

# Contemporary Silk Road Asian Design

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# Week 1

**Orientation & Getting  
to know about Asian  
designs**

Design projects

Asian design network

Summary of article found in library

Images of Asian around Melbourne

# Japanese Architectural Design- Frame The Sky



The four-storey house is located within one of the city's many dense residential areas, so Atelier Tekuto tried to make the most of natural light by framing a view of the sky and clouds, hence the project title Framing the Sky.

Yasuhiro Yamashita - Atelier Tekuto  
Webpage : <http://www.tekuto.com/en/>

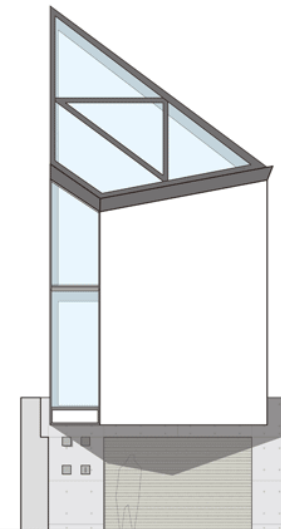
Architectural design: Yasuhiro Yamashita - Atelier Tekuto  
Constructional design: Jun Sato - Jun Sato Structural Engineers

Instead of using artificial lights for the interior illumination during day time, Atelier Tekuto Decided to create a large window frame on the ceiling shown as the photo on the left which allows natural sunlight penetrates and shine the interior space.

Target countries and audiences :

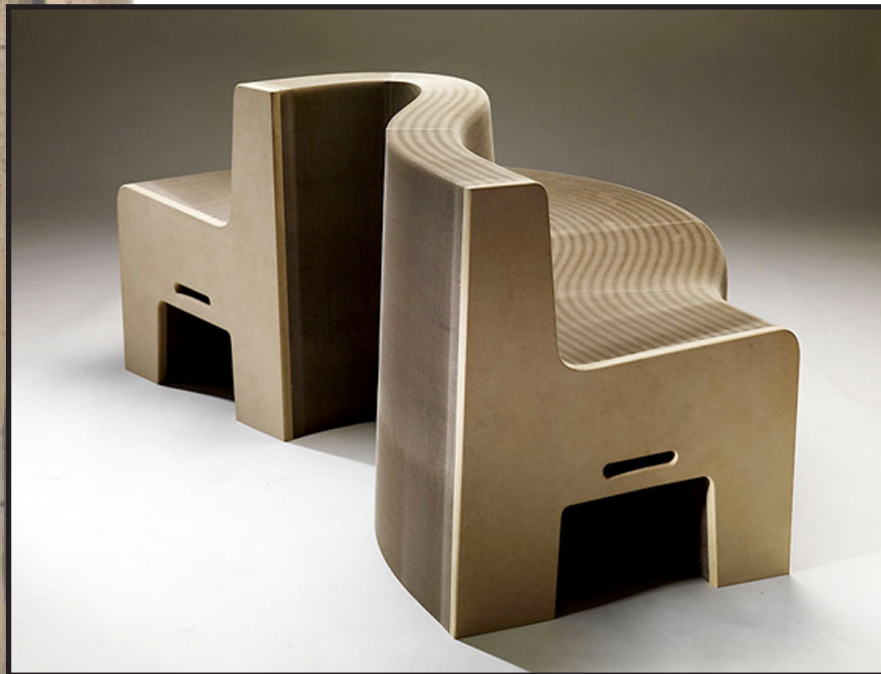
Mainly for the locals in japan (Tokyo)

They said thier design is focusing on the relationship between nature and people in the city. They realise that skylights are the most important openings in the urban houses. It is because the sky is the only element of nature left in the urban context, and the skylight serves as an interface between people and nature.



# Taiwanese Furniture Design- Flexible Love

Flexible Love is constructed almost entirely from recycled cardboard and recycled wood waste and can expand to hold up to 16 people! The unique qualities of its accordion and honeycomb structure allow it to be stretched and folded into a multitude of shapes and lengths - creating surprisingly strong seating. To change its length and shape, you simply pull each end – much like playing an accordion. For a chair that offers this much flexibility and adaptability, it's hard to believe it is made almost entirely of recycled cardboard.



Designer : Chishen Chiu  
<http://www.flexiblelove.com/>



The concept of expandable furniture is basically reduce space when not in use. Additionally in some designs like the flexible love, it is ready for users to enhance the particular function of that individual design for instance to create more space available for people to sit on. In order to maximise the purpose of that design.

Main Audiences :

For household, studio , cafe etc . Basically places involve a human-group activity.

Currently available for sale in Taiwan , U.K , Japan , Spain , US , HongKong , Singapore , France.

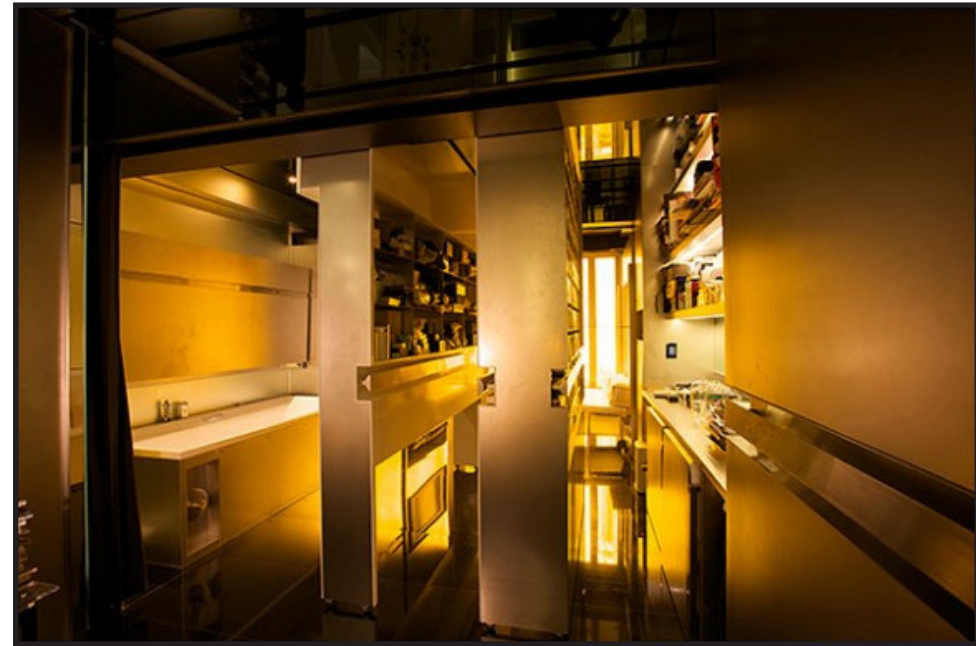
Clients in Japan(Generate Design) : <http://www.gnr8.jp/>  
Spain(STGO) : <http://www.stgo.es/tienda/>  
etc.

