

Modular = PANEL



JIIN KIM

Modular **:PANEL**

by JIIN KIM

Introduction

Making Frame

- Modular

- Hinge

- Standard Frame
Making Process

Interior design

- My Identity

Final Piece

Expectation



People has a different body curve

Initial Idea Sketch

Introduction

The first time my initial design was for a chair. When I first planned the chair, I paid attention to the posture of people. Observing how many people used a particular piece of furniture in different ways, I decided to think about how to create furniture that would fit a variety of people well. So I came up with a design that could go through various forms of change, and that was the beginning of choosing a modular method.

Making

FRAME

I used the modular method to create a standard panel, which provides the basics for users to create products in the form they want. The panel could be combined or detached, change it to the way the user wanted. Thus, the link, the hinge, was considered a very important factor, and the hinge method was created to connect and remove it naturally. Wood, my main material, is a natural material with the backside of strength and weakness, which was a challenge to test how to partially solve my design. My design was partially divided into frames, hinges, and interior, and accordingly, the selection and design of materials considering the characteristics of wooden materials were applied. I want to test the success of the design to see if my design was applicable according to the characteristics of wooden material, and I thought it was a proposal to a new design to the current of modern craft. This was a very difficult task. My hinge was difficult to reproduce with wood, and my frame looks simple but has a very complicated process. However, it eventually completed the current hinge, and it is difficult to explain that it is completely stable. But I think I have confirmed the feasibility of this. And I believe that the current design will have the potential for future development.

Given that users can create various forms on their own, this design process is expected that users who use the product without stopping at the design of the designer who provides the product can make various changes.



MO

D

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LAR

HI

N



Experiment of The Hinge process

G

The hinge is the most important part of my design process and also the most difficult part that had to be solved to guarantee that my design was possible. I tried and tested the most common hinge design/method and this process led me to create the C - type shaped design. A hinge which is determined by its detachable properties. The design of the hinge, which resembles a Lego character's hand, allows users to easily insert and remove it. The design is such that it could easily be expanded or customised into different configurations depending on your needs. This concept establishes a design which can be expanded and adapted since the hinge can freely change angles along the frame in a circular motion. My design can be determined successful if the hinge operates correctly as I have planned. In order to prove this I have attempted to use different hinge designs and methods which are already used in woodworking. I decided on a method which will be most user friendly. Simply because my design isn't as strong as regular hinges. I tried to increase the durability with hardwood. However, I recognise that the durability of the chair is most vulnerable when it is in use, and the durability of the hinge must be reviewed when the chair experiences the full weight and pressure.

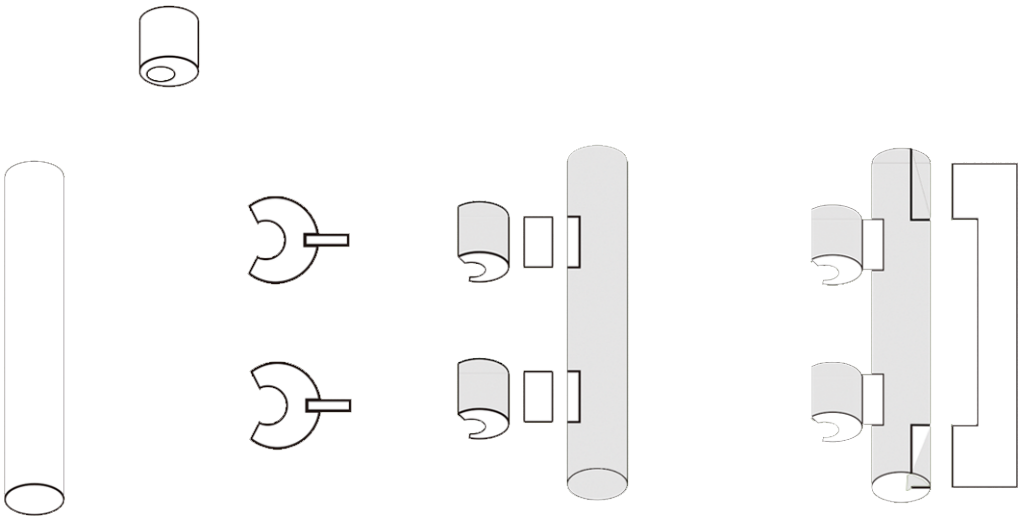
A similar type of hinge is used by a Japanese designer Kunikazu Hamanishi, he created the Leg-O coffee table. Hamanishi crafted six legs using a lathe, which is an old wood working tool that carves out sections of wood as it spins on its axis. The lathe notched out sections on each of the legs for the cross bars to snap onto, just like the LEGO clip pieces are designed to do.



