“Topics in Design: Typography and Technology”

When we see the shape of an uppercase serif letterform, we may subconsciously be reminded of the Roman Empire. What we may not consciously realize is that this association has its roots in the technology used to make these letters, thousands of years ago. Serifs are a wedge-shaped artifact that occurs when a chisel hits stone—the tool used by the Roman Empire to carve their letterforms into monuments called capitals (now a word synonymous with “uppercase” due to this same history.) Though some debate exists among historians, it is widely believed that “capital” letters get their geometric shape from the constraints of the tool of the chisel itself. To understand how the wide stylistic variety of letterforms arrived in our font library (and to understand where our own hazy associations with letterforms originate), one must look to the technology which produced them. From the exigencies of the sign painter’s brush to the psychedelic warping of 1960s Phototype to the 8-bit pixel-based typefaces found in 80s video games, letterforms contain the technological history of the world in microcosm. The subtle choices in each typeface’s form bear the imprint of their moment’s philosophical, technological, and visual conditions, capturing an era’s zeitgeist with a miraculous economy of expression. The letters that we use today are more than 2,000 years old—persisting longer than any other artifacts in common use—but have undergone dramatic fluctuations alongside tech’s major physical transitions from stone to paper to metal to celluloid to digital information. Parallel to this technological history, letters shifted context from cuneiform to letterpress to Linotype to phototype to digital screens in a continual reinterpretation of the fundamental question “what is a letter?” In the 1970s, technologists and computer scientists found themselves grappling with this same fundamental question as they carried letterforms over into the digital realm: What are letters? Are they fixed visual information? Or are they an idea—a set of executable, gestural instructions? Are letters best understood as reconfigurations of a set of modular parts— building-block components rather than the choreographed gestures of calligraphy? Are they the organic product of the human hand or the output of a system? Early digital technologies wagered “is this what computers are for?” with typefaces in tow—choosing which aspects of the old analog world to reconstruct—in deciding what attributes to port-over. The world we live in today has been impacted by how technologists answered these questions. Questions which, just as easily, could have been answered differently. This course will begin from a place of reflection on our own lived associations with typographic morphology. We will then explore the possible technological origins of those associations while reflecting upon how [what seemed like] tiny digitization decisions delivered us the typographic reality we inhabit today. Students will be asked to look to history for “reasons” for typographic form (which is fun!) But we will also practice looking to history for alternate futures—to examine the “dead ends” that might have otherwise been and daydream about where these paths lead. Typographic technological history offers a manageable jumping-off point for such a thought experiment. This thought experiment scales up to larger problem-solving (and conceptualization) skills related to understanding the implications and effects of tech.

[Subject to change based on our collective interests!]

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Mondays, 5:20AM-8:30PM 370 Jay St, Room 407

CLASS 1 9/14 • Introduction
Who are you? What do you want from this class?
Syllabus and Community Guidelines
Join the Discord: https://discord.gg/eKXgrNxR8v
What I do.
Let's start watching *Graphic Means* which shows several historical typographic technologies

CLASS 2 9/21 • Technological history of typography overview - (essay A)
Discuss Graphic Means. Letterform background (essay A)
Explorable explanation: "Constraints of the tool" art supply bonanza- (i.e. Try to recreate Caslon's 'A' with only a stapler)
Where did the letterforms of the Latin alphabet originate? What are their parts? How have the major transitions in type's history shaped letterforms? *And did Gutenberg actually invent the printing press?*
Diffusion of Movable Type in Europe and Asia: Why were there Two Fates? by Zhou He

Homework:
Read: The History of Pre-Gutenberg Woodblock and Movable Type Printing in Korea
by Hye Ok Park

CLASS 3 9/28 • How is Type Designed, pt I - (essays B, F)
Discuss the readings by He and Park
Type and technology overview (essay B)
Illustrator—and the skills used in drawing type. (Kerning, and how to use the bézier tool)
Explorable explanation: Let's set some lead and wood type!

CLASS 4 10/05 • Calligraphy! How the tool shapes the Type
Learning a bit of calligraphy to understand the origins of *contrast* in typography.
Discuss homework… We will then practice a bit of calligraphy. Read an excerpt from Gerritt Noordzij's *The Stroke.*
Homework: Draw all of the lowercase vowels (of any typeface using the bézier pen)

10/12 NYU FALL BREAK- NO CLASS

CLASS 5 10/14 • ON WEDNESDAY Class starts at 6:30pm tonight over ZOOM • How Type is Drawn pt II
Jesse Ragan from XYZ Type foundry will explain all of the software and processes that go into making typeface today. Bring all of your burning questions!

End of class: Letterform anatomy (essay F)—the Roman origins of capital letterforms and the shapes of Carolingian miniscules.

CLASS 6 10/19 • Class held over ZOOM Pixels, Part 1 Modular Type
How modern type is made, the skills used in drawing type. (Guest activity with typographer, Troy Leinster: Approaches for sketching type- at 6pm EST)

Exploring the low-res pixel grids of early CRT screens. Toshi Omagari's *Arcade Game Typography.*
Explorable explanation: Working with a limited pixel grid activity (inspired by Wim Crouwel)

CLASS 7 10/26
Lecture: Modular type (CD and UV)
Explorable explanation: Modular type dry transfer activity

Homework:
Create: A modular alphabet system. Separate into two colors so we can print your posters on the RISO!

CLASS 8 11/2 Modular Type RISO Printing Workshop
We will walk to Lucky Risograph! We will print posters featuring the modular alphabets from the last class.

CLASS 9 11/9 • Pixels, pt 2 and Phototypesetting technology
How we have smoothed the low-res pixel grids of early CRT screens
Explorable explanation: Understanding phototypesetting in the psychedelic era by projecting 2-D lettering on 3-D surfaces.
Homework:
Take a photograph of a warped letterform to use as the background image on a poster for a hypothetical concert.
Homework:
Reading: Johanna Drucker's *Diagrammatic Writing*

CLASS 10 11/16 • Typographic Hierarchy 101
Explorable explanation: Making meaning through hierarchy
Design: An event invitation with unusual but effective typographic hierarchy. Develop not your first, not your second, but the third hierarchical composition that you land on…
Homework:
Peruse: How Josef Muller Brockmann used typographic hierarchy to create meaning.

CLASS 11 11/23 • Early digital type strategies - (essays X, W, MN)
Donald Knuth, MetaFont, and Douglas Hofsteder's differentiation of computer and human intelligence.
Explorable explanation: "Draw a letter like a computer"
Discuss final projects

CLASS 12 11/30 • Type and Labor

J Dakota Brown's presentation on *Typography, Automation, and the Division of Labor*, Letterspirit.

Homework:

Read: On Publishing by Danielle Aubert

CLASS 13 12/7 •

This is an overflow day, so we have time to cover another interesting topic. Troubleshooting for final projects too!

CLASS 14 12/14

Final projects due! The floor is yours :D