

**CULTURAL
REFLECTIONS
ON
MU HE FURNITURE**

CULTURAL REFLECTIONS ON FURNITURE *Catalogue*

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Cultural Reflections on Furniture
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Abstract

Culture is the social behaviours in human being's society, but it can also influence designers and their works. If Nordic design is considered popular, can the design methodology duplicate to reflect East Asian culture? Can a design language be refined from the carrier of culture, such as architectures?

By knowing more about Nordic design and East Asian culture, A good design with East Asian culture and Nordic minimalism can be made.

It is a test of blending design methodology with another culture so that a successful experience can be referred and design can also become a tool to help communicate between different cultures.

The starting point is different from traditional design process which comes from structure or user cases, but from a culture.

History of Scandinavian design is analysed to receive the clue of the design philosophy. As a good cultural carrier, traditional architecture in East Asia can stably reflect local culture. The design language can refined from these architecture to reflect the culture.

Torii, as an example, is selected. Many researches on structure and shapes are done for next form exploration. Using sketches and mockups, these elements can be transferred into a chair to reflect its inherent culture.

There are relatively certain elements that can represent a certain culture in architecture. These traditional architectures provide a timeline to trace the evolution of a culture. In the meanwhile, these elements can be refined and reused. Furthermore, with the help of simple and minimalistic design philosophy, these elements are also suitable to show in a design to tell a cultural story. Even though the elements and character are different and from East Asian culture, with the same Nordic design methodology, it can still be self-adapted, natural and elegant.

By expressing Asian culture in Nordic language, there could be more possible potential products designed. Thereby, design can be a new carrier or tool to modernise the old traditional culture and make these culture universally useful and attractive again. Moreover, as the same principle, this method can also be spread to other cultures and more well-designed products in accordance with local culture and living habits can appear.

Keywords Scandinavian design, East Asian culture, Cultural reflections

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Objectives

In this thesis, the author will analyze the successful aspects of Scandinavian furniture since the last century, which include the historical aspects, design, marketing, and objective aspects. The first purpose is to refine the essence of Scandinavian furniture. Furthermore, I would try to apply the same experience to another culture in its design context so as to design a tangible product using the Nordic design philosophy.

When analyzing the success of Scandinavian furniture, I will describe the reasons for the success of some furniture brands. By analyzing them, I will try to find a way to replicate a certain type of success within the East Asian culture and the furniture market by integrating the Nordic design philosophy and Eastern Asian culture into one tangible product.

The research question would be why the listed brands are universally successful and what is the reason for their success. Since they are successful, would it be possible to learn lessons from the success and replicate such success in the furniture market of other cultures, as we described 'reflections'. One specific exhibition project will also be analyzed to shed light on how product design can be integrated into cultural reflection under a specific culture. By doing all of these, the final objective would be to make a set of furniture to represent the cultural reflection and mixture from my understanding.

As mentioned in the previous paragraphs, culture reflection, from my point of view, may be a type of shape, a form character or a user experience that can engage a group of people from certain cultures recognize their identity by the expressions behind the design, which they are familiar with and connect to their cultural identities.

Methods

For my thesis, the main methods of research would be a Literature Review, Benchmarking, Analysis of existing products, Trend forecasting, and Experimental prototypes. By using these methods, I will browse and review related articles about the topic, analyze the existing target of brands to extract certain elements of the existing products, and then eventually use those elements for the new products.

Literature Review: I will read the articles and books written by previous researchers. To know the original idea, history, mode of management and sale strategy of the existing furniture brands. Literature gives endless possibilities to read and interpret before confirming the design and the form of language. Therefore it would be a good starting point of the research.

Analysis of existing products: I will pick 3 to 5 brands to analyze their products which are still existent in the production line. In order to achieve the diversity of my analysis, those chosen brands are categorized into different types in terms of nations, cultures, and influences. By analyzing the products, I will also collect the data of used materials, unified form language, colors and some other aspects for furniture benchmarking research.

Benchmarking: I will try to write the general idea about my final outcomes of design, then use this to make a comparison with the data I analyzed in the section of 'analysis of existing products'. By comparing them together, I would collect the data of the differences and similarities between them, and cultural reflections of it.

Trend forecasting: In my previous internship in Copenhagen, I learned much about running a furniture brand in fashion industry. I would analyze the trend of materials used, colors and finishing towards my design, combining with the experience of my previous internship.

Experimental prototypes: I will try to utilize and apply my analysis of trends to my design and make prototypes. For sure, because of the indeterminacy of crafting, I will make experiments of it in different ways.

I would use all the data in two ways. Firstly, I will use the data from the literature review and analysis of existing products to make further detailed design works for production and experimental prototypes. The second part of the data would be written during the process of experimental prototypes. I would also record the process of trying different materials, colors, crafting and finishing. All of the data from this part will all be recorded in my final thesis essay.

BACKGROUND

The background of the development of the furniture industry in Scandinavian countries.

1.1 The Influence of the Scandinavian Design

Nordic furniture has gained much popularity and is followed by people from all around the world. Its minimalistic style and the use of natural materials have deeply influenced the design industry over the past decades. (Clive Edwards, 2007) ^[1] Due to its influence, nowadays design industry in different countries has adopted the Nordic design philosophy, thus becoming simpler and more minimalistic. These countries include East Asian countries, such as China and Japan. When looking into the furniture and accessories designed in Asia or America, they, to some degree, display a touch of Scandinavian style.

1.2 The Interaction between Human Beings and Furniture and its influence

Within a broader context in design and society, home is a place frequently investigated when we explore the relationship between users and design. From a designer's point of view, not only the design of furniture and accessories at home should be considered, but also the shift on the relationship between the furniture/accessories and users within home context needs to take into account, since this has kept changing due to the improvement of crafts, materials, industrial or technology development and the attitudes of people towards work, life due to society changes, which will be elaborated in detail in the following chapters.

1.3 the Importance of Learning Nordic Style

Under this changeable social context, to see behind the history and the successful experience of furniture, especially that from Scandinavian furniture, and to bring them back to modern times is quite valuable and essential to reflect within different cultures and societies. Learning from the successful experience of Scandinavian furniture design, we can refer to such success and replicate within the manufacturing industry and fashion industry in other different cultures. Furthermore, to know the development process of furniture in the house can be beneficial to the design research in the future, as people from other cultures may appreciate the minimalist design from Nordic countries. Therefore, it is of great cruciality to investigate the development of Nordic furniture in the past decades to follow the successful experience and potentially to bring them to different cultures with modern technology.

1 BRIEF INTRODUCTION OF NORDIC DESIGN

The definition of Nordic design, known as the Scandinavian design, is a movement of design with simple, minimal and functional characteristics, which has been quite popular until today in nordic countries, namely, Denmark, Sweden, Norway, Finland, and Iceland. (Kjetil Fallan, Anders V.Munch, Pekke Forvenmaa, Espen Johsen, Sara Kristofferson and Christina Zetterlund, 2012)^[1] It is rather different from the general idea in geography from the Scandinavian countries because, in fact, Denmark, Finland, and Iceland are not in the Scandinavian Peninsula. However, in this movement of design from the 1950s, these nordic countries all emerged many famous, representative designers with their ark of design works into unified ideation^[2]. Such unified ideation with the simple, minimal design style now has become the well-known and sought-after Scandinavian design style.

During the past few decades, in the design movement, there have been many great designers releasing their famous design works^[2], which are all now the classic design in the design history and leaving their names in the design history.^[3] The style of Nordic design is not hard to accept and access due to its characteristics of simplicity and minimalism that even people living in Asia, with thousands of kilometers distance, can understand and appreciate the ideas behind.(Paul michael Smith, Cynthia D. West, 1994)^[4]

There are some examples of what happened during the past 70 years. In Denmark, there are many classic and world-famous brands and designers that appeared, such as Carl Hansen & Son, Republic of Fritz Hansen. In this period, people tend to call the design works from this certain period, the 'mid-century modern design'. In Sweden, there were many designers and companies set up around the same time. IKEA must be the most famous one that it is still one of the representatives of Scandinavian design when people are talking about it until today. Let along with other important and great designers like Sixten Sason, Bruno Mathsson in Sweden. Apart from that, in Finland, there is a designer that almost every Finnish person knows and he is Alvar Aalto, who also made countless art works in this design movement in terms of designing timeless design and the continued contribution towards design education. These renowned designers along with their design works leave a mark in history and what they left in history transcends across time and space which is worth our effort to investigate, learn and integrate with modern culture.

1.Kjetil Fallan, Anders V. Munch, Pekke Forvenmaa, Espen Johsen, Sara Kristofferson and Christina Zetterlund, 2012, *Scandinavian Design: Alternative Histories*. edited by Kjetil Fallan; *A Historiography of Scandinavian Design*.

2. "Scandinavian design". *Scandinavia design*. Retrieved 3 January 2018. https://www.scandinavia-design.fr/design-scandinave_en.html

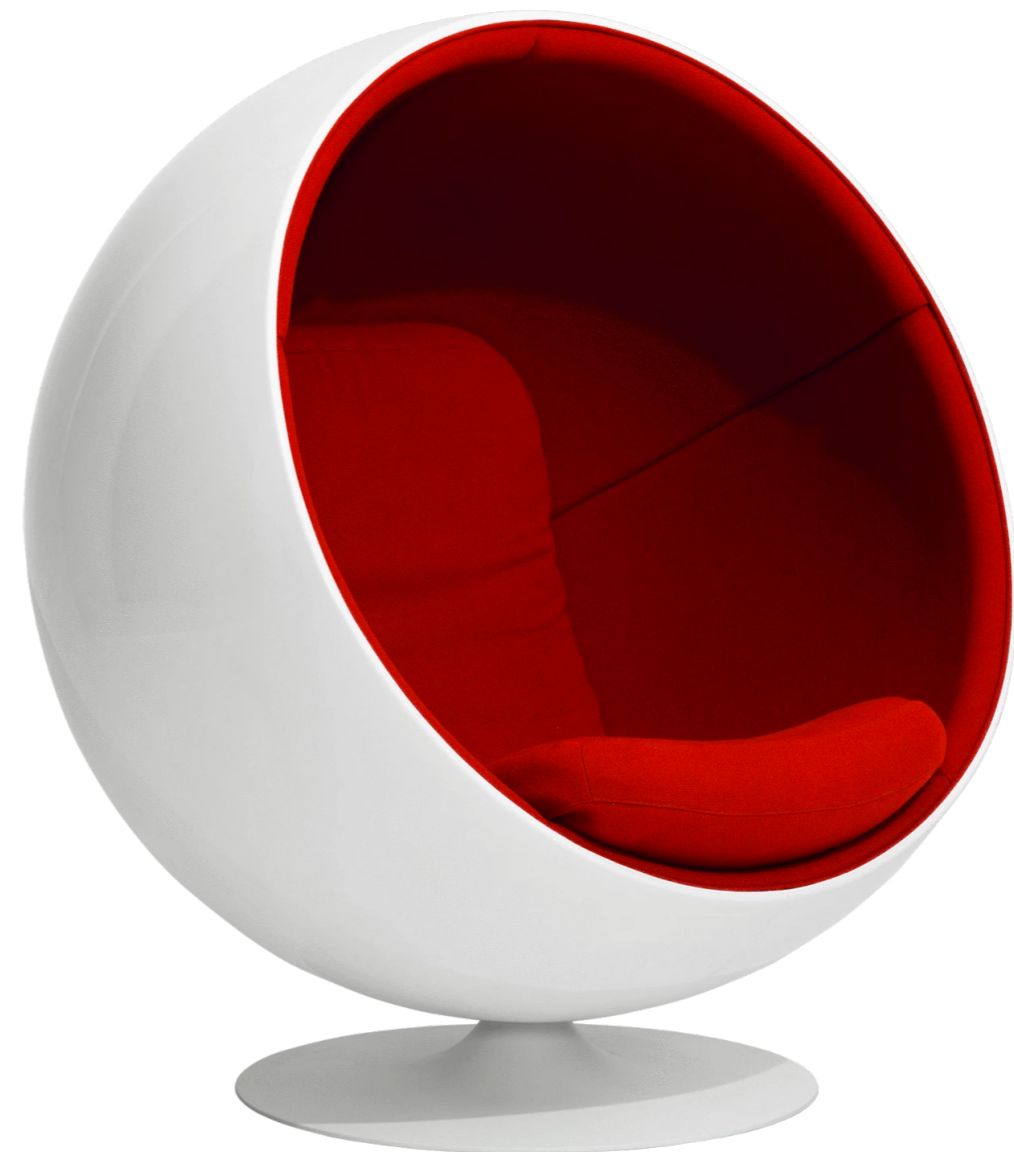
3. *Finnish Design: Your Guide To Modern Finnish Design*. Retrieved 7 May 2014. <http://finnishdesign.com/finnish-designers/>

4. Paul Michael Smith, Cynthia D. West, *The Globalization of Furniture Industries/Markets*, P 103-131, Published - Jun 27 1994

Fig.01

From: *The Ball Chair, Eero Aarnio Originals*.
Link: <https://www.aarniooriginals.com/products/ball-chair>
Author: Eero Aarnio

A representative chair designed by a great Finnish designer, Eero Aarnio, in 'mid-century modern' design.



2 THE HISTORY OF NORDIC DESIGN

Furniture from Nordic countries has become increasingly popular and well-accepted by all around the world. (Clive Edwards, 2007)^[1] There must be some reasons behind the success of the Nordic furniture industry. Nowadays, the whole design industry keeps developing with technology. Therefore, to review the historical and other reasons for the success of Nordic furniture would be of great value and essence for the future. Admittedly, the characteristics and style of the furniture keep developing as well. With the development of the smart industry, furniture can also be led to another different direction from before; however, the successful experience of traditional Nordic furniture design might still be valuable and beneficial for the development of the industry.

Under this changeable situation, to see behind the history of furniture, especially successful Scandinavian furniture, and to bring the classic furniture design back to modern time is quite valuable and meaningful for people from different cultures. With the successful experience of Scandinavian furniture design, we can choose another totally different culture, or the fashion industry, or the material, manufacture industry for replication of such success. However, on the other hand, to know the origin of the development of furniture in the house could be beneficial to futuristic research. Therefore, it is of great value to investigate the reasons for the success and popularity of Nordic furniture in the past decades to follow the successful experience and possibly replicate it to the new culture with modern technology.

To find out a clear answer, the history of Nordic furniture will be reviewed in the following sections to see what influenced it as a precondition. In the second section, for the modern furniture industry, I will elaborate on the method of management and sale strategy of Nordic furniture. Last but not least, the analysis of the Chinese furniture industry would be conducted for primary idea to examine whether all the experiences and conditions from Nordic cultures above could fit and put into practice or not.

1. Clive Edwards, CHARM 2007, The 'Scandinavian Ideal' in Design: Two Distinct Approaches to the Marketing of an Ideal, Loughborough University, ENGLAND;

2.1 SCANDINAVIAN DESIGN HISTORY AND DESIGN STYLE

Nordic Furniture in the Past

I will elaborate on the following paragraphs to describe the different historical situations in Denmark, Sweden, and Finland in the past, thus illustrating how nordic furniture has been developed through different nordic regions yet reaching the similar unified style.

2.1.1 Denmark History and Its Design

As Kevin Davies (1999) states in his article^[1], the furniture industry in Denmark began after its relatively stable national situation after the Second World War where Denmark was only slightly influenced by the war in terms of industrial construction. Under such circumstances, with the free competition in the market from many diverse manufacturers and producers, the Danish furniture business has been developed and can be seen as a strong competitor among all the European countries due to its energetic industry, the completeness of materials and the cost.^[2] Such rapid development at its earlier stage can be accredited to the favorable precondition after the war and its successful extension in Europe.

