



cocoon

LAMP COLLECTION
MADE OF DISCARDED
HDPE GROCERY BAGS

SOPHIA YIMENG SUN



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Industrial designer
Now studying in Pratt Institute
ysun18@pratt.edu
sophia.yimeng.sun@instagram



COCOON: REBIRTH

Since most plastic bags are made of recyclable plastic HDPE, people can return clean bags to recycling points after using them. However, few people will do that and some even don't know that.

New York City recycling system, among other cities don't accept plastic bags from the trash and therefore of plastic bags end up in landfilling or ocean dumping which is harmful to the ecosystem.

This project is trying to reuse waste and provoke minds to contemplate how we deal with waste.

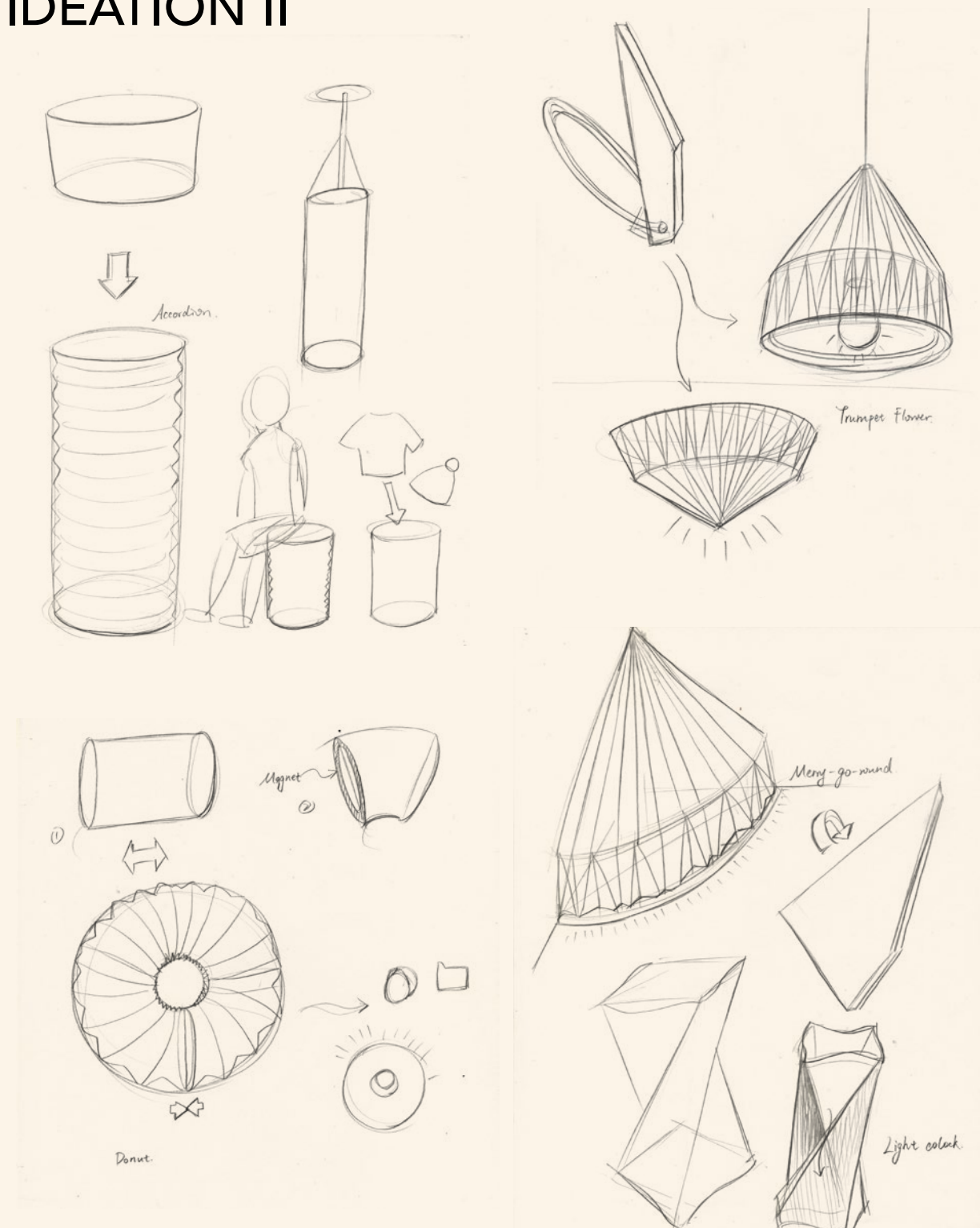
I named this project COCOON, not only because it visually compliments a cocoon but also the project is an homage to "rebirth".

