

FOUNDATION 3D

PROJECT 4

G02

間

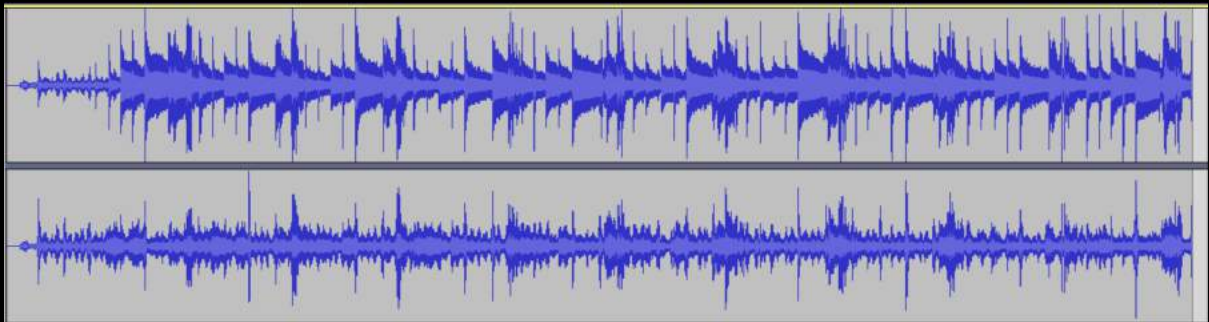
Ma's City of Voids

## INSTRUMENTS USED



**SOUND PATTERNS**  
**PATTERN A**

**PATTERN A**



**DOMINANT: Skin Drum**  
**SUB – DOMINANT: Resonating Bars**  
**SUB – ORDINATE: Shakers**

# SOUND PATTERNS

## PATTERN A



*The skin drum provides a constant tempo in semi-quavers, while the resonating bars produces a tune that repeats every 4 bars and the shaker cuts through the consistency at the last beat, giving an element of surprise.*