After accumulating enough foundation for decades, as Per H. Hansen (2006) states^[3], Danish furniture industry shifted from the manufacturing industry to the tertiary industry. In particular, it shifted its focus from manufacturing furniture to focusing on designing furniture service. For example, it happened from the last 60s with many famous Danish designers who began to appear in history with their renowned design works. Starting from this period of time, Denmark has gained its reputation in both furniture manufacturing and design.^[4]

Combining with its resultful promotion, sales, and marketing strategy, just as the way of Danish people organized the exhibition or collaborative exhibitions, Danish furniture producers were in the demonstrably leading position among all Nordic furniture design until the first few years after 2000. ^[5] During those years, from post-second-world-war to the new century, under the influence of mid-century modern design trend which was also led by Danish design, there were plenty of classic design masterpieces done and produced by Danish companies and designers across time and regions, such as Louis Poulson, Georg Jensen, and Verner Panton. ^[4]

As described above, the reason behind the the renownedness and popularity in Danish furniture design can be concluded as 1. favorable historical time when the furniture industry developed along with other industries after the war. 2. the shift from manufacturing industry to focusing more on design itself, which has laid a solid foundation for the furniture design industry to grow and develop.

1. Kevin Davies., 1999. *Scandinavian Journal of Design History* 9. *Markets, Marketing and Design: the Danish furniture industry c. 1947-65*, p.56-73

2. *Furniture and Industrial Design (PDF)*, Factsheet Denmark, DK: Ministry of Foreign Affairs, retrieved 17 December 2008.

3. Per H. Hansen., 2006. *Networks, Narratives, and New Markets: The Rise and Decline of Danish Modern Furniture Design, 1930-1970*. *The Business History Review*, Vol. 80, No.3, pp.449-483 [online] Available at: <<http://www.jstor.org/stable/25097226>> [Accessed 11 March 2018]

4. "Danish Design and Architecture", *About Denmark, Denmark*, archived from the original on 20 May 2009, retrieved 17 December 2008

5. Niels Peter Skou & Anders V. Munch Article, Published online: 08 Nov 2016. *New Nordic and Scandinavian Retro: reassessment of values and aesthetics in contemporary Nordic design*. : 32573

2.1.2 Present Situation in Danish Design Industry

Here I would like to demonstrate the present situation in the Danish design industry by using the representative example of one of the successful modern Nordic furniture design brands, Normann Copenhagen. It is one of the representatives of Nordic furniture and accessory producers and has been developing rapidly for the past 20 years. ^[1]

The unified characters of its products are clean, round and lovely with saturated colors. The design language of Normann Copenhagen is straight for body form, round for the edges and details and thus being exaggerated for some characteristic details like joints, legs or some other parts. Colour, material, and finishing (CMF) is not the strength of it. Based on my observations from design works in various companies, it has been discovered that most of the Nordic furniture brands seem to have similar CMF trends; however, it is the way they apply to define Scandinavia style. To be more specific, monotone colors such as black and white and grey, along with saturated colors like the UltraViolet color of the year 2018 published by Pantone, are used in products. In conclusion, the design style in Danish furniture is about choosing monotone colors as base with saturated colors as decoration while employing the minimal and simplistic features to the shape to form the design language.

1. Den nat det stak af for Normann Copenhagen, Maria Kentorp, 17. AUG. 2019 KL. 8:00, Borsen. <https://pleasure.borsen.dk/design/artikel/11/231246/.html>

2.2 SWEDISH DESIGN MANUFACTURING MODE AND ITS DESIGN

One nation representing Scandinavian furniture is Sweden. It has also experienced the old style of furniture manufacturing mode. Since the 1960s, as Gunilla Frick (1998) wrote in his paper^[1], Sweden developed two types of furniture modes which are separately traditional way and modern way. The representative of modern way is the famous IKEA which has produced modern, affordable, well-designed furniture world-widely. Nowadays customers can find an IKEA store in almost every big city around the world.

As the comparison, two furniture shopping malls sharing one mode have been developed called Uplandsmobler and Möbler och Slöjd.^[2] In fact, they do not directly compete with IKEA's modern mode even though they have settled their stores next to each other in one block. Detailedly, because of different target groups of customers, these two furniture malls attract more attention from the people who like traditional furniture. They updated the management rule of the mall such as paying more attention to copyrights, keeping designers' signatures and place of production which marks it a bit more modern. However, for the furniture itself, they reserved the old-traditional style of furniture well. They nowadays still sell old-style furniture. Surprisingly, there is still a target group of people who are fond of the old furniture as well as the handmade pine furniture. The old handmade craft in Sweden is well kept. Handmade furniture means a relatively higher price, better materials, and quality. It is why Gunilla Frick (1998) asserts even though they are all selling furniture, there is no direct competition between them due to the different targets and different manufacturing strategies. Compared with handmade furniture in Sweden, IKEA's method of producing furniture is to manufacture products abroad in developing countries, such as in China, Malaysia or other countries in Southeastern Asia. Due to such separate modes in the furniture industry, the diversity of furniture development is kept well in Scandinavian countries in both handmade industry and the mass-production industry. Thus, it can lead to the mainstream of the furniture industry in the world. In a word, I conclude such success of the furniture industry is accredited to the specific division to separate different target groups, which can shed light on the development in the furniture industry in other countries, such as China and Japan.

1. Gunilla Frick., 1998. *Present-day Swedish Furniture Manufacturing and Design*. *Scandinavian Journal of Design History* 8, p. 16-31.

2. Aida Puente Torano., 2012. *Portraying the Nordic Design From An Inside Point of View*. *Scandinavian Design. Alternative Histories*, pp.306

Fig.02

From: YPPERLIG collection, IKEA & Hay.
Link: <https://www.ikea.com/fi/fi/news/ypperlig-erikoismallisto-pub2d09fec0>
Author: Mette and Rolf, Hay



2.3 FINNISH DESIGN HISTORY

Another nordic country that should be mentioned for its design history and furniture design development is Finland. The starting point of Finnish design was the successful construction of the Republic of Finland. From that time, an intriguing period of the story started, about design. Finland was then a nation with relatively limited resources compared with other countries in Europe, which led Finland absorbing the reflections in terms of arts and design from other places passively. In the way of developing the strength of the country, to form a healthy, unique, influential and meaningful characteristic of Finland was the priority. The dynamic in the industry was young and active. In this special period of time, plenty of art genres were impacting the Finnish art field such as classicalism to architecture, interior design, and decoration, or the cross-section of Hellenism and Neo-Hellenism to the culture of Finland. Thus, I initially claim that the development of Finnish Design originated from its special historical period with the influence of other countries in Europe, such as Sweden. (Pekka Korvenmaa, 2009)

[1]

Along with the rapid development of arts, design, and crafts, the new modes of collaboration and partnership between companies and designers emerged from the flow of society as well. From the collaboration between the famous designer we mentioned above, Alvar Aalto, and the company built by him, Artek, supporting by Maire Gullichsen, Finland also got into modernism step by step. After the times of exhibitions both in Finland and the world, Finnish furniture design, representing by Alvar Aalto and the company Artek, gradually kept pace with the international design field. What the exhibitions did was not only to exhibit the works the Finnish designers did but also to accomplish the aim of building the new characteristics of Finland, thus bringing an increasing number of opportunities to the country from all over the world. Along with the growing importance of Finland in the world, Alvar Aalto, as a designer, became increasingly influential in Finland even as a symbol of the Finnish design field which was a win-win to all the designers, the company and users who buy the furniture. With the development of technology and crafts, plenty of furniture with cutting edge technology, such as birch plywood, designed by renowned designers was bought by Finns and appeared in plenty of normal typical Finnish families. Therefore, a number of Finnish designers forming their unique style and reputation is another reason for the success of Finnish Design. (Kevin Davies, 2002) [2]

Furthermore, the rich natural resources in Finland also counted as part of the causes for the success of Finnish Design. Combining with characteristic resources of the country, Finland in a way has made several materials as representative of Finland, such as birch we mentioned, glass, ceramics, and unique fabric knits. There were plenty of world-famous brands behind the materials and design, such as Artek, Iittala, Arabia, and Marimekko.

By mixing with all the brands and designers, we can get a clear timeline from the beginning stage of Finnish design to the present. The development of Finnish design is rich, traditional, modern and stylized. Last but not least, the essential reason for the Finnish design development is the aim of its design. To be more specific, from the history of design in Finland, there has always been an aim which is to facilitate people to improve the quality of their lives. By using and researching more ways of processing diverse materials, digesting a variety of genres of design styles at different stages, nowadays Finland has successfully formed its impactful design culture. The Helsinki design week in every year is a perfect illustration of such success. (Alison J. Clarke, 2015) [3]

Due to the limitation of natural and social resources in the past, Finland had only limited types of materials to use for design. Nevertheless, facts proved that Finnish designers have gone a long way to design their country and people's lives tremendously. At present, you could still find the classic well-designed furniture from the Artek company designed by designers from the last century. Meanwhile, a new generation of designers is emerging. The new generation designers' works can also be accessible from the Internet. It is a country containing the past and the present, with more potential in the future. The most modern way of buying things, online shopping, by mobile apps, is well mingled with traditional furniture with old timber. Such mingling is a balance yet a conflict as well. From what I discussed above, I accredit the success of Finnish design to its historical development, as well as the designers' credit to put their thoughts into pondering over the interactive relationship between users and objects. Besides, such success is kept solidly by mingling new business development mode such as Internet-based business with the old traditional design philosophy together, which was one of the essential key cause for the long-standing success of Finnish Design.

1. Pekka Korvenmaa, *University of Art and Design Helsinki, 2009, Published in Finnish as Taide & Teollisuus: Johdatus suomalaisen muotoilun historiaan, Finnish Design: A Concise History chapter 3, p.63-103.*

2. Kevin Davies, *Journal of Design History, Volume 15, Issue 2, 2002, Pages 101–116. A geographical notion turned into an artistic reality: Promoting Finland and Selling Finnish Design in Post-war Britain c. 1953–1965,*

3. Alison J. Clarke, 2015. "Actions Speak Louder" Victor Papanek and the Legacy of Design Activism, *Design and Culture The Journal of the Design Studies Forum, Pages 151-168.*



Fig.03
From: Model 60 stool, Artek.
Link: <https://www.artek.fi/en/>
Author: Alvar Aalto (1898 - 1976)



Fig.04
From: Alvar Aalto collection Vase, Iittala.
Link: <https://www.iittala.com/gb/en/interior/alvar-aalto-collection-vase-160-mm-clear/p/k000444?refSrc=K000439&nosto=productpage-nosto-1>
Author: Alvar Aalto (1898 - 1976)

3 CULTURE AND CULTURAL REFLECTIONS

When a design has been discussed to a certain level, we not only concern about the functionalities, shapes, colors and all the characteristics on the surface, but also some other factors underneath the surface that are more emotional, invisible, intangible and perceptual for human beings most of the time.

^[1]Because if the design is discussed in this level, to reach the basic requirement of functions is the base, but what the design can bring the users beyond the functionality is more meaningful as an additional value, such as satisfaction, acceptance, emotional resonance and definitely the cultural reflections which the paper is researching now.

Culture is, in definition, the social behaviors in human being's society. (Harry Charalambos Triandis, McGraw-Hill, 1994)^[2]It is considered as one concept in anthropology, meaning what a certain group of people in a region does under certain context. ^[3]Certainly, if we can mention more details about it, a specific culture must be able to cover many diverse parts in people's daily and social lives, from the specific foods a person eats, the taste a person prefers, the aesthetics certain people refer to, the language a certain group of people speaks, to symbolically the lifestyle people lead, the social moral compass people follow, the sense of belonging people believe. (Macionis, John J; Gerber, Linda Marie, 2011)^[3]

Once the system of recognition of the certain culture is built, people tend to reflect it to all their behaviors by making every choice including the creative work. (Glenn, S.S, 2004) ^[4]From a micro perspective, for example, if a person is going to do grocery shopping, everything he/she is going to buy will be influenced by his/her culture including the flavor of the milk, the color of the package of the bread. Furthermore, for example, more practically, the furniture a person is inclined to buy, the clothing style the person is going to wear, even the habits and contents of conversation when the person is going to say are all involved. When it comes to design, most people are inclined to make a decision from culture. (Amos Rapoport, 2005)^[5]To be more specific, people tend to associate all the experience from their lives and attach his/her personal experience to the products they choose. Therefore, most people are influenced by the culture they belong to or accept, from the preferred materials to, in a broader context, the position of the products associated with the research of potential market and customers' preferences. (Elena Pacenti, 1999) ^[6]

For example, a skirt may be just one type of common clothing. But when thinking about the details of the design of a skirt from essence, there are still many details of cultural reflections inside to customize it special and different from others, like the Scottish kilts. Later, even this Scottish kilt itself starts to become one symbol of Scottish culture as written by Hagemann, S(2012).^[7]

Invisibly, everything and everyone else around our lives are engaged and reflected from his/her recognized culture.

From the above discussion, throughout the design process, to reflect the experience from the culture where a certain group of people are from, seems quite natural and innate human brain process. Therefore, designers and researchers can refine some aspects of preferred colors, materials from the traditional culture where they reference used to be or referring to the special sociable habits that will sometimes lead the product to another different directions. In the next chapter, I will analyze some of the cases which could be relatively easy to find out how and where their designers receive cultural reflections.

1. Andrew Blauvelt, Director: Gary Hustwit, March 14, 2009, *Objectified*, Documentary.

2. Harry Charalambos Triandis, McGraw-Hill, 1994, *CULTURE AND SOCIAL BEHAVIOR: McGraw-Hill series in social psychology Social Psychology Series*.

3. Macionis, John J; Gerber, Linda Marie, 2011. *Sociology*. Toronto: Pearson Prentice Hall. p. 53. ISBN 978-0-13-700161-3. OCLC 652430995.

4. Glenn, S.S. *BEHAV ANALYST*, 2004. *Individual behavior, culture, and social change*, 27: 133. <https://doi.org/10.1007/BF03393175>

5. Amos Rapoport, 2005, *Culture, Architecture, and Design*, Locke Science Publishing Company, ISBN 0974673609, 9780974673608.

6. Elena Pacenti, 1999, *Design: Cultural probes*, William W. Gaver, Anthony Dunne, , *Design* p21-29.

7. Hagemann, S., 2012, *From Tartan to Tartanry: Scottish Culture, History and Myth: Scottish Culture, History and Myth*, . *Literary tartanry as translation*, P. 151- 165.

3.1 CASE ANALYSES OF CULTURAL REFLECTIONS IN PRODUCT DESIGN

In this chapter, I will elaborately demonstrate a case of design which is influenced by different cultures, even though they designed the same object.

The example is the eating tool that all the people living in Asian countries use, which is a pair of chopsticks. It is essentially the wisdom of the ancient people that was invented a long time ago but was designed with a slight difference by people all the time. The most traditional chopsticks may be made in bamboo due to its high durability. Then with the development of the materials industry, like ancient copper smelting technology, there is an increasing variety of chopsticks with diverse materials that these chopsticks are made of. Food certainly is regarded as one part of the local culture, as well as the cutlery used. Due to the different dining habits and the influence of different subcultures, even these chopsticks in different Asian countries have different expressions. (Yang, Z. & Hyman, M. J Bus Ethics, 2009) ^[1]

In Japan, chopsticks have a short length for eating and a relatively longer version for cooking. The basic form of these chopsticks is fundamentally the same as other chopsticks from other countries, which, from a rough perspective, a cylinder shape from the edge to the end. The only basic visible characteristic is that, the beginning edge of the chopsticks is sharper, smaller than the end.

Apart from Japan, Korean traditional chopsticks also share similar characteristics with this type of typical Japanese chopsticks. However, in China, the Chinese traditional chopsticks seem more intact because there is no such type of smaller, peaky top. The whole body of Chinese chopsticks is more like a perfect cylinder with cross-sections of a round rectangle or a simple circle.

