

To Decompose Is to Create: Supporting Creativity by Incorporating Nature in Design

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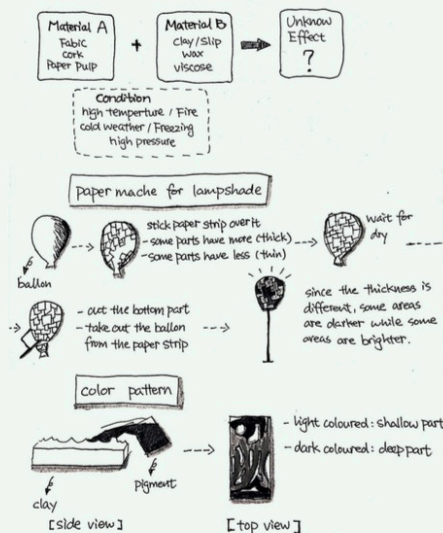
Introduction

- Research Question: **How can we apply the notion and process of decomposition to design?**
- In this Research through Design (RtD) project, we use the notion of decomposition on ceramic making activities to better understand this concept
- We focus specifically on ceramic making activities to explore the creative process of reconfiguration through deconstruction.

The Notion of Decomposition

- In natural science, decomposition implies the process of **death and rebirth, loss and renewal** which cannot be replicated in full even with human intervention (e.g., wine making).
- In anthropology, decomposition provides an analytical lens for scientific research: **breaking down a composition to reveal inside.**^[1]

Design Ideation



Experimental Ceramic Projects

Cracking

- Learned how to make basic objects
- Experimented whether low temperature may lead to natural-developed cracks and patterns on the surface of clay bowls



Visualizing Gravity

- Pours slip to create thin layers of clay attached to paper cups
- Repeat several times until slip covers over 80% of the surfaces
- Use the heat gun to fasten the drying process and create cracks
- The paper cups are coated with wax, which stops the slip from shrinking while drying
- The clay cracks eventually leaving unpredictable patterns on the cups



Fabric & Slip

- Cutting and stitching fabrics (100% cotton denim) to create 3D objects
- Dipping the objects into slip and let them naturally dry in the air
- The weight of the slip pulls the objects into different shapes and directions while drying



Slip Casting

- Adding instant noodle, tea, and coffee powder to the surface of slip
- The photos on the right show us mixing slip and beans then pour them into plaster casting moulds
- Again, the pieces crack because the beans in between stops the slip from shrinking



Reflections

- learn the basic characteristic and properties of ceramics (e.g. it cracks when drying fast and shrinks when drying/firing).
- Learn other material can achieve different effect: the edge of tissue can form a special shape; The fabric has certain support for slip.
- Develop a deeper understanding of the notion of decomposition: in many cases we are not designing the final products but the process incorporating nature in the making.

Future Work

- Glaze the works we have produced here
- Experiment with other materials/processes



Reference

[1]: Liu, S. (2018). To Decompose Is to Create: Supporting Creativity by Incorporating Nature in Design. In proceedings of the 2017 ACM SIGCHI Conference on *Creativity and Cognition*. Singapore, pp.484-489.

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