

# Underwater Forest

By

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Weifang Gong

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## **Abstract**

My Master of Fine Art thesis project, *The Underwater Forest*, is intended to remind people of the beauty of nature and the importance of taking care of our ecosystems. It comes from my own imagination of a utopian universe, and was created by hundreds of traditional plant-based resist-dye techniques. This installation is not only for preserving but also for the development and innovations of traditional plant-based dye techniques, to meet the needs of contemporary textile art. It is interdisciplinary in that it involves tie-dyeing, botany, chemistry, the environment, and contemporary art. The thesis statement will demonstrate a nuanced understanding of the relationship between traditional artisans and contemporary artists by talking about the installation, my creative process, and craftsmanship.

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## Thesis Statement-The Underwater Forest

My thesis exhibition, *The Underwater Forest*, is a textile installation simulating the underwater spectacle and was installed in the Kansas Union Gallery, March 24th-31st, 2017 [Appendix: Exhibition Images, Figure 1-Figure 8].

It was inspired by ocean ecosystems, such as sea creatures, seaweed growth, wave patterns, and the lights penetrating the dark deep sea. I am deeply attracted to the scenes of glowing transparent and translucent jellyfish and plants floating in the water. With the ocean currents, the patterns of these creatures are continually changing:

*Underwater Forest*

*Glowing creatures and plants*

*Illuminating the depth of the ocean*

*Tickled by swaying seaweed*

*Surrounded by the gentle currents*

*I wandered in the sea forest*

*Explored the marks left by history*

*In a distance, the rays of the sun pierce through the top waters*

*And lay softly upon my face*

My early experience with Chinese painting and textile indigo dyeing is a strong source for the imagery and methods used in my thesis work. For an example, *Moon Jellyfish I* [Appendix: Figure 9], is created by following traditional Chinese painting formats and principles. Influenced by scroll ink paintings, on a rectangular fabric, I

created a vertical perspective with indigo dye and a horizontal perspective with multicolored organza. A series of panels hangs along the back wall to visually enlarge the gallery space [Appendix: Figure 10]. In addition, the patterns used on some fabric columns are inspired by Chinese traditional textile motifs, such as calligraphy, dragon images, butterflies, and flowers that are said to bring good wishes in Chinese culture [Appendix: Figure 11].

In history, Chinese painting and textile art have been connected by dyes, pigments and coloring materials. Painters use natural dyes extracted from plants, insects, and minerals for their paintings. The unique character of their work is created by using different mixtures of dyes and mordants (for cohesion of the pigments). For thousands of years, natural dyes and mordants (for achieving different color shades) have been used to dye yarn and cloth.

My grandfather was a weaver and natural dyer in China who produced colorful cotton and linen fabrics for his living. In my memory, the classic dyestuffs used by my grandfather were woad (indigo), gardenia fruit, madder root, and hazel bark. All of them were collected from the local fields. After harvesting the plant material, the dyes were extracted in water without any synthetic chemicals. When I was little, one of my favorite things was to help my grandfather wash dyed fabrics in the river. The dye residues on the fabrics did not harm the river water. His dye vats were reused and the waste dye materials were gathered to compost for his garden. My grandfather always said “waste not, want not” and “nature is love”.

The predominant color of *The Underwater Forest* is Indigo blue, which is chosen to imitate the deep ocean and symbolize my Chinese culture. Various local plant dyes,

such as red from sumac fruits, yellow from sunflowers, brown from walnut, and many others were used in the work in order to utilize local plants.

During the creative process, I examine the advantages of plant colors and dyes using traditional tie-dye techniques. Generally, natural plant dyes are not harmful to the environment because they are biodegradable, and disposing of them does not cause pollution. Many research papers point out that industrial fabric dyeing produces major pollution while consuming vast amounts of water. Chemical dye in the wastewater is recognized as a significant environmental pollutant. However, the application of natural dyes in textile wet processing is a step towards an environmental-friendly approach.

I used walnut, sumac and sunflowers to produce the colors in my work because they are safe for human beings and the environment. However, not all colors could be achieved solely from plants. Some plant dyes need additional chemical mordants to achieve the desired shades and hues. Aluminum, copper, iron, and chrome, help the dye react to the fabric or produce ideal colors on cellulose fabrics. A few natural dyes, such as logwood, are significantly poisonous. They are toxic when inhaled, absorbed through the skin and ingested. According to some environmental groups, such as non-governmental organizations (Non-GMOs) and Greenpeace, the toxic wastewater produced from the production line that flows into waterways and groundwater sources could cause a major problem in our water eco system. Some artists claim that the pollution created by small-scale studios and hand-dyers is minimal because the amount of toxic chemical used is minuscule. However, some mordants and plants are not safe for artists, industrial dyers, or the environment.