@ Kunikazu Hamanishi

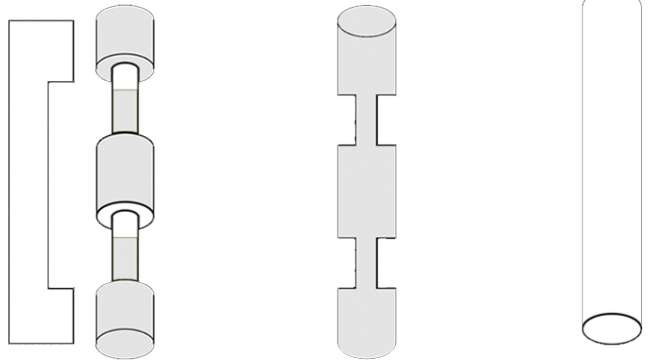
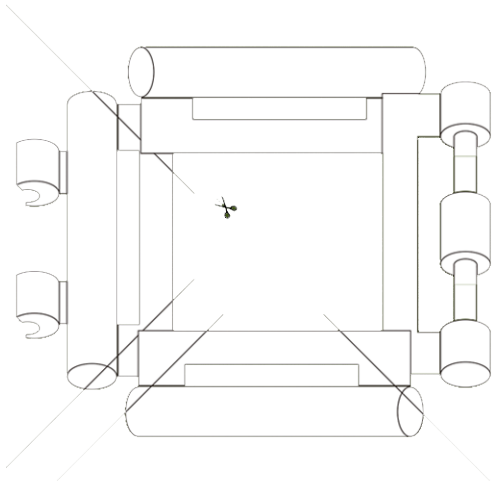
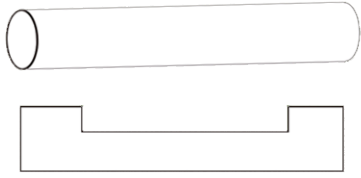
E

Standard Frame Making Process



DI

A



G

RAM

Material

Beechwood Dowel R35mm
Plywood Sheet 6mm

Dimension

450 * 450

The C-type hinge allows for a natural attachment and detachment with other panels, and enables infinite connections as easily as possible.

The frame size is 450*450. Based on the process of standard frame, the design can be expanded and changed to the desired size.



When the user connects and uses the panel, a round-shaped wooden frame provides a more natural feeling for the user's physical contact.



The gap between beech wood and plywood naturally acts as a handle when carrying it.

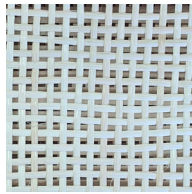
In the Interior of the panel, user can freely change and customise with the materials and designs they want.



Interior Design



Bamboo



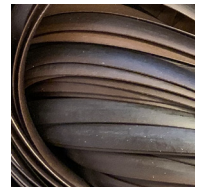
Rattan



String



Fabric



Plastic Rattan

Case study of Material

The reason why I chose the weaving method to think of the inner part as a sitting part and express it with flexible materials that just as the foundation of my design began with a chair. so I chose the part where the human body touches as a flexible material to give comfort, and it was judged that weaving that is flexible but can with stand loads was suitable for my design.

