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SLICING FORM AND CHAIR----A CASE STUDY

by

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A thesis submitted in partial fulfillment of the requirements
for graduation with Honors in the Art, Studio

Monica Correia
Thesis Mentor

Spring 2019

All requirements for graduation with Honors in the
Art, Studio have been completed.

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I've always been interested in using slicing form to design furniture because it is simple and easy to assemble and disassemble the furniture. However, the furniture is also heavy. For my honors research project, I will be exploring how to use the slicing form technique and make design modifications that are necessitated when working with foam material.

After creating a new chair design, I bought some rigid foam from Menards. The foam feels light while has a thickness of 2 inches. The disadvantage of using foam showed up when I did the joint cutting test. The foams split when I joined the two pieces together. I adjust the gap between two pieces to avoid the splits. I also changed my design from having only two points providing full support under the sitting area, because of the fragility of foam. To make it safer for people to sit on it, I enlarged the supporting area. The last issue I had was the surface of this chair. The foam is pink and has text and a brand name on it. I was conflicted as to whether I should cover it with flat fabric stapled on the chair or glue some woolen scrap on to the surface. The staple might cause the structure weaker because the feature of foam and the glue might cause the surface to get dirty and messy. Gluing the woolen scrap works much better after I did the test. The finished chair, turns out to be a super light, but not quite reliable. The sitting area is fine, but the hand and back rest areas are weak and fragile. I can make these two areas stronger by using more material on these two parts. Even though it will increase the size, it is still light and easy to move around.

I enjoyed the process of exploring the slicing technique utilizing foam and found that creating structures with this material and technique is feasible. The density of the foam however, needs to be taken into account during the design process. I will apply the same techniques and similar material to make lightweight, easy assembling, and safe furniture in the future.