CART360 Concordia

Reflection based on “Sensing Kirigami” by Clement Zheng, Hyunjoo Oh , Laura Devendorf and Ellen Yi-Luen Do

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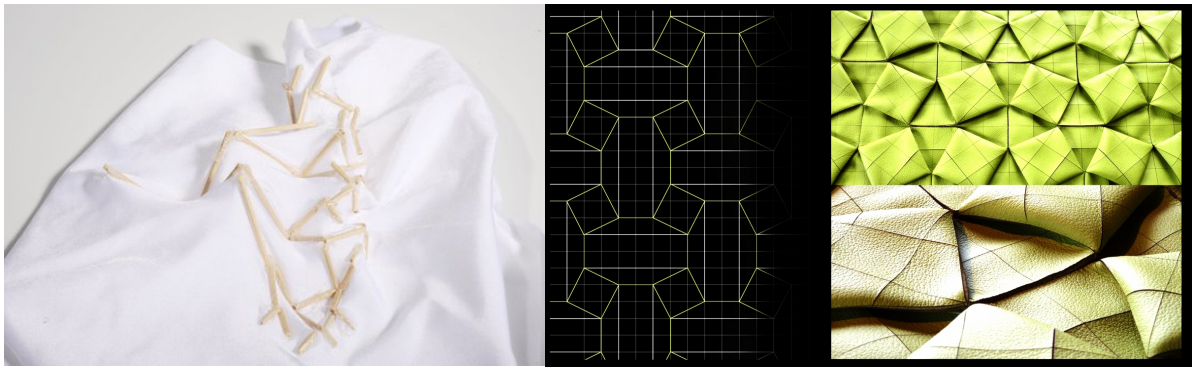
Materials

Materials are the physically things in the universe. That is why materiality is such an interesting field to begin with. Humans change and combine them in order to exploit their full potential. The industrial revolution brought new technologies, followed by new processes to change materials. Today we are still looking for these new processes. Terms like «smart materials» are no longer unfamiliar to us. [1] There is different category of smart materials (passive, active, intrinsic smart materials, smart systems and so on). Based on their different action- reaction to their environment.

In the given text Sensing Kirigami the main material used is carbon coated paper a paper that conduct electricity and work like resistors. They used the difference proprieties and affordance of this material to explore tangible interaction. Inspired by Kirigami they explored the way paper can be cut, folded and bind to form three dimensional shapes that invite to an interaction. There is a lot of different research made about what kind of patterns, form in order to create some relief on a plan surface. For example, the work of Verena Ziegler, throught different experience she tested the ability of textile to create shape in response of being cut or with 3D print [2] she imagines different kind of structure that result in a three dimensional patters, forms.



Concerning the text, they tested and analyse the different proprieties of two different carbon composition paper (One conducting electricity on his entirety the other just on the surface), their reaction and electricals response to folding and bending.

The experience made give a different result for each paper, there for each paper is more optimized for some kind of interaction. With this material they created a sensor that react to Folding and bending. The

second interpretation of the material is made in the form of a physical deformation. They in a third iteration apply some cutting patterns researched on a lamp design.

I choose this article because it remembers me my first year studying interaction design in Switzerland my first course was the first week all about paper folding and create interactive structure and spoke a lot about affordance. The second week we go deeper in materials themselves and the possibilities they offer. Materials are unique and interesting subject in our field, and even a simple piece of paper can become a great tool for prototyping and creating interaction. What I like in this paper is the ways the process is explain. Focused on one materials the authors explain their way through their testing to check the capacity of what they have, the way they could shape it and the reaction of the materials thought the way they form it. And finally the creation of some application based on the special capacity discover about the material. During my research about materials I found an interesting Web page that display different research and project about materiality. [3] "www.materiability.com". The page even contains some tutorial and explanation about different materials like electroactive polymer, bioplastics and their possibilities. They share like in the text they observation and utilisation of the materials.

Bibliography

[1] Susanne Küchler, "*Technological Materiality: Beyond the Dualist Paradigm*", 2014, In Theory Culture Society.
[2] Verena Ziegler, "Felted Textures" "Structures and Patterns", http://www.verena-ziegler.com.
[3] http://materiability.com/tutorials