W E A



Collage by Jiin Kim

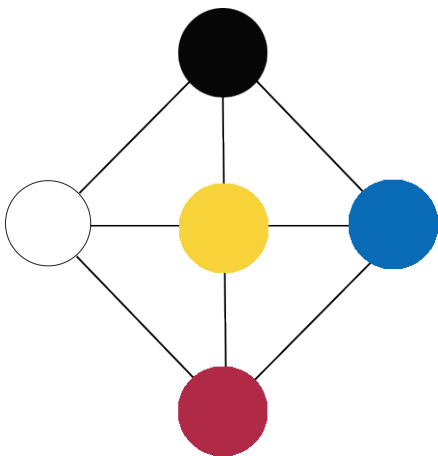
V I N G

M

Y

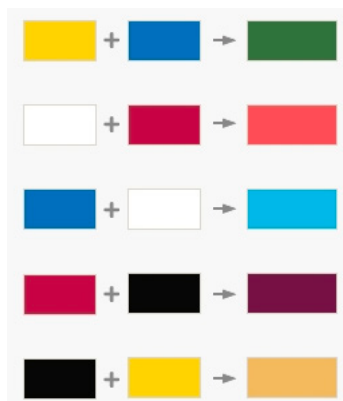
I want my panel to be my design signature. I wanted to express my identity, and I thought it could be my Korean characteristic. If there is a colour and design that only I can produce as an international student, in a way, I think it can be unique or distinctive to me. So I thought about what it would be like to put Korean colours in my panel. I felt that this brought traditional and classical beauty, and I tried to incorporate Korean traditional patterns into my panel. For my new purpose of changing to the current screen, I wanted to put on Korean characteristic for interior, using colour and design, so I decided to use a traditional pattern. If I complete the frame in the systematic part and colour it to show my identity through the internal design, it will be a choice that does not deviate much from the first idea I came up with.

Korean Colour



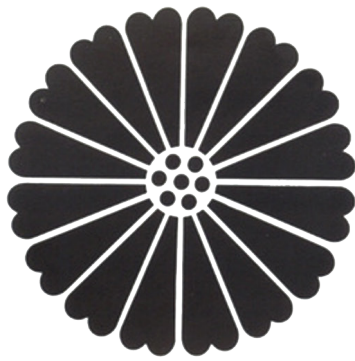
Colour of Five Elements

Since ancient times, Korea has a sense of colour that cannot be found in other countries, and the world of Korean consciousness is an idea based on the cosmic relationship of acoustic five elements. As a result, the colour culture of Koreans is deeply related to the ideological system, and the colour consciousness of the Korean people was formed by various factors such as the environmental influence of the four seasons. Our people have used colours that are not strong and that are simple to contrast. Yellow, red, blue, black, and white, that is, 'Obangjeong' colour, based on the theory of five elements of yin and yang, is the basis.

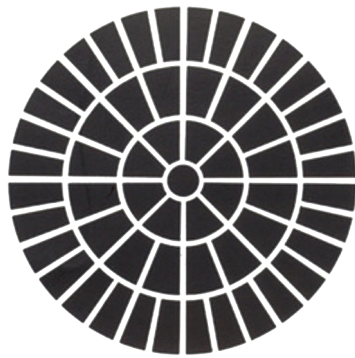


Obanggan Colour

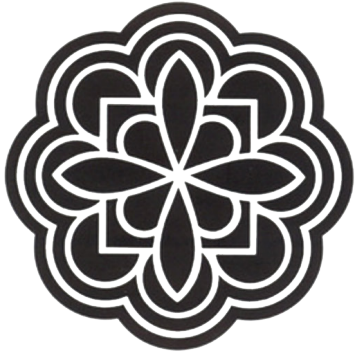
The 'Obanggan' colour is a middle colour of two 'Obangjeong' colours, and is divided into a win-win liver colour and an upper pole colour according to the relationship between the win-win and the upper pole of the five elements.



