

c. Variable Meditation

C.1 STORYTIME

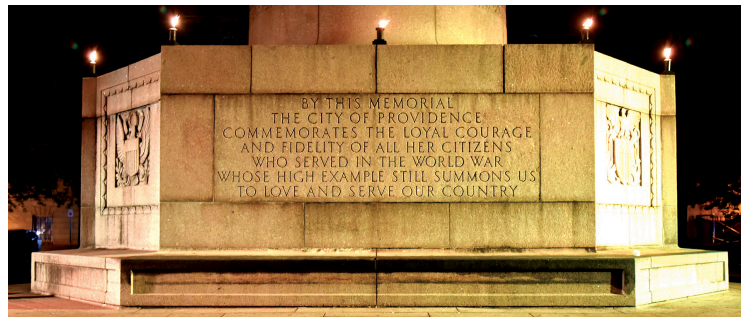
What is a letter? What does it have to look like? What does it have to represent?

Letters come in many shapes and sizes, languages and writing systems, directions and orientations.

Sometimes they're written by hand, and sometimes they're carved into stone.

Now, you'll usually find them printed in ink, or displayed on pixel-based screens.

The stone etching in the [veterans memorial](#) on South Main St. here in Providence:



When we first started designing letters for digital displays, we had a problem.

Letters are often composed of diagonals and curves.

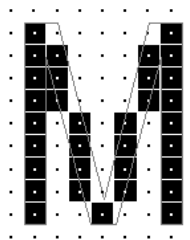
The spacing and precision of a letter greatly determines its legibility.

Our problem was that early computer screens didn't have enough space to display all that data.

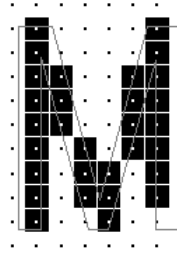
This is how we ended up with something called **font hinting**.

Font hinting was a process that determined which pixels to use to display a letterform.

This is the vector path of an "M" converted into pixel points:



This process isn't always successful:



I grabbed those images from [Microsoft's documentation on TrueType hinting](#).

While we have a lot more pixels to work with now, the early days of digital typography faced a conundrum: how do we, as designers, make legible **bitmap** (i.e. pixelated) typefaces without sacrificing style or aesthetics?

We can find a wealth of creative solutions by looking at early video game designs.

In some cases, designers did their best to match existing typefaces:



That translation wasn't always exact:



Many of the most interesting designs were found in user interface elements:



With very limited space to work with, designers found clever ways to give letters pizzazz:



You can find hundreds more of these typefaces [online](#).

As our font technology evolves to be more and more complex, the same question remains:
How can we use our current tools to create the most expressive designs possible?

C.2 TASK

In this exercise, we will create letterforms using a pixel grid.

Each of you will be assigned a letter.

Draw as many variations of your letter as you can for 30 minutes.

Every 5 minutes, I will give you a new constraint.

Whenever you get a new constraint, switch the color you're drawing with.

C.3 PRESENTATION

We'll pin everyone's letters to the wall. Please write your name on your page(s)!