

ARCH5112 Design Studio 1 2023

SEMESTER 1

Project 1 ARCHITECTURE & CONTEXT

Weeks 10 - 12

THRESHOLD + APERTURE

26%

The APPROACH



Threshold + Aperture

Scarlett Cibulch
Site Plan (1:200)
June 2020

Student Exemplar (1): Location Plan indicating the Approach. Mixed media.

In **INHABITATION**, you have created an Architecture in Context which accommodates the simple programme of a sitting, standing and lying body, in every case, a still body at repose.

In preparation for the **THRESHOLD + APERTURE** iteration of your project, you will revisit your Island, describing in greater detail the nature of the landscape and the **APPROACH** to your structure.

AIMS

To define the experience of the movement and passage through the landform as you approach your architecture

To understand the utility of sketch drawings and sketch models as design tools which have the capacity to express the quality and content of architectural intentions in a project

To develop presentation techniques in various media

To understand how to communicate conceptual ideas and atmospheric qualities in drawings

TASKS

In this **APPROACH exercise**, you will **produce** drawn outcomes, experimenting with techniques that render the quality and experience of moving through your context to your architecture.

1/ Sketch moments of the journey to your structure

Sketch moments of the journey you imagine through your landscape.

Through sketching and sketch models study the experience of arriving at your structure.

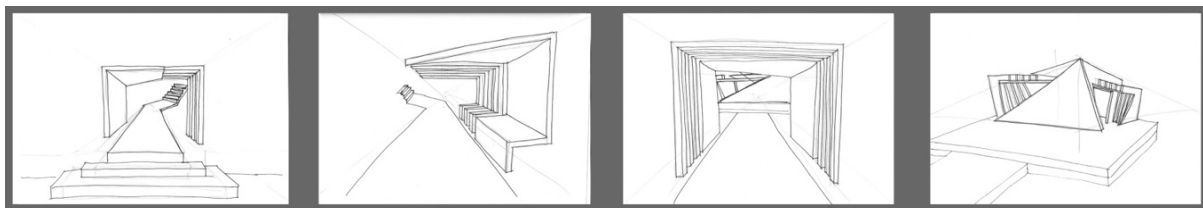
Through drawing and making you can study the possibilities and options of scale, configuration and the material of your pathways.

These sketches can express not only the arrangements of various elements in space, but also the qualities and feelings your landscape context evoke.

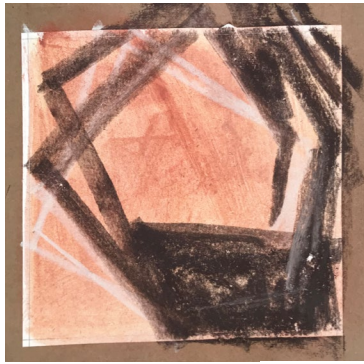
Process sketches and models are useful creative tools and also powerful communicative instruments when describing your ideas to your clients and collaborators.

This journey will terminate at the Main Threshold – entrance - into the architecture.

Give some intimation of how this gesture of entry might appear – where and how would this be appropriate to the project?



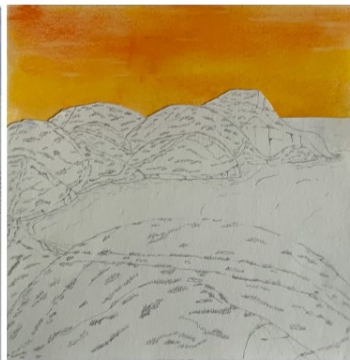
Student Exemplar (2): Sketches of the Journey. Sequential drawing.



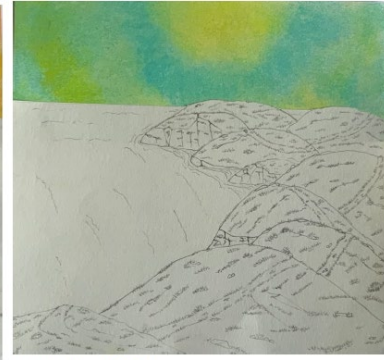
Student Exemplar (3): Sketches of the Journey. Sequential drawing.



