



From Lab to Startup: the Gingerbread House



My research

Solution for food waste disposal

Currently, food waste disposal involves CO2 generation and disposal of ashes etc.

Sometimes food waste are used as forage or fertilizer, however the cost involved is not economically attractive enough.



国連世界食糧計画: <https://www.wfp.org/foodwaste>



COP28: <https://www.cop28.com/en/food-and-agriculture>

My research

Procedure



Food waste as raw material

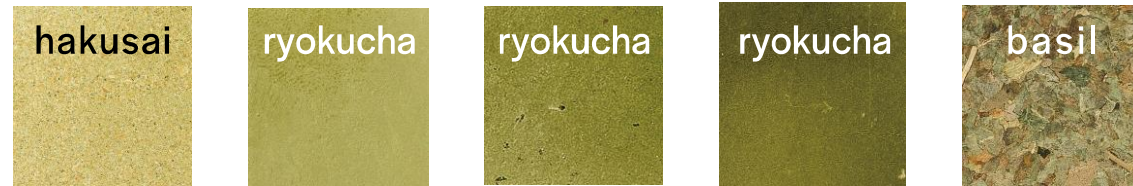
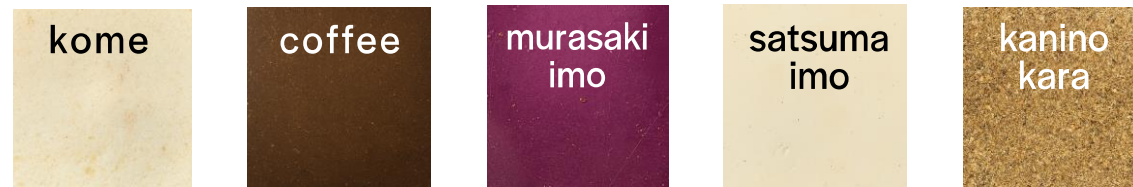
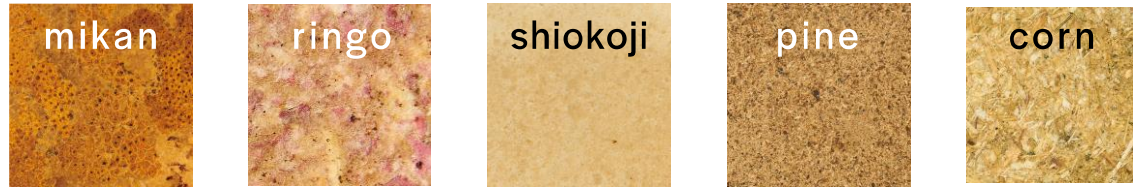


Dry, grind and heat-press



**New material created with
food waste**

My research

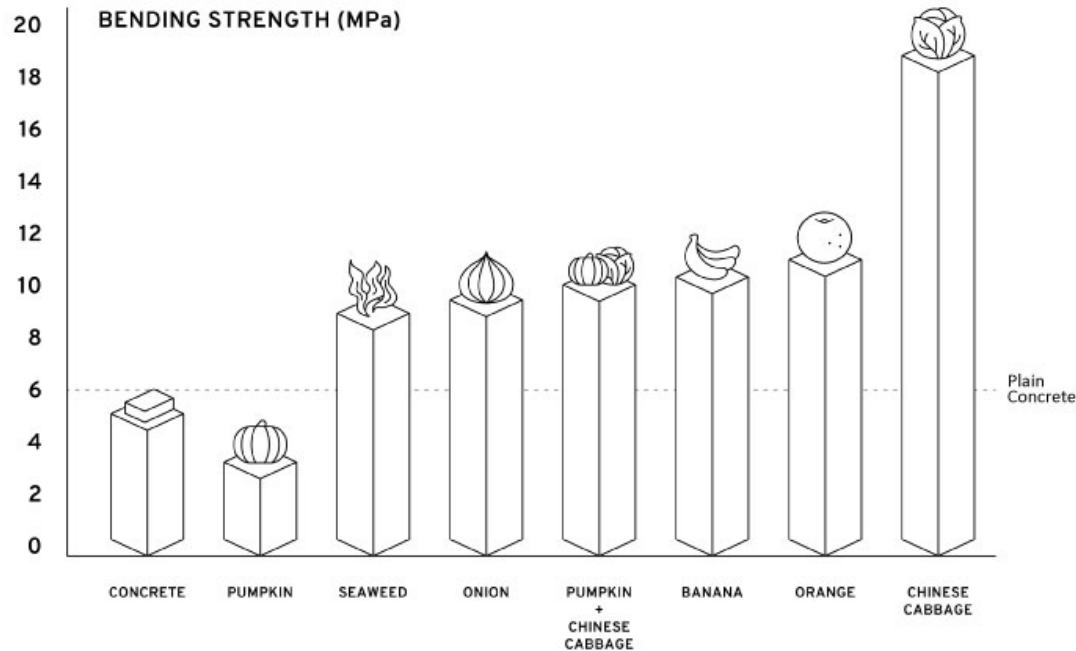


Enjoy the color and aroma of the raw material

The material is 100% natural origin.
Depending on the food waste used, you can enjoy different color and aroma.

