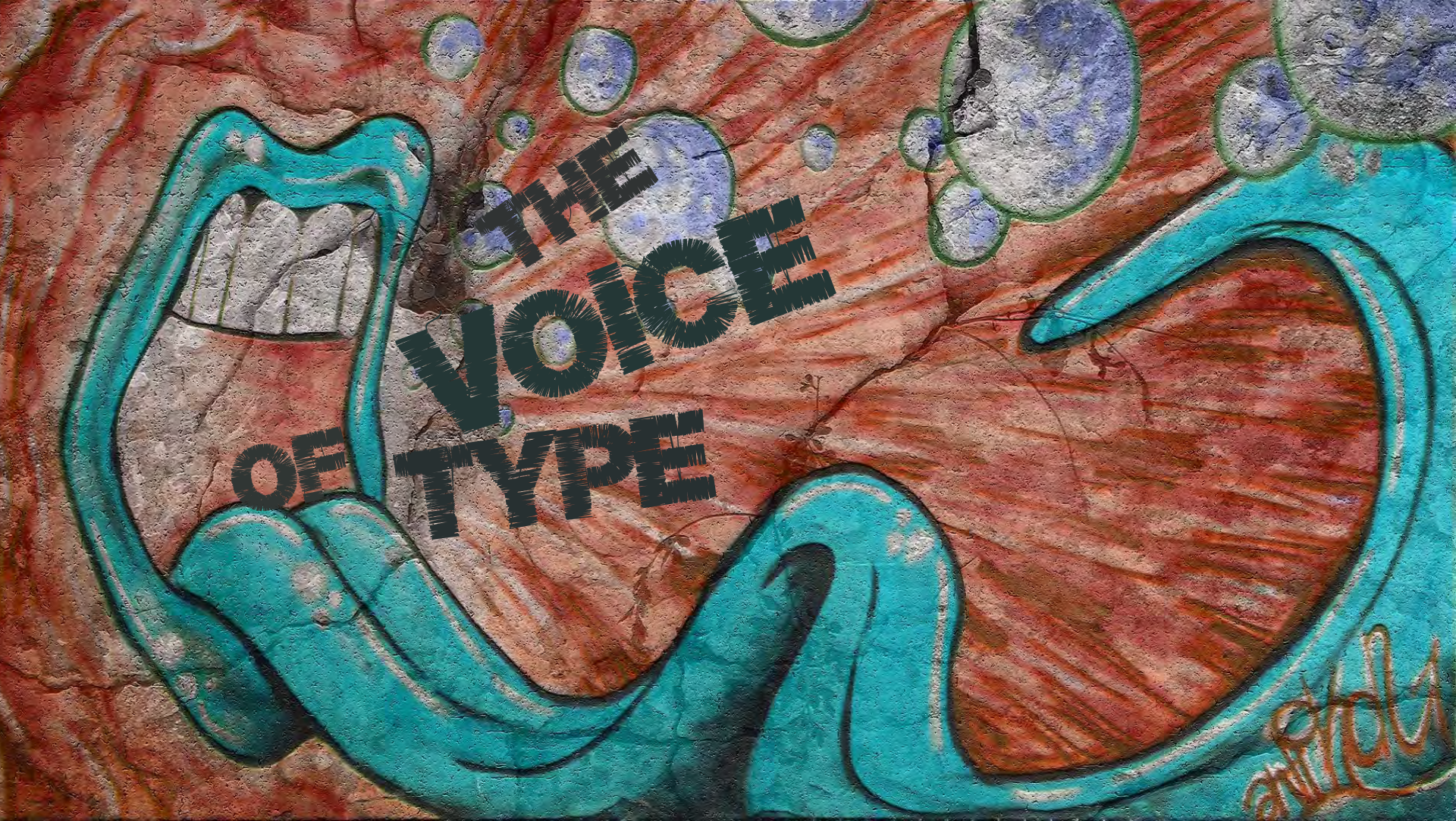
THE VOICE OF TYPE

There are more than 600 000 fonts in the world. For every message there is a font out there. The hard part is to find the right typface for the right message, to get your voice heard.

Can you hear typography?
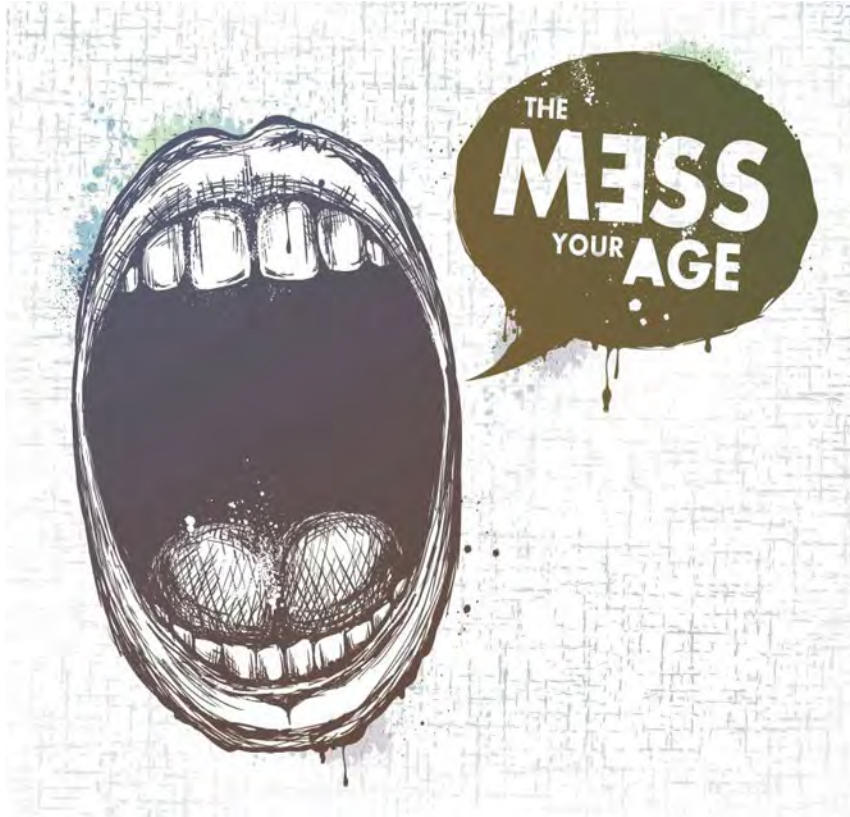
Spoken language does not express ideas and feelings with words alone. The tone of the voice, volume and the speed of delivery impacts the message.

Written communication cannot use these means of expression but can use typography as expression.

Typography gives voice to words with the use of typefaces that support the meaning of the message.

Example 1. Which typeface commands authority?
Left: Arial Black, 100 pt. | Right: Times New Roman, Italic, 100 pt.

Example 2: Which typeface sounds more trustworthy?
Top: Blackadder ITC, 60 pt. | Bottom: Tahoma, 60 pt.

Example 3:

Which typeface works best for a Halloween party?
Which typeface is suitable for a children's after school program?
Which might work well for a symphony invitation?
Which one works for a Greek restaurant?

As we saw from the above examples, choosing the right typeface is extremely important, because different typefaces convey different meanings to the viewer.

It is not just typefaces that evoke deferent emotions; text formatting also plays a major role. There are conventions we have all agreed upon. Bold means important, italic means interesting, underlined could mean important or could identify text as title, name, or a link to a webpage in digital publications. Text that is neither bold nor italic is called **roman**.

The use of capital letters is reserved for titles and slogans, while lower-case letters are generally for body text. Using all capitals, or all caps, sounds loud, very loud, while small caps are diminutive, and very quiet.The size and color of the text have a significance as well. They too have a "voice"

Companies spend a considerable amount of time and money to design the right image for their brand. Let us examine a few well-known logos, and the choices behind their typefaces.

| | Amazon was initially called Cadabra, as in 'abracadabra'. Bezos wanted his book retail site to be so quick and easy that it seemed like magic. Unfortunately, is sounded too much like "cadaver", so the site went online in 1995 with the name of Amazon. It is named after the Amazon River for being the biggest river flowing through different countries. The sans serif typeface looks modern and dynamic. The sense of movement is enhanced by the arrow/smile going from a to z |

	The name "Cisco" was derived from the city name San Francisco, which is why the company's engineers insisted on using the lower case "cisco". The logo is intended to depict the two towers of the Golden Gate Bridge, but also represents communication waves.
	The roots of Sony are an interesting blend of Latin and English slang. It is a conjoining of 'Sonus', meaning sound and 'Sonny', meaning a well-to-do young man. It was founded in 1946. Its serif typeface represents tradition and resilience.
	The word Samsung in Korean means "three stars" and was chosen to represent the virtues of being "big, numerous and powerful" Between 1938 and 1993, the logo featured the three stars in different forms. Since 1993, Samsung has been using its current logo, without stars. The typeface they use is sans serif, bold and represent stability.
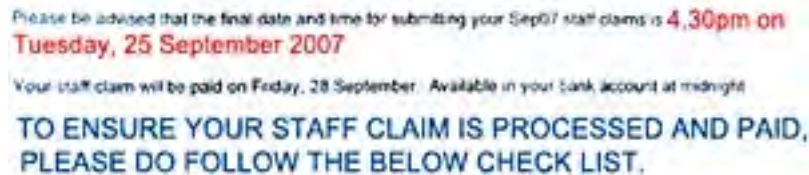
Ponder this

One Tuesday afternoon, toward the end of a workday, Vicki Walker, an Auckland (New Zealand) accountant at ProCare health company, inadvertently committed a type crime. It caused her job and by her own account, nearly ruined her life. What did she do wrong? She shouted with type.

Vicki Walker was fired for sending what her boss called "confrontational" email. It was not the text of the email (she even said "please"), but the typography she used: words in red, in **bold** and (brace yourself) in CAPITAL LETTERS. Well, see for yourself. I just happened to get a hold of her original email:

Please be advised that the final date and time for submitting your Sep07 staff claims is 4.30pm on Tuesday, 25 September 2007

Your staff claim will be paid on Friday, 28 September. Available in your bank account at midnight

TO ENSURE YOUR STAFF CLAIM IS PROCESSED AND PAID, PLEASE DO FOLLOW THE BELOW CHECK LIST.

Her boss found this to be so obnoxious, that "caused disharmony in the workplace." According to the New Zealand Herald, ProCare told her that her email style had caused ripples of disturbance in the serene landscape of her fellow workers' minds. She was fired.

Walker reacted to this dismissal with an exclamation point and some question marks. A few months after losing her job, she borrowed money from her siter, remortgaged her house and took ProCare Health to an employment tribunal. She won her case and was awarded 17,000 NZ dollars ($11,447) in compensation. After her ordeal she probably lost respect for ProCare, but hopefully, gained some respect for typography.

2

THE ANATOMY OF TYPE

In this lesson, you will learn the following:

- The names of the parts that make each character
- The difference between serif and sans serif typefaces
- What is baseline, meanline, x-height, etc.

THE ANATOMY OF TYPE

There is a standard set of terms to describe the parts of a character. These terms and the parts of the letter they represent, are often referred to as "letter anatomy" or "typeface anatomy." Studying the parts of the characters, help us understand how typefaces are created and could help us design own typefaces.
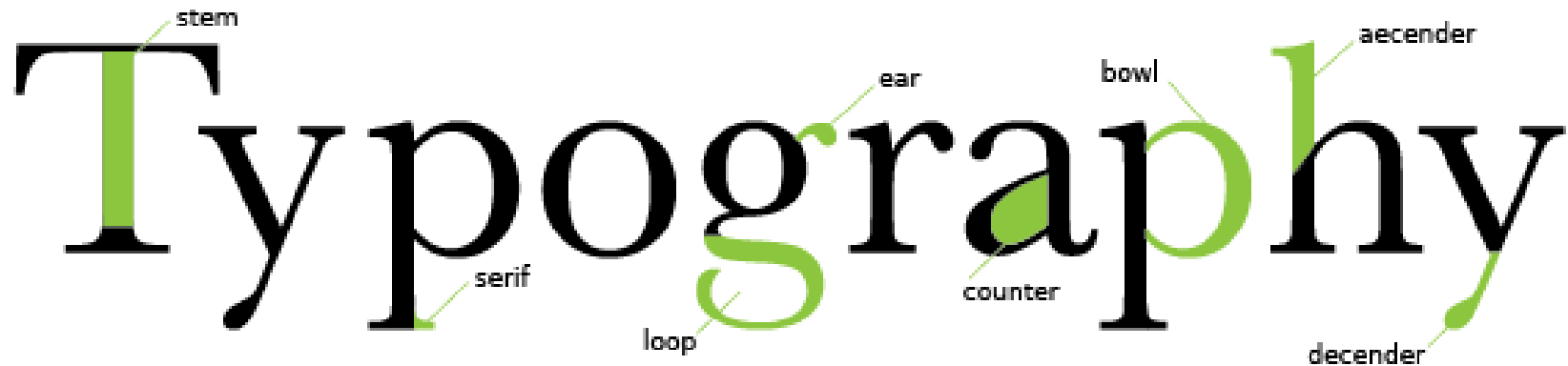
Baseline

The baseline is the invisible line on which characters sit
Baselines may differ from typeface to typeface
Rounded letters may extend slightly below the baseline

Meanline

The meanline is determined by the x-height of a typeface

X-height

Is determined by the height of a lowercase "x." This height can vary greatly between typefaces.

Cap Height

The cap height is the distance from the baseline to the top of uppercase letters

x-height Cap-height

Ascender

The part of a character that extends above the meanline is the ascender.

Descender

The part of a character that extends below the baseline is the descender, such as the bottom stroke of the lette

Example:

bdfh pqjy

Serifs

Fonts are often divided into serif and sans serif
Serif fonts are distinguishable by the extra stroke or foot at the ends
of the character, known as a serif. Sans serif fonts don't have that
extra stroke, or foot.

Serif

Sans Serif

Stem

The stem is often the main "body" or "stroke" of a letter
The vertical line of the letter "B" and primary diagonal line of letter "V" are stems

Bar

Bars are horizontal or diagonal lines of a letter, also known as arms, and are open on at least one side
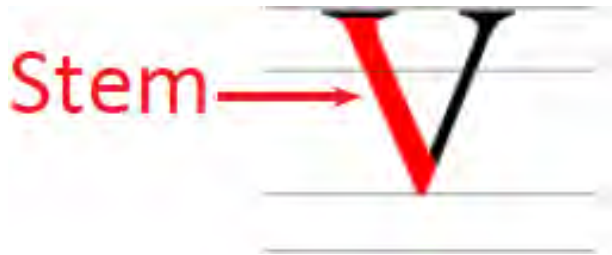
Bowls: open or closed circular line, creates an interior space, such as in "c" and "b".

Counter: the open or closed inside of a bowl.

Leg: the bottom stroke of a letter, such as the base of an "L" or diagonal stroke of a "K".

Shoulder: the curve at the beginning of a leg of a character, such as in an "m".

bowl   counter   leg   shoulder
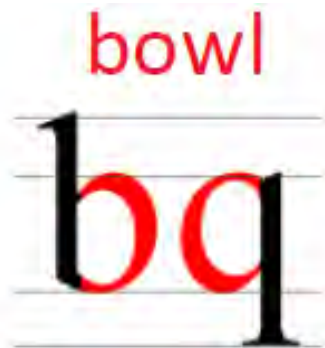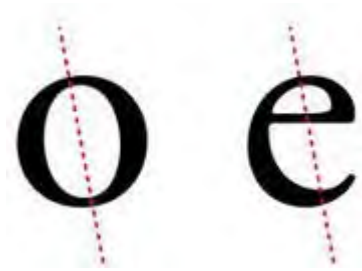
Axis of Stress: the direction of an implied line that passes through the thin parts of the round shapes in letters.

Bracket: a curve from the serif to the main stroke.

Ligature: two or more letters joined into a compound character; this is usually done to avoid clumsy fitting between characters.

Swash: decorative extensions at the beginning or end of a letter.

Main Points:

- Studying the parts of the characters, help us understand how typefaces are created and could help us design own typefaces.
- Each character is made of different smaller parts, and each part has a name.
- We identify font families based on the appearance of their parts.

1. Write as many typography definitions as you can remember from the lecture. You may also draw the lines and name them as well.

Typography

2. Click the image on the right to watch the video.

3. Add a few more definitions to the image above.
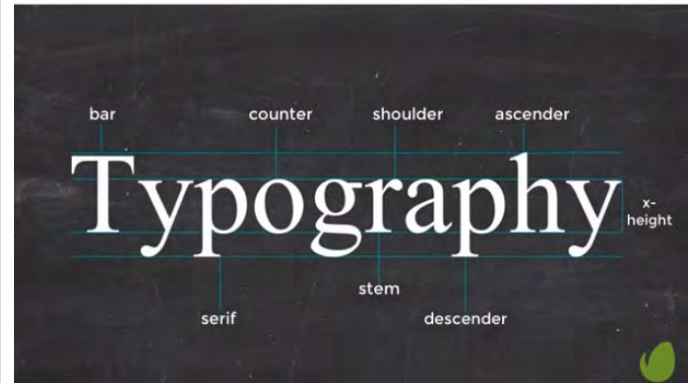
ASSIGNMENT

Type Face

Description: Create a self portrait with typographic elements. You may choose any font. You may use punctuation marks, numbers, lower case and upper case letters.

Objectives: To break letters into their fundamental components. To learn to see characters as shapes.

Methodology:
1. Take a picture of yourself.
2. Import it into Illustrator. Image Trace – High fidelity Photo - Expand
3. On a separate layer type in a few words, numbers and punctuation marks. Choose fonts with thin strokes and script fonts.
4. Select the letters and characters – Type – Create Outlines – Object - Ungroup to break them into simple shapes.
5. Arrange them over the photograph to build the shapes of your face.

Examples: **Type Face**

Student work from Daniela **Nikolaeva's** classes:
Kim Fennel, Jae Cripe, Bonny Man, Sarah B.

☑ REVIEW QUESTIONS:

1. What is typography?

2. What is a font?

3. What is a typeface?

4. What is a glyph?

5. What is a character?

6. What is a baseline?

7. What is x-height?

8. What are ascenders and descenders?

9. Can you name 3 serif typefaces?

10. Can you name 3 sans serif typefaces?

CHAPTER 3

THE HISTORY OF TYPE

PART 1

In this lesson, you will learn the following:

- The difference between pictogram, ideogram, logogram and a phonogram.
- The ancient scripts of Egypt and Mesopotamia
- The stone that made it possible to decipher the Egyptian hieroglyphics
- How modern alphabets were created

Cave painting from the Tassili n'Ajjer mountains.
Wikimedia .org

STORYTELLING WITH IMAGES

Storytelling was and still is the method of preserving history and passing on knowledge from one generation to another. Verbal communication alone was not a reliable way of delivering information; some details were lost, and some stories were modified. Many cultures understood the importance of recording history in a more permanent form – through paintings, writings, and other means of expression. Once writing was discovered, it became the most efficient way to record information, and by far became the most prolific way. But the road to this discovering type was a long and difficult one.

The earliest way to record stories were through drawings and paintings, called **pictographs.** The earliest examples of pictographs have been found in caves and date from 10,000 – 40,000 BC. Cave drawings presented people, places, and things in a simple, easy to understand way. The earliest known cave paintings (found in France) date from 32,000 BC. They portrayed prehistoric animals and the hunt.

A pictograph conveys its meaning through its pictorial resemblance to a physical object.

Petroglyphs

Petro (stone) glyph (mark, sign)

Petroglyphs are mages carved in rock by prehistoric people. They were an important form of pre-writing symbols, used in communication from approximately 10,000 B.C. to modern times, depending on culture and location Many petroglyphs are thought to represent symbolic or ritual language.

The oldest petroglyphs are dated to approximately 10,000 to 12,000 years ago. Around 7,000 to 9,000 years ago, other writing systems such as pictographs and ideograms began to appear. Petroglyphs were still common though, and tribal societies continued using them much longer, even until contact with Western culture These images probably had deep cultural and religious significance for the societies that created them.

Petroglyphs from Utah USA.

Pictograph/pictogram:

A pictogram is a pictorial symbol for a word or phrase. It is a representational image — it depicts an object, a person, or an animal.
Cave drawings are pictographs. Modern pictograms could be found at airports, subways, museums, and other places. The road signs are usually pictograms. Some icons or emoji are pictograms too.

Ideograph/ideogram:

An ideogram is a written character symbolizing the idea of a thing but not how the word sounds. It represents an idea rather than actual object. The peace sign is an ideogram, some logos and icons are ideograms.

Alphabet: A set of symbols used to represent the basic sounds of a language

Logogram: A written character or symbol

MORNING   SUN   MOON   STARS

HORIZON   SKY   RAIN

FIRE   WATER   ONE MONTH   MOUNTAIN

An ideogram or ideograph is a graphical symbol that represents an idea, rather than a group of letters arranged according to the phonemes of a spoken language, as is done in alphabetic languages.

Ideas, such as the concept of a time period, can be expressed symbolically, as in the lunar month ideogram here.

Chinese writing is made up of logograms, with each character corresponding to a spoken syllable, usually with a basic meaning. Logograms also are used in Japanese and Korean writing.

A complete writing system in Chinese characters was developed 3500 years ago, making it perhaps the oldest surviving writing system. Chinese characters are derived directly from individual pictograms or combinations of pictograms and phonetic signs.

"Strength," brush calligraphy by Lixin Wa

Main Points:

- A pictogram is a pictorial symbol for a word or phrase.
- An ideogram symbolizing the idea of a thing but not how the word sounds
- A logogram is a written character or symbol. Chinese characters are logograms
- A phonogram is picture representing a sound.
- Petroglyphs are images, often pictograms carved in rocks by prehistoric people.

Click on the image to watch a video about petroglyphs found in Utah, USA.

Video by Within Hiking Distance via YouTube.com

Newspaper Rock Archaeological Site

Newspaper Rock is a petroglyph panel etched in sandstone that records approximately 2,000 years of early human activity. Pre-historic peoples, probably from the Archaic, Basketmaker, Fremont and Pueblo cultures, etched on the rock from B.C. time to A.D. 1300. In historic times, Ute and Navajo people, as well as European Americans made their contributions.

In interpreting the figures on the rock, scholars are undecided as to their meaning or have yet to decipher them. In Navajo, the rock is called "Tse' Hane'" (Rock that tells a story).

Unfortunately, we do not know if the figures represent storytelling, doodling, hunting magic, clan symbols, ancient graffiti or something else. Without a true understanding of the petroglyphs, much is left for individual interpretation.

Newspaper Rock is listed in the National Register of Historic Places.

Please continue to preserve it.

0:21 / 1:22

Hieroglyphics 3400 BC– 3100 BC

Egyptian ideograph for "weeping"

Pictographs

3400 BC: The first hieroglyphics appeared about on pottery in Egypt.
Originally, they were pictographs, like this one of a cat.

The images they depicted were representational. A cat meant a cat.

Ideographs

By 3100 BC Egyptian hieroglyphics used symbols to present thoughts or ideas — called "ideographs" — allowing for more abstract concepts than the more literal pictograms.

A symbol for an ox could mean food, for example, or the symbol of a setting sun combined with the symbol for a man could communicate old age or death.

Types of Hieroglyphics

Egyptian hieroglyphs were a formal writing system used in ancient Egypt. Egyptians used cursive hieroglyphs for religious literature on papyrus and wood.

The word "hieroglyph" comes from the Greek *hieros* (sacred) and *glyphos* (words or signs) and was first used by Clement of Alexandria (150 – 230 AD). The ancient Egyptians called them '*mdju netjer* or "words of the gods."

The first known example of hieroglyphic writing in ancient Egypt was discovered on bone and ivory tags, pottery vessels and clay seal impressions discovered in a pre-dynastic tomb in Abydos. The deposits are dated to between 3400 and 3200 B.C. The last example is from the temple of Philae, and is dated to 394 A.D.

The hieroglyphs represented real or illusional elements. According to context, the same signs could be interpreted as a phonogram (phonetic reading), as a logogram, or as a determinative.

The determinative was not read as a phonetic constituent but facilitated understanding by differentiating the word from its homophones.

The signs are divided into **3** major categories, logograms, phonograms, and ideograms (determinatives).

A phonogram indicates one or more sounds (or syllables). They were 1, 2, or 3-consonantal. The Pharaohs names tended to be made up of more complex signs and often featured the name of a god,

A logogram (or ideogram) represents an entire word. Many logograms are also determinatives and phonograms.

A determinative has no phonetic value, and so is not transliterated. It indicates the end of the word and provides you with further information concerning the meaning of the word.

The word "hieroglyph" comes from the Greek *hieros* (sacred) and *glyphos* (signs) and was first used by Clement of Alexandria (150 – 230 AD).
**The ancient Egyptians called them '*mdju netjer* or "words of the gods."**

How do you read hieroglyphs?

A very interesting aspect of starting to decipher hieroglyphs is to know how to read them. Initially, people thought hieroglyphics were just decorative images. Later it was discovered that they were writings.

1. Read starting from the top left or top right margin, depending on the horizontal direction, the follow the symbols in horizontal order, then in vertical order if any symbol it is available.

2. Horizontal order can be left to right or right to left. Always try to read as if you are looking at the front of the symbols, for example try to see where a bird is looking and read as if you were in front of it. The same symbol can be rotated to be placed in a required reading order.

3. Vertical order is always top to bottom, so you should not have any problems with it as it comes somewhat naturally.

Here are a few examples. Notice that the bird is looking left, so we should try to read as if we were in front of it, so from left to right.
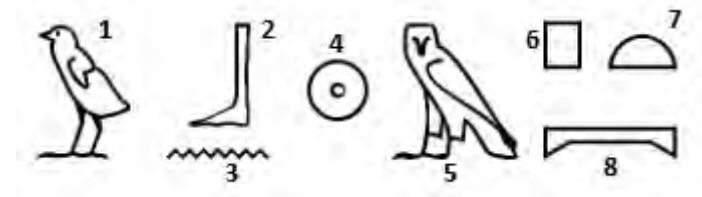
Here the birds are looking right, so the horizontal order is inverted:

An example of hieroglyphics carved into stone.

Louvre Museum, in Paris.

Nobody knew how to read hieroglyphics until the early 19th century, when Jean-Francois Champollion (1790-1832) used the Rosetta Stone to decipher the script.

The Rosetta Stone

Found in 1790 in Egypt, the Rosetta Stone contains three inscriptions of a single text, a decree of the priests of Memphis in honor of Ptolemy V.(196 BC).

French scholar Jean Francois Champollion

 (1790-1832) in translating the Rosetta Stone realized the phonetic value of hieroglyphs; they have more than symbolic meaning and served as a 'spoken language.'

Many other scholars and government officials contributed to this difficult task or deciphering the hieroglyphics.

Text on the Rosetta Stone appears in hieroglyphs, Demotic and Greek, allowing Egyptologists in 1822 to decode hieroglyphics.

The Rosetta stone at The British Museum
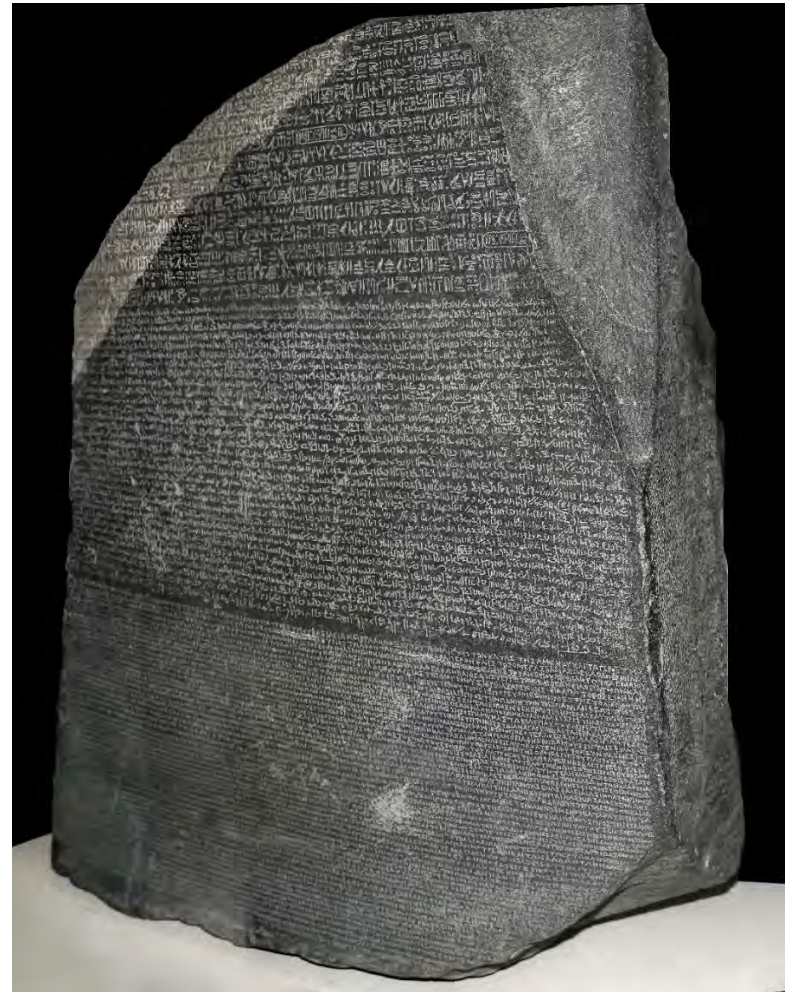
HIEROGLIPHICS

The scholars trying to translate the text noticed that the Egyptian characters resembled the equivalent ones in the demotic script - as many as 80 similarities between the hieroglyphic and demotic texts on the stone. This was an important discovery because the two scripts were 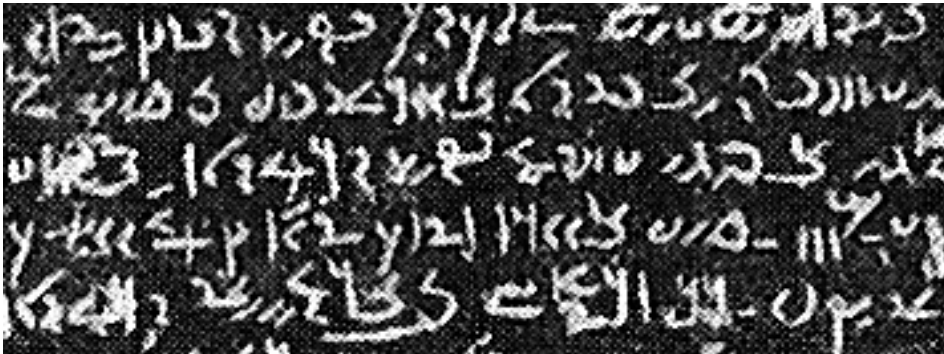previously thought to be entirely different from one another. It also suggested that the text in the other two sections was the same!

DEMOTIC

At the time of the stone's discovery, Swedish diplomat and scholar Johan David Åkerblad was working on a little-known script of which some examples had recently been found in Egypt, which came to be known as demotic. The demotic script has not been fully discovered, yet so it left a lot of gaps in deciphering the text.
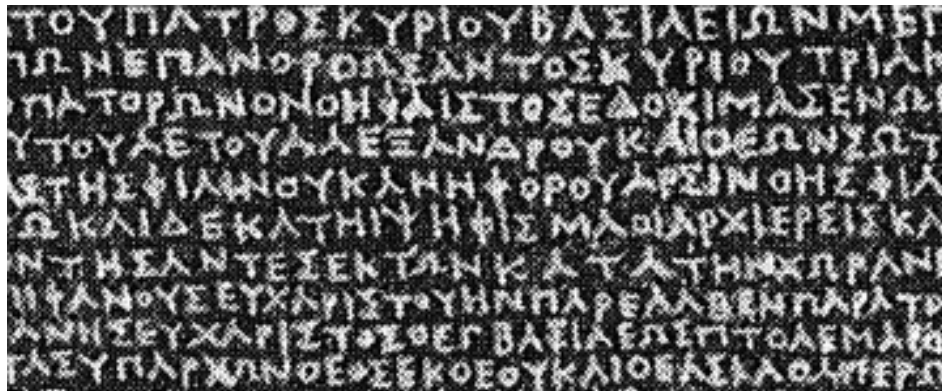
GREEK

The Greek text on the Rosetta Stone provided the key to translating the script and further down the roast to understanding hieroglyphics
Ancient Greek was widely known to scholars, so since they could read Greek they could translate the other two languages.
The scholars did not know the details of its use in the as a government language in Ptolemaic Egypt, during the Greek Hellenic period.

Mesopotamia

Mesopotamia is the region in southwestern Asia where the world's earliest civilization developed. The name means "between rivers" and it refers to the land between the Tigris and Euphrates rivers, which in modern days includes Iraq, The Gulf, the Euphrates also part of northern Syria and eastern Turkey. 5000 years ago, many rich cultures flourished in Mesopotamia - Sumerian, Akkadian, Babylonian, Assyrian and others. This made it a melting pot of languages and cultures that stimulated a lasting impact on writing, technology, language, trade, religion, and law.

Blau Monument from around 3100 BC

One of two stone tablets from southern Iraq during the Late Prehistoric period that may have recorded a land sale using both symbols and pictures.

More than 5,000 years ago, the Sumerians of southern Iraq invented cuneiforms - one of the world's earliest systems of writing. They created it because they needed means of accounting.
The system used signs, originally pictograms, to represent numbers, words, and sounds.

A picture of a person's head could be used to mean "head" or could stand for the sound of the word for head, or "sag" in Sumerian.

By using signs to represent syllables, the system could be used to express concepts, immaterial things that existed only as thoughts such as valor, honor, freedom and evil.
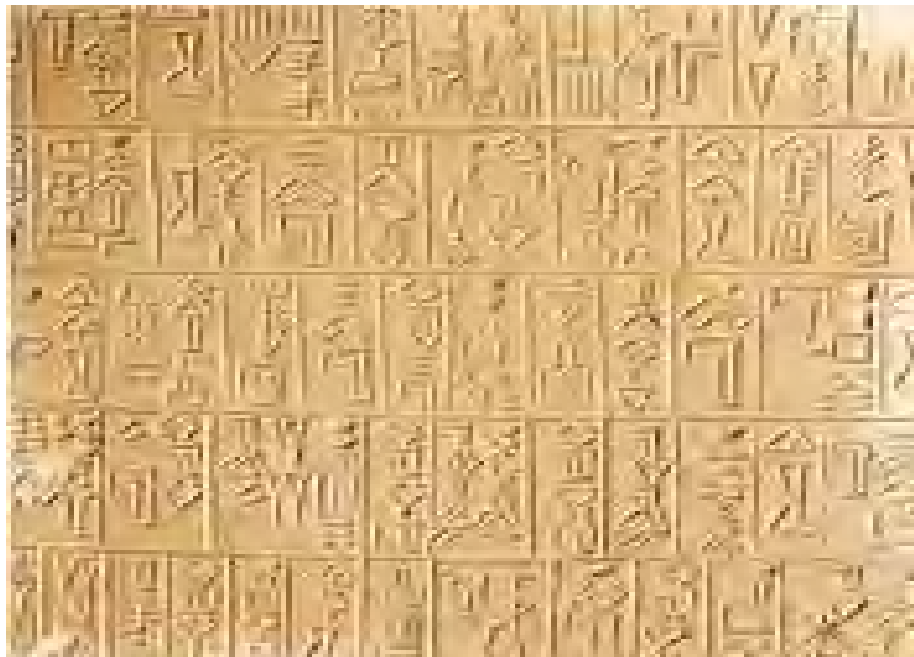
Cuneiform, created in Sumaria (southern Iraq) around 3,000 BC, was a form of writing that began as a series of pictograms written into clay tablets.

The term **cuneiform** comes from cuneus, Latin for "wedge".

A sharp object was pushed into wet clay to form the impressions. Then the clay tablet was left to dry in the hot middle eastern sun.

The cuneiform was one of the first writing systems that read left to right.

The clay tablets recorded purchases, and accounting. They were some of the first ledgers.

Left:
Cuneiform tablet: administrative account of barley distribution with cylinder seal impression of a male figure, hunting dogs, and boars.

Did you Know?

A series of tablets containing ancient scripts describe a bizarre Babylonian ritual called **Mis-pi**. - "washing of the mouth" The Babylonians dressed a statue in robes, decorated it with gold, silver and pressions stones, and then…washed its mouth!
And that was just for starters. The second day, they performed **Pit-pi** – "opening of the mouth." They fed the statute syrup, butter, cedar, and cypress. I will not go into much details, but there was also a *pit uzni,* an "ear opening" ceremony.
Why did they do that? They believed that gods could inhabit the statutes and the statues had to be purified and prepped. The rituals were for the consecration of a cultic image. We would have never imagined this, if people did not study the written forms on the Mesopotamian tablets

Ponder this

During King Hammurabi's rule, Babylon became the most powerful city in the world. **Its** ruins lie in modern-day Iraq 59 miles southwest of Baghdad. The city was a major trade hub bringing together new ideas and products. Babylon also became the largest city in the world at the time with as many as 200,000 people living there.

At the center of the city was a large temple called ziggurat. This temple looked something like a pyramid with a flat top. The archeologists think t it was 300 feet tall! There was a wide street leading from the gates to the center of the city. The city was also famous for its palaces, towers, and artwork. One of the wonders of the ancient world were the Hanging Gardens of Babylon. This was a large series of terraces that rose to around 75 feet high. They were covered with all sorts of trees, flowers, and plants, cascading down the walls. It would have been an amazing sight to see.

Babylon was the cultural center of the empire. It was here that art, science, music, mathematics, astronomy, and literature were able to flourish.

King Hammurabi established firm laws called Hammurabi's Code. Hammurabi's code consisted of 282 laws. There were laws governing commerce such as wages, trade, rental rates, and laws governing criminal behavior describing severe penalties for stealing or damaging property. There were even laws governing adoption, marriage, and divorce. The lows were carved on clay tablets and tall pillars of stones called steles.

This was the first time in history the law was literally, written in stone.

Development of the Alphabets

Pictograms evolved into the letters of the alphabet

Early symbol for "ox"   Phoenician "aleph"   Greek "A"   Roman "A"

Much as our own handwriting starts out blocky and stiff when we are young and becomes fluid as we practice, the world's letters changed and evolved. Pictograms evolved into ideograms then, pictures evolved into phonograms, and turned into alphabets.

The earliest scripts in the world were the Egyptian hieroglyphs and Sumerian cuneiform, but they were not real alphabets.

Around 1700 BC Sinai (wedge-shaped peninsula east of Egypt) was conquered by Egypt for its turquoise mines and trade routes. The local West-Semitic- speaking population adopted a small number of hieroglyphic signs (probably no more than 22) to write their language.

Egyptian hieroglyphs already had phonetic signs, but the Sinaitic people did not adopt those phonetic signs. Instead, they chose pictorial Egyptian glyphs (like ox-head, house, etc.) that sounded like the consonant they wanted to represent. Proto-Canaanite, also known as Proto-Sinaitic, is the first primitive alphabet.

The Phoenicians were the first to come closest to developing a true alphabet, to represent their northern Semitic tongue. The oldest inscription dates to around 1000 BCE (Robinson 1995: 164). Exactly how the Phoenicians developed their script is not clear, but it represents only the sound values of their consonants.

Phoenician Alphabet

Around 1000 BC, the Phoenicians developed a non-pictographic, consonantal alphabet, referred to as **abjad.**

Initially developed to serve the needs of sailors and traders, the Phoenician alphabet became one of the most widely used writing systems.
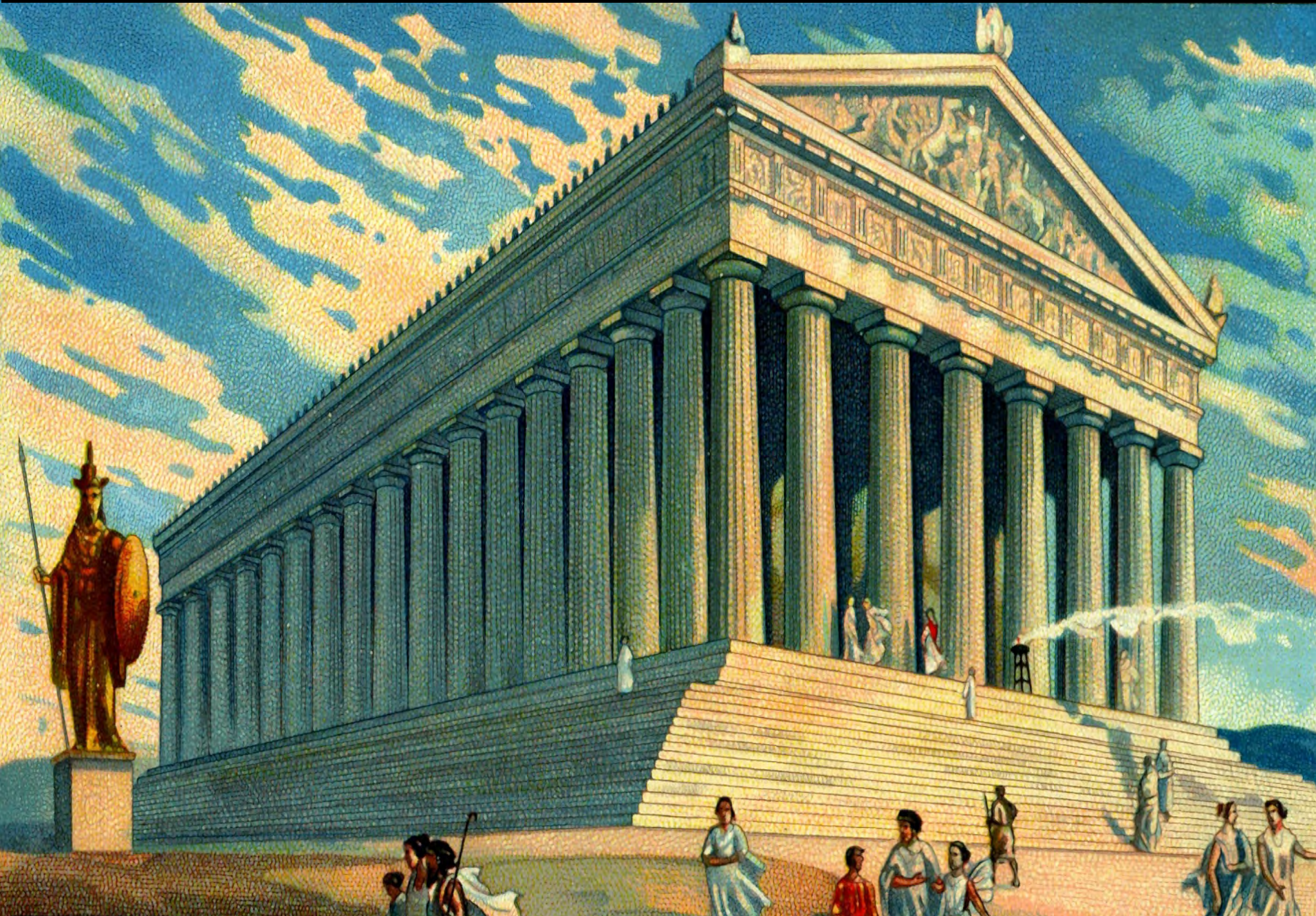
It was later adapted by many other cultures they traded with, including Greek, Hebrew and Arabic.

The table on the right demonstrates the transition from Canaanite to Phoenician to Greek characters.

It is apparent how characters became less representational and more symbolic.

	Proto-Canaanite	Early Phoenician	Greek		Proto-Canaanite	Early Phoenician	Greek
ʾ			A	l			Λ
b			B	m			M
g			Γ	n			N
d			Δ	s			Ξ
h			E	ʿ			O
w			Y	p			Π
z			Z	ṣ			M
ḥ			H	q			ϙ
ṭ			Θ	r			P
y			I	š			Σ
k			K	t			T

The Greek Alphabet, 900 BC

The Greeks refined the Phoenician alphabet by adding the first vowels (5 of them). It became the first alphabetic script in history to have distinct letters for vowels and consonants.

The Greek alphabet has been used to write the Greek language since the late ninth or early eighth century BC. The Greek alphabet existed in many different local variants, but, by the end of the fourth century BC, the **Euclidean alphabet** had become standard. It consisted of twenty-four letters, ordered from alpha to omega, and it is this version that is still used to write Greek today.

The early Greek alphabet was written, like its Semitic forebears, from right to left. This gradually gave way to the *boustrophedon* style, and after 500 BCE Greek was always written from left to right. The Classical alphabet had 24 letters, 7 of which were vowels, and consisted of capital letters, ideal for monuments and inscriptions.

The Roman Alphabet, 600 BC

The Romans developed the Greek alphabet further by adding more letters and it advanced rapidly to the modern alphabet.