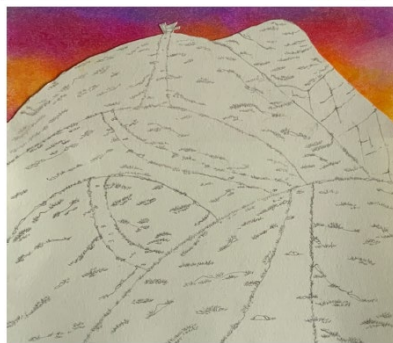
Journey 1 - Dawn



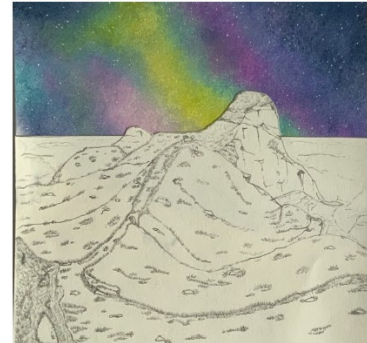
Journey 2 - Sunrise



Journey 3 - Midday

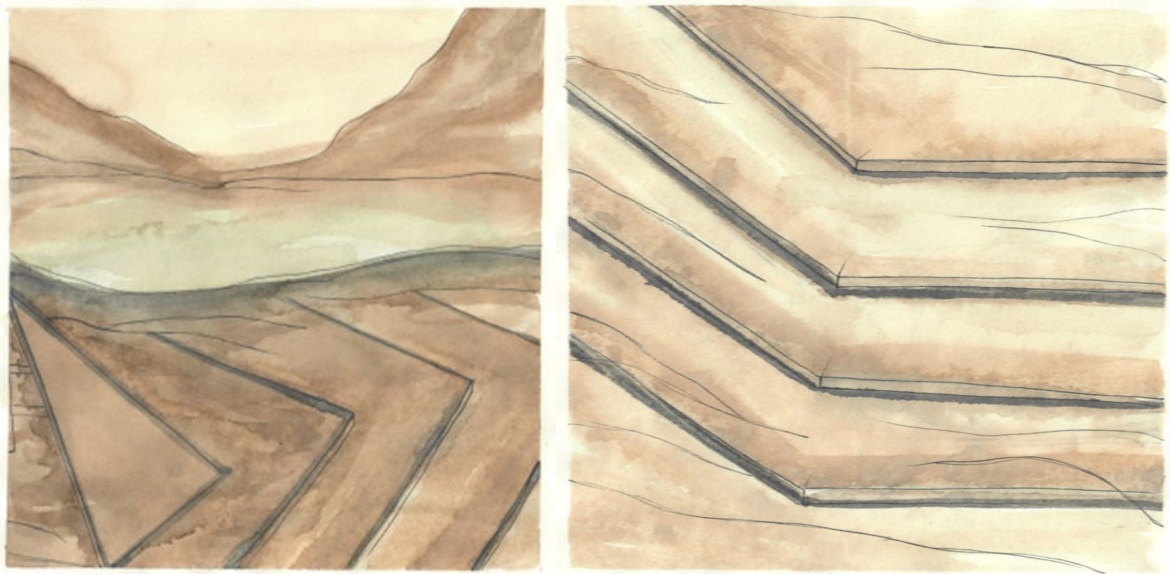
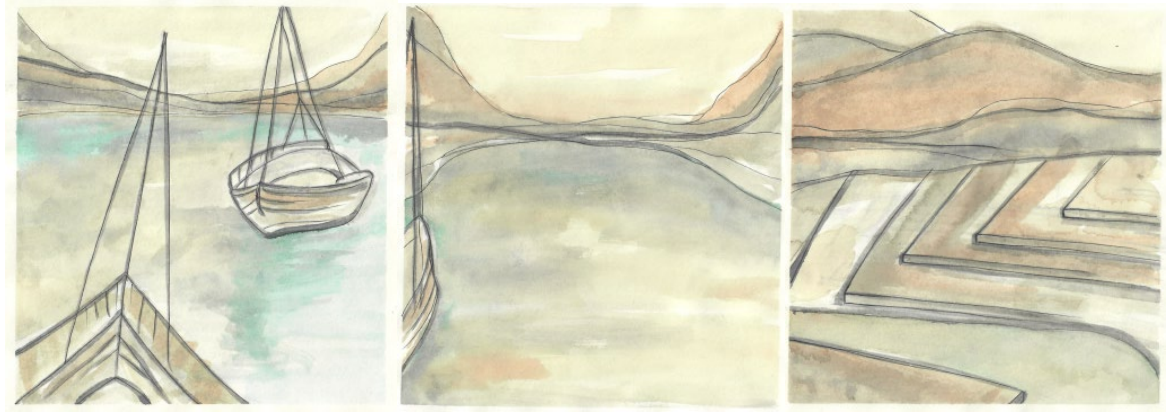


Journey 4 - Sunset



Journey 5 - Night

Student Exemplar (4): Sketches of the Journey. Sequential drawing.