# Hong Kongnese Interior Design- Domestic transformer

Apartments are small and expensive in Hong Kong, so architect Gary Chang designed his 344 square foot unit to change into 24 different designs, just by sliding walls and panels around. He even calls it a “Domestic Transformer.”

“It’s a big problem,” Mr. Chang said. “Killing each other is not uncommon.”

“People feel trapped,” he said. “We have to find ways to live together in very small spaces.”



Designer : Gary Chang

<http://www.edgedesign.com.hk/>

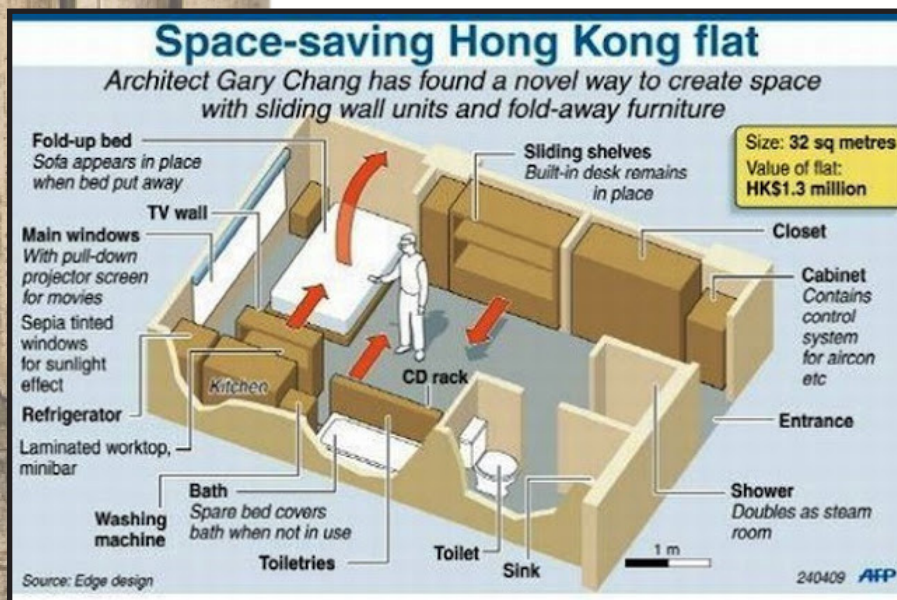
Design rationale and concept :

The idea of it is to maximise the usable space in a tiny apartment which is very popular in Hong Kong. By hiding unnecessary components to spare out room for activity. Simply consists of a few layers as shown in the photo above, each layer has both sides for different function and purpose. For example Kitchen and book shelf are all included.

Target Countries and audiences:

Domestic Transformer is a very useful design for country or city with excess population and for people who couldn't afford the rent for a big apartment such as Hong Kong and Japan.

Client : The client is him self since he's the one whose living in there.



# Chinese Transportation and City Development- The Straddling Bus



Design Company : Shenzhen Huashi Future Parking Equipment Co.

<http://www.anyvideocctv.com>

Client : Beijing's Mentougou District (Beijing)

## Green facts & awards

- powered by grid electricity and solar energy system
- self-charging capacity by using 'relay direct current electrification'
- CO2 reduction
- zero emission toxic gases
- saves up to 860 ton of fuel per year (reducing 2,640 ton of carbon emission)
- saving road space
- Reducing traffic jams by 25-30% (CO2)
- up to 1200 people per run

The highlight innovation of Straddling Bus is that it runs above car and under overpass. Its biggest strength is saving road spaces, efficient and high in capacity. It can reduce up to 25-30% traffic jams on main routes. Running at an average 40 km/h, it can take 1200 people at a time, which means 300 passengers per cart. Another strength of the Straddling Bus is its short construction life cycle: only 1 year to build 40-km. Whereas building 40-km subway will take 3 years at best. Also the Straddling Bus will not need the large parking lot that normal buses demand. It can park at its own stop without affecting the passage of cars. The interior has a huge skylight that will eliminate passengers' sense of depression when entering.

Design rationale and concept :

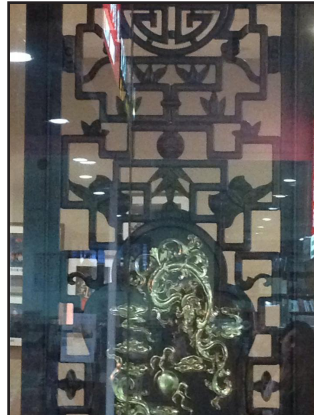
This transportation and mobility design concept is aiming to solve the problem of traffic jams in big city like Beijing , ShangHai and HongKong. It can bend around corners, and it travels along rails to enable smaller vehicles to pass underneath which eliminates traffic congestion by traveling over lines of cars.

Target audience and country :

Big conjested cities with high population around the world.