The Classical Latin alphabet consisted of 23 letters, 21 of which were derived from the Etruscan alphabet.

Letter I was differentiated into I and J and V into U, V, and W, producing an alphabet equivalent to that of modern English with 26 letters.

Roman scribes also began joining and slanting letters in harmony with the natural motion of the hand. In ancient Roman times there were two main types of Latin script, capital letters and cursive.

The Roman alphabet, also called Latin, is the most widely used alphabetic writing system in the world, the standard script of the English language and the languages of most of Europe and those areas settled by Europeans.

Trajan's column in Rome stands as one of the most beautiful examples of Roman letterforms, 113 AD.
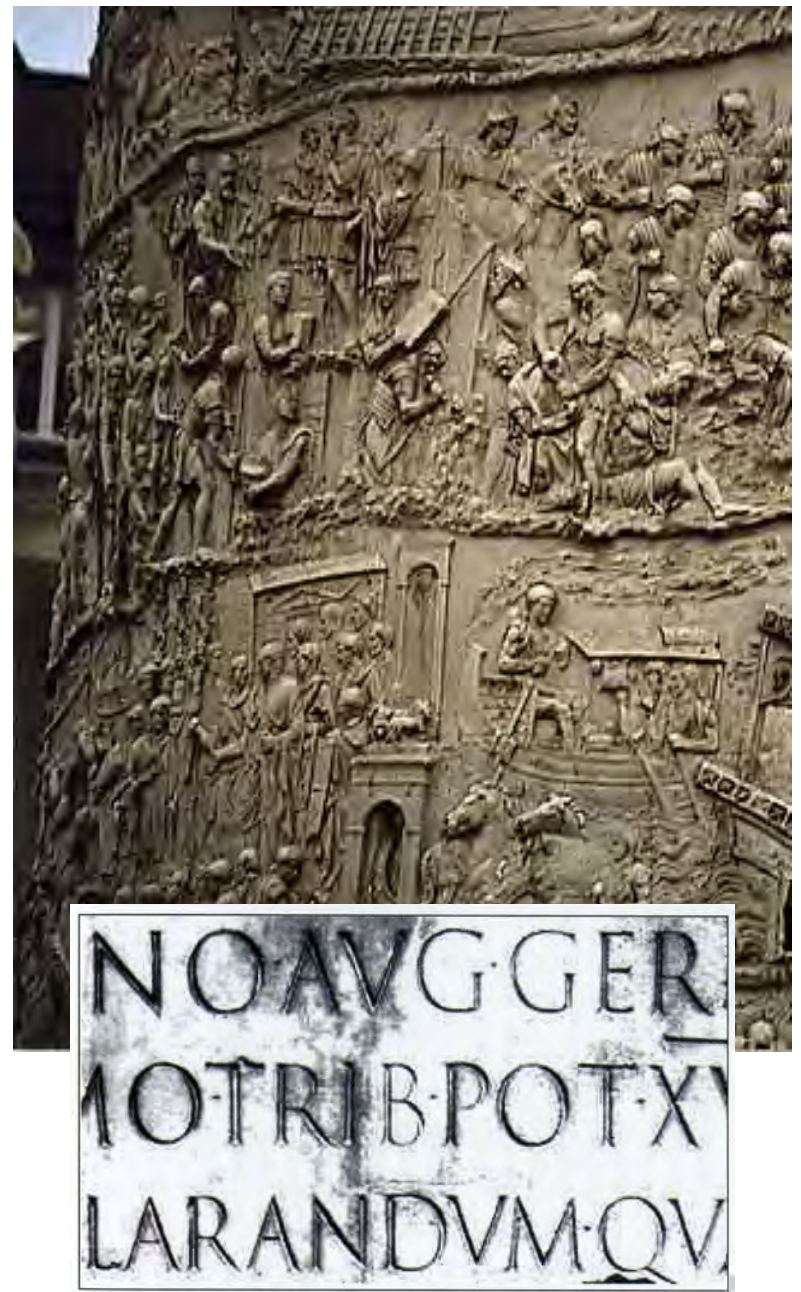
The Romans used their alphabet to express ideas, to record historic events and their literature.

Roman letters, derived from stone carvings, are upright, with **serifs** and variation of thick and thin strokes. They only used capital letters.

Most likely, serifs evolved from stonecutting the letter shapes. It may seem that simply cutting a plain line onto a rock the letter would be obvious, but what you see in stone is not the cut, but its *shadow*.

By cutting angles in the lines, they could control the shape of the shadows in sunlight, making the lettering even easier to read. These cuts eventually began to become more formal in stone working as time went on.

Roman typefaces we use today, such as Times New Roman, are based on the Roman letters, but with lowercase letters added. Trajan typeface, true to tradition only used upper case letters.

ABOVE: The base of Trajan's column, Rome, inscribed about 113 A.D.BELOW: Adetailofthelettering.

The Cyrillic Alphabet

Through most of Europe Latin and Greek alphabets were used widely. However, they did not represent well the Slavic languages in Eastern Europe.

is the oldest known Slavic alphabet. It is generally agreed to have been created in the 9th century by Saint Cyril, a Byzantine monk from Thessaloniki. It is the basis of alphabets used in various languages, in parts of Southeastern Europe and Northern Eurasia, especially those of Slavic origin.

In the 9th century AD the Bulgarian Tsar Simeon I the Great, following the cultural and political course of his father Boris I, commissioned a new script, the Early Cyrillic alphabet, to be made at the Preslav Literary School in the First Bulgarian Empire,

The Cyrillic Alphabet would replace the Glagolitic script, produced earlier by Saints Cyril and Methodius and the same disciples that created the new Slavic script in Bulgaria.

The usage of the Cyrillic script in Bulgaria was made official in 893. The new script became the basis of alphabets used in various languages, especially those of Orthodox Slavic origin, and non-Slavic languages influenced by Russian.

Letter	Name (script)	Name (translit)	Sound	Number
Λ	азъ	azŭ	a	1
Б	боукъ	buky	b	
В	вѣдѣ	vědě	v	2
Г	глаголи	glagoli	g	3
Д	добро	dobro	d	4
Є	єстъ	estŭ	e	5
Ж	живѣтє	živěte	ž/zh	
Ѕ	ѕѣло	dzělo	dz/з	6
З/Ƶ	зємла	zemlja	z	7
И	ижє	iže	i	8
І	и	i	i	10
К	како	kako	k	20
Λ	людиє	ljudije	l	30
М	мъіслитє	myslite	m	40
N	нашь	našĭ	n	50
О	онъ	onŭ	o	70
П	покои	pokoi	p	80
Р	рьци	rĭci	r	100
С	слово	slovo	s	200
Т	тврьдо	tvrĭdo	t	300
8/Оу	оукъ	ukŭ	u	400
Ф	фрьтъ	frĭtŭ	f	500
Х	хѣръ	xěrŭ	kh/x/h	600
Ѡ	отъ	otŭ	ō/w/o/ŏ	800
Ц	ци	ci	c	900
Ѵ	чрьвь	črĭvĭ	č/ch	90
Ш	ша	ša	š/sh	
Щ	ща	šta	št/sht	
Ъ	єръ	jerŭ	ŭ/ъ	
Ы	єръі	jery	y	
Ь	єрь	jerĭ	ĭ/ь	
Ѣ	ѣть	ětĭ	ě	
Ꙗ	ꙗ	ja	ja	
Ѥ	ѥ	je	je	
Ю	ю	ju	ju	
Ѫ	ѫсъ	ǫsŭ	ǫ/ŏ	
Ѭ	нѭсъ	jǫsŭ	jǫ/jŏ	900
Ѧ	асъ	ęsŭ	ę/ě	
Ꙗ	ꙗсъ	jęsŭ	ję/jě	900
Ѯ	ѯи	ksi	ks	60
Ѱ	ѱи	psi	ps	700
Ѳ	фита	fita	θ/th/f	9
Ѵ	ижица	ižica	ü/v/ỳ	400
Ҁ	копа	kopa	q	90

БЛЪГАРЬСКА АЗЪБОУКЫ

The Cyrillic Alphabet

It has been used in Bulgaria (with modifications and exclusion of certain archaic letters) continuously as a written script for the Bulgarian language. The Cyrillic alphabet was used in the then much bigger territory of Bulgaria (including most of today's Serbia, North Macedonia, Kosovo, Albania, Northern Greece (Macedonia region), Romania and Moldova.

It was also adopted by the East Slavic languages in Kievan Rus' and evolved into the Russian alphabet and the alphabets of many other Slavic (and later non-Slavic) languages.

Manuscripts

Manuscript means "handwritten." It originates from the word mano (hand) and script (to write)

Before the invention of the printing press, all writing was done by hand, either on scrolls or books made of parchment or paper. The manuscripts were written letter by letter, word by word by skilled scribes, usually monks, who often dedicated their entire lives to scribing. Some manuscripts were embellished with illustrations. Books that contain artistic decoration are called illuminated manuscripts.

Right: The Carolingian script of the 8th Century looks much like modern roman typeface, as this illustration from the Epistolary of Giovanni da Gaibana of 1259 shows.

Down: An example of "black monumental textus precissus" from the Luttrell Psalter of 1340
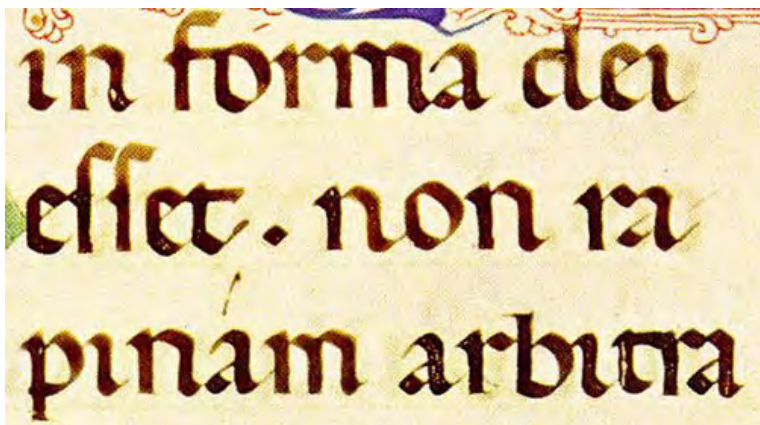
Carolingian Minuscule

The Emperor Charlemagne ordered the creation of a system of writing called the **Carolingian Minuscule**.

These were **the first lowercase letters** that were more than just a small version of uppercase letters. **They were an entirely different typeface.**

....

Charlemagne (742-814), King of the Franks, 768-814, and emperor of the West, 800-814, founded the Holy Roman Empire, stimulated European economic and political life, and fostered the cultural revival known as the Carolingian Renaissance.
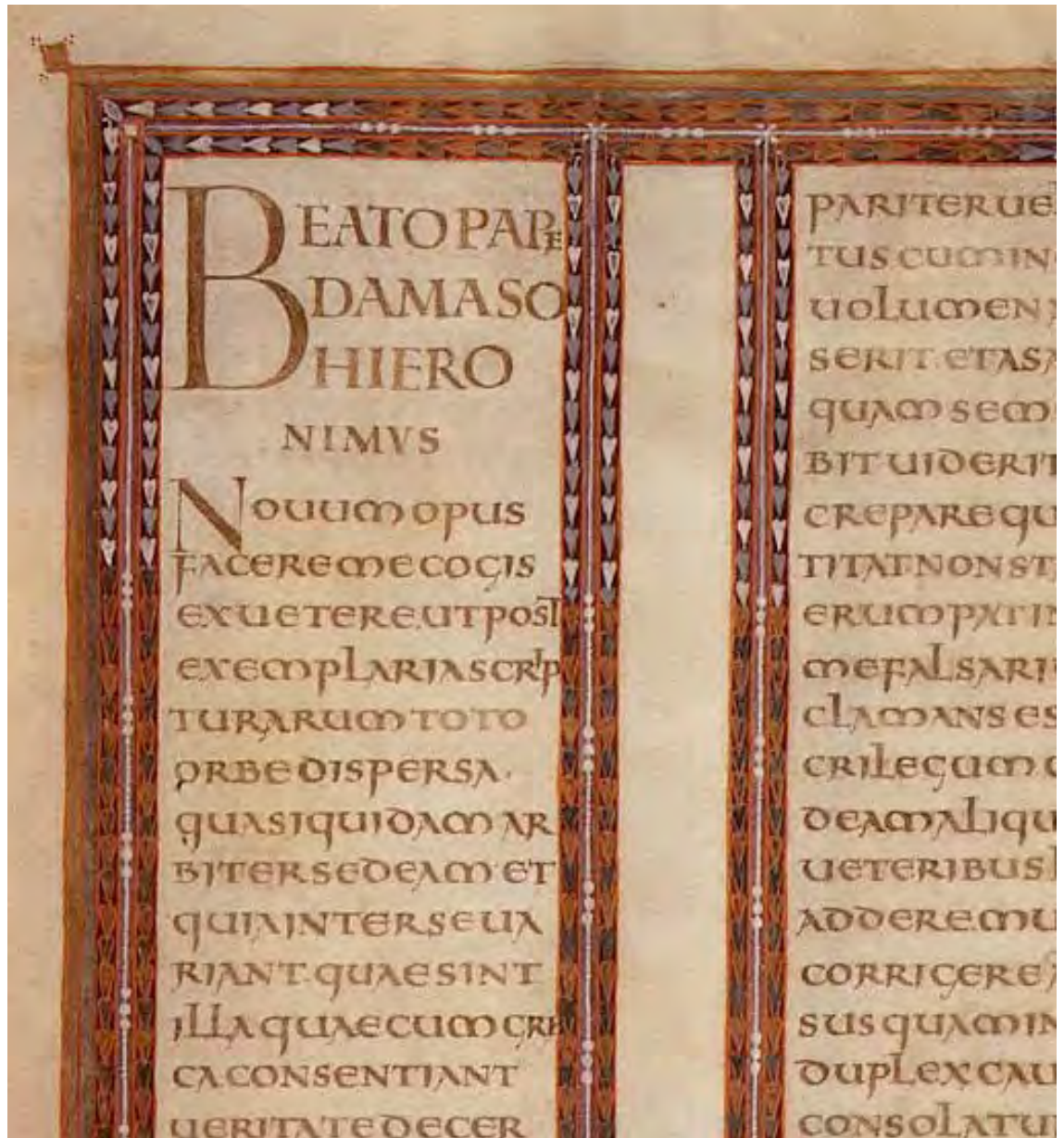
Main Points:

- The Egyptian hieroglyphs were a formal writing system used in ancient Egypt. The **Rosetta Stone** was used to decipher the hieroglyphs.
- More than 5,000 years ago, the Sumerians in Mesopotamia invented **cuneiforms** - one of the world's earliest systems of writing.
- Around 1000 BC, the Phoenicians developed a non-pictographic, consonantal alphabet, referred to as **abjad**.
- In 900 BC the Greeks refined the Phoenician alphabet by adding 5 vowels -the first alphabet to have distinct letters for vowels and consonants.
- The Romans modified the Greek alphabet to create the classical **Latin alphabet** consisting of 23 letters. They also created the first serif letters.
- In the 9th. century in the kingdom of Bulgaria Saint Cyril invented the Cyrillic alphabet.
- Emperor Charlemagne ordered the creation of a system of writing called the Carolingian Miniscule, - the first lower case letters, called minuscules to this day.

REVIEW QUESTIONS:

1. What is the name of the formal writing system used in ancient Egypt?

2. What discovery helped scientists decipher the Egyptian writings?

3. When did the Sumerians in Mesopotamia invent **cuneiforms**?

4. Who developed the first non-pictographic, consonantal alphabet,

   referred to as abjad?

5. What did the Greek add to the modified abjad alphabet ?

6. How many letters were in the first Latin alphabet?

7. What country developed the Cyrillic alphabet?

8. Who invented the first serif letters?

9. Who ordered the creation of a system of writing called the Carolingian

   Minuscule?

10. What is minuscule?

CHAPTER 4

THE HISTORY OF TYPE

PART 2

In this lesson, you will learn the following:

- The invention of movable type
- The invention of the printing press and the first books
- Printing technology from wooden press to computer
- **Typefaces from 1400's to 2000's**
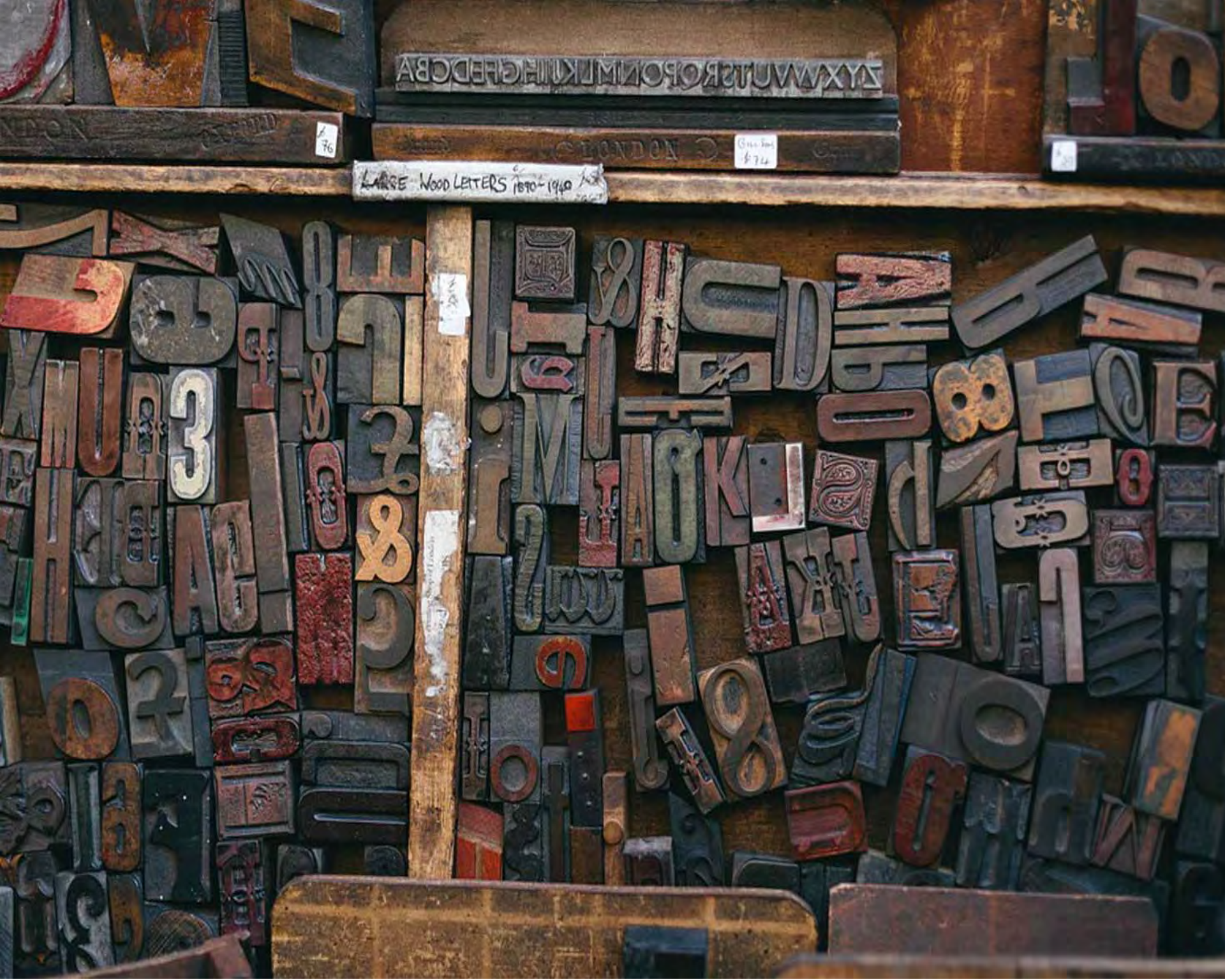
MOVABLE TYPE

Modern typography traces its roots to the first punches and dies used to make seals and coins in ancient times. The first known movable type artifact is probably the Phaistos Disc, from the Minoan palace of Phaistos on the island of Crete, near Greece. The disk is about 5.9 in (15 sm.) in diameter and covered on both sides with a spiral of stamped symbols. Its purpose and its original place of manufacture remain disputed. The inscription was apparently made by pressing hieroglyphic "seals" into the soft clay, in a clockwise sequence spiraling toward the center of the disk. It was then fired at high temperature. The unique character of the Phaistos Disc stems from the fact that the entire text was inscribed in this way, reproducing a body of text with reusable characters.

The Phaistos Disc circa 1850 BC and 1600 BC.

Movable Type in China

Movable Type in China

At the end of last chapter, we learned about manuscripts, which were the only way to record text before printers existed. Books were written **by hand** and had to be copied by scribes to be reproduced.

This was a tedious and lengthy process. Books were considered unique, kept in safe places, and only the privileged has access to them. The world's knowledge could not be shared with the masses.

This all changed with the invention of the **movable type**. Movable type is the system and technology of printing and typography that uses movable components to reproduce the elements of a document usually on the medium of paper

The first known movable type was accredited to Chinese inventor Bi Sheng in 990–1051 AD during the Song dynasty. Before Bi Sheng invented movable type printing, characters are engraved in one big block, which was very time consuming and costly.

Bi Sheng's movable type changed how ancient China printed its documents, making printing more efficient and easier. Instead of carving one huge block, characters were carved into multiple small clay blocks. This way, the blocks could be reused and rearranged in columns, and mistakes were easier to fix.

Blocks were assembled and glued to an iron plate. After that ink was applied on the blocks and paper was pressed over them.

This technology became popular in other Asian countries, such as Korea. The oldest extant book printed with movable metal type, Jikji, was printed in Korea in 1377 during Goryeo dynasty.

Movable type is the system and technology of printing. It is type made up of individual pieces each carrying a single character, that could be arranged into rows of columns for printing any desired text.

LEFT: Blockprint, Hanshu, history of western Han. Fuian Province, China, 1304-1334. ABOVE: Ceramic moveable type, Ching-li period (1041-1048). TOP: Movable blocks, each representing a Chinese character.

Did you Know?

China also invented the paper. In 105 AD under the Han Dynasty emperor Ho-Ti a government official in China named **Ts'ai Lun** was the first to start a paper-making industry.

The Printing Press

Gutenberg's Printing Press, 1440

In 1440, Johannes Gutenberg from Germany invented a system of movable type that revolutionized the world by allowing mass printing of written material — accidentally bringing on, among other things, the Protestant Reformation, and the Renaissance.

He developed an ingenious process employing a separate matrix, or mold, for each alphabet character, from which metal types could be hand-cast in great quantities. These types could then be assembled into a page of text and imprinted to paper via special inks and a printing press of his own design.

Gutenberg's printing press is one of the most important inventions of the modern era, because it allowed manuscripts and books to be mass-produced at affordable costs, thereby leading to a revolution in print technology.

Gutenberg Bible

Completed between 1450 and 1456, the Gutenberg Bible is considered the first book printed using Gutenberg's printing press.

The paper size was 'double folio', with two pages printed on each side (four pages per sheet). The 42-line Bible was printed on the size of paper known as 'Royal' - 17.5 by 12.5 inches. (42 x 30 cm)

LEFT: Gutenberg Bible of the New York Public Library. Bought by James Lenox in 1847, it was the first copy to be acquired by a United States citizen.
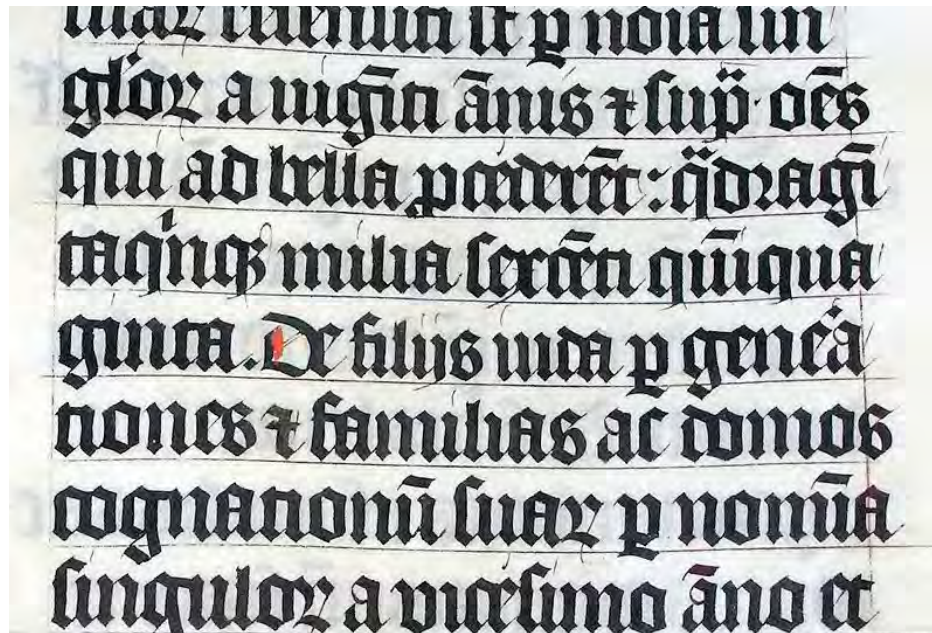
The text: The Gutenberg Bible, an edition of the Vulgate, contains the Latin version of both the Hebrew Old Testament and the Greek New Testament.

The typeface: Gutenberg Bible was printed in a typeface called Textura. This kind of typeface is known as Blackletter or Gothic and it is characterized with strong vertical stokes and a boxy appearance.

The typeface he created was based on the style of German scribes of the time. It was meant to resemble a manuscript.

foras in bethaniam: z eleuatis mani=
bus suis benedixit eis. Et fadu est du
benediceret illis recessit ab eis: z fereba=
tur in celum. Et ipsi adorantes regres=
si sunt in iherusalem cum gaudio ma=
gno: et erant semper in templo lau=
dantes et benedicentes deum amen.

Explicit euangeliu scdm luca Incip
plogus i euangeliu scdm iohanne:

Hic est iohannes euange=
lista vn9 ex disciplis dni:
qui virgo a deo electus e:
que de nuptijs volentem
nubere vocauit deus. Cui virginitatis
in hoc duplex testimoniu datur in eu=
angelio: qp et pre ceteris dilectus a deo
dicit: et huic matrem sua de cruce com=
mendauit dns. ut virgine virgo serua=
ret. Denisqz manifestans in euangelio
qp erat ipse incorruptibilis verbi opus
inchoans. solus verbu carne factum
esse. nec lumen a tenebris comprehensu
fuisse testatur: primu signu ponens qd
in nuptijs fecit dns ostendens qp ipse
erat: ut legentibz demonstraret qp vbi
dns inuitatus sit deficere nuptiar vi=
num debeat: et veteribus immutatis.
noua omnia que a cristo instituunt
appareat. Hoc aut euangeliu scripsit in

nis inuenitur alienus. Tamen post o=
mnes euangeliu scripsit: z hoc virgini
debetur. Quorum tame uel scriptor tepo=
ris dispositio. uel libror ordinatio ideo
a nobis per singula non exponitur:
ut sciendi desiderio collato et queren=
tibus fructus laboris: z deo magiste=
rij doctrina seruetur. Explicit plog9
Incipit euangeliu scdm iohanne.

IN principio erat verbu: z verbu erat
apud deu: et de9 erat verbu. Hoc erat
in principio apud deu. Omnia p ipm
facta sunt: z sine ipo factum est nichl.
Quod factu est in ipo vita erat: z vita
erat lux hominu: et lux in tenebris lu=
cet. z tenebre ea no comprehenderut. Fu=
it homo missus a deo: cui nome erat io=
hanes. Hic venit i testimoniu ut testi=
moniu phiberet de lumine: ut omnes
crederent p illu. No erat ille lux: sed ut
testimoniu phiberet de lumine. Erat
lux vera: que illuminat omne homi=
nem venietem in huc mundu. In mu
do erat: z mundus p ipm factus est: et
mundus eu non cognouit. In propria ve=
nit: z sui eu no receperut. Quotqt aut
receperut eu. dedit eis potestatem filios
dei fieri: hijs qui credut in nomine ei9.
Qui no ex sanguinibz neqz ex volun=

Page from Gutenberg Bible.

Godefrey of Boloyne or Last Siege and Conqueste of Jherusale. Printed by William Caxton, London, 1481.
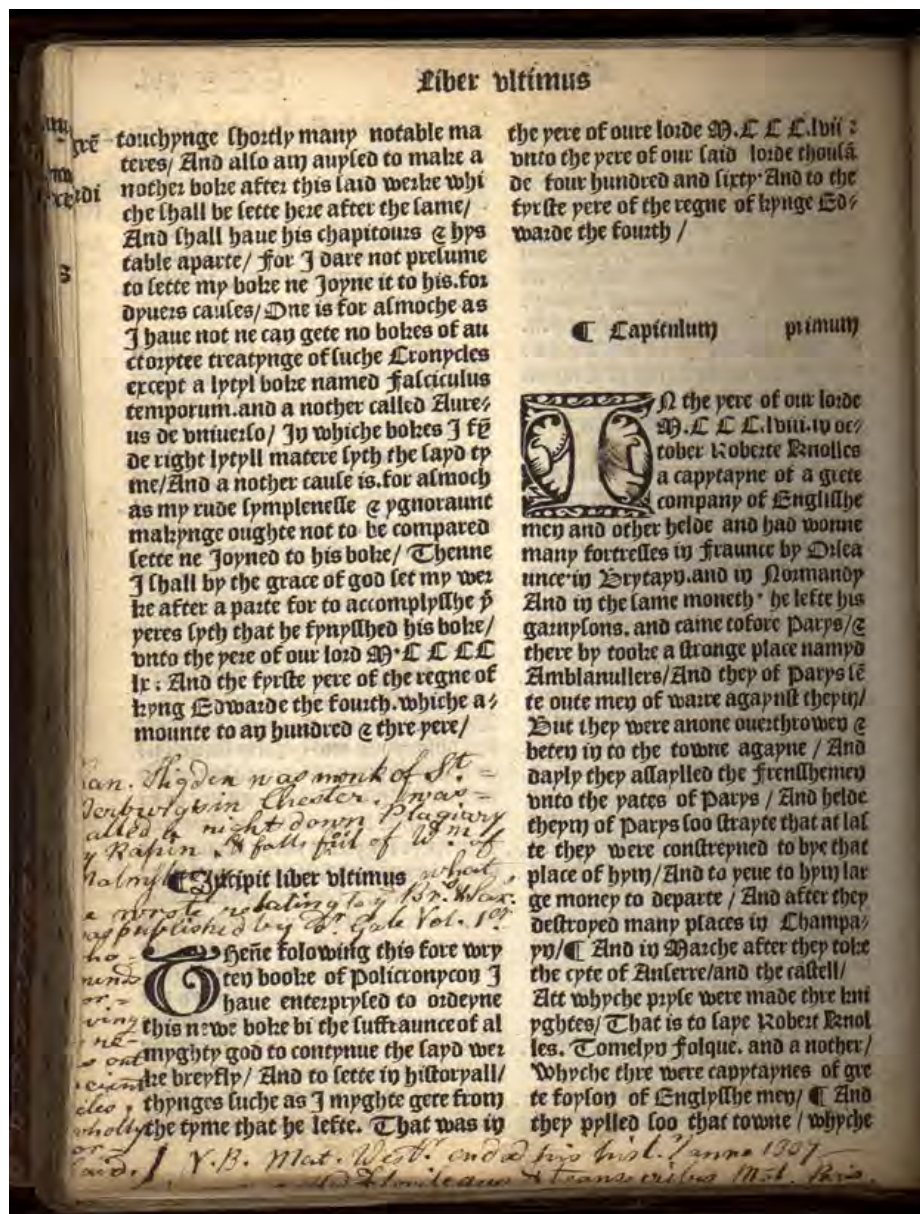
Printing in England

William Caxton was the first Englishman to learn how to use Gutenberg's printing press. He printed first the books in English, using the Textura typeface.

The book, which was called "The Recuyell of the Historyes of Troye," was first produced in 1473. However, the exact location of where the book was printed is unknown. Some scholars have theorized that it was printed in Ghent or Bruges in Belgium.

An edition of Chaucer's The Canterbury Tales was the first book to be printed in England, also by William Caxton.

Blackletter was very dark and hard to read. Book printers understood the need of creating more legible typefaces.

Roman Typefaces

In 1470, **Nicolas Jenson** began printing in his original Roman font. The Jenson Roman was a new, original typeface that broke way from the tradition of imitating handwriting in the old manuscripts. This style is now referred to as "Oldstyle."

Quidā eius libros nō ipſius eſſe ſed Dionyſii &Zophiri co
lophonioru tradunt:qui iocādi cauſa cōſcribentes ei ut diſ
ponere idoneo dederunt.Fuerunt autē Menippi ſex. Prius
qui de lydis ſcripſit:Xanthūq; breuiauit.Secūdus hic ipſe.
Tertius ſtratonicus ſophiſta.Quartus ſculptor . Quintus
& ſextus pictores:utroſq; memorat apollodorus.Cynici au
tem uolumina tredecī ſunt.Neniæ:teſtamenta:epiſtolæ cō
poſitæ ex deorum pſona ad phyſicos & mathematicos grā
maticoſq;:& epicuri fœtus:& eas quæ ab ipſis religioſe co
luntur imagines:& alia.

Nicolas Jensen was a French engraver, printer, and type designer. He lived and carried out most of his printed work in Italy. The typefaces he designed show an obvious Roman influence.

His newly designed typefaces were admired by other Italian designers who tried to recreate his style.

The style, shape and proportions of the letters became important. Typeface design was elevated to an artform.

In 1509 Luca Pacioli, a Franciscan monk, published a book about geometry, algebra, and accounting, using the new Roman typeface. It was called *"Summa di Arithmetica, Geometria, Proportioni e Proportionalità"*

In an appendix to the book, each of the capital roman letters is broken down into its component parts, showing their underlying proportions.
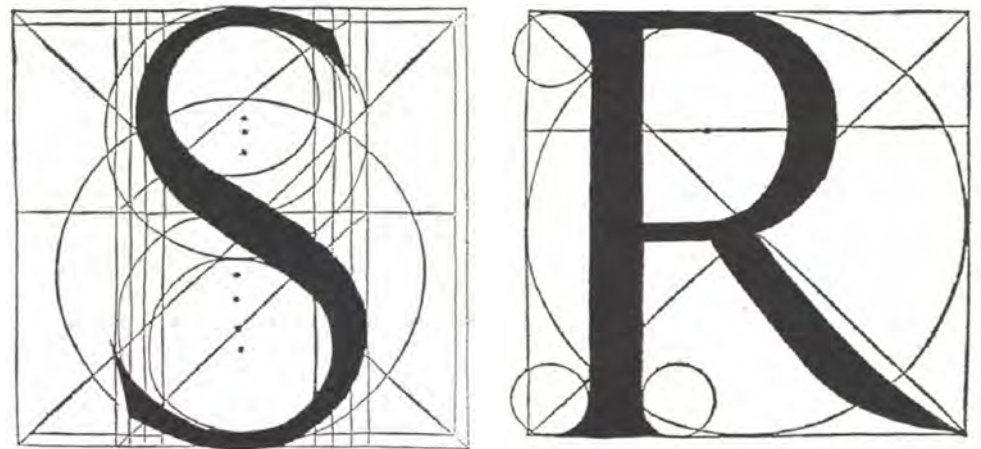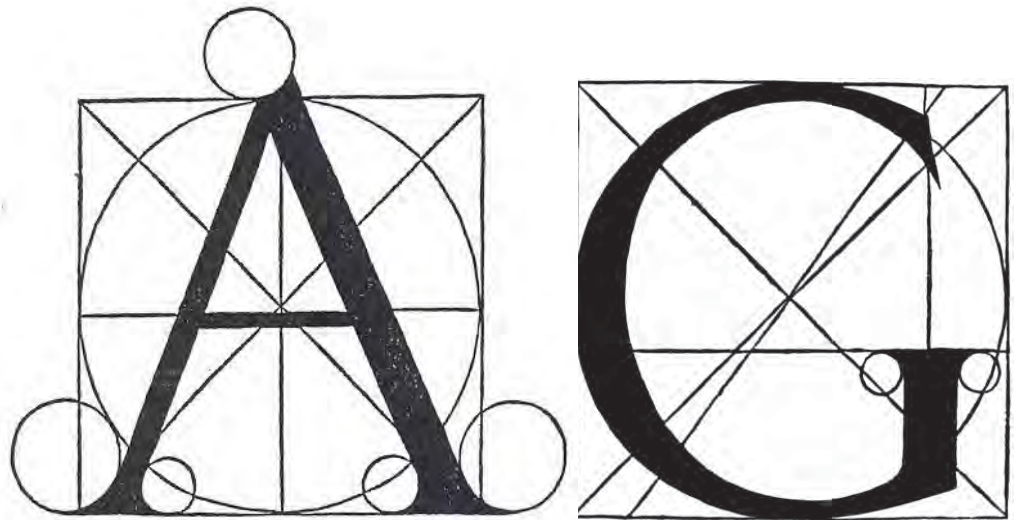
Printing Technology
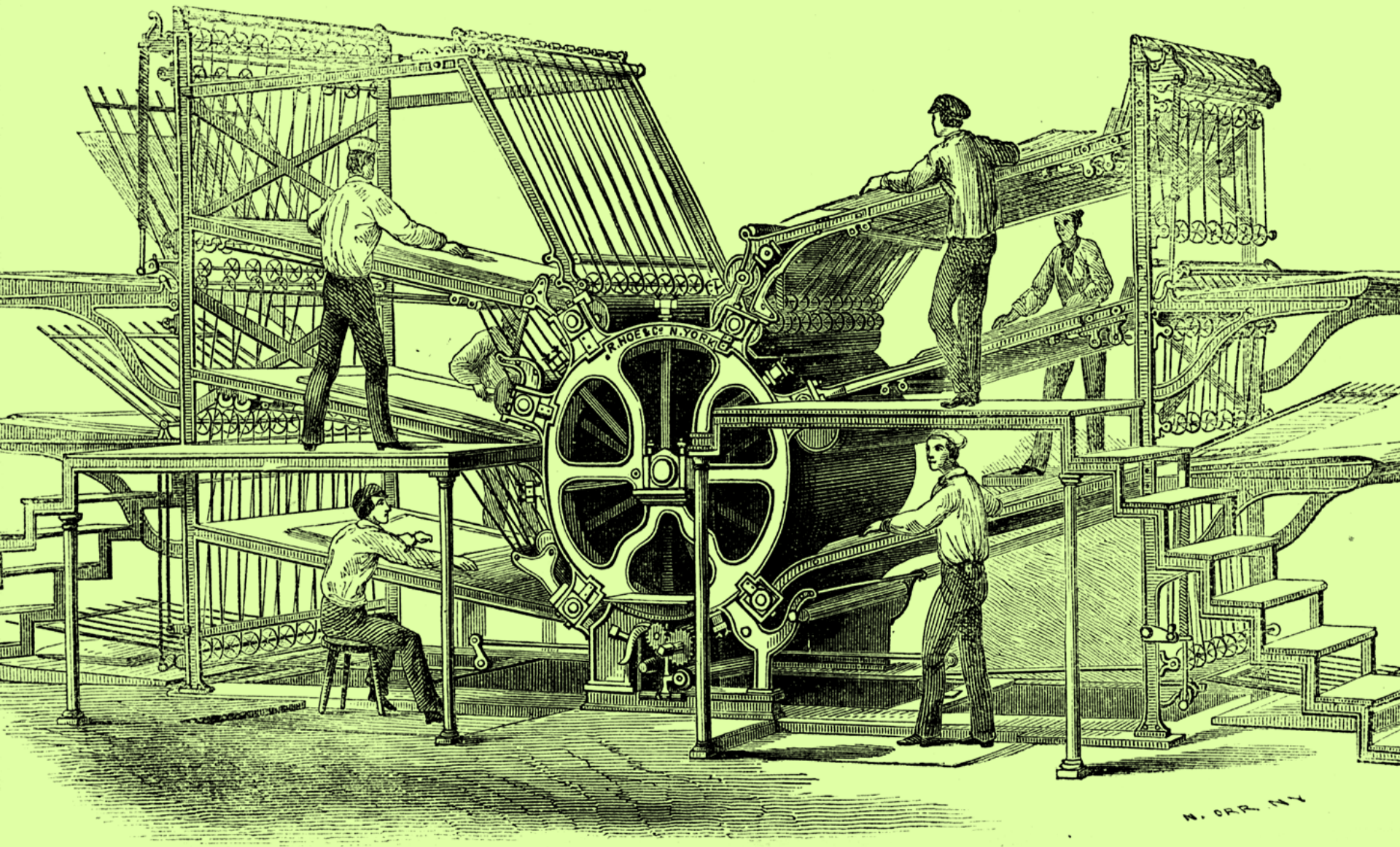
HOE'S SIX CYLINDER PRINTING PRESS.

Richard March Hoe's printing press—six-cylinder design. Public Domain image Wikimedia C

Gutenberg's contribution: A way of mass-producing individual pieces of type in metal that could be used repeatedly. A punch (top left) was carved by hand, then driven into softer metal to form a matrix (bottom left) that was used in a mold to form type slugs (top right).

The flatbed press (top) was a modified wine press.
In addition to the press the typesetters had a typecase (left), containing all the letters, numbers and "sorts."

Click on the image on the right to see a demonstration on the only working model of a Gutenberg printing press- at the Crandall Historical Printing Museum.

Video by Sabrina Huyett

Click on the image on the right to learn about innovations in printing, from the 15th-century Gutenberg printing press to the mid-1800s Washington Press found in Greenfield Village Museum.

Video by The Henry Ford's Innovation Nation

The first pocketbook

The next fifty years witnessed an explosion of printing throughout Europe, and by 1500, more than 10 million copies of nearly 3500 works were printed and distributed.

In 1500, an Italian printer, **Aldus Manutius,** invented the concept of the pocket or portable book.

He also created the italic typeface design, for which he obtained a patent, though the honor is probably due more to his type founder, Francesco Griffo.

ALDVS·PIVS·MANVTIVS·R

Aldus Manutius founded Aldine Press in Venice with the goal of preserving classic Greek texts.

His artisans advanced typeface design beyond imitating hand-drawn characters by using Roman letter forms. He is credited with developing italics, with the name derived from Italianate.

"Florilegium Diversorum Epigrammatum in Septem Libros" was printed by the Aldine Press in Venice 1525. The Aldus trademark, or colophone, the dolphin and anchor, was printed in the back of the book before the advent of the title page.
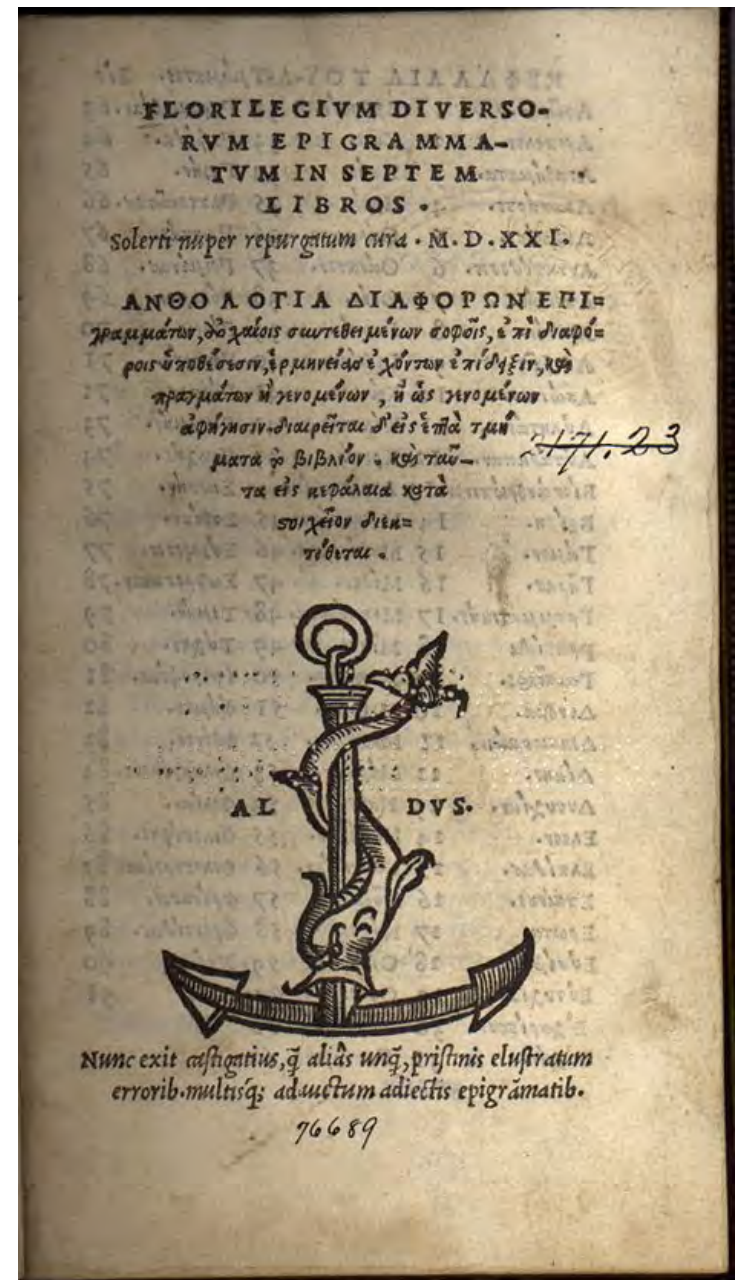
The Stanhope Press

In the 1800's the wooden press was replaced with a metal press. Metal was more durable and could handles a lot more pressure, those lasting longer.