Student Exemplar (5): Sketches of the Journey. Sequential drawing.

2/ Draw a location plan of your architecture in context at 1:200

Design an approach through the landform of your island towards your architecture.

This may include pathways, bridges, boardwalks, vegetation, rocks and cliffs of the landscape around your architecture.

Draw this location as 1:200 plan, on a 420 x 420mm sheet, rendering the drawing to communicate the 'nature' of the territory.

Consider the arrival on the island and the walk up the hill or across the beach to move towards your structure.

Can you see the structure from far out at sea, creating the anticipation of touching land, marking a high point, building expectation?

Maybe your architecture is hidden in the bush and you catch glimpses of certain parts of the structure as you wind through a shaded pathway climbing up to it.

You are creating a narrative for the sense of place.

NOTE: please pay careful attention to the topography, when designing your path network. Refer to the contour lines in order to take the most efficient route to the destination.

On A2 250gm paper, carefully render the plan, choosing a palette of colours and a technique which expresses the nature of your overall concept for the project.



Student Exemplar (6): Location Plan indicating the Approach. Mixed media.



Student Exemplar (7): Location Plan indicating the Approach. Mixed media.



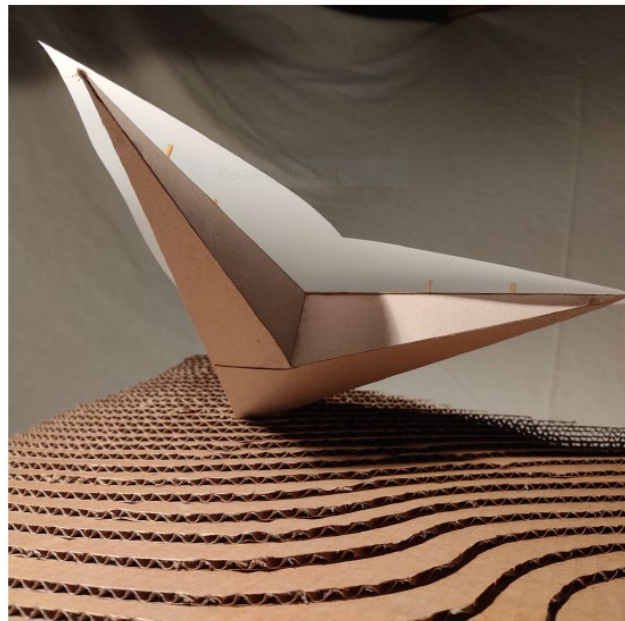
Student Exemplar (8): Location Plan indicating the Approach. Mixed media.

3/ Write a design statement

Describe the underpinning concept of your project.

Then provide specific details concerning the strategies and devices in the Approach to foretell and reinforce the underpinning concept.

This leading idea will direct decisions about the experience of arrival, the materiality of the structure and the atmosphere of the spaces within and around the architecture.



Flourish

Sitting above the receding landscape, this project grows out of its surroundings. The tapering mass allows it to recline in the natural slope of the land, reaching out towards the sky. Post's project upwards from this mass, furthering this sense of growth. At the core of this project lies the victory of lightness as it effortlessly raises the mass above the ground. The structure can fly freely as it extends from, but is not limited by, the ground beneath it.

