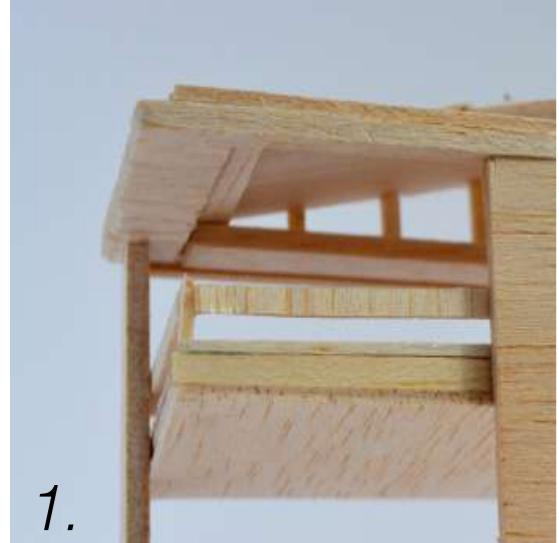
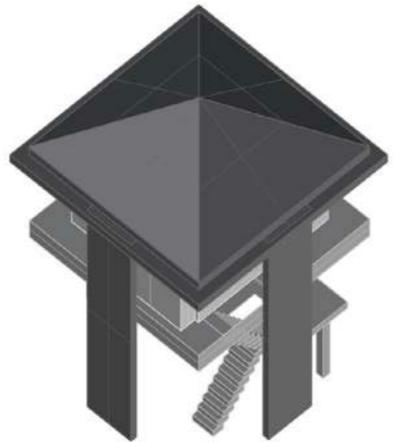


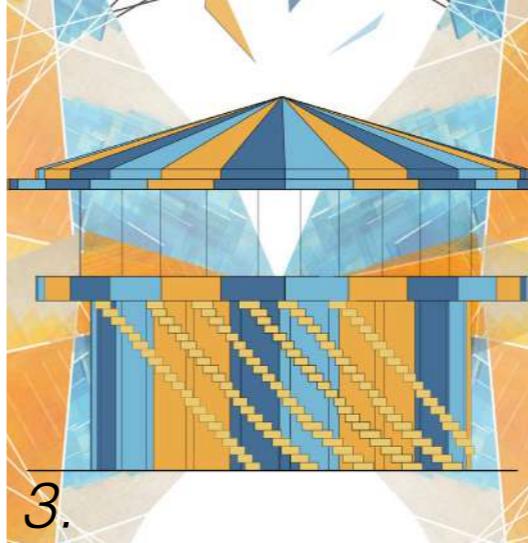
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1.



2.



3.



4.

INTRODUCING THE SKY HOUSE

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RESEARCH

INTERIOR COLLAGE

To further understand the work of Kiyonori Kikutake, I referred back to my submission for **Drawing B** (see pages 4-8). I did so to help guide my decisions in how to approach this task. This continued to strengthen my understanding of how the house exists in its fundamental form, important for the 2D and 3D representations to be completed in this task.

Kikutake's Sky House, constructed in Tokyo, Japan, in 1958, is emblematic of the Metabolism Movement, exploring the way that an architectural body can grow, change and evolve with the environment in which it sits. In **Drawing B**, I created an interior collage (see figure 1), which explored the house in a slow and quiet environment, opposite to the one it was built in. By doing so, I developed a strong understanding about the movements ideology as I grew to understand why the house's structure exists as so and the way that such a structure can respond to change within the environment around it.

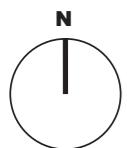
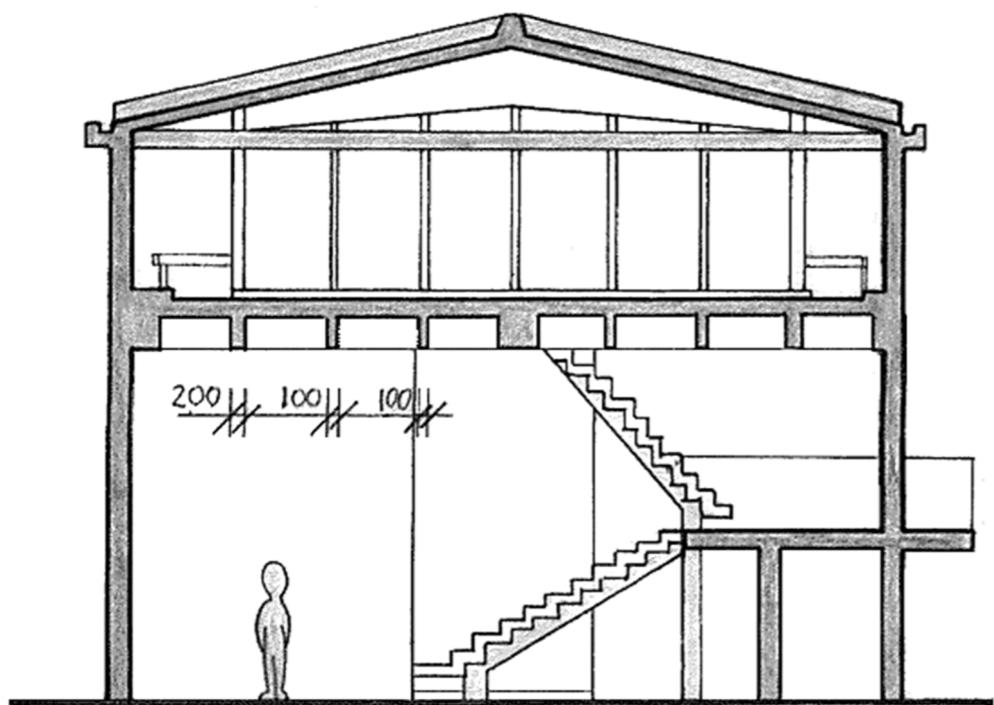