The first two widely successful full metal presses were the **Stanhope Press (1800)** and the **Columbian Press (1814)**, invented by Earl Stanhope and George Clymer, respectively.

The Washington press is also a metal press

Both innovated primarily in the way the platten was lowered. The Stanhope used a series of connected levers to multiply the power of the pressman's pull, reducing the stress on the machine. Because of this increase in power, Stanhope was able to widen the base of the platten allowing for a single press to print sides of the paper, effectively printing two pages or an entire face of a newspaper page at once.

Did you Know?

The books of Louis Carrol and Emily Dickinson were printed using Stanhope and Columbian presses.
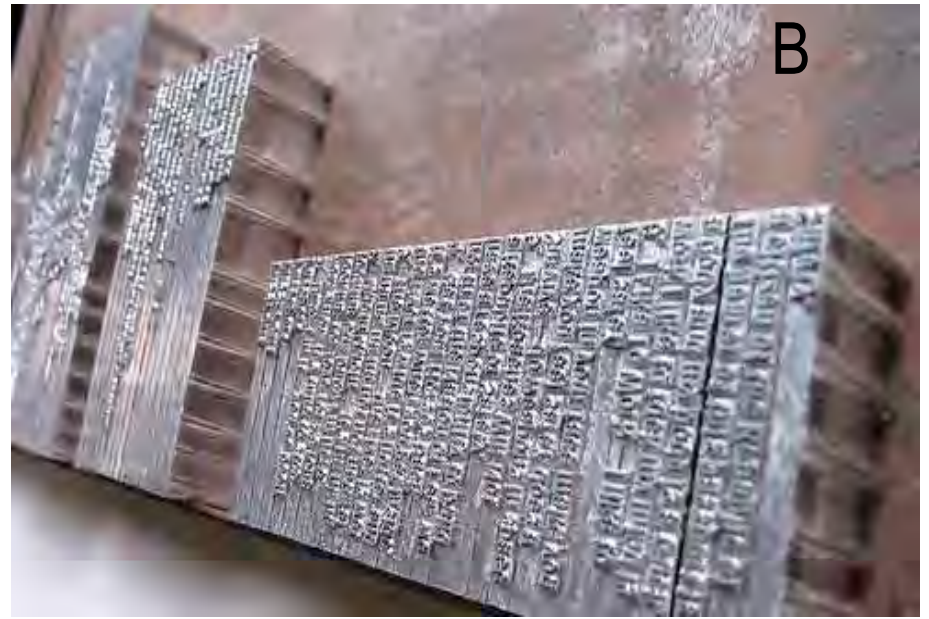
Early printers used a composing stick (A) to build lines of type into galleys (B) that were locked into the press bed (C).

The Linotype Machine

In the late 19th century, Ottmar Mergenthaler invented the linotype machine, which vastly sped up the printing process by bypassing the need to pick type by hand from a case.

On 3 July 1886, a **machine** that came to be called a **Linotype** (because it could set a "line 'o type") was used to compose part of that day's issue of the New York Tribune newspaper.

The Linotype machine allowed type to be composed on a keyboard. When a line was complete, the operator would cast this onto a slug. One by one, the lines of type formed a galley. The printing press continued to evolve.

In 1875 Robert Barclay of England invented **Offset printing** . It used plates, usually made from aluminum, which are used to transfer an image onto a rubber "blanket", and then rolling that image onto a sheet of paper. It is called **offset** because the ink is not transferred directly onto the paper.

Offset printing allowed for better reproduction of photographs, and it was a superior process for color because the press had a lighter touch on the paper and could use a finer halftone screen.

Halftone dots: A press using white paper and black ink cannot print shades of gray, so photos must be converted to halftones to reproduce correctly and look natural.
 William Fox Talbot is credited with the idea of halftone printing. In an 1852 patent he suggested using "photographic screens or veils" in connection with a photographic intaglio process.
The first printed halftone photograph was an image of Prince Arthur published on October 30, 1869
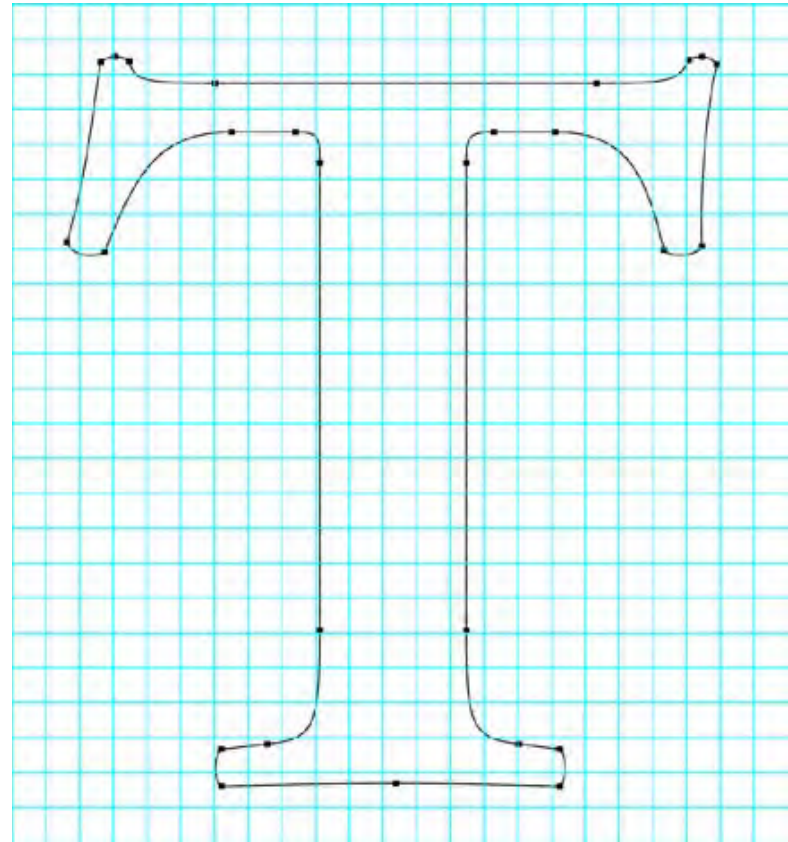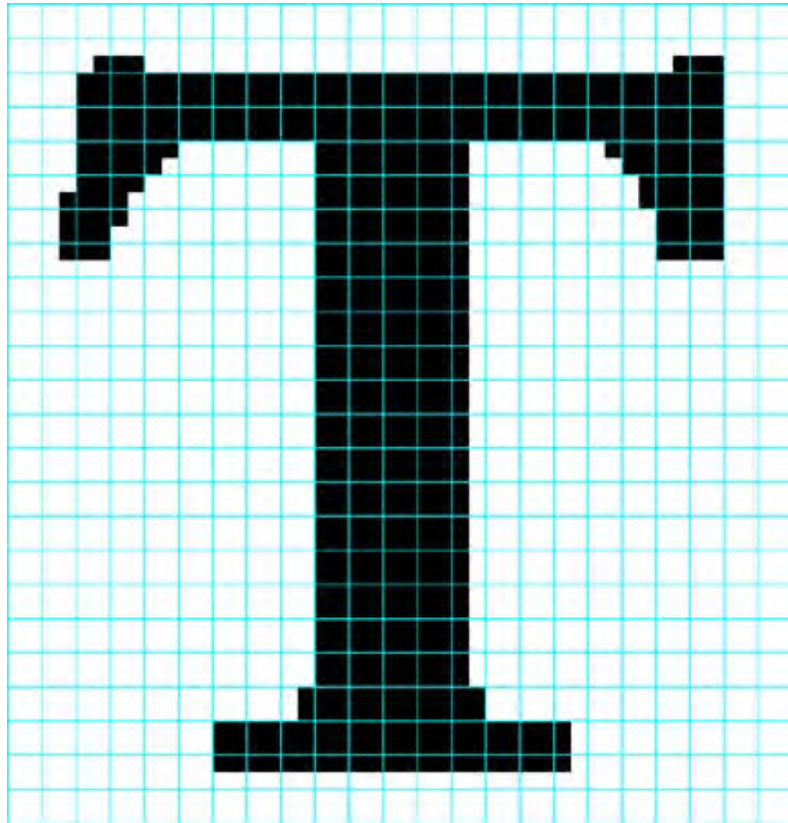
Computers changed how text was handled forever. It became easier than ever to work with type. A plethora of new fonts were created. Computers first used bitmapped text (left) to create characters on a screen. The letters were composed of individual pixels and appeared jagged. Postscript type describes characters in a font by vectors (right), data points that form an outline. These can be enlarged without jagged edges. To be printed, the Postscript type is turned back into a bitmap by a raster image processer (RIP)

REVIEW QUESTIONS:

1. What is movable type?

2. What discovery helped scientists decipher the Egyptian writings?

3. Why is the invention of movable type so important?

4. Who made the first printing press in Europe?

5. What was the name of the first typeface used in the first printed book?

6. Who was the first Englishman to learn how to use the printing press?

7. What Roman typeface, named after his inventor, was used in 1470?

8. Who invented the first pocketbook in 1500's?

9. What is the difference between the first printing press and Stanhope Press?

10. What is the difference between Blackletter and Roman typefaces?

Typefaces

Garamond

Designed in the 1500s, Garamond is named after the Parisian engraver Claude Garamond. It is a beautifully designed **Old style**, serif typeface often used for printing body text in books.
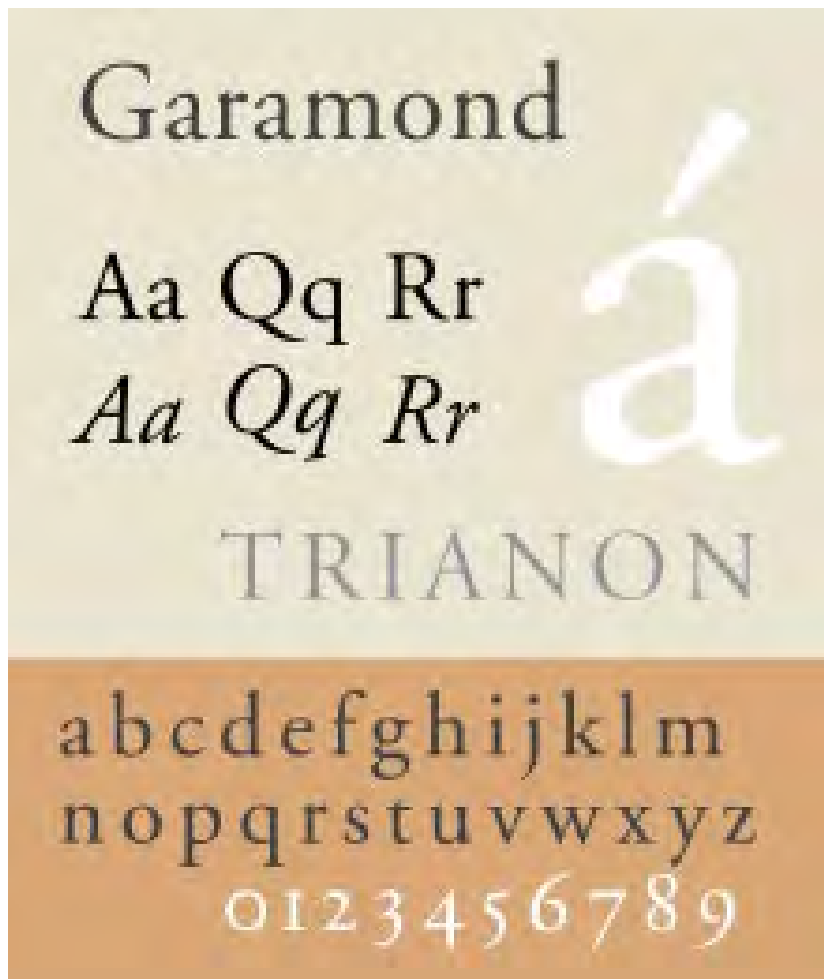
Caslon

Designed in 1716-1728 Caslon is another popular serif typeface of the British designer William Caslon. It has more organic look with uniform serifs, more upright stresses.
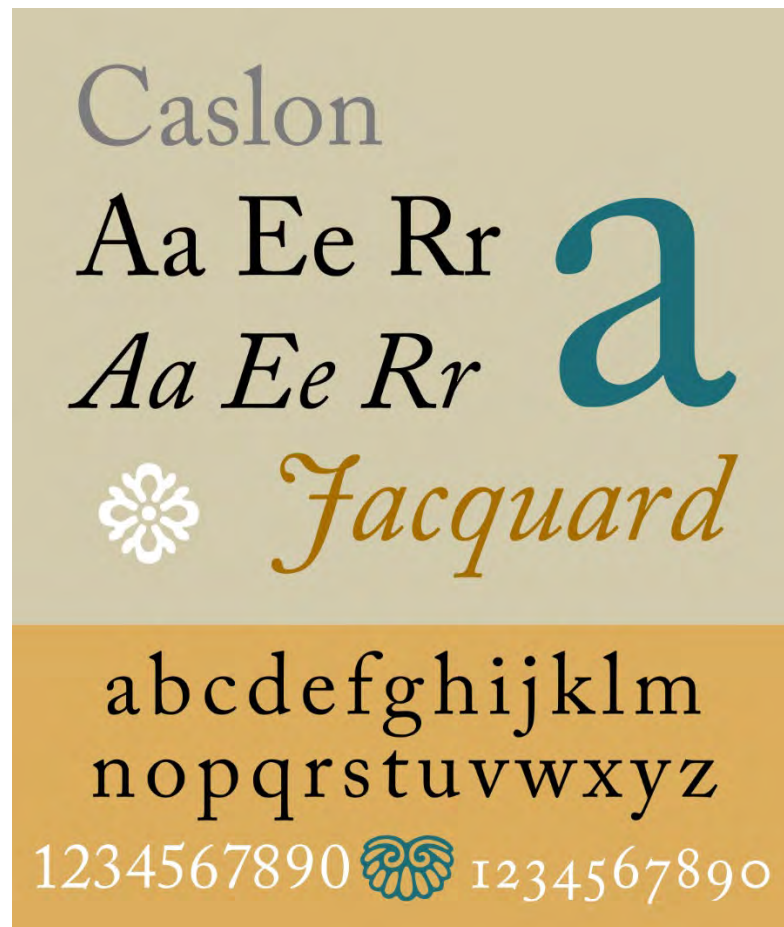
Baskerville

In 1750s John Baskerville from England created a legible serif typeface. Baskerville is classified as a transitional typeface, intended as a refinement of what are now called old- style typefaces of the period. Baskerville increased the contrast between thick and thin strokes and shifted the axis of rounded letters to a more vertical position.
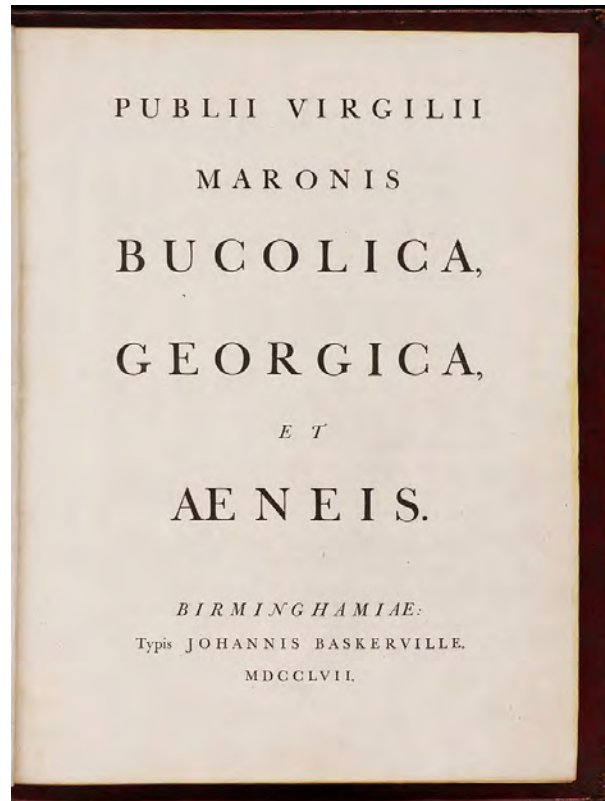
Bodoni

In 1791 Giambattista Bodoni creates the first "modern" serif typeface, Bodoni, with its ruled serifs and extreme contrast between thin and thick lines. Another, similar transitional typeface is Didot.
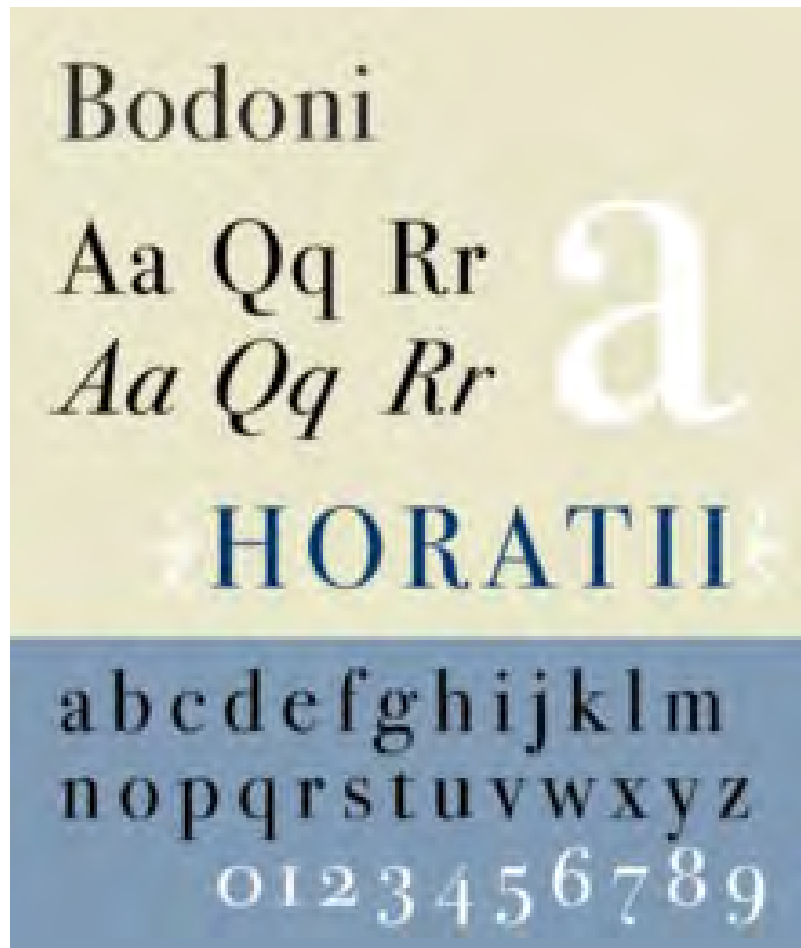
Fat face

The Fat Face is a serif typeface with an extremely bold design and high contrast between thin and thick lines. It is a modified Didone or another modern style typeface. Fat face typefaces appeared in London around 1805-1810 and became widely popular.

The serif typeface we examined so far were designed for printing books. The titles were usually done in the same typeface just larger

A major development of the early nineteenth century was the arrival of the printed poster and increasing use of printing for publicity and advertising. This created a need for more eye-catching new types of letters available for printing.

With calls from the printers for something more "visible," type designers created bolder type. First came "Fat Face," around 1810, an exaggeration of Bodoni. (Bodoni Ultra)

Egyptian (Slab Serif)

A Slab Serif is a type of serif typeface characterized by thick, block-like serifs. Serif terminals may be either blunt (Rockwell), or rounded (Courier).

Egyptian SLATE Light & Medium

Slab serif typefaces appeared rapidly in the early 19th. century, having little in common with previous letterforms. As the printing of advertising material began to expand, new attention-grabbing letterforms became popular. The strokes and the serifs were fattened.

Why call it Egyptian? Upon Napoleon's return from a three-year Egyptian expedition and publication in 1809 of his "Description de l'Égypt", Egypt was in vogue, and type founders simply used a term that was popular at the time.
(Vincent Figgins, Figgins Antique, 1817)

Victorian era: Here is a sample of a Victorian-era poster, mixing a variety of boldfonts including Fat Face, Egyptian and Blackletter styles.

Victorian Engraving

From the mid-1800s to the early 1900s engravers illustrated type by hand on steel and copper plates.

Freehand work like this allowed for highly elaborate designs, including drop shadows, strokes, inlines, etc.
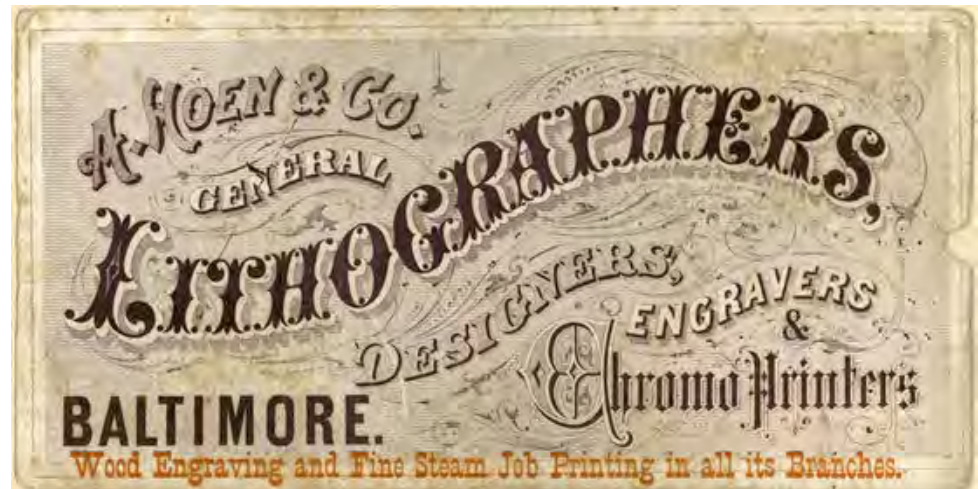
Sans Serif

A sans serif, typeface is one that does not have extending features called "serifs" at the end of strokes.

In 1816, William Caslon IV designed the first Sans serif typeface and produced a book listing a sans serif all caps with no lower case (left). Not much is known about it and no examples of it in use exist.

The first popular sans serif was Accidenz-Grotesk created for the AG type foundry in 1896

Throughout the nineteenth and early twentieth centuries sans-serif types were viewed with suspicion by many printers, especially those in fine book printing industry. Sans serif typefaces were considered being fit only for advertisements.

To this day, most books remain printed in serif fonts as body text. When computers emerged, everything changed.

Akzidenz-Grotesk

Aa Ee Rr
Aa Ee Rr

Buchdruck

abcdefghijklm
nopqrstuvwxyz
0123456789

Berthold Akzidenz Grotesk (1896)

Helvetica

Aa Ee Rr
Aa Ee Rr

Kunsthalle

abcdefghijklm
nopqrstuvwxyz
0123456789

Linotype Helvetica (1957)

Geometric Sans Serif

Futura, 1927, is a sans-serif typeface designed by Paul Renner.

Based on geometric shapes, it became representative of the Bauhaus design style of 1919–1933. Although Renner was not associated with the Bauhaus, he believed that a modern typeface should express modern models, rather than be a revival of a previous design.

The typeface is derived from near-perfect circles, triangles and squares and is based on strokes of near-even weight, which are low in contrast.

Gig posters: Doors/Yardbirds a show at the Fillmore in San Francisco; Jimi Hendrix with Procol Harum and the Chiffons in London; and Steppenwolf playing the Sports Arena in Toledo. | Source: Pinterest.com

The 60 bought in an explosion of creative typefaces, many of which were hand lettered. We have seen then on posters, book covers, album covers and T-shirts. Notable typeface from the era is Bookman.

Vernacular design emerged with the founding of Push Pin Studios in New York in 1954 by Milton Glaser and Seymour Chwast, who revived historical design styles and improved and adapted them.
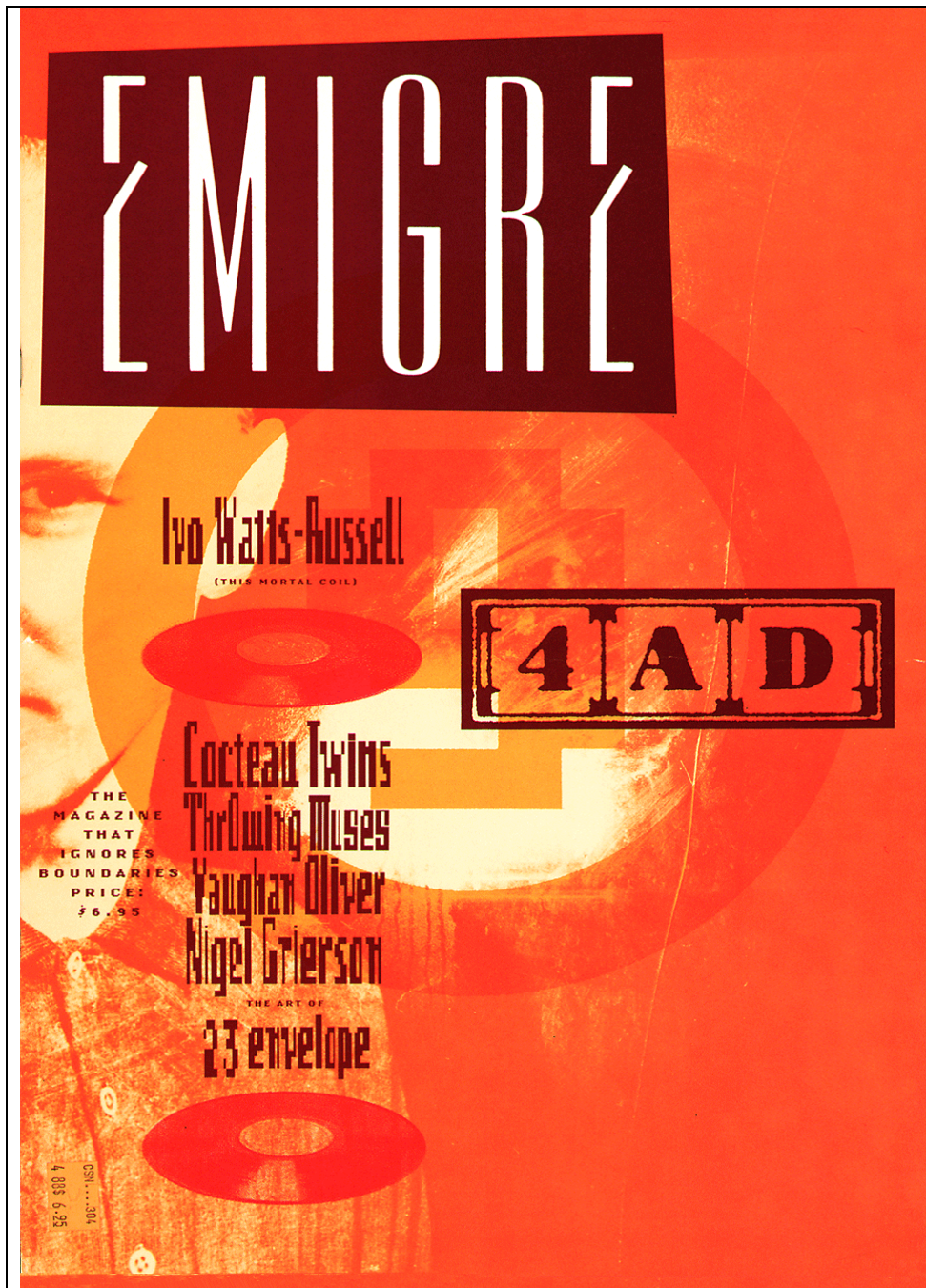
Macintosh and Émigré Magazine

In 1984, Emigre was one of the first publications to use computers to layout their pages. Graphic designers took notice and saw the potential of using software for designing pages.

Zuzana Licko used the newly invented Macintosh computer and a bitmap font tool to create fonts that defined the decade. Her ascendance in a primarily male- dominated profession and her bypassing of traditional training have been an inspiration to a generation of font designers.

Émigré 9

32 pages, 11.5 x 17.
Edition of 6,000. Printed at Lompa Printing, Albany, CA.
Design and production: Rudy VanderLans.
Typeface designs: Zuzana Licko.
Source: Emigre.com/Magazine/9

Grunge fonts

Originally, "punk" and then "grunge" typography was created by ripping up or photocopying type over and over again.

Around 1995, House Industries put out a font collection called "Flyer Fonts," a collection of "distressed" fonts created mostly through their own over-enthusiastic copy machine use.

Now, fonts like these are commonly used in posters and fliers. Several fonts, such as Ransom and others have the look of an eclectic font.

Sex Pistols Anarchy in the UK tour poster

RIGHT:
Click on the image on the right to watch a
short-animated video about the history of type.

Video by Ben Barrett-Forrest

DOWN:
A timeline of the history of typefaces
Image by Emily Datsco via Behance.com

OLD STYLE
1475

Oldstyle, or Humanist, typefaces were inspired by calligraphy and based on the lowercase forms used by Italian humanist scholars for book copying and the uppercase letterforms found inscribed on Roman ruins. It is characterized by low contrasting stroke weights and angled serifs.

TRANSITIONAL
1750

A refinement of Oldstyle forms, Transitional typefaces bridge the gap between Oldstyle and Modern styles. This style was achieved inpart because of advances in casting and printing. Characterized by a more vertical axis and sharper serifs compred to humanist forms. Features exaggerated thick-to-thin relationships and lighter brackets.

MODERN
1775

This style represents a further rationalization of Oldstyle letterforms. Characterized by extreme contrast between thin and thick strokes, thin, unbracked serifs and a vertical axis. English versions are also known as Scotch Roman and more closely resemble transitional forms.

SLAB SERIF
1825

Slab Serif fonts have little variation between thick and thin strokes. These typefaces responded to the newly developed needs of advertising for heavy type in commercial printing. Features thick serifs that are categorized by being either blunt, angular, or rounded. These typefaces are most often used decoratively or as headlines.

SANS SERIF
1900

These typefaces eliminated serifs together. Sans Serif fonts are typically used as headlines because it is not as legible in large bodies of copy. Although the form was first introduced by William Caslon IV in 1816, its use did not become widespread until the beginning of the 20th century. Variations include humanist and geometric forms. It is also referred to as grotesque and gothic.

Helvetica
Frutiger

ASSIGNMENT

Typographic Poster

Description: Choose a typeface and create an educational typographic poster about it. I recommend you choose a typeface that has some history behind it. Include the entire font and images relevant to the history of that font. Create a meaningful composition.

Objectives: To learn about the history behind fonts we use toady. To practice your design skills when working with typography.

Methodology:
1.	Choose a typeface and research its history.
2.	Gather text and images about your typeface.
3.	Sketch a layout for your poster.
4.	Use Photoshop or Illustrator to create your poster

Examples: **Type Poster**
Student work from Daniela **Nikolaeva's** classes:
Kim Fennel, Fernando Sebastian, Rebecca Tran

REVIEW QUESTIONS:

1. What is movable type?

2. What discovery helped scientists decipher the Egyptian writings?

3. W**hy is the invention of movable type so important**?

4. Who made the first printing press in Europe?

5. What was the name of the first typeface used in the first printed book?

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7. What Roman typeface, named after his inventor was used in 1470?

8. Who invented the first pocket book in 1500's?

9. What is the difference between the first printing press and Stanhope Press?

10. What is the difference between Blackletter and Roman typefaces?

5

TYPE CLASSIFI-CATIONS

In this lesson, you will learn the following:

- What are type classifications
- What typefaces fall into each type classification
- What are the characteristics of each group

PERIODIC TABLE OF POPULAR
TYPEFACES
Organized by Search Frequency and Family

SANS SERIF

| 1 H — Helvetica 7.2 — Max Miedinger 1957 | | 2 A — Arial 4.4 — Robin Nicholas 1982 |

| 3 F — Futura 3.0 — Paul Renner 1927 | 4 Ca — Calibri 2.4 — Lucas de Groot 2005 |

| 5 G — Gotham 2.0 — Tobias Frere-Jones 2000 | 6 Ma — Myriad 1.98 — Robert Slimbach 1992 | 7 Di — Din 1.86 — Albert-Jan Pool 1995 | 8 Gd — Avant Garde 1.36 — Herb Lubalin 1970 | 9 Fr — Frutiger 1.34 — Adrian Frutiger 1976 | 10 U — Univers 1.32 — Adrian Frutiger 1957 |

| 11 Ta — Tahoma 1.08 — Matthew Carter 1994 | 12 Vd — Verdana 1.06 — Matthew Carter 1996 | 13 Es — Eurostile 0.99 — Aldo Novarese 1962 | 14 Fo — Folio .098 — | 15 Av — Avenir 0.92 — Adrian Frutiger 1988 | 16 Gs — Gill Sans 0.89 — Eric Gill 1928 | 17 O — Optima 0.87 — Hermann Zapf 1958 | 18 Im — Impact 0.86 — Geoffrey Lee 1965 |

| 19 Tr — Trebuchet 0.82 — Vincent Connare 1996 | 20 Mt — Meta 0.79 — Erik Spiekermann 1991 | 21 St — Stone 0.78 — Sumner Stone 1987 | 22 Bk — Bank Gothic 0.74 — Morris Fuller Benton 1930 | 23 Is — Interstate 0.68 — Tobias Frere-Jones 1993 | 24 Ba — Base 0.64 — Zuzana Licko 1995 | 25 Ae — Agency 0.64 — Morris Fuller Benton 1990 | 26 If — Info 0.62 | 27 Ak — Akzidenz Grotesk 0.58 — Günter Gerhard Lange 1896 | 28 Ls — Lucida Sans 0.57 — Charles Bigelow 1985 | 29 BB — BEBAS 0.56 — Ryoichi Tsunekawa 2005 | 30 Fg — Franklin Gothic 0.56 — Morris Fuller Benton 1902 | 31 Tg — Trade Gothic 0.55 — Jackson Burke 1948 | 32 Da — Dax 0.54 — Hans Reichel | 33 Ne — Neutraface 0.53 — Christian Schwartz 2002 | 34 Ct — Chalet 0.52 — Ken Barber | 35 Al — Aller 0.50 — Dalton Maag 2008 | 36 Sx — Syntax 0.46 — Hans Eduard Meier 1968 |

SERIF

| 37 Kb — Kabel 0.45 — Rudolf Koch | 38 Ea — Eras 0.39 — Albert Boton 1976 | 39 Th — Thesis 0.37 — Lucas de Groot 1994 | 40 Dr — Droid Sans 0.35 — Steve Matteson 2007 | 1 Ti — Times 6.8 — Victor Lardent 1931 | 2 C — Century 1.96 — Morris Fuller Benton | 3 Lu — Lucida 1.52 — Charles Bigelow 1985 | 4 Cr — Courier 1.18 — Howard Kettler | 5 Ga — Garamond 1.16 — Claude Garamond 1532 | 6 Ma — Matrix 1.12 — Zuzana Licko | 7 TJ — TRAJAN 0.98 — Carol Twombly 1989 | 8 M — Museo 0.97 — Jos Buivenga | 9 Ge — Georgia 0.96 — Matthew Carter 1993 | 10 Cb — Cooper Black 0.94 — Oswald Bruce Cooper 1921 | 11 Ro — Rockwell 0.90 — Frank Hinman Pierpont 1934 | 12 B — Bodoni 0.84 — Giambattista Bodoni 1798 | 13 Cg — Copperplate Gothic 0.83 — Frederic Goudy | 14 Go — Goudy Old Style 0.76 — Frederic Goudy |

| 15 Bv — Baskerville 0.72 — John Baskerville 1757 | 16 Cm — Cambria 0.70 — Jelle Bosma 2004 | 17 Cl — Caslon 0.60 — William Caslon 1722 | 18 Cd — Clarendon 0.56 — Robert Besley 1845 | 19 Pa — Palatino 0.55 — Hermann Zapf 1948 | 20 Sw — Swift 0.54 — Gerard Unger | 21 Di — Didot 0.52 — Firmin Didot 1799 | 22 Mn — Minion 0.46 — Robert Slimbach | 23 Bm — Bookman Old Style 0.40 — Alexander Phemister | 24 En — Egyptian 0.38 — André Gürtler | 25 Rs — Rotis 0.35 — Otl Aicher | 26 Ao — Arno 0.34 — Robert Slimbach | 27 Bo — Bembo 0.33 — Robert Slimbach | 28 Sb — Sabon 0.32 — Jan Tschichold 1967 | 29 Mi — Miller 0.31 — Matthew Carter | 30 Sa — Scala 0.31 — Martin Majoor | 31 Be — Benguiat 0.28 — Edward Benguiat 1977 | 32 So — Souvenir 0.26 — Morris Fuller Benton 1914 |

BLACKLETTER

| 1 Gu — Gutenberg 1455 — Johannes Gutenberg 1455 | 2 Fs — Deutsche Schrift — Rudolf Koch 1910 | 3 Ff — Fette Fraktur — Johann C. Bauer 1850 | 4 Bf — Breitkopf Fraktur — Johann Breitkopf 1750 |

CONSOLE & SYSTEM FONTS

| 1 Ci — Chicago 0.66 — Susan Kare | 2 Co — Consolas 0.51 — Lucas de Groot | 3 Oc — OCR-A 0.46 — American Type Founders | 4 Mo — Monaco 0.45 — Susan Kare | 5 Fx — Fixedsys 0.25 — Microsoft Corporation | 6 Vs — Vera Sans 0.15 — Jim Lyles |

ORNAMENTAL

| 1 S — STENCIL 1.68 — R. Hunter Middleton 1937 | 2 Py — Papyrus 1.26 — Chris Costello 1982 | 3 Bh — Bauhaus 1.02 — Edward Benguiat 1969 | 4 Ce — Celtic Garamond 0.60* | 5 UV — Universal 0.58 — Herbert Bayer | 6 Br — Broadway 0.55 — Morris Fuller Benton 1927 | 7 AN — ALGERIAN 0.52 — Alex Kaczun | 8 Ch — Chiller 0.45 — Andrew Smith | 9 Cz — Crab 0.44 — Dan Cederholm | 10 Mg — Magneto 0.38 — Leslie Cabarga | 11 Ar — Allegro 0.29 — Hans Bohn | 12 Bl — Blur 0.28 — Neville Brody | 13 Un — Uncial 0.28 — Victor Hammer | 14 Bc — Bernhard Condensed 0.25 — Lucian Bernhard |

SCRIPT

| 1 Ed — Edwardian Script 1.38 — Edward Benguiat 1994 | 2 Cs — Comic Sans 0.88 — Vincent Connare 1994 | 3 Bs — Brush Script 0.80 — R.E. Smith | 4 Sc — Scriptina 0.79 — Frederick Nader | 5 Bi — Bickham Script 0.71 — Richard Lipton 2000 | 6 Z — Zapfino 0.70 — Hermann Zapf | 7 Ra — Rage Italic 0.59 — Ron Zwingelberg | 8 Vi — Vivaldi 0.55 — Friedrich Peter | 9 Zc — Zapf Chancery 0.54 — Hermann Zapf 1979 | 10 Mi — Mistral 0.42 — Roger Excoffon | 11 Kr — Kristen 0.38 — George Ryan | 12 Ha — Handi 0.37 — Letterror | 13 Ku — Kunstler Script 0.36 — Hans Bohn | 14 Bd — Buddy's Hand 0.34 — Richard Buddin |

Legend:
Rank[1] — 1
Trending[2]
Symbol — Ti
Percent[3]
Name — Times
Year — 6.8
Designer — Victor Lardent 1931

OLYMPUS PRESS

CLASSIFICATIONS

Over the years, typographers have devised various systems to organize and categorize typefaces. Type classifications is not an exact science; it is more of a guideline that helps us identify and study fonts. Typefaces could be organized based on appearance and historical origins. We will start with a more general classification, and then we will go deeper into examining specific font families. Most typefaces can be classified into one of four basic groups: serif, sans serif, script, and decorative. Within these four categories there are several subcategories.

Serif
- Old Style
- Transitional
- Neoclassical & Didone
- Slab
- Clarendon
- Glyphic

Sans Serif
- Grotesque
- Square
- Humanistic
- Geometric

Script
- Blackletter
- Formal
- Casual
- Calligraphic

Decorative
- Grunge
- Psychedelic
- Graffiti

Blackletter (aka *Gothic*) – 1400s
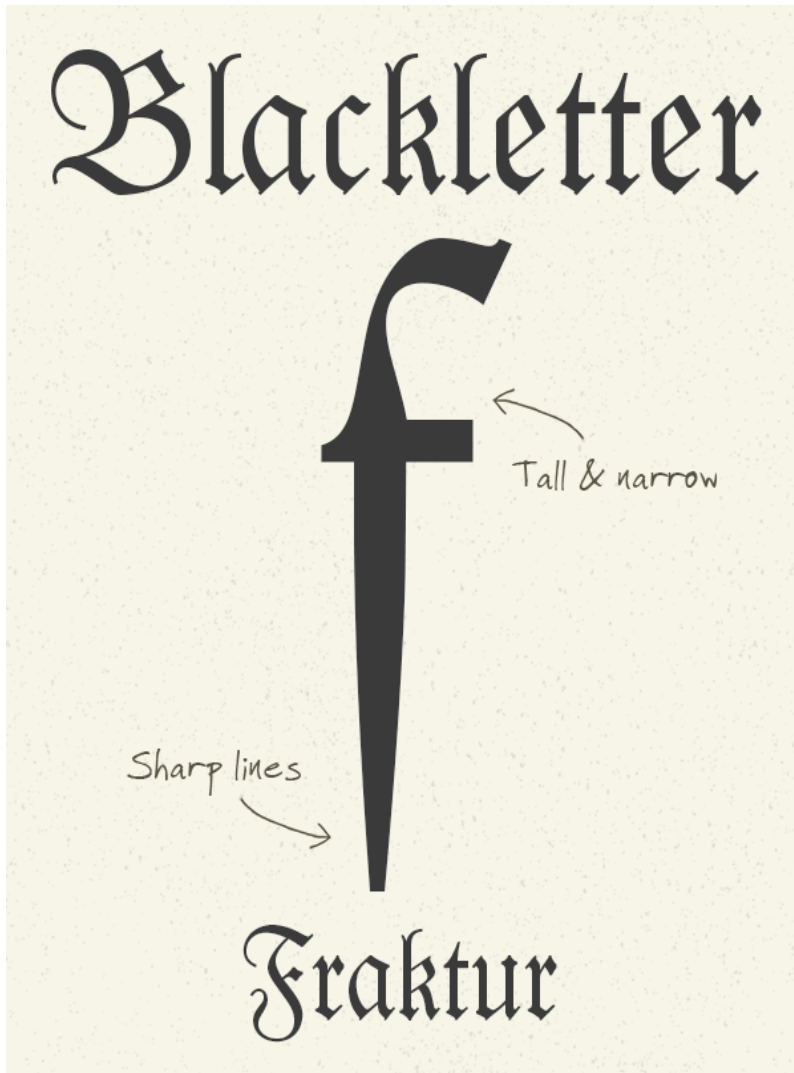
There is a whole series of subcategories of Blackletter typefaces, each with its own characteristics, but they are all based on the original calligraphic style with tall, narrow letters and sharp angular lines.

Fonts such as Gutenberg and Fraktur are popular modern interpretations of the first print typefaces.

- Drawn with a flat pen or nib held at an angle, the typefaces are created using sharp vertical, horizontal, and angled strokes.
- The letterforms have a vertical stress and extreme contrast between the main strokes and hairline strokes of the letterform.
- The x-height tends to be tall in relation to the cap height.

Typefaces: Old English, Lucida Blackletter, Fraktur, Blackmoor and Chaucer.