Student Exemplar (9): Conceptual Design Statement. Architecture in Context

THRESHOLD + APERTURE

AIMS

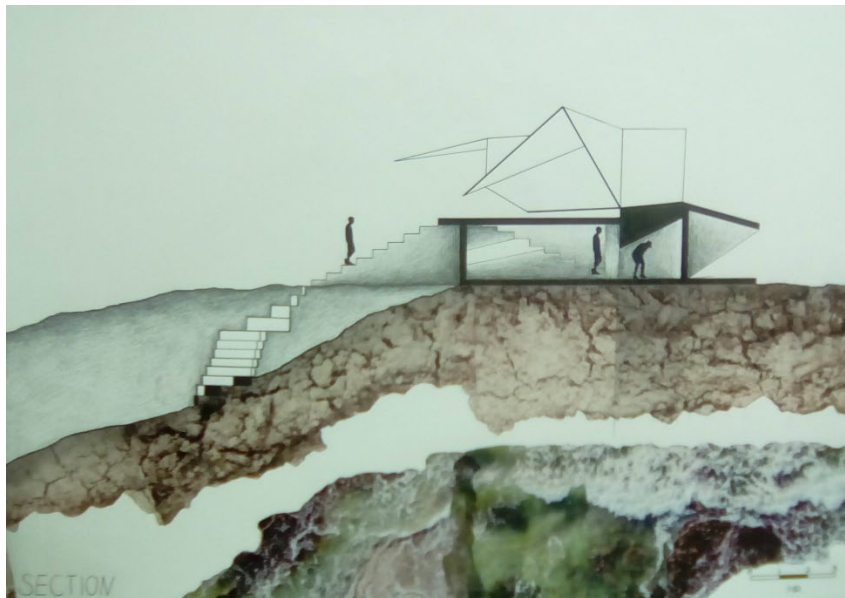
To explore the form of the threshold moments in your structure, from the principal entrance through to the internal circulation and connections between inhabited spaces.

To define the quality and quantity of interior light by designing the apertures and enclosures in the various spaces of your architecture.

To exercise the representation of light and shadow in a plan, elevational and sectional drawings.

To understand how to create and effectively communicate narrative, by editing a selection of your whole semester's work, to illustrate your growth and development as a designer.

THRESHOLD



Student Exemplar (10): Section of Threshold Project showing circulation and figures

"...we associate the ritual with a major life passage, the crossing of a critical threshold, or in other words, with transformation."

- Abraham Verghese

"Thresholds are openings in boundaries that constitute an invitation to cross. They are a preface to a space and create not only the transition but also the space itself. In terms of defining space, thresholds are both boundary and transition. That means they thrive on the ambiguity of both opening and closing off spaces."

Till Böttiger, Threshold spaces: transitions in architecture;
analysis and design tools Birkhauser, Boston, 2014.

threshold

Paepae

a place and/or moment of transition. A threshold is a liminal zone where physical or spiritual circumstances change. Thresholds often describe a change in the state of body and mind, both physical and substantial as well as philosophical and spiritual, associated with cultural rituals and protocols. At a threshold, one moves from one environment and a series of definitive qualities to another.

In the APPROACH, you have been considering the body in movement, as it transitions through the landscape towards your structure.

In the final iteration of your ARCHITECTURE in Context you are considering THRESHOLDS and APERTURES

Openings in the material of your architecture allow for the passage of bodies defining a moment of transition from one place to another.

These are **THRESHOLDS**.

THRESHOLDS may define changes from exterior to interior spaces, which differ in volume, material, light qualities, temperature, texture, sound and odour.

Thresholds are associated with the movement from public to private spaces, profane to sacred places.

This hierarchy of spaces, or **privacy gradient**, describes, through different transitional moments, the movement from more public places which are generally larger and more open, through the connective realms, towards smaller more intimate private spaces. Distance between these occasions in the gradient are accompanied by changes in material, scale, light and acoustic qualities.

The Main Entry. You will now consider how to enter your structure.

The principal entry to a structure is usually visible, and obvious, from the exterior, and you should have begun considering this in the final sketches of The Approach.

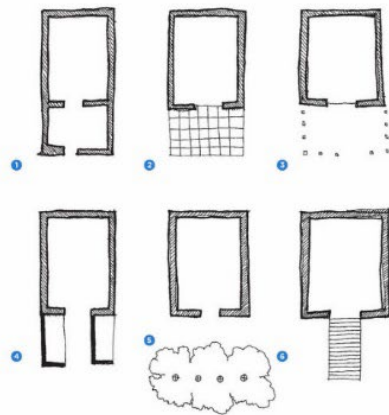
Consider the following:

- Have you settled on the most appropriate place for you to penetrate the enclosure of your structure or pass through to the interior?
- Does the fabric of the building widen and reach out to draw you in, or do you rise upstairs and squeeze through a break in a wall?

THE THRESHOLD

The threshold is the point at which one space ends and another one begins. Be aware of and attempt to set boundaries within your scheme. A doorway is the most obvious example of a threshold, but other, more permeable and less tangible thresholds can be created through changes in level, material and volume. Use the threshold to organize space and to create distinct zones of activity. How do we determine territories, boundaries and spatial ownership?