Figure 1: Sectional Collage

INTRODUCING THE SKY HOUSE

RESEARCH

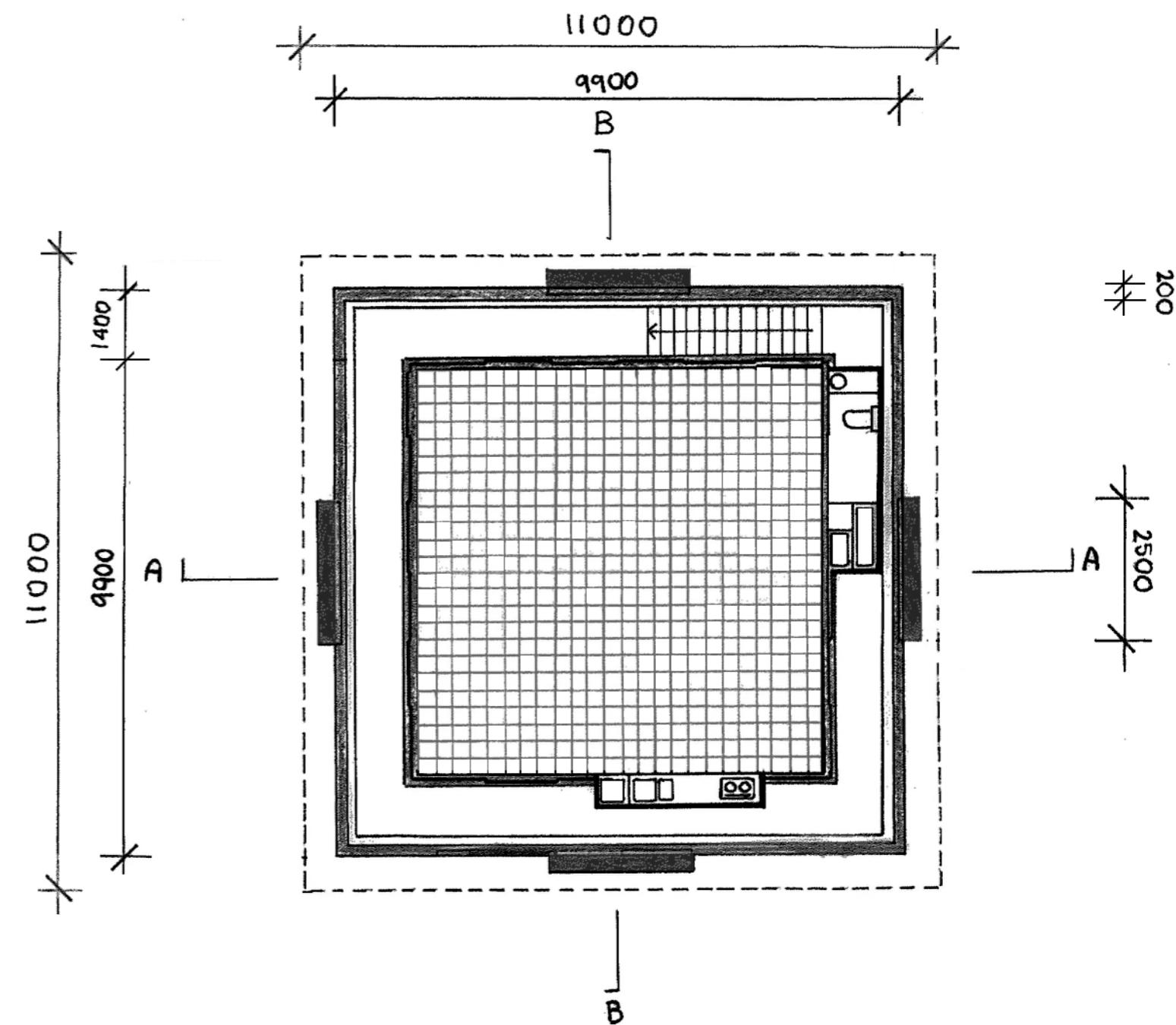
ORTHOGRAPHIC DRAWINGS



0 1 2 3 4 5

SECTION

1: 100 @ A3



PLAN

1: 100 @ A3

RESEARCH

PHYSICAL MODEL

Using the orthographic drawings on *pages 6 and 7*, I constructed a physical model of the Sky House at 1:100 as part of my **Drawing B** submission. The orthographic drawings and the model strengthened my understanding of how the house's skeleton allows for change and growth within and around it, in line with the Metabolism Movement's ideology.



Figure 2: White background + Low perspective + Reflector



Figure 3: White background + Frontal lighting + Close Up

DIAGRAMS

BASE DRAWINGS

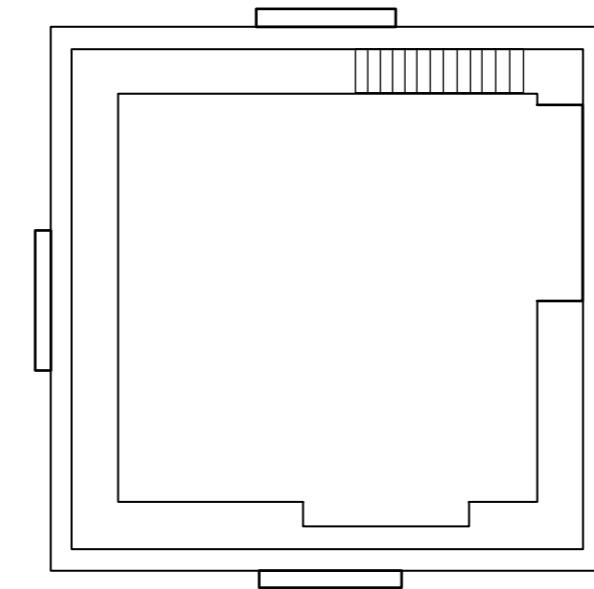


Figure 4: Plan

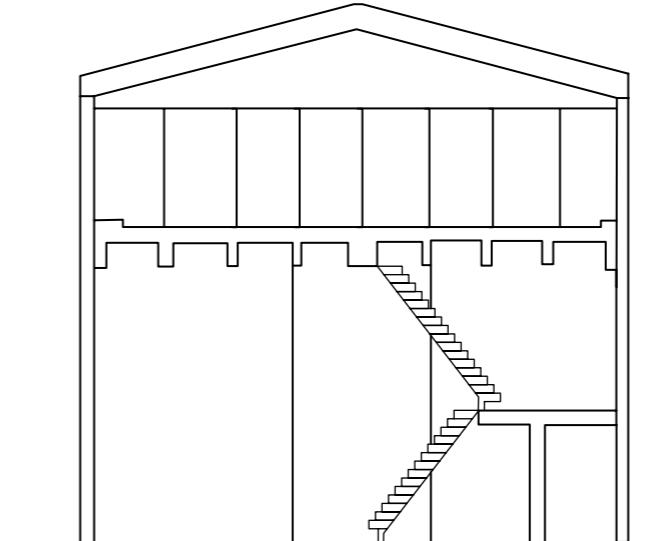


Figure 5: Section

Referring back to my orthographic drawings and model from **Drawing B**, I then created base drawings that I could use for my diagrams.

I was reminded to keep line weights consistent and thin, not to make them so thick as to overpower the drawing and to only include the essential elements of the building's structure.

DIAGRAMS

PRECEDENTS

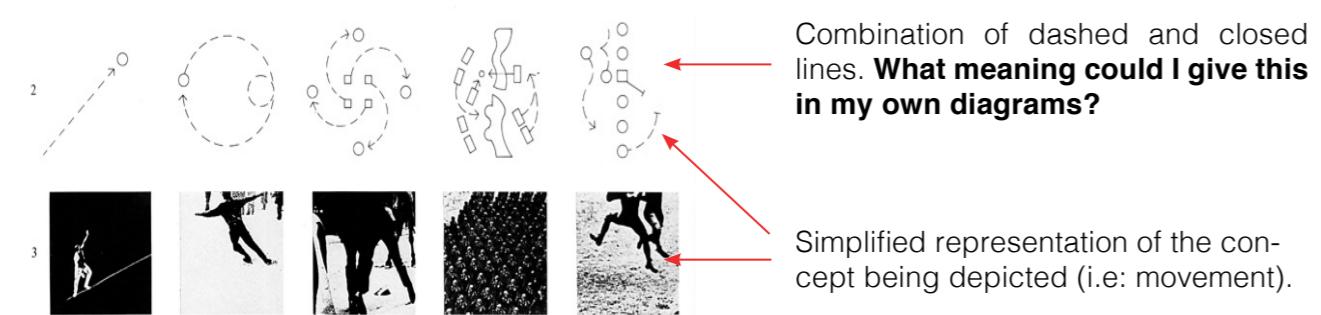


Figure 6

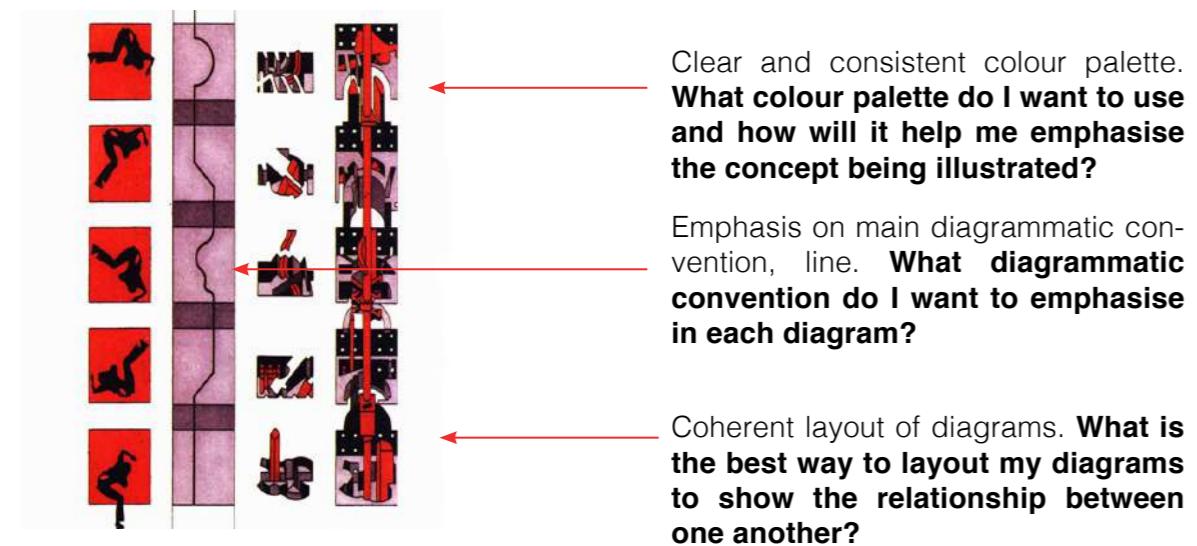


Figure 7

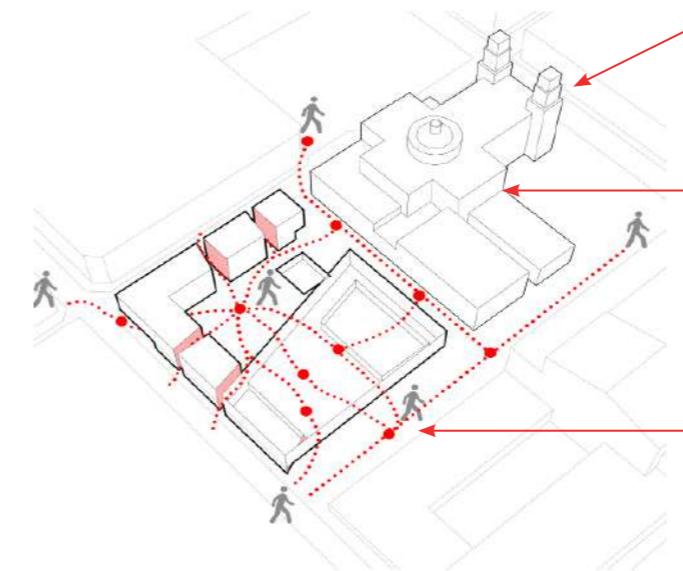


Figure 8

Line weight of building is thicker than surrounding drawing. **What lines in my diagrams will be emphasised and why?**