■ 01



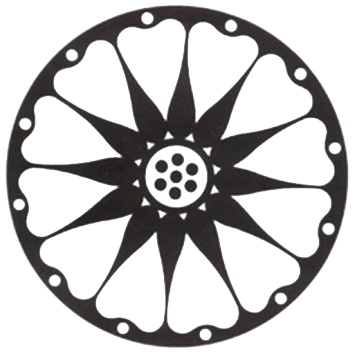
■ 02



■ 03



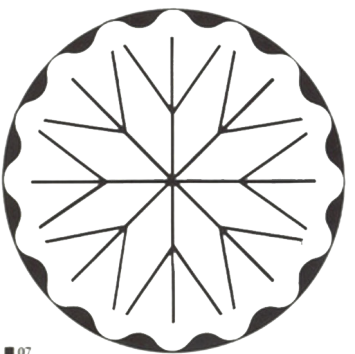
■ 04



■ 05



■ 06



■ 07



■ 08

■ 01
국화무늬
菊花紋
Chrysanthemum
Kuk-hwa munui

■ 02
국화무늬
菊花紋
Chrysanthemum
Kuk-hwa munui

■ 03
국화무늬
菊花紋
Chrysanthemum
Kuk-hwa munui

■ 04
단국화무늬
唐菊花紋
Single Chrysanthemum
Tangguk-hwa munui

■ 05
국화무늬
菊花紋
Chrysanthemum
Kuk-hwa munui

■ 06
월계꽃무늬
月季花紋
China Rose
Wŏlgye-kkot munui

■ 07
연잎무늬
荷葉紋
Lotus Pad
Yŏnnip munui

■ 08
연꽃무늬
蓮花紋
Lotus Blossom
Yŏn-kkot munui

I D E N T I T Y

Korean Traditional Pattern
- Flowers

Traditional flower pattern - Among the plants, flowers were the main subject of the pattern. Even if there is no particular symbolism, flowers represent beauty. Therefore, it is often beautifully decorated by expressing a general type of flower rather than a specific flower. Materials that accounted for the largest proportion include lotus, chrysanthemums, and vines. This is because lotus flowers were recognised as important plants in various ideas and religions.

Korean Traditional Pattern



@ Ilwol Obongdo (The National Palace Museum of Korea)

Korean traditional patterns were used in architecture, cultural properties, and household items. Or used to represent Buddhist ideas. The design was used primarily for decoration, or for the preservation of artefacts. Korean patterns, which contain the relaxation and humour of our ancestors, have been engraved on our lives and living tools and have had a lot of influence. Our ancestors created various patterns in familiar nature and decorated and meaningfully decorated buildings, furniture, living tools.

Ilwol Obongdo is a folk painting with the sun and moon floating together, meaning that it is harmonized without being biased to either side. It is usually used as a folding screen during the Joseon Dynasty, and I want to reinterpret Ilwol Obongdo simply with Obangjeong colour and my design based on the picture of this work. It would be suitable for the design of the screen.



Ilwol Obongdo



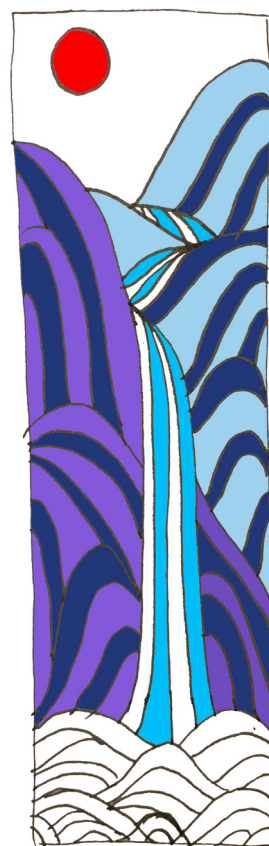
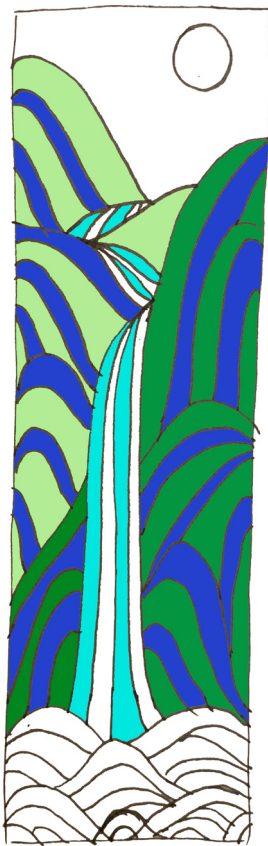
Traditional Flowers



Compound

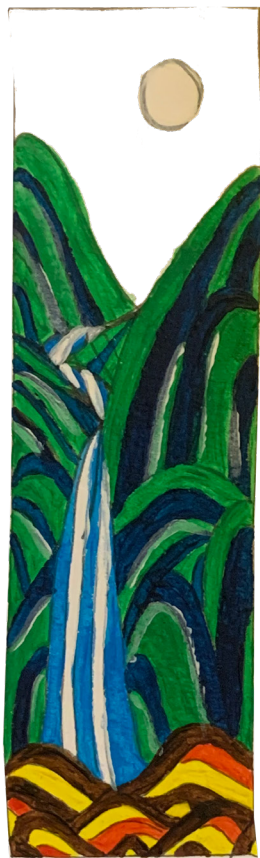
Case Study of Interior Design

I simply reinterpreted Ilwol Obongdo in my own style and paint it with colours that match my design based on the Korean colour chart.