- 1 A wall: even though the space may not have a door or a roof, the presence of a wall implies ownership and privacy. This is perhaps the most blunt form of threshold.
- 2 Materials: by simply using a different flooring material a threshold can be created and boundaries, implying ownership and territory, defined.
- 3 Markers: these are simple objects placed to define an edge. A line of small stones is all that it takes to create an enclosure.
- 4 Ponds/floats/fitches: just as adding material to form a wall creates a threshold, so does its removal. Reflecting pools placed in front of a building are very effective – they make the building look taller and, in hot climates, can also help to keep it cool.
- 5 Planting and vegetation: the living fence can not only define space it can also be a defensive barrier.
- 6 Changes in height: the space on either side of the staircase seems to 'belong' to it.



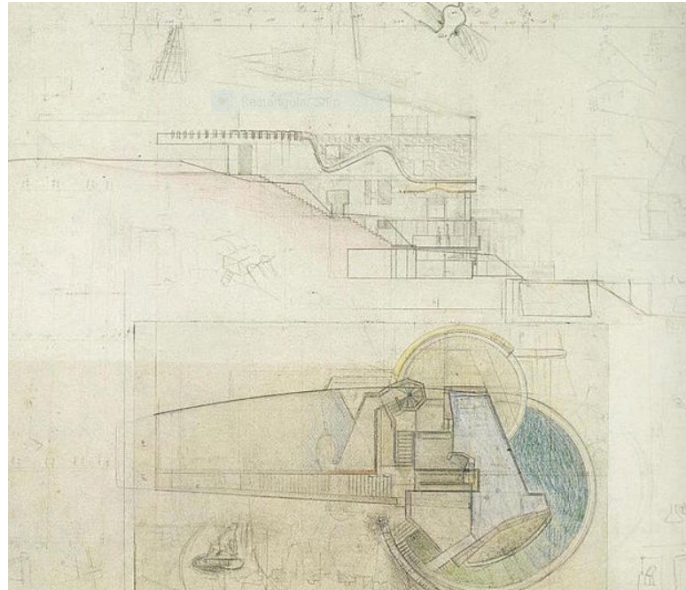
https://images.adsttc.com/media/images/5649/e5c8/e58e/ce3b/cf00/0009/slideshow/Pages_from_Architecture_School_Survival_Guide_FINAL_layouts_10.jpg?1447683516

Interior Thresholds.

You will now connect the different spaces in your structure with circulation.

- How do you pass, move through or rise up, between the lying, sitting standing places in your architecture?
- Do passages, corridors, tunnels, doorways or stairs widen, narrow, rise or fall?
- Are the thresholds deep or narrow?
- Are walls thickened or are they fine and transparent?
- Is the passageway long and dark?
- Is the walkway raised and open to the sky?
- Does the body have to crouch, bend, stretch or float to pass through a particular threshold?

All these decisions are driven by your underpinning concept.



Carlo Scarpa <https://www.pencil.com/museum.php?show=11070&p=>

Sketching and testing ideas in plans and sections to communicate and record thinking are essential skills in the architect's toolbox

TASK

1/ Produce Parti Diagrams to illustrate the Thresholds in your structure

Draw a Parti plan and a Parti section to indicate the decisions made for your structure. These are sketches drawn in relative scale/no particular scale on A3/A4 paper.