Building left uncoloured, only colouring the parts that are relevant to the idea being explored. **How can I create a focal point around the activity/idea being explored?**

Use of hierarchy through different line strokes and colours to highlight emphasised aspects/ideas. **What aspects do I want to emphasise and how?**

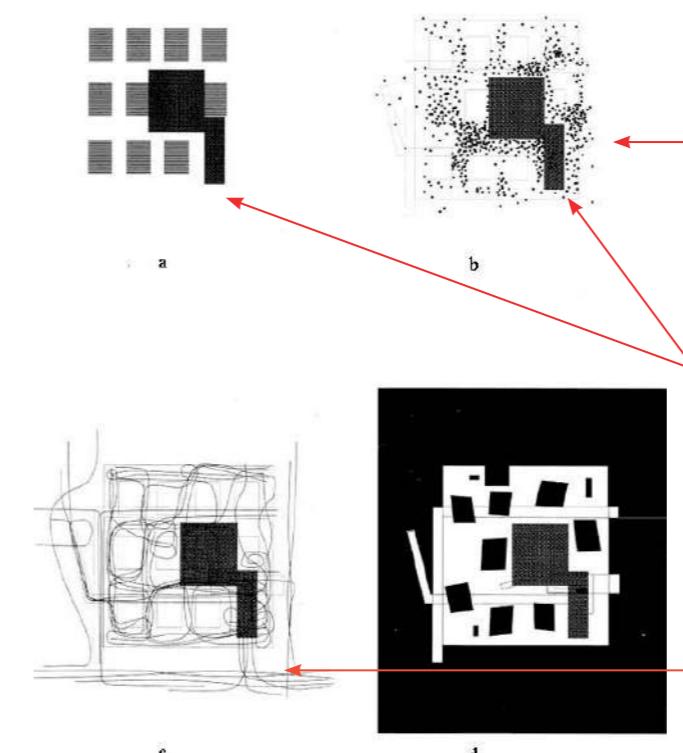


Figure 9

Whilst the building in focus is still prominent within the diagram, the chosen representation for 'activity clusters' is still communicating clearly and concisely.

The building is kept the same throughout each diagram, with only the diagrammatic conventions being used changing.

Realistic representation of movement as an activity. **This is important to keep in mind when doing a diagram showing movement, asking "is this how a person would move?"**

DIAGRAMS

DRAFTS

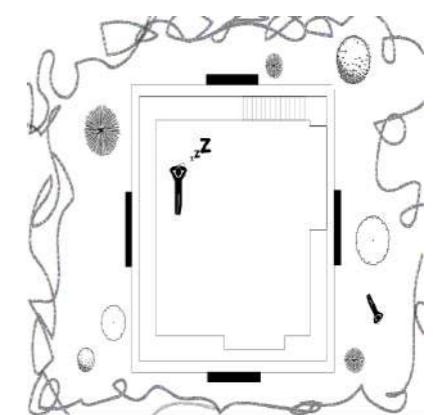
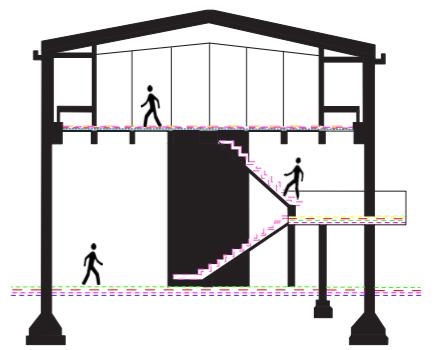
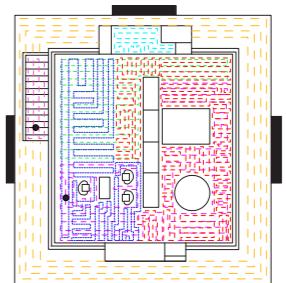
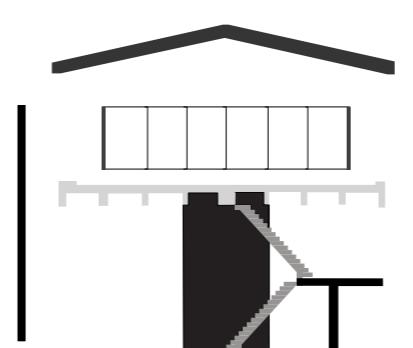
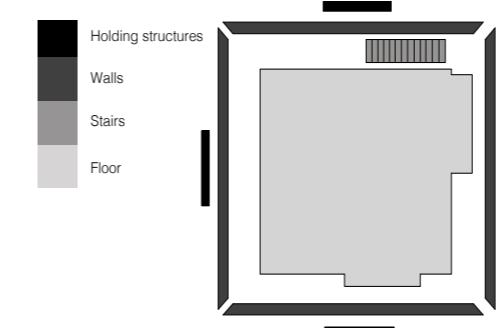
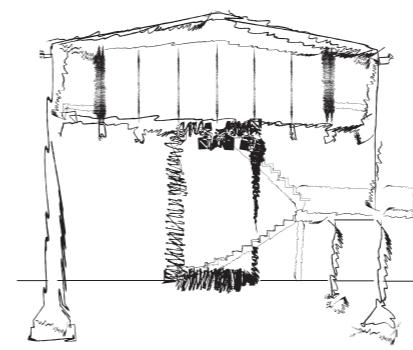
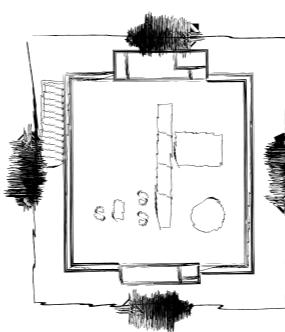
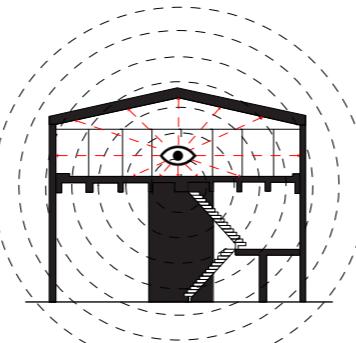
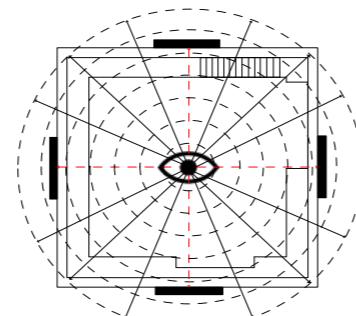
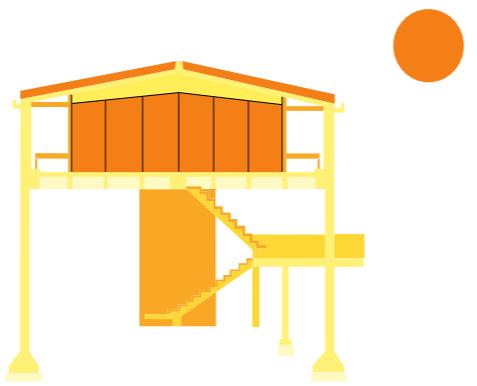
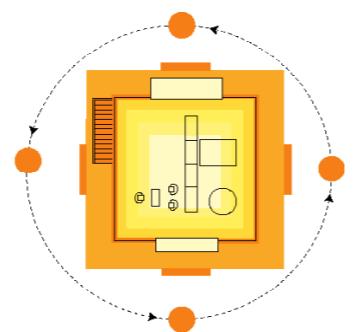
Before arriving at my final set of diagrams, I experimented with representing different concepts by using different conventions such as colour, lines and line weights.

The **feedback** I received indicated that I needed to revise these diagrams as they weren't accurately illustrating diagrammatic conventions or communicating a clear idea.

For *diagram c* in particular, I needed to reconsider whether my depiction of movement was accurate. This also applied to *diagram a*, as the way that I chose to illustrate how light enters the house was incorrect.

