Typography

Typography in Action | **The Language of Type** | Font Pairing and Hierarchy

National Visual Art Standards

VA:Cr1.1.la: Use multiple approaches to begin creative endeavors.

VA:Cr7.1: Evaluate the effectiveness of an image or images to influence ideas, feelings, and behaviors of specific audiences.

VA:Cr8.1: Analyze differing interpretations of an artwork or collection of works in order to select and defend a plausible critical analysis.

Guiding Questions

- What role does persistence play in revising, refining, and developing work?
- How does learning the language of typography improve design skills?
- How do designers grow and become accomplished in art forms?
- How does collaboratively reflecting on a work help us experience it more completely?

Objectives

Students will…

- Differentiate between serif, sans serif, slab serif, and script typefaces;
- Explain the effects of functional typography;
- Identify experiences or products that need redesign;
- Apply the elements and principles of design to real life problems;
- Critically evaluate completed design.

Vocabulary

Alignment: is the arrangement of text in a straight line, or in correct or appropriate relative positions such as left, center, right, or justified.

Ascender: a part of a letter that extends above the x-height, like on "b" and "d".

Baseline: the line on which most letters sit.

Cap height: the height from the baseline to the top of the capital letters.

Centered alignment: type that is aligned in the center and ragged on both the left and right sides.

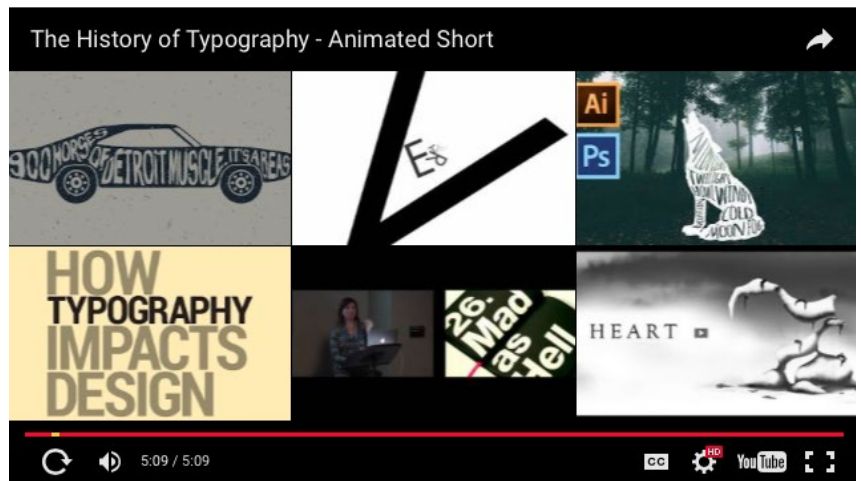**Descender:** a part of a letter that extends below the baseline, like on "j" and "p".

FIGURE 1: *The History of Typography* in an animated short by Forrest Media (https://forrestmedia.org/video-work/). It plainly explains the history of fonts and typography through paper-letter animation.

Time Period: at least three classes, 45–60 minutes in length

Lesson Introduction

Part of being a graphic designer is understanding the language of typography in order to use it expressively, improve understanding, and communicate more effectively. There are many terms that can be confusing or are outright incorrectly used, such as typeface and font. Typography surrounds everyone. Students need to look around and notice the typography that surrounds them, that they depend on daily. They need to start seeing type in a new and different way—as a useful tool for communication. This unit section is designed to encourage students to develop the desire to know and do more with typography and incorporate it more thoroughly into their design projects. Like many learned skills, learning the language of typography takes time and practice.

ACTIVITY PROCESS

Engagement (the hook–motivation and relevancy)

Typography surrounds us everywhere we go, but many people have never thought about it, or don't even notice it. Ask students to consider where in their lives they notice type and fonts. Clothing or energy drink brands? Video games? Ask if they can describe the feeling the type they see everyday is meant to convey. Ask them to look in their textbooks and notice how the information is displayed in terms of headlines, subheads, sidebars, and quotes. Comparing typography in textbooks will raise awareness of why the text is presented as it is. Ask students if they think typography is an art form.

Font: a complete set of metal type of one particular face and size including upper case and lower case characters. In digital type, a font refers to a complete digital type file.