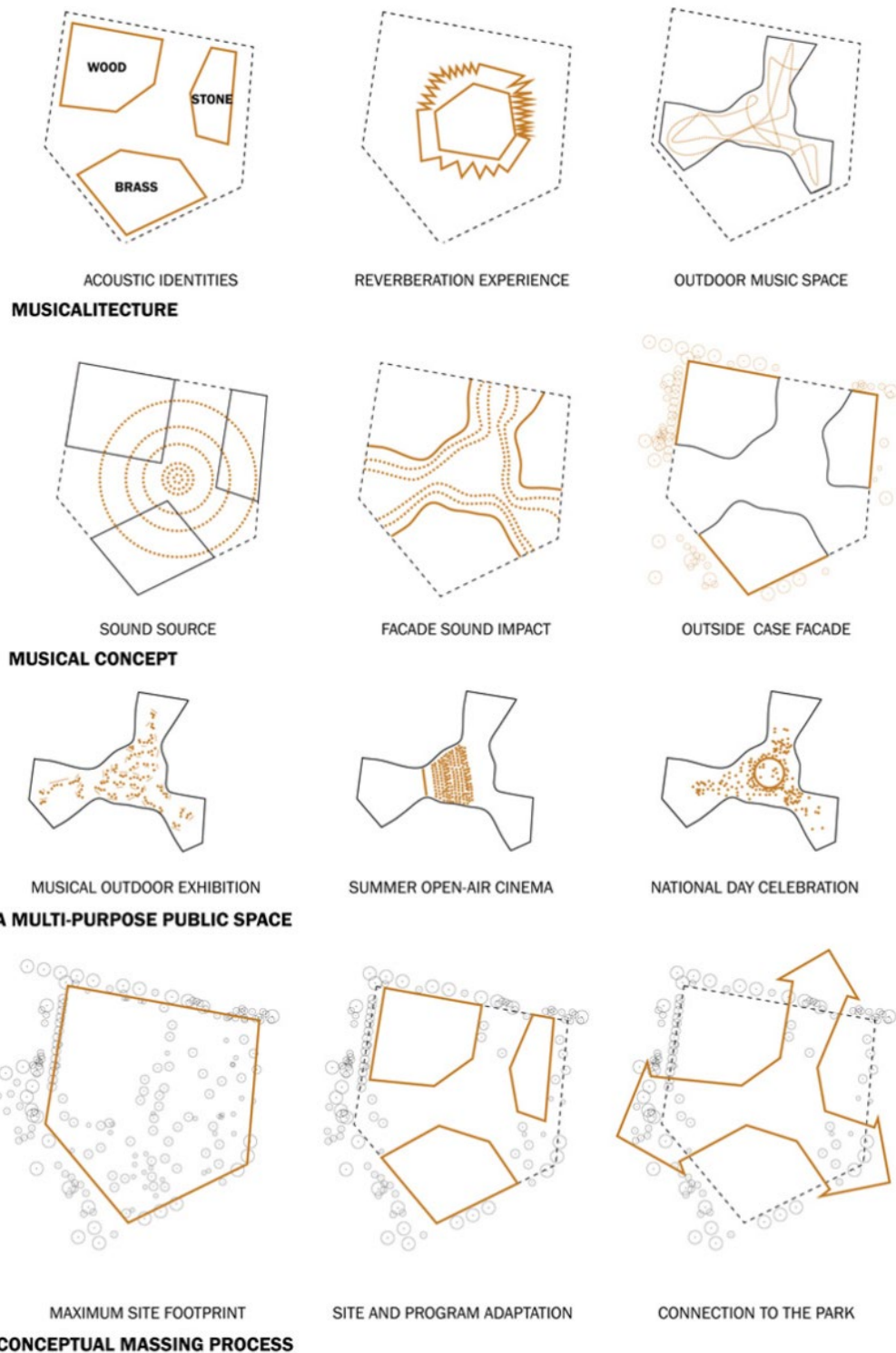
These are **sketches** which indicate the major design moves and the organisation of spaces and their relationship to the context.

These should include the surrounding ground and landscape as is necessary to clearly show the relationship to the site and continue the APPROACH journey into, and through, the structure.

Thicken the walls, the floors, and the rooves, raise the ceilings, lower the ground, widen the openings or make narrower the passageways within your structure to indicate the journey, and its qualities, as the inhabitants move from the public entry point to more private areas.

The developments of these strategies are to be done in consideration of the articulation of the standing, sitting, and lying brief of specific places in the building where these activities will occur.