IDEATION I



At the very beginning, I was thinking of using the used plastic bags directly without any handling. Some of these are about collecting plastic bags on a wire stand and finally become a plastic bags collection light. And others are just using wires inside and form some beautiful shapes, but these requires a lot of labor which is not a good solution.

IDEATION II



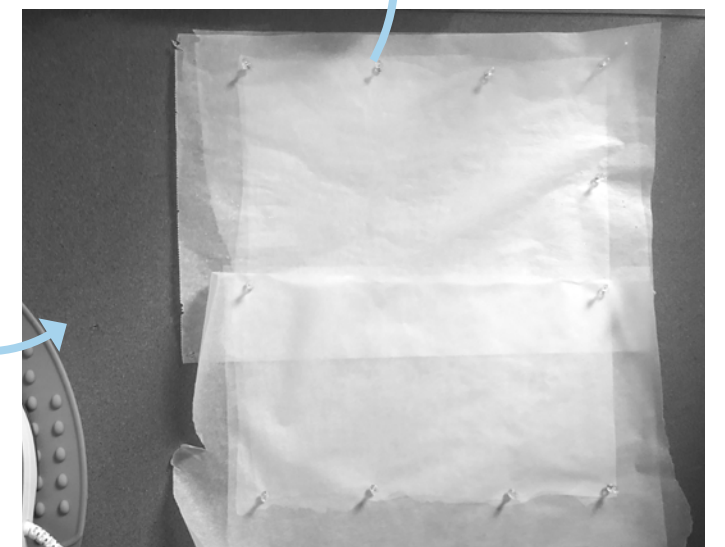
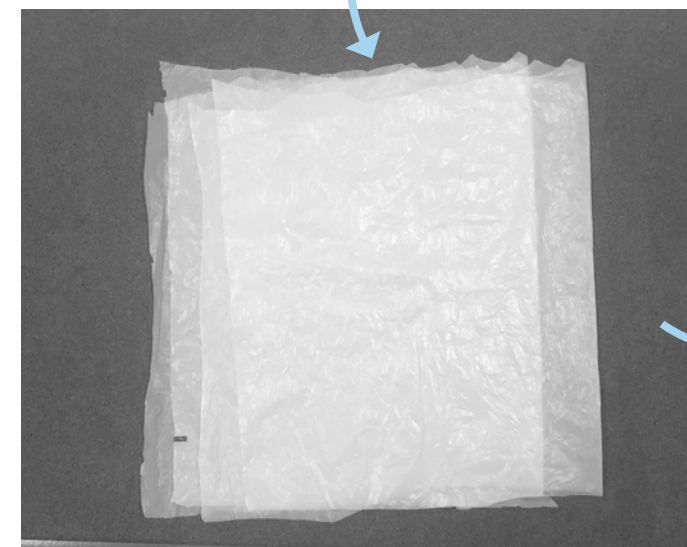