I worked as a fashion designer for seven years (1997-2004) in China. I witnessed the development of textile industry and the consumer culture in the country. I also witnessed the increasing pollution of many rivers near the factories. The changes caused by industrial wastewaters (such as wastewater containing dye) and textile wastes (such as fragments, disposable plastic bags and packaging) were noticeable and dramatic. I was shocked by the death of the creatures in those rivers. I was aware of many small dyeing mills in China. Some of them only possess one or two indigo dye vats. However, they were notorious for exhausting local water supplies and for dumping untreated wastewater into local streams and rivers (such as Xintang and Gurao, two small towns located in Guangdong, China).

My personal work and life experiences have led me to topics of the relationship between humans and the environment. Influenced by American artist Joan Hall, I further expanded my ideas about water pollution to include the textile “debris.” In Joan Hall’s works, she collects plastic from ocean beaches as materials to reflect her ideas and set up her own coding system. Her artwork expresses her concerns about the problems of plastic pollution and marine debris. Borrowing this idea from Joan Hall, I picked plastics, textile fragments, waste, and metal meshes from waste to make small sculptures [Appendix: Figure 12- Figure 15]. I use them as a way to describe my thoughts about textile waste contribution to polluting our environment and recycling.

In *The Underwater Forest* installation, there are 45 large-scale fabrics. Each of them is about 3 to 6 yards long, and total more than 270 yards in length. Each fabric panel is created by using more than six distinct and time-consuming tie-dye processes. For instance, the columns for Spanish Moss [Appendix: Figure 16], took over forty hours



to tie and at least six steps to dye and finish the strands. Each piece of fabric in the exhibition is unique. Each fabric has its own images, which have to be carefully stitched and tied, systematically dyed or discharged, over-dyed, and fixed by cold batching or steaming.

During my creative process, I also test the quality of the natural dyes with silk fabrics. Any plant dye can achieve a strong color on silk. And the color fastness is higher than other fabrics. Of all the colors in the world, yellow is the most common color achieved from a number of plants. Sumac can create colors from dark claret-red to pink shades. Indigo contains natural mordant and can dye any natural fabrics without fading over time. It can also be removed by scouring methods. Natural Indigo dyes can achieve a rich blue color on silk, cotton, and linen. It is the strongest natural dye. After printing formosol (a chemical to remove color) and exposing cloth to immersion baths with soda ash, and screen-printing or tie-dyeing, strong patterns are produced on cotton and silk fabrics.

When I installed my thesis exhibition, I utilized the whole gallery space as a canvas. The fabrics and threads are as the materials used to “paint” in the space. All materials of synthetic and natural fabrics used in the installation were dyed with natural indigo extracts and local plants. By applying tie-dyeing methods, I transformed these plain fabrics into sculptural textures. The forms included textile columns, smocking fabric strips, small fabric or metal screen sculptures, and indigo painted panels.

The textile columns and strips hang from the ceiling to the floor to mimic plants in the woods. Meanwhile, a path in the fabric forest was created by following a composition of lines drawn on the ceiling. Small fabric sculptures are attached to the

ceiling to symbolize floating sea creatures and to extend the vertical visual space. On the floor, along both sides of the path, the fabric sculptures and trails of textile columns were arranged to mimic the creatures and plants living on the bottom of the ocean. To achieve further perspective effects, ten silk indigo painted panels hang on the wall to create an illusion of deeper space. Silk organza was dyed in multiple colors through the use of different local plants. Abstract images were made by overlapping these transparent fabrics.

The Kansas Union Gallery has a narrow floor space and a standard height ceiling. Natural lighting floods into the gallery through the front window. Dim gallery lights with strategically placed spot lights are used to create an illusionary atmosphere that imitates the effects of sun rays piercing through the waters. A gentle wind was created by a hidden ceiling fan, which made all the fabric panels subtly flow, as if by ocean currents.