The reason behind such slight difference in the shape of chopsticks is due to the cultures. Although Japan, Korea, and China somehow share a similar origin of East Asian culture, partially, in terms of lifestyle, there are still some differences in the aspects of geography, civilization, and their eating habits.^[1] To be more specific, geographically speaking, China is originally an agricultural civilization with the favorable farming conditions and long farming history.

Fig. 05
From: Chopsticks, Japan.
Link: <https://en.wikipedia.org/wiki/File:Chopstick.png>



On the other hand, due to their location, Korea and Japan are located closer to the sea and oceans, therefore, they enjoy not only strong agricultural industry but also a strong fishing civilization for quite a long time. [2] Thus, Japan has been one of the countries that catch most of the fish in the world every year and has a long history of eating cetacean. In the meanwhile, Korean people also have many marine products on their dining tables, such as seaweed, seafood, and many other algae. [2]

Logically, different locations on continents bring some slight differences among these cultures. In Japan and Korea, they naturally developed a type of exquisite food style with their seafood, such as Sushi in Japan and Kimbap in Korea. (Philip McMichael & Chul Kyoo Kim, 1994) [3] To easily deal with these small but delicate food, especially for the toppings, these peoples gradually designed and improved the chopsticks with a shorter length and a sharper top in order to hold the chopsticks stably and utilize it as a tool for eating, whereas in China, there is no food culture for people to deal with such small toppings on food. Logically most people in China tend to use chopsticks for the general using environments including cooking and eating. In this case, they extended the length of chopsticks slightly and keep the same transverse section to strengthen the chopsticks in order to confront with different circumstances.

From what I discussed above, it is not difficult to make a conclusion that the design of a specific object may vary from different cultures and the design of a specific object may, in turn, reflect the cultural differences behind certain societies even the certain cultures fall under the similar origin. Therefore, it would be interesting and of great importance to apply to the design philosophy in Scandinavian countries based on other countries' cultural reflections, so as to improve the design of the object itself and interact with the design process within certain groups of people from other cultural backgrounds.

1. Yang, Z. & Hyman, M. *J Bus Ethics*, 2009. *Confucian/ Chopsticks Marketing, Fam, KS.*, 88(Suppl 3): 393. <https://doi.org/10.1007/s10551-009-0307-6>

2. Barclay K, 2014, *History of Industrial Tuna Fishing in the Pacific Islands*. In: Christensen J., Tull M. (eds) *Historical Perspectives of Fisheries Exploitation in the Indo-Pacific*. MARE Publication Series, vol 12. Springer, Dordrecht

3. Philip McMichael & Chul Kyoo Kim, 1994. *Japanese and South Korean agricultural restructuring in comparative and global perspective*, , P19-20,



3.2 TARGET CULTURE AND PRODUCT DESIGN IN TARGET CULTURES

Here I would like to briefly introduce my personal background and past experience for the idea and inspiration behind. I am originally from the East Asian cultural sphere, or another word 'Sinosphere', which points to the countries in East Asia that were influenced by the Chinese culture historically. Even though I was born and grew up in Jiangsu China, I received design education in Taiwan and Helsinki, where there are plenty of particularities in design in different fields. From my point of view, it would be beneficial for the industry and myself to express the design mind by blending all the advantages of design into one unified piece of work. Therefore for this project, I intend to integrate East Asian cultural reflections and Scandinavian design philosophy into my tangible product design.

The base of East Asian culture is partially from ancient China and partially from the evolution of local society due to the living habits, the structure of resources or locations.

In geography, there are almost all types of terrains in the land and ocean in the East Asian area, which brings the diversity of crops, animals, and vegetation, where there are the highest mountains and the deepest ocean trench. In the meanwhile, as where generated one of the oldest human civilizations, the track of the development of most of the industries including human society, tools, and architecture is traceable and linear. Due to the diversity of natural resources and traceable history, there are many traditions in the culture that in fact remained from many dynasties before rather than being formed naturally in modern society, such as the temples made in wood, the stone eating tools, even the mortise, and tenon. At the same time, due to the rich natural resources, people living here are inclined to use more natural materials rather than artificial materials, such as wood for living houses, bamboo for tablewares. Specifically, in the wood industry in East Asian, Oak, Manchurian ash, Pine, Maple, and Sandalwood are the most popular wood types that can be regularly managed for manufacture in East Asia. In Japan and China, there are plenty of woods being manufactured and utilized into different following industries every year, thus wood becomes one of the most popular materials for people living here, which takes 65% of all raw materials used in contribution. (Ratnasingam, J, 2003) [1]

Table 2. Raw materials used in the South-east Asian furniture industry

Tabelle 2. Rohmaterialien für die Möbelindustrie in Südostasien

Raw material	% Contribution
Wood	65
Metal	12
Plastic	3
Rattan	13
Bamboo	4
Others	3

(Source: IFRG)

Fig.06

From: *A matter of design in the South East Asian wooden furniture industry*

File: *Table 2. Raw materials used in the South-east Asian furniture industry*

Author: J. Ratnasingam



Fig.07

From: Wikipedia 'Kinkaku-ji, Temple of the Golden Pavilion', Japanese Temple;

Link: <https://en.wikipedia.org/wiki/File:Japon-1886-41.jpg>

Author: Adolfo Ferrari (1841-1898) HDR Photographs by Esby

Because most of the materials used in the Golden pavilion is wood, it is relatively easier to be damaged in fire. In 1950, a sociopathic new monk burned this famous and representative Japanese temple when he was attempting to suicide behind the building. The fire destroyed all the wooden frames. Then the temple came to rebuilding in 1955, and nowadays the Golden Pavilion is the one that was rebuilt from that time.

For instance, in the tableware field, wood generally seems not tough enough to make tableware. It is fine for chopsticks, but it is too soft for the cutlery in the west. However, in Southeastern Asia, there are many types of Sandalwood produced and one of them is the Asian black sandalwood which is regarded as one of the hardest woods. When western food comes into the Asian market, local manufacturers even use this sandalwood to make cutlery. Nowadays there are many wood tableware that you can find in design stores or shops like MUJI from East Asia.

Another good case would be living habits in East Asia. For thousands of years, feudalism used to a long-lasting political system running in the East Asian countries. It brought the fact of a relatively stable social status for developments, but also remained a strict hierarchy as disadvantages. For example, in a certain environment with groups of people, a person with a higher position would sit in a higher place. In the palace, the monarch sits on the chair on the highest place, whereas his chancellors and other people kneel on the stone ground. At home, the guests and male hosts sit higher, whereas the rest of the people need to sit together on their legs on ground. Although Feudalism does not exist anymore, the tradition of sitting together on the ground to show an intimate and stable relationship remains. In Japan and Korea, the cultural tradition of preserving a living room with the soft ground for people to sit still remains. (Jinok Kim & Kyungran Choi, 2003) ^[2] For Japanese rooms, it is called Washitsu, which will be paved with tatami. For Korean rooms, the ground is the same as the wooden floor, but normally they place all the furniture inside with shorter legs for people sitting on the ground to reach. With this cultural influence, since it is still a living room, all the furniture including sofa, chairs will not work in this room because of heights. (Hayashi Hiroki, 2017) ^[3]



Fig.08
From:Muji Online Store 'Beech Mini Spoon, 7mm',
Japanese design producer;
Link: https://www.muji.eu/img/prd/1260_00/455000252632_0_02_1260.jpg

Naturally, there are adaptive designs customized for this traditional culture. Japanese people call this floor chairs, which are the chairs without legs or with only very short legs. Alternatively, they sit on the cushions directly on the floor. As a modern way to express the traditional culture, people nowadays not only use it in Washitsu, but also use the short furniture in modern living rooms, on the rug, on the wood floor. It has been the cultural reflections on product design since many design works, form or design methods come from all around the world, including the Nordic area, but Japanese people still apply such cultural reflections to make their design special and beautiful.



Fig.10
From: Flannel sofa, 'Penta 900 Chair, floor chair',
Japanese design, furniture producer;
Link: http://www.flannelsofa.com/shop/img/item_page/penta/cnt1_1.jpg

Photo shows how they use cultural reflections on product design and how they use this well-designed product in their modern living room. FlannelSofa is a local Japanese brand with simple and modern design.

1. Ratnasingam, J, 2003. A matter of design in the South East Asian wooden furniture industry, Wood Roh Werkst, 61: 151. <https://doi.org/10.1007/s00107-003-0375-8>

2. Jinok Kim & Kyungran Choi, 2003. Comparative Study on Korean and Japanese Traditional Furniture Design Based on the residential behavior related to floor sitting, , 6th, Asian design international conference; Tsukuba, Japan, 1348-7817

3. Hayashi Hiroki, 2017. Beyond Japanese minimalistic versatility, , Department of Design, Aalto University.



Fig.09
From: Belle Maison Japan, 'soft cushion seat', Japanese design, furniture producer;
Link: https://www.bellemaison.jp/cpg/pc_common/inc_html/p/epfb0005/hosoku/katbtgo/B51198_222_2019_B_images/B51198pc_01.jpg
Soft cushion seat used in living room.



3.3 CASE REFINEMENT FROM TARGET CULTURE

In this chapter, I will focus on the case refinement from the target culture by describing one specific example of architecture in East Asian cultures and extracting the characteristics of it. There are many aspects that have been influenced by the culture, but from my point of view, I will choose the traditional architecture to analyze. The reason why I chose the traditional architecture for comparison analysis is that certain cultural features and reflection remained from traditional architectures and can be recognized explicitly and implicitly by people with East Asian cultural background.

Besides, in the past history of thousands of years, many products developed their evolutions through time and I regard architecture as one of the most suitable objects to trace the cultural reflections, which maintains a long life cycle and reflects the culture from different dynasties averagely. On the other hand, at any time in history, architecture is a relatively enormous project for people to accomplish during a long period of time compared with other products such as ceramics. Therefore, according to the level of the productive forces at any time in history, doing architecture for the public use, such as for religion or government, always takes a huge amount of manpower and materials, which may lead us to a relatively objective observation upon the mainstream social status. For the architecture for private people, we can also find clues for the cultural reflections from their residence, which also reflect people's attitudes toward living then.

Accordingly, throughout the history, architecture in different places has always been a relatively stable system compared to other products. East Asian architecture is demonstrably exotic and has always been conspicuously different from Western architecture. Therefore, we can logically acquire more information from the architecture in East Asia. Within the East Asia area, due to the shared borderline, there were many communications, connections and entanglements among all the countries, which leads to a similar, general and characteristic style of architecture. And because of the belief of Confucianism and Buddhism for a long time in history, countries in East Asia also, to some extent, share a similar religious background and reflect it into the architecture across different times. For example, people can readily find temples, pavilions in all the East Asian countries with similar architectural expressions despite there are some local details that are different as unique characteristics. Generally, it is so special that other people from all around the world can recognize the architecture style. Even though there are some differences, architecture is still a good carrier to investigate the cultural reflections as a stable and independent system.

The typical traditional East Asian architecture has formed its design language in record mostly since the Chinese Sui and Tang dynasty when Japan was in the Heian period. During this time, many religious buildings were built as temples, gates, and pagoda, most of which now have become the precious treasure of the local culture. (Ralph Adams Cram and Mira Locher, 2010)^[1] Surely, due to historical reasons, plenty of the construction of Eastern Asian architecture were inspired by the Chinese architecture style since, at that time, the dynasty in China was relatively more developed in terms of construction crafts. (Marja Sarvimaki, 2000)^[2]

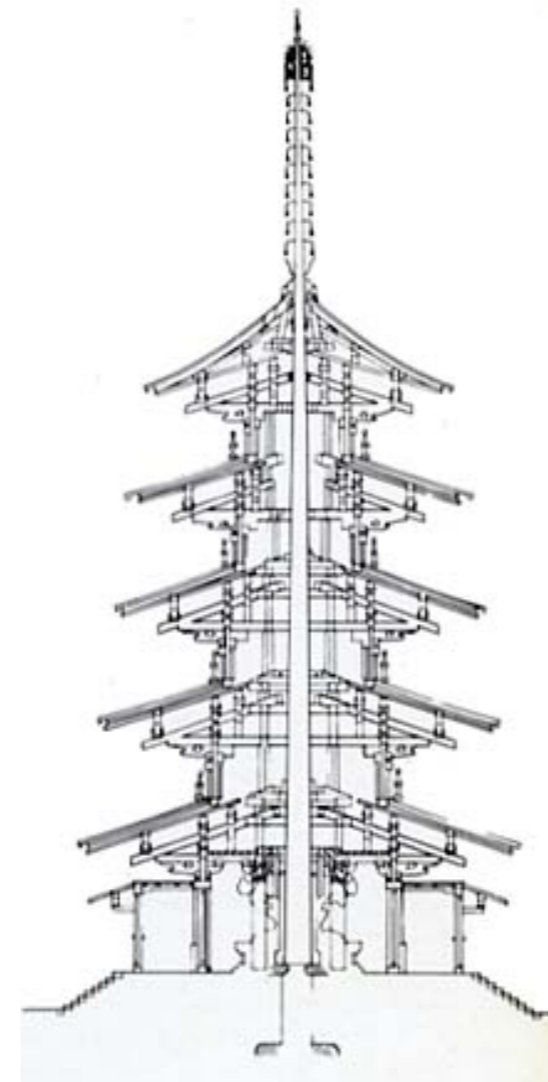


Fig.11
From: *The Pagoda, Horiuji, Nara*, 'Bibliography of Japanese arts';
Link: <http://www.art-and-archaeology.com/japan/horyuji3.html>

Photo shows the structure of the wooden roof mentioned above, which is also the representative of the East Asian architecture in the early stage. In the meanwhile, this Horiuji in Japanese Nara time is also one of the best representatives of the East Asian design in this period. There are more decorations reflected in the Chinese design in the same stage, but Horiuji is also pure in showing the beauty of design simply excluding the interference of other ornaments in the building.

In these centuries, the typical architecture design is, in a small but more common style for most of the Chinese, Korean and Japanese architecture, an open space to the cornice in the central part of the whole building plan, and wooden beams are used to make a ceiling to cover it, a flat surface connecting a coving on the sides. There is a skylight containing in except normal windows, which is propped by some wooden columns. The full structure of this is surrounded by an aisle with a tilted roof. What is amazing and unexpected is that even the common idea about these traditional East Asian architecture includes many gorgeous, magnificent and luxurious decorations, but the type of this design in this period of time is relatively pragmatic without being over-decorated. Most of the existing parts have their functions to support the design. Everything detailed in this type of construction is cogitative, such as the cross-section of wooden bars, the space between columns, the usage of plaster in gaps. Just like the details, it is also well considered in the big picture, such as the proportion of horizontal and vertical wooden parts, the general curve of the form of the whole roof, even the main color that is used in the main part of the wood, which is low-saturated red.