Contrast of Colour

- 하양
- 민트
- 하늘
- 국화
- 황금
- 노랑



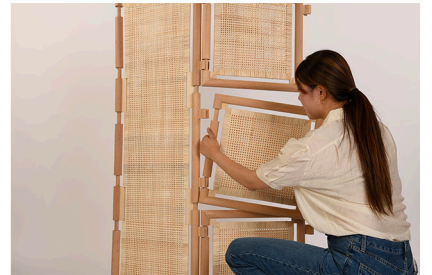
- 빨간
- 진국
- 파랑
- 보라
- 밤색
- 검정



Combination of Colour



The Final Piece - Screen



Sequence of The Working Process





Screen designed by Jiin Kim.

EX

P

T

A

E

C

Expectation

My finished frame began with the initial idea of designing a chair. However, because chairs are practical furniture that people have to sit on, this idea has been slightly redirected to a screen that is now more realistically feasible to study and secure stability. This does not mean I am stopping the chair. I think my screen also can express the possibility of my panel of the beginning. because I wanted my panel to have the purpose of changing it in the direction that the user wanted, not just one purpose of furniture.

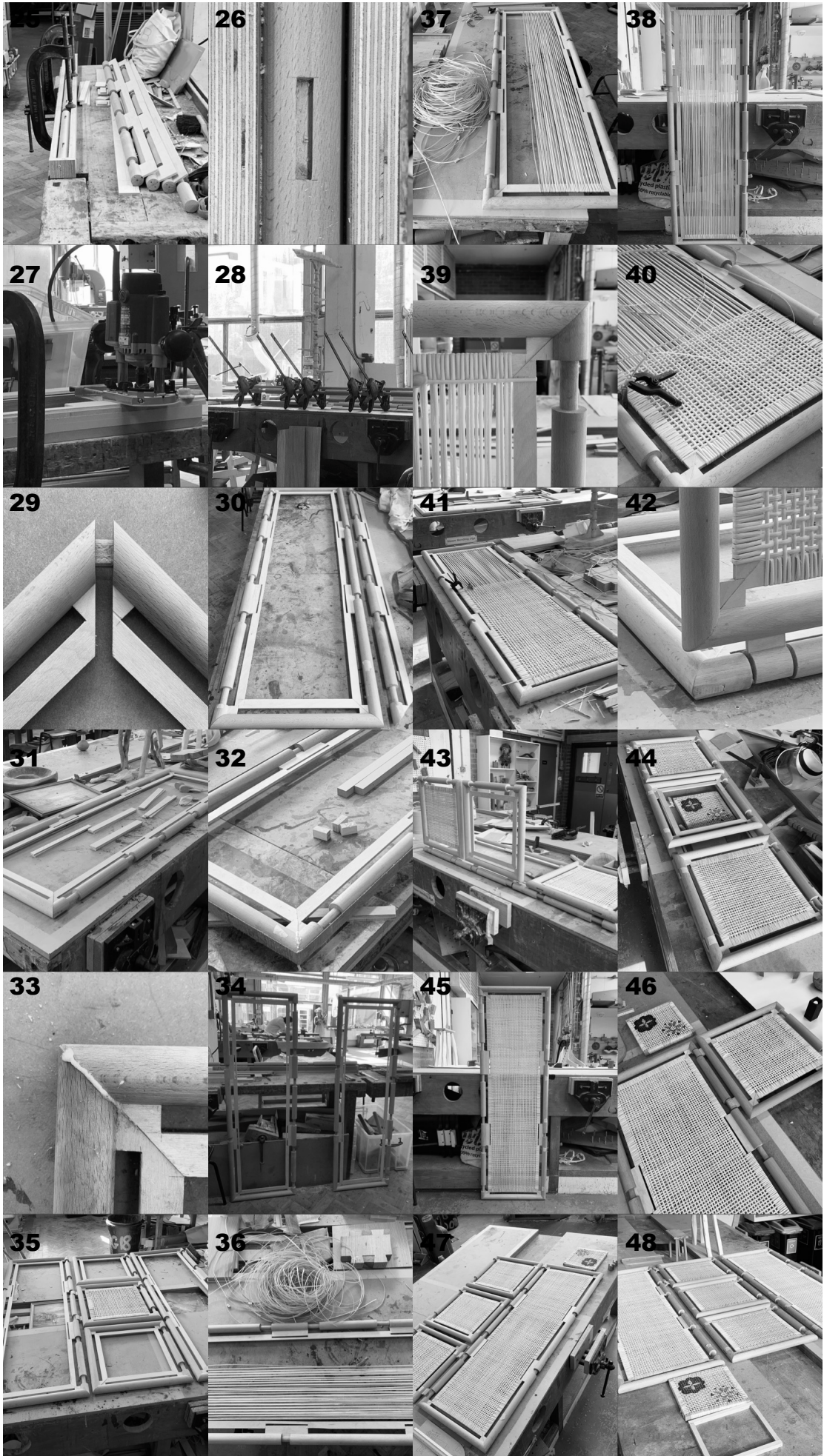
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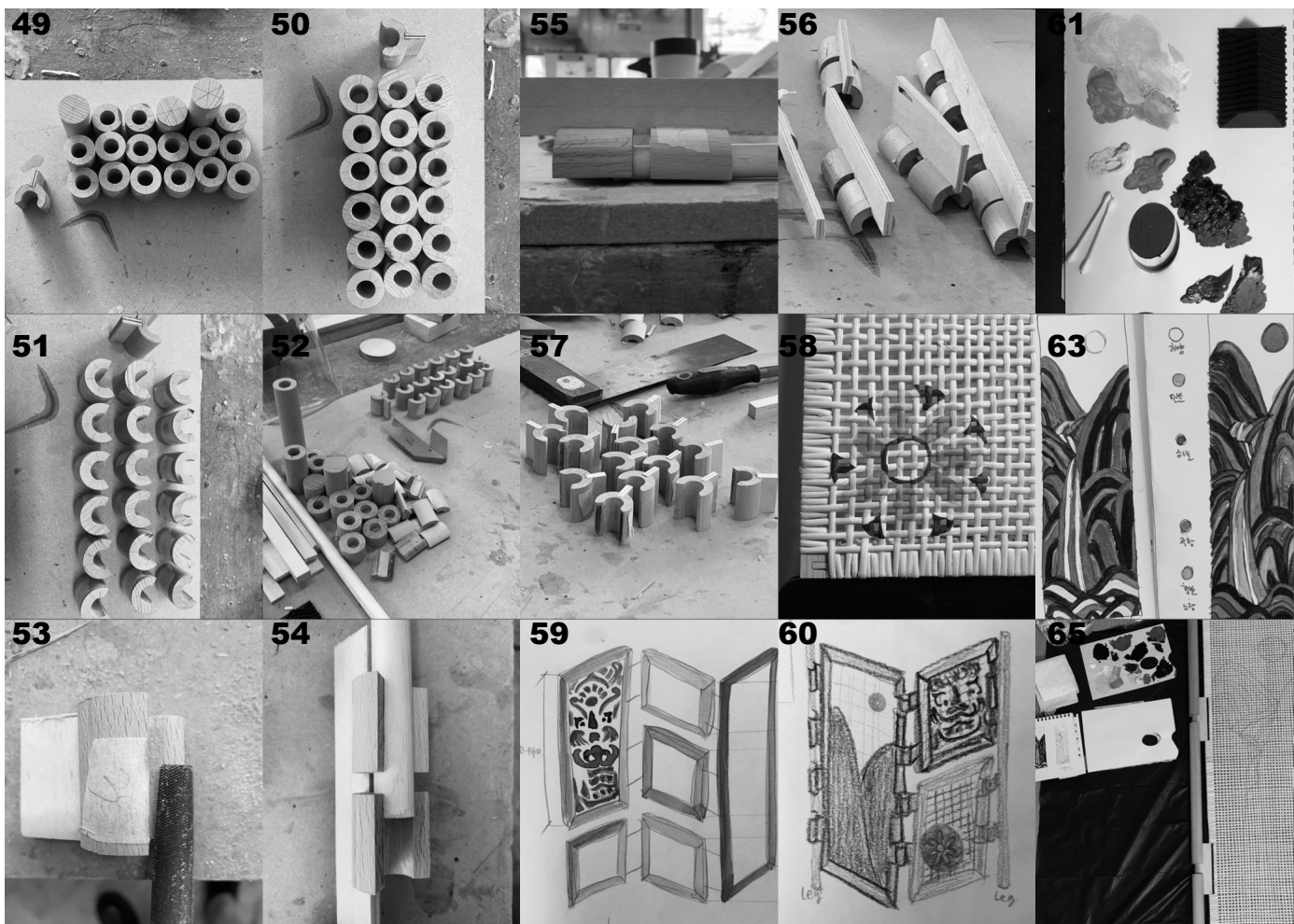
ON