The glass window of the gallery is an important element. Looking in from the outside, it appears like a big fish tank filled with floating jellyfish and seaweed. The natural light through the window combined with the indoor ceiling lights creates shadows that add to the work. On sunny days, the silhouettes of passersby reflect on the wall, and suggest a beautiful harmony between man and nature [Appendix: Figure 17-Figure 18].

One of my favorite contemporary artworks is named *Swimming Pool*, which is completed with a climbing ladder and 10cm of water covering a sheet of transparent glass in the middle height of the pool. Argentinian artist Leandro Ehrlich originally installed the work in 1999 at New York's MoMA PS1. *Swimming Pool* is an interactive installation that creates the illusion of a deep pool of water. Viewers physically enter the pool “under the water” while remaining completely dry. In actuality, spectators are simply under a

glass “ceiling.” In addition, people in a room above look down into a seemingly deep pool to see other fully clothed visitors walking around the bottom of the pool. The people at the bottom of the pool look upwards through a glass ceiling and thin layer of water to see others looking down from the pool edge. In his work, Erlich plays with perception and assumption in an exploration of “the ways we understand phenomena, enter into relationships with spaces, and grasp reality.”<sup>1</sup>

Influenced by, *Swimming Pool*, by Leandro Ehrlich, I constructed my thesis landscape / seascape to express my imagination of a utopian universe. My installation allows the audience to be enveloped in the space. When people walk along the paths through the installation, the transparent fabric columns produce connections. The integration of the audience, textile columns and strips, shadows, and shades on the wall, creates a meaningful and quiet environment which describes the illusions of walking in the colorful deep ocean.

I imagine the *Underwater Forest* installation as a social community. Each individual work here has a distinct personality. Some works are gentle, some pieces are rough, some are mysterious, etc. For instance, a column in the corner of the gallery is constructed with metallic nylon fabric and manipulated to create patterns using binding and dyeing processes [Appendix: Figure 19]. With LED lights hidden inside, this sculptural column distinguishes itself as more “contemporary.” Another column that stands in the center of the underwater forest is dyed in monochromatic golden yellow

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<sup>1</sup> Leandro Ehrlich, *The Swimming Pool*, Detail derived  
[https://www.kanazawa21.jp/data\\_list.php?g=30&d=7&lng=e](https://www.kanazawa21.jp/data_list.php?g=30&d=7&lng=e)  
<https://www.youtube.com/watch?v=NT7gjhHq9d0>

extracted from the native plant, osage orange [Appendix: Figure 20]. Its doodle patterns are inspired by Native American symbols, such as a feather headdress, bald eagle, cross, and arrow. This work demonstrates that Native American culture affects my designs. I borrow symbols and signs to create patterns that express my thoughts and dreams. In other columns I mix osage orange and indigo dye to create the greenish and olive tones. In history, Native Americans used the roots and inner parts of the osage tree (trunks and branches) to make a light orange dye for their homespun cloth.

*The Underwater Forest* is an experiment in exploring the relationship between contemporary artists and traditional artisans. The artisanship involvement in my creative process makes my artwork come alive. This installation is also a collection of traditional textile dye techniques. Aside from tie-dyeing methods, such as stitching, binding, clamping, printing, etc., I explored many new techniques using natural dyes on different materials (discharging and dyeing with metallic nylon, etching with indigo dyed silk and cotton) [Appendix: Figure 21 to Figure 34]. The small sculptures and sculptural textures generated on large fabrics are inspired by Japanese fiber artist and metalsmith Mariko Kusumoto. I am interested in the simple origami-like techniques she used to create complex and beautiful patterns. Inspired by her folding techniques, I folded, tied, clamped, and stitched different types of fabrics, such as nylon and polyester, to achieve permanently retained shapes through steaming.

*The Underwater Forest* combines my strong interest in natural dye processes with my experiences as a Chinese woman living in America. I use traditional Chinese patterns and influences from my own personal history to create contemporary sculptural installation work. I am inspired by additional research regarding the ocean, environment,

design, patterning from other cultures, and by the process of manipulating various textile materials.

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**APPENDIX: Detail images of *The Underwater Forest***



**Figure 1**



**Figure 2**



Figure 3



Figure 4





Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15





Figure 16



**Figure 17**



**Figure 18**



Figure 19



Figure 20



Figure 21



Figure 22



Figure 23



Figure 24



Figure 25





Figure 26



**Figure 27**



Figure 28



Figure 29



Figure 30



Figure 31



Figure 32



**Figure 33**



**Figure 34**