Department of Architectural Technology
**New York City College of Technology – City University of New York**
300 Jay Street, Brooklyn, New York 11201

**ARCH 1110**
M.W. 2:30pm – 5:00pm
Professor Michael Duddy
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# 1110: ASSIGNMENT 3

*Lecture:* **DURER'S ALPHABET:** Understand geometric relations described in written form to draft an accurate representation through multi-view orthographic and axonometric drawings.

**OBJECTIVE:** Students will learn to identify and interpret written descriptions of geometric relations in order to draft an accurate representation through multi-view orthographic and axonometric drawings.

**DESCRIPTION:**
Pretend you were talking over the phone with someone who had never seen the alphabet. This person understands a few basic terms, like "square," "circle," and "line," but has no idea how to make an "A", or a "B", or any of the others. Over the phone, do you think you could instruct him or her, using only those few simple terms, how to draw all the letters?
Think it's easy? Okay, try "B." A straight line with two humps? A line from where to where? Where do the humps go? How big are the humps? And for that matter, what's a "hump"? Not so easy.
What if rather than a general "B" shape, you had to instruct your unlettered friend how to make a *perfect* Times New Roman "B"? Or Palatino, or Arial, or some other typeface? All but impossible! It is indeed fortunate that the need hardly ever arises to give verbal instructions for drafting precise letterforms. Except, that need does arise, and frequently. This typed page was created using a computer. The computer is loaded up with "fonts." What exactly is a font? It is actually the verbal instructions for drafting precise letterforms. Your computer has no idea what a "B" is. To display a "B," it reads and follows the instructions in the "font."
In 1535 C.E., German artist Albrecht Dürer invented computer fonts. Well, no, not really. Dürer didn't have a computer but still found the need to describe how to draft all the letters of the Roman alphabet, using only geometric terms such as "square," "circle," and "line." These instructions were published in 1535 as *Of the Just Shaping of Letters*.
Dürer's alphabet of 23 letters (J, U, and W are omitted because they aren't used in Latin) is quite elegant, but that's not why the book was such a breakthrough. Many other artists published elegant alphabets before him. What made *Of the Just Shaping of Letters* special was Albrecht's eccentric idea that the instructions for making letters should be written *entirely in geometry*. The book was illustrated with specimens of the letters, but the point is, you could draw those letters yourself, precisely and perfectly, without seeing the pictures! Dürer invented the science of typography.
A PDF version of *Of the Just Shaping of Letters* can be found on-line from *Sean Gleeson (http://sean.gleeson.us/2006/03/08/durers-crazy-idea).*

**PROCESS:**

1. **3a:** Based on Durer's written description, choose a letter of the alphabet and construct a precise and proportioned drawing on tracing paper.
2. **3b:** Imagine the letter was extruded to fit a 3" cube then draw all 5 sides of the object (orthographic projection). Draw a plan of your letter from above, and the four sides. Add shading.
3. **3c:** Based on your orthographic projection, draw a frontal axonometric of your letter.

**READING:** Durer, Albrecht. *Of the Just Shaping of Letters.*

**SKILLS:** Drafting plan, elevations, and sections, plan oblique axon with shading. In Illustrator, reconstruct drawings. Line weights in one or the either.

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## Assignment 04 Grading Sheet: Durer's Alphabet

| | | Points Possible | Points earned |
|---|---|---|---|
| Analysis | Developed construction of letter based on geometry analysis | 25 | |
| Orthographic Drawings | Front Elevation | 5 | |
| | Rear Elevation | 5 | |
| | Right Elevation | 5 | |
| | Left Elevation | 5 | |
| | Plan | 5 | |
| | | | |
| Axonometric | | 25 | |
| Line weights | | 10 | |
| Shading | | 10 | |
| | | | |
| titles / labels | | 10 | |
| **Total** | | 105 | |

Grade:

**HOMEWORK Due Monday Nov. 3** (Scanned and incorporated in your book for mid-term review)