My plan is to create an interactive landscape that simulates a living coral reef. Using Javascript and the P5.js library, I will create a kinetic and clickable playground that enables the user to explore and play with multiple interactive elements as well as encounter the many symbiotic creatures living on the screen. I aim to simulate a world in which the user can experience intimacy without proximity by participating in the interconnectedness of the natural world without disturbing the critters who call the reefs home. Inspired by the Crochet Coral Reef project and feminist scholar Donna Haraway, who, in her interdisciplinary writings, provides vivid imagery and new languages that nourish our capacity to think, celebrate our biodiverse entanglement, and show the world on multiple scales. My project will hopefully introduce a way to discuss the environmental impact humanity has upon natural environments without paralyzing the user with fear and guilt. Instead, the participant shall engage in an earthly mutualism that reframes our preconceptions of nature.

My prototype demonstrates my idea of generating a landscape that mimics a real (and stylized) coral reef. Each unique piece of coral is composed of an array of vectors that move and wobble using perlin noise, dancing and breathing as if they were alive!—The coral will slowly decay (get smaller and smaller) until it eventually disappears, to prevent this the user must consistently hover their mouse over each coral. In the final version of my project, I'd like the decaying coral to gradually turn white, mimicking real-life bleached coral.

The final program will involve at least two more significant elements. The first will be a second type of coral: I've been researching and experimenting with differential growth and L systems to generate coral-like structures, however while creating my prototype I had to scratch both of these ideas because the math was beyond my capabilities, but I think with some more time and research I'd be able to create a fairly convincing fractal coral, anemone or seaweed! I

will also include objects to represent other types of animals like fish, jellyfish, and sea-slugs. I want the landscape to be a realistic ecosystem of critters that interact with and eat each other. The user will be able to participate either by acting as a creature within the ecosystem, or potentially I will create a simple mitosis simulation in which the user can click animals causing them to duplicate. Lastly, I intend for my program to be somewhat educational. While interacting with coral, the user may stumble upon an easter egg that explains how almost all coral are colonial organisms, composed of many individual animals called polyps. The program will allow the user to witness the ways in which all the creatures in the ecosystem are interdependent.

My project will hopefully will be about mourning and living with loss, as Haraway writes in her book Staying With The Trouble: Making Kin in the Chthulucene:

> "Grief is a path to understanding entangled shared living and dying; human beings must grieve with, because we are in and of this fabric of undoing. Without sustained remembrance, we cannot learn to live with ghosts and so cannot think" (39).

By hosting a coral ecosystem on a screen, using technology as a medium, I am attempting to reflect Haraway's sentiments about the death of the coral reefs; grieving the coral reefs is about staying with the trouble. Rather than talk about solutions as a way to move backwards and revert the world back to its "originary" state, before it was threatened by humans, we must recognize that the death of the coral reef constitutes a major change in us. The user will configure themselves within the holobiome of the coral reef and live with all the organisms whose lives depend on it, potentially discovering their own making-with in the complex, dynamic, responsive, and situated system.

Inspiration Moodboard

Color Palette