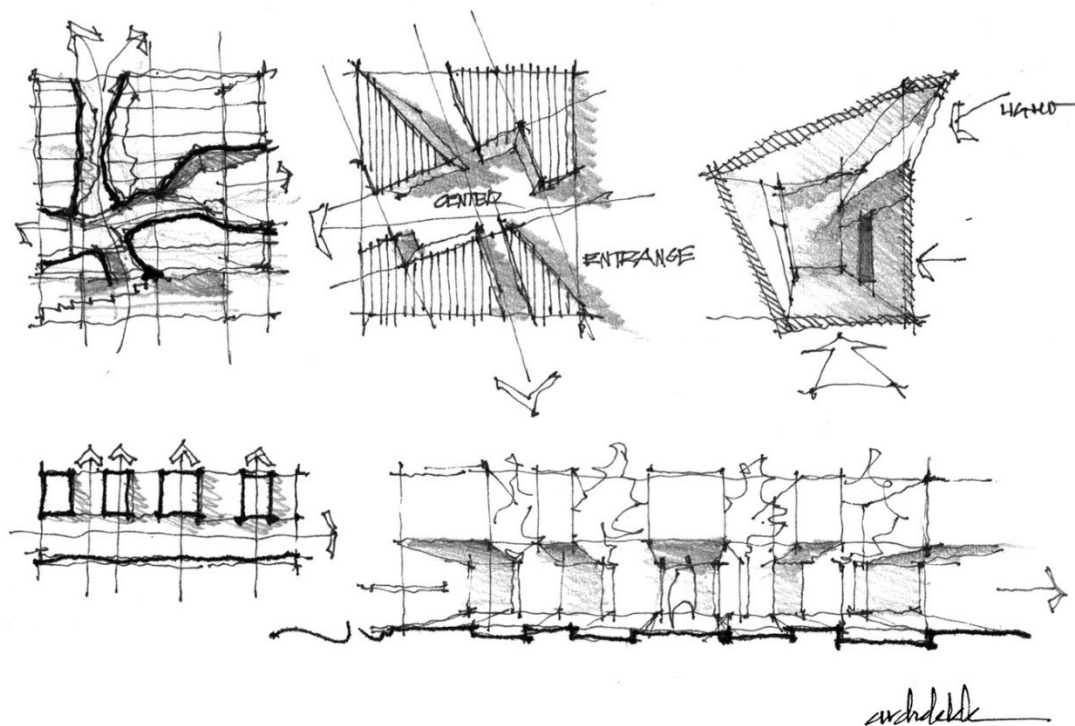
How are these programmes connected?



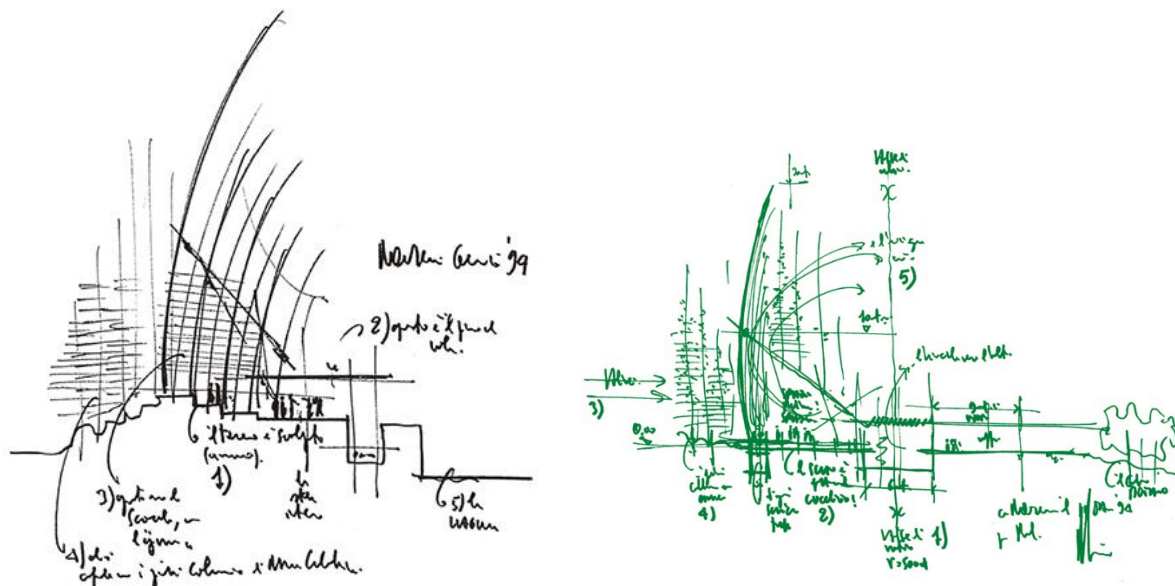
Formal Diagrams

The 'city park soundscape' by [group8asia](https://www.designboom.com/architecture/group8asia-soundscape-music-hall-hungary-08-09-2014/) aims to be an important centre of music and a welcoming destination for Budapest's inhabitants and visitors to Hungary.