# Asian design in Melbourne

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# Week 2

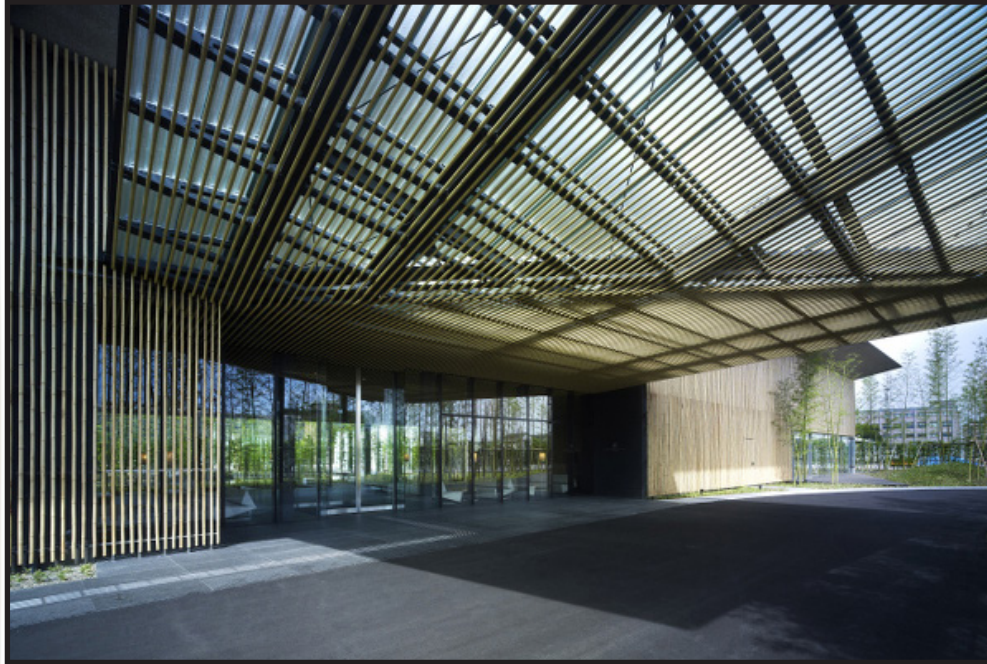
**Identify design types**  
**Design methods**

Article reading-White paper  
Deign projects  
Photos from exhibition



# Garden Terrace Miyazaki, Japan

Designer: Kengo Kama  
<http://kkaa.co.jp>



Located on the site of a former factory, Garden Terrace Miyazaki is a single, two-storey building with bamboo-clad walls and a sloping roof. The hotel's facilities – guest rooms, banquet room and restaurants – surround the central courtyard and wedding chapel; at the entrance, a faceted timber canopy leads through to a reception area where guests can also enjoy a view of the courtyard. Garden Terrace Miyazaki's calm and tranquil environment is enhanced with a landscape of bamboo trees and pools of water.

## Design Rationale and Concept

By using natural material and resources to construct complex architecture. Promoting green design.

## Target Market

Worldwide international, not specific.



Against an increasingly competitive landscape, where airports around the world are actively growing their 'destination appeal', Project Jewel sets in motion plans to boost Singapore's Changi Airport as an air hub of choice for travellers. As it stands, transit passengers make up about a third of the airport's air hub traffic.

## Design Rationale and Concept

Project Jewel aims to be architecturally iconic – it will have a striking glass and steel facade, as well as a large-scale indoor garden with a stunning waterfall. Visitors can expect a range of aviation and travel-related facilities, retail offerings, as well as unique leisure attractions.

## Target Market

Local Singaporean. Singapore government



Layered wooden boards to create striations inside this workspace and cafe for an online restaurant guide based in Osaka. Kengo Kuma designed the interiors of two spaces for Gurunavi: one that's used as a physical base and information centre for the Japanese restaurant guide and another that serves as a cafe. The two spaces are both enclosed by glass walls on three sides and a solid wall at the back. They are separated by a tunnel that leads to further retail units at Osaka's main railway station.



## Design Rationale and Concept

The idea of stacking up layers of different sizes of wood to create shelves and tables everywhere combined with the walls. Less furnitures required more spare space provided. The whole idea is based on the space saving issue.