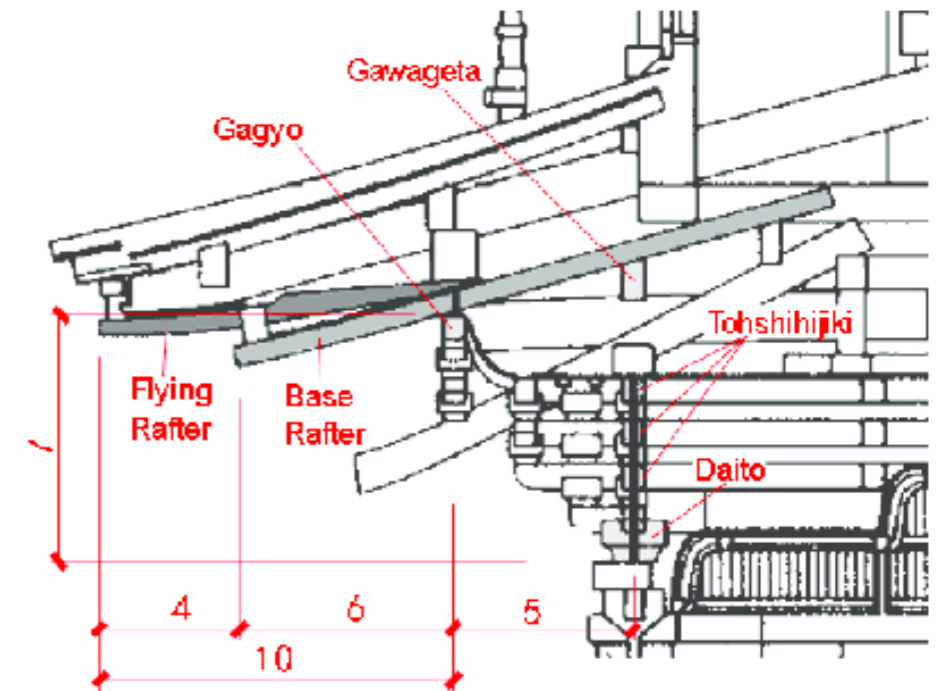
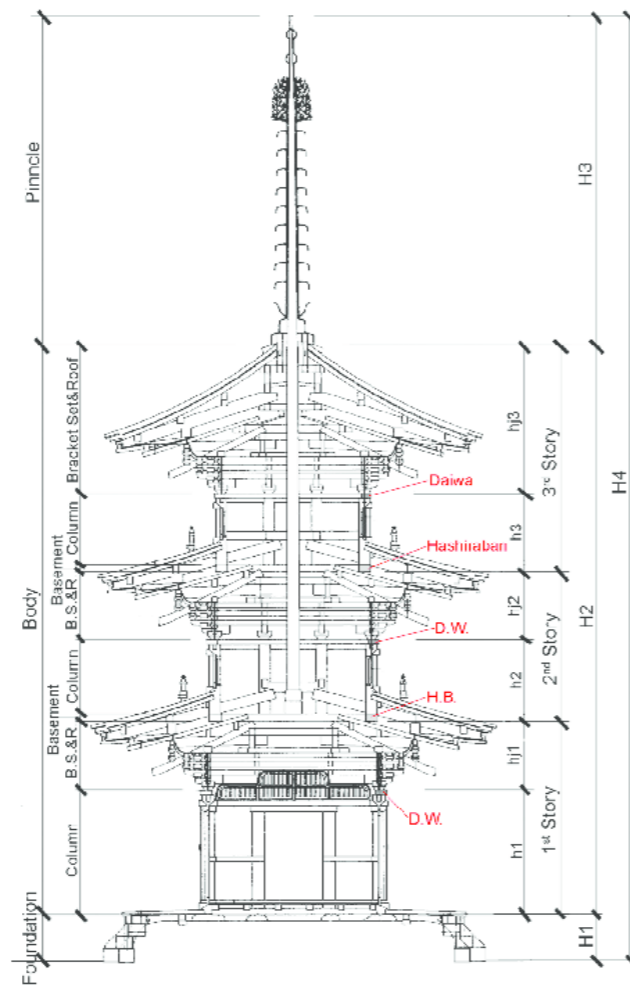


Fig.12
 From: *The Pagoda of Joruriji Temple, in Japanese Heian Period 'Investigation into the Architectural Design of a Traditional Japanese Wooden Pagoda - Scientific Figure on ResearchGate.'*;
 Link: https://www.researchgate.net/profile/He_Sheng_Tang/publication/277899623/figure/fig2/AS:355715299463169@1461820544398/Schematic-Drawing-of-Design-of-Height-Cross-Section-of-Pagoda-in-Joruriji-Temple-By.png
 Author: Yijie Zhang, He-Sheng Tang, Songtao Xue, Yang Xun; Tongji University, [accessed 8 May, 2019]

From this century, in the definition of design, East Asian architecture design style started to develop its civilization. In this stage, the design of three East Asian countries was all influencing and being influenced by each other with stable improvement for all. (Francis D. K. Ching, Mark M. Jarzombek, John Wiley & Sons, 2017) ^[3] In the following years, they kept researching better details such as the dimensions in proportion, also the basic design was a good base, for example, the Bulguksa in South Korean and Yakushiji in Japan. ^[4] Due to the perishable property of the materials and the continuous wars, quite plenty of great architectures designed in that period were damaged or partially destroyed. But there are still some buildings that remained for us to enjoy the beauty. After this golden period of time, in the 8th century, most of the buildings in East Asia remained the same construct, even smaller in scale and simpler than before, which however brought no progress in the design. In the 9th century, because of the influence from China, which feudal society came to another higher level in terms of many aspects including the social status.

In the following two centuries, due to the internal conflicts in wars in East Asia, the cultural influence and exchange from China seems to suspend towards Korea and Japan since it was in the substitutional period between Yuan and Ming Dynasty, as Japan was in the civil war before Kamakura was built as a new great city. At that time, China was undoubtedly the culmination of the East Asian civilization, where the cities in the Chinese shoreline became increasingly influential in cultural transmission. East Asian countries were exchanging many aspects including philosophy, religions such as Buddhism, arts and crafts. What best represented in this period is probably the Zen temples and palace pavilions in Kyoto. Starting from this period, there were plenty of classic and representative buildings that were built under the cultural influence of China. However, these three countries began to slightly separate their characters from each other with small details that are unique with their own culture under a similar base. Because of the same religious background, in this period, most of the representatives are still religious-related buildings, like the temples in China, the shrines in Japan. (Robert E. Fisher, Thames & Hudson, 1994) ^[5]



Fig. 13
From: Wikipedia, 'Lotus Flower Bridge and Seven Treasure Bridge at Bulguksa in Gyeongju, South Korea', Korean building in 8th century;
Link: https://commons.wikimedia.org/wiki/File:Lotus_Flower_Bridge_and_Seven_Treasure_Bridge_at_Bulguksa_in_Gyeongju,_Korea.jpg
Author: Korea Copyright Commission, Unknown.



But what was special was more detailed, for example, the wider range of use of screens in Korea with diverse design, the more extensive use of tatami which firstly were used as only decorations and then became a part of the classic interior design of Japanese buildings, the use and design of gardens in these three countries. Because of the slight cultural variances, especially for those gardens that were designed in this and following period of historical time, Japanese garden design seems to be closer to their special adjective 'Wabi-sabi', which is full of Zen mood with apparent artificial crafts. Chinese gardens often had a bigger scale with more luxurious decorations, well-designed with more square shape use and compartmentalizations because in a narrow sense of Chinese culture, the sky should be round and the earth should be square, for which people believe would bring a more stable life. In comparison, Korean gardens kept a similar architecture style with more pure and low-key paints in colors. For their gardens, Korean people usually designed them in a smaller and more delicate way, closer to nature with natural materials. The designers paid particular attention to the relationship between architecture and nature, therefore they are inclined to mingle their design with nature rather than more obvious artificial crafts as Japanese people. (Ben Jackson and Robert Koehler)^[6] From what has been described about the slight variances in garden style in China, Japan, and Korea above, I can conclude that even though the three countries shared similar origin of culture, they developed the slight variances in gardening style or architecture due to the slight differences in their own culture development.

From the elaborate description above, we can know the universality and variances of architecture style in East Asian countries namely, China, Japan, and Korea, from the development of the history and society development. In the following paragraphs, I will choose one specific architecture as the example to extract its character and symbol, thus applying such to my design language of the product.

To be more particular, I choose a specific religious gate as the example for my design. With the development of East Asian religion and society, combining with the local craftsmanship and design, apart from the buildings designed as the temples, there were many other types of traditional architecture designed started to appear at this stage, such as the religious gates marking the places from the mundane to the sacred. People living in that stage would know where the districts divided into. Specifically speaking, from this gate, all the areas inside were our religious places for religious behaviors in order to separate the social classes and different positions.

For this type of gates, because of the similarity of the origin of religious culture, in different countries, there are plenty of similar expressions popping up locally. As a symbol, this type of gates is literally widespread in all East Asian countries. A similar gate expression could be found in China, Thailand, Korea and Japan. Fundamentally, local people in these countries all see these gate buildings as one important part of their local culture. That is why I choose this type of gate as a representative reflection within East Asian culture. (A.H. Longhurst ,1995)^[7]

The origin of using an open gate as a division of different functional areas in the city may come from the Indian Buddhism culture in Asia. In the original Indian culture, this type of gates is called Torana. In the 10th century, due to the prevalence of Buddhism, many countries imported this type of gates, adding local expression with their own characters and materials used. The relevant building in China is called Pailou or Paifang according to the locations in China. Furthermore, Chinese people used wood as the main construction material apart from stone, combining with the architecture language of Chinese design. Nowadays you can still find many remained Pailou in many Chinese cities. At this historical time, when people exchanged cultural communications, a similar type of gates appeared also in Korea. One of the representatives of the Korean gate is a remained gate in front of their Korean Royal tomb of King Sejong, where local Korean people call it the Hongsal-mun similarly. It is also related to the design trend as I mentioned above, even though the origin of Korean gates is the same as Chinese gates, that type of Korean gates are usually different from the luxurious and decorated Chinese ones, simpler and low-key with a relatively minimal form and a low-saturated red paint on the surfaces. (Albert Henry Longhurst, 1992)^[8]

Fig. 14
From: Wikipedia Pailou, 'Ornamental Gateway (Pailou) from Han Dynasty (202 BCE – 220 CE) across a Street Lined with Small Shops. Hanzhong, Shaanxi Province, China, 1875 WDL2092.
Link: [https://commons.wikimedia.org/wiki/File:Ornamental_Gateway_\(Pailou\)_from_Han_Dynasty_\(202_BCE_-_220_CE\)_across_a_Street_Lined_with_Small_Shops._Hanzhong,_Shaanxi_Province,_China,_1875_WDL2092.png](https://commons.wikimedia.org/wiki/File:Ornamental_Gateway_(Pailou)_from_Han_Dynasty_(202_BCE_-_220_CE)_across_a_Street_Lined_with_Small_Shops._Hanzhong,_Shaanxi_Province,_China,_1875_WDL2092.png)
Author: Boiarskii, Adolf-Nikolay Erazmovich.
Source: <http://www.wdl.org/en/item/2092/>





Fig. 15
 From: Wikipedia Korean Hongsalmun, 'Hongsalmun of Illeung Royal Tomb'.
 Link: https://commons.wikimedia.org/wiki/File:Hongsalmun_of_Illeung_Royal_Tomb.jpg
 Author: Noh Mun Duek.

As you can compare this Korean Hongsalmun gate with the Chinese gate above, it is much simpler and natural with a close relationship to the nature, which is different from the heavily decorative style of Chinese gates above from Han Dynasty.

1. Ralph Adams Cram and Mira Locher, 2010. *Impression of Japanese Architecture*. Tuttle Publishing chapter 1, p. 15-36
2. Marja Sarvimaki, 2000, *Structures, Symbols and Meanings: Chinese and Korean Influence on Japanese Architecture*, Helsinki Univ. of Technology, Espoo (Finland). Dept. of Architecture rept. no. PUB-2000/18. P11-16
3. Francis D. K. Ching, Mark M. Jarzombek, John Wiley & Sons, 2017, *A Global History of Architecture*, P.330-335, ISBN 1118981332, 9781118981337
4. *Historic and Scenic Sites 1; Bulguksa Temple in Gyeongju*. Cultural Heritage Administration. Archived from the original on 2007-09-30.
5. Robert E. Fisher, Thames & Hudson, May 17, 1994, *Buddhist Art and Architecture; First Edition edition*, ISBN 978-0500202654
6. Ben Jackson and Robert Koehler, Seoul Selection 2012, *Korean Architecture: Breathing with Nature*, B1 Korean Publisher Association Bldg, Chapter 3 Anatomy of Traditional Architecture, ISBN 9781624120473.
7. A.H. Longhurst, 1995. *Story Of The Stupa*. Asian Educational Services. pp. 17-. ISBN 978-81-206-0160-4.
8. Albert Henry Longhurst, 1992. *The Story of the Stupa*. Asian Educational Services. p. 17. ISBN 978-81-206-0160-4.

3.4 SUMMARISE THE CULTURAL REPRESENTATIVE ELEMENTS

A similar building style happened to appear also in Japan. It is called the Torii, which in Japanese means the places for birds to live. In these certain centuries, this type of Torii gates was built in many places in front of the temples. (Scheid, 2010)^[1] As explained in a religious way, it is generally the way to identify the temple about which religion it is from. During this time, combining with the wisdom of aborigines in Japanese islands and the external religious faith, Japan developed a new type of local beliefs called Shinto. (James C. Dobbins and Suzanne Gay, 1981)^[2] In the meanwhile, many Buddhism temples were damaged and people in Japan started to turn around to their own Shinto religion. Torii is one of the most representative buildings of this culture. It is traditionally built with the local preferred materials like wood and stone, however, nowadays there are also many Torri built with concrete and some other more modern materials. Accordingly, because of the gradual development of the society and the acceptances of diver religions in Japan, this type of Torii gates were also used as an entrance of a Buddhist temple. After these centuries of the cultural mixture, Torri has already become a typical representative of the Japanese culture rather than one single particular religion. As an example, in front of the Buddhist temple, Shitenno-Ji, in Osaka, there was also a Torii built as the entrance in the year 593 by the most famous Prince Shotoku.^[3]



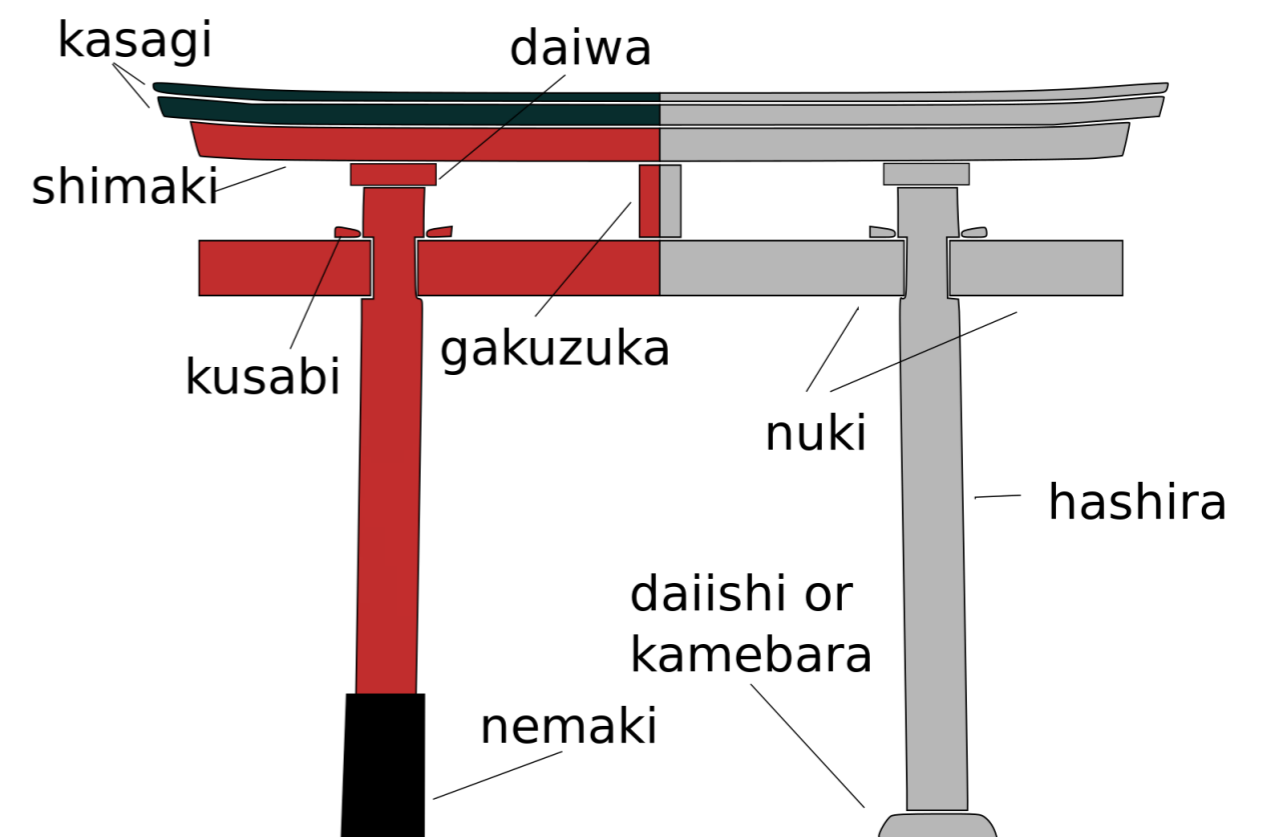
Fig.16
From:Wikipedia Torii, 'The famous torii at Itsukushima Shrine, a Ryōbu-style torii.', Torii at Itsukushima Shrine, Miyajima, Hiroshima Prefecture, Japan, with a visiting boat.
Link: https://commons.wikimedia.org/wiki/File:Torii_de_Miyajima_2.JPG
Author: Azurfrog, 17 April 2009.

