

THESIS

REFRACTIONS

Submitted by

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WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR
SUPERVISION BY SARA GOLDENBERG WHITE ENTITLED REFRACTIONS BE
ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF
MASTER OF FINE ARTS.

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ABSTRACT OF THESIS

REFRACTIONS

With this installation entitled *Refractions*, I focus on what it would be like to visit a kind of underwater habitat. Environments that humans cannot naturally inhabit fascinate me; I often imagine what it would be like to live in one of these locations. This curiosity leads me to create forms and installations, made from fabric, inspired by these spaces.

The ocean inspires me. The laws of gravity seem to be altered there, causing many objects to remain suspended. The buoyancy I feel while underwater is a feeling I wish I could experience more often. The differences in how human beings experience gravity in the water and on land became very apparent to me at a young age. As a child I hosted underwater tea parties, and was enthralled by how hard it was to sit on the bottom of the swimming pool; inevitably I would float to the surface and require another gasp of air.

The ocean is both comforting and frightening. Once below the surface of the ocean, the sounds of everyday life stop, providing a sense of calm and disconnectedness from daily routine. Water surrounds the body, acting as a type of shelter. Senses are distorted, ears feel full, eyes may burn, and you cannot breathe in without drowning. Human beings only have a finite amount of

time during which they can inhabit underwater environments. If this time is breached, the ocean rapidly becomes life threatening. It is the fine line between the sublime and terror that propelled the creation of *Refractions*. The components of *Refractions* are all woven with hand-dyed cotton thread and copper wire. Woven copper wire highlights a variety of refractions, inspired by the light-shifting qualities of the sea. This combination of materials also gives the fabric the appearance of being wet when light falls on the cloth. The wire creates a moiré effect in the layered panels, mimicking the activity of the ocean's surface. The moiré effect becomes somewhat disorienting after looking at it for extended periods of time.

An underlying impetus for much of my work is the creation of cloth woven with long strands of cotton and copper. I am intrigued by the visual outcomes that occur through combining the uneven matte surface of cotton yarn with the smooth shiny surface of copper wire. This combination of soft and hard materials allows my cloth to maintain rigidity and suppleness at the same time. It also allows me to create sculptural forms, which maintain their shape.

Both cotton and copper are materials used to create forms of shelter. Cotton is often used for clothing, which protects the body from the elements. It is also a fiber often worn directly on the skin, for it is soft and comforting. Copper, a material used in construction, is associated with buildings and homes in which human beings reside. *Refractions* delineates a specific space that is meant to mentally place the viewer somewhere else. The installation is meant to

envelope the viewer, like clothing or a home, and interact with the audience on a very physical scale.

The sound present in *Refractions* mimics the sounds deep below the oceans surface. The depth of the ocean and the installation space is also highlighted by the shadows cast on the walls by the three dimensional forms and panels.

I chose to weave because this process provides me with a space and time in which all I think about is the cloth I am creating. In a sense, it reminds me of the quiet I feel while underwater. Weaving is a repetitive time-based process. I appreciate weaving because it allows me to connect with my materials from start to finish. Nothing about the process is immediate. With *Refractions*, I begin by winding and dyeing cotton warp threads, then thread the loom, weave fabric, and hand-sew fringe ends and edge bindings. The time I take to make my materials allows me to connect with what I am creating. Materials are often the impetus for my work; as I begin to explore materials, a relationship develops and forms and concepts begin to unfold.

All of the components of *Refractions* are woven using variations on plain weave, a weave structure that has horizontal and vertical threads woven in a simple over-under pattern with no variations. For the panels I used plain weave, and for the three-dimensional forms, tubular double weave. I choose plain weave structures because they create a consistent grid. This grid creates a foundation for needle-woven edges and for the installation on a whole. However, the grid is also obscured in many areas. In the large panels and

tubular forms, the hand-sewn needle-woven areas obscure this grid, simulating lamina and tentacles rising to the ocean's surface. I also degrade the grid of the tubular double weave by pulling individual strands of the lengthwise cotton warp threads, creating undulations and ripples within the forms. The ripples are meant to imply motion, giving the sense that maybe these forms will move somewhere else and maybe other forms had once been in their place.

The color choice for *Refractions* is inspired by the fact that the ocean and green plant life living within the ocean absorb red tones, while reflecting blue and green back into the water. *Refractions* highlights the colors of absorption, inverting our usual view of the ocean. My color choices of fuchsia, maroon, and purple are also inspired by the vibrancy of aquatic life, jewel anemones in particular. The mass of red tones in *Refractions* gives the piece a strong and potentially ominous mood. The ocean is often blue, a color associated with calm and tranquility, whereas reds and purples are associated with passion, rage, warmth and power.

Refractions illuminates the line between beauty and danger that the ocean presents. It also creates a type of fabric recreation of the ocean in which viewers become active participants in the work, and experience sensations akin to being submerged under water.

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LIST OF FIGURES

REFRACTIONS

Figure 1: *Refractions*, woven hand dyed cotton thread and copper wire

Figure 2: *Refractions* Detail, woven hand dyed cotton thread and copper wire

Figure 3: *Refractions* Detail, woven hand dyed cotton thread and copper wire

Figure 4: *Refractions* Detail, woven hand dyed cotton thread and copper wire

Figure 5: *Refractions* Detail, woven hand dyed cotton thread and copper wire

Figure 6: *Refractions* Detail, woven hand dyed cotton thread and copper wire



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Figure 2: *Refractions* Detail, woven hand dyed cotton thread and copper wire



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