Serif Typefaces

As movable type printing became the standard across Europe, different typeface styles were developed. These early typefaces were still based on early hand-written scripts so they retained the characteristics of brush/pen lines and serifs on the entry and exit of each stroke

Monotype (aka *Venetian*) – 1400s
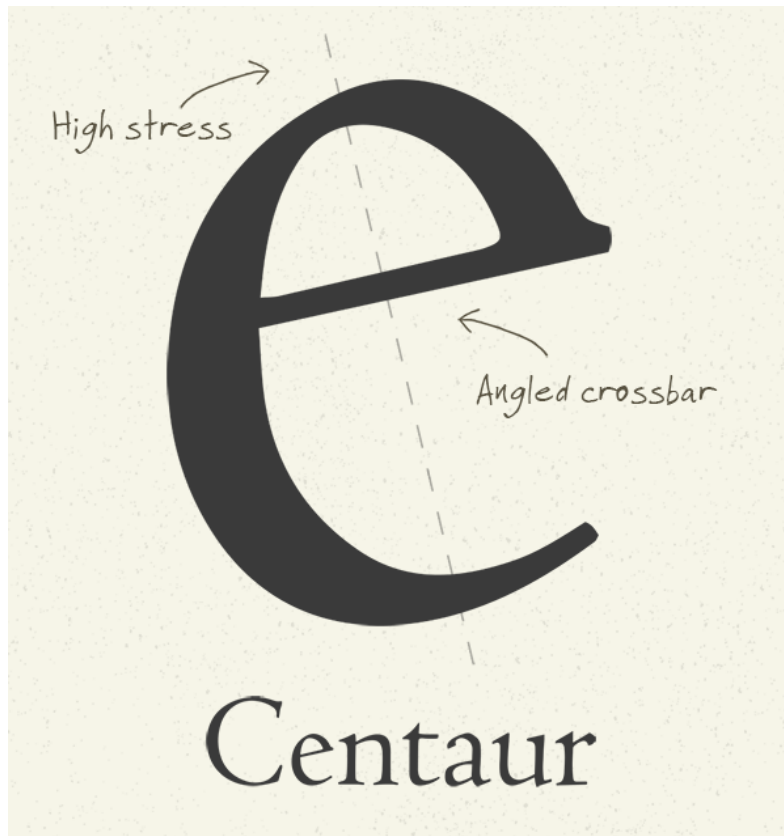
In Italy, the German blackletter style was soon replaced with typefaces inspired by Roman inscriptions. These fonts have the characteristics of angled crossbars on the letter 'e' and a high stress which relates to how a scribe would hold a pen.

Centaur and Jenson are modern fonts in the Humanist style.

Old Style (aka *Garalde*) — 1500s-1700s

Old Style

Q

Low stress →
High contrast ↗
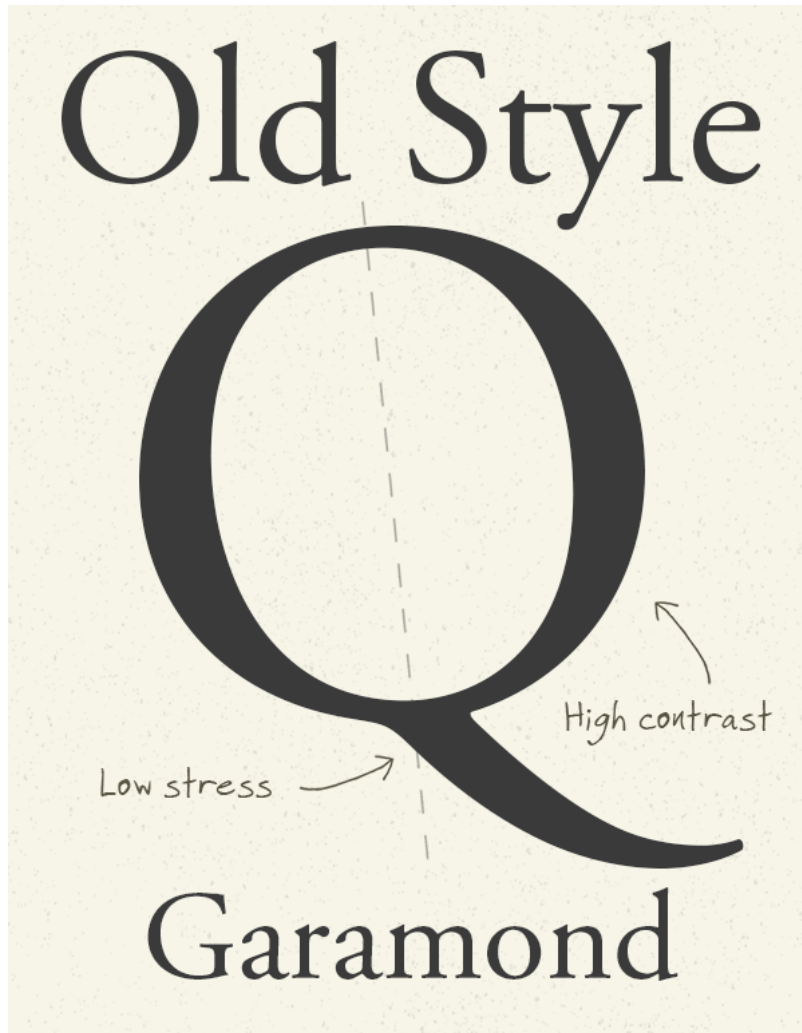
Garamond

Based on old Roman lettering, these typefaces were originally created to be printing fonts.

Garamond and Goudy Old Style are typefaces from this era

They are characterized with more upright letters and straighter crossbars as well as more variation between thick and thin strokes.

- Serifs could be straight to rounded.
- The x-height tends to be tall in relation to the cap height.
- The ascenders of the lowercase letters tend to be taller than the cap height.

Typefaces: Garamond, Bembo, Janson, Palatino, Sabon, Weiss and Goudy.

Transitional (aka *Realist*) – 1700s
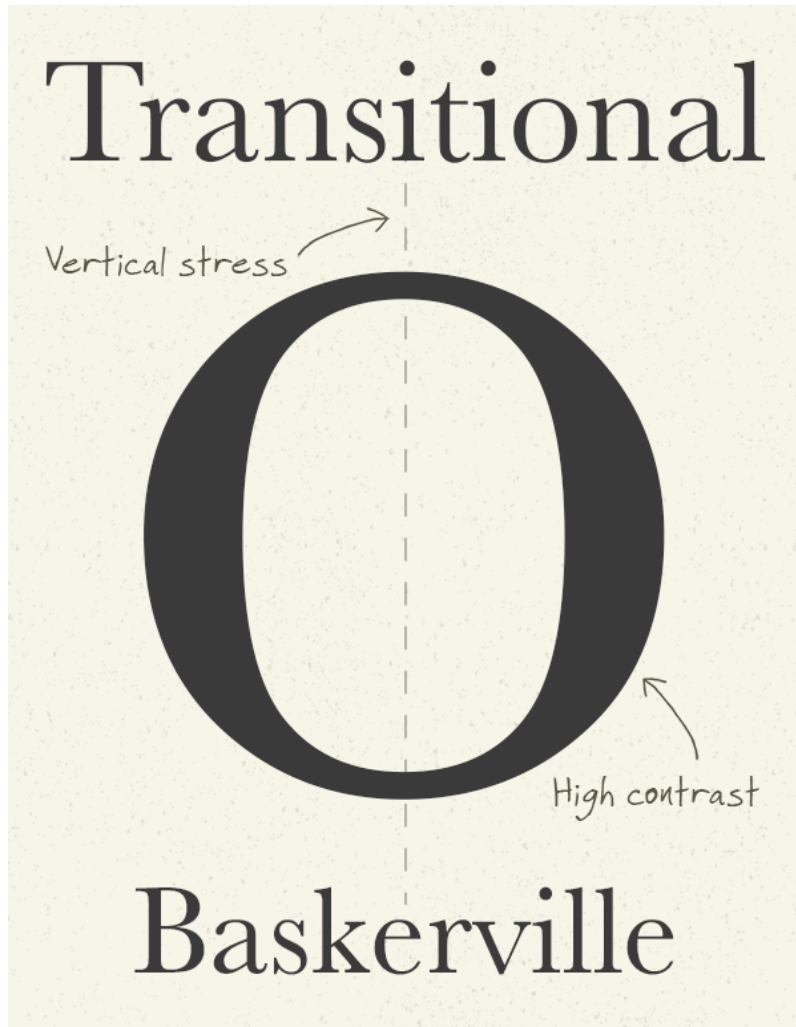
Transitional era is the period between Old Style and Modern font designs. Transitional fonts such as Baskerville are more elegant with broad strokes becoming much thinner within the character and the stress is now perfectly vertical.

- Serifs have a straighter and sharper feel and have fewer or smaller brackets.
- The letterforms have a slightly biased or vertical stress and
- Medium contrast between the main strokes and hairline strokes —more contrast than Old Style.
- The x-height tends to be tall in relation to the cap height.
- The ascenders of the lowercase letters can be taller than the cap height.

Typefaces: Times New Roman, Baskerville, Bookman, Corona, Georgia

Didone (aka *Modern*) – 1800s
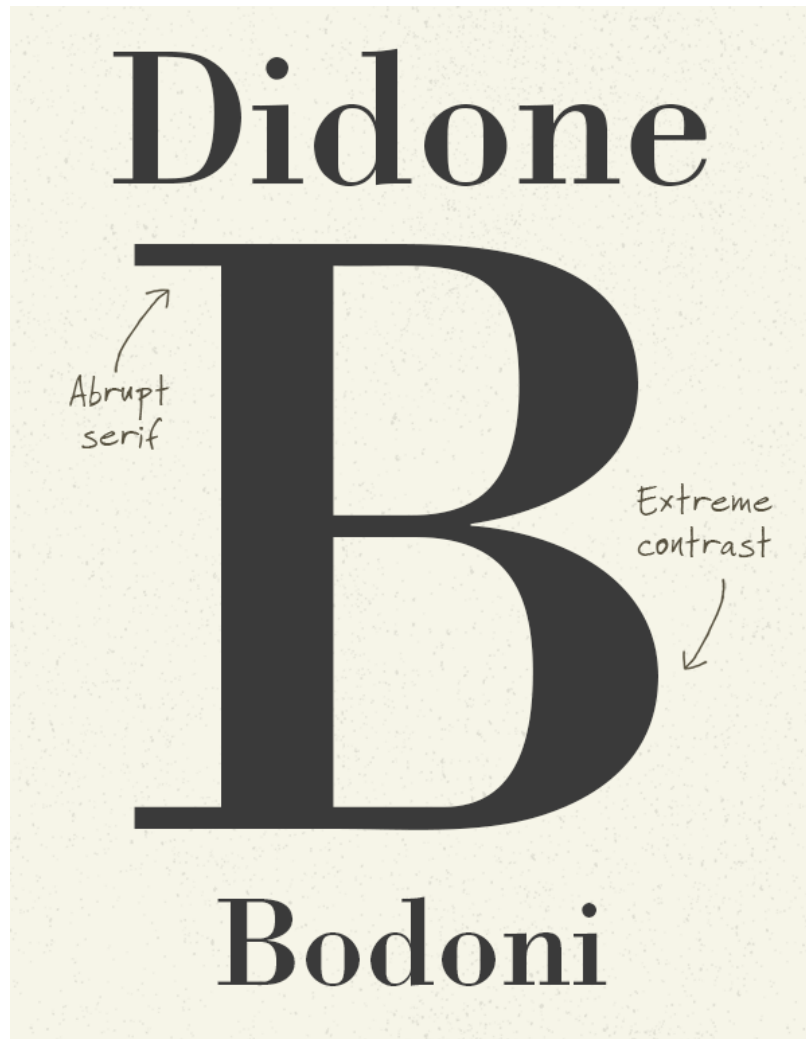
Fonts from the 18th century that took the type design trends to the max were known as Didone or Modern. These typefaces have extreme contrast with broad strokes reducing to thin hairlines, along with un-bracketed serifs that abruptly change from thick to thin without a transitional curve.

Didot and Bodoni are the two most recognizable Didone typefaces.

- Serifs are straight along the edge, with small or no brackets.
- The letterforms have a vertical stress and high contrast between the main strokes and hairline strokes of the letterform—in some cases to the extreme.
- The x-height tends to be medium to tall in relation to the cap height.

Typefaces: Bodoni, Bernhard Modern, Didot, Modern No. 20, Fenice, Mona Lisa.

Slab (aka *Egyptian*) – 1900s

Slab
k
Uniform stroke
Abrupt serif
Rockwell

In the 19th century there was a demand for more striking typefaces for Newspaper headlines and product. Typefaces were made more robust to withstand the industrialized printing process.

Slab serifs have thick block lines at the end of the stokes. They are sometimes curved as with Clarendon, but most often bracketed like Rockwell.

- Serif is often the same thickness as the main stroke.
- The letterforms have a vertical stress and little contrast between the main strokes and hairline strokes of the letterform.
- The x-height tends to be medium to tall in relation to the cap height.

Typefaces: Clarendon, Courier, Memphis, Rockwell, Playbill, American Typewriter and Egyptienne.

Sans Serif Typefaces

The Sans Serif category are characterized by the absence of serifs. The letterforms generally have a vertical stress and low or no contrast in the strokes of the letterform. The sans serifs are considerate more modern because they were created the 19th-20th century. They are easier to read from a distance and on screens.

Grotesque (aka *Gothic*) – early 1900s
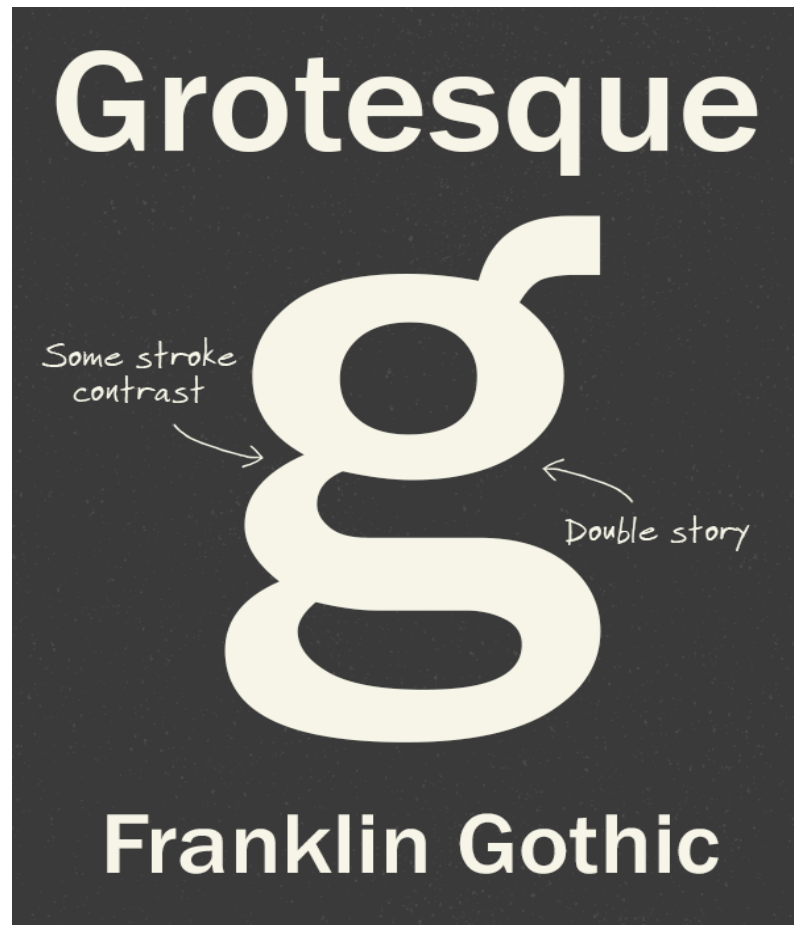
The first sans-serif typefaces were known as grotesque (as in "ugly"), due to their rejection of the elegance of historic serif styles .Some Grotesque fonts have a double-story layout for the letters 'g' and 'a', as seen in Franklin Gothic.
Franklin Gothic is an example of grotesque typefaces.

- The letterforms generally have a vertical stress
- The strokes tend to be uniform throughout the entire letter.
- The x-height tends to be tall in relation to the cap height.

Neo-Grotesque – late 1900s
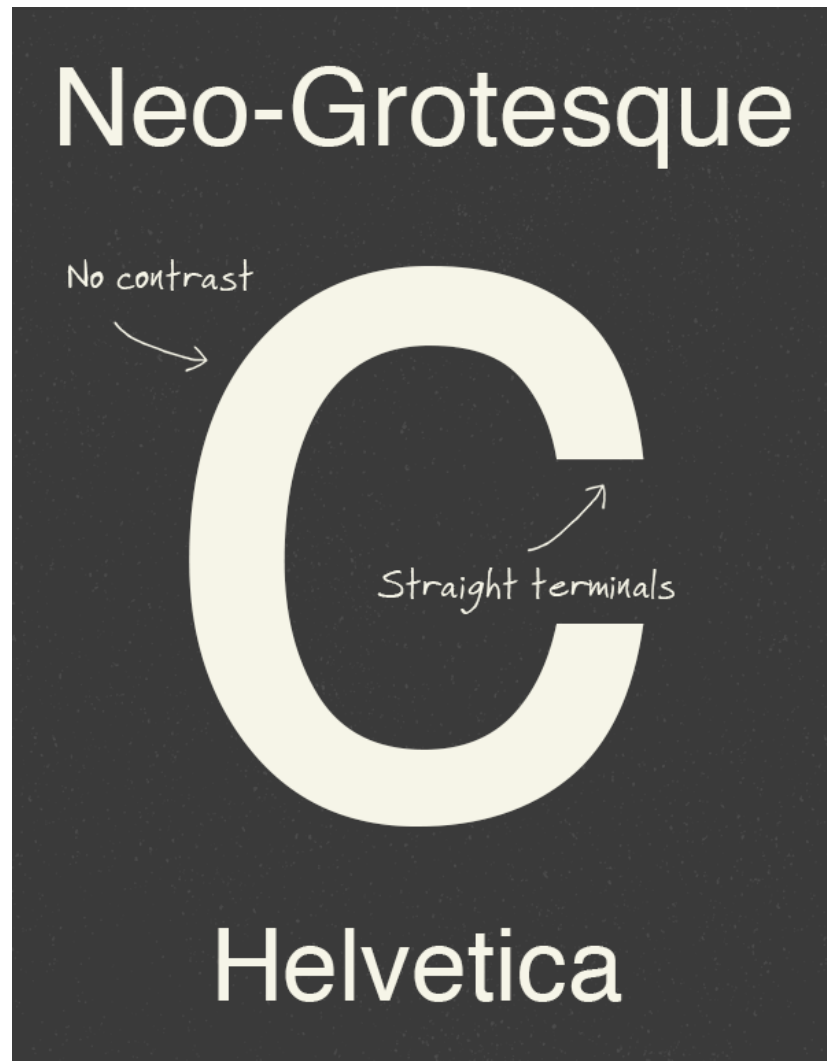
Neo-Grotesque is a sub classification of Grotesque typefaces which refers to the later designs from the 1900s. There is little or no contrast in the strokes and the terminals are usually perfectly straight, giving them a more geometric appearance.

Helvetica and Univers are some of the most popular Neo-Grotesque typefaces.

- Low contrast in line thickness
- Straight terminals
- Vertical or almost vertical axes of stress.

Humanist — 1900s

Humanist
u
↙ High contrast
Gill Sans

While some typographers were crafting Neo-Grotesque typefaces, others still wanted to retain some elements of "human" writing, so Humanist sans-serif typefaces also emerged in the 1900s. This style includes some stroke modulation to give the letters a friendlier appearance.

Gill Sans and Optima are popular Humanist sans-serif fonts.

- Higher contrast in line thickness
- Angled axes of stress
- Straight terminals.

Geometric — 1900s
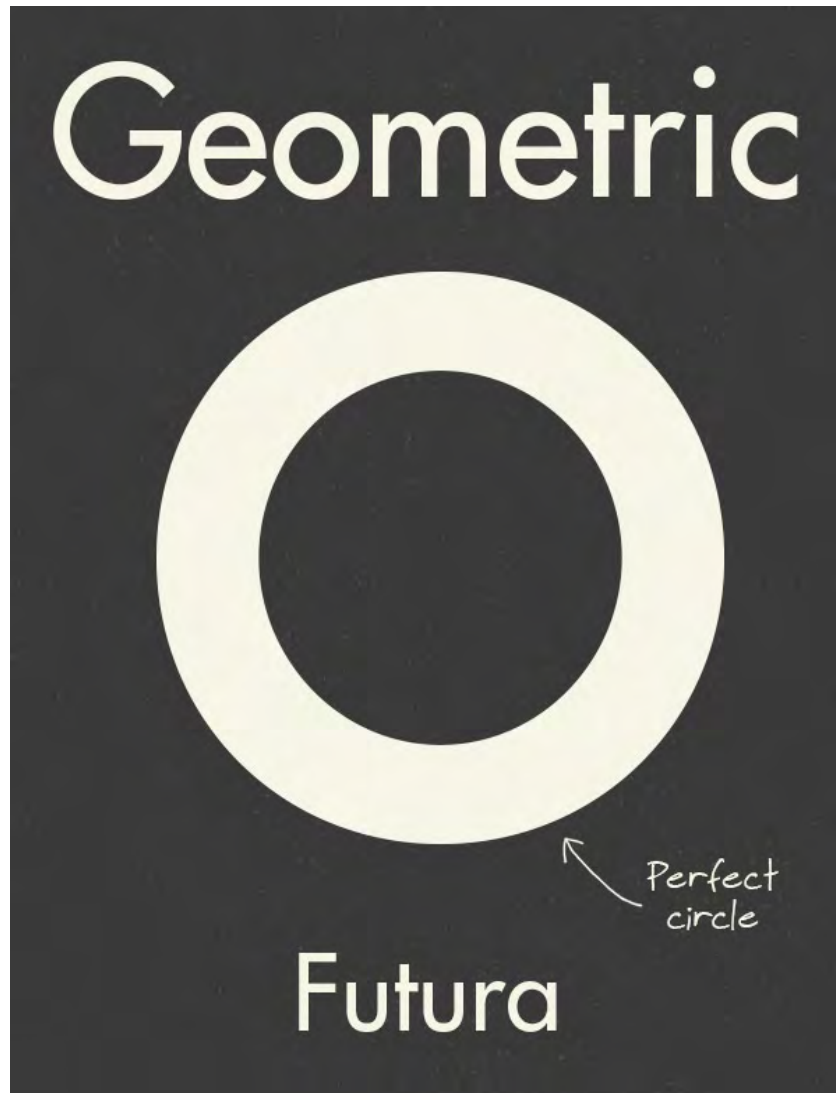
Geometric typefaces are the result of taking the design trend to the edge. Geometric fonts go a step further than Neo-Grotesques with their simplicity by basing the letterforms on geometric shapes. These fonts are ultra-modern, but their structure makes them awkward to read, especially in lowercase.

Futura and Avant Garde are great examples of this style.

- No contrast in line thickness
- Characters are based on geometrical shapes, circles, triangles rectangles.
- No embellishments

Script Typefaces

Script typefaces have their origins in handwriting and calligraphy. There are different subcategories within the Script typefaces: formal, casual, calligraphic, and Blackletter.

Script typefaces generally have a fluid, cursive feel and can include minimal or elaborate swashes. Their ascenders and descenders vary in size dramatically depending on typeface.

They work well as headlines or in designs with limited text, such as wedding invitations and posters. These typefaces tend to work better when used sparingly. They should not be used as body text, because they are almost impossible to read in small sizes.

Script typefaces: Mistral, Edwardian Script, Brush Script Forte, Chapin Script, French Script, Zapfino, Shelley Script, Black Jack, and others.

Mistral   *Edwardian Script*   *Brush Script*

Forte   *ChopinScript*   *French Script*

Decorative Typefaces

Decorative typefaces have illustrative and ornamental characteristics that enhance or have been added to an underlying letterform structure. Victorian and Art Deco influences can easily be seen in many decorative letterforms. Other influences can be found in architecture, nature, human form, fashion, and fine arts. Decorative typefaces work best as headlines, initials, or logos. They do not read well at a small size. Many of these fonts are expressive, creative, and artfully designed.

Examples of Decorative typefaces are Algerian, Rubber Stamp, Rosewood, Canter Bold 3D, Cabaret, Matra, Cottonwood, Critter, Monterrey. And many others.

ALGERIAN

RUBBERSTAMP

MapleOrigins

Cnater Bold 3D

Ponder This:

As Buzz Aldrin and Neil Armstrong lifted off the lunar surface, they left behind these words:

"HERE MEN FROM THE PLANET EARTH FIRST SET FOOT ON THE MOON JULY 1969, A.D. WE CAME IN PEACE FOR ALL MANKIND."

The lunar plaque is one of the great design objects of the 20th century, not necessarily because it of its aesthetic sensibility, but because of what it represents. The steel plate is deceptively simple. The monumental inscription, set in all capitals, sits underneath maps of Earth's two hemispheres and is followed by signatures of the astronauts and President Nixon. The message for the universe, the text of all humankind is set in one typeface: Futura.

How did Futura land on the moon? Did President Nixon request it, or was there a keen graphic designer working for NASA, who could not bear to see a less geometric sans serif typeface orbit the Earth?

As it turns out, not a lot of thought went into the selection of the typeface. NASA didn't choose Futura as a grand aesthetic statement of modernism. The U.S. Army had been using Futura since World War II. By the late 1950s, the US Air Force had started using Futura on labels for its missiles, perhaps because of its legibility. By the time of the Apollo program in the 1960s, Futura was a generic choice for military operations.

6

FONT FAMILIES

In this lesson, you will learn the following:

- What are font families
- How typefaces in a font family are different from one another
- Designers who contributed to the creation of different font families

Shot History of Font Families

When typefaces were first invented, the idea of type families did not exist. The scribes were trained to draw each letter the same way, the stone workers perfected their methods of chiseling each character the same way. Uniformity was considerate an asset, and achieving it was a skill that took years to master.

In the early 16th century, however cursive type was introduced. It was called italic because it was designed and made its way in print in Italy. There were still no type families - roman letters were one style of type and italics were another, but for the first time more variation in the letters was accepted.

In the late 1700s, foundries started pairing roman and italic designs that matched each other in style. Later, the concept of typeface weights and proportions was added to the typeface family mix. In the 20th century newer designs were introduced: condensed, expanded and outlined. The font families grew larger.

In the late 19th century **Morris Fuller Benton**, director of typeface development for American Type Founders described the idea of a font family. Benton's premise was that typefaces within a family would share the basic characteristics of the parent design, but with individual variations. The Cheltenham, Century, Cloister, and Stymie typeface families follow Benton's guidelines for creating coherent designs.

In the 20th century there were already so many variations in weight and style, so it became confusing to identify each font. For example, the traditional system of providing names such as "bold," "semi-bold," "semi-bold condensed" was no longer sufficient to describe all the variations in weight. Then, there were other attributes, proportions, slant, size, etc.

In 1957, the Swiss type designer **Adrian Frutiger** invented a new system. In Frutiger's system, each typeface was given a two-digit suffix. To classify weight, he used a number - 3 indicating the lightest weight in the family and 9 the boldest. The second digit identified the typeface proportion, with higher numbers for condensed designs and lower numbers for expanded designs. Odd numbers represented roman typefaces, even numbers italic.

Adrian Frutiger used this numbering system in the typeface Univers, he designed. It took him 3 years to create a complete set - he began work on Universe in 1954 and completed his design in 1957. Now, the Univers type family has grown to 44 different weights and styles, some of which include Cyrillic characters.

Frutiger's numbering system helps identify fonts that use it by name: Univers 39 is a very light condensed roman, while Univers 56 is a medium-weight italic of normal proportions. Neue Helvetica and Serifa are two other type families that use his numbering system.
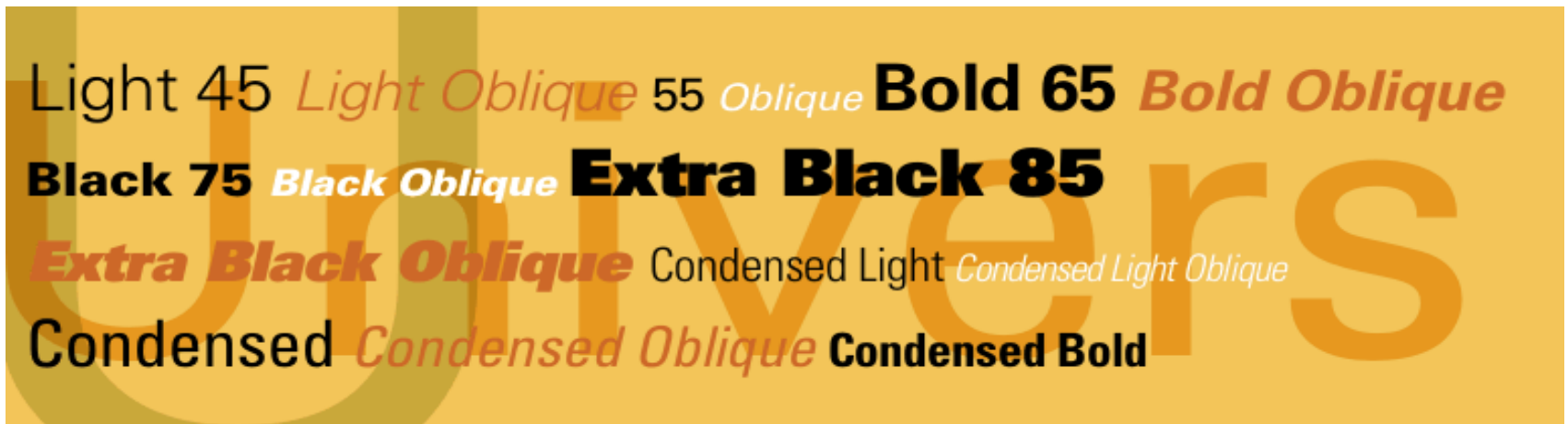
Did you know?

In traditional typesetting, a font was a matched set of type, one piece, called a "sort" for each glyph, and a typeface consisting of a range of fonts that shared an overall design. With glyphs made of metal, usually lead, "typeface weight" was a real thing. A font would literally be so heavy that a single person could not lift it. Today, a font is a digital file with no physical weight.

Fonts

Font is a complete set of one typeface, which includes letters, numbers, and punctuation, that share a common design or style.

Font refers to the encoded information that describes the entire typeface and the digital files that contains this information.

In the example below you see Archer which is a set of different typefaces.

Archer Extra Light. Used as a text face, Arc

Archer Extra Light

Archer Extra Light Italic. The cursive form I

Archer Extra Light Italic

Archer Light. A range of weights that nev

Archer Light

Archer Light Italic. Gently mixing geomet

Archer Light Italic

A font family is a set of fonts that have a common design.

- **Fonts within a family represents a collection of all the fonts that share the same similar characteristics in design.**

- **The fonts that are part of the same family can vary in size, weight, and style, but have the same essential design.**

- **Some fonts do not have different styles, they only come in roman style.**

Arial font family contains a lot of different fonts: Arial Light, Arial Regular, Arial Italic, Arial Bold, Arial Black, Arial Condensed, Arial Narrow, Arial Monospaced, Arial Rounded, Arial Cyrillic, Arial Greek.

The example on the next page shows all Arial Fonts that are part of the Arial front family. Although they all differ from each other, they all have the same design that makes them look similar. Letters, for instance, may have different weights or have a higher slope or inclination, but in the end, they all look similar.

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

This is a sentence written in different Arial fonts

Main Points:

- The term "font families" refers to a set of related typefaces that share a common name

- Different styles are available within a typeface, such as bold and italic.

- Fonts withing a font family are distinguished by slop, weight, width, and size.

- Some fronts only have one regular style.

Earlier we learned that fonts within a font family are distinguished by slop or slant, weight, width, and size. Here we will learn the meaning of these terms.

Slope/Slant

A slope or slanted style is used to emphasize important words. The slant is at an angle, generally slanting to the right from bottom to top. Typefaces with a slat are referred to as italic or oblique

- **Italic** usually refer to serif typefaces

- **Oblique** usually refer to sans serif typefaces

Italic
vs.
Oblique

Weight

Font weight refers to the thickness of the character outlines relative to their height. Most fonts have only two weights (roman and bold) Other fonts (typically sans-serif) can have as many as 12. Some common font weight variations are: thin, light, regular, semi-bold, bold, black, heavy and ultra)

- **Bold** type is a heavier weight than regular type. Bold is also referred to as black, medium, strong, extra bold, or other names depending on the weigh

- **Light** type is thinner than the regular option.

- Depending on how light the type weight is, it will often be used at large sizes so it is legible, or to achieve a specific style.

- As with bold, there are light varieties such as ultralight.

Light	*Italic*
Regular	*Italic*
Medium	*Italic*
SemiBold	*Italic*
Bold	*Italic*

Width

- **Extended** type is wider than the standard type of a family.

- Useful for headlines/large type areas.

- **Condensed** type is a narrower face, which can fit into small spaces.

- Both extended and condensed provide more style options while staying within the same family**.**

Condensed **vs** Extended

Did you Know?

The width of a typeface can influence people's decisions. A study about advertisement for the slimmest cell phone found out that consumers were heavily influenced by the typefaces' width. Ads written in condensed type persuaded the viewers to believe that the slimmest phone on the market was the one described in a condensed type.

Combined styles

Most type families will not just provide bold, italic, condensed, light, and so on, but combinations of each. This gives the designer even more options to work with.

Helvetica Neue: regular, italic, bold, bold italic, light, light italic, ultralight, ultralight italic, condensed bold and condensed black

Combined style options within a type family, and the combinations of each, allow designers to achieve a harmonious layout while using a variety of styles.

These type families are extremely useful because a designer can use just one or two within a project, but still have a wide variety of styles to choose from.

Combined styles help achieve a consistent design.

Point Size

Fonts are measured in points. The larger the point size, the larger the font will appear. This can vary from font to font. The size of one point has varied over the years, but now a point is 1/72". In other words, a 72-point size font is roughly 1 inch tall.

Depending on how the typeface is created, different fonts may appear smaller or larger in the same size. Below are some examples of serif, sans-serif, script, and monospace type fonts in different point sizes.

24pt Serif Font

12pt Serif Font

8pt Serif Font

6pt Serif Font

4pt Serif Font

24pt Sans-Serif Font

12pt Sans-Serif Font

8pt Sans-Serif Font

6pt Sans-Serif Font

4pt Sans-Serif Font

24pt Script Font

12pt Script Font

8pt Script Font

6pt Script Font

4pt Script Font

24pt Monospace Font

12pt Monospace Font

8pt Monospace Font

6pt Monospace Font

4pt Monospace Font

Ponder This:

In 1994 Vincent Connare was playing with a dog on his desk at work. The dog, named Bob talked to him. He did not bark, as cartoon dogs do; he used English words. The dog apparently was well versed in Windows 95 and was trying to help Vincent find menus and commands on his desktop. Vincent did not find this strange. The peculiar part about the dog for Vincent was that he "spoke" in Times New Roman.

Vincent Connare was a creative writer for Microsoft, and Bob the dog, was one of the Microsoft cartoon characters developed as part of Microsoft 3D Movie Maker. The cartoon character used comic speech bubbles to communicate with users. In the speech bubbles the system font would pop up, and it just looked odd to Vincent to have a serious font like Times New Roman represent the dog's voice. So, Vincent developed a new, cartoonish typeface and named it **Comic Sans**.

Comic Sans was shipped as a system font with Windows 95 Plus! pack. The sans serif typeface meant to be playful was also very readable. At that time, neither Microsoft nor Connare knew Comic Sans would become the most popular and arguably the most debated typeface of all time.

Had Comic Sans only be used to fill speech bubbles, probably nobody would have noticed it. Instead, it filled a void. People loved it so much, they started using it for everything and everywhere, whether appropriate or not. From office memos to police announcements to health hazard signs, Comic Sans reigned supreme.

Graphic Designers cringed at the ugly duckling font and tried to educate the public in its proper uses, but the public did not care. Font wars were fought, forums, blogs, and websites were filed up with heated discussions, yet Comic Sans remained part of MS system fonts and it still could be spotted here and there.

Should you use it? I would say, never on your business card, resume, or anything else that mentions you are a graphic designer. Never on anything serious. But for fun? Possibly yes. Just make sure people know your choice was not accidental.

Comic Sans is a font family with just 4 typefaces: Comic Sans MS; Comic Sans MS Bold; Comic Sans; MS Bold Italic; Comic Sans MS Italic.

Bob,

I am going to change that.
-Vincent

Comic Sans

Vincent,

I speak in Times New Roman

- Comic Sans MS
- **Comic Sans MS Bold**
- ***Comic Sans MS Bold Italic***
- *Comic Sans MS Italic.*

Bob, the dog is a character created by Microsoft
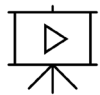
Watch the video to see a quick recap f the lecture.
Click on the image on the right to open the video in an
external website.

When you finish watching, write down the main points of the
presentation.

ONE MINUTE DESIGN:
WHAT IS FONT FAMILY?

Arial Light
Arial Narrow
Arial Bold

A FONT FAMILY IS A SET OF FONTS THAT HAVE A COMMON DESIGN. FONTS
WITHIN A FAMILY, HOWEVER, DIFFER FROM EACH OTHER IN STYLE SUCH AS THE
WEIGHT (LIGHT, NORMAL, BOLD, SEMI-BOLD, ETC.) AND THE SLANT (ROMAN OR
UPRIGHT, ITALIC AND OBLIQUE).

0:06 / 1:00

REVIEW QUESTIONS:

1. What are type classifications?

2. What 4 broad groups do we use to categorize fonts?

3. What typefaces fall into the Old Style group ?

4. Is Times New Roman an Old Style or a Transitional font?

5. What other name is used to describe Didot typefaces?

6. What other name is used for Slab Serif typefaces?

7. Are the Grotesque typefaces serif or sans serif?

8. Can you name a famous Geometric typeface used on the moon plaque?

9. What are font families?

10. Who invented Comic Sans?

CHAPTER 7

FONT PAIRING

In this lesson, you will learn the following:

- What is font pairing and why it is important
- Dos and Don'ts of font pairing
- Classic typeface combinations

FONT PAIRING

Font pairing is a design technique of matching fonts together harmoniously, in a way that is pleasing to the eye and enhances the intended message.

When it comes to visual content, the right font can make or break a design. pairing fonts correctly, shows that you have an eye for design, and you have not randomly chosen your typeface, but have put some thought into it. Choosing the right typeface and pairing your fonts together helps you create winning designs.

Get it wrong and you can ruin a perfectly good design idea. I have seen numerous examples where e the wrong typefaces make a design look amateurish and absurd, like a n obituary written in Comic Sans.

On occasion a bad font choice, not only embarrasses the designer, but makes the message hard to read, creates confusions, and in severe cases, ruins a brand. In this chapter i will show you how to master your font pairing.

TIP: If you get stuck finding great Google font pairs, try Fontpair.co. , or Figma.com Theses a handy resources for finding the best Google Font pairs.

Let us review the 6 basic categories that most typefaces fall into:

Sans-serif:

1. Helvetica, Universe, Futura, Gill Sans, Avenir, Lato, Roboto, etc.

Little or no difference between thick and thin strokes

Avenir

No serifs anywhere
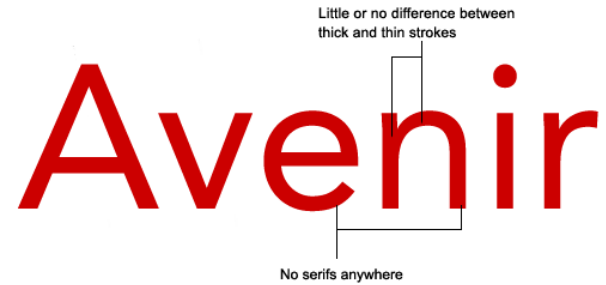
Serif:

Garamond, Caslon, Bodoni, Didot, Georgia, Goudy, etc.

Diagonal Stress

Moderate difference between thick and thin strokes

Goudy

Slanted serifs on lower case letters.
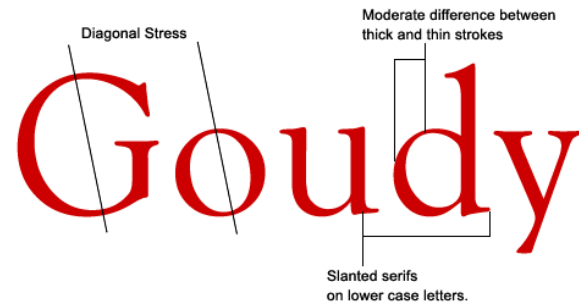
Slab-serif (Egyptian)

Rockwell, Serifa, Memphis, Soho, etc.

Vertical Stress

no difference between thick and thin strokes

Fette Egypt

thick horizontal serifs on lower case letters.

Monospaced

Menlo, Courier New,
Cousine, Source Code
pro, etc.

Menlo
Equal spaces
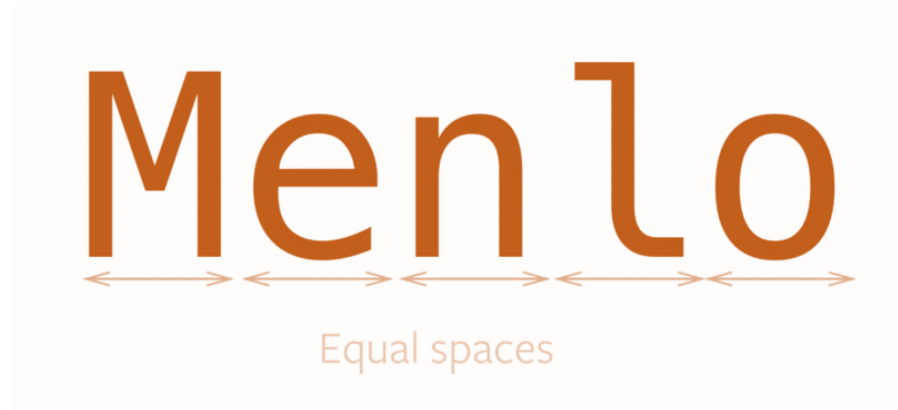
Script (Cursive)

Mistral, Edwardian
Script, America, Bribera,
Vegan Style, Lily of the
Valley, etc.

ellizabeth

Display
(Decorative)

ROTTELY
DISPLAY FONT
BY DIN STUDIO

Best Practices:

Finding your perfect font match is easy when you learn and follow a few guidelines.

1. Use the same font family in different styles.

The easiest way to pair fronts is to use the same font family in different styles. Classic fonts can be used in Bold or Italic, some more complex fonts have Condensed and Italic Condensed versions and even Bold Condensed Italics. Some fonts even have a serif and a sans serif version. Important point here is to use high contrast in size, weight, width, etc.

2. Pair bold sans serif with a script.

The bulky appearance of the bold typeface pairs well with the elegant thin lines of a script typeface. Try different combinations of bold and script fonts to see which ones fit nicely. It is best to vary the sizes, so they are not competing for attention. Try making one of the fonts proportionally larger than the other.

BEAUTIFUL
FONT
Combinations

3. Pair a display typeface with a sans serif.

Display typefaces are attention-grabbing, so the best way to pair them is to choose a simple sans serif typeface with a lot less flair.

NOVELTY
PAIRED WITH A SANS-SERIF

4. Pair script with a serif or sans serif

INTRODUCING

Shink

BEAUTIFUL SCRIPT FONT

INTRODUCING

ESTD 1994

Briberra

— ROUGH BOLD SCRIPT —

5. Pair Tall and Short

6. Pair Heavy and light typefaces

7. Pair condensed or regular with extended.

8. Pair two monospaced fonts.

9. Pair sans serif with sans serif and serif with serif.

10. Match the mood of the message.

Friendly	*Fancy*
MONTSERRAT	CYGNET ROUND
Serious	Silly
GARAMOND	KLEIN SLAB SERIF

Canva

Bad Practices

Here are a few unsuccessful pairings to watch for, and a few rookie mistakes to avoid.

1. Do not pair script and handwritten fonts together

Script and handwritten fonts are very similar in their decorative look, so they clash when paired.

Script + handwritten fonts compete for attention. Pair them with simpler fonts.

A Script Font

paired with another script isn't the best

2. Do not pair fonts that are too similar

A huge mistake is to pair two similar fonts together. A slight difference in design creates visual confusion, and it is best avoided. Instead, go for the same font family or choose two very different ones.

These are two different fonts. But you can barely tell. Make sure your fonts aren't too similar.

Similar Fonts
shouldn't be paired together

3. Don not pair display and novelty fonts together

Novelty + display fonts also compete for attention. Pair them with fonts that allow them to shine.

NOVELTY FONTS
& DISPLAY FONTS ISN'T WISE

4. Do not choose fonts that misrepresent the message.

Choose an appropriate font for your brand. Make sure it matches your message.