## Target Market

Cafe and Office in developed countries

## Client

Shun\*Shoku Lounge

# Photos in the gallery



Chair  
China



Chair  
China



Cooking vessels,Ding  
China



Container  
Bhutan



Fragment of a lintel  
Cambodia



Granary  
China



Jar  
China

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# Week 3

**Creative response**

**Manufacturing process**

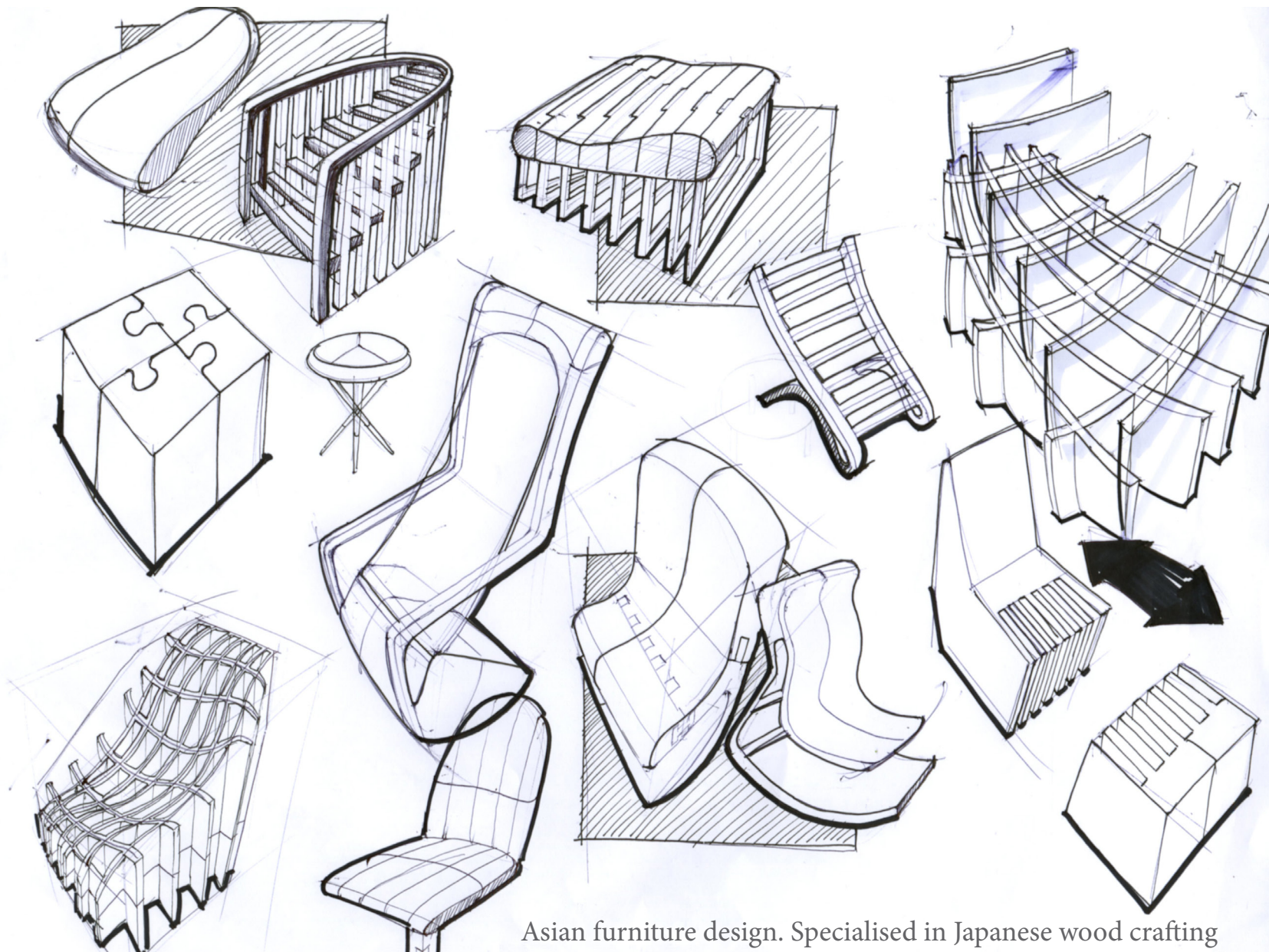
**Resources**

Concept sketches

Production methods

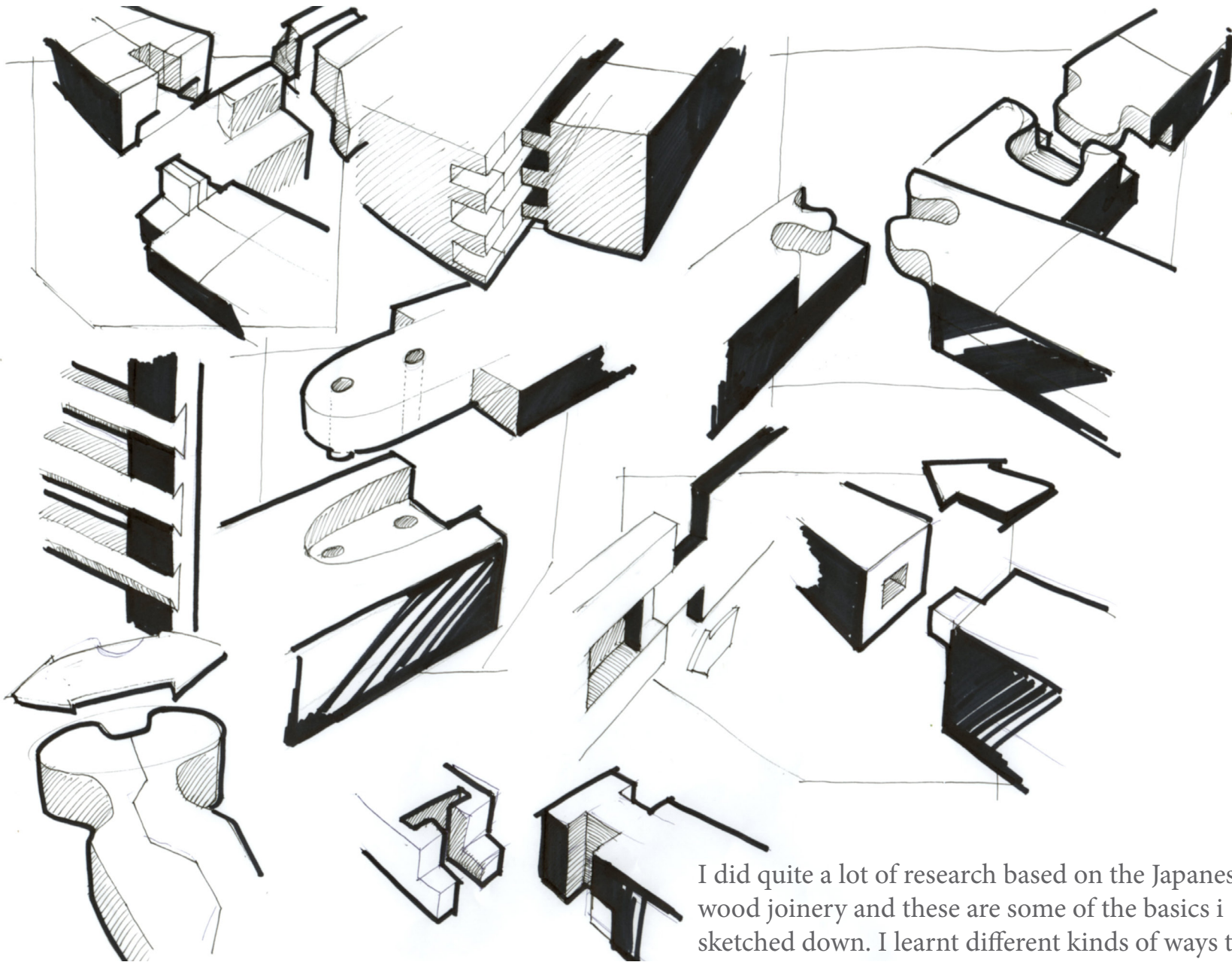
Resources(RMIT workshops)

# Concept sketch and creative reflecton



Asian furniture design. Specialised in Japanese wood crafting furniture. Focusing on how the components can be joint without screws and nails. Also i'm interested in complex forms which can be a piece of furniture in the same time.

# Japanese wood joinery



I did quite a lot of research based on the Japanese wood joinery and these are some of the basics I sketched down. I learnt different kinds of ways to lock wood pieces. And some of the above are my design of wood joinery.