Justified alignment: type that is aligned on both the left and right sides.

Kerning: adjusting the space between pairs of letters so the space between the letters is visually balanced.

Leading: the space between lines of type, measured in points from baseline to baseline.

Left aligned: the most typical alignment. Type that is aligned on the left side and ragged on the right.

Line length: the length of a line or block of text, best to be between 45 to 85 characters long.

Pica: 1/6 of an inch. Line lengths are measured in picas.

Point: 1/72 of an inch in type measurement. Type and rules are measured in points.

Right aligned: type that is aligned on the right side and ragged on the left.

Sans Serif: without serifs.

Sans Serif

Script: designed to look like handwriting, script fonts express elegance when used in moderation.

Script

Serif: a small decorative line added as embellishment to the basic form of a character.

Serif

Typeface: a particular design of type, including all of the sizes and variations, like bold and italic.

X-height: the height of a lower case x in a typeface.

Materials

- Colored markers
- Glue sticks or double sided tape
- Pencils
- Tracing paper

Figures

1. *The history of Typography*
2. Star Tribune sports page
3. Example of Assignment 3
4. Example of page one of the twenty-five page *Handout 4C.1_Font Pages.pdf*
5. Typeface Anatomy–Basic parts of a typeface
6. Examples of graphic design using serif, sans serif, and script typefaces
7. Type size measurement
8. Example of a pica ruler
9. Example of alignment

FIGURE 2: **Star Tribune sports page.** There are many examples of different types and styles of typefaces being used on this one newspaper page, but note that a serif typeface is being used for the main body text. Serif typefaces tend to be easier to read at small sizes, in turn making the text more comprehensible.

DAY 1

The History of Design

The History of Typography by Forrest Media (see Figure 1) is an online video that gives a quick and fun history of typography and introduces many of the vocabulary words used in this section. As students watch the video, have them write down terms they may not know. Afterwards, review unit vocabulary to reinforce the terms. Invite students to do their own research and find other videos about typography to share with the class (this could be done as homework).

Serif, Sans Serif, and Script (see Figure 6)

Serif typefaces have small projecting features at the end of strokes, added as an embellishment to the basic form of the character. Serifs were needed when type was chiseled into stone, before paper was invented. In practice, serif typefaces feel timeless, elegant, trustworthy and retro. Most newspaper and magazine text is set using serif typefaces because they are easier to read, especially when there is a lot of text set at small sizes (see Figure 2).

Sans serif typefaces lack serifs, and therefore feel cleaner, simpler and more modern on the page. Sans serif fonts are easier to read on a computer, because the square nature of the pixel makes the subtle curves on serif type hard to render.

The combination of serif and sans serif typefaces can be used in headlines, subheads, and lists. They complement each other and can help organize information in a way to make it more understandable for the reader.

Script typefaces are reminiscent of hand writing and lettering. They try to bring the same authenticity that hand writing creates. They are often used sparingly in combination with other typefaces.

Art Context, Cultural Connections and Relevancy

The average person is exposed to over ten thousand ads per day. These all contain typography that helps deliver the intended message. Learning the language of typography will raise awareness of the typography that is literally everywhere, and better understand its effect on people.

