

Emily Mamula

Capstone Spring 2014

The Art of Biology

There's a lot of complexity in the world. If that's not obvious, you're probably not looking hard enough.

With that said, even those who are aware of it don't necessarily take the time to really try and understand it. There are many ways we attempt to gain this insight: with science in physics, chemistry and biology; with art; and more. I've spent a lot of my time over the last few years on the first. Studying bioengineering has made sure of that. But I was also raised by an artist mother—my earliest memories involved being plopped in front of a set of paints or colored pencils and left to my own devices. Both of these interests have shaped how I view what's around me.

This outlook carried me into my project. I never really planned to do a concentration in drawing—despite the fact that I've been doing it for years, taking drawing classes just seemed to happen. But it ended up providing a respite from my more technical endeavors. There's something so satisfying about looking at the details of something in a different way and having the time to really absorb them. When deciding exactly what direction to take my project in, I figured there was no better subject to focus on than those I already spend time studying in other areas.

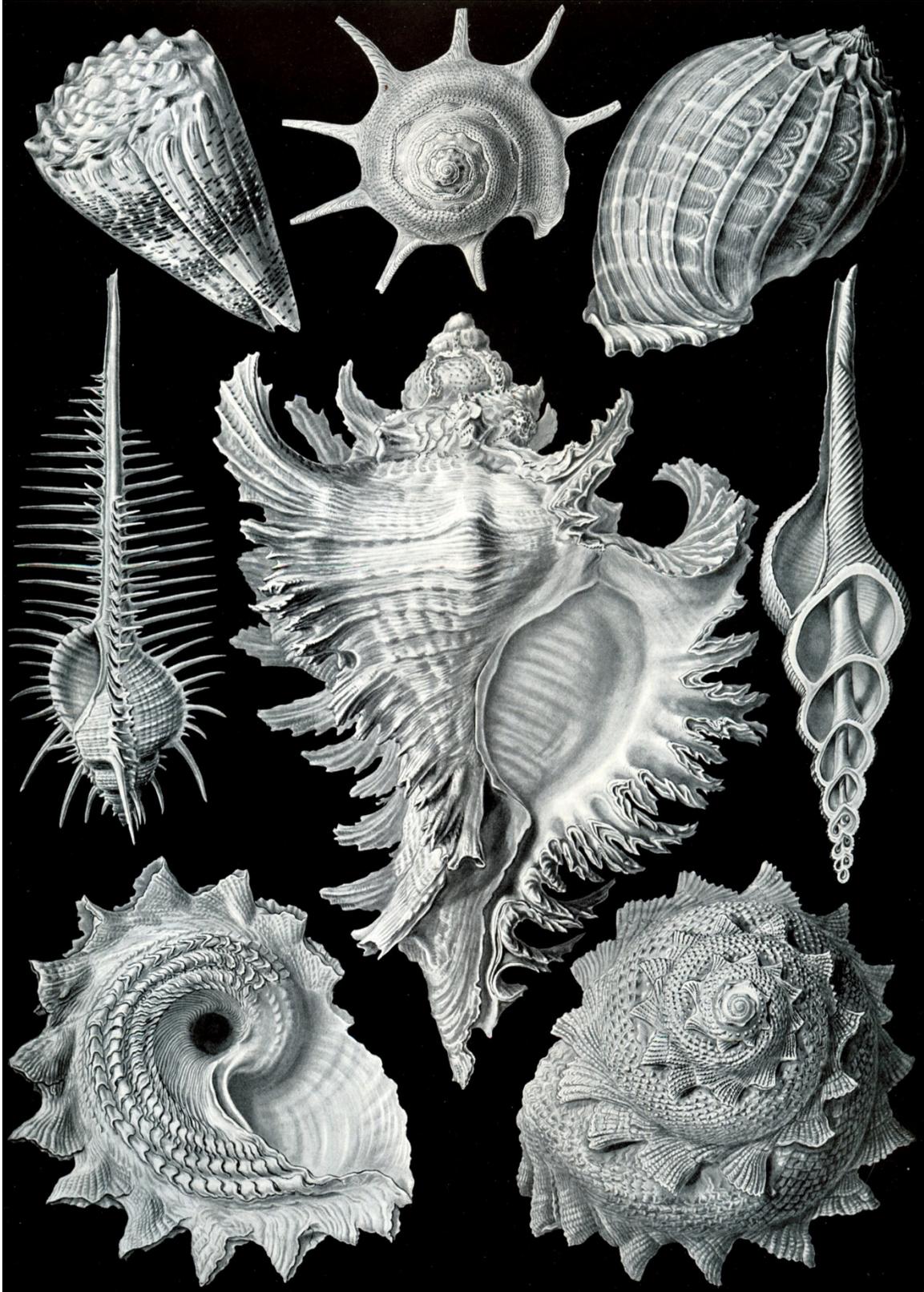
From there the idea of a study of biological forms was born. When people asked what exactly that meant, I really only had vague answers. But that was of my own design. I wanted my project, at its core, to be organic—rather than have to force myself in any particular direction. I didn't plan anything beyond the outings themselves. What I drew when I got there remained up to me. That's why the subjects in my portfolio are of such a wide (and arguably ill-fitting) nature. Regardless, there were a few ideas I wanted to keep in mind throughout the process, and some pieces I looked at for inspiration.

One of these was Degas' *Three Studies of a Dancer in Fourth Position*. Really, any of Degas' dancers. The intricacy Degas manages to convey in their positions with so little concrete development is astounding and continues to be something I strive for. His work is also a good representation of the idea of looking at things we tend to gloss over more closely. I know the difficulty of translating those types of movements to paper first-hand, and my admiration is greater because of it.



Three Studies of a Dancer in Fourth Position by Edgar Degas

A more relevant reference for me was the work of Ernst Haeckel. He was an artist who drew beautiful depictions of sea life that were incredibly detailed. His work actually helped with the characterization of these creatures. His story is exactly the kind of thing I wanted to accomplish—to help others better understand or consider the subjects I choose.



Prosobranchia by Ernst Haeckel

Finally, I used instructional books to help with my art itself. They were books I'd used and referenced in a previous class.

The end result of my work is a series of sketches that explored a number of different forms. Picking from these, I selected certain subjects that were either particularly interesting or enjoyable to work with. While I can't necessarily speak to the effect of whether my drawings can improve others' understanding of the forms, they certainly did mine.

References

Ching, Francis D.K. *Design Drawing*. Wiley, 2010. Print.

Degas, Edgar. Three Studies of a Dancer in Fourth Position. 1880. American Federation of Art, Edgar Degas: The Painter of Dancers. 2002.

Haeckel, Ernst. Prosobranchia. Art Forms of Nature. 1904.

Proteus: A Nineteenth Century Vision. Dir. David Lebrun. By David Lebrun. Prod. David Lebrun. Perf. Marian Seldes, Corey Burton, Richard Dysart, Phil Proctor, James Warwick. Night Fire Films, 2004. DVD.

Winslow, Valerie L. *Classic Human Anatomy: The Artist's Guide to Form, Function, and Movement*. Watson-Guptill, 2008. Print.