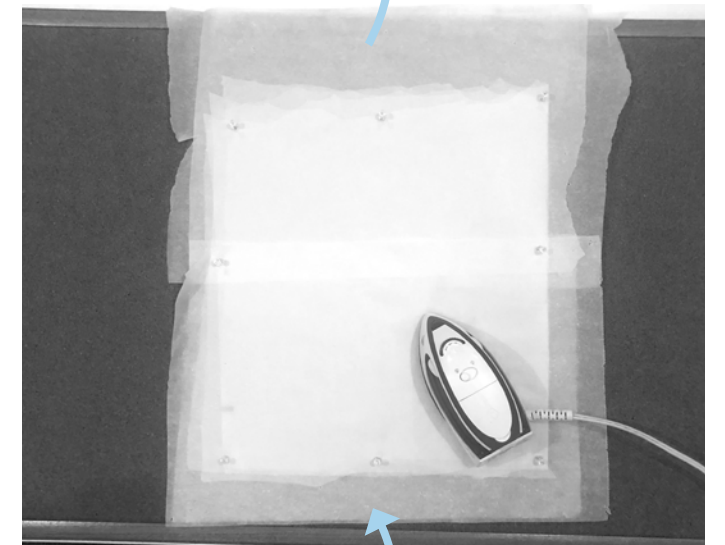
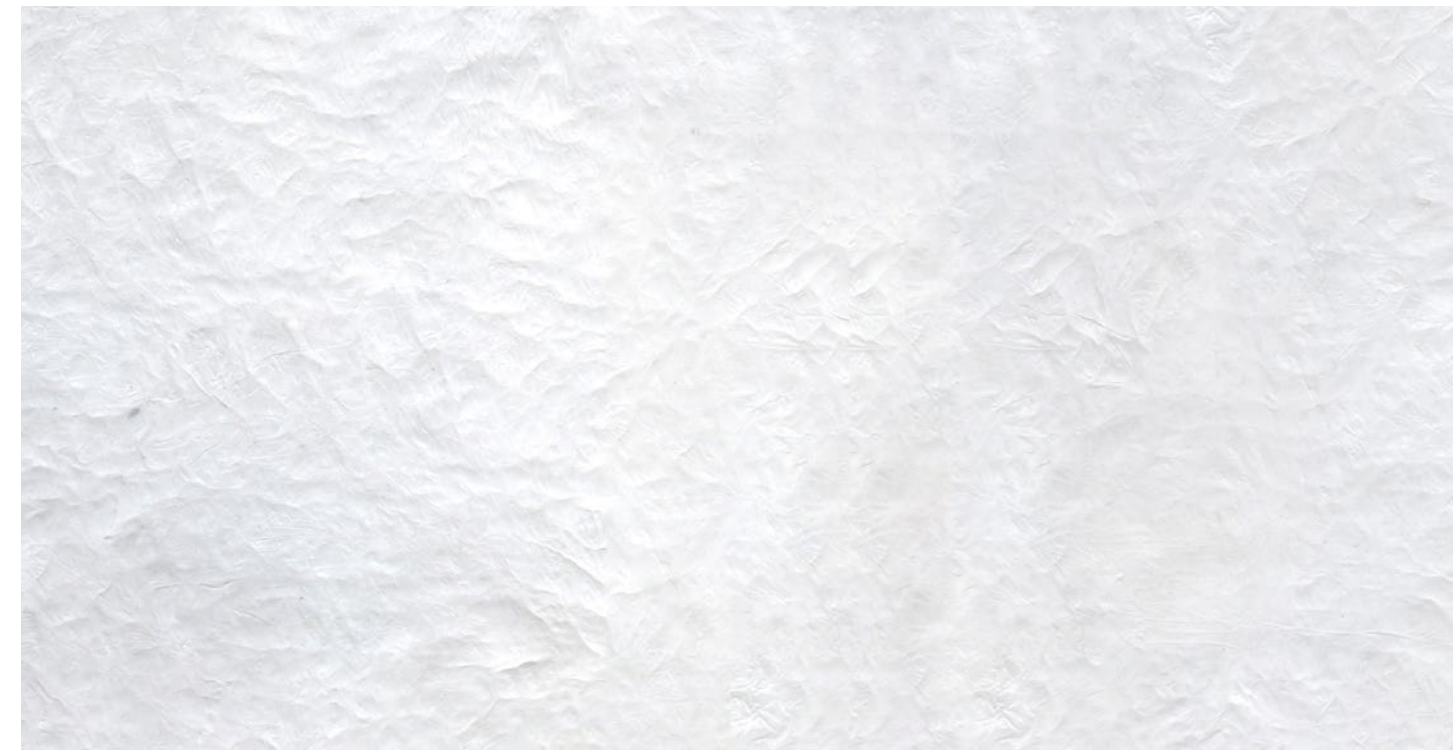
I got these ideas while thinking of paper-pleating. These ideas are trying to making the light easier to transport or store, and also has other functions.

MATERIAL TEST: HDPE PAPER

Usually, to manufacture or recycle HDPE bags, the material HDPE should be melted to liquid and extruded to thin sheets. This melting process takes a lot of energy and results in global warming.