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## Part 2 – Methods of production

Since all the designs above are mainly in wooden basis, Most of them can be produced in workshops within using various machines. Some of them require CNC machine processing because of the organic shapes and forms also for big pieces as well. Depends on the complexity of your design, different axis of CNC process are used. Those CNC machines in workshops in RMIT are mainly 4 axis which couldn't do "under draft". For the designs that requires a huge amount of wood sticks which can be found in Bunnings and wood warehouses, Bandsaw and Hex saw are normally used for cutting them into desired length. A table saw is responsible for trimming a particular face of a piece of timber. In some cases, small area with special angle that you wanted to cut can hardly be processed by machines, hence you can use power tools for easier control. For the process of refining, sanding wheels and belts are useful and with a angle grinder for surface finishing.

## Part 3 – Resources

Gossard Workshop in Bld 49 and workshop in bld 8 level 7

If you wish to make bookings for the machines, you first have to get you file ready, for instance if the machine that you're booking is the CNC machine, You have to have your solidworks file ready, then go find the workshop assistance and tell them what your project is, show them your file. Then they'll help you to convert it into Rhino if you don't have any Rhino basis. They will probably run it 2 or 3 times to make sure it is safe for the machine to process. After the program is settled, they will book you in as earliest as available. Get you material ready and be there on time.

## Safety precautions

Always put your safety glasses on for eye protection with you are operating a machine. Never get into the restricted area after the machine starts processing, press the stop button immediately if you witness something's wrong and find the workshop assistants.





# Week 5

**Cultural influences  
towards Asian design**

Articles reading and summaries plus  
comparison  
Country research

A large stone Buddha statue in the foreground, looking towards two stupas in the distance under a dramatic sky.

# Indonesia

City development

Craftsmanship

Interior design

textile and fabric



The Jakarta Monorail is a planned 29 km (18 mi) two-line monorail system in Jakarta, Indonesia that is under construction and supposed to open in 2015. The project was revived in February 2013 after earlier construction had started in 2004 but was abandoned in 2008 due to financial problems and legal disputes. The Jakarta administration has decided to continue its plan to use the concrete columns of the abandoned monorail project as part of an elevated bus rapid transit (BRT) project. It is reckon that the elevated BRT would be more costly than the one that already operated on the ground. But it would be cheaper than continuing with the monorail.

## Jakarta Monorail Project

Since the traffic congestion is a major problem for the city development aspect, the government decided to build a up-rise transportation system (Monorail) for relief. It is indeed a alarming problem that has to be solved promptly because the population of Indonesia is at a tremendous index. One of my Indonesian friend who lives in Jakarta said " If you want to travel ... let say the distance from the CBD to Richmond in Jakarta, It takes you almost 2 hours by car. Looking back into the project, however, the cost of construction is over budget. It was then stagnated until the new solution arised- The BRT project.

Target market

Cities with traffic conjection problems

Kus Nadi Designs are made from 100 percent recycled timber, the timber is sourced from beautiful ancient houses and bridges found throughout Indonesia. The houses were built many years ago using the teak trees they were surrounded by. The houses are being pulled down and replaced by more modern houses. Kus Nadi and his team salvage the timber from these antique and historical homes. The furnitures are all made from the very best quality timber which has been dried throughout the time the houses were standing, sometimes around 75 years.



## King Bed

Kus Nadi Designs values tradition, quality and nature, keeping the history of the wood and preserving its authentic and refreshingly unrefined style. Each piece is crafted by skilled hands in a small Indonesian workshop and you can be guaranteed that each piece is a “one off” and unique like no other. This is what makes Kus Nadi so popular, sought after and valuable, as it cannot be replicated.

## Target market

World wide since it is available online now and local. For people who loves the nature and ancient style of design also supporting environmental friendly idea.



The Floating House is a luxurious independent mobile house Built on the sea that can transported to different locations in Bali Indonesia. It offers 2 luxurious bedrooms, 2 bathrooms, living room, kitchen and generous terrace. The project was based around the idea of minimally impacting its surroundings, while still offering an 'out of the ordinary' experience. The concept is inspired by nature, openness and luxurious yet easy lifestyle. The seamless connection with surroundings is achieved with minimal intervention, offering highest level of sustainability.

## Floating House

The interior rooms all have direct access to the terrace around its perimeter, enabling the outside world to blend in. the base is constructed of a buoyant platform that gently moves from place to place, while the roof is carried by a system of columns separated from a glass curtain wall. This solution allows for micro-movements caused by the uneven water surface the house sits on, and also penetrates high-levels of natural light into the calming space. The base of the house is constructed of floating platform, and can be easily moved from one place to another which gives great flexibility of location. Also the internal arrangement of the house including size, program, materials and finishes can be customized depending on client needs.

## Target market

The Floating house was designed for people who appreciate freedom and nature at their doorstep and French developer specialized in floating structures.

# Indonesian textile



Indonesian Batik

The vision and mission of Alleira Batik is to raised batik so it became part of the world culture and make batik as an international fashion with high quality design and materials. Alleira Batik produces unique, modern and high quality Indonesian Batik. A good quality of batik process as Indonesian heritage is our priority.

Indonesian Batik is famous of its color varieties , patterns and the actual smell. The word batik is thought to be derived from the word 'ambatik' which translated means 'a cloth with little dots'. It is a fashion that can represent Indonesia of its cultural characteristics and tradition. The method of tessellation is used within its diversity which includes packing trigonometric shapes together into a form of pattern. No wonder Fabric design and manufacturing is one of the main industry in Indonesia.



# Japan

Product and electronics

Architecture

Craftsmanship

City development

Transportation system



# Japanese product/electronic design

Design company : cyberdyne Co.

<http://www.cyberdyne.jp/english/products/HAL/>



Hybrid Assistive Limb (HAL)

The suit, called HAL – or Hybrid Assistive Limb – is the work of Cyberdyne Corporation in Japan, and has been created to “upgrade the existing physical capabilities of the human body”. It is comprised of robotic ‘limbs’, and a backpack containing the suit’s battery and computer system. It is strapped to the body and controlled by thought. When a person attempts to move, nerve signals are sent from the brain to the muscles, and very weak traces of these signals can be detected on the surface of the skin. The HAL suit identifies these signals using a sensor attached to the skin of the wearer, and a signal is sent to the suit’s power unit telling the suit to move in unison with the wearer’s own limbs.