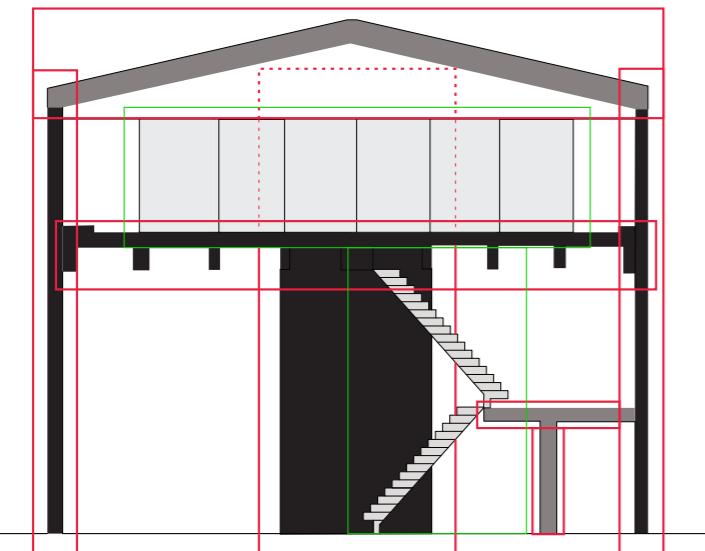
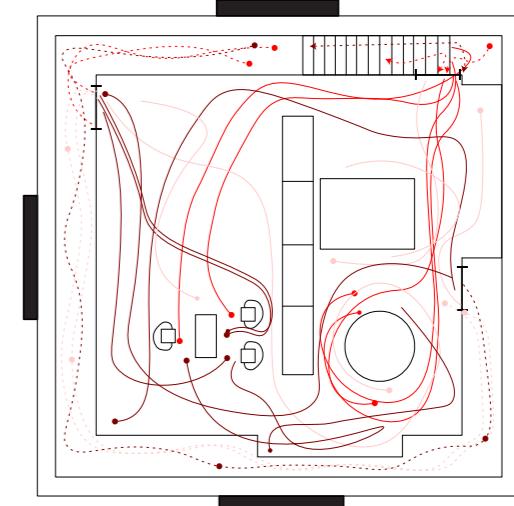
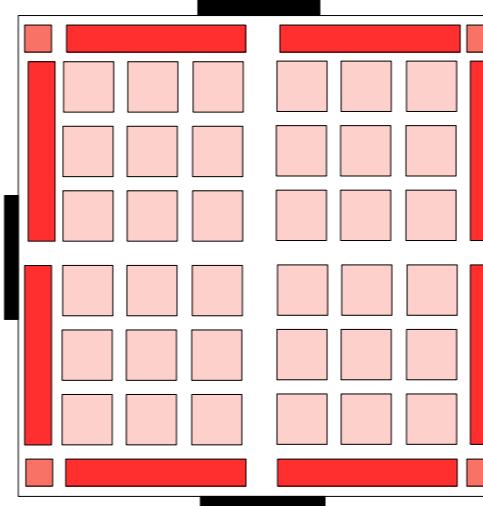
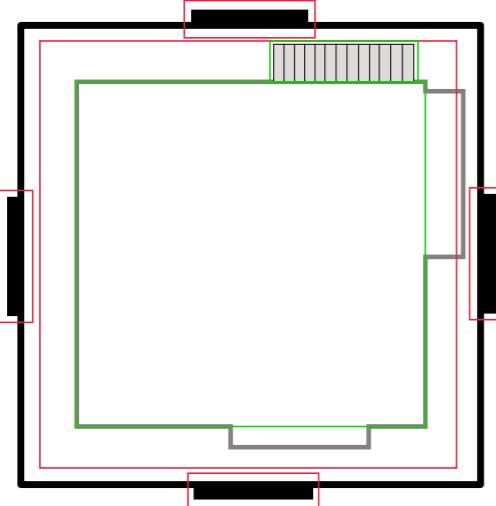
Additionally, the size of the building in each diagram was not being kept consistent.

- a. Light
- b. Structure
- c. Movement
- d. Field of Vision
- e. Structure
- f. Context



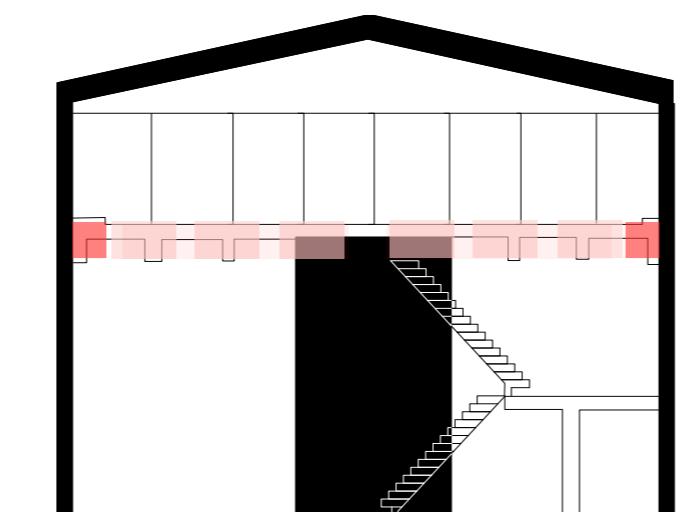
DIAGRAMS

FINAL DIAGRAMS

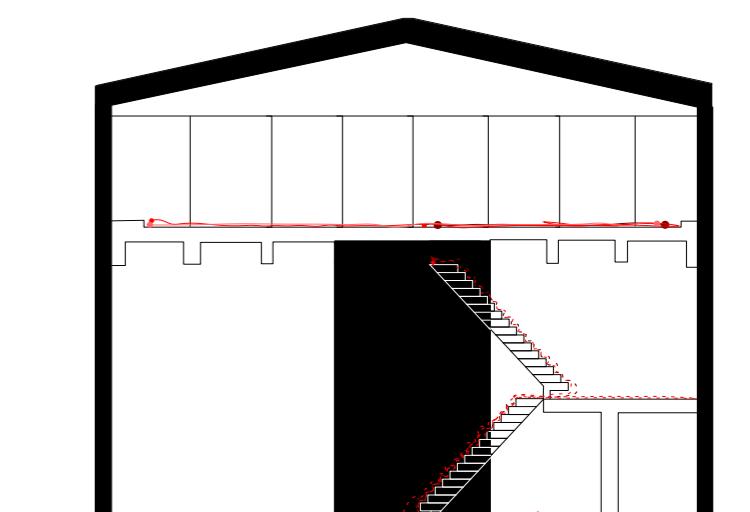


a.

- Primary structure
- Secondary structure



b.



c.

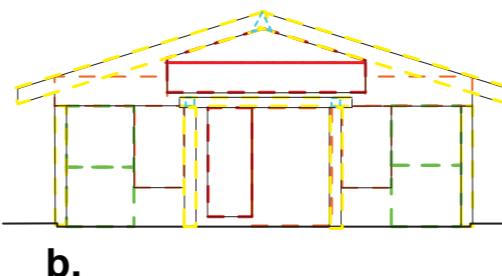
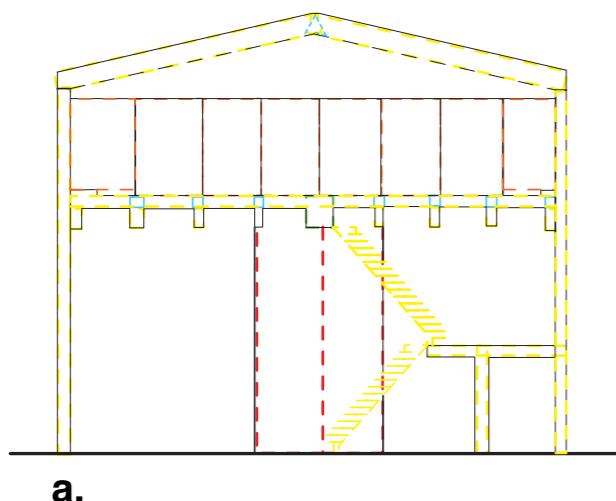
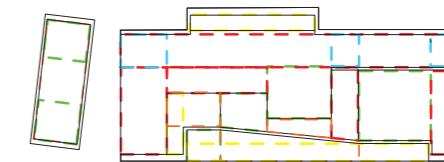
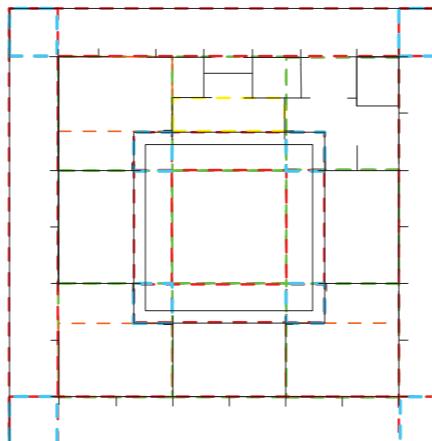
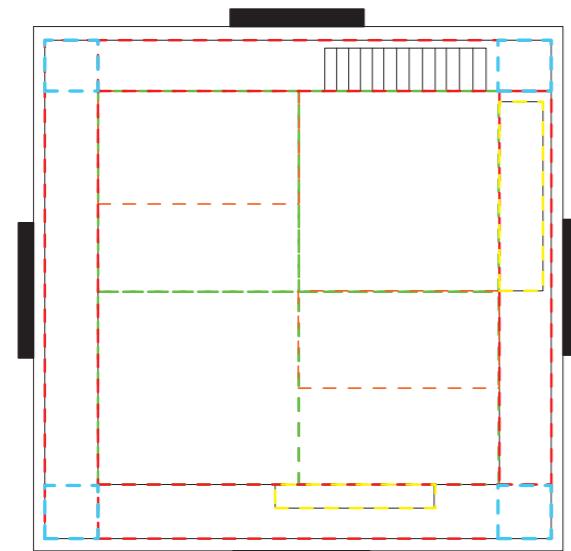
- Access points
- Indoor movement
- - - Outdoor movement