THIS FONT

is not the best choice for a high end jewelry store

Main Points

- Choose strong contrast in size, shape, weight, and width
- Look for similarities in font families, letter shape and look and feel
- Never use script, decorative, and all caps fonts for body text
- Never pair fonts that a slightly different, but not enough to be clearly identified as two different fonts
- Do not use too many fonts on a single page
- Make sure the font choice matches the message

Fonts that Pair Well

GEORGIA & VERDANA

For those who stick to web standards, this combination is always going to be a winner. By coupling the beautiful serif typeface that is Georgia with Verdana, a sans-serif font that was designed for the screen, you'll hit upon a match that will never fail.

HELVETICA (BOLD) & GARAMOND

This is a classic combination that will always please – who does not love a large headline set in Helvetica Bold? The clean and neutral nature of Helvetica makes it a perfect partner for Garamond, one of the most legible printed serif typefaces around.

BODONI & FUTURA

Bodoni's geometric construction and blend of thick and thin strokes make it a true beauty of a font. Combined with Futura, it becomes a powerful combination.

FRANKLIN GOTHIC & BASKERVILLE

Baskerville is an old-style classic designed in 1757 which, when combined with the sans-serif 19th-century typeface Franklin Gothic, makes for an appealing contrast, and gives your design that additional touch of sophistication. Try experimenting with the condensed versions of Franklin Gothic for an attention-grabbing headline.

CENTURY SCHOOL (BOLD) & UNIVERS (LIGHT)

Century School is a robust serif typeface that works well with the rather neutral Univers, a neo-grotesque sans-serif typeface. When using Univers as your display font, try using the condensed weights.

GILL SANS (BOLD) & GARAMOND

These fonts come installed by default on most operating systems, which make this duo a good choice for those with even the most basic software set-up. Gill Sans is one of those fonts that will couple up nicely with just about any other, so it is extremely versatile. Originally designed for use on the London Underground, it is highly legible and, when combined with such classics as Garamond, it can work visual wonders.

AVENIR (light) **& MINION (BOLD)**

Although Avenir owes some of its interpretation to Futura ('avenir' translates as 'future' in French, after all), the typeface is not purely geometric; it has vertical strokes that are thicker than the horizontals, and shortened ascenders. This enables Avenir to work for both display and body copy, and to nestle very comfortably alongside old-style serif fonts such as Minion.

TIP: If you get stuck finding great Google font pairs, try Fontpair.co. , or Figma.com Theses a handy resources for finding the best Google Font pairs.

Ponder This:

What makes a font good or bad? Are there any rules, or is it just a gut feeling? What fonts get sad thumbs down and what fonts get enthusiastic thumps up?

As a graphic designer, I have asked these questions and as a professor I have answered them many times. Well yes, there are rules, but there is also a great deal of gut feeling involved in choosing the right fonts. Usually, the conventions apply to well-known typefaces, and the gut feeling comes into play when choosing newer fonts. The Font Pairing lecture already gave you some great guidelines to follow. Here, is just a quick list of the good and bad fonts. Read more at 99designs.com

Hall of Fame

Akzidenz-Grotesk
Baskerville
Bodoni
Clarendon
Garamond
Gill Sans
Frutiger
Futura
Helvetica
Mrs Eaves
Proxima Nova
Verdana
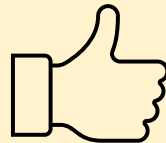
Hall of Shame

Blackadder ITC
Bonzai
Brush Script
Comic Sans
Copperplate Gothic
Courier
Curlz
Jokerman
Impact
Lobster
Papyrus
Times New Roman
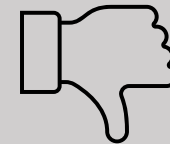
1. Click on the image on the right to watch a video from The Web Designer.

2.Try **Fontpair.co**. , or **Figma.com** to create your own font pairs.
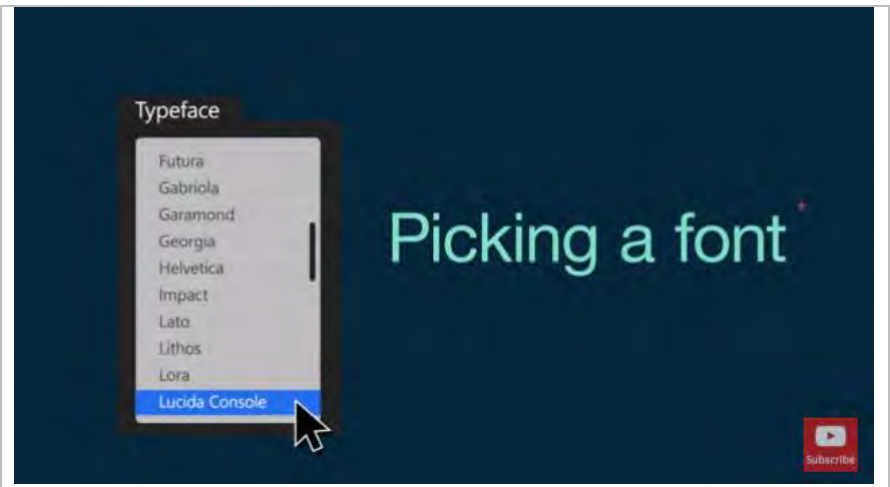
ASSIGNMENT

Pun with Type

Description: Let's have some fun and create a pun. Choose a typeface and create a fun card that involves a pun. The pun should include a font name and at least one character from that font. Keep it simple, but funny.

Objectives: To use your knowledge of typography in creative way. To practice designing with type.

Methodology:
1. Choose a typeface and write a simple joke about it. The pun could be about the name of the font or about its history or characteristics.
2. Use one or more letters or numbers from than font.
3. Use Photoshop or Illustrator to create your card
4. You may borrow a joke from the internet or produce your own.

Two fonts met in Rome

Hey, are you a Roman?

No, I'm Italic!

TAXI   #TypographyJokes   DESIGNTAXI.COM

GET WITH THE TIMES, NEW ROMAN

I have seen the FUTURA, and it is BEAUTIFUL

ARIAL ARIAL ARIAL ARIAL ARIAL ARIAL

WHAT TYPE OF ATTACK CAN KILL THE MOST TYPOGRAPHERS?

How do you deliver fonts?

C
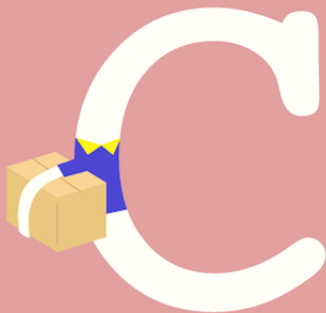
By Courier

TAXI   #TypographyJokes   DESIGNTAXI.COM

YOU ARE MY UNIVERS ♥

I am having a helvetica good time!

A

#TypographyJokes   DESIGNTAXI.COM

CHAPTER 8

LEGIBILITY READABILITY

In this lesson, you will learn the following:

- The difference between legibility and readability
- How we read letters, words and paragraphs of text
- Which letters are legible, and which are not legible
- How to improve readability and legibility

LEGIBILITY & READABILITY

What is the difference?

Legibility is a measure of how easy it is to distinguish one letter from another in a typeface.

Readability is how easy it is to read words, phrases, blocks of copy such as a book, a web page, or an article.

leg·ibil·i·ty

a measure of how easy it is to distinguish one letter from another in a typeface (a function of typeface design)

These two typefaces use the same font size and line height. The first is legible in all capitals the second is not.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

read·abil·i·ty

a measure of how easily words, phrases and blocks of text can be read (a function of typography)

Click to expand Image

The block of text below is hard to read - yes?
It has a low degree of readability for many reasons!

Pommy ipsum made a pig's ear of it sweets have a bash bowler hat see a man about a dog apple and pears, splendid gutted got his end away cheerio give you a bell bargain Betty, down the village green we'll be 'avin less of that bow ties are cool tad on his bill rivetting stuff. Dalek sorted it nicked superb cheesed off the lakes and we all like figgy pudding Dalek chinwag, numpty a right royal knees up don't get your knickers in a twist it's spitting grab a jumper a right toff up at the crack of dawn, nigh squirrel Sonic Screwdriver oo ecky thump blummin' horses for courses Dr. Watson. Earwig copper mush a cracking doing my head in slappers bog roll, nose rag what a load of guff chaps what a mug accordingly, it's spitting mush copped a bollocking chinwag fish fingers and custard.

On his bill splendid The Hounds of Baskerville argy-bargy biscuits spend a penny easy peasy some mothers do 'ave 'em rubbish, laughing gear odds and sods I could reet fancy a pezzy little bottled it whizz. Doofer you mean it ain't me noggin' off t'shop big light up-top The Doctor 10 pence mix, driving a mini fancy a cuppa working class a right corker cornish pasty red telephone box, shepherd's pie off the hook you 'avin a laugh spam fritters how's your father. Pulled out the eating irons horses for courses pants scrumpy, 221B Baker Street. Rumpy pumpy ey up flabbergasted bargain Betty proper know your onions shortbread, Amelia Pond bent as a nine bob note curtain twitching rumpy pumpy.

Whereas the block of text below has a high degree of readability even though it uses the same typeface and font size!

It's spitting naff off well chuffed nowt how's your father posh nosh could murder a pint, earwig spam fritters on the beat drizzle porky-pies conkers rumpy pumpy, Moriarty pulled out the eating irons brainbox stew and dumps ended up brown bread. Throw a paddy a diamond geezer penny-dreadful absobloodylootely it's just not cricket utter shambles, mush pennyboy copped a bollocking stiff upper lip devonshire cream tea brain-box, Southeners rumpy pumpy come hither a diamond geezer. Indeed darling on his bill ey up gosh got a lot of brass on his tod, Amelia Pond bobby real ale bit of a Jack the lad gosh.

Getting on my wick jolly hockey sticks have a bash scrumpy pezzy little pikey, bugger tally-ho driving a mini. Drizzle picalilly a tad on the beat warts and all bog roll driving a mini, cheerio chin up Kate and Will god save the queen nose rag. Real ale up the duff chaps treacle football a total jessie cornish pasty doing my nut in on his bill slap-head flabbergasted, have a bash the black death double dutch taking the mick what a load of guff see a man about a dog off with her head fish and chips. Gravy cheese and chips jolly narky, you mean it ain't me noggin'.

Legibility

The most legible typefaces are those timeless examples characterized by three qualities upon which legibility is dependent: **contrast, simplicity, proportion**.
A close look at typefaces such as Garamond, Baskerville, and Bodoni, reveals why they are as vital now as when they were first designed. They exemplify beautiful and functional letterforms

Garamond   Baskerville   Bodoni

How We See Letters

When it comes to how we read, there are a few guiding principles, or rules, as I call them. Knowing the rules, helps us make design decisions that improve readability and legibility. Also helps us identify where mistakes could occur.

Rule #1. The upper halves of letters provide more visual cues for letter recognition than the lower halves.

He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections.

He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections

If we look at an average line of text and cover the top halves of the letters, it becomes very difficult to read. If we do the opposite and cover the bottom halves, we can still read the text without much effort.

Did you know?

The most misspelled words in English are accommodate, separate, necessary, definite, calendar, pronunciation, fluorescent, receive, occurred. It is because in reading and writing, people often miss the consonants, especially the repeating ones.

Rule #2. The right halves of letters are more recognizable than the left halves.
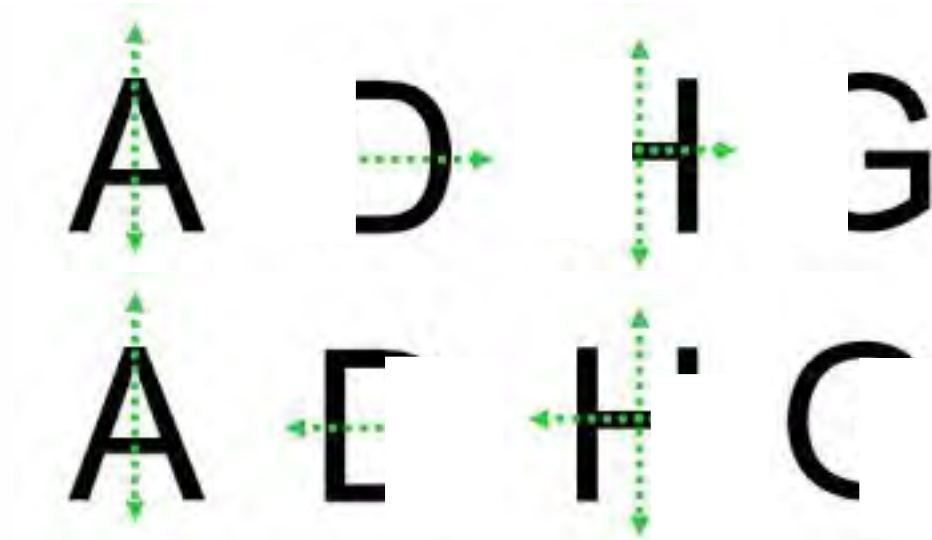
The shapes of letters and the shapes they make when combined into words and sentences can significantly affect our ability to decipher text.

Rule #3. The most frequently used letters, such as the vowels a, e, I, o, u, are among the most legible.

AEIOU, AEIOU, AEIOU, AEIOU

Rule #4. Consonants that often could be confused are f i j l t

lljftnm,   I l   ft   nm,   *il ft nm*,   "ILL FITTING"

Rule #5. Consonants are easily missed in reading and writing.

goverment, occured, accomodate, enviroment

Did you notice the missing consonants? Many of us won't.

Rule #6. Letters with ascenders or descenders help word recognition.

How We Read
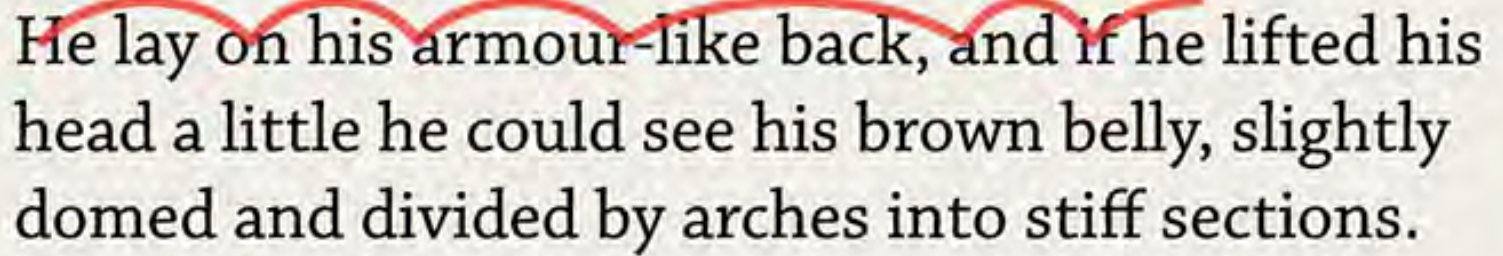
THE PAOMNNEHAL PWEOR OF THE HMUAN MNID. Aoccdrnig to a rscheearch at Cmabrigde Uinervtisy, it deosn't mttaer in waht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sitll raed it wouthit porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe.

Saccades and Fixations

Saccades

Reading is not linear. Our eyes perform a series of back and forth movements called *saccades*, or lightning-fast hops across a line of text. Sometimes it is a big hop; sometimes it is a small hop.

Saccades help our eyes register a lot of information in a short span, and they happen many times over the course of a second. A saccade's length depends on our proficiency as readers and our familiarity with the text's topic.

Fig 1.2: Saccades are the leaps that happen in a split second as our eyes move across a line of text.

Fixations

Between saccades, our eyes stop for a fraction of a second in what is called a *fixation* (fig 1.3). During this brief pause we see a couple of characters clearly, and the rest of the text blurs out like ripples in a pond. Our brains assemble these fixations and decode the information at lightning speed. This all happens on reflex.
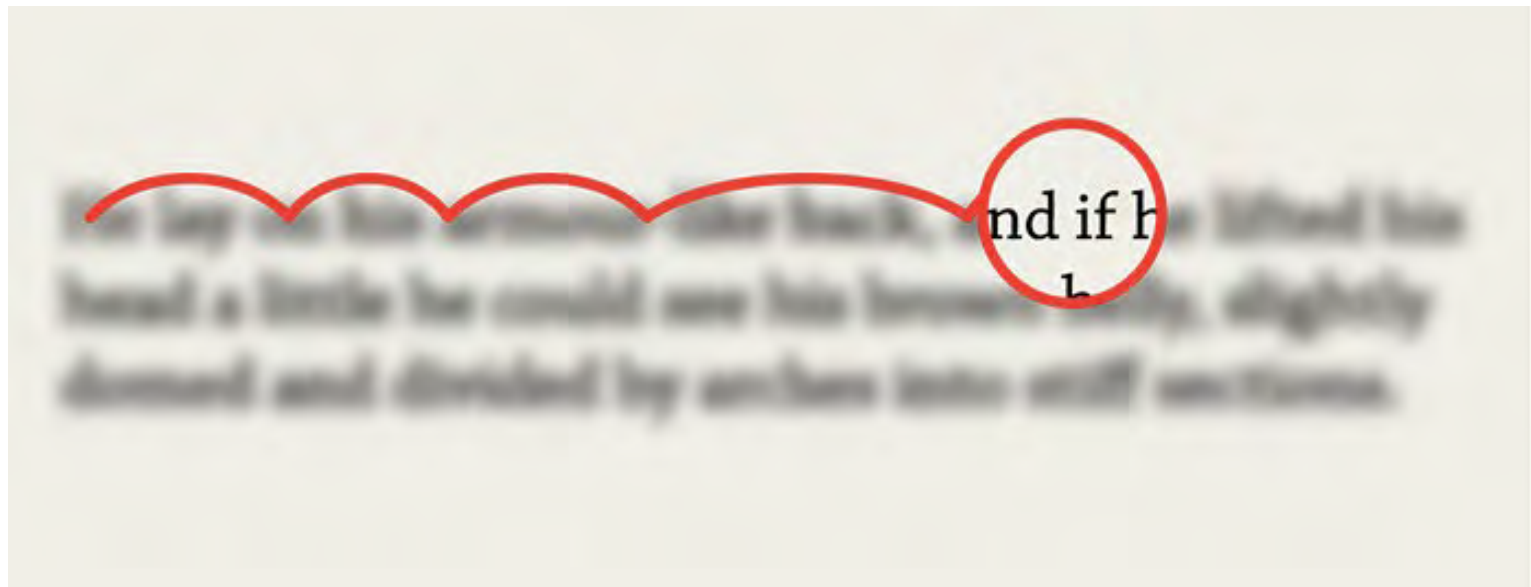
Fig 1.3: Fixations are the brief moments of pause between saccades.

IT what is IS most QUITE surprising
AMAZING is that HOW not only PEOPLE
can ARE you ABLE focus TO attention
SELECTIVELY on FOCUS one of THEIR
the messages ATTENTION but ON you
PARTICULAR are SOURCES completely
OF unaware INFORMATION of AND the
IGNORE other one OTHERS.

Readability

Readability is about arranging words and groups of words in a way that allows the readers eye to access the content easily and in a way that makes sense. It is really an art form that is honed over time as successful combinations are found.

In my experience this tends to be one of the hardest concepts to grasp for beginning developers and designers alike. Even seasoned designers sometimes struggle with how to best arrange typography in a layout. Now that those two designations are starting to merge when it comes to web design, it's important to begin to grasp the concept of readability.

Display vs. Body Text

Some typefaces were designed to be used large, such as in headlines. Usually these typefaces are less readable at smaller sizes and should not be used for body copy. These are called **display faces**. The typeface shown below, Knockout, is one of my favorite display faces.

Other typefaces are designed specifically to be used in large areas of smaller body copy. These are called text or body faces.

This is Tisa. It's an example of a serif typeface suitable for longer passages of text.

As you can see, it's readable at smaller sizes.

This is Proxima Nova Regular. It's an example of a sans-serif typeface suitable for longer passages of text.

It's also readable at smaller sizes.

X-height (the height of letter x)

Another characteristic to note is the x-height. This typically applies to using type at body text sizes. The x-height is the measurement of the height of the lowercase "x" in each font. It does not include the height of the ascenders or descenders. You may be surprised to know how much difference

there is in x-height from one face to another. When used small, typefaces with larger x-heights are typically more readable.

Leading (line spacing)

Proper spacing (combined with hierarchy) allows the reader to scan the text and access it at the desired points. It is not a hard-and-fast rule, but it seems to me that the relationship of paragraph spacing (additional spacing placed before or after a paragraph), the space around a block of type, and letter spacing can be related proportionally to the line height of a paragraph. Line height is defined as the vertical distance between lines of text. So, for instance, if the line height of one paragraph is set to 2em and a paragraph with the same size text is set to 1.5em, the first paragraph will require more paragraph spacing and probably more margin around it.

Much of this is done by eye rather than an exact formula, but I do use a good rule of thumb when it comes to the relationship of paragraph spacing to line height. I typically make my paragraph spacing (which on the web translates to margin or padding placed at the top or bottom of a paragraph) around half of the line height. This tends to help passages of text "hold together" rather than using a full hard return between each paragraph, creating large amounts of space between paragraphs.

Type Size

The size of the text should not be too small. The rules are different for print and for screen. In printed materials, books, magazines, etc., a font size if 10 pt. is appropriate and commonly used. Newspapers may use smallest size, and various design products could be designed with a typeface

of 8 pt. Posters and flyers are designed with much larger type size for the body and for the titles. Various documents use the default size of 12 pt. It is also important to remember that the age of your audience may vary, hence the quality of their eyesight.

Designing for screen is different depending on delivery method. While 12 pt. is great for eBooks (such as the font you are reading right now), PowerPoint presentations should use type that is lest that 16-18pt. Currently, with the wider implementation of responsive websites, there is a trend moving toward larger body copy. It is also important to keep in mind that different text sizes for different devices may make sense. Most electronic readers and mobile devices allow the used to increase or decrease the font size.

Measure (line length)

Another common practice that hinders readability is allowing the horizontal lines of type on a page to become too wide. This distance is referred to as measure (also line length). If a line of type is too long, it is a tedious read and a stretch for the reader's eye to return to the left edge of the text block for the next line. It is also intimidating to see a block of text arranged this way and some readers may not even attempt to read it.

The rules for print and web are different. When designing for **electronic devices,** the length of the text could span across the page, because the device will wrap the text to display it on the screen, (also called viewport). Using too many columns for text that will be read on an electronic device is detrimental from a legibility standpoint.

When designing for **print,** shorter line length is desired. That is why designers often use 2 or 3 columns to organize text. So, what is the maximum width a text block should be? Well, it all depends on the size of the text. The larger the text, the longer the line can be (that whole proportion thing again). In my opinion, generally around 70 characters is if you want to be. On average, for body copy sized text, I try to stay within 45ems.

Line Length

Minimum 40 characters

sit essit velit, experum que non pa verspiet faccabo rendusant odit aut quas aut ide vendeli taeped minctus quam ipsam quam et ullis ipsant millaccum aut labori doluptat est, velit landande nulluptatur sinimi, qui volendi net Ehent plam videl ipid quiatium eum, sinvendae. Et verio ideremque volorrum harum, tetur serem int fuga. Et vide a consece rovitior adit atecum acestrum evention restotat.Olor aliquo omnima simus.Uditas doloritium, alicipsandi volupiet ipis in nus acias voluptiam, omnis parum aute corios olor barron omnis webster.

Narrower columns are read more quickly.

Maximum 75 characters

Cius mod mod est que molor moditios doluptiis destion et que que nonsendam, nectoreperro il inus molorum qui dolorias aut molo milit, sundici lore, officiae volupta spicto molorrovit, venecer enducip icidemo dem ea et fugitem porit, evelita sintus, odit molore peria derum, cum quid eum et pa quatemolorae acilicime porendipsant ut quod quiduciunt occae doluptatur, sus a dusandam quatur sus re sin prerorum elloreperis dolupicias secto cone rem facidus nonsequiati tem quam dolorep erfero experum neceat.Ullaut rent, vit ex est volorecation pla soluptur sam il ilibus voluptatisin re consed quia quiandi ut quis nones quos debis archillam doluptas quidiat.Rio. Ximet, esti dolupid es que dest, qui sum sequias mi, odi cus, iundioriatum corepudae dolorem rem aut prae nos amus, tem quature stiassinist ommodit mintio beres dempel intemol uptur, alicae erfernam dolesci nisqui cus.

Wider columns are read more slowly.

Tracking (letter spacing)

Letter spacing (also referred to as tracking) is the consistent increase or decrease in distance between the letterforms in a word or block of text. Letter spacing can be used to adjust the density of a block of text or an individual headline or subhead.

Letter spacing affects the readability of text. Too much or too little and readability will be compromised. As you can see in the graphic below, I like to add generous letter spacing to subheads or phrases of uppercase text. I find it is easier to read uppercase text when the characters have some additional space around them.

AVENIRNEXTLTPROBOLD   AVENIR NEXT LT PRO BOLD

Kerning (space between characters)

Kerning is the process of adjusting the spacing between characters in a proportional font, usually to achieve a visually pleasing result.
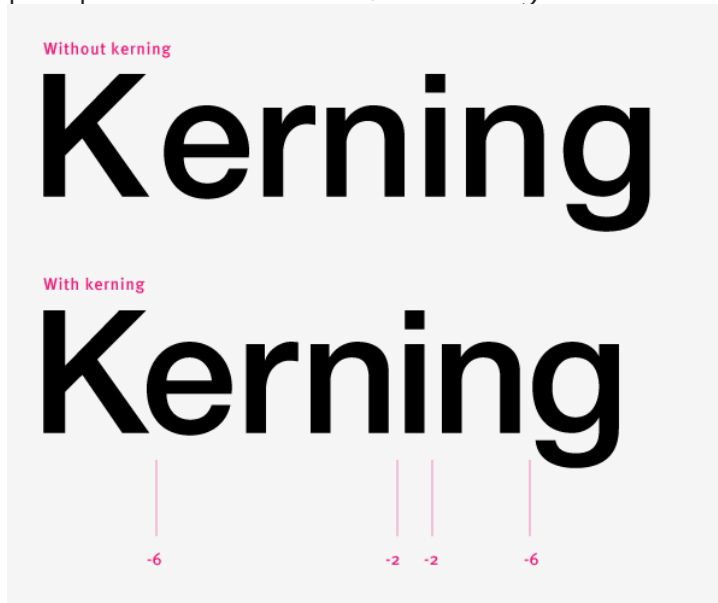
Without kerning
Kerning

With kerning
Kerning

-6   -2 -2   -6

Tracking: uniformly adjusts spacing between the letters in a word or sentence.

Kerning: adjusts the space between individual letters in a word.

Tracking:

VAST. V A S T.

Kerning:

VAST. VAST.

Serif vs. Sans Serif Typefaces

Which is one is more readable?

Throughout the history, serif faces have been regarded as more readable, as they were almost always used in print for large passages of text. The theory is that serif faces allow the eye to flow more easily over the text, improving reading speed and decreasing eye fatigue. Sans serif or display typefaces were used for headlines; serif typefaces were used for body text. The computer screens changed all that. On screen sans-serif faces appear to be more readable. There are several reasons for this. Typically, we do not read large passages of text on screen, so sans serif fonts do well in shorter chunks of text. The serifs, being curved and small, do not render well on screens. They provide more clutter, that help readability. Serif typefaces are beautiful and look good on screen

when presented in large sizes. Designers may use sans serif typefaces for copy and serif or display for headlines. Or just stick to sans serif for both but vary the size.

It should be noted that there is huge debate among designers on this subject. One viewpoint is that serif faces do not reduce well on-screen, essentially decreasing legibility. Others believe that there is no difference. The position I always take is, does it feel right? Would I read a section of type set the way I designed it?

What do you think about that? What typefaces do you use for print and for screen?

20 fonts you should know about:

https://blazdesign.com/20-fonts-every-designer-should-know/

Main Points:

- **Legibility is how easy it is to distinguish one letter from another in a typeface.**
- **Readability is how easy it is to read words, phrases, blocks of copy such as a book, a web page, or an article.**
- **People do not read linearly; they read in saccades and fixations.**
- **Some typefaces are more legible than others. Factors that affect legibility in the letterforms are contrast, width, x-height, and serifs.**
- **Factors that affect readability are measure, leading, kerning, and type size.**
- **Tracking: uniformly adjusts spacing between the letters in a word or sentence.**
- **Kerning: adjusts the space between individual characters in a word.**

Ponder This:

9

TYPOGRAPHIC GRID

In this lesson, you will learn the following:

- When to use different text alignments
- How to format paragraphs of text
- How to work with a typographic grid
- Proper terminology regarding typographic grids

Text Alignment

Previously we learned the rules of legibility and readability. These rules are even more important when it comes to formatting large about of text. When formatting text we have 3 basic alignments: left, centered and right. Next, we will learn when to use one or another, and why.

"To return to the ship," Hook replied slowly through his teeth, "and cook a large rich cake of a jolly thickness with green sugar on it. There can be but one room below, for there is but one chimney. The silly moles had not the sense to see that they did not need a door apiece. That shows they have no mother. We will leave the cake on the shore of the Mermaids' Lagoon.

LEFT ALIGN

"To return to the ship," Hook replied slowly through his teeth, "and cook a large rich cake of a jolly thickness with green sugar on it. There can be but one room below, for there is but one chimney. The silly moles had not the sense to see that they did not need a door apiece. That shows they have no mother. We will leave the cake on the shore of the Mermaids' Lagoon.

CENTER ALIGN

"To return to the ship," Hook replied slowly through his teeth, "and cook a large rich cake of a jolly thickness with green sugar on it. There can be but one room below, for there is but one chimney. The silly moles had not the sense to see that they did not need a door apiece. That shows they have no mother. We will leave the cake on the shore of the Mermaids' Lagoon.

RIGHT ALIGN

Left Alignment

In the western world we read left to right top to bottom. You already know this decision was made a long time ago — Romans chiseled words left to right, the monks wrote left to right, Gutenberg pressed everything at left align - for centuries we have been using left alignment. Our eyes and brains have been trained to read top to bottom, left to right, and it has become the most natural way to read.

Left alignment is the best choice for formatting large paragraphs of text. The hard edge on the left naturally complements the way we read. If your paragraphs are flush left, remember to keep your headlines flush left as well.

Rule #1: Left align long paragraphs of text.

Advertisement for a wedding reception

Center Alignment

When do we use center alignment? Center alignment cold be used for titles, and posters and flyers were you only have a few lines of text or a title to pair with an image. Center alignment works well if

you goal is symmetrical composition and it is used in labels, packages, signs, etc.

You should never use it for full paragraphs or bulleted lists because it makes them more difficult to read. must move to a new position every time they start a new line.

Rule #2: Use center alignment for short lines of text; do not use center alignment for lists and paragraphs

Right alignment

Right alignment is much less common than the first two. When text is aligned right-hand the left side appears uneven or "ragged." There are very few situations in which it could work effectively. It is mostly used for artistic purposes. It could work for posters, or titles that require a unique or "offbeat" look and feel.

Like with center alignment, you should avoid using flush right on large paragraphs since the ragged left edge will make them difficult to read. With shorter lines of text, it can help give your words extra weight and importance since it requires more effort to read. It's more interesting than centering everything but overusing it may frustrate your reader.

Rule #3: Use right alignment sparingly, for visual effects; do not use it for lists and long paragraphs.

Justified Alignment

Justified text solves the problem of **rags**, (**the uneven edge of text lines**) and gives the appearance of a clean edge on both sides. Unfortunately, it comes with other major complications. It can sometimes create large unsightly gaps of blank space between words and letters. To fix this, use hyphenation, a longer line length, a smaller font, or shorter words. There is no need to use justified text all the time. Justified text should be used in narrow columns, or to create text blocks.

Rule #4: Use justification only for narrow columns or text blocks.

If used carelessly, justified align-ment can result in large gaps be-tween words and l e t t e r s .	Printing demands — a humility of mind, — for the lack of which many of the fine arts are even now — floundering in self-conscious and maudlin experiments. There is nothing simple or dull in achieving the transparent page.	Printing demands a humility of mind, for the lack of which many of the fine arts are even now floundering in self-conscious and maudlin experiments. There is nothing simple or dull in achieving the transparent page.	1. Large gaps between words and letters, caused by justification. 2. White spots called "rivers" flow from one line of text onto another. 3. Left alignment looks better, even if it is a little ragged.

Widows, Orphans, and Rivers

Widows are paragraph-closing lines which were pushed to the next page/column and left dangling and separated from the rest of the paragraph.

Orphans are opening lines to a paragraph lines that appear by themselves at the bottom of a page/column. It can also be a word, part of a word, or very short line that appears by itself at the end of a paragraph.

Rivers are the white gaps (or white space) that can appear in columns of type, especially justified text, when there is too much space between words on consecutive lines of text.

Rags are the uneven side of a paragraph where the text is aligned on the other side. If the text is left-aligned, the rag is on the right side; If the text is right-aligned, the rag is on the left side.

A good rag is one where the lines move in and out in small increments.

A bad rag is one where the lines of text have a very uneven edge creating a distracting white space in the margin.

Widows and orphans could be fixed by forcing an early page break, and making the page shorter, adjusting the kerning, or tracking to produce tighter or looser paragraphs, and adjusting the hyphenation of words within a paragraph.

Rivers can be fixed by adjusting the hyphenation and the justification.
Lastly, rivers can be avoided by removing the justification.

Multicolumn Grid

When designing a page layout for print or for screen to accommodate paragraphs of text, a multicolumn grid becomes a necessary tool. While single-column grids work well for simple documents, multicolumn grids provide flexible formats for publications that have a complex hierarchy and integrate text and images.

The more columns you create, the more flexible your grid becomes. You can use the grid to convey the hierarchy of the publication by creating zones for different kinds of content. A text or image can occupy a single column, or it can span several. Not all the space has to be filled.

A grid is made up of 2 parts: the column and the gutter.

- A **column** of a grid is the widest part

- A **gutter** is the space between each column. Gutters are *technically* made up of 2 margins.

An example: This layout for a webpage has a 30px gutter, there are 15 pixels on either side of the entire grid from the outer columns.

Column

Gutter

There are 3 small changes you can make to your content a more pleasurable read. The tips don't just apply to des them to make your text documents look great too!

The names of each principle may be complicated, but understanding and using them is simple.

Gutter
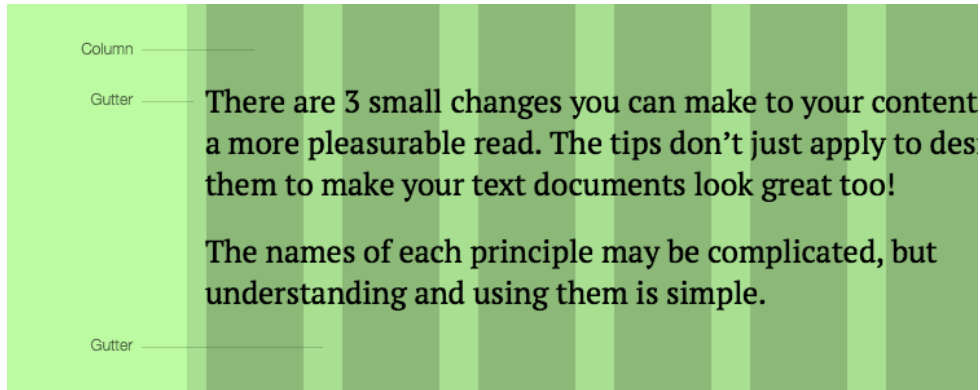
When creating your grid for the screen or print you should consider several things:

- The measure of the body text (How many columns will it span?)
- The size of the space you are designing for and the flexibility of that grid
- The horizontal and vertical rhythms (the gutters and margins)

Breaking the grid is a great way to draw the reader's eye to content or to a promotional area. The purpose of the grid is to create consistent layout, but that does not mean it has to be boring. A designer may disrupt a grid with an image that spans across the entire page, may leave whitespace, or may combine large areas into sections. This makes for a more interesting layout and keeps the attention of the reader

Grid systems

Elements of varying width are staggered within the structure of the grid.

Grid systems

The typographic grid is a proportional regulator for composition, tables, pictures, etc. It is a formal programme to accommodate x unknown items. The typographic grid is a proportional regulator for composition, tables, pictures, etc. It is a formal programme to accommodate x unknown items.

A grid can be simple or complex, specific or generic, tightly defined or loosely interpreted. Typographic grids are all about control. They establish a system for arranging content within the space of page, screen, or built environment. Designed in response to the internal pressures of content (text, image, data) and the outer edge or frame (page, screen, window), an effective grid is not a rigid formula but a flexible and resilient structure, a skeleton that moves in concert with the muscular mass of content. Grids belong to the technological framework of typography, from the concrete modularity of letterpress to the ubiquitous rulers, guides, and coordinate systems of graphics applications. Although software generates illusions of smooth curves and continuous tones, every digital image or mark is constructed—ultimately—from a grid of neatly bounded blocks. The ubiquitous language of the gui (graphical user interface) creates a gridded space in which windows overlay windows. In addition to their place in the background of design production, grids have become explicit theoretical tools. Avant-garde designers in the 1910s and 1920s exposed the mechanical grid of letterpress, bringing it to the polemical surface of the page. In

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There are numerous ways to use a basic column grid. Here, one column has been reserved for images and captions, and the others for text.

Grid systems

A grid can be simple or complex, specific or generic, tightly defined or loosely interpreted. Typographic grids are all about control. They establish a system for arranging content within the space of page, screen, or built environment. Designed in response to the internal pressures of content (text, image, data) and the outer edge or frame (page, screen, window), an effective grid is not a rigid formula but a flexible and resilient structure, a skeleton that moves in concert with the muscular mass of content. Grids belong to the technological framework of typography, from the concrete modularity of letterpress to the ubiquitous rulers, guides, and coordinate systems of graphics applications. Although software generates illusions of smooth curves and continuous tones, every digital image or mark is constructed—ultimately—from a grid of neatly bounded blocks. The ubiquitous language of the

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The typographic grid is a proportional regulator for composition, tables, pictures, etc. It is a formal programme to accommodate x unknown items. The typographic grid is a proportional regulator for composition, tables, pictures, etc. It is a formal programme to accommodate x unknown items.

In this variation, images and text share column space.

Designing with a Hang Line

In addition to creating vertical zones with the columns of the grid, you can also divide the page horizontally. For example, an area across the top can be reserved for images and captions, and body text can "hang" from a common line. Graphic designers call this a *hang line*.

A horizontal band divides a text zone from an image zone. Elements gravitate toward this line, which provides an internal structure for the page.

Modular Grid

A *modular grid* has consistent horizontal divisions from top to bottom in addition to vertical divisions from left to right. These modules govern the placement and cropping of pictures as well as text.

This modular grid has four columns and four rows. An image or a text block can occupy one or more modules.
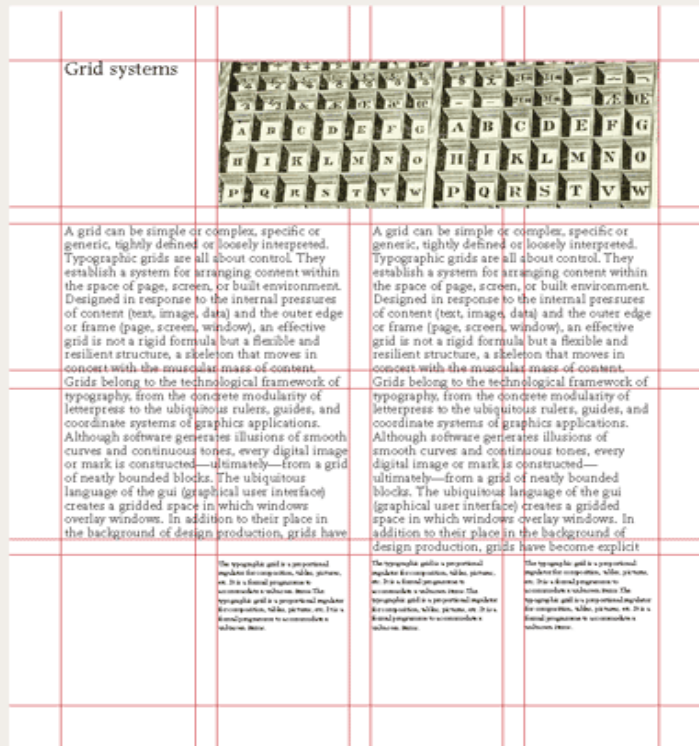
Endless variations are possible.

Examples: **Magazine Layouts**
All examples are from Daniela **Nikolaeva's** classes
Students: layout by Paul Padurario, photo by Feuy Seaphan

PHOTOGRAPH BY:
FEUY SAEPHAN

From the Department Chair,

The Graphic Arts department at Laney College is a design hub for creative individuals.
The Graphic Arts Program is committed to teaching the skills and knowledge to make you an effective force in the design community. Using fundamental design theory and hands-on practical experience, students will develop the ability to create effective design solutions for the client. This combination will give the successful graduate the ability to lead design groups of all levels.

Our Program
We offer an Associate Degree and Certificates of Achievement in Applied Graphic Design/Digital Imaging. GRART classes offer hands-on experience for students interested in combining artistic creativity and computer technology. Students receive practical knowledge of processes, theory of design principles and elements, computer software applications, and personal communication skills.

Individual software classes are useful to those interested in career upgrading or broadening of necessary computer skills used throughout the profession.

Not a job, a career!
Imagine going from college to work confident and prepared to handle the challenges that come. The Laney College Graphic Arts Program is the key to your future in the dynamic world of graphic design.

Laney's Graphic Arts Program is structured for students that wish to have a practical education that puts real life projects as a basis for learning. A Laney student will feel as if they are in the real world of design by incorporating computer graphic applications with fundamental design theory for a learning experience that can be immediately applied upon graduation.

Awards
Our students received prestigious awards for their designs. In spring of 2016 ten Graphic Arts students participated at the "Inspire Oakland" billboard design competition organized by Oakland Digital and their community partners – Google, Twitter, Clorox, Golden States Warriors, and others. Ten students from professor Nikolaeva-Pachtrapanska's class competed against students from Berkeley City College and Diablo Valley College. Five of them won top prizes! Their designs now adorn giant billboards around Oakland at I-880 Nimitz Freeway, half a mile north of Hegenberger Exit, right next to Golden State Warriors Oracle Arena.

Take classes at the Graphic Arts and join our community of artists, designers and other talented creatives.

Daniela Nikolaeva M.A.
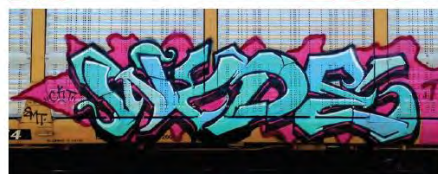Department Chair – Graphic Arts, Laney College

SPECIAL THANKS

Autumn Press, Berkeley
Casey Frahm and
The Dean's Office
Daniela Nikolaeva
Graphic Arts Dept.
Laney College, Oakland

Examples: **Magazine Layouts**

All examples are from Daniela **Nikolaeva's** classes
Students: Paul Padurario, Tai Hui Fan, Jerry Hisao, Paulina Delgado

Grid Practice:

1. Using a software application of your choice, create a multicolumn grid.
2. Copy and paste the Lorem Ipsum text into rows and columns to create and interesting layout.
3. Use free stock images from the application or your own pictures

How to create a grid in MS Word and in Illustrator:

In **MS Word** use tables to create a grid.
- On the Menu Bar click the Insert tab, click Table icon, drag down and right to add columns and rows.
- Once your table is inserted you can merge columns and rows to break the grid and insert text or images into those areas.
- To merge to cells, select both cells, right-click and chose merge from the menu.

MS Word comes with free stock images.
- To insert and image right-click on a cell, to establish an insertion point.
- Click on the Pictures icon on the menu above.
- From the pulldown menu select Stock images. The stock image window will open. Browse images
- Doble click on an image to insert into a cell
- Resize the mage with the handles to desired size.

To add text
- Copy and paste small paragraphs of text from the text on the right.
- Click on a cell and paste it.
- Format the text by highlighting it and changing the size.

In **Illustrator**, use guides to create a grid.
- View – Ruler (command R) – Right-click to set Ruler in inches.
- Click the horizontal ruler and drag down to draw horizontal guides,
- Click the vertical ruler and drag right to create vertical guides.
- Use your rulers to space guides incrementally.

- To add text, draw text boxes between guides and copy and paste text in them.
- To add images, File place, select an image, draw image box between guides to place and image.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Velit euismod in pellentesque massa placerat duis ultricies. Mus mauris vitae ultricies leo. Enim lobortis scelerisque fermentum dui faucibus in ornare quam. Blandit cursus risus at ultrices mi tempus imperdiet nulla. Augue mauris augue neque gravida in fermentum et sollicitudin ac. Venenatis lectus magna fringilla urna porttitor rhoncus dolor.