# **SOUND PATTERNS**

## **PATTERN B**

### **PATTERN B**



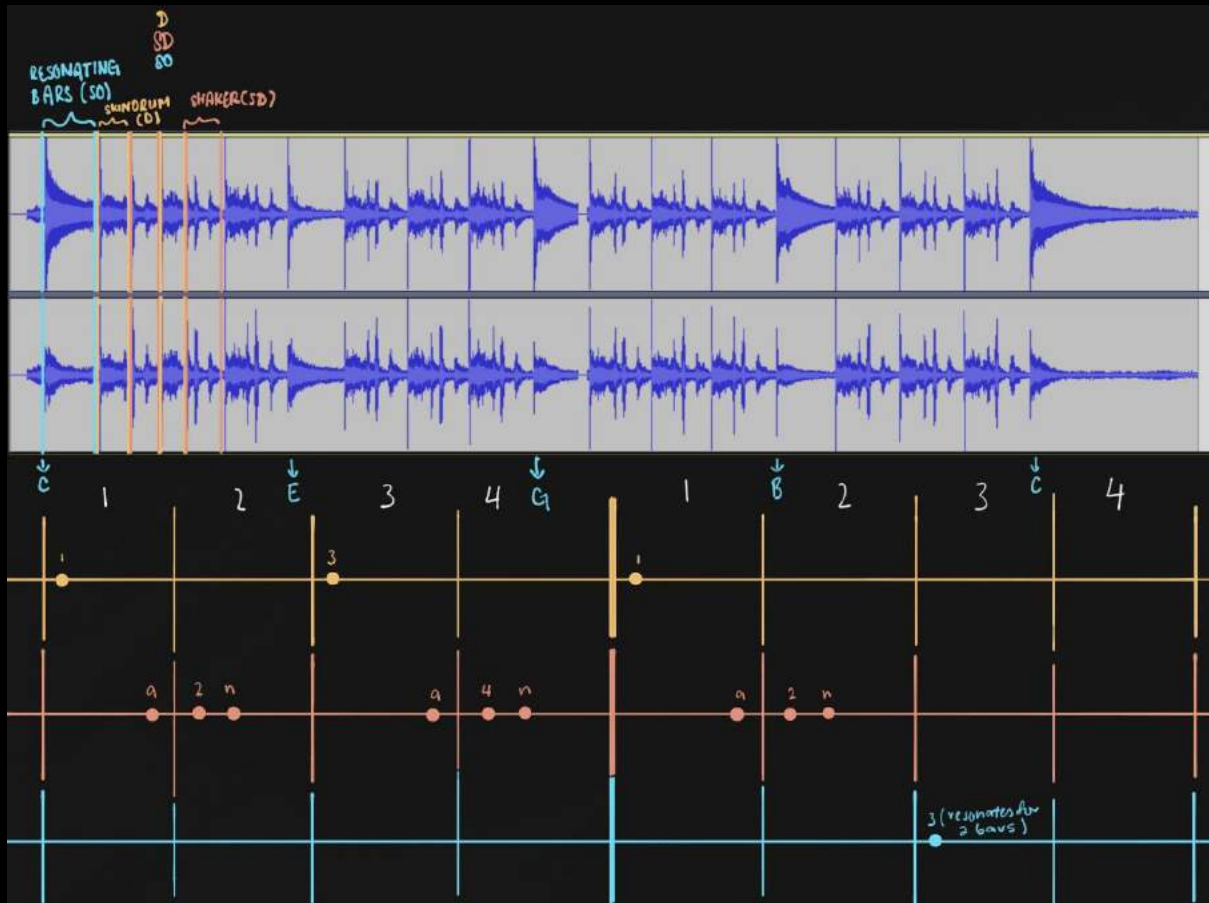
**DOMINANT: Skin Drum**

**SUB – DOMINANT: Shakers**

**SUB – ORDINATE: Resonating Bars**

# SOUND PATTERNS

## PATTERN B



*The skin drum provides the heartbeat of this sound pattern by giving the tempo at every beat, the shakers provide spice to this sound pattern by contradicting the mundane echo of the drum by producing a fast semi quaver rhythm every 2 beats. The resonating bars provide the finishing touch, as a note is played to end one set and also to call in a new set. The whole loop is finished when the starting note (C) is played again.*