Handouts

- Handout 4C.1_Font Pages.pdf
- Handout 4C.2_My Name Is.pdf
- Handout 4C.3_Typeface Anatomy.pdf
- Handout 4C.4_Pica Ruler.pdf
- Handout 4C.5_Alignment.pdf
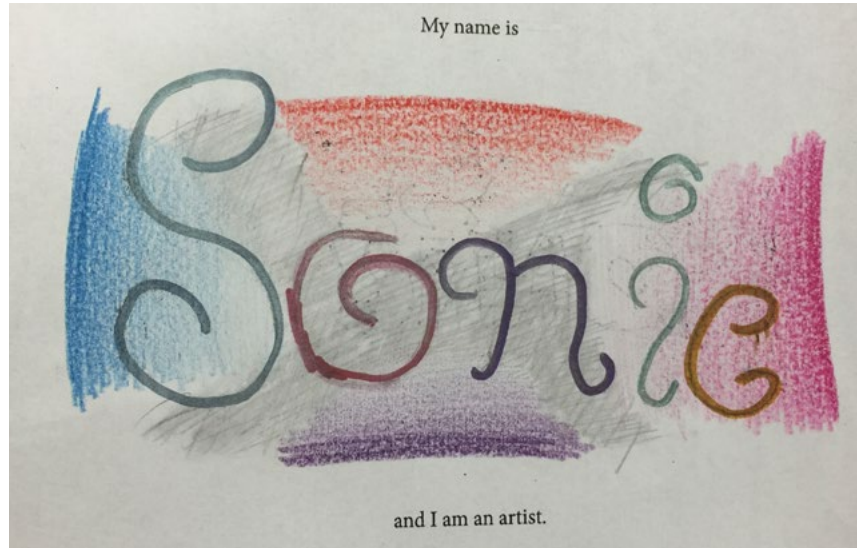- Handout 4C.6_Star Tribune Sports.pdf

FIGURE 3: **Example of Assignment 3.**

Assignment 3–My Name Is

SYNOPSIS: Students will practice choosing typefaces to express meaning. They will also learn to better understand how to make typeface choices.

OBJECTIVE: Students will be able to distinguish serif from sans serif typefaces, and practice the use of script typefaces.

PROCESS:

1. Play the online game: *I Shot the Serif*, (http://www.tothepoint.co.uk/more/fun/shoot_the_serif/). To play, students determine which letters are serif fonts and shoot them for points. You can use the flipped classroom format and have them play the game ahead of time to understand the difference between serif and sans serif typefaces, while having fun doing it. [Hint: They can play as many times as they want to raise their score.]

2. Print out several copies of *Handout 4C.1_Font Pages.pdf* (see Figure 4) for students to share (digital copies work if applicable) and one copy each of *Handout 4C.2_My Name Is.pdf*. Each student will also need a sheet of tracing paper. Ask them to analyze the typefaces in *Handout 4C.1* and choose at least one serif, one sans serif, and one script typeface. They will choose which typeface best expresses each instance of "My name is…" and "I am a…" from *Handout 4C.2*, and trace their name in the space provided (or they can trace on tracing paper and glue or tape it onto a sturdier sheet of paper). They will complete four of the eight examples of their choice (see Figure 3).

3. When they are finished, ask students to evaluate their work and put their best work on the board. Take a few minutes to look at the examples. The best work will be the one that best expresses the intended "occupation". Ask which ones are the most expressive typographically and why. Use the terms of the elements and principles of design to critique each others' work, and use as many typography terms as possible.
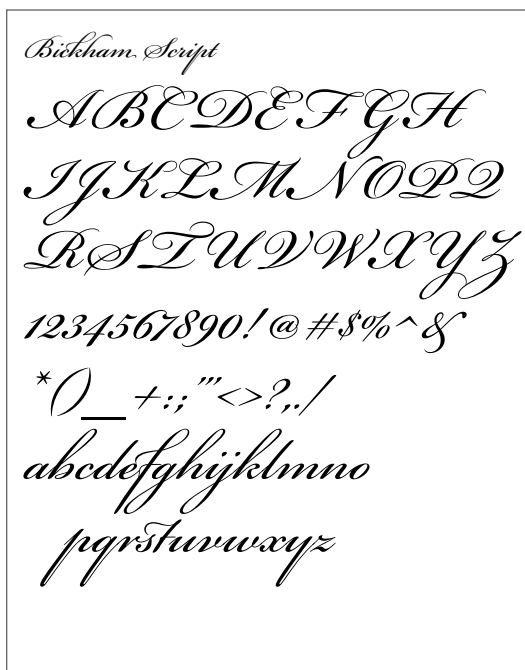

FIGURE 4: **Example of page one of the twenty-five page** *Handout 4C.1_Font Pages.pdf.*

FIGURE 6: **Examples of graphic design using serif, sans serif, and script typefaces.**

4. After the critique, students will redo one of their examples to improve it. Or, they could start from scratch with one they hadn't previously done.

Adaptations and Accommodations

I Shot the Serif is a Flash game, but it is also a free download in the Apple App store, so it could be played on iPads or iPhones. Assignment 3–My Name Is could also be done on the computer.