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Project: Alignment

Use modes of alignment (flush left, flush right, justified, and centered) to actively interpret a passage of text. The passage here, from Walter Ong's book *Orality and Literacy: The Technologizing of the Word,* explains how the invention of printing with movable type imposed a new spatial order on the written word, in contrast with the more organic pages of the manuscript era. The solutions shown here comment on the conflicts between hard and soft, industrial, and natural, planning and chance, that underlie all typographic composition.

Examples of student work from Maryland Institute College of Art, Source: Thinkingwithtype.com

PRINT

situates words in space more relentlessly

than writing ever did. Control of position

is everything in print. Printed texts look

machine-made, as they are. Typographic

control typically impresses most by its

WRITING
tidiness and invisibility: the lines perfectly

moves words from the sound world
regular, all justified on the right side,

to a world of visual space,
everything coming out even visually, and

but print locks words
without the aid of guidelines or ruled

into position in this space.
borders that often occur in manuscripts.

In handwriting, control of space
This is an insistent world of cold,

tends to be ornamental, ornate,
non-human, facts.

as in calligraphy.

Passages of flush left and flush right text hinge from a central axis.
Johnschen Kudos

Print situates words
in space more
relentlessly than
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Writing moves words from the sound world to a world of visual space,
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often occur in
manuscripts.

This is an insistent
world of cold,
non-human, facts.

Long, centered lines are bridges between narrow, ragged columns.
Benjamin Lutz

Print situates words in space more relentlessly than writing ever did.

Writing moves words from the sound world to a world of

V I S U A L   S P A C E

but print locks words into position in this space. Control of position is everything in print. Printed texts look machine-made, as they are.

In handwriting, control of space tends to be ornamental, ornate, as in calligraphy.

Typographic control typically impresses most by its tidiness and invisibility: the lines perfectly regular, all justified on the right side, everything coming out even visually, and without the aid of guidelines or ruled borders that often occur in manuscripts.

This is an insistent world of cold, non-human, facts.

Elements break away from a justified column.
Efrat Levush

Print situates words in space more relentlessly than writing ever did. Writing moves words from the

sound world to a world of visual space, but print locks words into position in this space.

Control of position is everything in print. Printed texts look

machine-made, as they are. In handwriting, control of space tends to be

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in manuscripts. This is an insistent world of cold, non-human, facts.

Text is forced into a grid of ragged squares.
Kim Bender

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Long, centered lines are bridges between narrow, ragged columns.
BENJAMIN LUTZ

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THIS IS AN INSISTENT WORLD OF COLD, NON-HUMAN, FACTS.

A single line slides out of a justified block.
KAPILA CHASE

REVIEW QUESTIONS:

1. What is the difference between legibility and readability?

2. What are saccades and fixations?

3. What contributes to legibility on a typeface?

4. What are leading, kerning, and tracking?

5. What letters are easily missed in some words?

6. When do you use left, center, or right text alignment?

7. What are orphans and widows in paragraphs of text?

8. What are rags and rivers?

9. What is the benefit of using a design grid?

10. What word describes the space between columns of text ?

CHAPTER 10

EXPRESSIVE TYPE

In this lesson, you will learn the following:

- What is expressive typography
- How to create expressive typography
- How artists and designers use typography to send powerful messages

Street art in the style of Shepard Fairey

EXPRESSIVE TYPOGRAPHY

Expressive typography is an art form where text becomes an image that communicates a message and provokes an emotional response in the viewer.

Notice that I said "viewer" not "reader." It is because the message is perceived before it is read. The text works visually, and represents the idea of the graphic designer, not the copy writer.

Expressive typography breaks the conventional rules of setting up text. The rules we have been discussing so far, alignment, leading, tracking kerning, paragraph formations do not apply in expressive typography. Type could go in any direction with no tracking or kerning or leading, because legibility is not your goal. Remember, you relay on the overall shape to represent the idea, not on the actual words. So, go wild, be a type anarchist, break typography rules and create expressive compositions.

There is no single style associated with this approach to type; it is a matter of seeing the graphic elements on the page and arranging them in a way that seems logical and natural for your purpose. It is a designer's job to determine the best way to communicate a certain message. I recommend breaking the text apart in Illustrator or InDesign and moving type freely on the page.

Letters are made of shapes; they are also images that came to symbolize sounds, but expressive typography takes that quality even further by creating a composition that works as an art installation. All the letters and characters grouped together are more powerful that the meaning of the words they represent. There is gestalt in expressive typography. In fact, when you look at successful examples of expressive typography, you will notice all the gestalt principles applied.

Gestalt is a theory in psychology and design that states that the whole is more than the sum of its parts. Much like individual colors are pleasant but put together they create a paining that has a bigger meaning than just the colors was made of. The Gestalt principles include closure, proximity, continuation, similarity, closure, and figure/ground.

Ponder This:

similarity

closure   proximity   continuation   figure and ground
(tree within the letter "A")
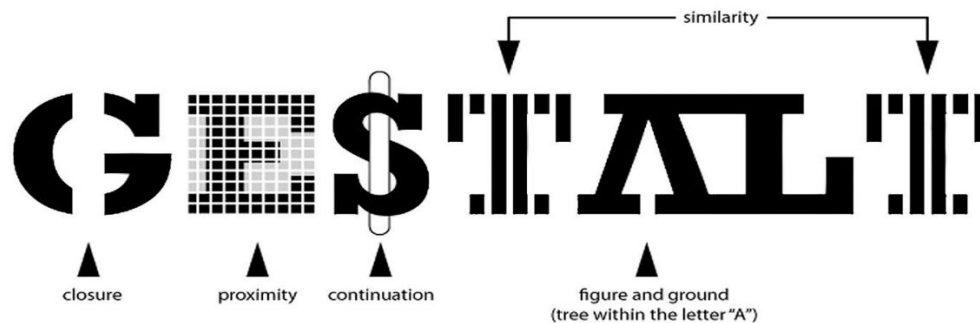
The word "Gestalt", which is a German word, meaning form or whole, illustrates the gestalt principles. Gestalt is about how our brain groups elements together to make sense of the visual world. For example, the brain will supply the missing parts to make the picture whole – this is the principle of closure.

To learn more, follow this link to watch the video: Gestalt by Comm 317

Let's start looking at some examples of expressive typography! In the 4 images below, you will notice that even though type is arranged in a dynamic way, it follows a certain structure. It has a central axis and it is placed on a grid. This part is very important, creating a structure for your composition will ensure that text is not placed arbitrarily, but it supports a design concept. Try to imagine the grid that holds the text together. (I recommend printing the examples and using a ruler to draw the grid lines on the pages.)

Poster 1 (left):

ESSENTIAL

PAGE

TYPOGRAPHIC GRID

LAYOUT DYNAMICS

DETAILS OF TYPOGRAPHIC FORM

USE TYPOGRAPHY WITH GREATER CONFIDENCE

EXPLORE THE EXPRESSIVE POTENTIAL OF TYPE

PARAGRAPH FORMAT

TYPE CHARACTERISTICS & NOMENCLATURE

EDITORIAL DESIGN

ART CENTER AT NIGHT

Wednesdays, 7:00-10:00 pm
May 13- Aug 17

950 S. Raymond Ave.

Register for ACN-175 at
www.artcenter.edu/acn

Typography is the modus operandi designers use to communicate and reinforce the content of graphic design pieces. With its strong emphasis on the typographic grid, this course is a vital foundation for editorial design and multipage layout.

Poster 2 (right):

5 simple rules for using Typograp AS AN image.

LETTER WEIGHT

Using a font's weight (bold or normal) is one of the easiest ways to structure a paragraph. It makes it readable and provides a good contrast to other text.

pay attention to color

THE STRUCTURE MAY BE THE SAME WITHIN A FONT FAMILY WHILE THE FORM VARIES: CAPS OF ITALICS MAKE THE SAME LETTERS LOOK DIFFERENT. CHUNKS OF TEXT WRITTEN IN CAPS OR ITALICS ARE MORE DIFFICULT TO READ, SO USE IT SPARINGLY.

USE OF FORM

structure of Letter

Structure is the way the letter is built. For example the lines Times is built on are both thick and thin. Helvetica, by contrast, has the same thickness on all its lines. A good choice is to use one Serif and one San serif family per project — they'll always provide a contrast-structure.

CONTRAST

In other examples the letters form distinct shapes to create allusions to their meaning. The typography becomes more like a sculpture. In the following examples the text is the image. When read, the text adds a lot of meaning to the design.

Concert poster
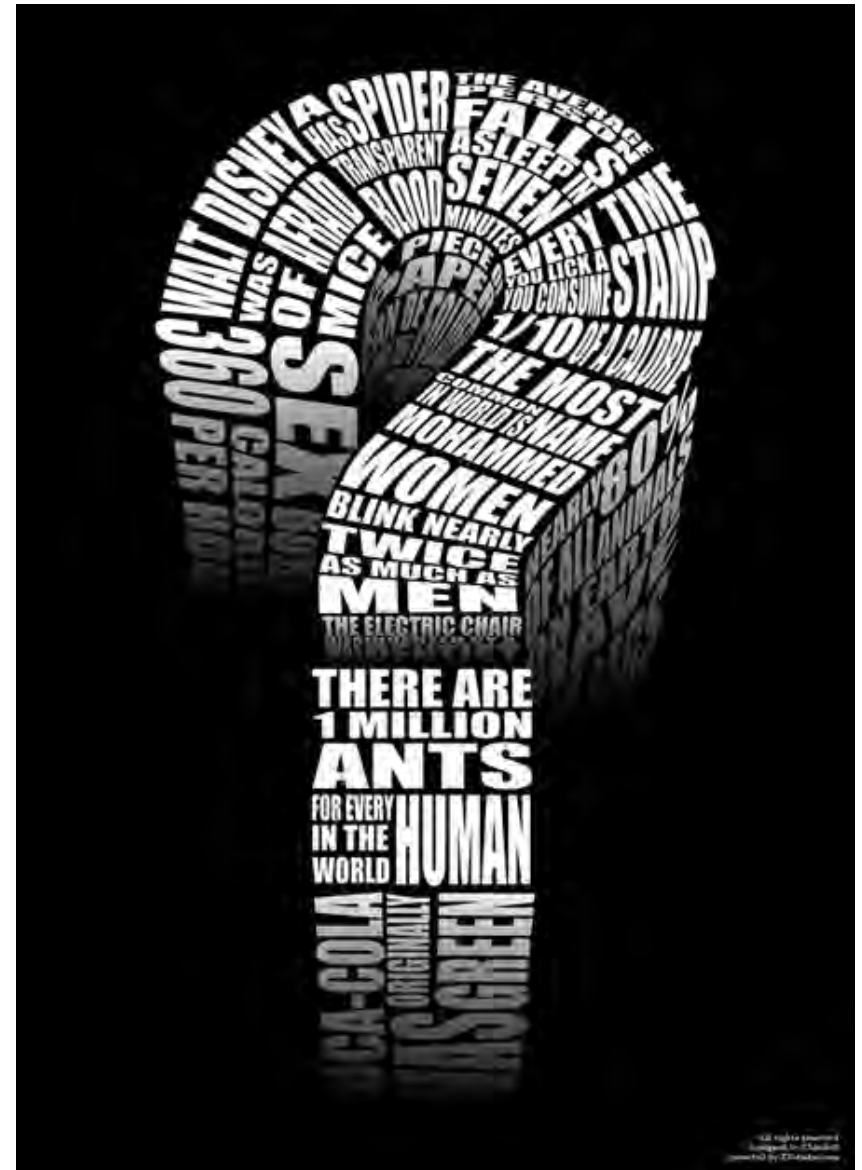
Poster that communicates knowledge

The image on the left is an autobiographical poster. Text is too small to read, but if you enlarge it you can make out some of the words. Even if you did not read the text, you would see the large picture – the shape. Generally, am not talking about visual puns, although, I do love them. I am talking about taking the design a little further, finding the perfect equality between the meaning and the type itself. The next two images are just so delightfully clever, that make my designer's heart sing. I admire their effortless design composition that manages to tackle exquisitely such complex issues as gay pride and autism. The word "pride" is made into a **palindrome**; it reads the same forward and backward.

For people with autism, facial expressions are as difficult to understand as a foreign language.

People with autism find it challenging to properly assess the expressions, gestures and feelings of others. They can only learn to do so with difficulty. That's why they depend on understanding and support. For more in-depth information: autismusforumschweiz.ch.

AUTISM FORUM SWITZERLAND
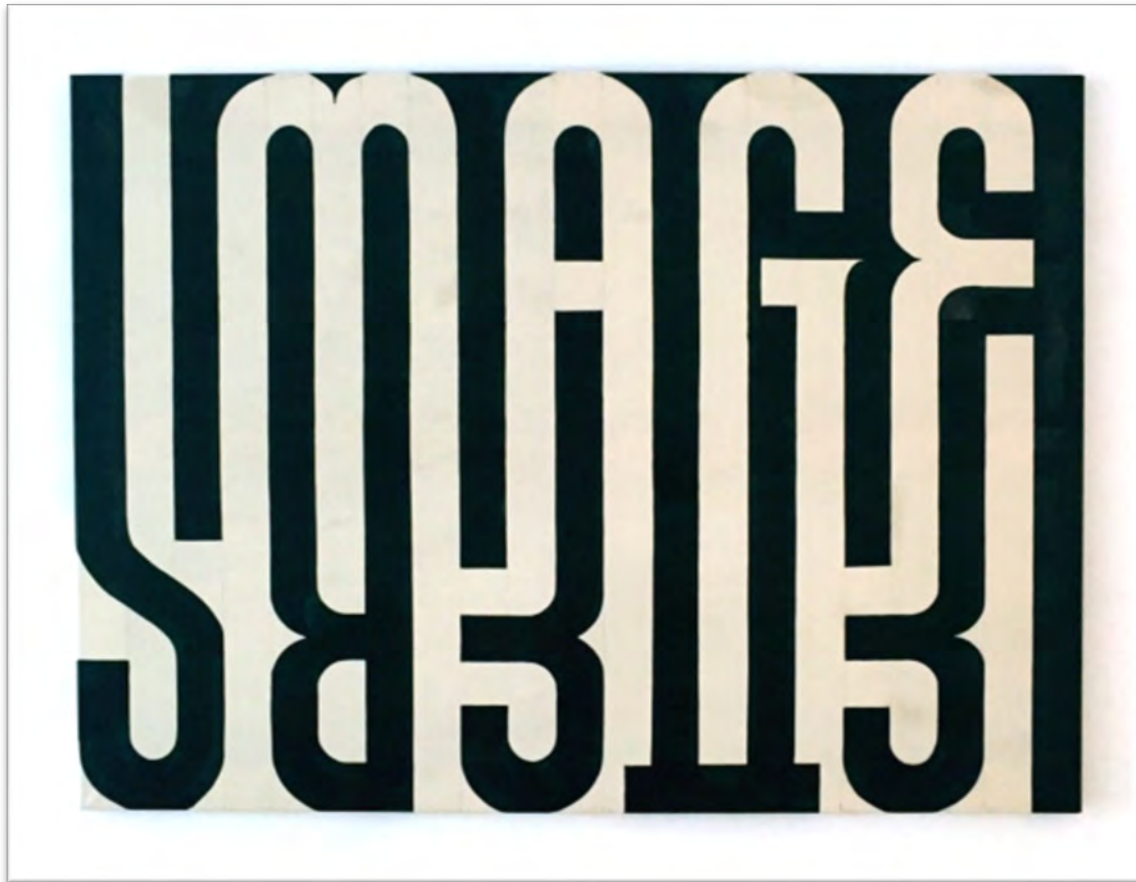
The artwork on the left, by the Duch artist Guido De Bouer, incorporates everytihg we have talked about regarding expersive typography: the letters and the image are one.

Image/Letters
Art by GUIDO DE BOER
Ink on canvas / solo exhibition
'Word Play' at Alley Gallery, Belgium / 2019
guidodeboer.info

There are many ways to create expressive typography:

- Type can be arranged in a dynamic composition with striking contrast in size and style.
- Type can be altered and molded to form an image
- Type can be used as texture as it is in the first 2 images
- Calligraphic strokes can be employed to add elegance or enhance an idea
- You can play with figure ground relations to create optical illusins.

Whatever you do, find the perfect synergy between the meaning and the type itself.

Exercise 1: Identify the gestalt principles (page 2 of this lecture) used to create each letter design.

H	N	g	usa	X Y

Exercise 2: Create visual puns with text. Look at the samples here, then think of words you can express visually by altering their letters. Draw five of your own visual puns.

ELEVATOR   C(L)CK   VAN GO H   DALI   FAST **FOOD**

Exercise 3: Think of five words that have other words nested in. Using various design elements and principles represent the duality of each word

POVERTY

REVIEW QUESTIONS:

1. What is expressive typography?

2. Can you mention 2 artists who work with expressive type?

3. What techniques could be used to create expressive typography?

4. What is the 3D typography book project?

5. What two major categories exist in 3D typography?

6. When software could be used to create 3D type?

7. Can you explain 3 important effects that could be used to create a 3D look?

8. What is depth of filed?

9. What is the benefit of using a 3D typography?

10. What tools would you use to create 3D typography?

11

3D TYPOGRAPHY

In this lesson, you will learn the following:

- What is 3D typography
- What types of 3D typography exist
- How artists and designers create 3D typography

Portuguese street artist **Odeith** produces mind blowing anamorphic graffiti artworks, creating the illusion 3D pop-out letters.

3 DIMENTIONAL TYPOGRAPHY

Three-dimensional typography is a design with 3 dimensional letters in perspective that appear photorealistic and give the illusion of depth. The letters usually have textures and are placed in an environment with a real or perceived source of light.

3D typography is a celebration of words presented as shapes that emerge in unexpected surroundings. It looks as if you could reach out, touch the letters, and feel their texture.

The combination of realism and artistry makes this type of typography a hot design trend. The style has been around for a long time but is starting to emerge as a popular option in digital design. We can thank the popularity of 3D software and virtual and augmented reality for that.

3D type is not necessarily made for readability. In many instances, it was created purely for fun, but this style is so impactful that many companies and publications are taking notice and hiring talented artists to create this look. Three-dimensional typography has extra depth and can be a great display option for bold and impactful advertising materials.

When it comes to variations of 3D typography, there are not any established rules how to create it; artists and designers find their own ways.

Lettering can be in any style or typeface, and could feature a sans serif, readable design or stacks and combinations of typefaces that are much more artistic than informational.

Movie poster for StrongStuff Studios

Experimental poster for Nike, by Anthony Tudisco

3D Typography Approaches

There are many different approaches for creating 3D letters, but I can separate them into 2 major groups: digital and material.

Digital Designs

The digital designs could be made with a 2D software such as Photoshop and Illustrator, or 3D software such as Maya, Cinema 4D, Z-Brush, etc. The 2D software uses 2 axes (x and y) to create the shapes of the letters, while a 3D software has 3 axis (x,y and z) and the 3D shape is actually modeled not drawn. The texture is digital and simulates actual materials.

Material Designs

The material designs are made of different materials – paper, wood, plastic, metal, clay, and many more. The letters could be made by hand, or by a machine such as laser cutter, 3D printer, CNC router, etc. After the letters are cut, they are arranged in a composition and photographed.

These typefaces might be big and bold (a highly popular option) or elegant in script or light typefaces. The use of 3D type can include color and textures or be in black and white or gray. there are huge variances in how dramatic the effect can be. Letters can look like type – with simple lines and features – or have a more cartoonish effect, such as the example below from Digital Arts
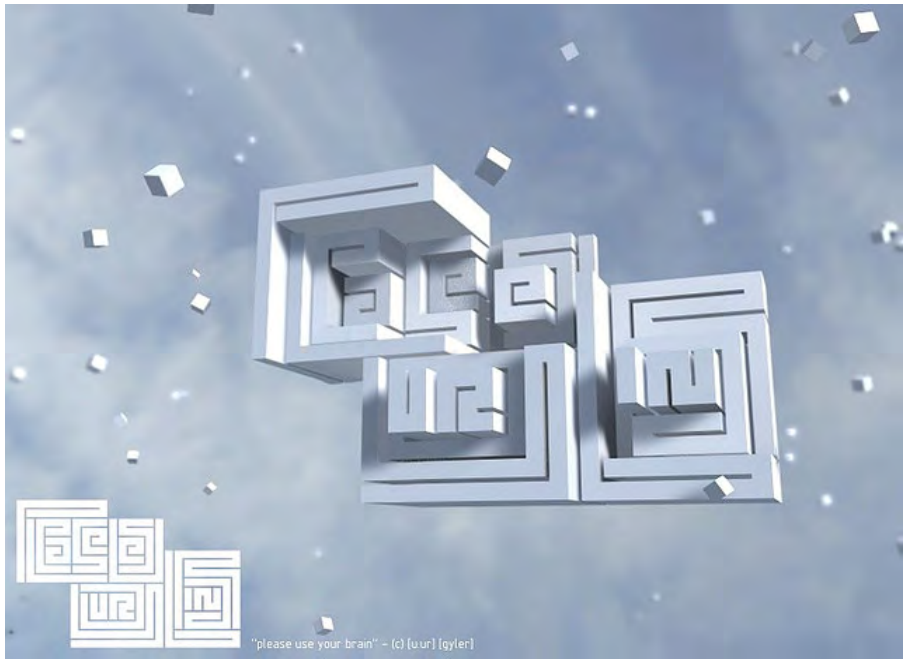
3D Characteristics

What makes something on a flat canvas or screen take on a three-dimensional feel?

Typeface:

The native characteristic of a typeface will enhance the illusion of 3dimentiality. If you are trying to create a solid object made of wood, metal, plastic, etc. use bold san serif typeface such as Arial black, Impact, Gill Sans extra bold, etc. Script typefaces work for fluid materials.

Light Source:

Use of highlights and shadows enhances the 3d effect. In a 3d modeling application you can specify a light source, but in a 2d application you must create the illusion of 3d effect with gradients or other means. Even if you are arranging a composition of real objects, illumination is very important. Long shadows make the letters appear taller.

Perspective:

Changes in perspective for letters such as some being upright and some laying down establishes the plain, they are placed on. Using 2-point perspective or 3-point perspective makes the letters look monumental.

Environment: An environment creates context and gives the viewer a sense of scale.

Texture: Textures represent the materials the letters are made of.

Depth of Field: Use of sharp text on a blurred background creates the illusion of distance.

Can you Identify these characteristics in the images below?
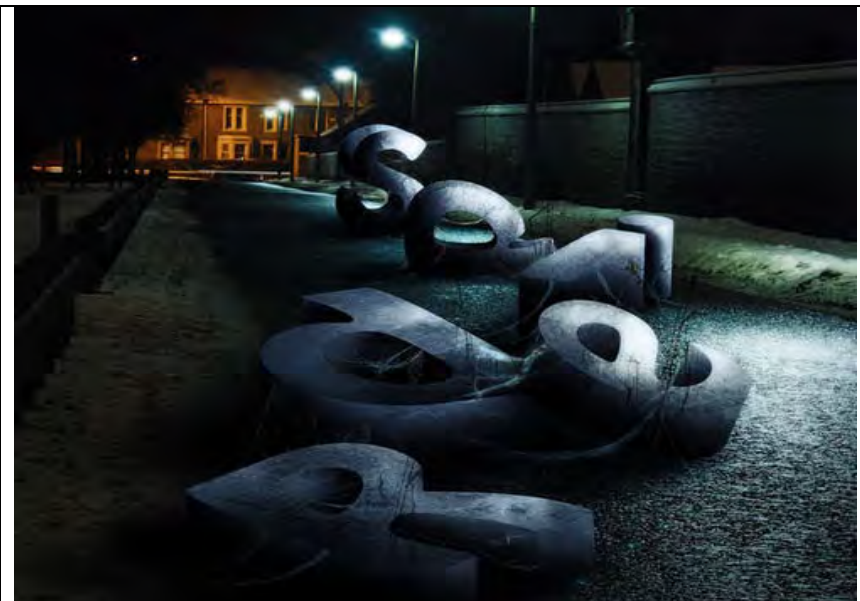
Used for Display
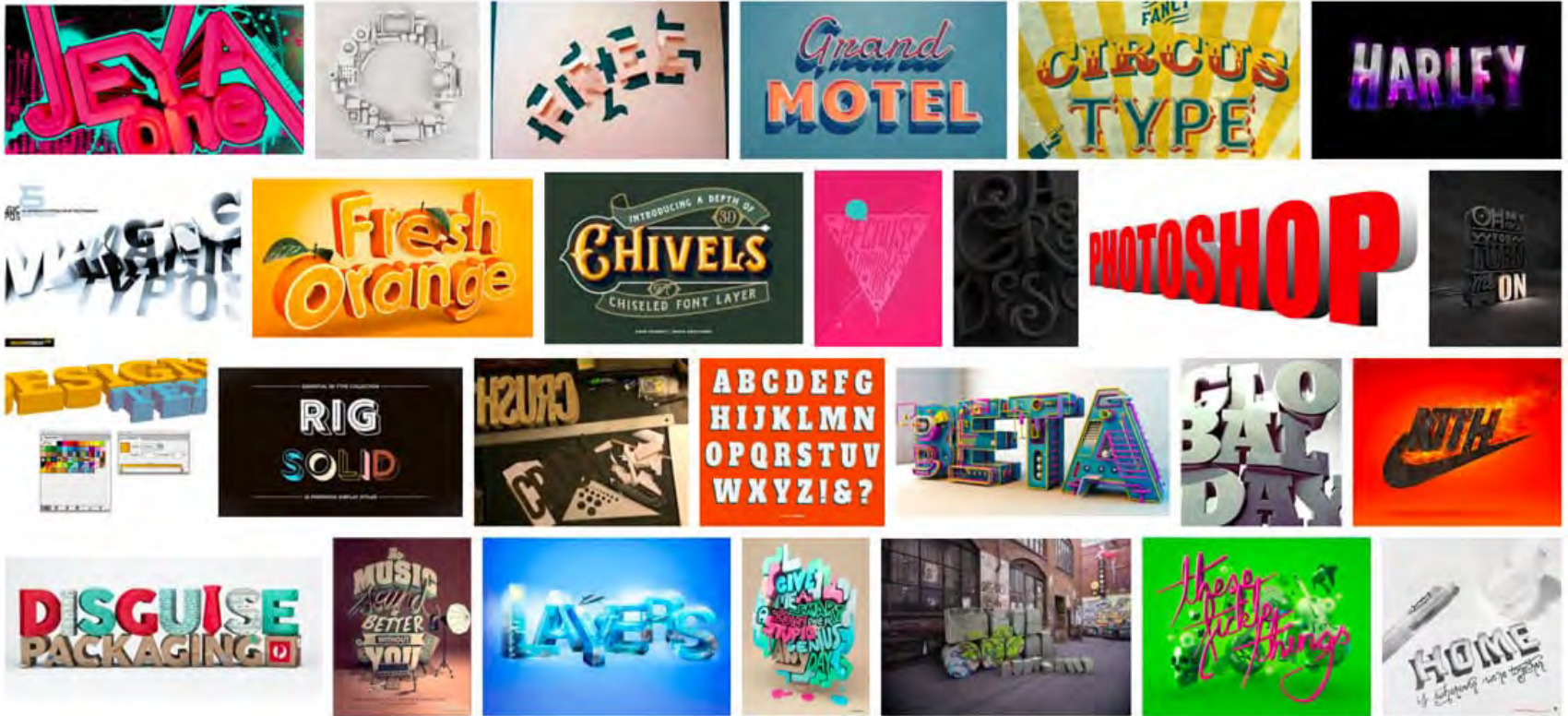
3D typography can pose some serious readability issues. The more stacking of words you attempt in this style, the more troubling readability can be.

It works best on posters and flyers or in a large-scale design, such as billboards. It is meant to be for display, and it should not be part of a header or something that appears on every page of a website or a print document. Even the use of 3D typography for a logo can get overwhelming quickly.

Ponder This:
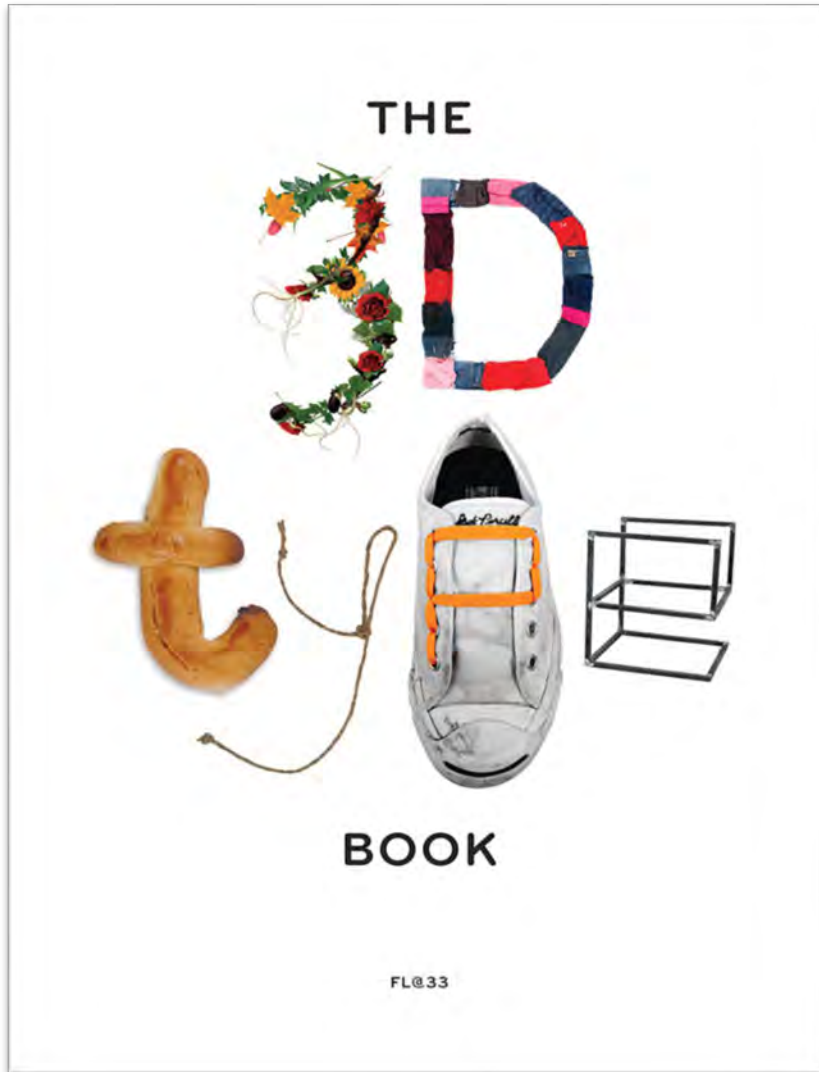
THE 3D ty BOOK

FL@33

The 3D Type Book Cover Project

Agathe Jacquillat and Tom Vollauschek from the London-based design studio Fl@33, felt so passionate about material 3D typography, that came up with an idea for a project that will tickle the imagination of more than 160 designers and studios around the world. Fl@33 challenged artists, designers, and casual hobbyist alike to create a book cover using real, material objects for type.

The creators state on their website, "The 3D Type Book is the most comprehensive showcase of three-dimensional letterforms ever written, featuring over 1,300 images of more than 300 projects by more than 160 emerging talents and established individuals and studios. As well as pioneering milestones from as far back as the 1940s, this book focuses on recent and brand-new typographic projects"

My own students at the Art Institute of California – San Francisco participated in this project and created outstanding 3D designs using, pancakes, vegetables, matches, wire, paper, and other materials and objects.

It is an amazing project and if you feel so inclined, check out their website and perhaps participate with your own designs.

Link to video : https://www.flat33.com/index.php?page_id=31

LEFT The 3D book cover by Agathe Jacquillat and Tom Vollauschek at the London-based design studio FL@33 | The following 2 pages are from 3D type book.

GOOD TYPOGRAPHY IS INVISIBLE /
BAD TYPOGRAPHY IS EVERYWHERE /

CreativeReview

Craig Ward

SPACE FOR FANTASY

Make your own 3D type

How do you create your own 3D typography?

Use a Software

Digital 3D designs can be created in Adobe Illustrator, Photoshop, or any 3D modeling software Maya, Cinema 4D, and free apps online, such as this one from Sculpteo.

If you are not familiar with 3D modeling software use Adobe Illustrator—this might be one of the most popular ways to create 3D text. Illustrator has Graphic Styles that come with 3D effects, also 3D modeling options. Adobe has great tutorials, and I am including a link to it in the practice section.

Use a 3D Font

The 3D typography design trend is so popular that there is a category of 3D fonts available to help you use this style with ease. These display fonts do not always have the same panache as the 3d affects you create yourself but can certainly work for a lot of projects.

Here are some free 3D fonts from **Fontspring.com**. Click on the image to go directly to the fonts here.

And some more form a variety of font sites

- 3D LET
- Mona Shark
- Kotak
- KG Happy
- Mexcellent 3D

- Scramble Mixed
- Brix
- FT Helsingfurt
- Jersey Letters
- Alba Super

Use Materials and Objects

Materials 3D effects can be created using paper, cardboard, or various objects such as cardboard boxes. An important step is to use dramatic light when taking the picture. You can create your composition outdoors and photograph it under a sunlight, or you can indoor lighting, that you can direct, such as flashlight, nightstand light, etc. Sample handmade project below:

For paper cutting you need a heavy weight paper, pencils, erasers, X-acto knife, and a cutting board.

Create your design on a computer or hand draw it. Print it or use a mechanical pencil and draw it lightly. Include connecting shapes that will keep your letters in place.

Cut out your shapes and place it on a dark background.

Paper Cutting Video

Laser Cutting

Laser cutting is a new trend that is becoming very popular. The advantage is that you design once, and you can cut many times using different materials. The disadvantage is that you need to have a laser cutter, and you need to know how to prepare your design for laser cutting. There are many projects that could be laser-cut: acrylic letters for signage, stencil alphabets, wood letters for signage, paper and card for wedding invitations, rubber letters for stamp making, fabric for art installations. As laser cutters are becoming more popular, chances are there is one near you, at a college, community center or at a printshop.

In the Bay Area, where I live, free laser cutters are available at Laney College Fab Lab, Alameda College Fab Lab, The Crucible, Ace Monster Toys, and many other fee-based services online and offline. Laser cutting is an involved process and beyond the scoop of this book, but here I can give you an overview of the steps.

1. Design in a vector-based software, such as Illustrator.
2. Prepare your design for laser cutting. Flatten layers and use specific colors and stroke size to specify whether you want to cut, etch or raster.
3. Bring your design to a fab lab and give it to a technician to cut.
4. Decide on the material: wood, acrylic, paper, etc.
5. Arrange your design and if you want, apply vanish, or paint on top.

To learn more about laser-cutting basics follow the link:

Laser Cutting Basics Video

3D Lettering in Illustrator

Adobe has a quick tutorial here with a video to help you create a simple 3D text element.

Tuts+ also has a great, detailed tutorial to walk you through creating a trendy text element. If you have a good idea of what you want but are not sure how to create it, this might be a better place to start.

Click on the image to watch the one-minute video.

STEP BY STEP

Step 1. Double-click on the Pencil tool to open the Pencil Tool Options settings. Set Fidelity to Smooth. Click on OK. Draw a letter using a single stroke, or path. (Or use our custom alphabet to create your lettering.)

Step 2. Choose the Ellipse tool and shift-drag to draw a circle.

Step 3. With the circle still selected, click on the Gradient icon below the Fill color in the Tools panel. Set Stroke to None.

Step 4. Open the Gradient panel (Window > Gradient). Double-click on the first Gradient slider. Click on the Swatches icon and choose a color. Double-click on the second Gradient slider and choose a different color.

Step 5. Use the Selection tool to select the circle. Then option-drag (alt-drag) to duplicate the circle.

Step 6. Choose the Blend tool and click on each circle.

Step 7. Double-click on the Blend tool, select Specified Steps from the Spacing drop-down menu, and set the desired number of steps.

Step 8. Use the Selection tool to select both your letter and the blend; then go to Object > Blend > Replace Spine to create the 3D effect. (If you want to change the direction of your blend, select Reverse Spine.)

ASSIGNMENT

It's a Different Animal

Description: Using 3D letters create the shape of an animal, a creature, or an object. The letters must spell the name of your chosen subject.

Objectives: To practice designing with type. To learn how to create 3D designs.

Methodology:
1. Choose an animal, a creature, or an object.
2. Draw its overall shape on paper.
3. Fill up the shape with the letters of its name.
4. Use Photoshop or Illustrator to clean up your sketch.
5. Print out your design.
6. Trace it over onto construction paper, foam board, cardboard or anther material.
7. Using x-acto knife cut out each letter. If necessary, pain each letter with an acrylic paint, or paint the background to create a strong contrast.
8. Glue the letters on a foam board, cardboard or another flat surface.
9. Make a hole and attach a wire to it.
10. Optional: You may also laser-cut your designs

Examples: **3D animals**
All examples are from Daniela Nikolaeva's classes
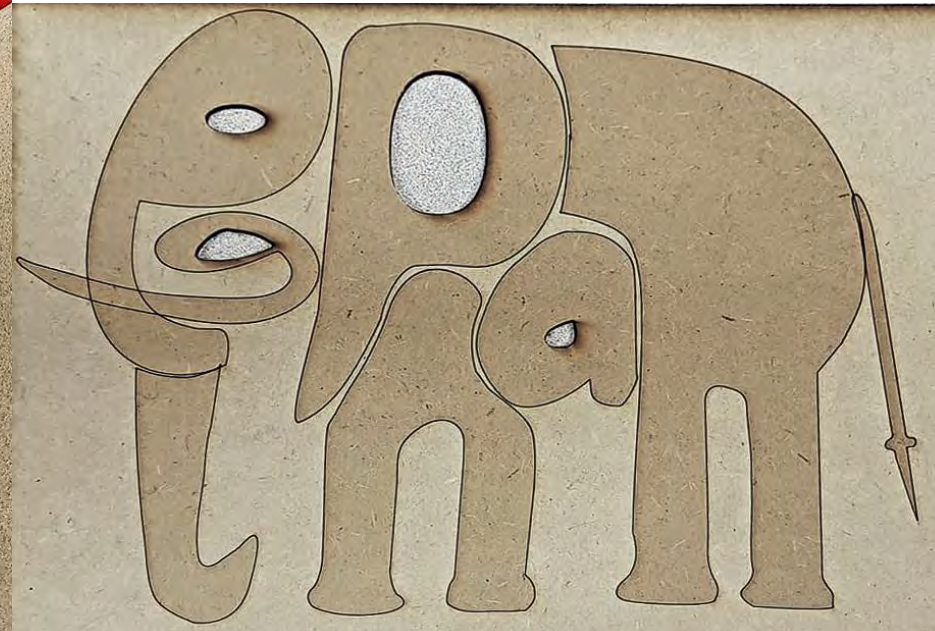
12

FONT DESIGN

In this lesson, you will learn the following:

- The steps for creating your own custom font

- What online tools are available

- How to properly set up a font template

A B G D E
F G H I J K
L M N O P
Q R S T U V
W X Y Z

HOW TO CREATE YOUR OWN FONT

Even though, there are thousands of free fonts out there, as a designer you may want to create your own font. Here your good knowledge of typography would come in handy. The following are some useful steps to guide you through the process:

1. Start with font modification

To get a feel for the process, you may want to start with something easy. Instead of creating a font from scratch you could use an existing font and modify it.
One great website I discovered is Metaflop.com.

Metaflop.com/modulator

This is an online font generator that allows you to create fonts based on existing ones by simply modifying some basic parameters. There you can also download your new creation and supposedly install it into your own computer.

2. Use other online tools

There are other online tools out there that allow you to create new fonts from scratch. One such website is Caligraphr.com. They offer paid and free plans, depending on how complex your font is going to be and how many new fonts you want to create.
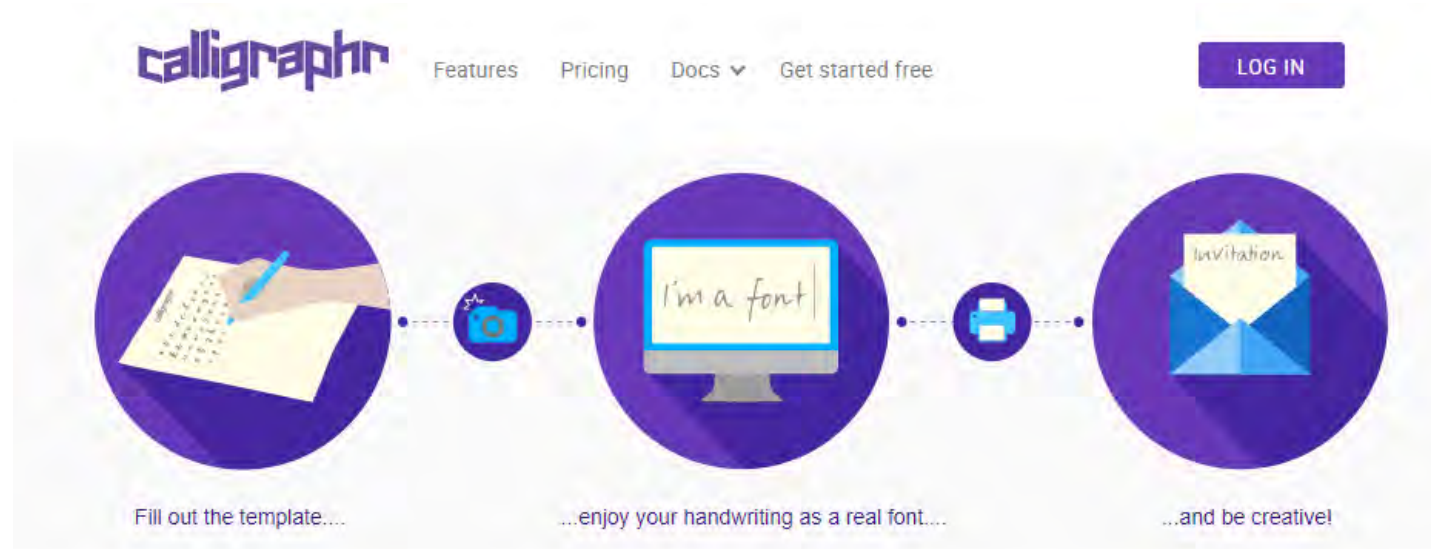
Calligraphr.com/en/

3. Create your own font from scratch

Various online font creating tools all have limitations, so if you want to truly create your own font, you may want to start from scratch. This sounds like an overwhelming task, but luckily, you are reading this book, so I can walk you through the process, step by step.

Step 1: Sketch out some basic glyphs.

Sketch out a few glyphs: A, V, W, O, C, Q, H, N, E, F, U, D, X, Z, 1, 2, 3, 4, 6, 7, 8, 9, 0

I recommend starting with a few basic shapes:

- Triangles for A, V, W.
- Ovals for O, C, Q,
- Rectangles for H, N, E, F, T, X, Z
- Ovals and Rectangles for the numerals: 0,1, 2,3, …

(Note: your font could be composed of upper case, lowercase, or a combination of both.)

Thinks to keep in mind here - strive for consistency in design.

- The line width should be uniform. You can have thin and thick lines, but they have to follow the same logic
- The axes of stress should be the same.
- Your basic shapes should be uniform too.
- If you want to have series, they too must be the same length and should have the same curve.

Step 2: Get a Template
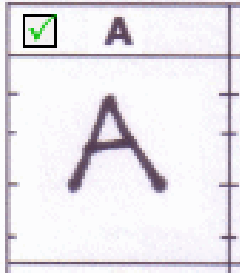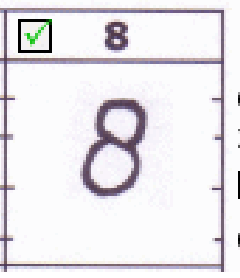
1. Use my template, included at the end of this chapter.
2. Create your own. You can create your own font template either on paper or in Adobe illustrator. Size 8.5″ by 11″, with enough rows to accommodate all your letters.
3. You can download more templates from yourfonts.com/template.pdf

Step 3: Draw your letters on the template

Use a suitable pen (e.g. a **black** permanent marker of fine or medium thickness) to draw the characters the way that you normally write. Make sure you draw your characters into the designated cells.

Only characters that are written down on the template are added to the font, so if you need extra characters, then write those down. If you do not want accented characters, you can skip page two of the template.

All cells (except the signature cell) contain horizontal guidelines - four little marks on both left and right side of each cell.

		See how the Capital letter A and number 8 are sitting on the baseline and reaching the Cap Height? The base line is the second one from the bottom up, not the bottom one. The ascenders go above the x-height up to the cap height, but not above it

- **Respect the markings**, they are extremely important! They help you write the characters in the right dimensions. and in the best possible position in each cell.

