Jae Bin Lee

From Pattern to System

As part of the EDI 104 class, Jae has made 2D & 3D graphics, influenced by 3 textiles, 3 plants, and 3 minerals that are related to the Central New York area. This project shows how patterns and 3D graphics were generated from 9 images that are native to the Central New York area. This project has given opportunities to look at images differently, thinking outside the box, since it was required to have multiple variations for each image. Each source and its raw is color-coded, and on the map of New York State, it shows what part of New York / Central NY the source originates from.

After creating a pattern, Jae has moved on to making a 3D model using one of the pattern and its performative quality. In this project, he chose Common Snowberry, and the made a model that can diffuse light, as filtering and diffusing light are one of the main perfomative quality that Common Snowberry has. The images and drawings below show instructions how to make the model, as well as connections between the model and the original source.

*Sign indicates its availability
New York, United States of America

1
German Textile by Aemme Settlers in America
Textile
The Aemme family from Germany became settlers in Central New York in the 1800's. Aemme family's textile business was one of the most successful textile businesses and provided hundreds of jobs in Central New York.

Textile patterns are based on the family's textile business in Germany and Central New York in the 1800's.

2
German Fabric (No name applicable)
Textile
Textile patterns are based on German fabric developed in Mohawk Valley during the 19th and 20th century. Mohawk Valley was a major textile manufacturing region in Central New York.

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3
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4
Highbush Blueberry
Vaccinium corymbosum
Plant
Highbush blueberry is native to Central New York and is a major source of food for wildlife and humans.

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5
Common Snowberry
Symphoricarpos albus
Plant
Common Snowberry is native to Central New York.

Common Snowberry is native to Central New York.

6
Sargent Crabapple
Malus sargentii
Plant
Sargent Crabapple is native to Central New York.

Sargent Crabapple is native to Central New York.

7
Dravite
Mineral
Dravite is a mineral in the Tourmaline group. Tourmaline is a group of complex boron silicate minerals. The Tourmaline group is named after the Tourmaline, a gem. Dravite is a member of the Tourmaline group. Dravite is also a member of the Tourmaline supergroup. Dravite is found in Central New York.

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8
Labradorite
Mineral
Labradorite is a feldspar mineral. Feldspar is a group of rock-forming minerals that make up 60 percent of the Earth's crust. Labradorite is also a member of the plagioclase series. Labradorite is found in Central New York.

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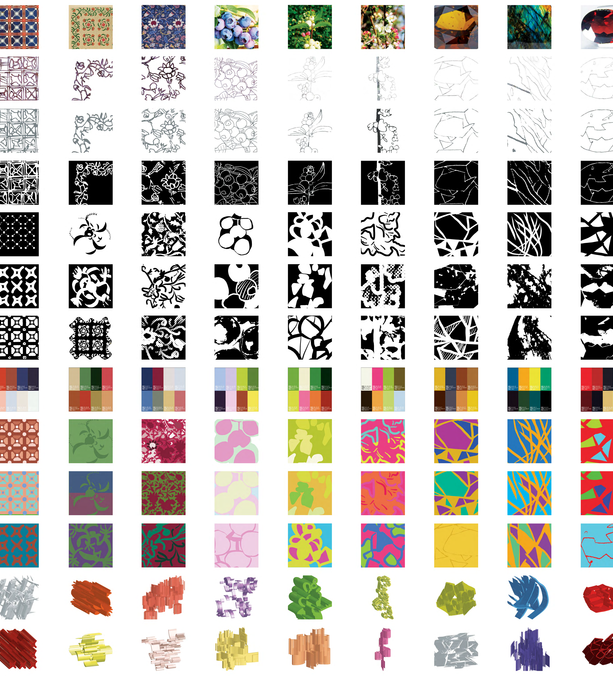
9
Almandine
Mineral
Almandine is a mineral in the group of minerals known as garnets. Almandine is a member of the garnet group of minerals and garnet is a member of the silicate group of minerals. Almandine, along with other garnets, is found in Central New York. Almandine is found in Central New York.