Extensions

Extra credit: make up your own "I am a…", or complete all eight of the examples. If they want more, students can research and break down serif typefaces into their appropriate historical category of Old Style, Transitional, or Modern, as referenced in the History of Typography animation.
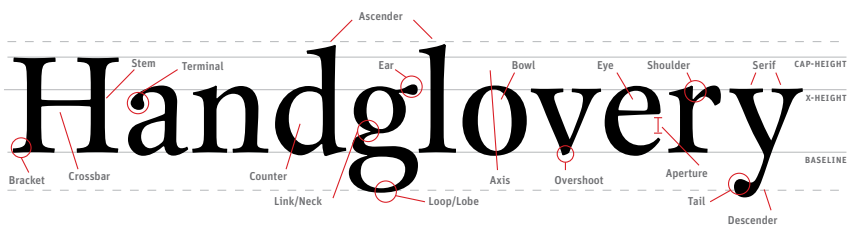
Homework or Independent Work

If students want to get more practice using type terminology, http://www.pentagram.com/what-type-are-you is a four question quiz about their typographic personality that is fun to do, and gives information about fonts at the end.

Closure

Ask students to select the *I am a…* that they think is the best one. Have them ask other students which one they think is best and why, using the terminology of the elements and principles of design. Examples of why a design is the best it could be: this one has great movement, this one has a rhythmic composition. Is it the one they did at the end in order to improve on their previous work? Do they see improvement in their work from the first to the last? Are they using the vocabulary of the elements and principles of design?

Check For Understanding

While students are working on their My name is... and I am a... assignment, check to see that they have used the serif, sans, and script fonts and are able to use the terms correctly.

Typeface Anatomy — *Basic parts of a typeface*		
ASCENDER The upward vertical stem on some lowercase letters, such as 'h' and 'b', that extends above the x-height is the ascender.	**AXIS** An imaginary line drawn from top to bottom of a glyph bisecting the upper and lower strokes is the axis.	**BOWL** The curved part of the character that encloses the circular or curved parts (counter) of some letters such as 'd', 'b', 'o', 'D', and 'B' is the bowl.
APERTURE The aperture is the partially enclosed, somewhat rounded negative space in some characters such as 'n', 'C', 'S', the lower part of 'e', or the upper part of a double-storey 'a'.	**BASELINE** The imaginary line upon which the letters in a font appear to rest.	**BRACKET** The bracket is a curved or wedge-like connection between the stem and serif of some fonts. Not all serifs are bracketed serifs.

FIGURE 5: **Typeface Anatomy–Basic parts of a typeface** (see *Handout 4C.3_Typeface Anatomy.pdf*), ©2010 FontShop International, www.fontshop.com/education.

DAY 2

Typeface anatomy

Understanding the anatomy of a typeface can help students conduct more productive critique and discussion about type. There are many intricate details when one looks closer at a type character itself (see Figure 5 and *Handout 4C.3_Typeface Anatomy.pdf*). Looking at the handout, when comparing serif typefaces to sans serif typefaces, it's evident that serif typefaces in general have smaller x-heights and longer ascenders and descenders. The cap height is generally shorter than the length of the ascender. In addition, the letter "o" dips below the baseline just ever so slightly. Knowledge of the anatomy of typography will help students look at a typeface more critically and make better informed decisions when selecting a typeface for a project. It will also help them verbally explain why they chose a particular typeface to express a certain feeling or personality. Assignment 4 introduces students to the basic typography terms they need to know in order to use type purposefully in graphic design.

Assignment 4–Type Anatomy

OBJECTIVE: Students will learn the most important typeface anatomy terms so they can compare and contrast the qualities of serif and sans serif typefaces in selecting a font for a design.

PROCESS:

1. Print out *Handout 4C.3_Typeface Anatomy.pdf* (see Figure 5) and make a copy for each student.

2. Have students work alone or in pairs to find and circle the following terms: ascender, baseline, cap height, descender, serif, and x-height (see Figure 7).