The name of Torii also contains some stories behind it. As what explained in the previous paragraph, this name is based on the cultural and religious background of the East Asian area, such as the Sotdae in Korean, which means there are poles that prepared for birds to rest on the top of it. In the Korean local culture, this type of gates can be found in front of their religious temples, for which the local Korean people believe would bring them good luck of lives.^[4] This birds' nestling home in a similar form and design language also appears in China, where it does not look exactly identical like Torii in Japan, however as a spiritual symbol since it makes people believe that the gate has some certain level of magic and natural power, with the result that it becomes one irreplaceable part in local culture. This in another way also explains the meaning of Torii with the places for birds like birds' perches.

In the part of the design, the form of Torii also has a designer's special initiatives. They place four poles at the corner of the entrance of temples, then hang a rope in between the poles as a connection, which means the division of living and religion area. Then the builders would choose a direction that they think as the most auspicious point to place another two taller poles for monks and pilgrims to come in. Gradually the designers use more and more durable and sustainable materials to replace the rope in between as it would be damaged under horrible natural weather and not easy to replace, thus after the development of forms, they use wood to build the connections, which makes a real Torii come to reality.

In the design of the structure, generally, it consists of vertical poles, horizontal bars with wood and two bases made out of wood or stone, then paints all of these with the low saturated colors. From top parts to the down parts, there is usually a roof on the very top of all the general Torii, which in Japanese is called the Kasagi. Due to the different styles and complexity of the design, the Kasagi roofs can be divided into several layers and made of wood as well as tiles. What is underneath the roof is one horizontal bar, called Shimaki, connecting to the based supporting poles. It is usually thinner than the second horizontal bar as it is higher and it will be more wobbling if it is heavy. In general, as it is a metaphor for birds to rest, to be close to the shape of sticks, the roof Kasagi and Shimaki can have a curved line form with an upward edge on both sides, meaning and hinting at the places that prepared for birds, which is called Sorimashi. Connecting with the supporting base poles and the Shimaki bars, there is a ring or annulus attaching in between as a decoration and connected attachment called Daiwa. Then downwards, the most important part, which connects the two standing base poles for stability, is the second horizontal bar called Nuki. It is commonly thicker than the first horizontal bar above. To make it more stable, the Nuki bar will not only be embedded through the two standing poles but also be held with the help of the wedges, which is called the Kusabi and it usually works with another type of joint connections as mortises. In the middle of the Nuki bar, in between the Nuki and the first horizontal bar Shimaki, there is basically another supporting piece, functioning also as the name tags marking the name of this gate or the shrines behind, called Gakuzuka. Then moving to the two-foot of the gate, the two standing poles usually have the same cross-section from top to bottom with a wood or stone cylinder underneath it as the base. This base made of stone can also be placed by a sleeve called Nemaki which is also decorative and always taller than normal base.^{[5][6]}

Fig.17
 From: Torii, 'The various parts of a torii',
 Link: https://commons.wikimedia.org/wiki/File:Torii_nomenclature.svg
 File: Torii_nomenclature.svg
 Author: Mukai, 15 February 2010.



There are also many sub types of forms of Torii excluding the typical one mentioned. In its structure, there is Churen Torii which is considered as the simplest type because of the limitation of the old material usage and crafts. In the meantime, due to these limitations, it may also be one of the oldest types. Some other sub types of Torii could be divided into two rough types, which are the ShinMei Family and the Myojin Family. The difference between these two types is on the horizontal bars. For ShinMei family, there are only straight bars, however in Myojin, there are both straight bars and the straight bars with curved edges on both sides.

In the family of Shinmei Torii, there are basically the oldest, simplest type of Shinmei Torii, the Ise Torii, the Kashima Torii, the Kasuga Torii, the Hachiman Torii, and the Mihashira Torii included. As defined in Shinmei Torii, all the types of it have only straight horizontal and top bars. And all of them, except Mihashira Torii, have two basic standing poles. The special Mihashira Torii is a triple-pole structure, which shows, in reality, a triangle three-dimensional shape rather than the normally 'flat' form. It is intriguing in not only the shape but also the background story behind it. Generally, the Torii is described for the Japanese local belief of Buddhism, but this three-dimensional Mihashira Torii was thought to be built by the early Christians for the presentation of the Holy Trinity.

In the second family, Myojin Torii family, which defined by the curved edges, there are usually Nakayama Torii, the Daiwa Torii, the Ryobu Torii, the Miwa Torii, the Usa Torii, the Nune Torii, the Sanno Torii and the Hizen Torii that are for the most of time mentioned by people. Of which the Myojin Torii family, the Ryobu Torii and the Miwa Torii are different from others in forms. The Ryobu Torii has the same basic form in the main part as the Daiwa Torii, but in another direction, there are another two small standing poles. It is also called the Four-legged Torii. The Miwa Torii is special because it is the only one Torii that combined with three Myojin Torii. It has the same basic Myojin Torii as the main part in the middle and two small ones combining with at both sides. The small ones at sides are shorter than the middle main one but share one main standing pole separately.

1. Scheid, Bernhard. "Religion in Japan". Torii (in German). University of Vienna. Retrieved 12 February 2010.

2. James C. Dobbins and Suzanne Gay, Winter 1981, *Shinto in the History of Japanese Religion*, Kuroda Toshio., *The Journal of Japanese Studies*, Vol. 7, No. 1, pp. 1-21

3. Scheid, Bernhard. "Einleitung: Religiöse Bauten in Japan". *Religion-in-Japan*. University of Vienna. Retrieved 17 October 2010.

4. Scheid "Religion in Japan". Torii, , Bernhard, University of Vienna. Retrieved 12 February 2010.

5. "Torii no iroiro" (in Japanese). Retrieved 25 February 2010

6. "JAANUS". Torii. Retrieved 14 January 2010. <http://www.aisf.or.jp/~jaanus/deta/t/torii.htm>

3.5 CULTURAL REFLECTION CASE STUDY IN PROJECT 'SUPER NORMAL'

There is another good example in Japan about Japanese culture of how culture and product design interact with each other. In 2006, the exhibition Super Normal was firstly presented by the British designer Jasper Morrison, and the Japanese designer, Naoto Fukasawa, at the Axis Gallery in Tokyo, Japan. The intention of them was to discuss the essence of what products should be designed into. There are many good products designed in a certain era, most of which are anonymous. However, gradually, these designed products have become a recognisable symbol of our culture and lives. As what shows in the exhibition, like pens and paper clips, these seemingly ordinary products are in fact the intensive expressions in our subconsciousness, for example, a pen should be like this. In this sense, although they are designed by someone who has not left any name on the label, these designs have become a real timeless design due to their normality.

In a similar principle, the traditional architecture, as I elaborated in detail in previous paragraphs, is also 'super normal' back to their times in the related era. Designers of the temples and monuments barely left their names in the history book. Subconsciously, these architecture also has become one intensive part of that culture. As we see an object showing in the Super Normal exhibition, we would probably have one moment of the idea that, since it is super normal that object should appear like this and why would people exhibit a normal object? We may also neglect much of these timeless well-designed architecture, because they are 'super normal' in our eyes as we are immersed in.

The Super Normal exhibition discusses the topics about triviality, normality or the origin of objects. In fact, in a sense, it is also about how life and culture are discussed through the design of these displayed products. To be more specific, when a person experiences a specific sense of the times and familiarity from a certain design style, these certain characteristics of design in fact correspond to the cultural characteristics of the person's memory, thus allowing the person to recognize the identity and accept the objects consciously. Even though these designs may seem ordinary and common, once the person feel the identity of that era and culture through them, subconsciously, these designs have become part of the certain culture.

Similarly, the architecture from East Asian cultures we analyzed cannot be moved indoors for exhibition due to their large sizes, but they are also carriers of culture and times. Then analyzing the design of these classic buildings such as Torri may also awaken the cultural identity for specific groups of people. Therefore, there is no denying that the value of this exhibition is enormous and the reference to this project is truly significant.

4 ANALYSIS OF EXISTING PRODUCTS

From the above, we can see that the architectural style of East Asia is deeply influenced by Chinese traditional culture. In fact, the traditional furniture matched with it also has a design language structure similar to that of buildings, as shown in the right figure.

The chair on the right also uses the traditional mortise and tenon process without glue and nails, which is similar to the East Asian architecture process. In terms of design language, the shape of the chair back obviously draws lessons from the eaves of similar buildings. However, the overall design language is very regular and square, which makes the chair back the character of the whole design. I think this is a good reference.

Similarly, as shown in fig. 2 on the right, after adjusting the design language of the chair back and armrest, the same design structure is maintained. However, after connecting the back of the chair with the rear leg, the chair looks more at home, while the former is more commercial. In my opinion, even so, this is still very Chinese style, which does not have the minimalist design concept from Nordic design. Next, we will look at some works that combine Scandinavian design concepts from these examples.

HUANGHUALI 'OFFICIAL'S HAT' ARMCHAIRS

Fig.19



HUANGHUALI 'SOUTHERN OFFICIAL'S HAT' ARMCHAIRS

Fig.20



Fig.18
From: Super Normal, Jasper Morrison and Naoto Fukasawa, 2006, Tokyo, Japan
Author: Domus
Left top: Ink and glue pot (Giappone/Japan)
Left Bottom: Paper clips (Germania/Germany)
Right: Glass for sake, Sori Yanagi
Link: <https://www.domusweb.it/en/design/2006/07/10/naoto-jasper--super-normal.html>

CHINA CHAIR

Fig.21



The left picture shows the classic design by Danish designer Hans J. Wegner for Fritz Hansen, The China Chair. It can be seen from this reference image that his design inspiration is obviously consistent with the two traditional Chinese chairs in the above pictures. In other words, their sources of inspiration are all the same, but obviously, Hans J. Wegner has used a more fluent and concise line language in this chair, and has kept the characteristics of traditional Chinese chairs. From the perspective of materials and design, we can clearly distinguish that this is a new Chinese furniture reconstructed with Nordic design concepts.

However, due to the particularity and limitation of the times, perhaps deliberately, he still retained some decorative elements, which made me still have room to improve this kind of design.

Similarly, in 2016, German designer Konstantin Grcic designed a chair named MINGX for Driade, which came from traditional Chinese Ming Dynasty furniture. Compared with Hans' design in the last century, his design is more modern and concise. We can also see how traditional culture influences design. This timeline is as follows: hundreds of years ago, Chinese architectural style influenced the furniture design at that time and spread it to this day; A few decades ago, Nordic Design Movement discovered these treasures and reconstructed these classic designs. Over the years, with the development of design, more and more designers are involved bringing these classic designs to a more practical and concise level.

THE MINGX

Fig.22



MING'S HEART

Fig.23



Gradually, East Asian designers are also constantly digging for this treasure. With the progress of the times, simple form design has also developed into ideographic abstract design. Having maintained a similar design language, the new Chinese furniture has gradually come closer and closer to the Nordic design over the years. The picture on the right shows Taiwan and Chinese designers learning from the latest designs of traditional Chinese furniture in recent years. Compared with the left page, the modeling language and materials are obviously more abstract.

THE MING COLLECTION

Fig.24



RANGE LIFE

Fig.25



Having seen the time sequence of architecture influencing culture and design, let's look at some other cases of architecture influencing design style.

Most directly, influenced by Mies van der Rohe's architectural design, American designer Jonah Takagi designed this coffee table for Matterhead. The influence of architecture on the design language is obvious.

If we further abstract buildings into urban buildings, there are also designers who get inspiration from the city's skyline. This hook from Canadian brand Umbra is a product that integrates the skyline of architectural graphics.

SKYLINE MULTI HOOK



Fig.26

Similarly, Swedish lamp company Örsjö Belysning has also cooperated with Swedish design company FolkForm to produce a group of lamps inspired by buildings. They named this group of lamps skyline series.

SUBURBAN SKYLINE

Fig.27



SPAGO HANGER RACK 049

Fig.28



Returning to East Asian architectural culture, in modern times, designers and manufacturing companies are actually designing products similar to those inspired by traditional buildings. Although I am not quite sure of the specific sources of inspiration for this kind of products, I think, taking the clothes rack produced by Hirashima company on the left as an example, the inspiration from buildings is still obvious. For details, please look at the design of joint in the corner of each piece of these room divider, which is also the character of this product.

SPAGO HANGER RACK 042

Fig.29



But in fact, if we consider the concept and philosophy of Nordic design described above, these Japanese designed products are still not strictly from the same point of view. Specifically, the characteristics of these buildings do not bring any other meaning to the products except for the modeling accidents. However, even so, the product line derived from this architectural language has enough sense of design and functionality.

Then as my topic, I will discuss how to make architecture, a design language, more functional in product design based on these design works. In other words, let the inspiration from architectural design not only exist as the character and characteristics of the product, but also have its functional significance.

SPAGO SHELF 168

Fig.30



5 DESIGN

Based on the research done above, I would like to accomplish a wooden chair with a similar character to the East-Asian Torii architecture. Due to the variety of existing types of Torii mentioned above, which all appeared in the history, I decided to try to refine the representative details of them and generalize the main characters of them to design my chair. Also, considering that the materials can reflect the preference of one location, I decide to use Asian oak from originally northern parts of China to make the cultural reflection more comprehensible and obvious. This is a type of tree in Quercus where widely grows in all Northern parts of Asian countries, including Russia, northern China, and northern Japan.

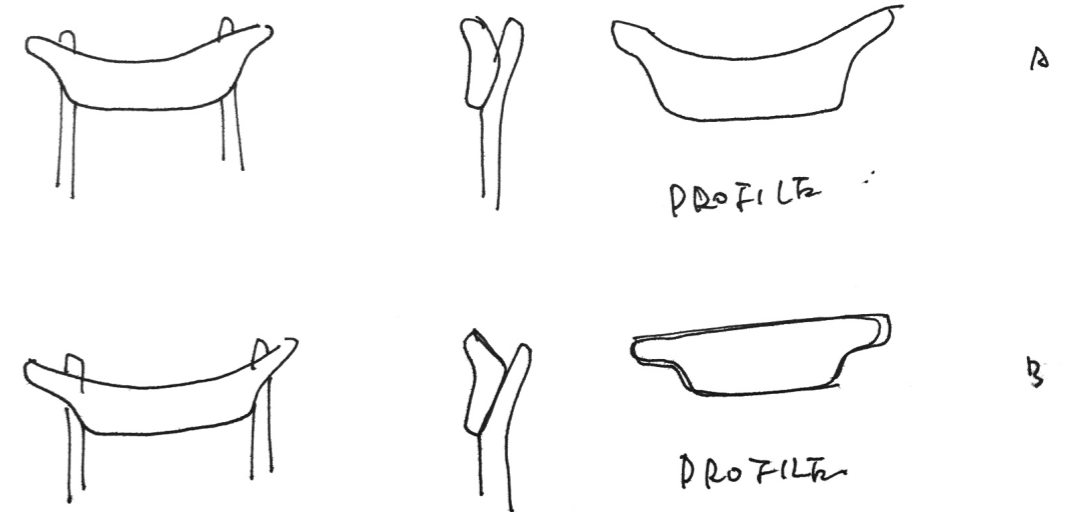
As the curved lines are included in the backrest and seat, it is inevitable to present the character of Torii architecture, to make it with solid wood is a relatively luxurious way for the reason that the cut-off part would all be wasted. In the mockup and prototype stage, I will use plywood to do these two parts in order to precisely enhance the shape and make the process eco-friendly.