# MOODBOXES

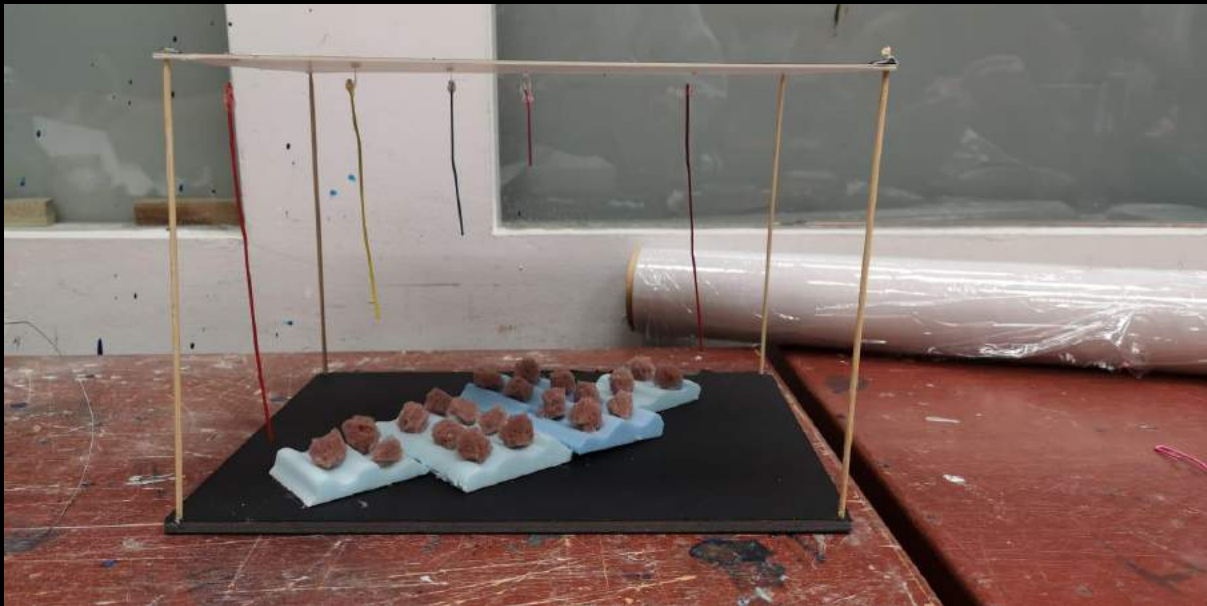
## PATTERN A



*The concept behind our moodbox corresponding to sound pattern A is the element of air and lightness. The jagged base (paper) represents the consistency of the skin drum as something that lasts through the whole loop. The clouds (cotton wool) represents the airy feeling of the resonating bars as it plays the melody. Lastly, the airplanes represent the shakers. Similar to how the shakers cut through the consistency of the drums and the resonating bars, the planes cut through the clouds in an upward motion.*

# MOODBOXES

## PATTERN B



*The concept behind our moodbox corresponding to sound pattern B is space and void of echo. The base consists of the rhythms made by the skin drum and the shakers (blue foam and brown sponge respectively). As the skin drum and the shakers are both very strong rhythms, they are attached at the bottom of the moodbox, with the shaker rhythm layered over the skin drum rhythm. The resonating bars (stretched paper clips) has a lighter atmosphere, thus it is hung above the foam and the sponge. The different lengths and colours of the stretched paper clips represent the different notes played during the whole loop and the extent of the echo of each note (lower notes resonate longer).*