People with physical disabilities, such as stroke-induced paralysis or spinal cord injuries, can hire the suit at a cost of Y220,000 (£1,370) per month, and Cyberdyne Corporation believes the technology can have a variety of applications, including in physical training and rehabilitation, adding extra “muscle” to heavy labour jobs, and even in rescue and recovery operations.

HAL can help the wearer to carry out a variety of every day tasks, including standing up from a chair, walking, climbing up and down stairs, and lifting heavy objects. The suit can operate for almost five hours before it needs recharging, and Cyberdyne Corporation says that it does not feel heavy to wear, because the robotic exoskeleton supports its own weight.

It is designed for use both indoors and outdoors after all the suit was originally created the suit for climbing mountains.

## Target market

It has a big market since it is a popular problem for disabled or people after stroke during recovery period. With this suit, they are able to train their muscles more efficiently and get recovered faster. Additionally, it can wear as a tool for extreme outdoor sports which enable those who are not really capable with to experience outdoor adventure.





It is not only architecture, but also landscape design. The setting could not be more confined, the limitations more complicated, and yet out of a tiny wedge of a lot on the steepest of slopes has emerged this amazing work of architecture by Shuhei Endo that hugs its surroundings but also makes a bold visual statement from within its limited landscape. It is confined by a Y-shaped intersection on a triangular lot, tucked amidst old and crumbling residences and as narrow as 5 feet at points this lot is the last place most architects would want the challenge of building on. thin and varying footprint and other kinds of locational issues that would send most builders and buyers running. However, the resulting design is both beautiful and fully engaged with its environment, providing interesting on-site niches and views of the water below.

Ultramodern Skinny Lot Home Built on slope- Rooftecture S

This architecture piece is rare and valuable in modern society because the concept behind has profound meanings. Since the population index is rising every year in every city, the idea of space saving and space rational usage is very important in the aspect of city development. This design is a good example of making use of every space even the area that you'd never consider useful can also be explored and develop.

Target market

Local resident and cities with high population but lack of urban space.



Roof and furniture

Ki Arts is specialised in Japanese-style interiors, garden structures, soaking tub, and fine furniture designed and crafted by Japanese master woodworker Hiroshi Sakaguchi. Ki Arts has had many years experience adapting Japanese design to Western needs. the japanese word "Ki" means wood.

Since Japanese construction is a post and beam system held together by an intricate system of joinery, the components for interiors and garden structures are “pre-fabbed” by Sakaguchi-san at his Ki Arts workshop. They are then transported to the building site. This enables him to do Japanese carpentry anywhere in the world. Custom designed soaking tubs and fine furniture are made by him at the Ki Arts workshop and can be shipped to any location.

The idea of wood joinery is basically requires no nails and screws wherer natural wood pieces can be joint together and locked by wedging. Good example of wood joinery is very stable as if being screwed and can be applied in architectural constructional structure as well as furniture. It uses the natural frictional force of wood to get interlocked.

## Tarket market

People that enjoys natural sense of living also places that rich in wood material. Aiming mostly western countries since they're romoting their traditional wood crafting skills and structure.



Fujisawa sustainable smart town

The idea is obviously aiming to establish a green eco friendly living environment that reduces as much artificial waste as possible. Wisely involving solar technology to decrease the amount of generated energy consumption. Also, the city will be surrounded by trees and plants that hope to create a CO2 boost down.

Fujisawa Sustainable Smart Town is expected to be one of the most advanced eco cities in the world in 2014. Located on the site of an old Panasonic plant, in Fujisawa, Japan, the mega neighborhood will be comprised of 1,000 homes as well as a few stores, healthcare facilities, a nursing home and public green spaces and parks. Each home would be equipped with the means to generate much of the electricity its members need to live, and the goal for the entire community is to reduce CO2 emissions by 70% and cut household water usage by 30% as well as electricity consumption by equipping a solar array that could provide about 70% of a household's energy needs. In addition the standard PV setup, owners could also opt for a fuel cell cogeneration system to provide additional power when the sun is not shining.

Shinkansen is a network of high-speed railway lines in Japan operated by four Japan Railways Group companies. Starting with the Tōkaidō Shinkansen (515.4 km) in 1964, the network has expanded to currently consist of 2,387.7 km of lines with maximum speeds of 240–320 km/h. The network presently links most major cities on the islands of Honshu and Kyushu, with construction of a link to the northern island of Hokkaido underway.



Shinkansen-Bullet train



Maglev train

The idea of having Shinkansen and Maglev train in Japan is mainly aiming to enhance the efficiency of transporting a large amount of people between cities rapidly. Since the population in Japan is tremendous, more shifts of trains are required especially in rush hours.

Maglev (derived from magnetic levitation) is a method of propulsion that uses magnetic levitation to propel vehicles with magnets rather than with wheels, axles and bearings. With maglev, a vehicle is levitated a short distance away from a guide way using magnets to create both lift and thrust. High-speed maglev trains promise dramatic improvements for human travel if widespread adoption occurs. Maglev trains move more smoothly and somewhat more quietly than wheeled mass transit systems.

Target market

Cities with extreme high population and lack of urban space

# Key quotes from articles

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## **Design, Development, Culture and Cultural legacies in Asia**

“Most developing countries of Asia have begun to perceive design in the contemporary First World model as an agent of capturing markets in this increasingly competitive world.”

Real design thinking pertaining to cultural aspects:

“Understanding the values of one society and then defining a quality of life within its parameters.”

“Seeking local answers for local needs by using local materials and skills.”

“Creating new values, addressing priority needs and preserving plural identities.”

“The process of cultural transformation and constantly attempting to define or redefine culture in a self-conscious manner leads to anxiety of the newly emerging or newly decolonized states of Asia such as Philippine or British-dominated South Asia.”