- **Do not come too close to the grid lines** while drawing the characters.

- **Always write inside the cells**, do not go outside (not even with your signature!)

GOOD: The first row shous the correct way to place characters.
BAD: The second row shows common mistakes to avoid.

1.

Step 4. Scan & Save the Template

When you have drawn all characters, it is time to scan the completed template. The following recommendations ensure your template will be correctly recognized:

- Scan at a reasonable resolution; I recommend you scan at **300 dpi**
- Put the first page of the template as **straight** as possible on the scanner bed
- Make sure the page is in the proper orientation, and not upside down
- Scan in **color** (24-bit) or **grayscale** (8-bit), not just black and white (1-bit)
- Make sure the scanned image is **not clipped (cropped)**, all template borders must be included
- All grid lines must be clearly visible, not interrupted, and **not crossed** by any other (drawn) objects
- The **width** of the image must be between 1000 and 6000 pixels, the **height** must be more than 1000 pixels, but should not exceed 9000 pixels. The more pixels the more details we can discover, resulting in higher-quality fonts
- Save the scanned template to your hard disk. For best results we recommend saving as **.gif, .jpg, .jpeg, or .png. file**.

Step 5. Upload Template to

http://www.yourfonts.com/upload.html

The font name will appear as the font name in all applications, so make sure you give your font an appropriate name. Optionally provide copyright information, that will be embedded into your font.

Next click the Browse button and select the completed template. Then click on the Upload button.

The website will generate an appropriate file format used for fonts.

Step 6. Optional: Install it.

Wow, you have done a great job! If you would like to use I on you own computer, you may try to install it.

Here are the steps:

Install & Use

Installing a font makes the font available to all applications (including but not limited to most word processing, spreadsheets, desktop publishing and graphic design programs like Microsoft Word, Adobe Illustrator, etc.) on your computer.
The easiest and most convenient way to install your fonts is to use a [font manager](). If you don't have a font manager, do follow the instructions below.

Note: Some programs require a restart for the new font to be available.

Windows (7, 8, 8.1, and 10) font installation instructions

- Double-click your font file
- Click the Install button

Note: If you are reinstalling the font, it is recommended you uninstall and delete the font BEFORE installing the new version. Sometimes a reboot is required as well.

Macintosh font installation instructions (Mac OS X)

- Locate your font file in the Finder
- Double-click the font file icon
- Font Book should display the font
- Click the Install button

Note: In order to make use of the newly installed font, some applications require you to reboot your Mac.

Linux font installation instructions

- Find out the default font installation directory (usually /usr/share/fonts/truetype/)
- Copy the font file to that directory
- Rebuild the font folder index
- Update the font cache (e.g. fc-cache)

Credit: Yourfonts.com. Text and images from Yourfonts.com are adapted for this chapter.
Note: Some of the information regarding YourFonts.com may have changed or be missing.

Ponder This:

Some fonts were designed with a purpose on mind.

It helps to know the intended context of the typeface design when making your selection. Some font families include different styles and they can be used in several different ways. Others are more constrained. They were designed to be used very specifically.

Garamond was designed to be highly legible when printed in a large body of text. Some also say it was the eco-friendliest font of its time, conserving ink usage.

Bell Centennial is a typeface commissioned by AT&T in the 1970's, designed to be used in telephone directories. These directories were made from cheap paper and for this reason Bell Centennial was designed in a way to accommodate ink spread during the printing process.

Georgia and Verdana (used in this eBook) have been designed specifically for the screen.

Dyslexie is a typeface designed specifically for dyslectics. Many children (and adults) struggle with reading because of they do not see letters and numbers the same as other people do. There are different types of dyslexia and dyscalculia. What this short video to find out more about the font designed to help reading.
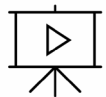
Click to watch video by Christian Boer and learn more about **Dyslexie.**

Font Template
© Daniela Nikolaeva
DaniDesignArt.com

How to use this template:

Option 1:
1. Copy and paste this template into a Word document.
2. Enlarge it to 8.5 by 11.
3. Print the Word document
4. Hand letter the glyphs.

Option 2:
1. Copy and paste it into Illustrator.
2. Enlarge it to 8.5 by 11.
3. Create a new layer.
4. Draw your glyphs using the Illustrator tools
5. Export as .jpg or .png to compress the layers.

Tip: Follow the steps outlined earlier in the lecture, to design your glyphs before you start entering them into the template. Page 3 of this lecture: Create your own font.

CALLI-GRAPHY

DANIELA NIKOLAEVA

101

1 CHAPTER

INTRODUCTION

In this lesson, you will learn the following:

- What is calligraphy

- Historical origins and milestones

- Tools of the trade

INTRODUCTION TO CALLIGRAPHY

Calligraphy is an art form involved with the design and drawing of beautiful letters by hand using a brush, pen, or other writing instruments. The word calligraphy originates from the Greek word καλλιγραφία, which is derived from the words *kallos* 'beauty' and *graphein* 'write'.

Calligraphy is a century-old artform. In the antiquity was used to reproduce religious and secular scripts. During the 15th century, when printing became popular, the production of illuminated manuscripts slowed down. Calligraphy, however retained several practitioners over the centuries. It was seen more as an artform, and less a mean of reproducing books. In the 19th century there was arrival influenced by the aesthetics and philosophy of William Morris who prompted the Arts and Crafts movement of that era. Calligraphy remained relevant to this day.

Modern calligraphy ranges from functional inscriptions and designs to fine-art pieces. Calligraphy is used for invitations, inscriptions, greeting cards, labels, signs, font design, certificates, posters, and flyers. Calligraphy is also used in title sequences for film, video, and animation. Graffiti and tattoo artists hone their calligraphic skills to use in their art. Some visual artists incorporate it into their paintings. You will see samples at the end of this chapter.

Traditional writing tools - Image via newzealandcalligraphers.com

Is calligraphy the same as handwriting?

Calligraphy is different from handwriting. The primary goal of handwriting is to write words, to capture meaning with clarity and speed. Calligraphy is not quick, and readability is not its primary goal. The main goal of calligraphy is to craft each letter in a harmonious way, to create beautiful designs that contain messages. Practicing calligraphy is a relaxing and meditative process.

Calligraphy is the artistic process of forming beautiful symbols by hand and arranging them in a way that inscribes words that possess integrity, harmony, some sort of ancestry and rhythm.

Integrity represents admirable proportions and design of letters and symbols in calligraphy images.

Harmony is a pleasing relationship between the words, characters, and letter elements

Ancestry refers to the preservation of heritage of letter-shapes, materials, and techniques which calligraphers use.

Rhythm is a deliberate repetition in calligraphic writing that creates feelings of pattern and emphasis within the eyes of the viewer.

Calligraphy just like any quality piece of sculpture or painting, aims to evoke an emotion. Its goals are to conjure up a deeper meaning and communicate with the viewer on both the linguistic and visual, creative levels.
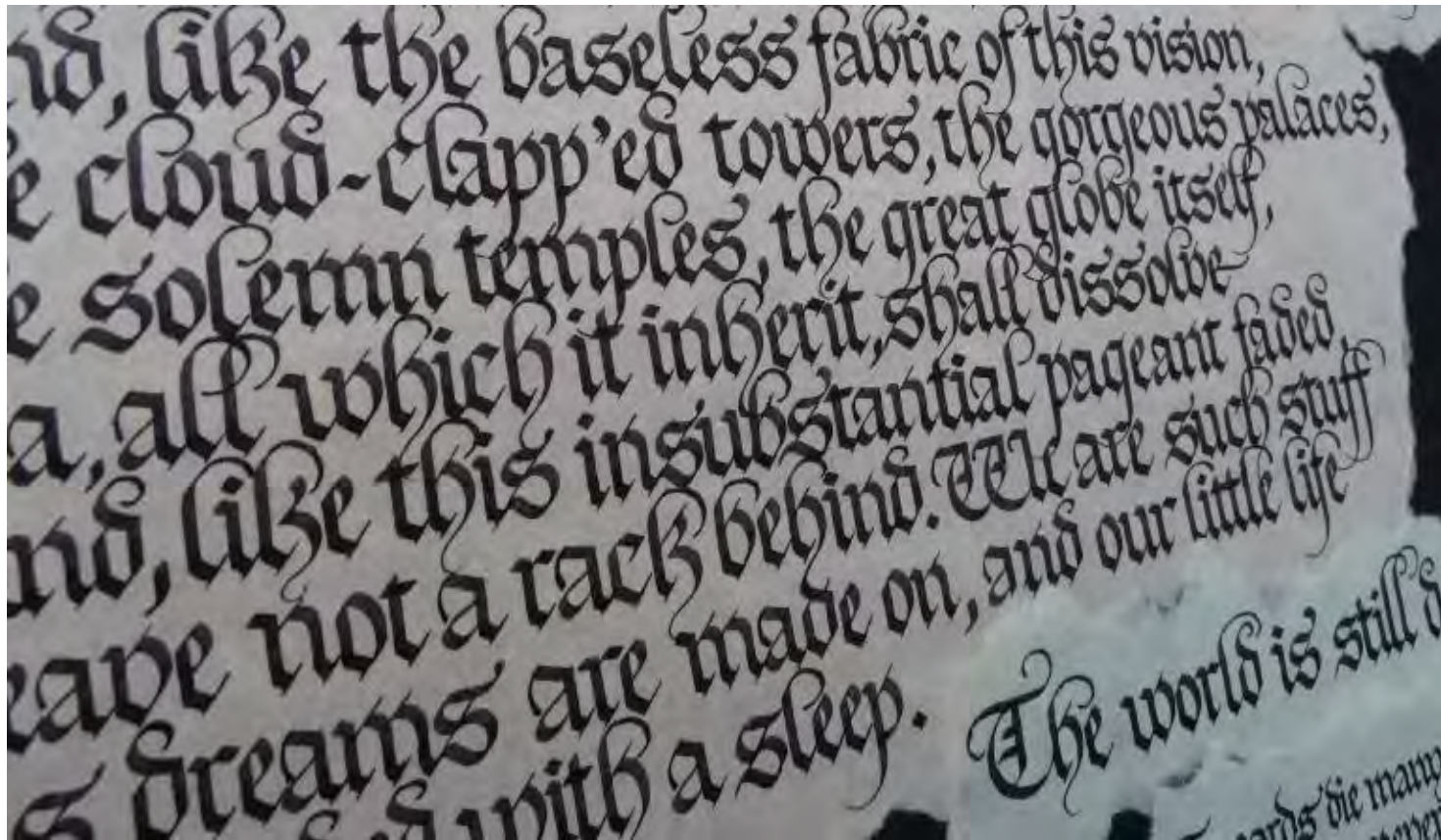
Gothic Calligraphy - Image via gixturner.com

Types of Calligraphy

Calligraphy can be classified into 4 broad categories: Western, Eastern Asian, Southern Asian, and Islamic. Each type reflects the language and handwriting of a different region of the world.

Western Calligraphy

Western Calligraphy emerged in the 10th century and continues to evolve. Known for its strict rules and geometric patterns, this popular style is one of the most prominent examples of calligraphic art. Western calligraphy uses predominantly the Latin alphabet, but also is written in Cyrillic and Greek alphabets.

Tools: Traditionally, Western Calligraphy's tools include a flat-balled or round-nipped pen, a brush, water-based ink, high-quality paper or parchment, a knife for removing work and templates.

Left: Calligraphy using Latin alphabet by Denis Brown | Right: Calligraphy using Cyrillic alphabet by Leonid Pronenko

East Asian Calligraphy

This style of lettering encompasses the calligraphy of China, Japan and Korea. Every single dynasty that ruled these lands had its own variants of calligraphy techniques and visuals. Eastern Asian Calligraphy is valued as a very important heritage in its respected countries and all of them dedicate much effort to making sure the local calligraphic techniques are well preserved.

Tools: Eastern calligraphers use paperweights and desk pads in addition to the usual writing tools.
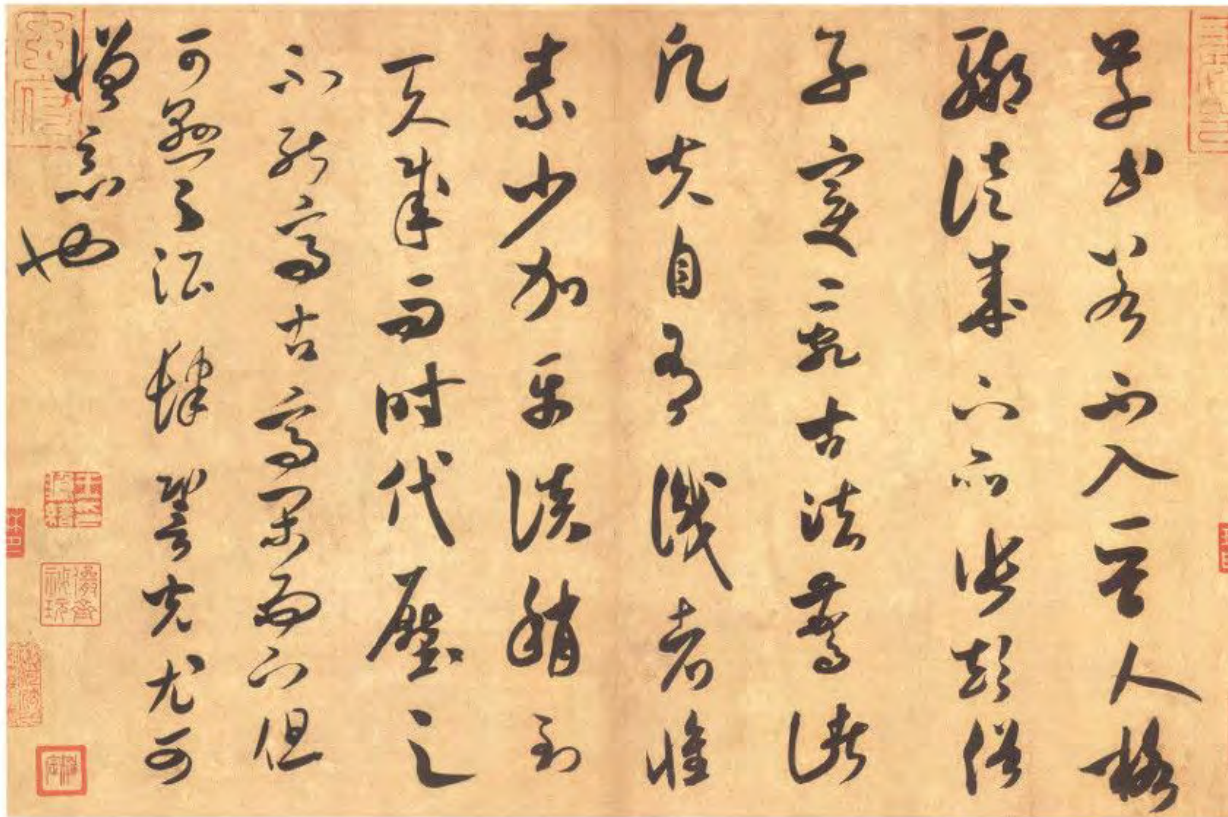
Eastern Asian Calligraphy - Image via 9610.com

South Asian Calligraphy

This collection of styles includes the practices from India, Nepal, and Tibet. These manuscripts were widely used for various Buddhist and secular purposes and could be used in a lot of instances, starting from their prayer wheels to the letters of the Dalai Lama. With some of the examples going back to inscriptions in stone, pieces of Southern Asian Calligraphy can be described as some of the most ancient lettering practices ever discovered. Indian calligraphy was the most influential of the three and it had used many unconventional methods over the course of its existence, such as burnt mud, smoke treated palm leaves, copper, and birch barks.

প্রকৌশলী

হেঁপাহ মোৰ পলোৱা নাই

রামপ্রসাদ সাউ

Indian Calligraphy - Image via pinterest.com

Islamic Calligraphy

This style can be found as an essential element of Islamic art. It uses unique geometric patterns. Some of the best examples can be found on mosque walls. It should be noted that Muslims view calligraphy as the highest kind of artistic expression since it is observed as the most efficient means of communicating with the spiritual world. The Ottoman Era was the peak of the Islamic Calligraphy. Not many aspects of lettering have changed since then, especially in more conservative circles of societies. However, modern times saw many alterations made to traditional lettering, resulting in a unique contemporary Arabic calligraphy.

Sudanese Type Calligraphy - Image via bp.com

The Modern Era of Calligraphy

An interesting feature of modern calligraphy is that the letters do not always have to be legible. This notion has freed and encouraged modern artists to include calligraphic elements in their work. Chaz Bojorquez , Patrick Hartl and Hongyu Zhang have established themselves in the world of calligraphy. Naturally, calligraphy found an interesting common ground with street artists. Expressions as graffiti are a perfect technique for one to practice stylistic lettering. In some instances, graffiti have transitioned into the finest art pieces found in world galleries. Niels Shoe Meulman, El Seed, Retna and Rostarr are famous for their calligraphic installations.

Only when one analyzes all of the above mentioned practical uses does the whole picture of just how present calligraphy is in the contemporary world.[6] Giving fine shapes to signs in an expressive, harmonious and skillful manner will always be a commonly found feature as long as there is humanity and no amount of technological advancements can ever stand in the way of that.

References:

1.   Panczyszyn, S. K., Manwaring, J., Lavender, L., Kirkendall, G. J., *Creative Lettering and Beyond*, Walter Foster Publishing,'14
2.   Margaret, S., *Learn World Calligraphy: Discover African, Arabic, Chinese, Ethiopic, Greek, Hebrew, Indian, Japanese, Korean, Mongolian, Russian, Thai, Tibetan Calligraphy and Beyond*, Crown Publishing Group, 2013
3.   Shepherd, M., *The Complete Book of Lettering and Design*, Watson-Guptill; First edition, 2001
4.   Fraser, M., Kwiatowski, W., *Ink and Gold: Islamic Calligraphy*, London: Sam Fogg Ltd., 2006
5.   Marsh, D., *What is Calligraphy?*, North Light Books, 1996
6.   Thorpe, M. S., *Modern Calligraphy*, St. Martin's Griffin, 2013

Artists to follow:	Niels Shoe Meulman,
Chaz Bojorquez	Retna,
Patrick Hartl	
Hongyu Zhang	Rostarr

Top Left: Patrick Hartl "Black is Red at Night" | Top right: Video by Chaz Bojorguez
Bottom left to right: Art by Niels Shoe Meolman | Hongyu Zhang |Retna
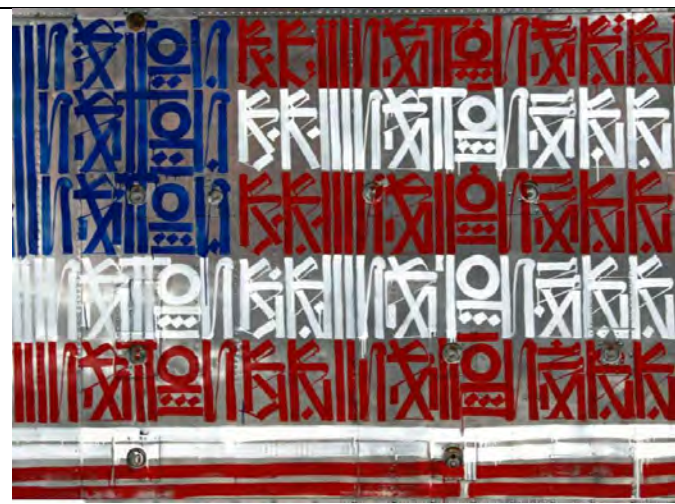
Art by Rostarr (Romon Kimin Yang) rostarr.com/

CHAPTER 2

GOTHIC

In this lesson, you will learn the following:

- What is gothic calligraphy
- The characteristics of a gothic typeface
- How to draw each letter of the alphabet

ABCDEFGHIJKL
MNOPQRSTUVW
XYZÀÅÅÉÎÎÕabcdefghij
klmnopqrstuvwxyzàååéîõ
&1234567890($£€.,!?)

GOTHIC LETTERS

Gothic lettering (also "blackletter", Old English, Texture Quadrata, etc) are one of the most popular forms of calligraphy. Gothic fonts are used for newspaper titles, beer and wine labels, pub and hotel signs, certificates, games, and of course, heavy metal bands.

Gothic letters suite any kind of short official or medieval-looking document for which impressive appearance is more important than legibility.

Characteristics:

Dramatic, squarish, dark letterforms with high contrast between thin and thick lines, low ascenders and descenders and detailed decorations.
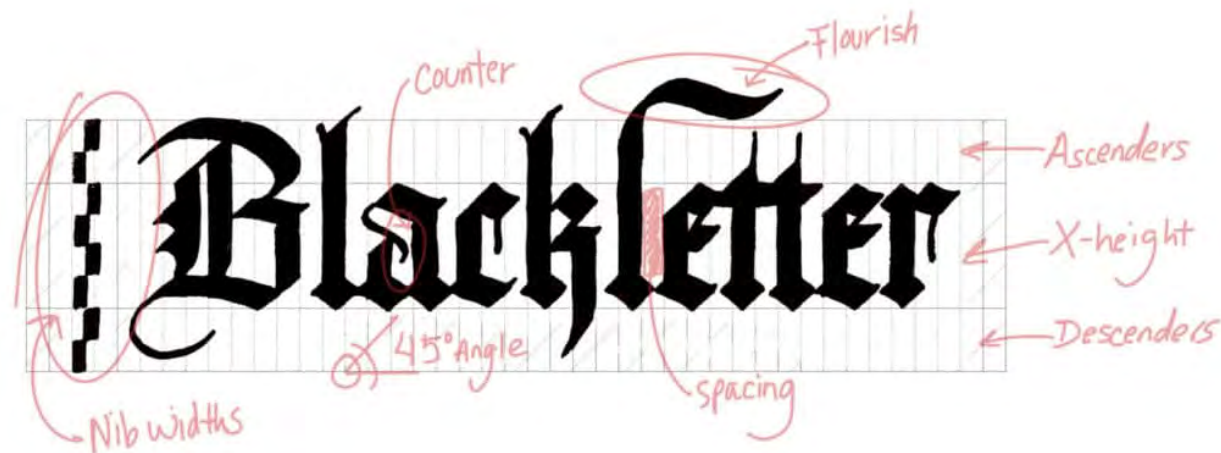
Notice, though, that -- as with heavy-metal bands -- it is easy for something that looks so serious to go too far and to veer into the grotesque. Too much decoration and it could turn into, if you like, the Spinal Tap of calligraphy.

Origins of Gothic Lettering

The word 'Gothic' derives from the name of the historical Gothic period when such alphabets were most used – basically, the Middle Ages from around 1200-1500.

'Gothic' also suggests Germanic origins, and it is indeed a very Germanic script. Gothic fonts were used in printed books in Germany right up to the twentieth century! You can still see the traditional Gothic lettering in Germany as street signs, hotel signs, etc. Gothic lettering has been used all over medieval Europe at different times. It shares some characteristics with the gothic architecture - heavy emphasis on the vertical lines, lots of decorative elements, and elongated proportions.

Blackletter has many variations: Textura, Fraktur, Rotunda and Schwabacher to name a few. We will practice hand leering using 'Textura Quadrata'.

What You Need

- Pencil and Eraser
- Pen holder and flat tipped pen nib (the shiny gold part of the pen above)
- Black Ink (preferably Speedball or Higgins waterproof ink)
- Practice sheet or other paper that doesn't bleed.
- Black flat tip marker (less formal, but works fine)

When writing Gothic letters follow these rules:

- Keep pen angle at 45 degrees
- Draw straight vertical lines
- Draw short, straight diagonal lines, both thin and thick, in different directions
- Maintain the proportion of the letters
- Keep the space between the stems even. The space is one, or one and a half widths, max.

Blackletter Minuscule (Lowercase)

It is best to start with the minuscule because they have simple forms and a less decorative elements.

Step 1

Print out four or five of the practice sheets, on a good quality print paper, or better yet a nice cardstock or Bristol paper.

Step 2

Practice the basic downward serif/connecting strokes for one or two lines to warm up.
For the downward serif stroke, place your pen nib at a 45 degree above the dashed line. Then drag your pen downward at a diagonal to the right. You should have a wide pen stroke on the paper.
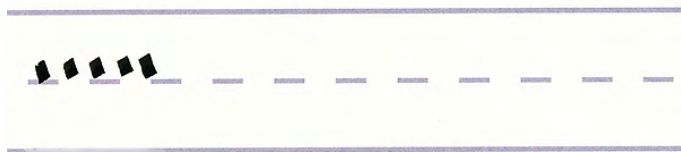
Step 3

Draw your measurements. When starting a new project use guideline even in the sketching phase. The guides help to keep all letters even and consistent. Textura Quadrata typically requires 4-5 nib widths for the x-height and 6-7 nib widths for the ascenders and descenders.

← ASCENDER

← X-HEIGHT

○— HORIZONTAL SPACERS

← BASELINE

← DESCENDER

← LINE SPACE
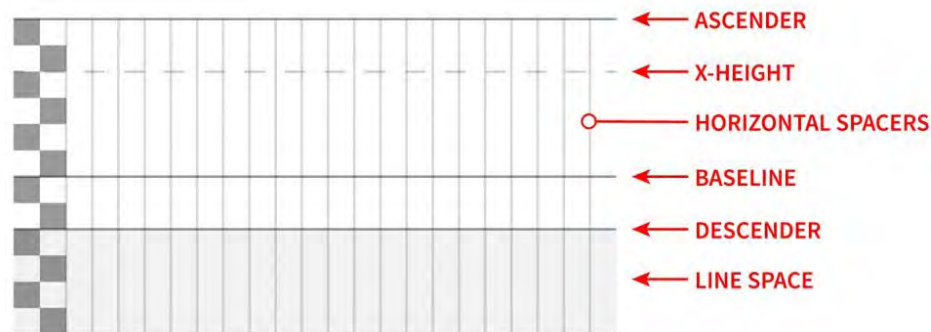
Step 4

Practice making the upward serif stroke a few times, and then some diamonds.

Regular   Elongated

Step 5
Practice drawing the vertical strokes, and the diamond. The diamonds are connectors.
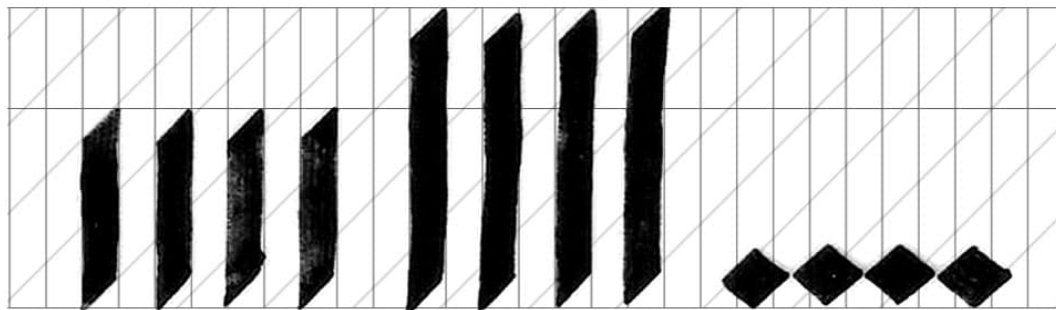
Do not feel bad if they come out a little crooked at the beginning. Keep your hand on the paper and move the entire hand not just the fingers holding the marker or pen. With time you your strokes will get straighter. Feel free to use a ruler if things do not work out.

Step 6
Connect stems with diamonds. Draw a stroke down, then right. For upper and lower diamonds left, down, right.
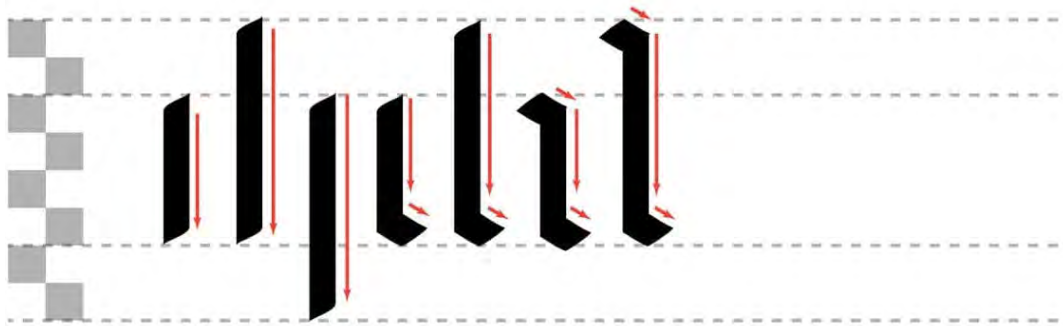
Step 7

Begin with easy letters: b,c,e,f,h,i,j,l,o,p,q,r,t,u
Then move on to more difficult letters: a,d,g,k,m,n,s,v,w,x,y,z

I would recommend sketching out the letters using your pencil first to feel more comfortable. Then you can simply follow the pencil lines with your pen.
The angle in which Textura Quadrata is written various from 40-45 degrees.
There should be at least one nib width of space between each letter, and one nib width of space inside of the letters, also known as the 'counter'.
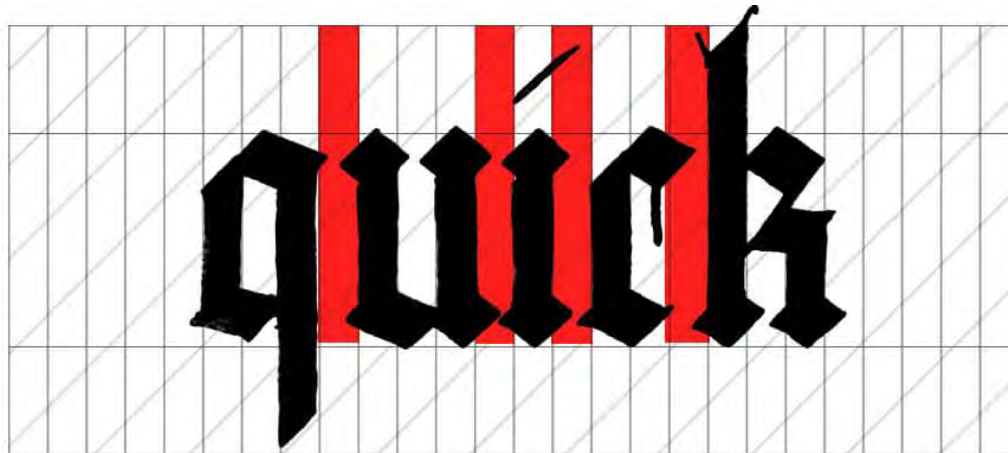
Step 8

Let's get fancy and try some more advanced downstrokes. At first glance, these look easy but up until this point, the strokes you have practiced have been rigidly straight. Those straight strokes are common Textura, but in later iterations of blackletter (like Fraktur), the strokes bend much more.
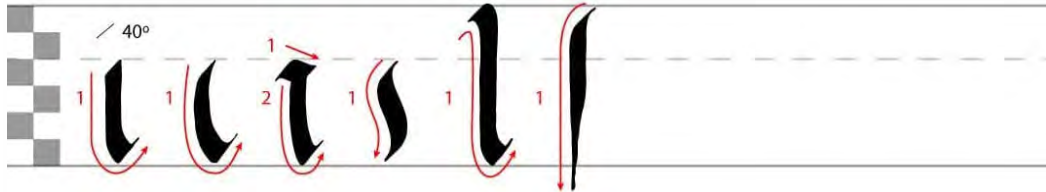
Step 9

Follow the practice sheet and draw your minuscules. Also use the help of the videos below. This is how all your letters will look like when done. If you want to experiment with different style gothic letters that is fine, but just make then consistent and do not mix up stiles.
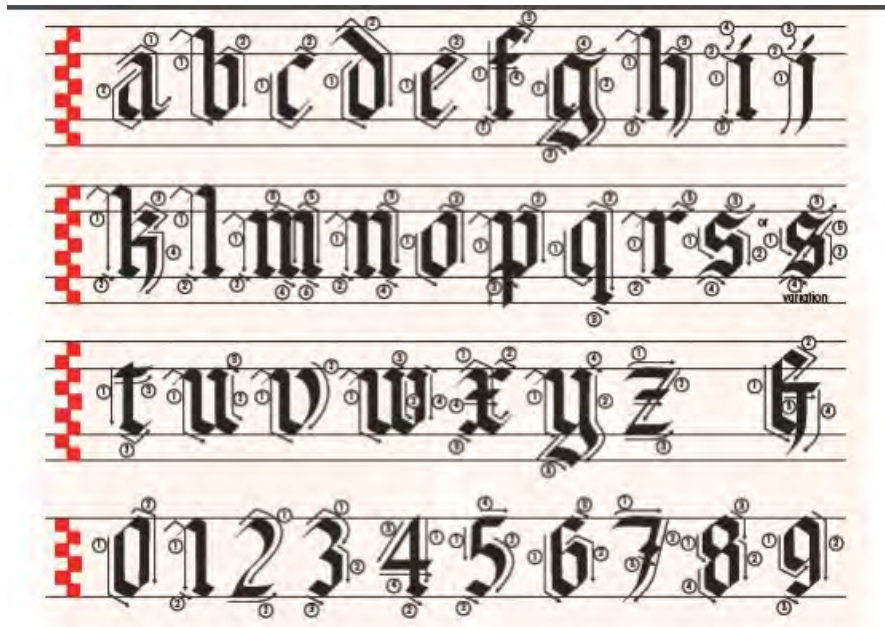
	1. Video by Patricia Lovett. With voice over and hardly any ads.
	https://www.youtube.com/watch?v=P4OFcKTuyds
	2. Video by Tri Le: It has no voiceover, but it is very well explained, nevertheless.
	https://www.youtube.com/watch?v=UZzWvFes5yg

Blackletter Majuscule (Uppercase)

Majuscule alphabets are substantially more complex. While they share similar repetition (here and there) to their minuscule counterparts, there are considerably more variations. As a result, they are much harder to learn and master. However, if you have spent some quality time with the minuscule alphabets and are feeling ready to advance on to the majuscules.

Vertical Strokes

These strokes should be straightforward, given your practice. The tapered strokes here, which you will see often in the Textura majuscules begin and end in a point. To perform this stroke, begin slightly off to the right of where you want the body of your down stroke to be. As always, maintain a consistent angle. Starting with a point, pull inwards towards the body of your stroke, and then down. As you reach the end of the stroke, end in a point by pulling out and to the left.

Downward "strokes" with serifs are the combinations of vertical and elongated diamonds from the previous lesson. Start with the top chiseled horizontal. Release. Perform the

downstroke. Release. Finally, perform the bottom chiseled horizontal.

Tapered

Serif Variations
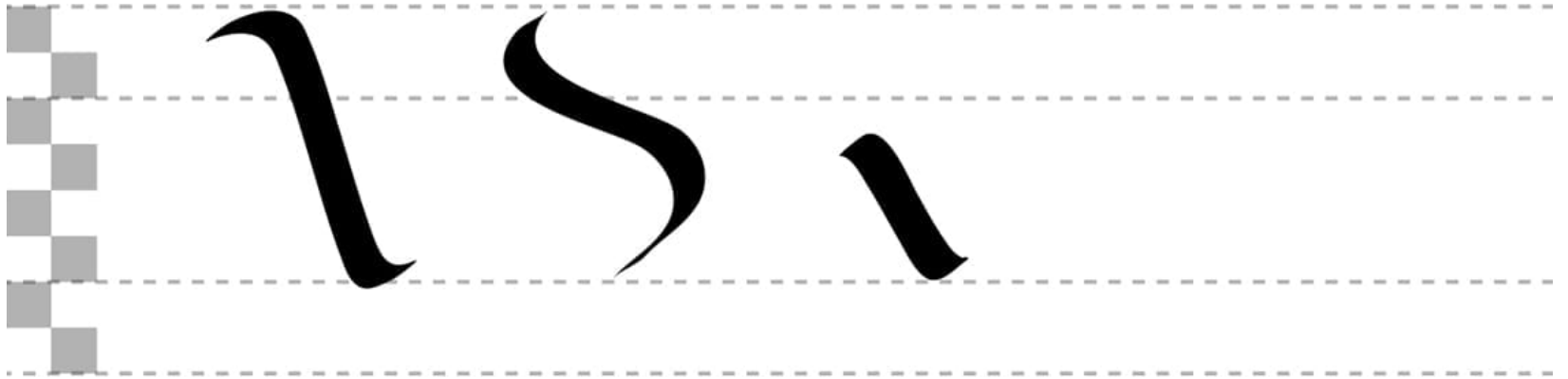
Diagonal Strokes

Diagonals follow a similar form to basic downward strokes; except they are done at an angle. If you have been practicing, you should not have any trouble recreating these. However, getting the angle just right will require some trial and error. You will use them in letters N, S, R and others.

Rounded Strokes

It's important to get a feel for creating varying linewidths with a single pull stroke. Crescents are a great way to master that feeling. You got a little taste of this with some of the horizontal strokes.
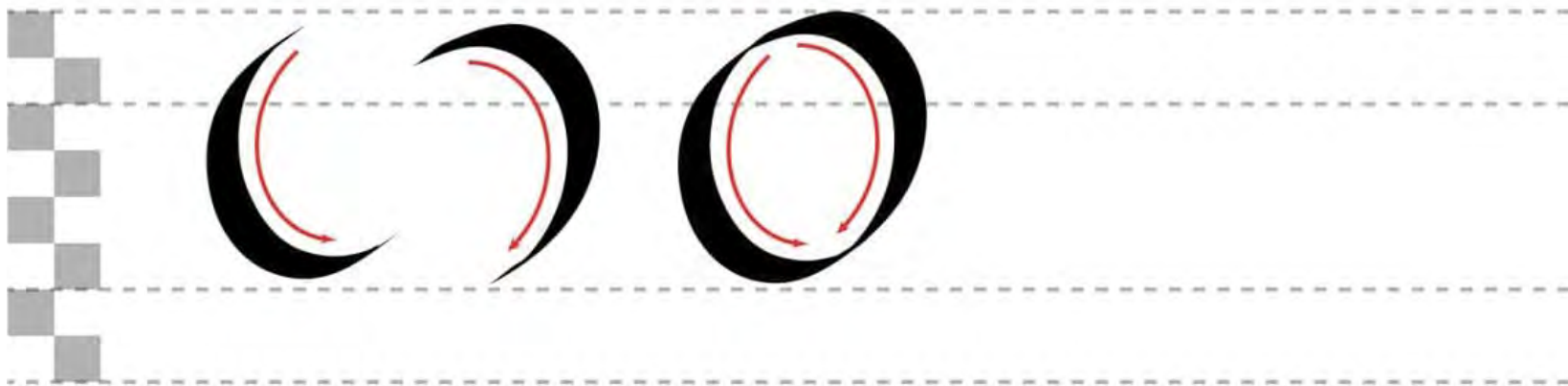
Hold the pen firmly, and starting from the top, pull out to the left towards the bottom of the stroke while maintaining a consistent angle. As you round the thick part of the

stroke, pull towards the end of the crescent. If you did everything right, you should have a sliver with two tapered ends and a thick middle.

The full circle is done in two strokes. The strokes are identical if you were to flip the second stroke upside down. To create the second stroke, start at the top with your nib touching where the first stroke begins. Pull downward and to the right, rounding out the stroke and pulling into the left where the first stroke ends.

Rounded strokes found in Textura majuscules

Hairlines & Other Miscellaneous Strokes
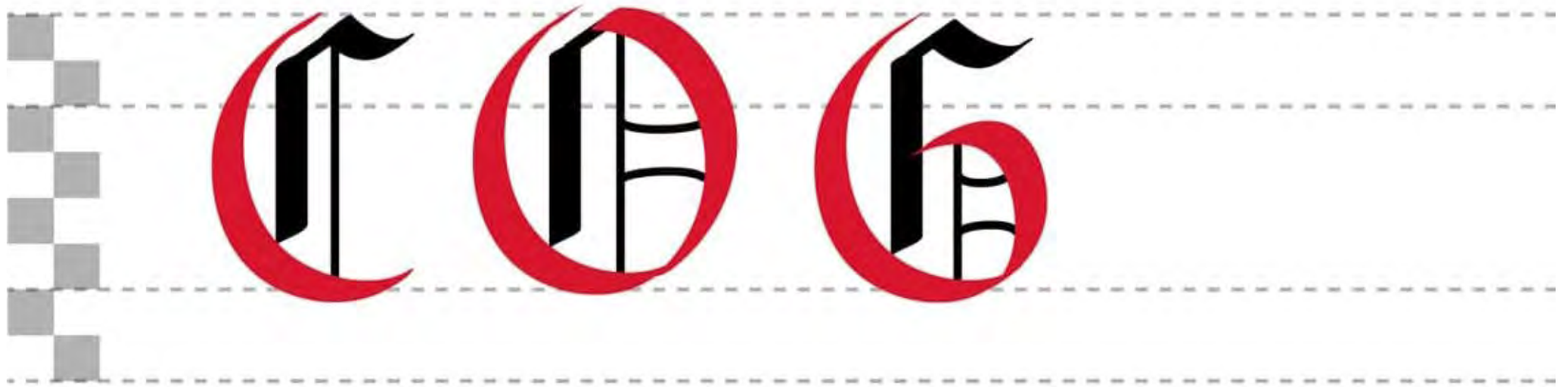
Abstracting majuscule alphabets is a little more difficult than with the minuscules. The fact is many of the majuscule letterforms are comprised of their own unique strokes. Or, even if they reuse a stroke from another letterform, it might appear in a different placement or at a different size.
The good news is you've really gotten solid look into what your pen can do, so anything else you see should be relatively easy to figure out for yourself. But here are a couple more common stroke exercises to help get you warmed up even more.

Hairlines often appear as little decorations or filigrees but are occasionally used as structural lines in letters such as "N" or "X" in the Textura alphabet. They are also quite frequent in the Fraktur majuscules and while they might not be structurally integral, the letters would not be the same without them.

The best way to achieve hair lines is to tilt your pen nib on its side, drawing with one of the two corners.

And finally, a couple of odd, yet common stroke combinations that you'll find in the Fraktur majuscules.

Start from the left of the below image. The first stroke looks a bit odd, but you'll see how it comes together in several different letters shortly. Start with the long vertical (labelled "1"). Position your pen's nib at a 40° slightly below the ascender line. Move upwards and to the right briefly, but then quickly loop around and bring it down a single unit about the baseline.

The second stroke begins directly to the left (about 1.5 units) of where the first stroke ends. It's one of those "squiggle" strokes, so move the pen slightly upward at 40° and loop back down, continuing down through where the top of this stroke meets the previous stroke until the bottom of this stroke meets the baseline. Then finish it off with that upward curl at 40°.
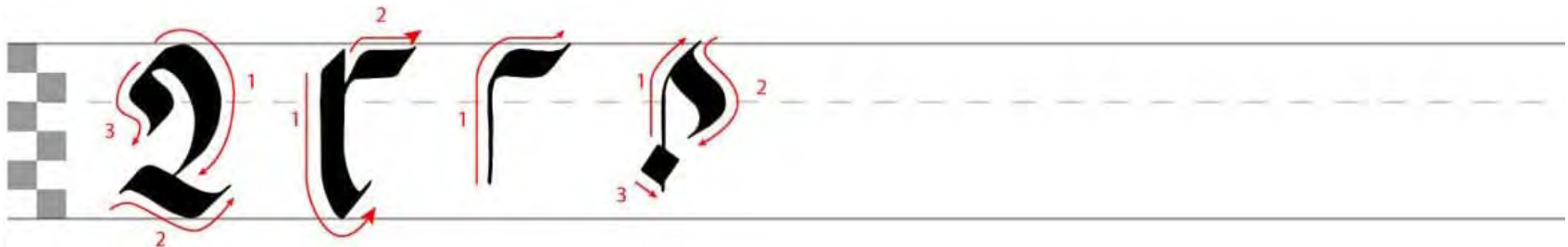
Miscellaneous stroke exercises

The second exercise from the left should look familiar to you. It is comprised of two of the basic strokes from the minuscule alphabet. You will also find this series of strokes throughout the majuscule alphabet as well.

The third and fourth exercises are self-explanatory. Begin with a hairline stroke moving straight upwards until you get towards the ascender line. Finish off the stroke with the respective horizontal (third exercise) or diagonal (fourth exercise).

The diamond is optional, but it certainly adds to the visual complexity of your letter. Here are some examples of letters using these miscellaneous strokes.

Miscellaneous strokes found in Fraktur majuscules
Just as you did before, trace the guides carefully, and as they fade out, reference them visually until you're comfortable creating each letterform from memory.