Original Photo
Topo Drawing
Topo Drawing Pattern
Topo Drawing Pattern Variation
Raw Leaf Pattern Source
Raw Leaf Pattern Source Variation
Color Palette
Color Blocks
Color Blocks Variation
3D Visualization
Front View
Front View Variation



From Pattern to Space

After creating a system, Jae has moved on to making a physical model using restricted materials. He used bristol paper, wood, and brad pins in order to create a space with the pattern and system that he made in the previous project. Using the information that was gathered in the research from the previous project, a space was made considering the original source's performative quality and the pattern that was made in the previous project.

Performative Qualities

Common Snowberry, also called Symphoricarpos albus, can be found across the northern region of North America. The model shown below is inspired from Common Snowberry's leaves, which filters the sunlight for its sensitive fruit, Snowberry. The reason Common Snowberry can be found in many places is due to its leaves that provide protection from sunlight and strong rain. The model shown below used Common Snowberry's biological strategy that made Common Snowberry successful in the nature. The tilted models and diagonally postioned models can diffuse strong lights.

Assembled with

16 White Brad Pins [A]

20 Pieces of White Bristol Paper (4.75 in X 6.75 in) [B]

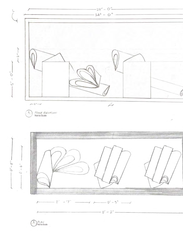
20 Pieces of White Bristol Paper (4.75 in X 9 in) [C]

Directions / Instructions

This model is made with only 2 materials.
However, there are two sizes of bristol paper needed. Specific sizes are listed above.

1. Using a pin, make a hole on top and bottom part of B and C. Make sure that hole is centered in the middle.
2. In order to build Assembled Group 1 [D], place semi-folded part [B] inside of semi-folded part [C]. After placing them accordingly, using part [A], group all the parts together. Repeat this process 20 times.
3. Now, using FOUR Assembled Group 1 [D], make FIVE Assembled Group 2 [E].
4. With completed Assembled Group 2 [E], tilt the indivual group [D] with 45 degrees angle.
5. After tilting indivual group [D], place them in the box. There will be a repeated pattern in this step. Place them in this order: Vertical - Landscape - Vertical - Landscape - Vertical
   The first vertical assembled group is placed 2 inches away from the left wall.

*Look at the completed image sets above and Front elevation drawing on the right for reference.

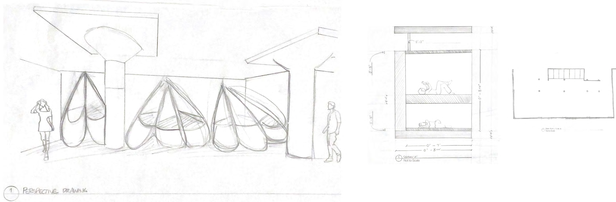


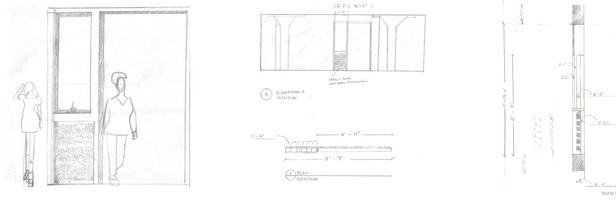
[D] Assembled Group 1
*Made by using one Brad Pin and
2 Different Sizes of Bristol Paper (look at materials list)

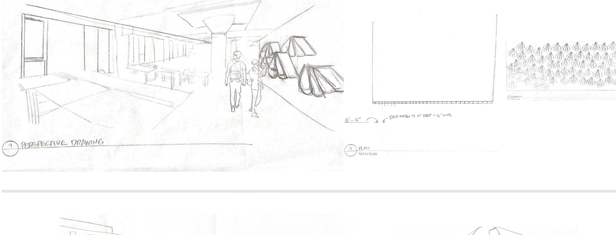
[E] Assembled Group 2 (4 X [D])

Biomimicry & Biophilia Used in Interior Design

After creating a space by building a model, Jae has applied pattern reserach and the space research into a Human Interactive design, Building Interactive design, and Spacial design on the Quad in Syracuse University. All the applied design includes Biomimicry and Biophilia. The drawings shown below shows drawings of how the design will be applied into a restricted space.







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