3. Ask them to take out *Handout 4C.1_Font Pages.pdf* and select one serif and one sans serif typeface, and compare and contrast the x-heights and length of ascenders and descenders between the two typefaces. When they are done, ask several individuals or pairs to report what they have discovered in comparing and contrasting.

Adaptations and Accommodations

This could also be a group project to accommodate students who may not be able to physically circle the terms.

Extensions

Students can turn the *Handout 4C.3_Typeface Anatomy.pdf* into a work of art by highlighting extra terms they find interesting, and doing so artistically.

Homework or Independent Work

Students can continue to add to their typography photo collection by snapping a shot of inspiring typography anytime they see one. They can also cut out inspiring typography from newspapers and magazines and make a typographic collage for a typography journal.

Closure

Put up a printout of a serif and sans serif typeface from the *Handout 4C.1_Font Pages.pdf* on the board. Ask for volunteers to use a ruler
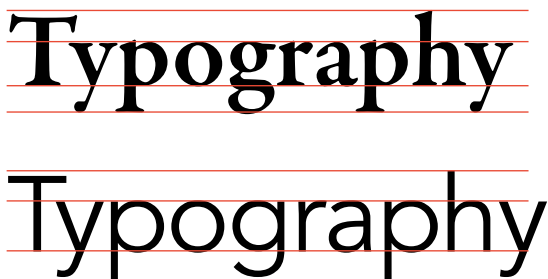
Typography

Typography

FIGURE 7: **Type size measurements.** The term type size originates from the time in history when characters of type were cast in metal and measured from the top of the ascender to the bottom of the descender, plus a little. Both of the words "typography" are 40 point type with 48 point leading (space between lines of type).
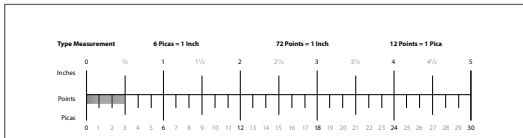
FIGURE 8: **Example of a pica ruler** (see *Handout 4C.4_Pica Ruler.pdf*).

FIGURE 9: **Example of alignment** (see *Handout 4C.5_Alignment.pdf*).

and draw in the x-height, baseline, and cap height, using a ruler and a pencil.

Checks For Understanding

After the students have compared and contrasted serif and sans serif typefaces, they should have discovered that x-heights are often shorter in serif typefaces than that of sans serif typefaces, and ascenders and descenders are often shorter in comparison to the x-height in sans serif typefaces than serif typefaces. If they get stuck, ask them to compare and contrast x heights, then ascender and descender length.

Lesson Assessment Based On Objectives

Did students identify the required terms on their Type Anatomy handout? Were they motivated to find and learn more terms? Did they participate in the assignments? Do they know the terms in this assignment well enough to use them in their comparisons?

DAY 3

Introduction

Typography has its own measurement systems of points and picas. There are twelve points in a pica, six picas in an inch, and 72 points in an inch (see Figure 8). Font size is measured in points from the top of the ascender to the bottom of the descender (see Figure 7). The space between the lines so that the ascenders and descenders don't touch is called leading, a term that goes back to when type was set in metal, and strips of lead were inserted as space between lines of text.

Alignment is the arrangement in a straight line, often next to a margin. Left aligned type is most common and the easiest to read. Justified alignment can seem formal. Centered alignment is often used for minimal amounts of type such as wedding invitations or in an ad. Right aligned type needs to be used sparingly. Because the Western world reads from left to right, aligning type on the right makes it more difficult to read. However, right aligned type can also symbolize edginess or forward thinking because of the slight discomfort we feel while reading it.

Kerning is the term for adjusting the horizontal space between pairs of letters to make them more legible. Designers kern headlines and large display type to make it more legible and easier for the reader to understand the content. By kerning type, a designer seeks to make the spaces between the letters visually equal, not mechanically equal, in the way that a computer spaces letters . Assignment 5 introduces students to type measurement, alignment, and kerning.

Line length is also important to consider because reading too long of a line of text will cause the reader to have to move his or her head, which is uncomfortable for the reader and can cause lines to be skipped or doubled. As such, lines that are too long slow down the speed of a reader. Conversely, a line that is too short will break up words that are normally read together.