**REVISED MOODBOXES**  
**PATTERN A**



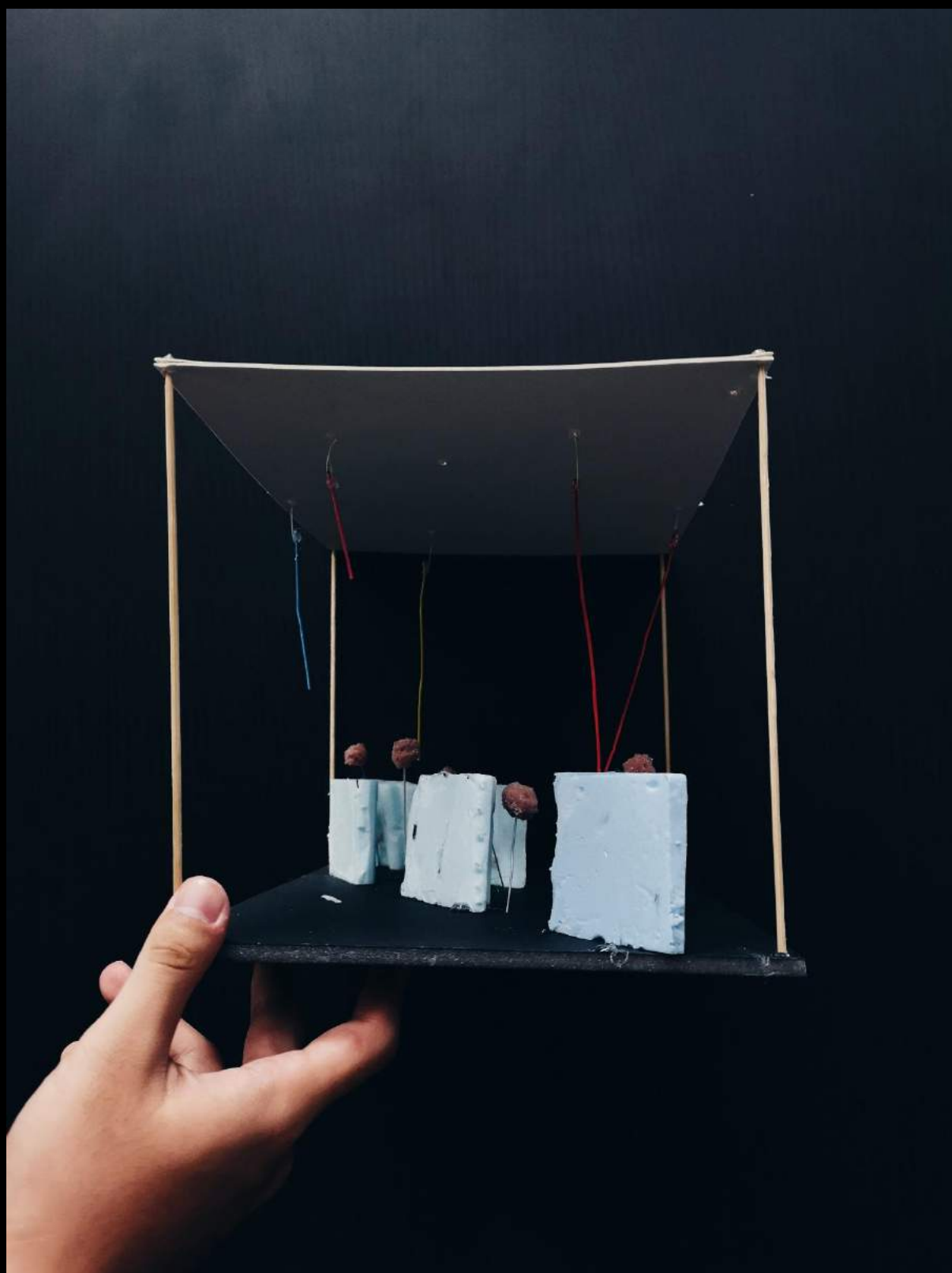


After consultations, we have changed the moodbox for pattern A in terms of making the base bigger and have more presence. For the cloud, we made them more detailed and painted the bottom grey to give an ombre feeling. As for the airplanes, we had them interact more with the clouds and interrupt the form of the clouds, just like how the shakers interrupt the peace of the resonating bars.