Plastic bags exhibit translucency and film-like features. It allows light to permeate and creates nice light transmissions with textures. Taking advantage of this, used plastic bags can be bonded and used as raw materials for lampshades.

To bond the plastic bags, less energy is needed, because there is no need to melt them completely. What we need is just heat them up and they will come together quickly. This process is very machine friendly for factories.

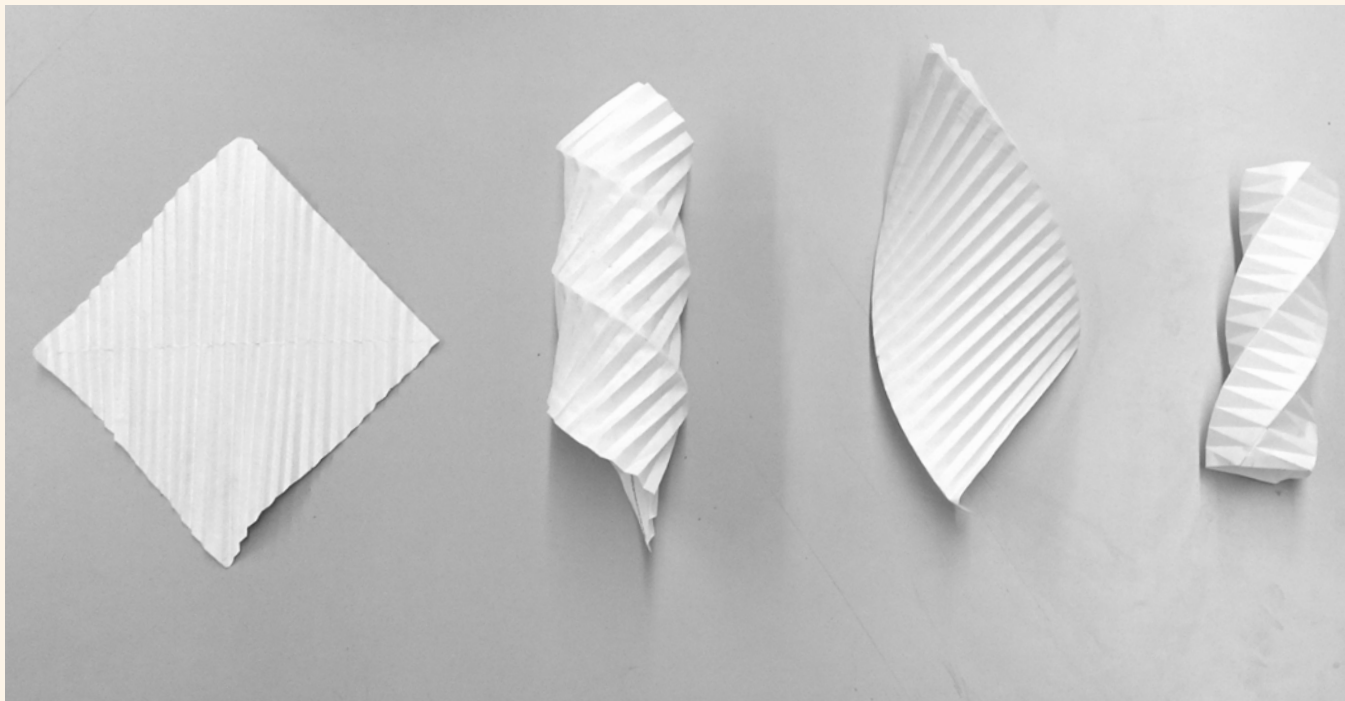


STRUCTURE STUDY: PLEATING

I had the idea of using paper-folding to create a structure that can maintain its structural integrity and can be stored easily. So I did some pleating studies.



Among all the pleating works I did, I found that the "Mountain and Valley" pleat is the strongest one and it also flexible.