- a.** Primary + Secondary structures
- b.** Floor Structure
- c.** Movement

DIAGRAMS

COMPARATIVE DIAGRAMS:

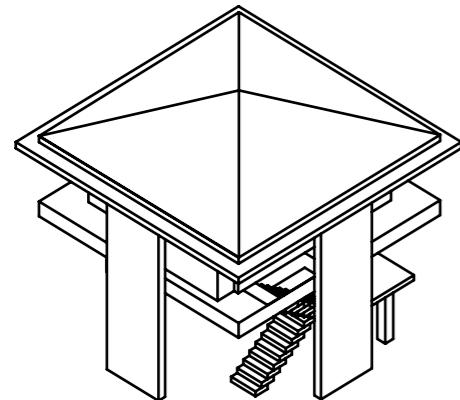
Shape/Form within Structure



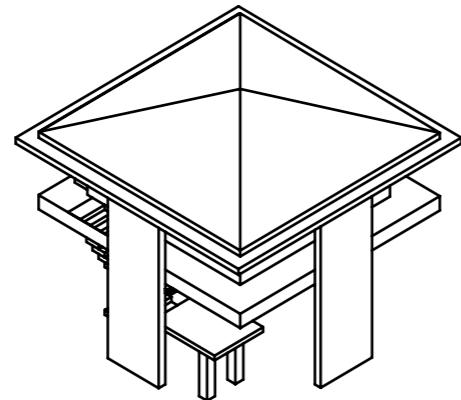
- a.** Sky House
- b.** Pholiota House
- c.** Briefcase House

MASSING MODEL

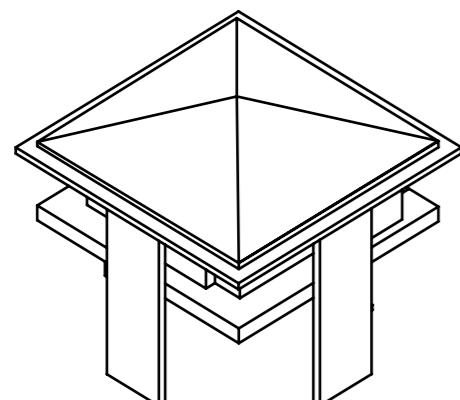
AXONOMETRIC VIEWS



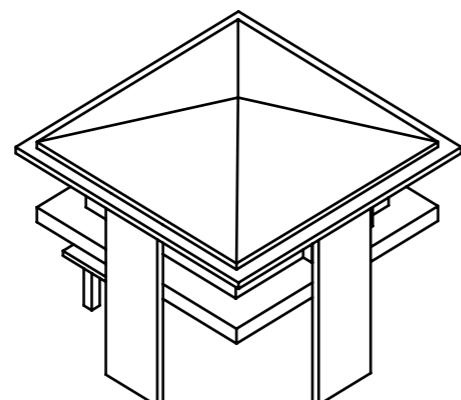
NE



NW



SE



SW



Massing Model of Sky House

As part of the process to understanding Kikutake's Sky House, I constructed a 3D model of the house in Rhino. By doing so, I could go onto manipulating its form, adding and subtracting certain elements to create new models of the Sky House.

TRANSFORMATIONS

PRECEDENTS

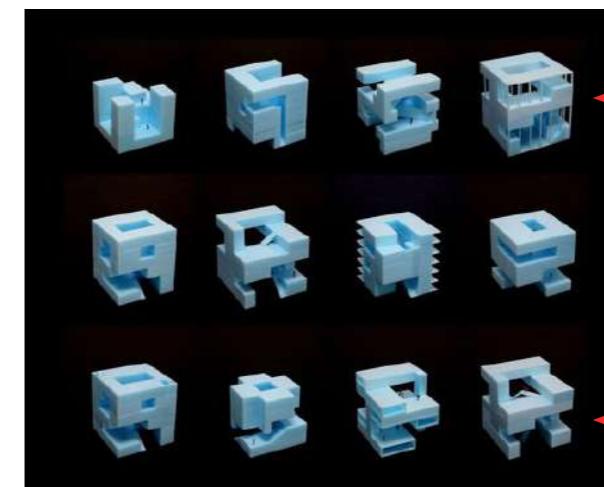


Figure 10

Uses the same colour consistently across all the models. This acts as the independent variable within the model so that the changes made in each iteration are more emphasised and obvious.

The layout of these iterations is clean and easy for the eye to follow.



Figure 11

With each iteration, the exterior form/structure of the model changes as a different element is either added or subtracted. **What elements do I want to add or subtract? Why and how?**

We see different combinations formed using the same parts. **It is important to consider how I can break up the model in its original form and then use these parts to make a new form that communicates a particular idea.**