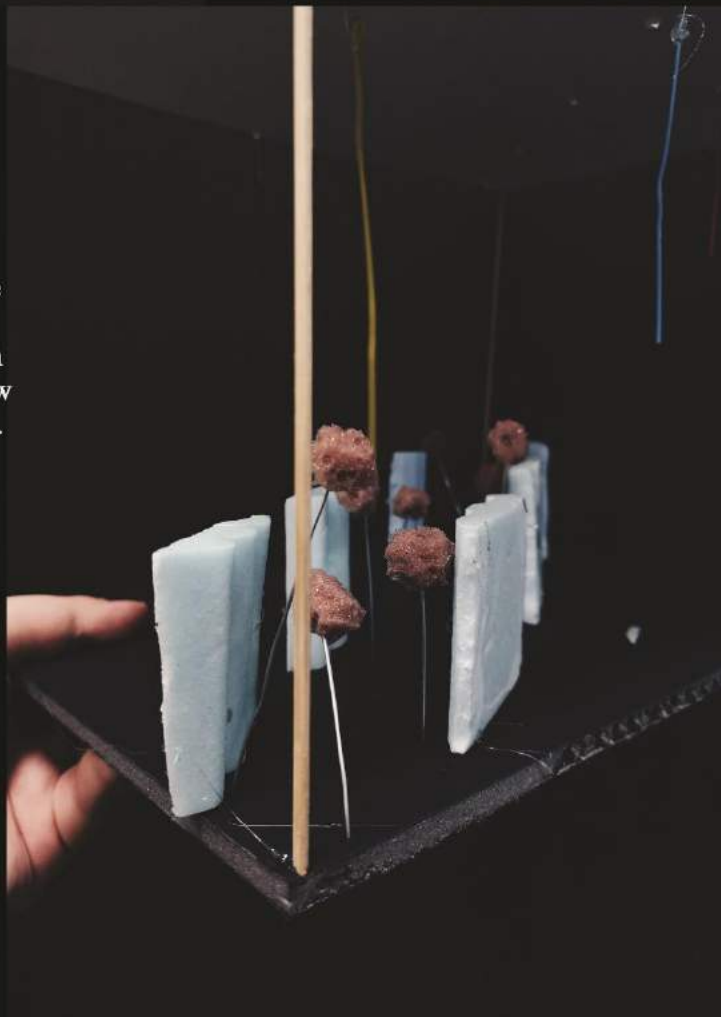
# REVISED MOODBOXES

## PATTERN B



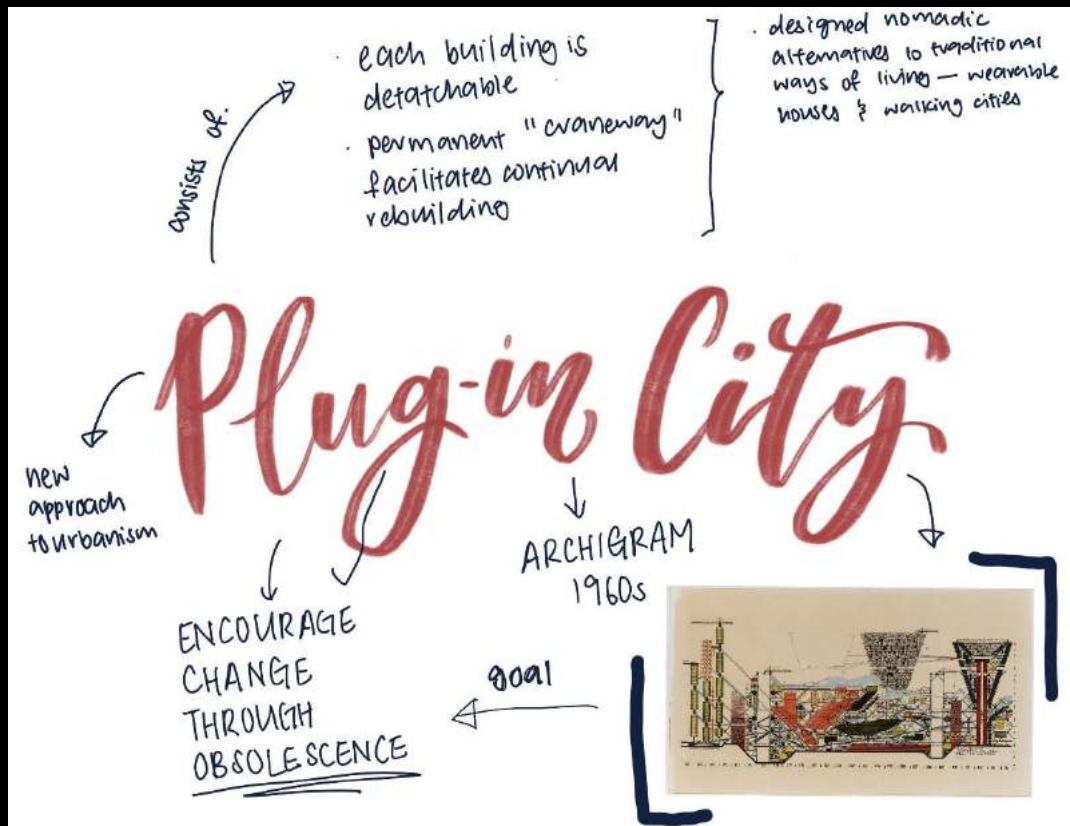


For our second revised moodbox (Pattern B), we have changed the shape of how the paper clips are hung into a circular shape, so as to correspond with the loop for the resonating bars and how it ends with the same note after one set. The base is changed as well, with the blue foam facing each other, showing more presence of echo and void. The sponge is now placed on wire and pierced through the base, signifying a significant increase in volume and the rhythm that appears when the echo of the drum is still present.





# RESEARCH MINDMAP



# RESEARCH MINDMAP

## HABITAT 67 MONTREAL

CANADA - 1960

- hybrid of the suburban single-family home & the urban apartment building.
- prefabricated 365 modules & stacked them asymmetrically



## CZECH PAVILION - Expo 2015 Milan

- ease of construction & transportation
- 35000 sq. ft. - built around a swimming pool.
- using Koma modules
- uses recycled materials & incorporation of water