Another main part needed to be considered separately is the log back leg. For the same reason, the more friendly way to make it is to use bent solid wood rather than cutting off from one entire piece of cube wood. Surely by steaming the solid wood stick, it is demonstrably approachable, nevertheless, considering the price of steaming process and also the practicability, there is a possibility that finding a suitable steam machine with the special steamed mold in a proper size is quite low and, of course, pricey and time-consuming. Thus, I decide to just cut off from the solid wood. It would also be helpful to increase the stability of the chair by adding the strength of the material in the point where standing most of the weights as well.

5.1 USE OF CULTURAL REFLECTIONS

To keep the design character from the research, I decided to try to keep the Kasagi (the curved flying edge) to the form language of the backseat and find a way for the seat to refer to the same characters as the backrest like the Nuki. Because of the inspirations that I would also like to keep the simplicity and smoothness as modern Scandinavian design, the general design language would still apply the minimal style. The backrest and seat can be where the main personality of the chair, the rest of the bars need to be coherent.

There are surely many methods to keeping the backrest similar to the shape of Kasagi. In the previous paragraph, we discussed the material, plywood, as probably the most suitable one used here. By trimming every piece of plywood layers, it can readily make an elegant curved surface to refer to the language. And of course, considering the ergonomics, I also have to adjust the angle of the backseat and visualize the effect after tilting the angle of it. Fundamentally there are two basic ways to make it as the sketch shown here, which are separate to keep the form in profile or not to but control the entire shape by the tilting angle.



As my sketch shows here, these two methods of Kasagi, A, and B, can both make an upward edge. Type A has a more wrapped tendency where probably could bring a more comfortable feel to the back by giving more area to support. Whereas Type B, from my point of view, is more understandable in shape without having too many redundant details. It is straightforward and simple that everyone would see it as just the form of the backrest. It is direct that would not bring any extra visual stress to the users. And of course, it is also closer to the philosophy of Nordic design. Naturally and logically, I choose to go for Type B and adjust it at a comfortable angle.

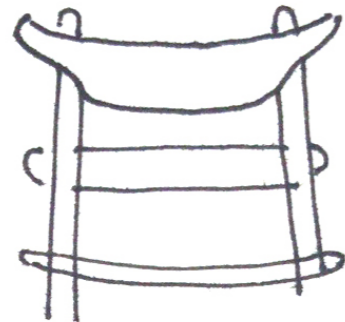
To try to keep the same impression as the Torii, we also need to have a Nuki as the second horizontal bar in Torii. For this, we could also have fundamentally two ways of doing it, which are, either adding another bar between the backrest and the seat (A) or making the seat itself become the Nuki (B) as my sketch shows here.

Pursuing the stability and similarity in form as the Torii, the option A works well. When adding more bars in between the main supporting legs, it will always keep the whole structure more stable. In this sense, the more the better. But if we consider the design semasiology and simplicity, in the end, I choose option B to go further as it keeps the original two-bar shape of the Torii. Furthermore, it has only these two bars. If option A were selected, from the front view, there would be surely more than two bars, at least three, in visualization. Let alone by far we have only considered the elements above the legs, probably there would be more bars in the base part of the chair in order to make it more stable.

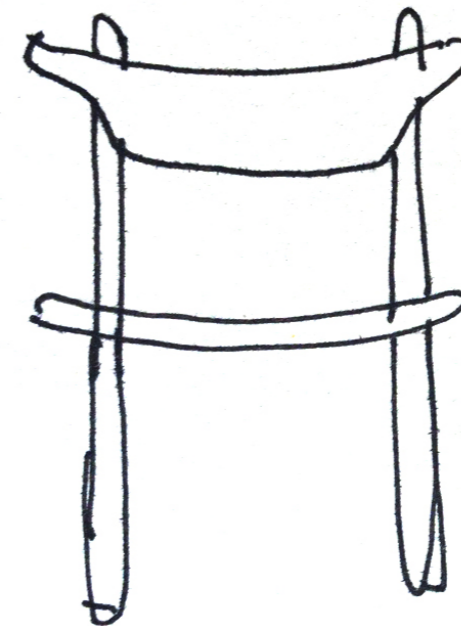
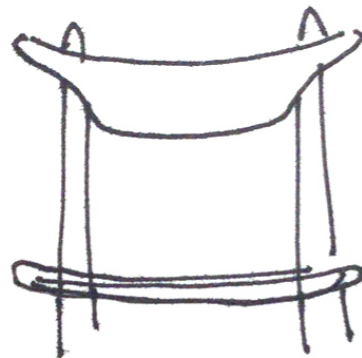
Here are the leg parts. To keep it understandable and simple, the most ideal statue is, of course, leaving only the necessary supporting parts like the legs, and removing all the unnecessary rest. In reality, it is apparently not enough to only have four legs even this type of only-four-leg chairs exist in real life, but there are always extra supporting attachments under the seat in order to make it still stable and not wobbling. In what has shown from my sketch, there are naturally A and B types for choices.

In my understanding of design characters, I think if the main character has been certain and made, then the rest of the parts should be natural and be what it is supposed to be. Thus, since the main character (the cultural reflections) mains is reflected from the upper half of the chair, the rest of the lower part of the chair as the legs should play the functional role as what it should be. Following this mindset, the supporting bars between legs seem not so unacceptable. Certainly the A option is simpler and more minimalistic, but it will lead to the question on stability. Generally considering all the influential aspects, I think the cultural reflections as the architecture have been enough and clear on the backrest and seat, and type B is a more suitable proposal as it offers more stability as a normal functional chair.

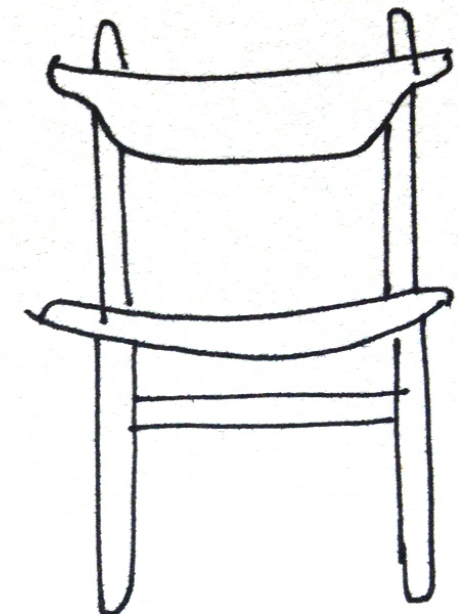
A



B



A



B .

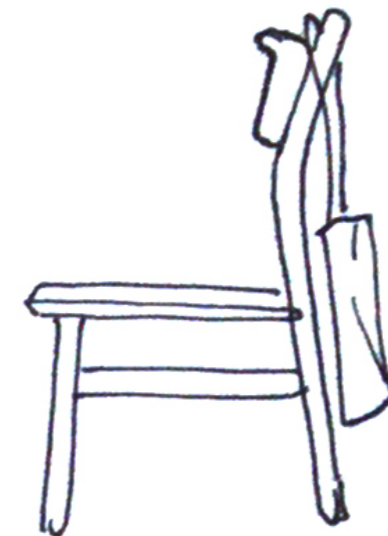
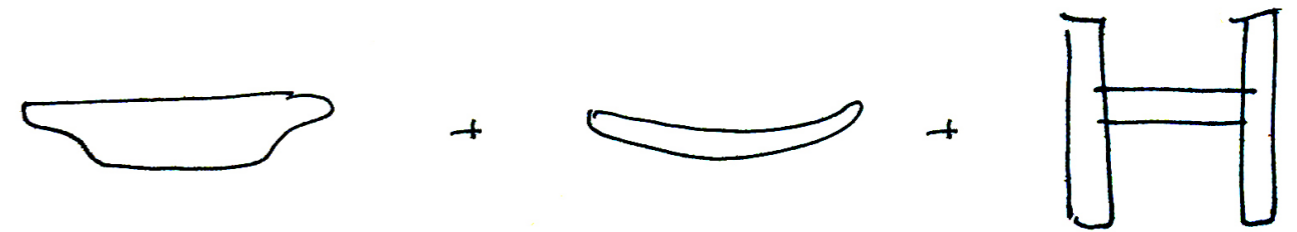
5.2 CONCEPT

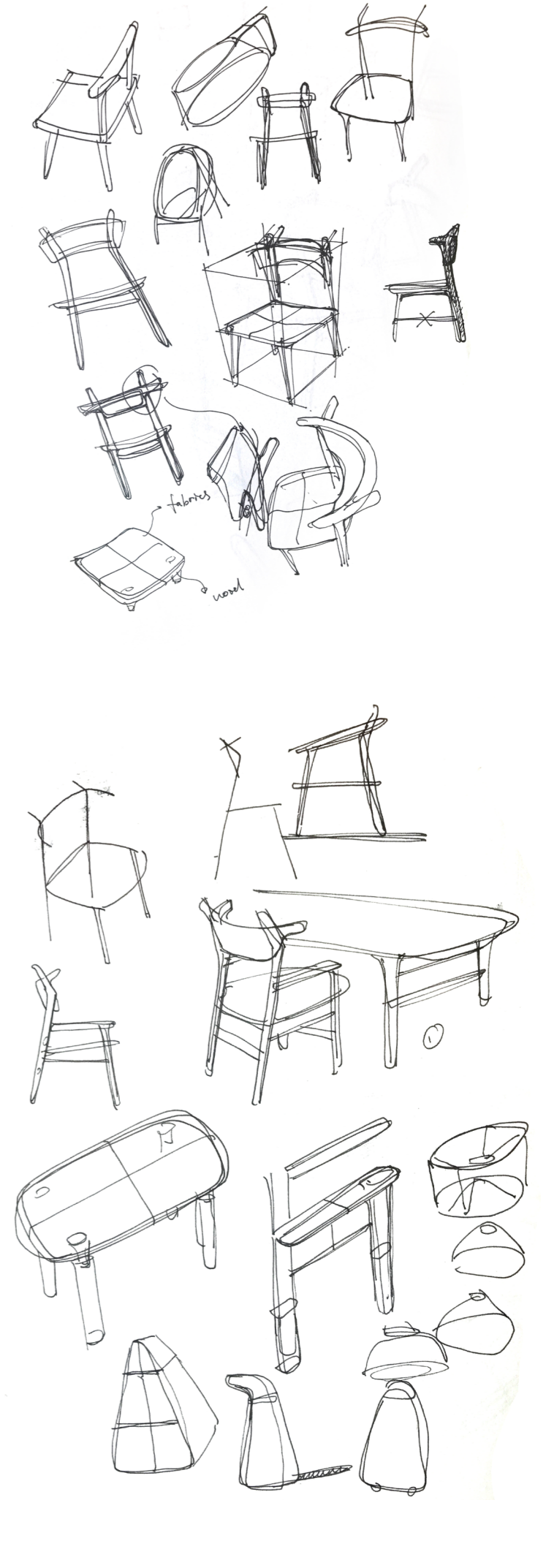
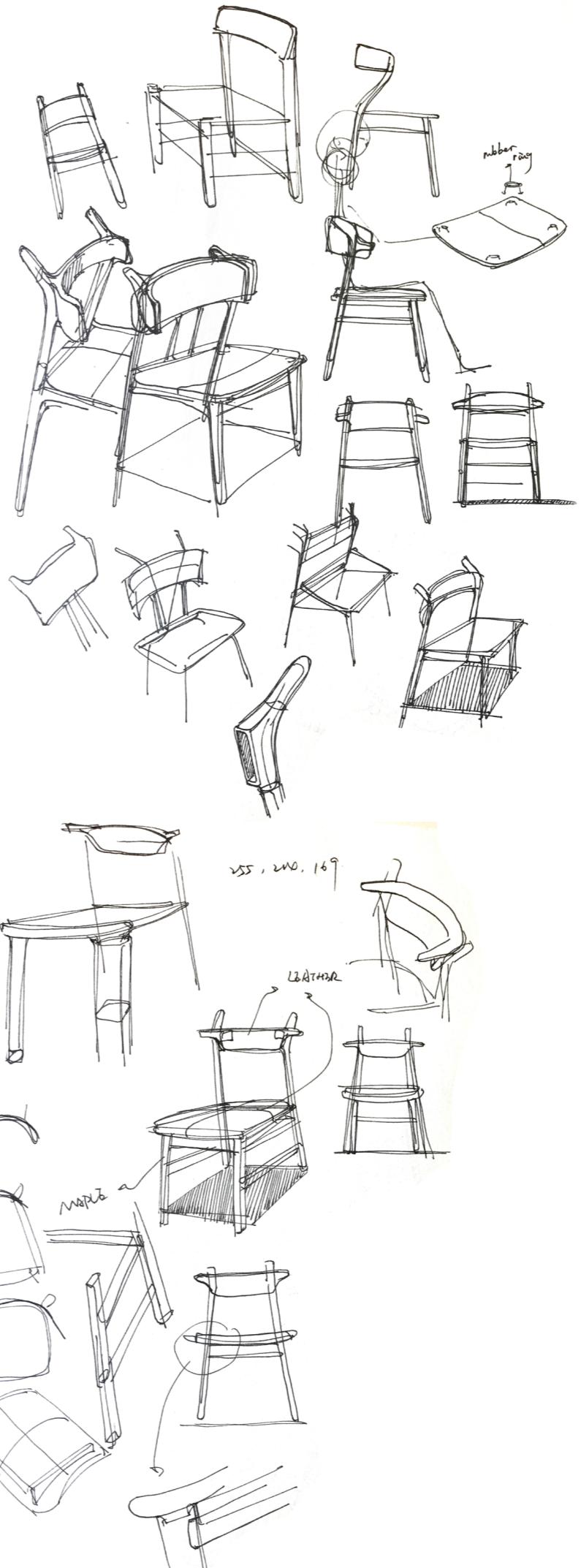
Once we make sure all the elements of what it is from the culture of a typical chair, we can be prepared to assemble them together into a chair.

Now it becomes a puzzle game. This game is like, what would you get in the end if you have your three puzzles? They are separately a backrest, a seat and a set of legs. Simply adding them together, of course, is possible and operable, but it is not professional. In the way of making sure the first version of expressions, I even draw more sketches to keep the entire chair clear, elegant and fluent in drawing lines. Except for the main characters, there are also many other aspects that need to be confirmed by sketches such as the profile of the legs, the curvature of the backrest and seat, the form from other views.

As I try to keep it in a Scandinavian language, I would also like to make the profile of all legs and bars simplest. But being simple is not completely equal to being boring. I draw many sketches about the profile of the legs in order to try and see how it looks. Should it have a filleting edge that makes it more comfortable and intimate, or have a standard square profile to make it edgier, intact and sober feeling? Both languages exist in Nordic products. In the end, I chose to make it more lovely and round in profile. It is only because I would like to keep the homie feeling within its style since it is a dining or restaurant chair. The square shape seems too formal and stylized to use.

According to ergonomics, there are also many drawings from me on the angle of the backrest and how it matches the design language also from a side perspective. I also add a bent angle on the main supporting back legs and it serves mainly to add more space between the backrest and the seat for a more comfortable posture for users' back.





5.3 MATERIALS RESEARCH

Wood is always the perfect material to make furniture. Due to the geographic distinctions in different continents, reflecting on natural resources, the type of trees certainly differ in East Asian and Scandinavia.