TRANSFORMATIONS

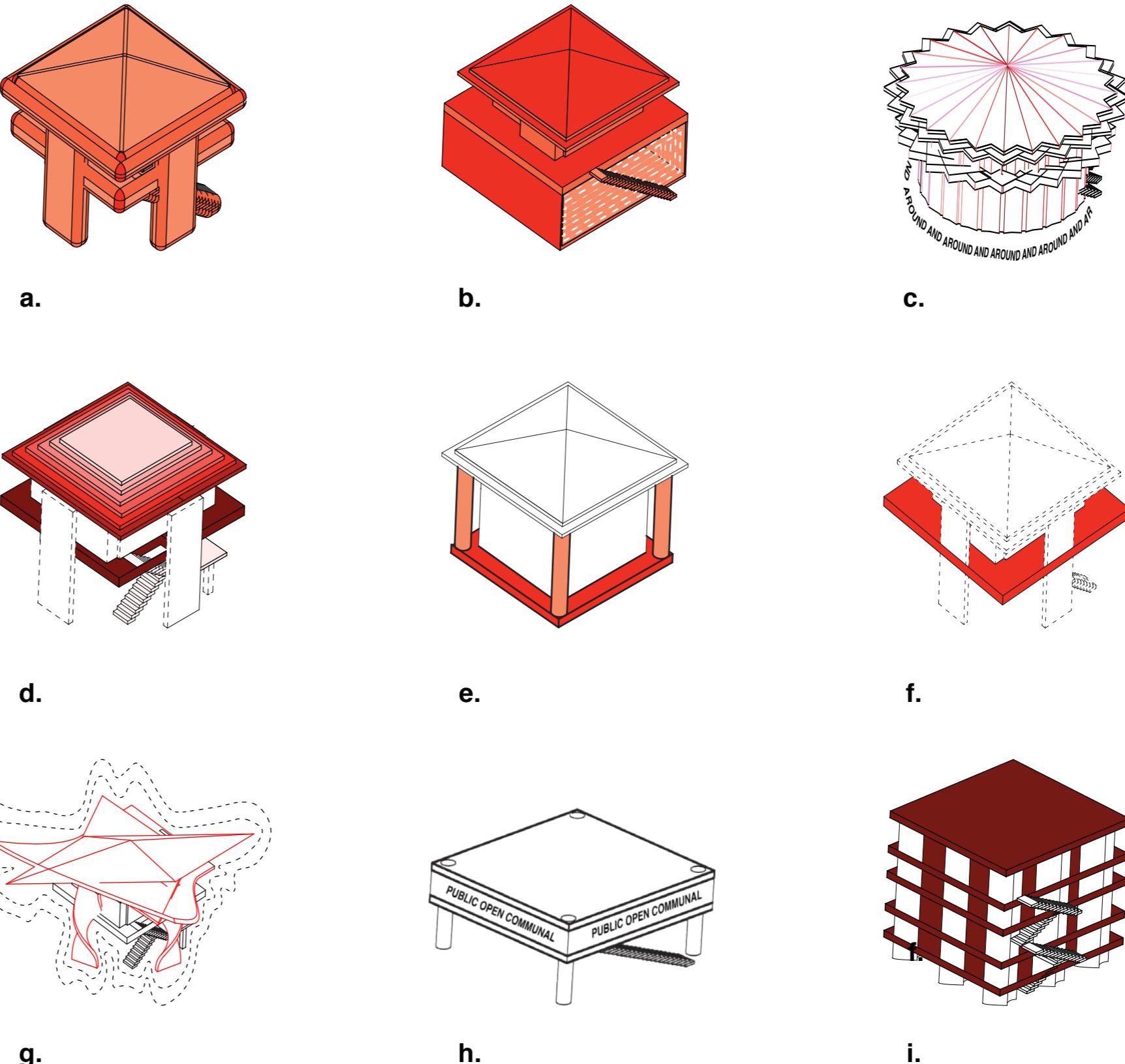
9 TRANSFORMATIONS

After having developed the massing model (see pg. 9), I conducted a 'design experiment' where I performed a series of transformations on the model. In order to do so, I drew on my analysis and past research to help guide my decisions for the different iterations.

After developing 9 transformations of the original model, I used colour, differentiating line and line weights to emphasise the key characteristics of each iteration.

In these iterations I focused on:

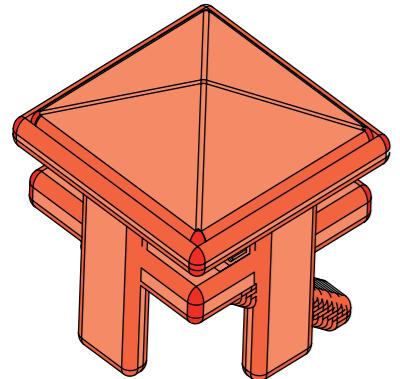
- Adding/subtracting different elements
- Emphasising key elements
- Expanding/contracting elements
- Changing the shape and form
- Experimenting with geometry



a. Inflated
b. Hollow Floor
c. Array Polar
d. Leveled Roof
e. Single Floor with Columns
f. Extended Structures
g. Twisted Geometry
h. Public and Open
i. Stretched

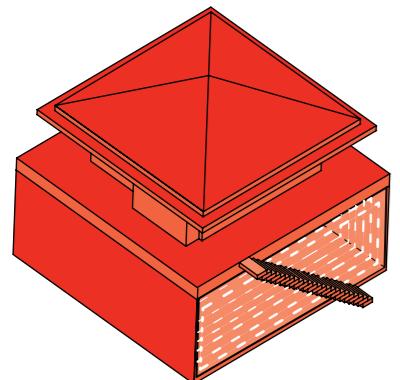
TRANSFORMATIONS

FURTHER EXPLORATION



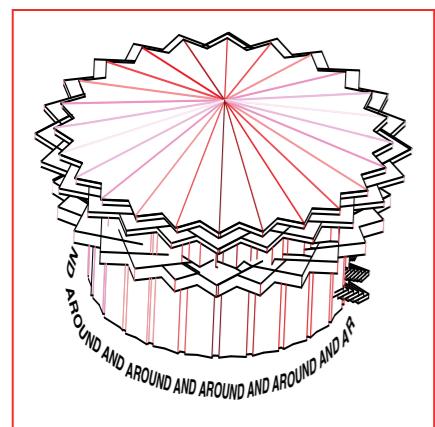
INFLATED

This design interested me as the inflation of the Sky House's original structure introduces curves whilst maintaining symmetry and form.



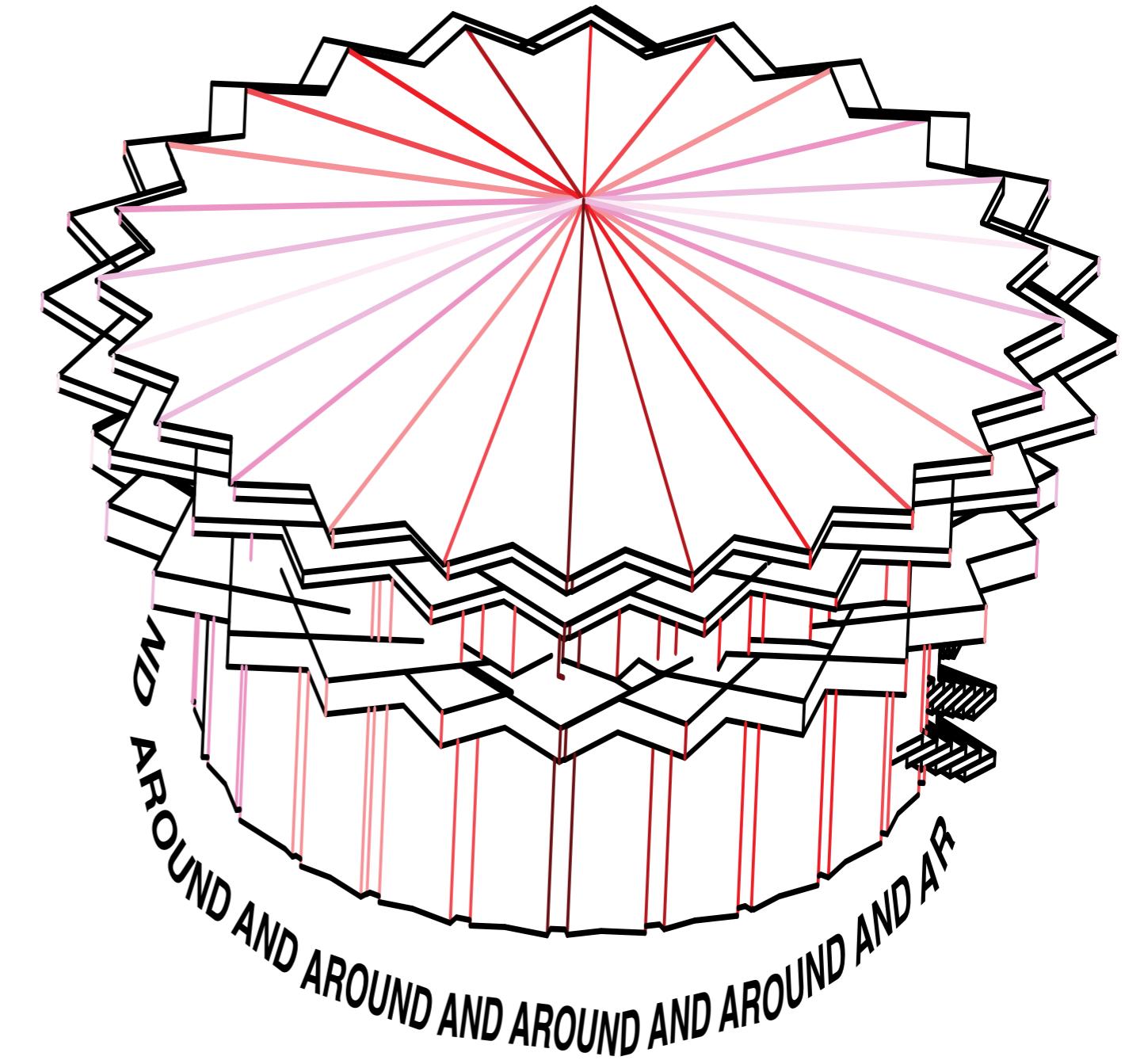
HOLLOW FLOOR

In this design, the floor is extruded to the ground, with the inside of the solid floor removed. This created a frame underneath the house. I liked this design as it further explored how the construction of the house's structure can allow for later developments to be made to the skeleton of the building but with a greater frame.



ARRAY POLAR

“Array Polar” is the **chosen transformation** that I decided to further explore through different methods of representation. The command “array polar” on Rhino creates an evocative form in the house’s structure, as a selected corner of the house is repeated around a central point.



PRESENTATION DRAWINGS

PRECEDENTS

I wanted to create an **abstract collage** of my chosen model in order to explore how the command “array polar” manipulates the structure of the house’s original form, repeating a corner of the house around a central point.