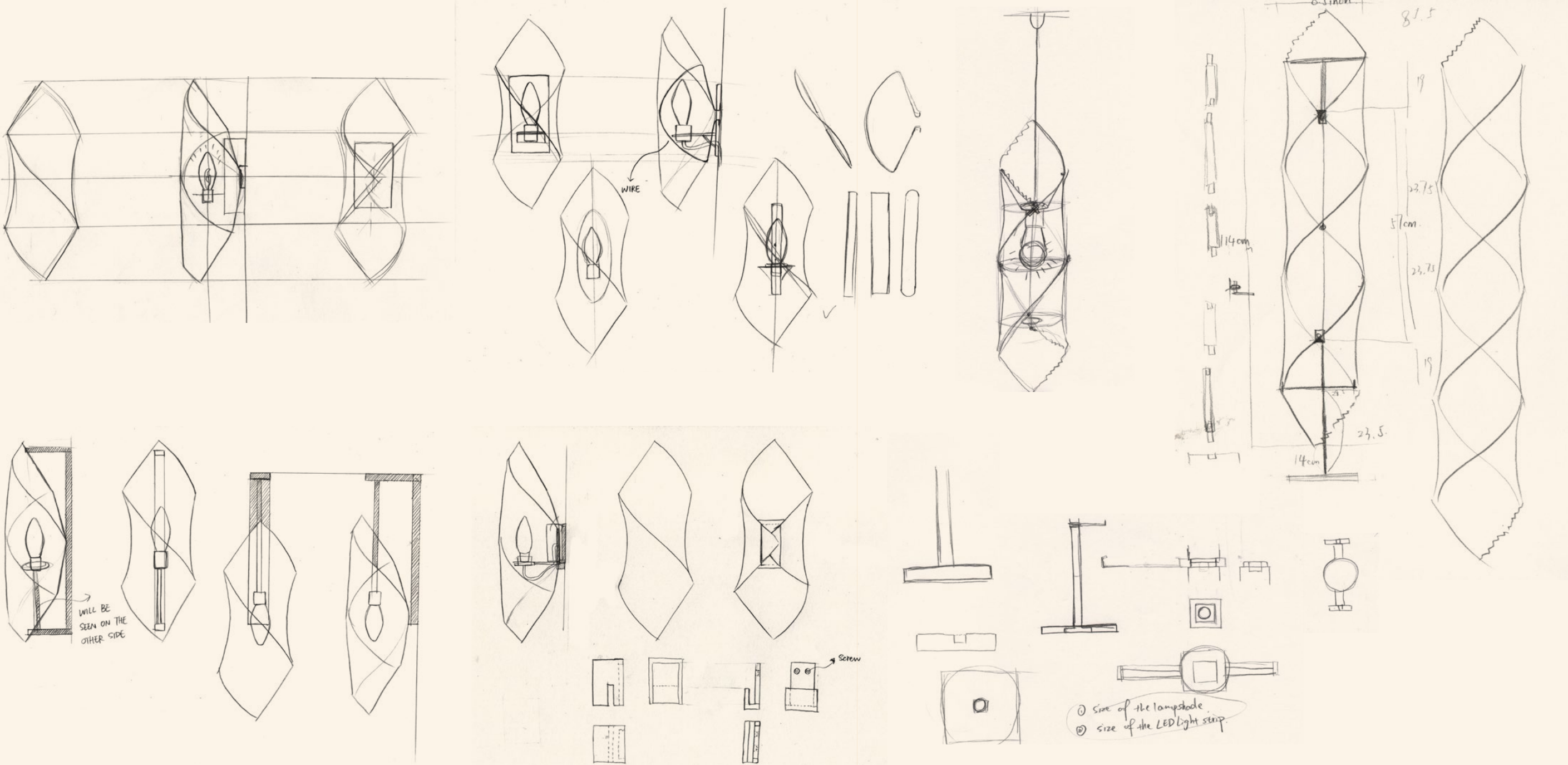
Variations of "Mountain and Valley" pleat



This pleat is easy to make by hand but also by machines. And this structure can be rolled up and also fixed to a stable form.