## **Culture-Based Knowledge Towards New Design Thinking and Practice - A Dialogue**

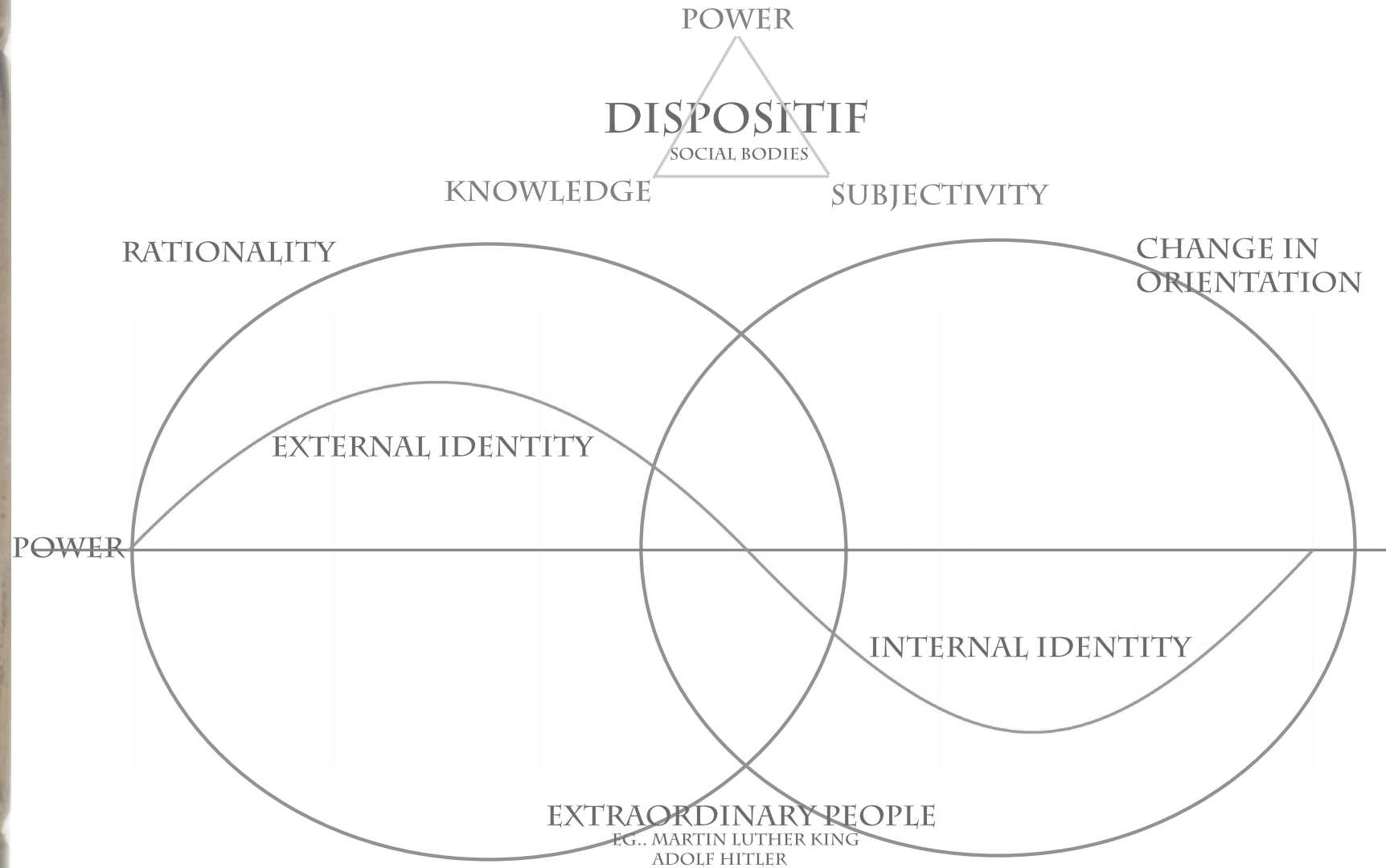
“Western design thinking should be revised and reoriented.”

“Cultural knowledge could enrich contemporary design theory and underpin innovation in design practice, providing an alternative to western design that would have international approach.”

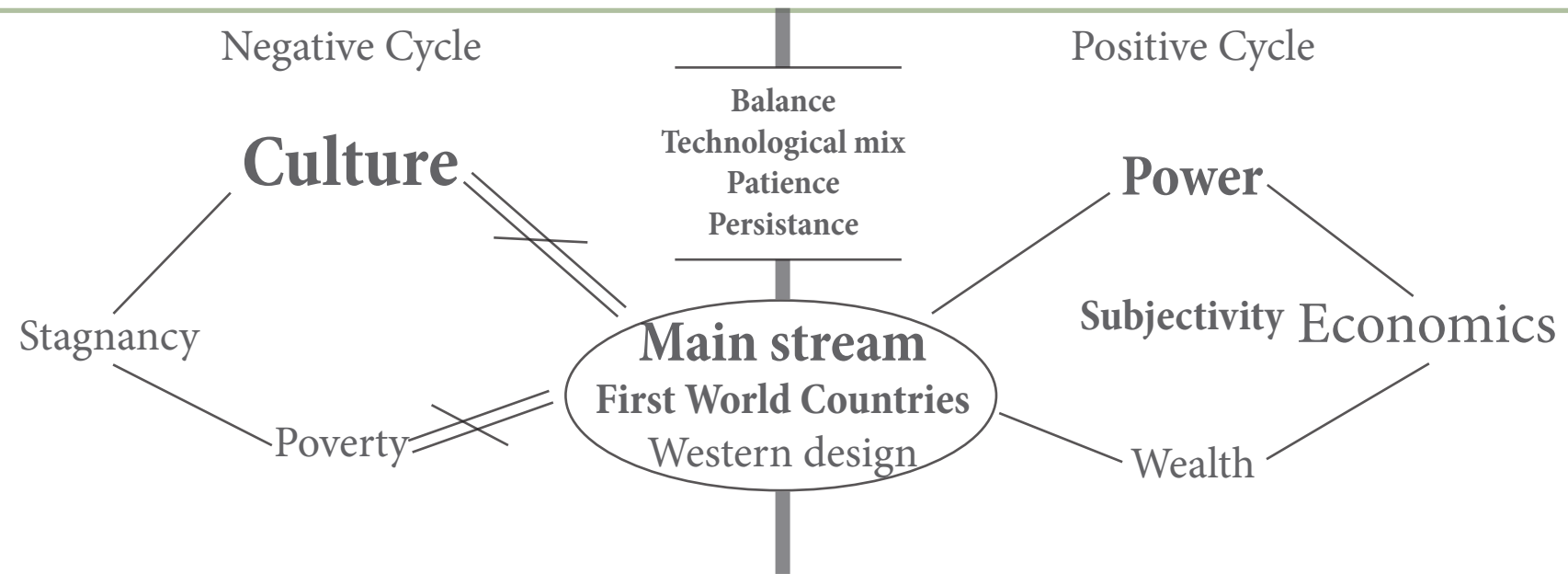
“Western culture is much more desirable as being “advance and modern“

“The core of any culture is constructed on traditional concepts, specifically its value system.”