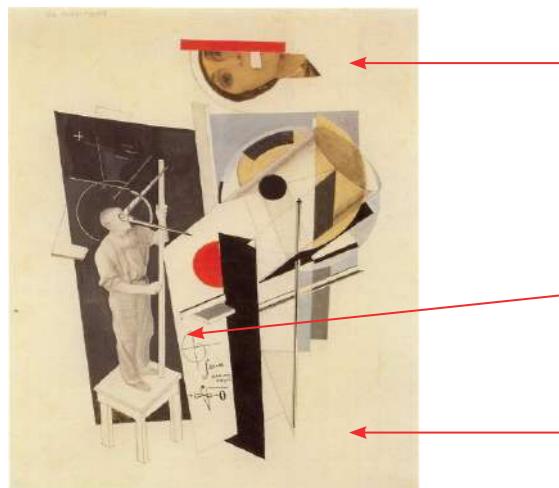


Figure 12

Fragments of different images are being pieced together to read as a new, cohesive composition.

Sense of hierarchy within collage which guides the eye of the viewer and conveys a narrative. It is also used to order the geometry within the piece.

Use of “white space” in the background so as not to overwhelm the collage and distract the viewer from the idea being communicated.

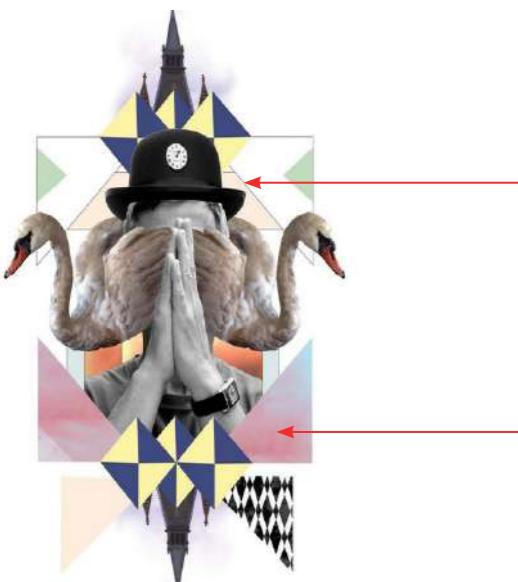


Figure 13

Although there is symmetry within the collage, there is still a sense of hierarchy between the elements. This places emphasis on certain fragments. **Which fragments do I want to emphasise in my collage?**

The geometry within the collage is broken up and dispersed evenly. It is also divided into different colours to distinguish between the different sized shapes. **How can I set up my collage so that the symmetry and geometry don't overpower the narrative?**

DRAFTS

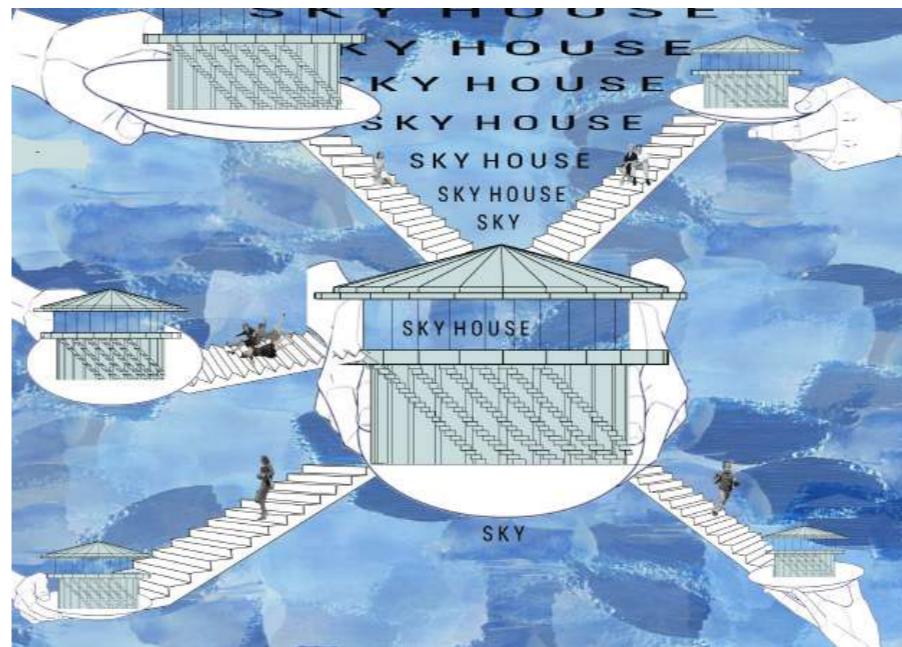


Figure 14: Draft 1

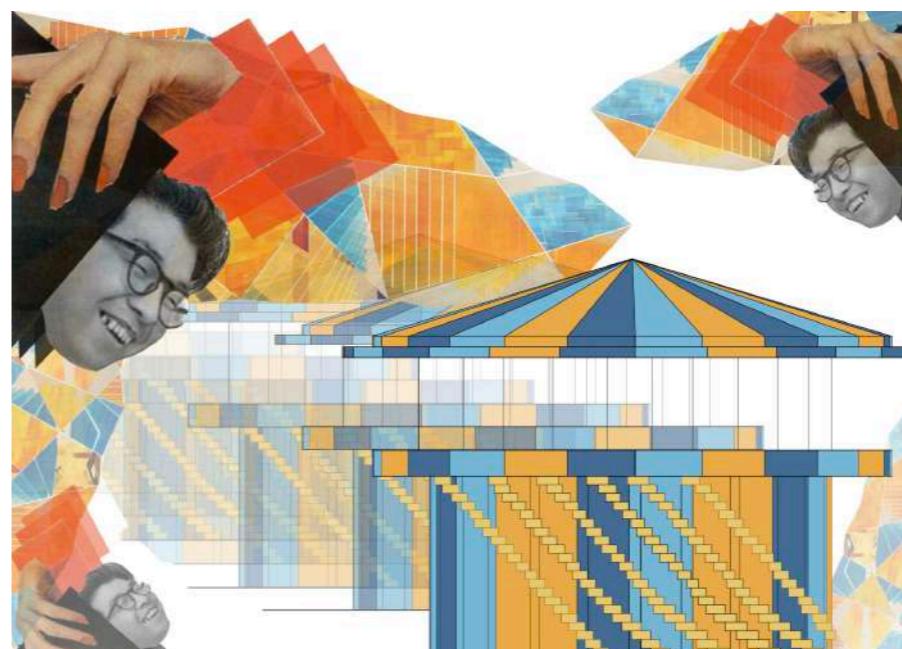


Figure 15: Draft 2

Feedback

- “Array polar” is the command being used to manipulate the model but what are the ideas about the structure/form/building that come from this? What is the concept?
- Make a list of physical characteristics and qualities produced by using this command and then consider how you can represent these through abstract fragments of images that come together to make a new composition.
- The drawing appears as a series of house sections rather than an abstract expression.

Feedback

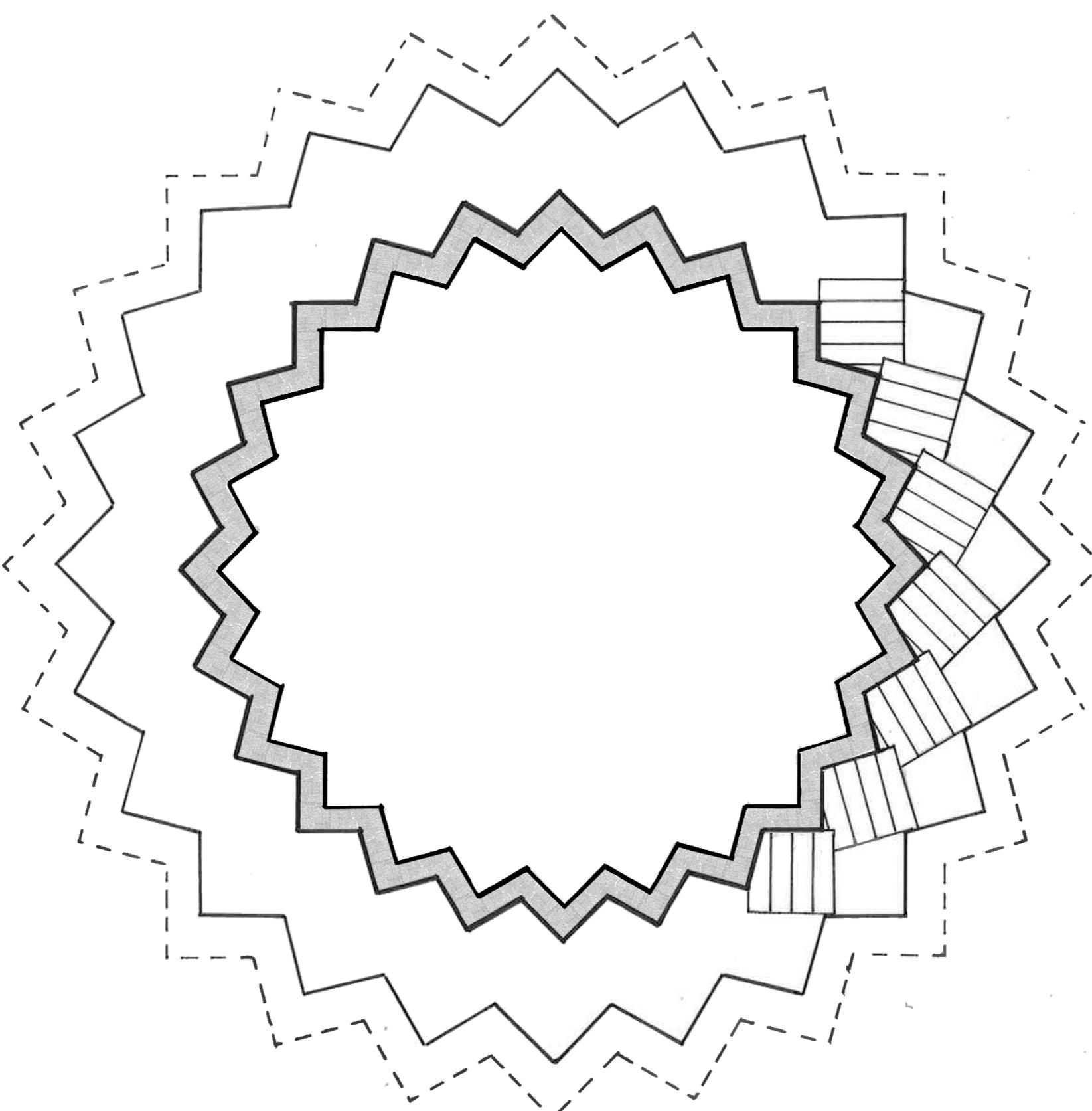
- Try and place more fragments in the middle of the page to create a central point like the command “array polar” does.
- Try and create a bit more white space so there is some breathing room within the collage.
- Place pieces together rather than trying to create a new picture.
- Consider what part of the house is the best to include in the abstract collage that explores repetition around a central point.