At this stage, it is still in the very early stage of the product development process, which means that currently, there are no questions on the cost of production, logistics existing needed to be thought. Thus the property of the material itself and the visualization on looking become essentially important. Traditionally, in the East Asian area, pine and maple wood are probably used for most of the cases, whereas in Scandinavia, the typical, representative, common and affordable type of wood is oak. In spite of many detailed differences between these wood types, they are all able to represent the good quality and prolonged performance in the furniture industry. More importantly, they all have a similar good appearance in terms of colors and texture. They all look clean and tidy.

Even though they are not so distinct from each other, in order to keep the cultural reflection pure, I bought the East Asian oak and rubberwood to make the prototypes produced in China. This species of Asian oak in the scientific formal name would be Genus Quercus or Quercus Aliena. It is widely planted in the Northern part of Asia where the temperature is relatively low around the whole year. Traditionally, local people also use it to make wooden buildings or tools.

5.4 FIRST MOCKUP

After buying enough materials, I decided to make a first mockup out of the wood.

Due to the square shape of the base, the simple structure and the understandable form, the process of mockup ought to be in a regal sequence, which is using wood cube to cut out all the legs, filleting the edges and assembling them. After that I used the leftover wood to make a mould in a certain curvature to separate the backrest and the seat.

As the whole process of the mockup is clear, making sure all the dimensions by sketches and comparison with other existing products, the first mockup is successful.

Due to the lack of design in the joint, in this first prototype, it is glued, which may cause the chair unstable when sitting on. However, the purpose of this mockup is to receive an estimation of the design from sketch to 3D real objects. Doing sketches on paper can just reflect what the thoughts are, but to see it in the real world with the real tactility and scale will be truly helpful for the next steps.





5.5 TEST

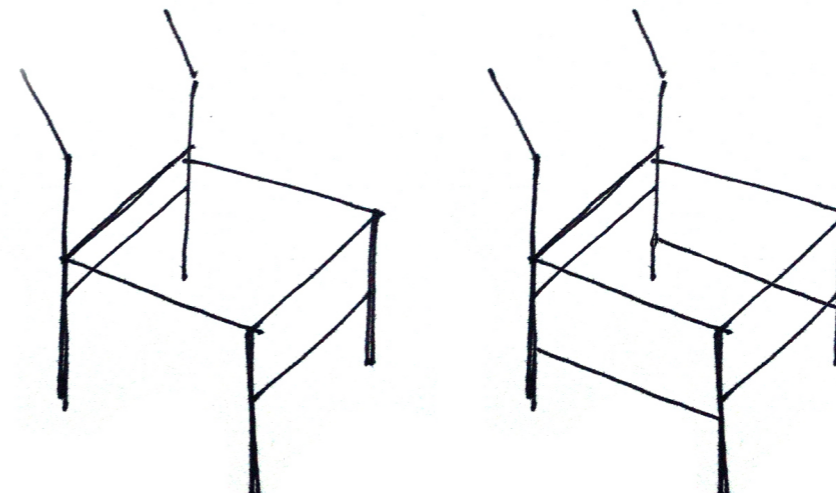
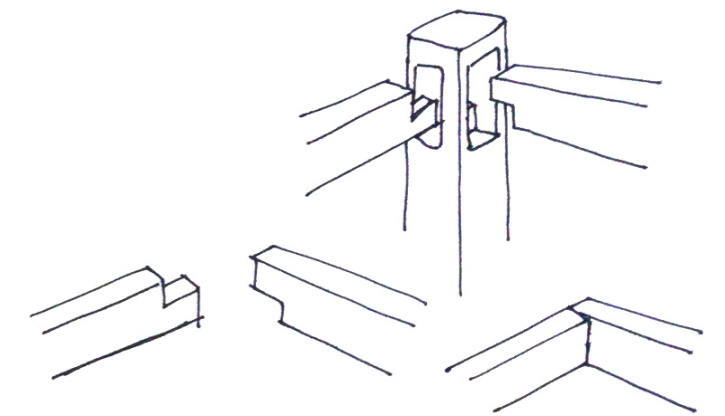
I try to test the mockup by sitting on it and observing its stable performance and speculating the strength level of the joint and structure. Also, I invited some of my friends to sit on this chair for their feelings. The result of the test shows that, which is also the most important problem, the height of the chair is not so friendly for short people. The resource I found about ergonomics is not so general that it is not able to fit every person in different heights of course, but especially there are differences in average heights between European people and East Asian people. Also, because all the joints by far are just glued with no joinery or screws inside, even if it performs well when sitting on it gently, I still do not think it would surely be good enough for long-term use. The angle and the height of the backrest need to be readjusted. Besides, because of my obsession with the purity of wood, I would strongly keep every element in this chair in wood, meaning no screws. That is from the principle that the wood joinery in China and Japan was designed for no screws. As a cultural reflection project, I should also follow the same principle.

Detailedly, the joint between legs is just naturally with half of the depth by each bar inserted and then glued. It is the reason for being wobbling logically. In the next modification phase, I will try to bring more joinery details in to make it more stable. After discussing with my tutor, supervisor, Simo Puintila, I also received many truly helpful and constructive suggestions from him in terms of unifying the design language, the structure and the process of producing.

5.6 STRUCTURE & DETAILS

In the first mockup, due to the undefined structure in joints, it is wobbling when we do heavy test on it. By enhancing the joints, I am confident to increase the stability of it. Here the solution I find is to add another two horizontal bars in between the front and back legs, but because it is basically a square shape, it also increases the stability in two dimensions.

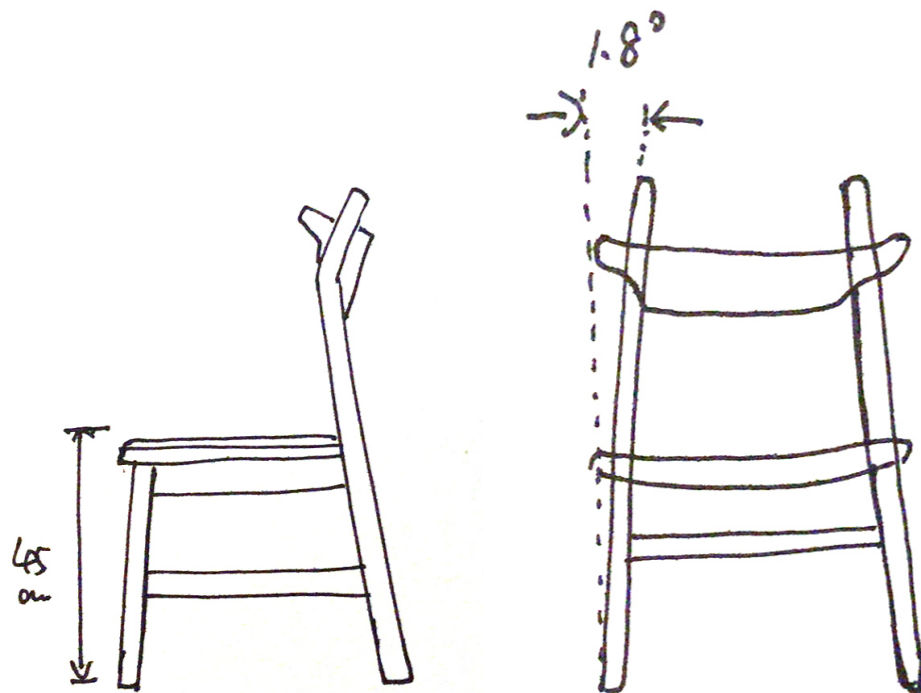
Also, referring to the research about the structure of the pagodas in the previous chapter, I draw a new joint structure to keep every bar inserted into the full depth in the legs, while two bars can simultaneously be embedded together.



5.7 MODIFICATIONS

Based on Simon's suggestions in structure, details, and proportions, combining with the design for the joints, I make the second prototype with the same wood.

In addition, because of the property of the wood, it would shrink due to the influence of temperature and humidity in the air, I recalculated the tolerance of sizes of parts.





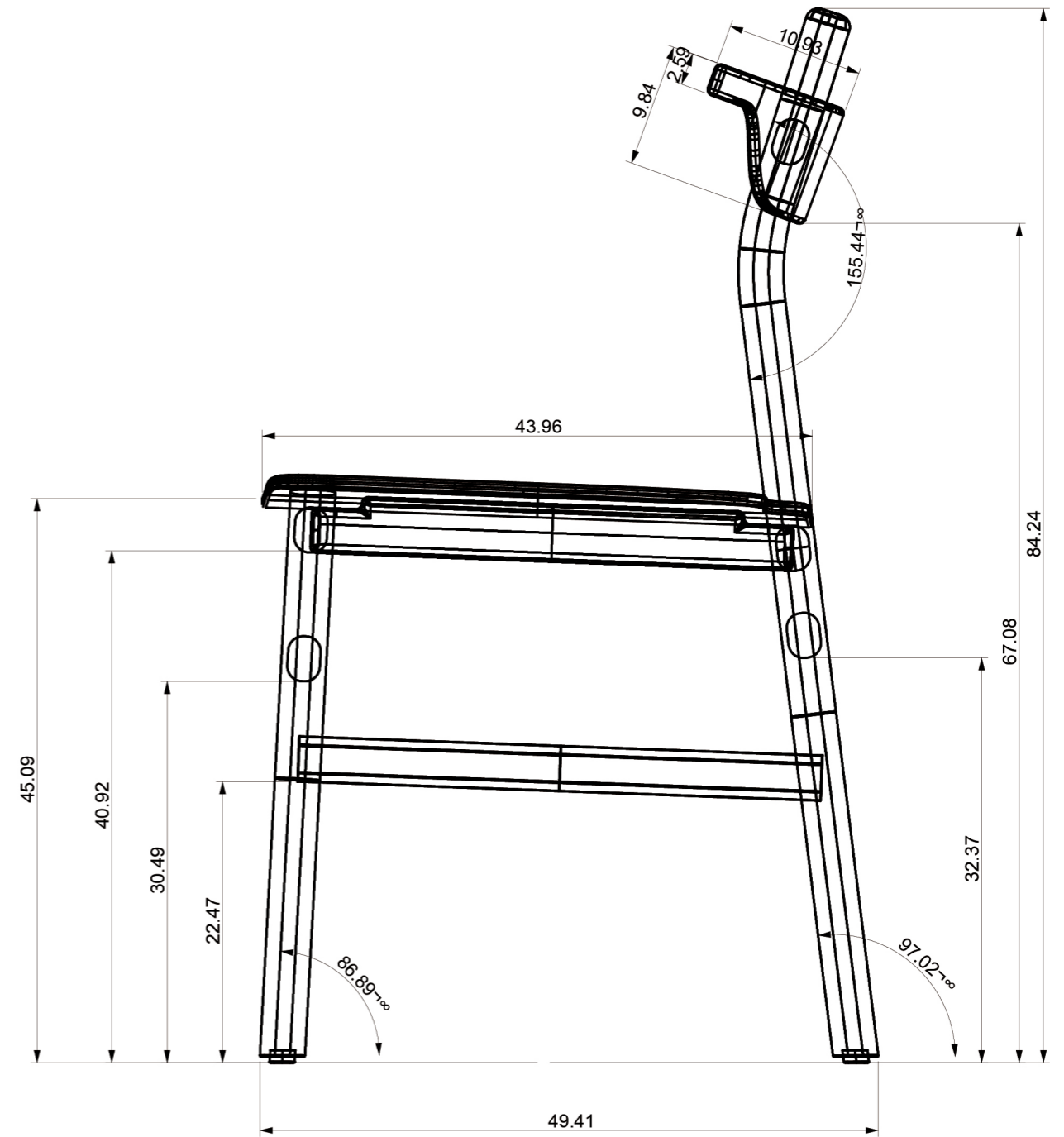
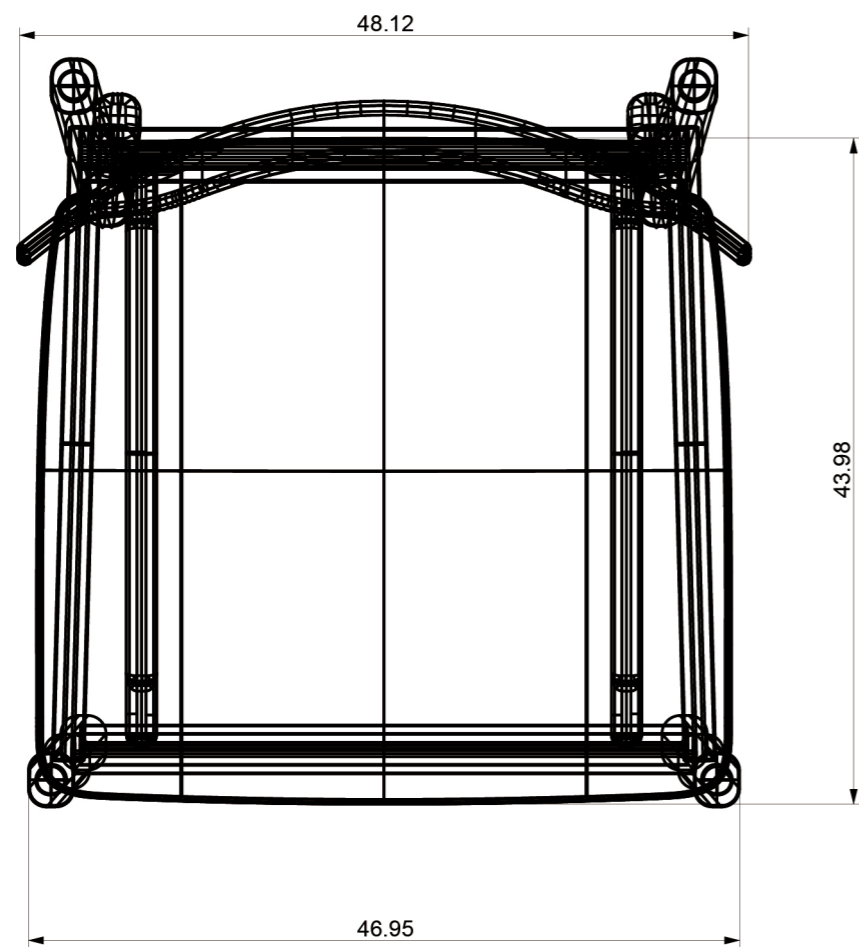
6 FINALISATION

