



In *Art of the Book* class, I set individual letters of type to emboss book titles. You can see in this photo that there is a figure/ground relationship between the letter's shape and the block it is placed on. The physical type has three dimensions with special characteristics. Each letter has a unique width ('i' is slender; 'w' is wide). Each font has its own height (if we call the surface the letter is carved on a 2-d plane, then height is orientation "up"). Depth is the unifying dimension; all fonts share a standard depth (perpendicular to the plane on which the type is carved).

Gutenberg's conception of metal type as discrete letterforms strikes me as an example of visual thinking. Gutenberg recognized that letters were marked by unique organizations of basic visual elements. In other words, there are only a few shapes—lines, angles, and circle segments—but we recognize the different configurations as completely different letterforms. Though they are mathematically congruent, 'b' is different from 'd,' because they are an enantiomorphic pair (they are reflective of each other). Likewise, the slight difference in length of stroke between 'i' and 'j' makes them completely different letters.

A letter is best described with the cognitive science perception term "invariance." In the "code" for our language, certain visual elements of each letter signal which letter we are looking at. Just as in face-recognition we focus in on unique features of friends while discarding general information, in type we are able to pick out only the parts of the letterforms will give us unique information. For ease of reading, the majority of the invariants are positioned in the upper portion of a letterforms. It's amazingly difficult to read type with the upper portion obscured. Yet those same letterforms are recognizable by their upper-halves.

Letters are made from similar parts.

rr nn m

Without the upper-half, we lose their invariants.



Without the lower-half we can still pick out the invariants.



Because of invariants, we are able to recognize a 'r' from other similar forms, and to consider that 'r' a single character across an extreme range of fonts: *r r r l r R r f p r*

Letterforms, like images, also gain meaning by association. Within the context of the phrase "i am" the letter 'i' signifies the speaker's person. However, in this context: " $x + 4i$ " (assuming one is familiar with the "code" for mathematics) the 'i' signifies an imaginary number, the root of negative 1.

As we've discussed in class, images cannot be understood purely from a textual meaning. Oppositely, I ask *can letterforms be understood as purely visual?* Although typographers are versed in the practical use of letters for the conveyance of textual meaning, they also attend to the solely visual element of each letter—its curves, angles, and lines. The typographer is one who even when engrossed in imagining the signifiers of her mystery novel, will pause. She'll single out a single visual mark—perhaps just the curve of a 'Q'—forgetting, if just for a moment, the letter's significance in language and considering it solely for its visual beauty.