See next page for final collage.

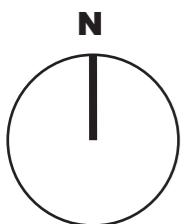


PRESENTATION DRAWINGS

PLAN (1:50 @ A3)



I wanted to create a **plan drawing** of my chosen model as I felt it was the best type of drawing to show the way that the house's roof, wall and floor structures repeat around a central point, changing its geometrical form.



OVERVIEW

PRECEDENTS



Use of **white space** in most pages to create breathing room.

Evident use of **hierarchy**. The size of the image is dependent on what is being explored on the page.

Text boxes in which the text is set is **consistent in size**.

Figure 16

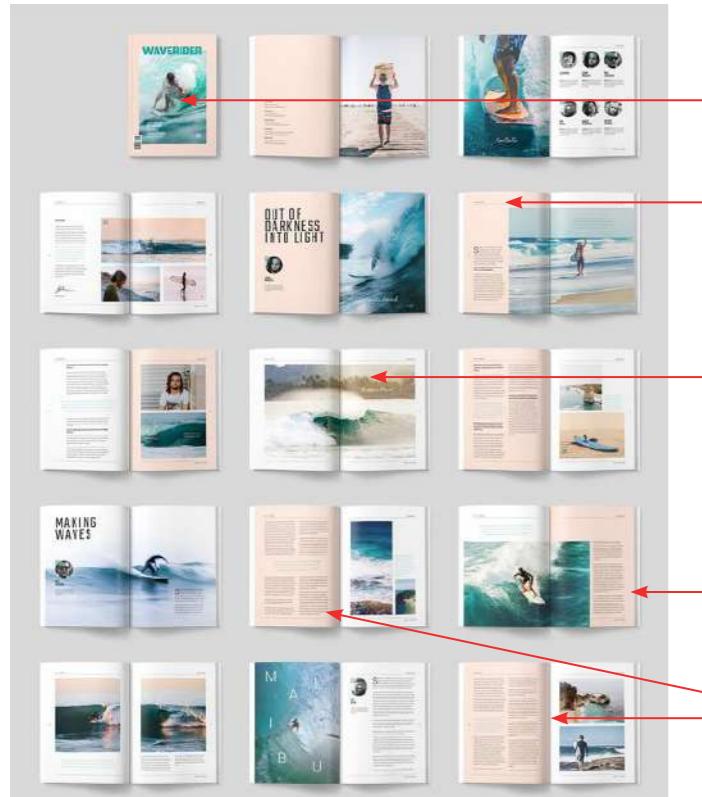


Image on title page to showcase what's to come.

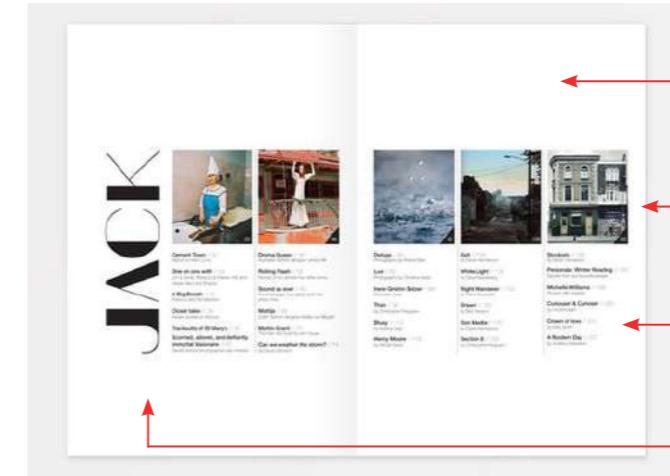
Consistent colour theme within the folio. Helps to break up white space and add a little more "excitement" to the page where needed.

Image on page is prominent and sized to create a focal point, emphasising the work being looked at.

Text is arranged neatly into a column with all the lines filling the width of the text box.

Evident 'master pages' applied, using consistent layouts for different types of pages.

Figure 17



White space allows reader to focus on the information on the page.

Size of images is consistent across page. Each image gives a peek of what each part of the book explores.

Hierarchy in text size, the title being the largest and in bold and subtitles being a smaller size.

Title of page is most prominent.

Figure 18

References

Figure 6: Bernard Tschumi, *The Manhattan Transcripts*, 1976-1981, accessed May 21, 2021, <http://www.tschumi.com/projects/18/>.

Figure 7: Bernard Tschumi, *The Manhattan Transcripts*, 1976-1981, accessed May 21, 2021, <http://www.tschumi.com/projects/18/>.

Figure 8: Alejandro Medina Arquitectura, Muñoz arquitectos, Quesnel arquitectos and Reyes Ríos + Larraín arquitectos, *The Palace for Mexican Music*, 2018, accessed May 21, 2021, <https://www.dezeen.com/2018/09/14/palace-for-mexican-music-concert-hall-merida/#/>.

Figure 9: Stan Allen, *Points + Lines*, 1999, accessed May 21, 2021, <https://www.pinterest.nz/pin/287808232414876547/>.

Figure 10: Karamuk Kuo, *International Sports Science Institute*, 2018, accessed May 23, 2021, <http://www.karamukkuo.com/project/294#slide-10>.

Figure 11: Material Immaterial Studio, *Spaces*, n.d, accessed May 23, 2021, <https://www.materialimmaterial.com/collections/spaces-collection>.

Figure 12: El Lissitzky, *Tatlin At Work*, 1921, accessed May 27, 2021, <https://azurebumble.word-press.com/2012/04/16/el-lissitzky-prouns-series/>.

Figure 13: Simon Cook, *Father Dawns*, n.d, accessed May 27, 2021, <https://www.we-heart.com/2012/07/30/create-gb-stone-and-spear-simon-cook/>.

Figure 16: MA-KING_ART, *ArchiMagazine*, 2018, accessed May 24, 2021, <https://creativemarket.com/MakingArt/2296601-Archi-Magazine>.

Figure 17: MashMish Studio, *WaveRider Magazine*, 2017, accessed May 24, 2021, https://creative-market.com/Mashmish_Studio/1994933-WAVERIDER-MAGAZINE.

Figure 18: Noemie Pottiez, *Jack - Fashion, Art & Culture Magazine*, 2011, accessed May 24, 2021, <https://www.behance.net/gallery/2925775/Jack-I-Fashion-Art-Culture-Magazine>.

Bibliography

Lucas Moreno. "The Metabolism Movement - The Promised Tokyo." Sabukaru Online. Accessed May 20, 2021. <https://sabukaru.online/articles/the-promised-tokyo#:~:text=Metabolism%20is%20an%20architectural%20movement,late%2050s%20and%20early%2060s.&text=The%20main%20idea%20was%20to,grow%2C%20and%20evolve%2C%20literally>.