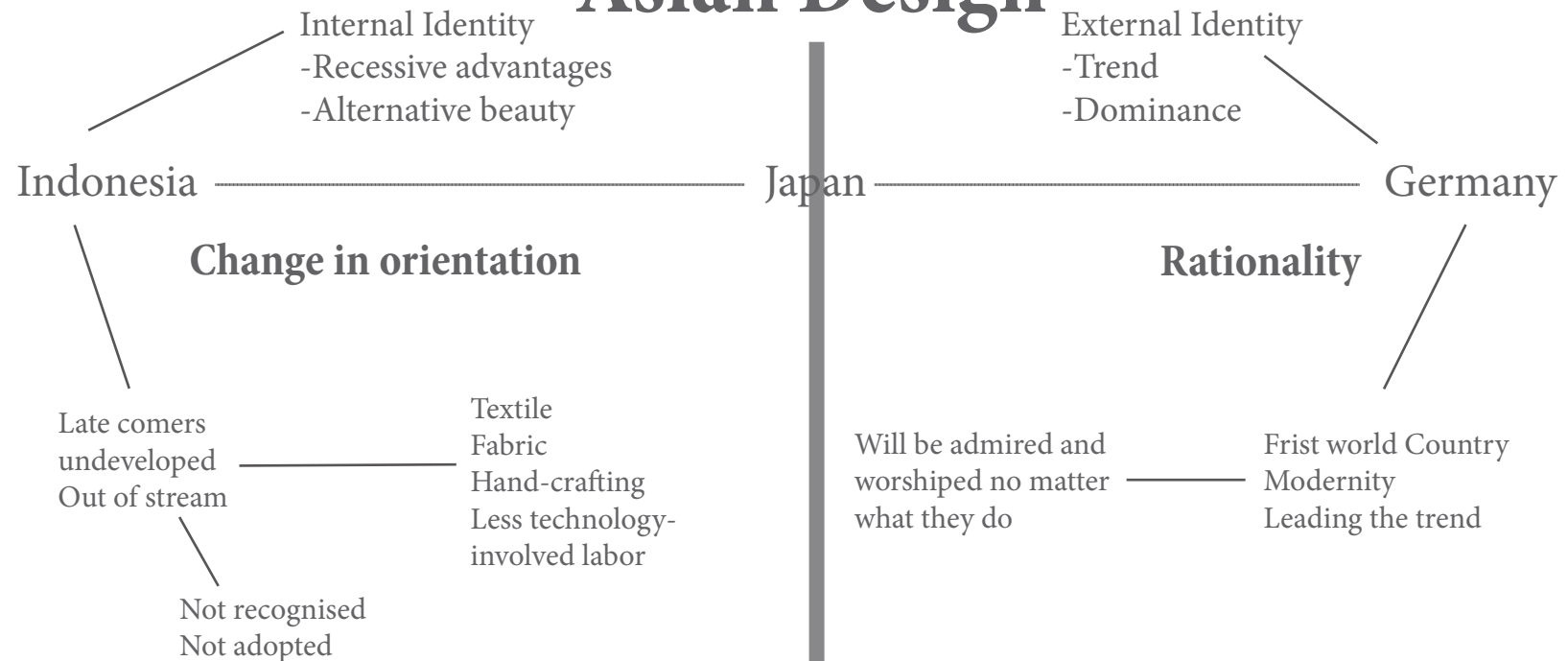
# Key learnings from “What is a dispositif”



# System diagram



# Asian Design





# Design Discourses



A scenic view of Mount Fuji with cherry blossoms in the foreground and a stone monument in the mid-ground.

Product and Electronic design

Sustainable city development

-Green Living Environment

Catching up with the mainstream design

-Indonesian Batik. Implanting new color elements and international textile instead of just using traditional design.

City infrastructure development

-Traffic congestion problems

-Flooding problems



# Design methods

High ambition towards curiosity

-Innovative and keen to discover and develop new technologies and designs

-Unique way of thinking, somehow involves humor.

-Industrial design prioritised

-Bored with eco friendly issues and embracing living environment

-Simple but elegant( Muji)

-Mostly machinerised

## **Culture**

Fantasy

Clean and tidy

Environmental friendly

Polite

-Nature based design

-Hand-crafted instead of machinerised

-Low cost production with less desirable quality

## **Culture**

Tradition emphasised

Diversed but negliged

Friendly

Good manners

Socialised

# Critical thinking

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-The country itself doesn't fit the conventional and international coherent standard of design because of its culture and tradition and therefore they are isolated by the big group.

-The Third World Countries in Asia can barely catch up the big group only if new technologies are imported and the aspect of subjectivity can be relieved.

-Culture and Tradition recognition directly varies with Design and Economics.

-The movie “ The God Must Be Crazy”

An object lands on one hand might be a piece of rubbish but while lands on another, It might be a valuable asset.

# Reference

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Prime Minister Office, 'Australia in the Asian Century', White Paper, Australian Government, October 2012.

Cross-cultural study of avatars' facial expressions and design considerations within Asian countries, Design issues, section Hirakata city, Osaka, Japan (pp208-214)

Leong & Clark, 'Culture Based Knowledge Towards New Design Thinking and Practice: A dialogue', Design Issues, Volume 19 No 3 (pp48-59)

Rajeshwari Ghose, 'Design, Development, Culture and Cultural Legacies in Asia'. Design Issues, Volume 6, No 1, Design in Asia and Australia (pp31-48)