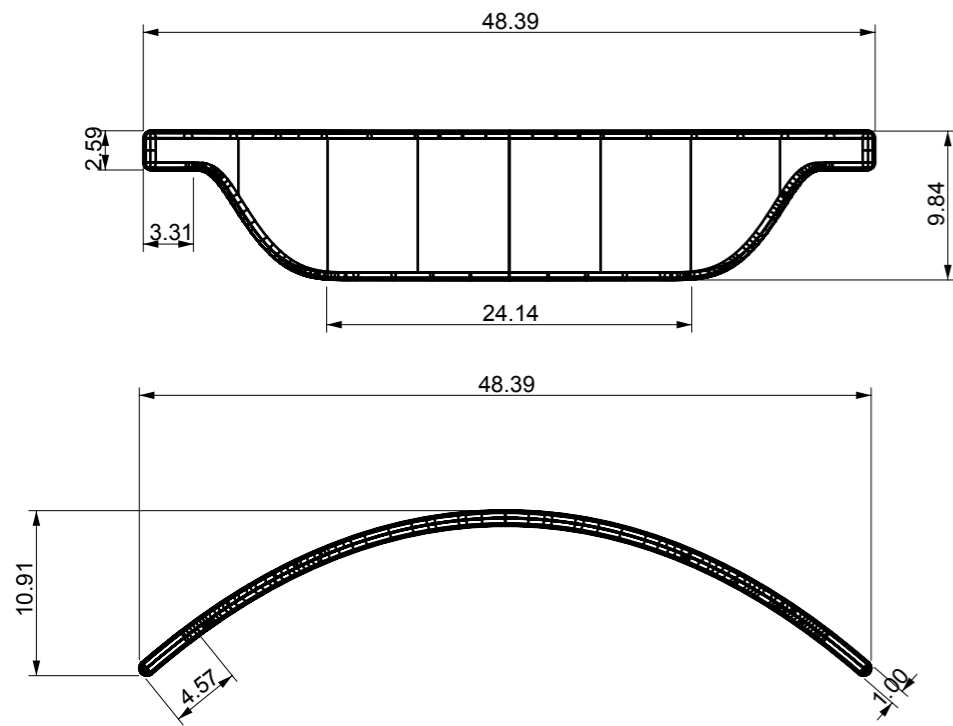




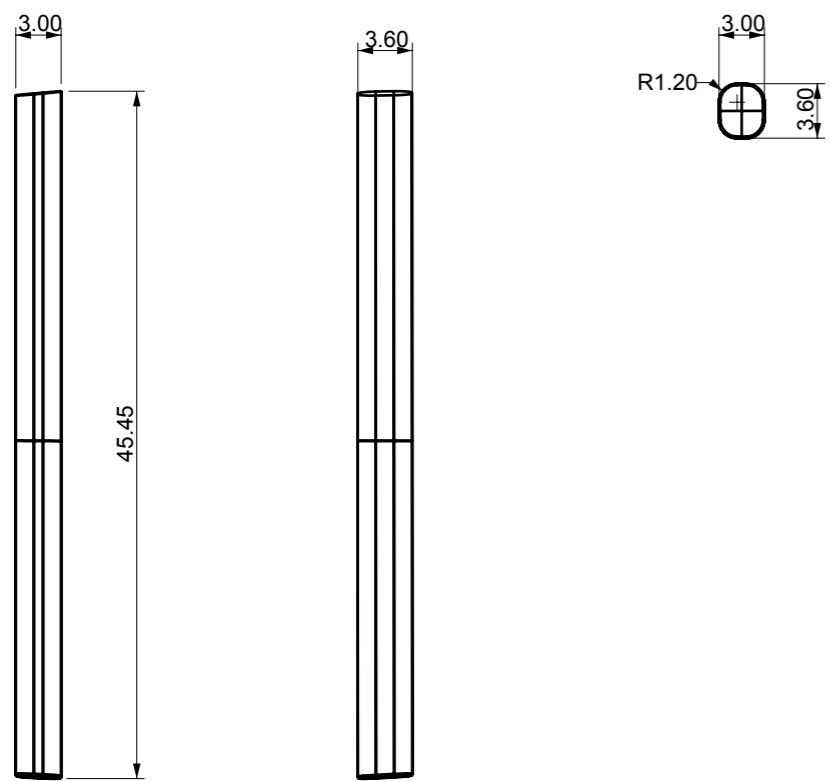


7 STANDARD SIZE



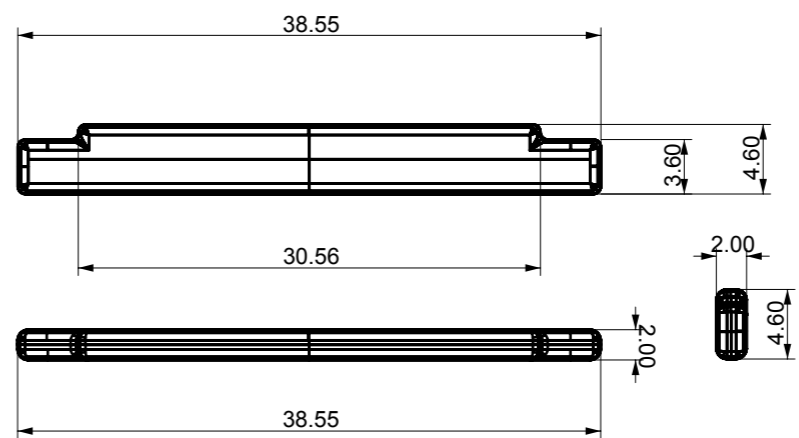
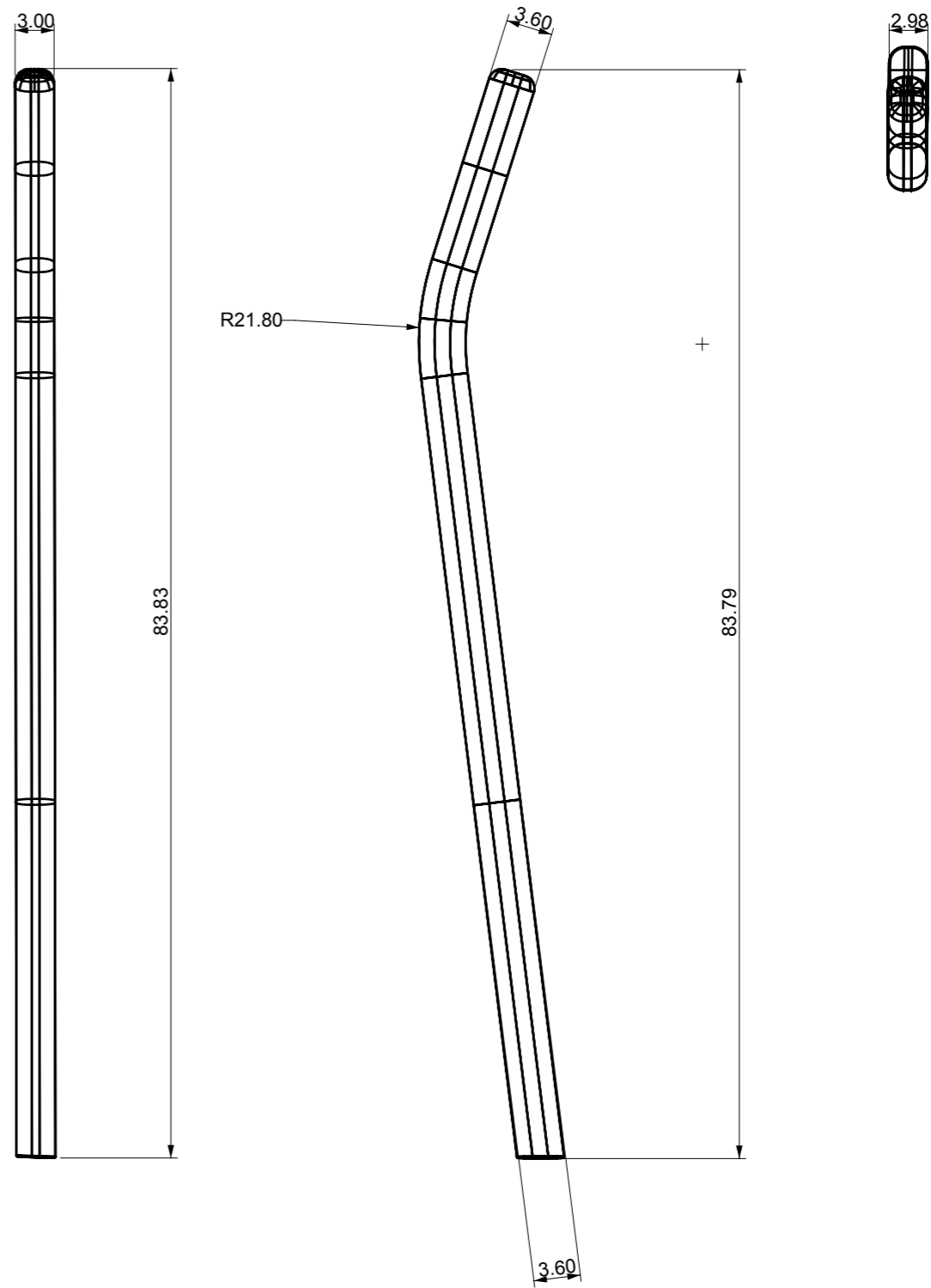
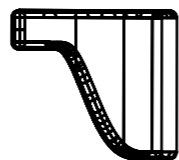


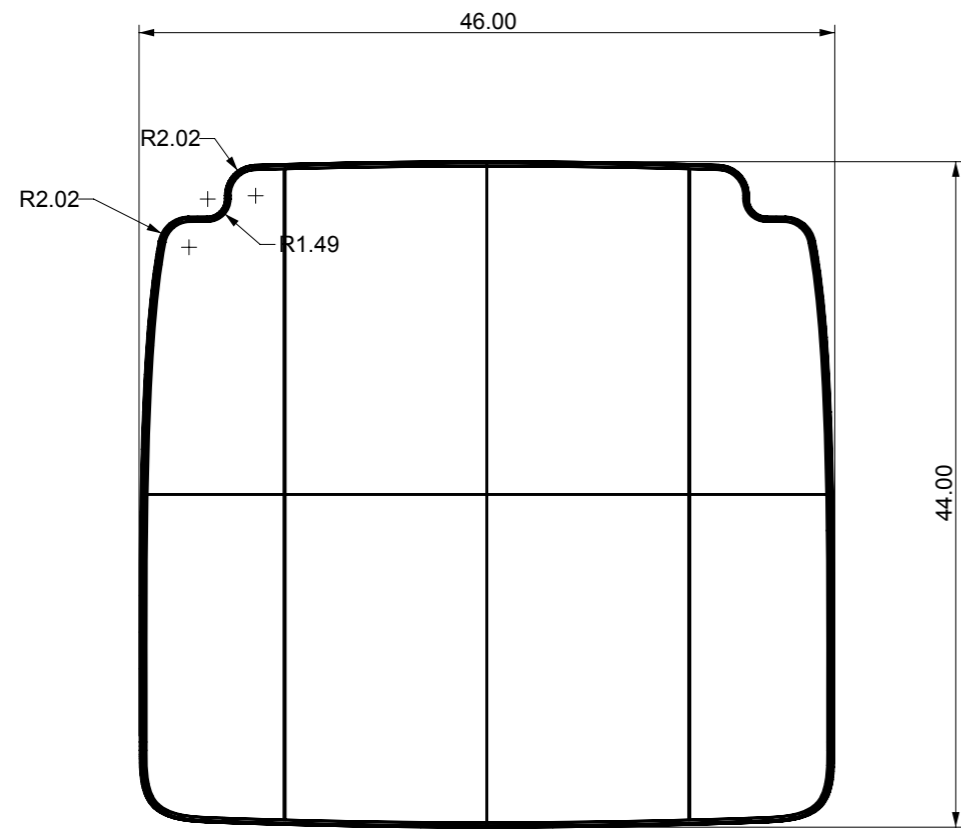
BACKREST



FRONTLEG

80





8 CONCLUSION

When investigating important aspects of product design and development, cultural reflection and design philosophy, are inevitably included. My thesis was to investigate how to integrate the Scandinavian design philosophy and East Asian cultural reflection, especially its architectural style into the design of one chair, in an attempt to contribute to the longevity and universality of the product in the future furniture market. The research question is how can a new design integrates the minimalism Nordic design philosophy and East Asian architectural style? This has been a question that I have asked myself often during my career as a product designer. Despite the prevalence and success of Nordic furniture, the integration of cultural background and furniture style should be considered frequently. Therefore, the thesis explores such integration by analyzing the success of Scandinavian design philosophy and the cultural reflections in East Asian architecture style. By doing so, this paper tries to combine the Nordic minimalism design philosophy and East Asian architect style into the design of a chair.

To be more specific, the research question could be divided into several specific questions as following-- why some furniture brands in the Nordic cultures are universally successful would it be possible to learn lessons from it and replicate such success in the furniture market of other cultures, as we described in 'reflections'. By doing all of these, the final objective would be to make a set of furniture, especially a chair, to represent the cultural reflection and mixture from my understanding.

To solve these specific research questions above, I have analyzed the successful aspects of Scandinavian furniture since the last century, which include the historical aspects, design, marketing, and objective aspects. The first purpose is to refine the essence of Scandinavian furniture. Furthermore, I would try to apply the same experience to another culture in its design context so as to design a tangible product using the Nordic design philosophy. When analyzing the success of Scandinavian furniture, I have described the reasons for the success of some furniture brands. By analyzing them, I tried to find a way to replicate a certain type of success within the East Asian culture and the furniture market by integrating the Nordic design philosophy and Eastern Asian culture into one tangible product.

The main methods of solving the above specific research questions would be a Literature Review,

Benchmarking, Analysis of existing products, Trend forecasting, and Experimental prototypes. By using these methods, I would review related articles about the topic, analyze the existing target of brands to refine some elements of the existing products, and then eventually use those elements for the new products.

As a Chinese designer studying at Aalto University in Finland, I strived to integrate Asian cultural elements and Nordic design elements into my chair design. Specifically, through using wood in a minimalistic manner as the main technique for production, I mixed the East Asian identity with the Nordic influence, so as to replicate the success of the Scandinavian design within the East Asian furniture industry. Such a combination could be successful and innovative as many Asian people appreciate the Nordic design style. Product development that mixes Nordic design philosophy and East Asian style is quite innovative, thus possibly resulting in universal appreciation and success in the future, despite the simplicity of a chair.

In addition, the East Asian architect style was applied to the design of my chair by which people from a similar cultural background can easily accept and appreciate. Although I cannot for sure guarantee that everyone will fancy my design of the chair or that the chair would be fit in every household, I regard it as a worthwhile innovative attempt for mixing the Nordic design philosophy and East Asian cultural reflections. Such mixture should even be further explored and investigated in the future so as to replicate the success in the furniture market and to interact well with users from different cultural backgrounds.

This exploration and product development also enlightened me to reconsider the potential possibilities of furniture design under specific culture. Firstly, there are still plenty of cultural reflections that can be applied to the design of furniture. For instance, one of the possibilities is to design furniture that can reflect certain points of time or related to certain specific cultural history, which means that there is still plenty of space for innovation when it comes to integrating Nordic design philosophy to any other specific culture. Secondly, the furniture design marketing strategy can also use such a mixture to attract certain target groups. By doing so, a win-win situation can be created where the design companies or designers have succeeded in appealing to the local norms while a certain

target group of consumers accepts and appreciates the tangible design with their identity being integrated into the design. Therefore, it is strongly recommended that the designer should do detailed research in different cultures when the product is about to expand its market to different cultures.

The whole project has been a fascinating experience for me as a designer. I have learned to draw a minimalistic essence from culture and apply it to a certain specific design. Besides, I have realized that as a designer, it is of great value to be aware of the cultural reflection and be sensitive and observant to the history behind and details under certain cultural contexts.



Envoi:

The essential question is always about, whether it is enough for expressing the idea when discussing within form and culture reflections. For this question, in what I investigated in general principle of product design, the answer is always the less the better, because less is more.

To express the culture, meanwhile to keep the simplicity, the difficulty is mostly in finding a balance. Both my tutor, Simo and I agree that a good design should follow that Ten Principle from Dieter Rams. In the principles, we both would like to point out two out of ten, which are:

Good design is honest.
Good design is as little design as possible.

For this project, I have invited 5 of my friends from different areas in Arts & Design to have a look at this chair, asking them if they would get any idea where the inspirations of design come from. In fact, all of them mentioned Asian gates or architecture.

On one hand, it is the success of my project that the idea and culture visibly transferred to this chair by the form and materials. On the other hand, it also can mean that it is because the characteristic and personality is so obvious to notice, which is different from the 'honest' and 'as little as possible' principle.

Following this thought, next step would probably be cutting off the upper pole to make the back legs same height of edges as that of the back rest. Then the character would be less obvious and more honest, thus making a chair look like a chair rather than an architecture.

What if we cut the upper poles off? How much culture reflections will leave? How to define a culture? It seems like the impression about one culture always comes from other's transferring reflections by reading, writing, watching, speaking, etc. But since chairs, as tools, come from a natural behavior of human beings, while the example of architecture comes from a religion or culture, how can we see this connection? And how do we form this impression that something which represents certain cultures? Will this impression change after years?

It becomes more like a philosophical question, which is complicated and worthy of our investigation and discussion.



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