# Modular Design

↳ made up of MODULES

## Modular buildings

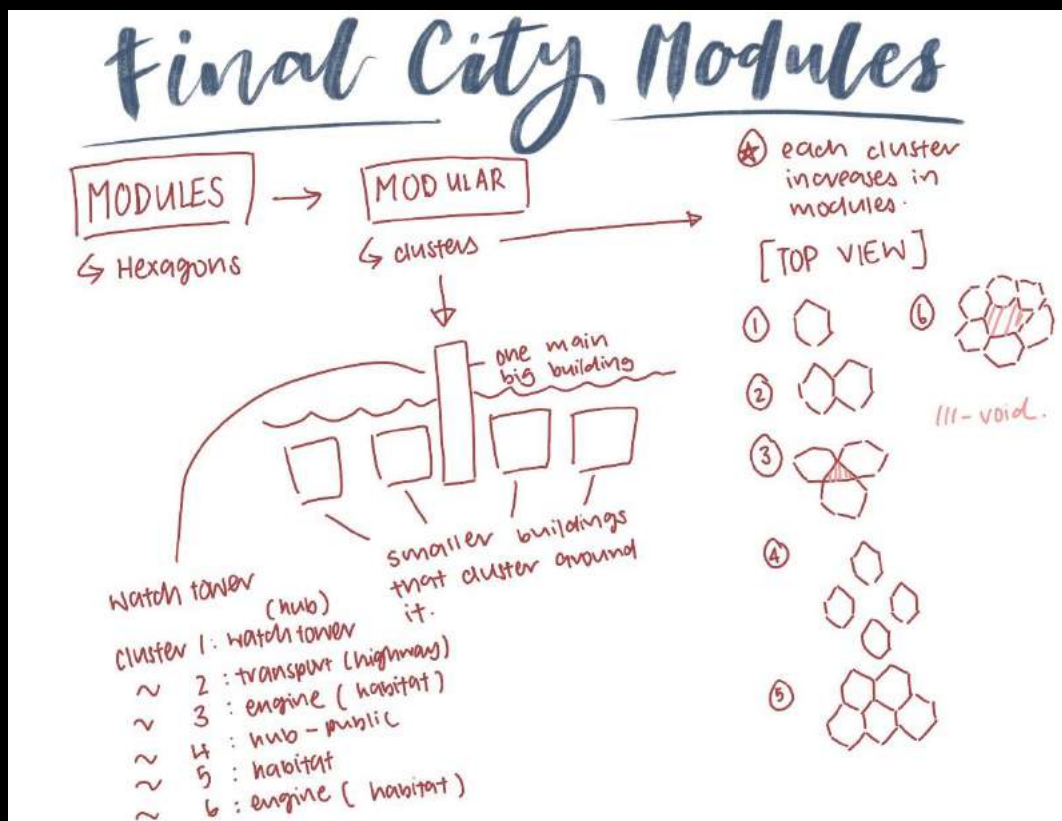
- consist of universal parts (modules) that are manufactured in a factory
- can be added or reduced in size by adding or removing certain components

## ↳ LEGO BLOCK CONCEPT

- Lego buildings / architecture uses modular design as modules (lego blocks) are used to make a bigger structure.



# FINAL CITY BRAINSTORMING





## CITY RESEARCH (THEME)



*Ponyo, Studio Ghibli*



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*Lost City of Atlantis*



## CITY RESEARCH (MODULAR & MODULES)







**(Bugis Plus, Duo Residences and Poiz Residences respectively)**

*Usage of Hexagons in architectural design, whether as a decorative aspect, main structure or even as a support. The hexagonal shape also gives the piece of architecture a simplistic, utilitarian style.*



*For our first cluster, which is a tall building that acts as a watch tower, we have taken inspiration from the Cayman Building in Dubai. The smooth twist of the building gives a form of movement and illusion to the form, which is what we want in our watch tower.*





*For our second cluster, the Petronas Towers in Malaysia is our inspiration for 2 channels connected together by one single bridge. The idea of our second cluster gives the function of a transport system, where each tower goes in a different direction.*





*The concept of our third and sixth clusters was initially to make habitats or homes for the inhabitants. However, after going through consultations, we realised that the gap in the middle of these clusters can be used as a channel for movement when placed sideways. Thus, a water wheel came into mind, and it was very suitable for the functionality of our city as one that is very movable.*



*Our fourth cluster is taken from the concept of a cheval de frise, a medieval defence anti-cavalry measure consisting of a portable frame covered with many projecting long iron or wooden spikes or spears. We adapted the concept in terms of the addition of a wooden support inside, which can be visible through the building. However, we tweaked our shape to become a V shape, just like the V tower in Prague (bottom picture) and 2 Vs will be crossing each other, thus creating 4 roofs.*





*The fifth cluster is a habitat, where the inhabitants can congregate and socialise in the safe shelter. The use of hexagons is constant within all clusters and we are thinking of putting the roof at a halfway point so as to create 2 levels.*

*\*(All images of buildings are taken from google, only the Bugis Plus and Poiz pictures are taken personally)*