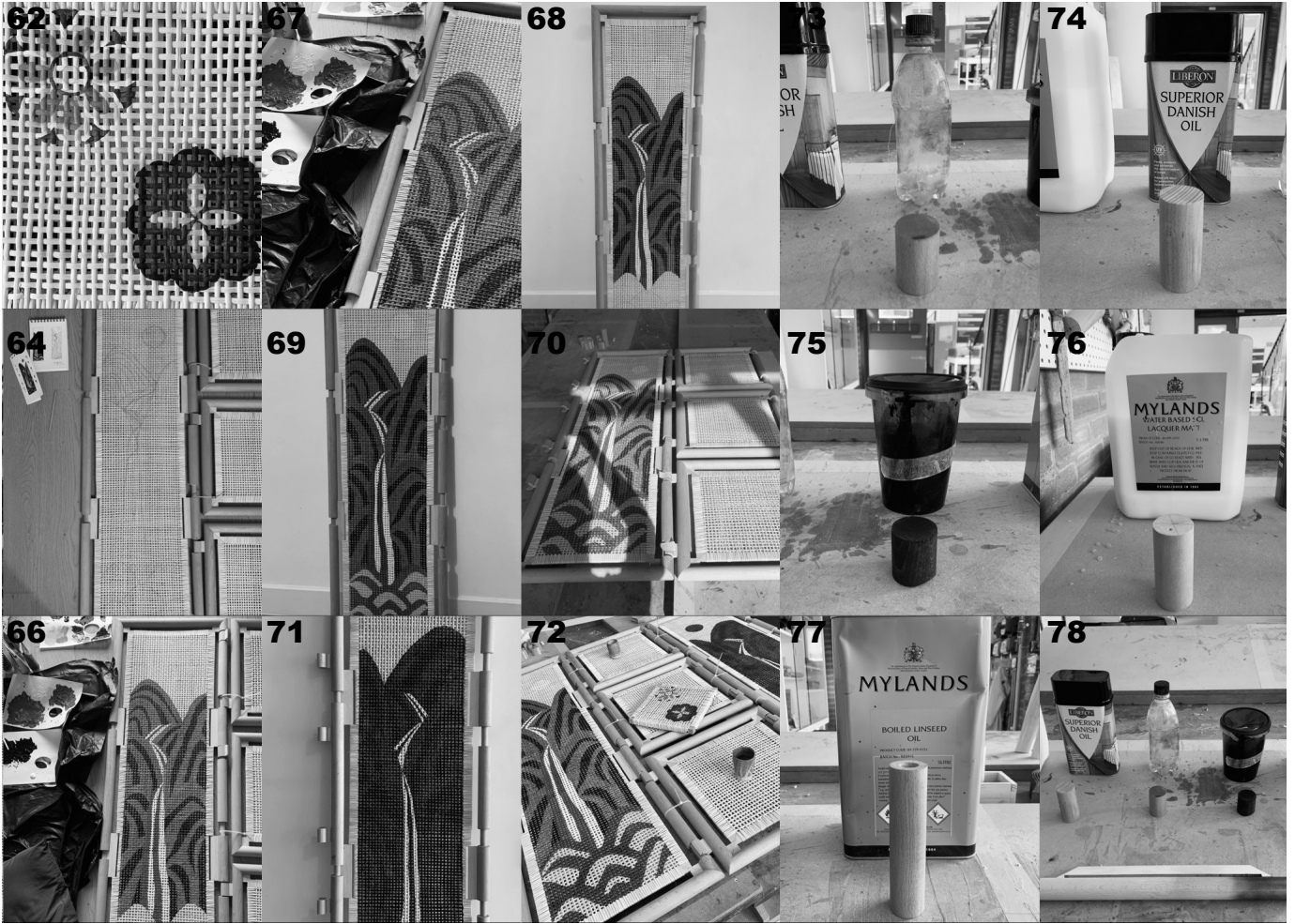
Photo Book











Modular : PANEL
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Jiin Kim

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University of Brighton

MA Craft 2021/2022

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