My research

Characteristics of fabula's material



4 times stronger than concrete*

For example, the bending strength of Chinese Cabbages is 4 times stronger than normal concrete. A 5 mm thin plate can bear 30 kg weight. It has a potential to become a construction material in the future.

*The strength depends on raw materials to be used.

Why Startup?

2021.3

Graduation

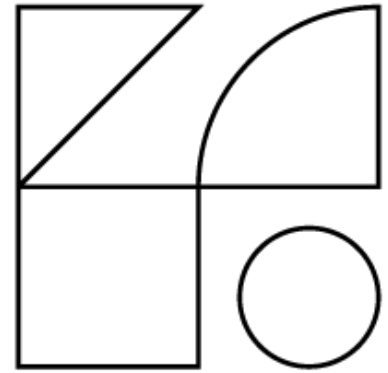
2021.5

Patent application by the University of Tokyo

2021.10

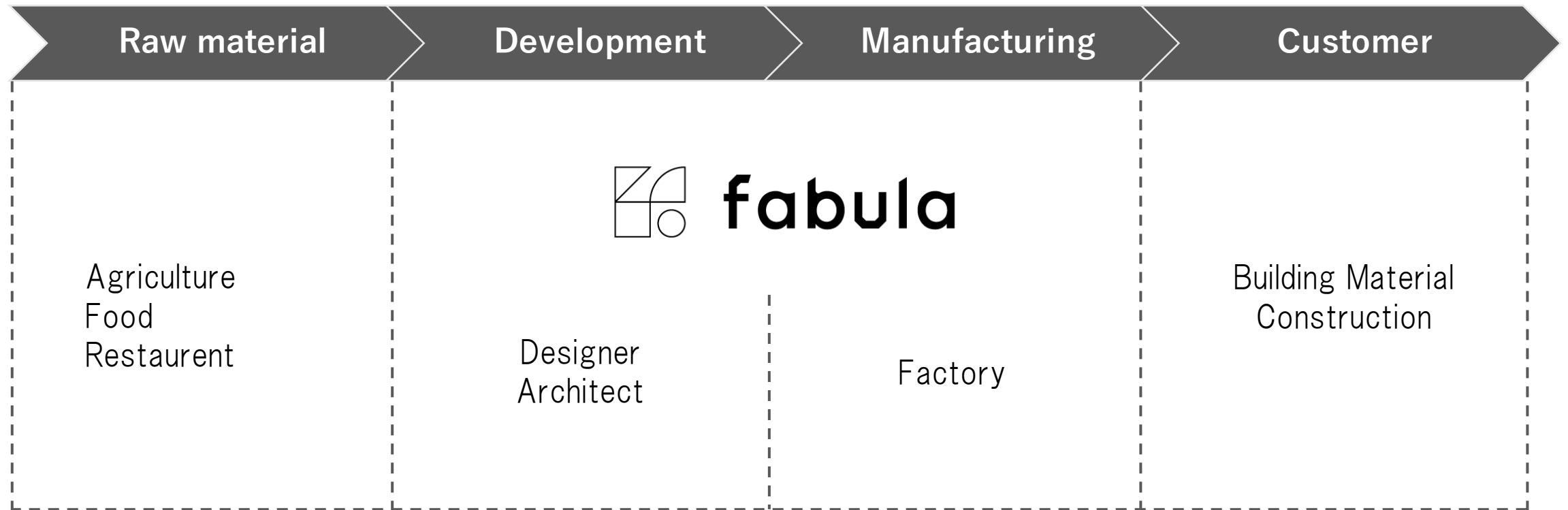
Started up fabula Inc.

-Signed a license agreement with the university



fabula

Business model





Assembled Stool

Raw materials : Coffee (seat surface) , Chinese cabbage (chair leg)

Size : w350mm × d300mm × h390mm

Taking advantage of the assembly type feature, raw materials can be changed for each part.

Using local products from the area will give the stool a regional character.





Tile

Raw materials : Burdock, Chinese cabbage , Coffee, Bread
Size : 300mm square

Tiles are envisioned as paving and decorative material.

Right images: Processing by “Shopbot”

In 2025

EXPO2025 Osaka, Kansai, Japan

Our materials will be provided to build the gallery designed by architects “teco”.
(its place shown on the map)

<https://ysakai.iis.u-tokyo.ac.jp/infokiji/337>



In 2025

Our material are used as ceiling;

Raw materials are supplied from
food companies in Japan

- Tea leaves
- Cacao husks
- By-products from milling company
- Coffee grounds
- Chinese cabbage

Etc,





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