



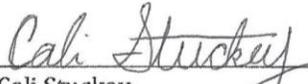
Conflict and Coexistence: Humanity and Nature Through Visual Biomimicry

Senior Project

In partial fulfillment of the requirements for
The Esther G. Maynor Honors College
University of North Carolina at Pembroke

By

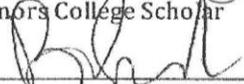
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Art
12/2/2019



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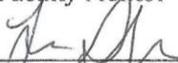
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Abstract

The art for my project revolves around the idea of biomimicry. I wanted to show how as mankind progresses technologically, we do not think about nature or what the environment has to do with the process of creating new things. To most, progression is thought of as mankind moving away from nature, relying only on themselves to survive. The thought of living in harmony with our surroundings evokes thoughts of cavemen and early civilizations. However, engineers are starting to look to nature for inspiration on how to make technology better. So, through the use of, color, pattern, scale, and representational imagery I discuss the back and forth of man wanting to progress, but by going back to nature to do so.

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Concept

My artwork for this project focuses on the phenomenon of humankind wanting to advance society and technology, but by turning to nature to do so. Usually when one thinks about “progress” in a social and technological sense, they do not think about living in harmony with the natural environment. Instead, progression is thought of as mankind moving away from nature, relying only on themselves to survive. The thought of living in harmony with our surroundings evokes thoughts of cavemen and early civilizations. However, despite the associations people have about living interdependently with nature, engineers have demonstrated ways to improve technology and societies by actually turning to it for inspiration.

This “design and production of materials, structures, and systems that are modeled on biological entities and processes (Lexico)” is known as biomimicry. Biomimicry is an excellent way to show the back and forth between humanity and nature visually. This is why I have chosen to base all my works on technologies that have been altered or built in ways that keep nature in mind when thinking about how to make things more efficient. The emergence in the use of biomimicry also signifies that some people are starting to realize that living symbiotically with the environment may not be such a negative thing.

For my five pieces I did my best to find examples of biomimicry that were well known and could be converted into something that would be easy to read, visually. Each piece focuses on one such example. The five cases I’ve focused on in my pieces include, the King Fisher and Japanese bullet train, sharks and swimsuits, Lilly pads and paint, whales and wind turbines, and butterflies and solar panels.

Process

When thinking about how to compose five works of art that could be visually correlated into one group, my first thought was to show the animals and plants used in my examples within one made up setting, such as whales “swimming” in the sky alongside a landscape full of wind turbines. However, this idea did not appeal to me as much because it was too literal. I wanted to be able to make the viewer think for themselves and not hand over any meaning so easily. This is because I like that fact that anyone can have their own understanding or alternate interpretation of a work of art. When the audience interprets something on their own, it makes the art that much more connected to them and leaves a more lasting impression than work that has a strict and clear message that it is trying to portray with no room for further analysis.

So instead of going with my initial idea, I decided to look more into how I could translate my concept into several, eye catching pieces. Earlier in the semester I had read a book called “The Devil’s Cloth: A History of Stripes” by Michel Pastoureau and that definitely influenced the final ideas for my composition. In addition to that, I’ve always been interested in pattern in general and I had carved a small geometric print out of a soft, eraser material during my previous semester and I was very pleased with how it turned out. So, I decided to take this geometric print idea a step further by making shaped stamps that could be printed over and over

again to create a geometric pattern. This idea would also make it easy to include the striped elements into my work.

After settling on this objective, I started planning sketches and thumbnails on sheets of grid paper to experiment with patterns I found interesting and the sizing of the stamps. Deciding on what kind of patterns I would make and what shapes I could use to show the man-made product and animal that inspired it before I actually started printing helped tremendously in the long run. At this time, I also determined that I wanted my prints to be long and stand 7 ft tall vertically so that my pattern could be duplicated as much as possible. To do this I had to order a roll of some kind of paper. In the end I settled on the idea of using a natural Japanese paper called Unryu. Unryu paper is made out of mulberry fibers that are not completely broken down during the paper making process. Because of this, The paper is given an interesting texture, which I found appealing. I also had to find the best material for carving out the stamps. The eraser material I used before was too soft, when the material was bent it cracked and crumbled easily. So, I tried cutting a stamp made out of linoleum, but because the linoleum was so stiff, it was hard to cut out the exact shape I wanted the stamp to be. Eventually I found a good medium called Speedy Carve, it was soft enough that I could cut any shape from it, but durable enough that it would not tear when bent the wrong way. Because of this planning, I was immediately able to get to work on my project at the start of the semester. I kept myself on a strict schedule, so everything went smoothly, and I was able to finish my pieces within the projected time.

Final Ideas

By the end of my printing process my concept was fully realized through my work. The two colors used in each piece represent the two elements involved, the man-made product and naturally occurring structure. I used an analogous color scheme, which are colors that are next to each other on the color wheel, to represent the two elements because I wanted to show how the man-made item is almost like the natural thing, but it will never be completely the same. The striped stamps illustrate the two opposing elements and their attempted harmonization. The overall pattern created with the repetition of stamps shows the constant, never ending, struggle that happens when humanity attempts to move away from nature in order to progress but ends up coming back to it in order to progress more efficiently. Further, the scale of my pieces is meant to engulf the viewer and overwhelm them. This too emphasizes the idea that this struggle between humankind and nature is something that is constant and may never end.

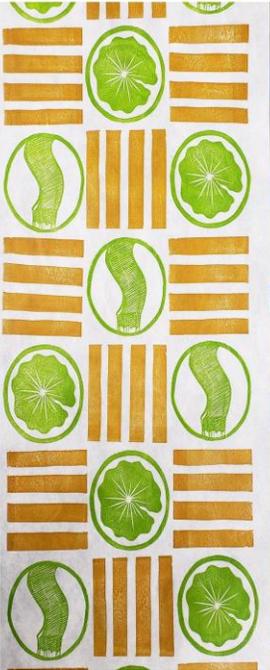
Shark and Swimsuit



Butterfly and Solar Panel



Lily Pad and Paint



Whale and Wind Turbines



Bird and Bullet Train



Bibliography

Lexico, s.v. "biomimicry," accessed October 22, 2019,
<https://www.lexico.com/en/definition/biomimicry>