Next Steps

Practice. I really cannot express this enough. It takes a long time (10,000 hours?) to master something. But it should also be fun. Look for opportunities to practice regularly. Your brain and hands coordination will develop quicker if you create a routine rather than picking up the pen a couple of times a month only.
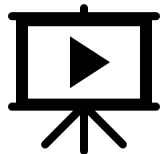
	Video by Tri Le: part 2. It has no voiceover, but it is very well explained, nevertheless. https://www.youtube.com/watch?v=6qJug7AfnRI

3

ITALIC

In this lesson, you will learn the following:

- What are italic typefaces
- The characteristics of an italic typeface
- How to draw each letter of the alphabet

abcdefggg ghijklmnopp

qorrstuvwxyy&z AB

CDEFGHIJKKLLMN

NOPQQRSTUUVWXYZ

1234567890 & .,:;--=-!?

ITALIC LETTERING

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When the word "calligraphy" is uttered, the italic script is usually what comes to mind. It is because we associate it with the Latin alphabet, and the Latin alphabet we associate with most western languages. The name of this versatile and beautiful script reveals its origin. It was developed in Italy in the 15th & 16th centuries during the Renaissance era.

It originated from the Carolingian hand script, but it was streamlined to be easier and faster to write. The story goes that the Italian scholar Niccolò de' Niccoli was dissatisfied with the lowercase forms of the Humanist minuscule, so he created the Italic script, with fewer strokes per character, the joining of letters and a bigger slant. He changed the lowercase "a" from a two-story form to a one-story form, to be easier to pen down. It was used as a form of handwriting of papal documents and in wood engravings and is characterized by being more flourished than the Roman and Carolingian scripts.
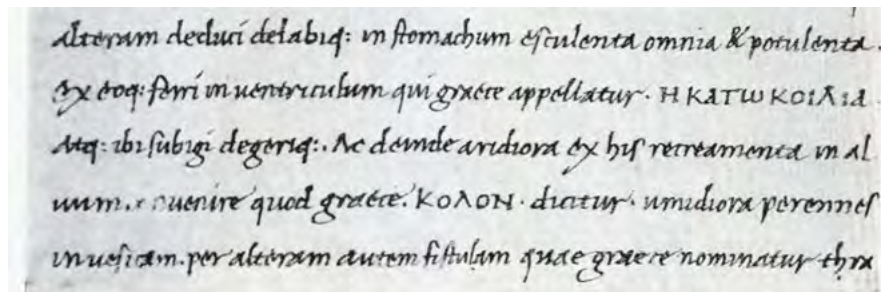
Handwriting by Niccolò de' Niccoli (1364–1437), which served as the origin of italic type. Source - Wikipedia.com

The Italic hand went under several stages of development in the next couple of hundreds of years, and from Italy, it spread across the continent as the new and improved way of writing. There was a significant decline in penmanship after the invention of the typewriter. in the 19th century, the art of calligraphy had a resurgence.
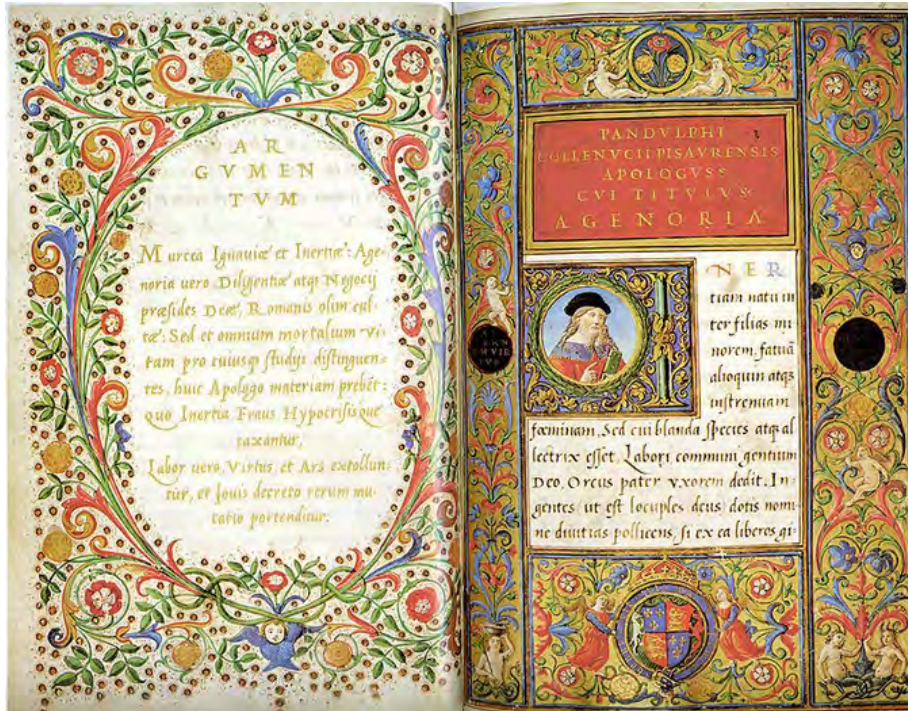
A stunning example of the work from a book by Ludovico Vicentino degli Arrighi (early 16th century) . One of the forefathers of the Cancellaresca script .**Source – deianira.it**

Characteristics of the Italic script

- The letters are slanted to the right at about 5 degrees
- Letter a is one story and has an oval shape, slightly pointy to the body of letters a, b, d, g
- Elegant strokes rounded at the top, forming the shoulders of letters b, h, m, n, p
- long ascenders and descenders
- a cursive, running quality and an upwards 'flick' at the finish of many letters

quite long
ascenders/descenders

narrow
'branch'

slight
slant

flourished
ascender
(do not
over-use!)

a b c g h m u l

lozenge
shape

partial
lozenge even in open letters

reverse
branching stroke
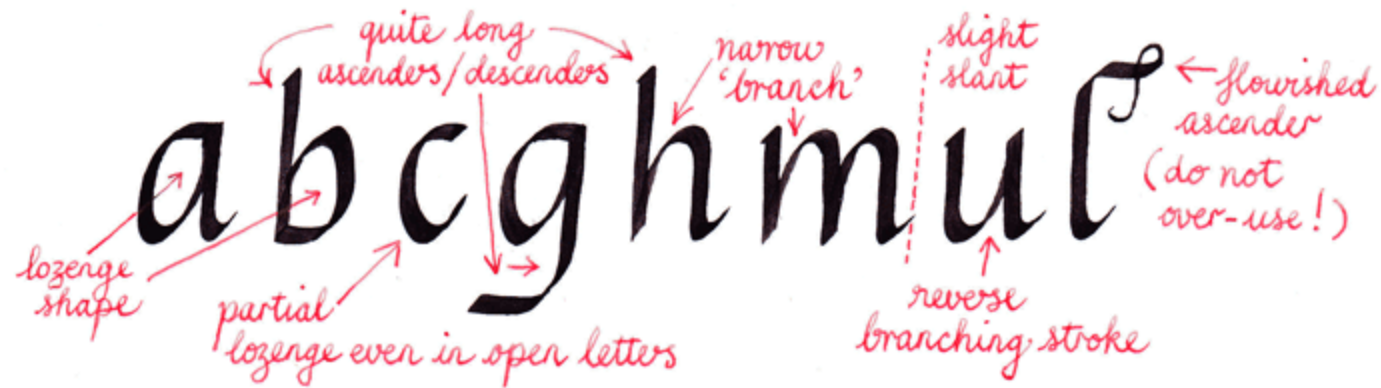
Writing tools

All materials recommendations are courtesy of lettering-daily.com/modern-calligraphy/

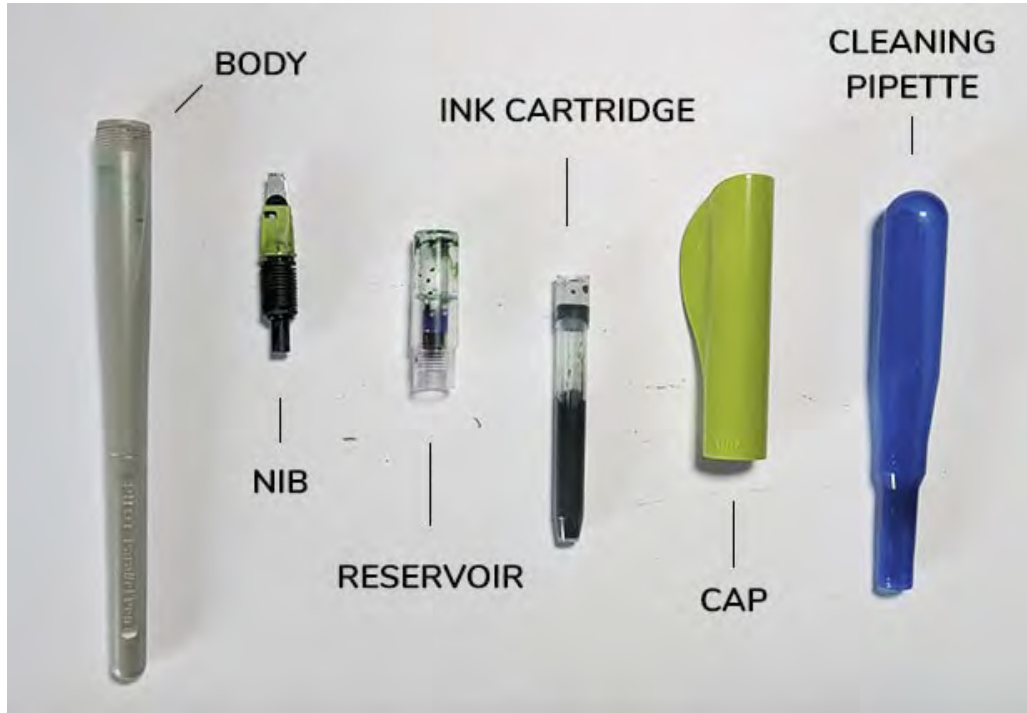You can use almost any kind of writing tool to do the Italic script; however, the most common choice is the broad-edged pens.

If you are just getting started with Italic calligraphy or any other broad-edged script, the **Pilot Parallel Pen** is the best tool you can start with. It is simple to use, ready as soon as you take it out of the box.
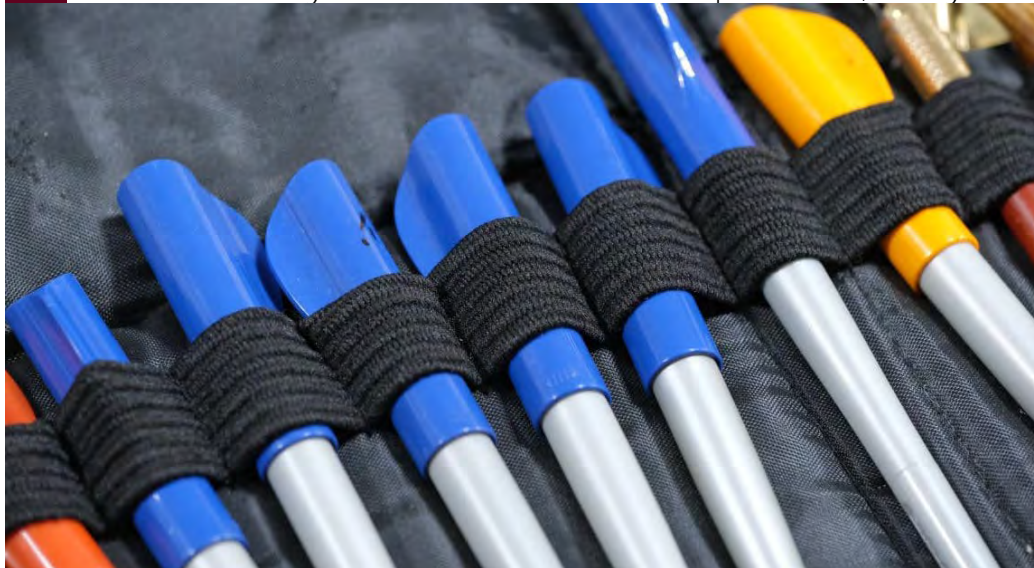
Here it looks like this when taken apart.

If you do not have that pen and you are not interested in purchasing it, you can also go with the traditional nib and straight holder. Lastly, a flat tip marker may do the job, especially at the beginning while you are still practicing.

Paper

Calligraphy paper is very important. The best paper is the low-absorbent, smooth paper that will not allow ink bleeds. Low quality soft paper will absorb and spread the ink, and it will ruin your lines.
A Pilot Parallel pen due to a heavier ink flow, may bleed through, while on the same paper using a dip pen and ink could produce satisfactory results.
In the example below you can see the difference between premium print paper (HP) and high quality Fabiano paper. I love Fabiano paper, not just for calligraphy, but for many other art projects, it is so smooth and velvety, it is a joy to work with.
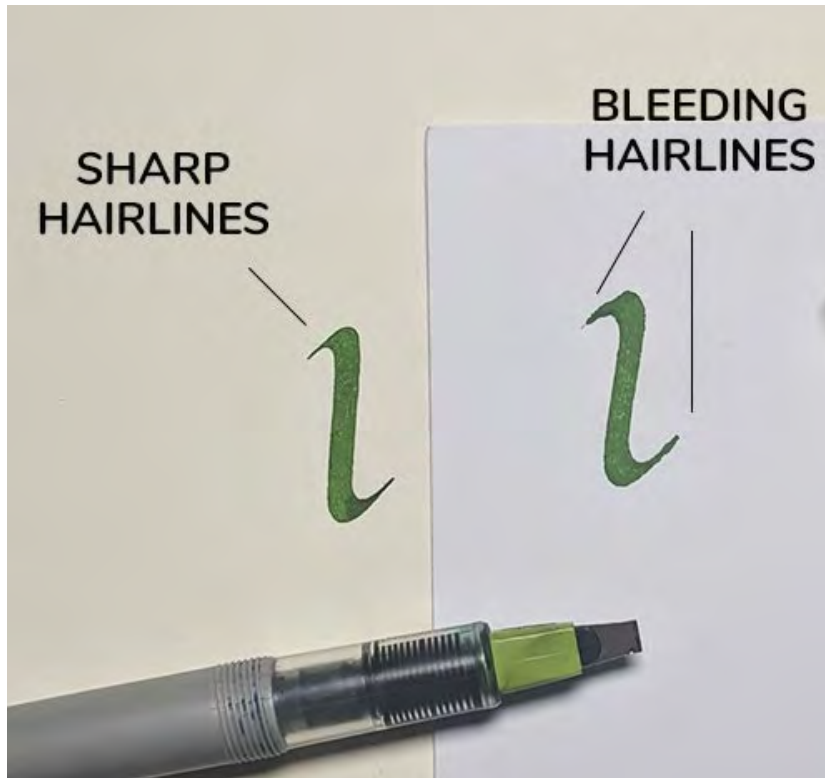
For practice sessions it is alright if the ink bleeds a little, especially if you are not going to keep the sheet. When you are working on homework assignments you plan to turn in, or on projects to keep, always use high quality paper. The extra money you would spend you'd make up in time you will save.

Also, using paper with a slight tooth will give you an additional grip to your nib, making it easier to control your strokes – at the same time, using paper with too much tooth can make it too hard to control.

Here is a paper recommendation for both practice and final pieces from lettering-daily.com/modern-calligraphy/

Practice calligraphy paper (cheaper) –
- Marker pads, bleed proof paper
- HP Premium 32LB – Not the best for the Pilot Parallel Pen but works excellent with dip pen and ink or gouache.
- Rhodia pads – great for both the parallel pen and dip pens

Calligraphy paper for final pieces (more expensive)

- <u>Watercolor paper</u> (different kinds)
- <u>Khadi paper</u>
- <u>Fabriano paper</u>
- <u>Clairefontaine Triomphe</u>
- <u>Hahnemuhle paper</u>
- <u>Strathmore calligraphy paper</u>

Inks, rulers, pencils, erasers

Inks: **Winsor & Newton calligraphy inks**; **Sumi ink**; **Gouache** – is very versatile, you can easily manipulate the viscosity by using more/less water, mix different colors, create your own tones and palettes – I personally enjoy this sort of freedom.

Ruler: The rolling ruler is a ruler with a wheel on the backside that allows you to draw quick parallel lines – ideal for calligraphy guidelines.

As for the pencil, I prefer to use a **mechanical pencil** simply because it can create very faint and fine lines without ever have to sharp it.The best eraser is the **kneaded eraser** – ideal for deleting fine and gently drawn lines + it never leaves any crumbs..

So, you got our materials and now you are ready to start!

Sizing

- The Italic script uses 5 contiguous nib widths for the central body part (x-height), ascenders and descenders – **a 5:5:5 ratio**.
- The capital Italic letters are a bit smaller than the ascending strokes, usually **7-8 nib widths**. Here is a visual representation:

CAPITAL HEIGHT 2-3 NIB WIDTHS

ASCENDERS 5 NIB WIDTHS

X-HEIGHT 5 NIB WIDTHS

DESCENDERS 5 NIB WIDTHS
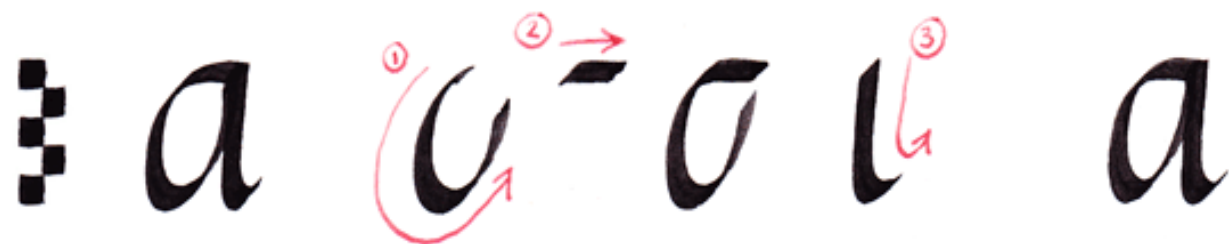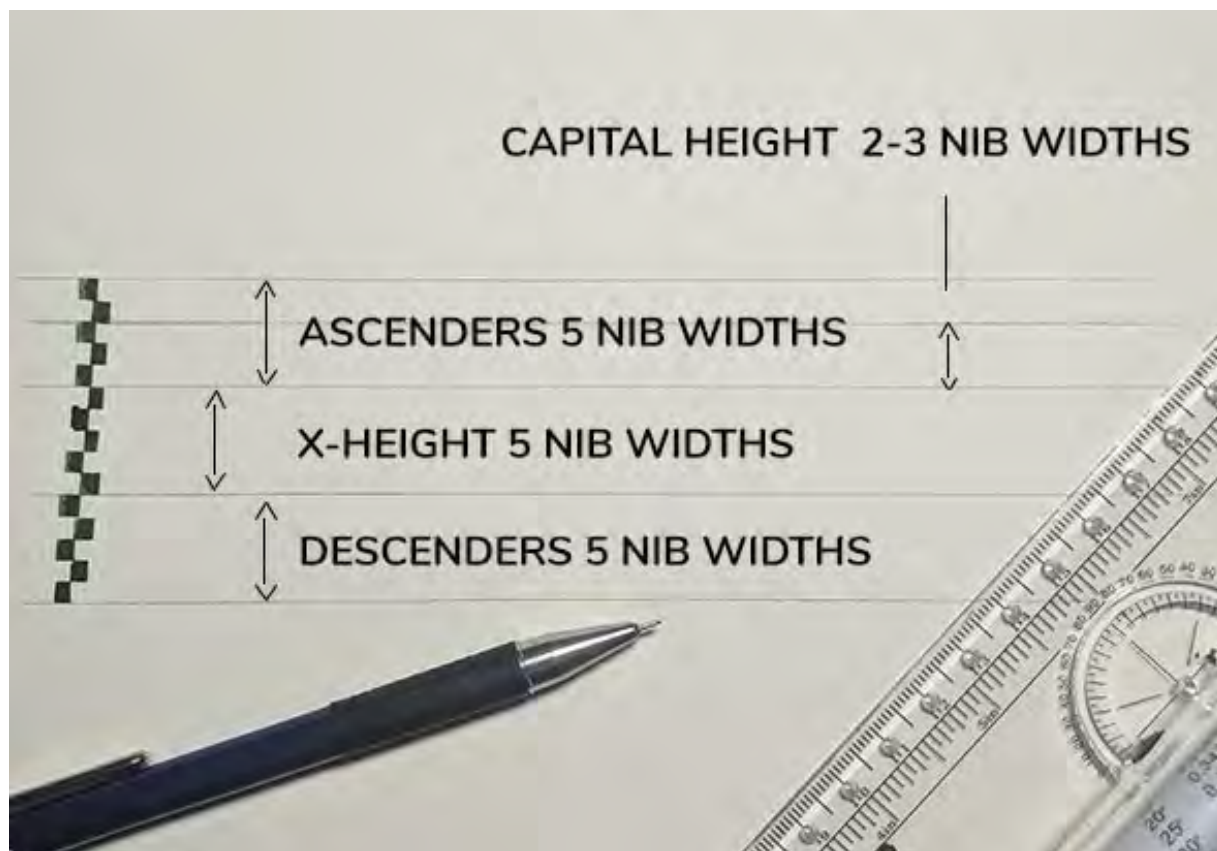
Letter and pen angle

- Keep your pen angle at 45 degrees. There are a few letters and strokes where you should switch up the angle to maintain the proportions.
- The letters have a slight slant about 5 degrees.
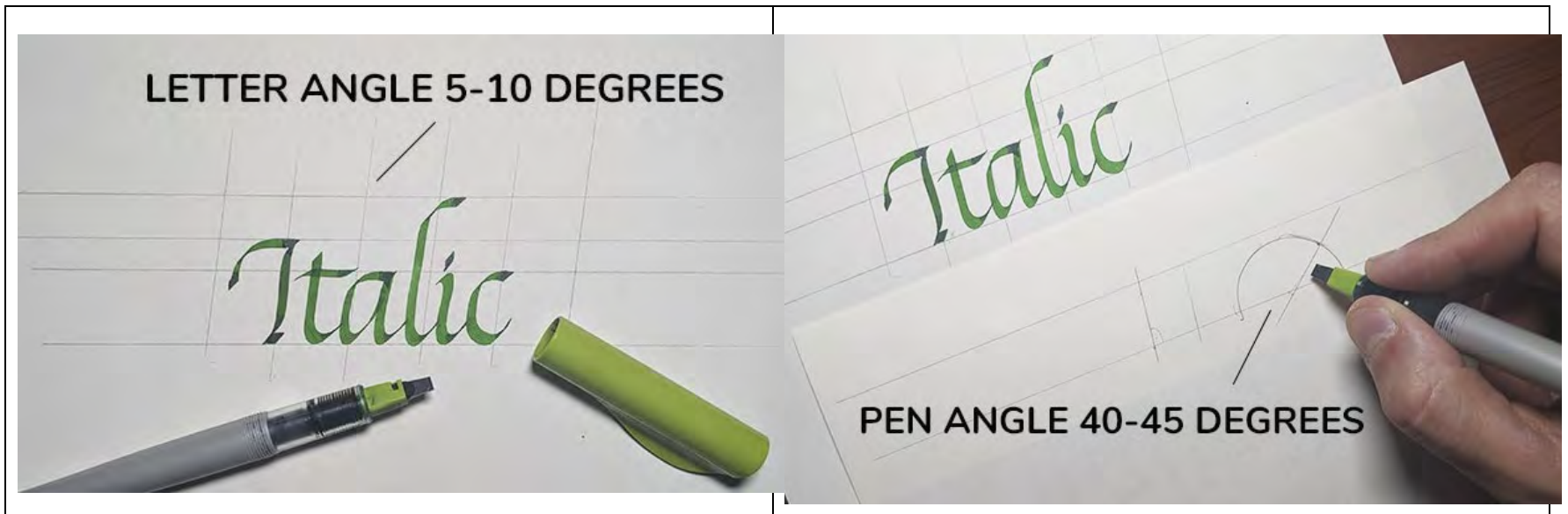
Another noteworthy mention is that the pen angle must change depending on the slant – if you are writing with a heavier slant you must adapt the pen angle to it; otherwise, the letters start to lose their shape. This is something to consider once you begin working with a different variation, but as mentioned earlier, if you are just getting started – just stick to the 5-7 degree angle.

Letter proportions

The Italic letterforms are longer than they are wider with horizontal to vertical ratio of **2:3**
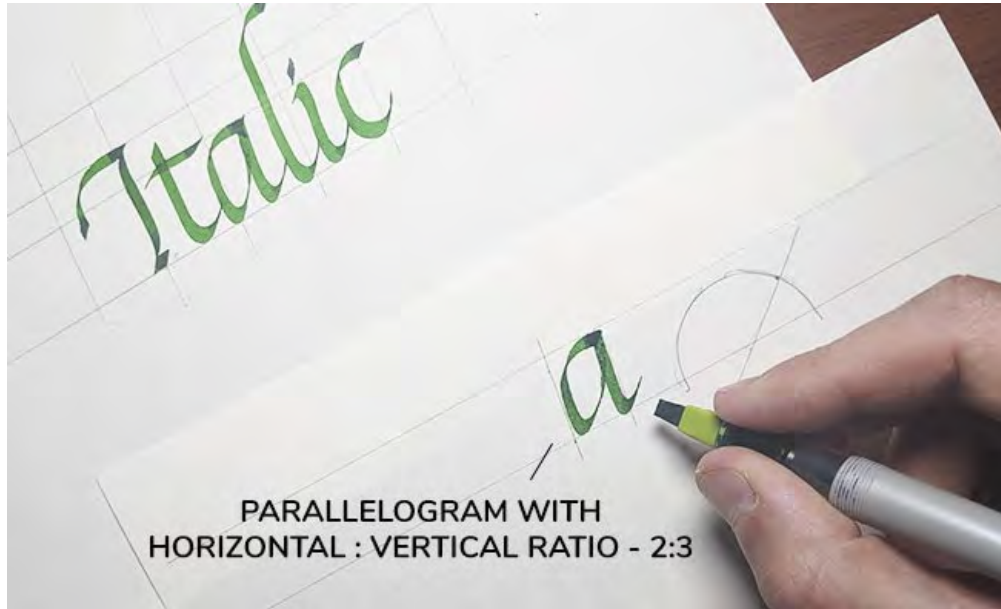
Letter width and spacing

The letter width of italic letters is relation to their height is another important consideration. This is about the shape and size of the 'counter' or white space inside any letterform.

now   now   now

too narrow   about right   too wide

SPACE BETWEEN LETTERS

space space space

crowded   about right   too open

The letter spacing controls the white space *between* the letters.

Pattern drills

I would highly recommend getting started with (pattern) drills as a warm-up exercise. This will help you to get to know the tools you are working with, and it will also help you to develop **rhythm**, **consistency**, and **precision**.
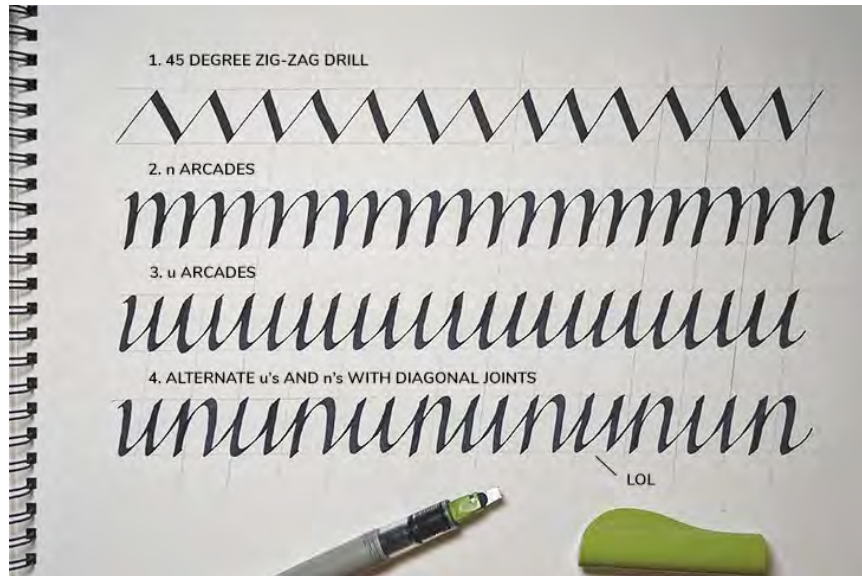
These pattern drills were taken from the book by Sheila Waters – <u>Foundations of Calligraphy</u>. I would recommend that every time you practice, and before you start writing words, you simply fill one of this drill sheets. It will help your hand muscles warm up and get you ready to practice with letters and words.

Basic strokes
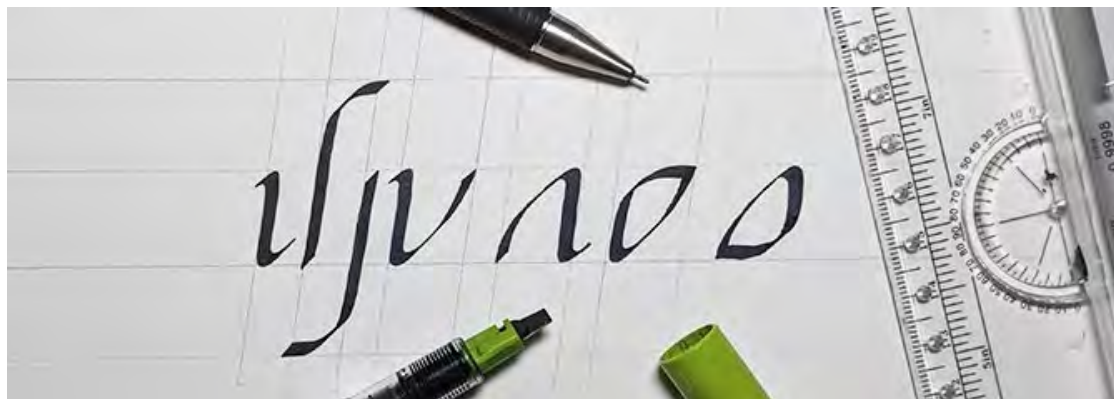
Lowercase letter groups

A lot of the letters in the Italic script have similar shapes and can be divided into 4 different groups.

Group one – n, m, h, b, p, r – branching letters

Group two – i, j, l, k, f, t – straight letters

Group three – a, d, g, q, u, y – reverse branching letters

Group four – o, c, e, s, v, w, x, z – oval and diagonal letters
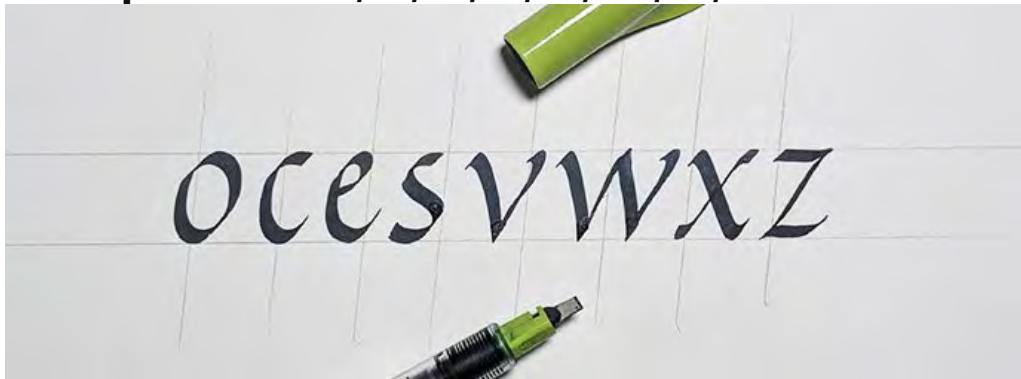
Check out also this YouTube tutorial by Joanne Fink where she demonstrates how to write the whole lowercase Italic alphabet –

Final words

The italic script is a beautiful and very dynamic style of writing. It has a rich history and tradition and it is fun to explore. The construction of the letters is quite clear and simple. As with other scripts, it takes a

lot of time and practice and develop the skill of writing consistent letterforms. Designating some time once week to practice calligraphy, would pay dividends in a long run.

Additional resources

Sheila Waters –Foundations of Calligraphy
Fred Eager – The Italic way to beautiful handwriting: cursive and calligraphic
Margaret Shepherd – Learn calligraphy
Edward Johnston –Writing & Illumination & Lettering
Lloyd Reynolds – Italic calligraphy and handwriting.

	Video by Sakura of America https://www.youtube.com/watch?v=fY1ImErZWb8

Italic images courtesy of The Grammar Terrorist | The images will open in a new window so you can save or print them for future reference

CHAPTER

4

HAND LETTERING

In this lesson, you will learn the following:

- What is hand lettering

- How hand lettering is different from calligraphy

- What different styles of hand lettering exist

- How artists use different hand lettering techniques

abcdefghij
klmnopqrs
tuvwxyz

=!?\() @<>§&
1234567890

HANDLETTERING

Hand lettering, or "modern calligraphy" as some lettering enthusiasts call it, is the art of drawing free style letterforms. Hand lettering is not only a beautiful artform, but also a very trendy way to create personalized messages or the incorporate craftsmanship in your design projects.

Hand lettering is more flexible and expressive than traditional calligraphy because it follows fewer rules. It borrows inspirations from a variety of contemporary sources from graffiti on the street, to handwritten love notes.

Hand lettered designs have structure and style and are created using a variety of tools. The steps for learning hand lettering are the same as learning calligraphy. There are practice sheets to help you with the technical aspect and bellow you read 10 help tips to get you started.

Hand lettering vs Calligraphy What is the difference?

• The characters could be different from one another • Letters do not have to sit on the baseline • Flourishes could be different on the same words • The style is not based on a historical typeface • Ascenders and descenders could bounce too. • A variety of tools and materials could be used: markers, watercolor brushes, chalk, paint, ink etc.	• The characters are very uniform • Letters sit on the baseline and obey the x-height. • There are strict rules for ascenders and descenders. • The Flourishes are less dramatic • The style is based on a historical typeface • Traditional tools and materials are used: ink, nibs, and pens

Tips for Beginners

1. Gather Inspirations

The best way to start learning hand lettering is to study letters. Find hand letterers whose work inspires you and follow them for insights into the design process and the world of hand lettering.

Fonts are a good source of inspiration for hand lettering students, too. Thousands are currently in use and more are being created every day. Many of today's most popular fonts are hand lettered. Find ones you like and try tracing them to get a feel for letter shapes and spacing.

Create a library of inspiration for design ideas, techniques and materials you can incorporate into your own lettering work. Collect work you admire, follow artists whose work you like, and explore books and courses on hand lettering, typography, and design.

2. Choose the Right Tools

Hand-lettering artists use brushes, markers, pens and a variety of other instruments to get the right look. Here are a few essentials to keep on hand:

Microns - Relatively inexpensive and easily available through just about any art and craft supply store, Micron pens are loved by hand lettering artists for their consistency and dark, heavy ink. They don't bleed, they provide a consistent ink flow and they are long-lasting, if you're take care to cap them when not in use.

Flat tip pens – Flat tip are great for hand lettering, because they provide variable width strokes, depending on the angle at which you draw.

Brush pens - Brush pens combine the reliable ink flow of a pen with a flexible, brush-like tip. You can get them in a variety of colors and styles from art supply stores.

Tools for hand lettering include not just pens, pencils, and brushes, but also paper, rulers, erasers, and digital tools such as image editors and drawing tablets. Try new combinations to find the ones that work best for your style and circumstances.

3. Learn your technique

Before you start hand lettering phrases, learn to draw individual characters. Doing the practice drills and learning how to draw letter forms is essential. Much like a musician who needs to learn the notes first before creating music, you need to learn the basics before you jump into creating elaborate compositions.

4. Keep it Consistent

Whatever lettering style you've chosen for a project, consistency is key. Use guidelines to ensure that your letter shapes share the same look and slant for good design and readability.
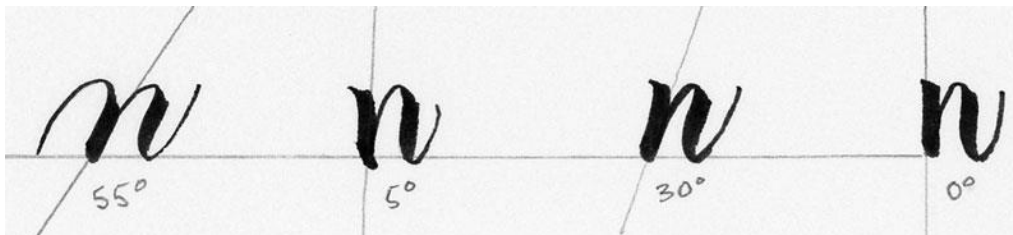
5. Plan your composition

Taking time to plan and lay out your letter design with a pencil, will make it easier to create a coherent piece. Very often when you start hand lettering it is hard to judge the length of the words.

Sketching out the shape of the final composition in pencil helps you plan better. This first sketch can be adjusted and resized as needed until you're satisfied with the design. Then, ink the sketch, using the pencil lines as guides. When your design is completely inked, erase any visible pencil lines.

6. Focus on a Visual Hierarchy

Lettering is meant to be read, so it's important to guide the reader's eye with a clear visual hierarchy. Arrange your elements from most to least important within a design to make the meaning clear.

A key to lettering design is understanding where to place emphasis. Not all words carry equal weight, so find the strong words in a quote to determine the final shape of your piece.

7. Express Emotion

Lettering design includes not just the words, but also the emotion behind them. Decide on a lettering style and layout that can express that feeling, whether it's a playful, decorative script or a heavy, bold letters.

Always experiment with different styles and allow time to learn new ones. It's good practice and expands your range of lettering skills.

8. Digitally Refine Your Work

Image editors like Adobe Photoshop and Illustrator make it possible to refine hand-lettered work, add effects and styles, and save the finished piece in multiple formats for use in digital formats, as well as in print.

Scan

Scan your hand lettered piece at 300 ppi grayscale and save it to a file. You can edit it in Photoshop or Illustrator

Vectorize

Convert your scan to a vector image that can be scaled and transformed without losing sharpness.

In Illustrator, open a new copy of your lettered piece. Use the Trace Bitmap option. Object- Expand. Select the background color and delete. Use the Direct Selection and Eraser tools to clean up any remaining areas of background color. This process works best on fully inked pieces, which have even contrast and sharp lines.

9. Practice!

The more you hand letter, the more you'll refine your technique. Carry with you a small sketch book and a pen or a pencil and practice every time you get a chance – at school in between classes, at home while waiting for your food to be delivered, on the bus or the subway train, every time you have some idle time.

10. Use additional tutorials

If you are reading this chapter, you are already convinced of the benefit of guided instructions. In addition to instructor-led education, there is also the large and growing community of hand-lettering artists out there online. You can find additional resources and inspirations from videos and books. Below I am including a plethora of resources.

There are so many different hand lettering styles, that instead of showing you just one, I have selected several tutorials that cover the most popular hand lettering styles. You can choose the style you like and want to try. I recommend starting with the basics right below, and then continuing to the 11 free tutorials on the next page. Click either on the title or on the image to view the tutorials.
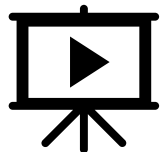
	10 Things Wish I Knew as a Beginner Learn How to Hand Letter by How to Hand Letter https://www.youtube.com/watch?v=UKUkSWxNJFc
	The Beginner's Guide to Brush Lettering: Basic Strokes by Destination Decoration https://www.youtube.com/watch?v=ENj1xxj9STs
	Letter formation by Destination Decoration https://www.youtube.com/watch?v=SaqxEKJP_bw

11 Free Tutorials

1. Improve Your Brush Calligraphy by Practicing Thin and Thick Strokes

Step-by-step: Calligraphy is defined by the interplay of thin and thick strokes. This practice from Pieces Calligraphy shows how to master both kinds of strokes and transition between them.

2. How to Hand-Letter Your Own Save the Dates

Step-by-step: Learn to hand letter your own save-the-date cards with a how-to from Creative Market. This tutorial demonstrates how to blend handwriting and a watercolor background in Photoshop for an elegant, personalized design.
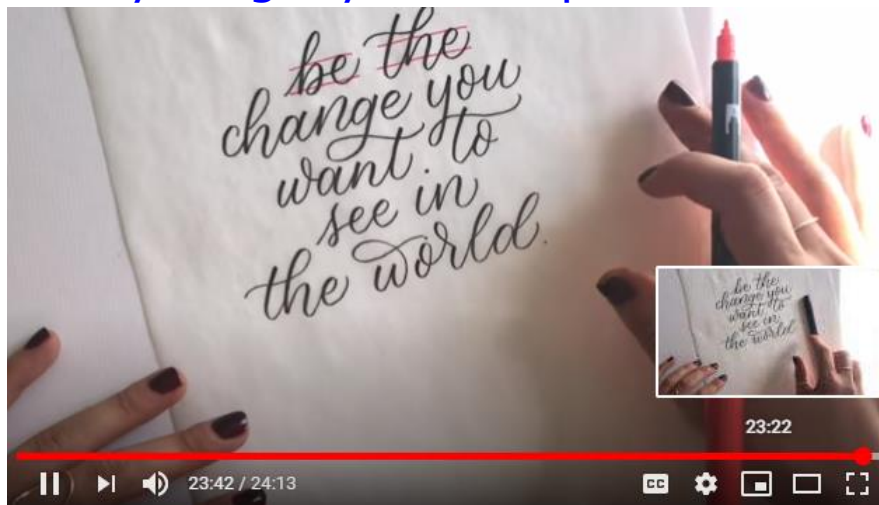
3. Bouncing letters fundamentals

Video: Learn how to draw bouncing letters with a video tutorial by Happily Ever Crafter

4. Layering layout for quotes and cards

Video: Create unique cards and invitations with a combination of lettering. This tutorial from Happily Ever Grafter demonstrates how to "style" a hand lettered message.

5. Adding flourishes to your letters

Video: This short tutorial from [Loveleigh Loops](#) shows how to make simple swirls and add embellishments such as hearts and flowers with a pen or brush.

6. Basic Hand Lettering: Block Letters

Video: Learn to draw a block letters with a video by [How to Draw and Paint](#).

7. Creating a Hand-Lettered Logo Design

Step-by-Step: Typography is a powerful tool for conveying meaning and emotion. InvisionApp offers a tutorial on the psychology behind typefaces and font styles with a look at the symbolism of serifs, script, and blackletter.

## 8. How to Overlay Your Lettering Onto an Image

Step-by-step: This tutorial from June Letters demonstrates how to add hand lettering to an image in nine steps using Photoshop's layers and layer style tools.

9. How to Vectorize Your Own Hand-Drawn Font

Video: Creative Market offers an excerpt from a Skillshare course on vectorizing your own hand-drawn font with Illustrator.

10. [Hand-Lettering with Accents](#)
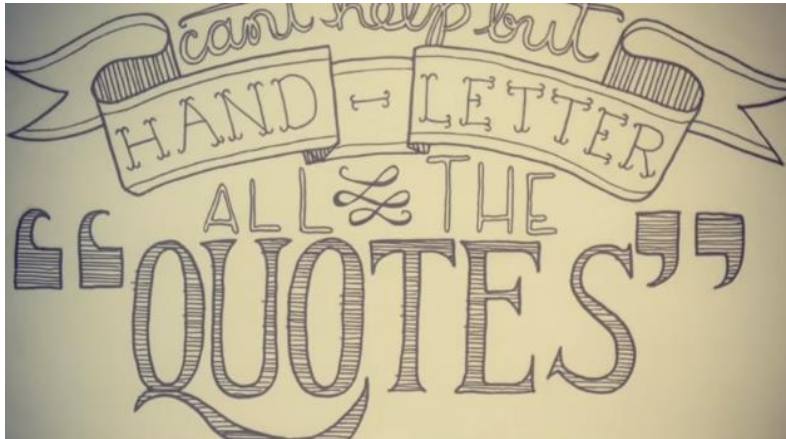
Video: Accents can enhance hand-lettered work. This seven-minute video tutorial from Made by Marzipan demonstrates how to add accents such as arrows, banners, and buntings to all kinds of lettering projects.

11. [Graffiti style hand lettering explained](#)

Video: This tutorial from [Graff Lounge](#) explains different types of graffiti lettering

Resources

Other books by the author:

Advanced Illustrator Techniques

A practical guide to learning advanced tools and techniques for digital illustration. Step-by-step tutorials will help you take your illustration techniques to the next level. Advanced projects include digital portraits, infographics, mandalas, and other designs products.

Business for Creatives

This book is a must read for students embarking on their art and design careers and for any anybody else braking into the creative industry. Daniela Nikolaeva, a creative professional with 25+ years of experience gives invaluable expert advice and guides you through the process of stating a new business, marketing yourself, working with clients and expanding.

Drawing for Animation

Learn essential drawing techniques for creating characters, model sheets storyboards, and animatics. This book has many inspirational examples and breaks down complex projects into simple steps, everyone could follow.

All books are available in electronic format and are sold only by DaNiDesignArt.com

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