IDEATION III

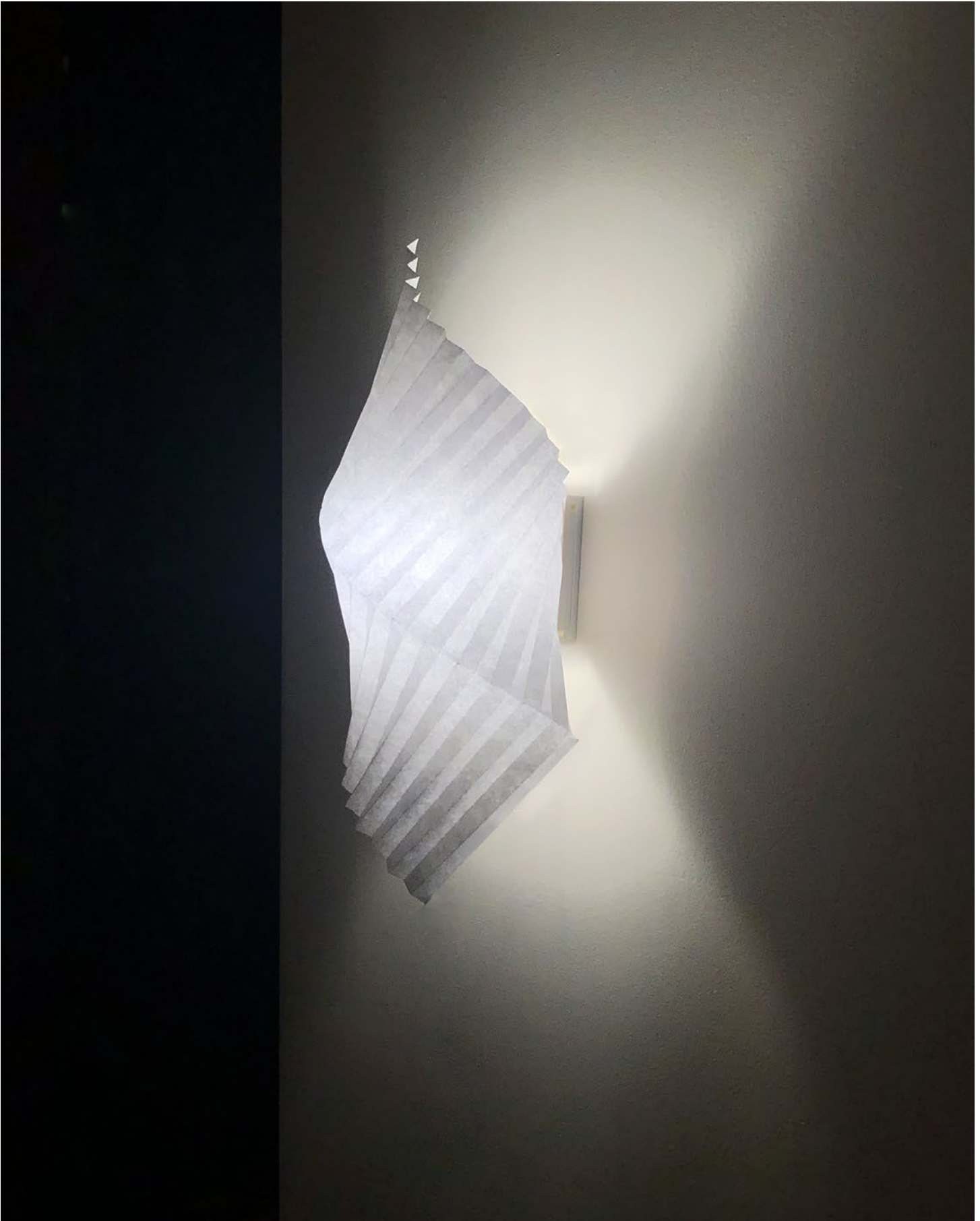


The sketches on the left page are all about the ideas of holding a wall sconce. And the last one feels better without many other elements showing.

The sketches on the right side are about the supporting structures of a floor light. The stand can be easily assembled by users.



WALL SCONCE



This small light sconce is made of 2 regular size grocery bags. Because it is light-weighted, it is easy to hang on the wall.



A soft, cozy atmosphere can be created with COCOON lamps that spreads diffused and decorative light. And this unique form and its geometric aesthetics can fit into all kinds of room decor.



CEILING LIGHT

Made of 8 regular size grocery bags.

All lights in this collection will be sold in DIY kits which is disassembled and rolled up.





FLOOR LIGHT

Made of 20 regular size grocery bags.