Assignment 5—Measurement, Alignment, and Kerning

OBJECTIVE: Students will learn how type is measured, the different forms of alignment, and how to kern type.

PROCESS:

1. Print, cut out, and hand out a copy of *Handout 4C.4_Pica Ruler.pdf* for each student. Ask them to study the pica ruler. Ask: how many points are in a pica? In an inch? How many picas are in an inch? Explain that sometimes designers need to divide an inch into tiny increments and that a finer measurement system was adopted to address that issue. That system consists of points and picas.

2. Put a copy of *Handout 4C.5_Alignment.pdf* on the board and mark it with left, right, centered, and justified alignment. Explain what each of the terms means.

3. Students can work individually, in pairs, or groups of three. Give each group a printout of *Handout 4C.6_Star Tribune Sports.pdf* (see Figure 2). Ask them to find as many examples of alignment on the page as possible, and circle and mark them. Next, ask them to use their pica rulers cutouts to measure the line length of all of the columns and write the results directly on the page. Ask each student in the group to use a different colored marker and draw a line to where their eye goes first, second, and third in the page.

4. Ask: are all of the columns the same width? Which column on the bottom does your eye go to first? Explain that left alignment is the most used style of alignment when there is not a lot of text to read. Justified is used in newspapers and magazines to organize large blocks of text and make it easier to read. Centered alignment is used for small blocks of text, like in ads or invitations. Right alignment is hard to read, but can be used to create a feeling of edginess, because it takes us out of our comfort zone of reading from left aligned to ragged right.

5. Optional: Have students play the kerning game (http://type.method.ac/) in class or at home. The object of the game is to move the letters (kern) so the space between them is visually equal. Players get points for being accurate. Encourage students to play more than one time and report their high score to you.

6. Trace a quote. Ask students to search for a quote that they find powerful enough to inspire change in people. They can also do an image search of "inspiring typography" to get some inspiration. Have them sketch out different layouts and alignments of how they would hand draw the quote.

   Ask, which typeface(s) would help express the main idea? Which alignment would best serve the quote? Once they have a rough design that they want to use for the finished product, students can choose to either hand letter the quote, or use the font pages printout to trace it. For this assignment, students can use any typeface or combination of typefaces they feel best expresses the meaning of the quote.

7. When they are done, put the quotes up on the wall and critique. Ask, which are the best at expressing or even enhancing the message of the quote. What could have been done to improve the quote's messaging?

8. Give students time to rework their quotes based on the feedback they got from their classmates. Have them compare and contrast the old and new quotes and ask:

· How many ways did you try it before it turned out the way you wanted it?

· What do you plan to do next?

· Are you satisfied, pleased, or ecstatic with what you made?

Adaptations and Accommodations

The quote assignment could be done on a computer.

Extensions

If students want more, they could design a typographic tattoo.

Homework or Independent Work

Ellen Lupton is a curator of contemporary design at the Cooper-Hewitt National Design Museum in New Your City and director of the Graphic Design MFA Program at Maryland Institute. Visit her book's website (*Thinking with Type*) at http://www.thinkingwithtype.com/. This is a great resource for all things typography.

Closure

Have a final critique on the Assignment 5 quotes. Each student gets up and explains what they were attempting to communicate. Fellow students can contribute positive feedback that use the elements and principles of design to make suggestions for improvement.

Check For Understanding

As students are working on their quotes, ask, why they choose that typeface(s)? What does it express? Why was that alignment and letter spacing selected?

Lesson Assessment Based On Objectives

Students should be assessed on their ability to demonstrate an awareness and proper use of The Language of Type in their own work and the work of other artists and designers. The correct use of unit vocabulary in class dialog and in written reflection should be accurate and appropriate to the work they make and see. All work produced in and out of class—as well as student writing—should be collected and analyzed. (See *Unit 4D Rubric.docx* for assessment and rubric ideas. Customize to meet class specific assessment needs.)

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AIGA is the profession's oldest and largest professional membership organization for design–with 70 chapters and more than 25,000 members–they advance design as a professional craft, strategic advantage, and vital cultural force. From content that defines the global practice to events that connect and catalyze, they work to enhance the value and deepen the impact of design across all disciplines on business, society, and our collective future.