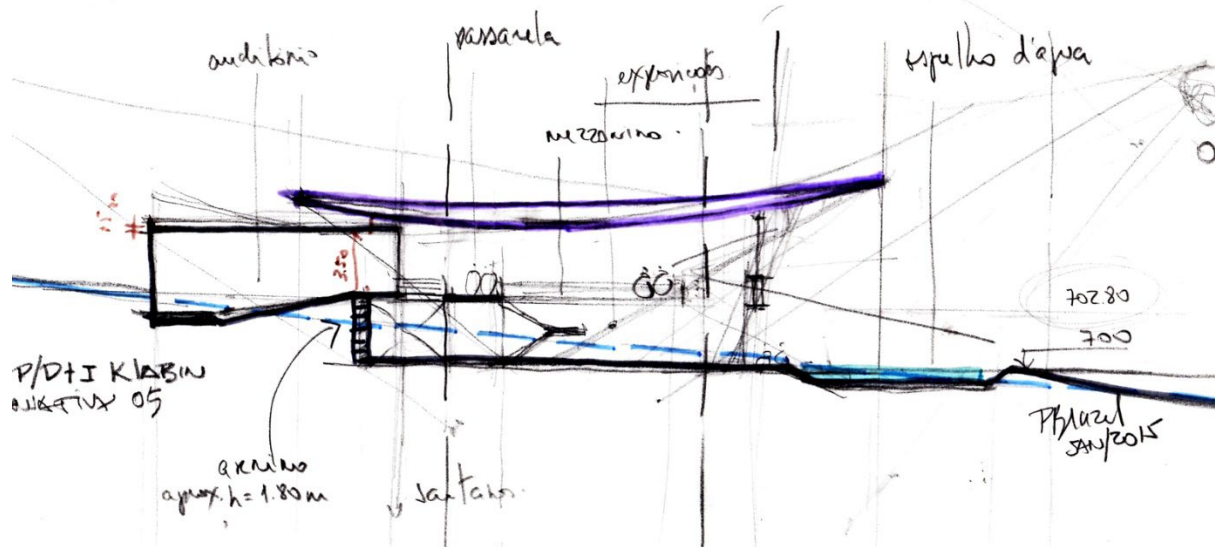
<https://www.designboom.com/architecture/group8asia-soundscape-music-hall-hungary-08-09-2014/>



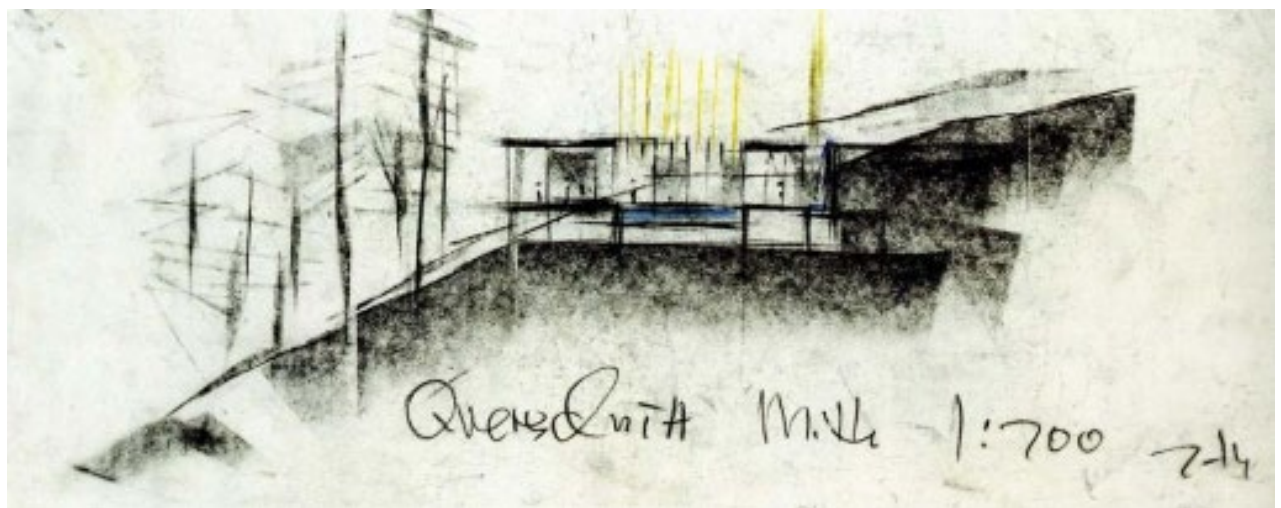
<http://www.khoavu.com/sketches-a>



Tjibaou Cultural Centre, Nouméa, New Caledonia, 1998 Design sketch by Renzo Piano
<https://arquitecturaviva.com/works/centro-cultural-jean-marie-tjibaou-noumea-1>



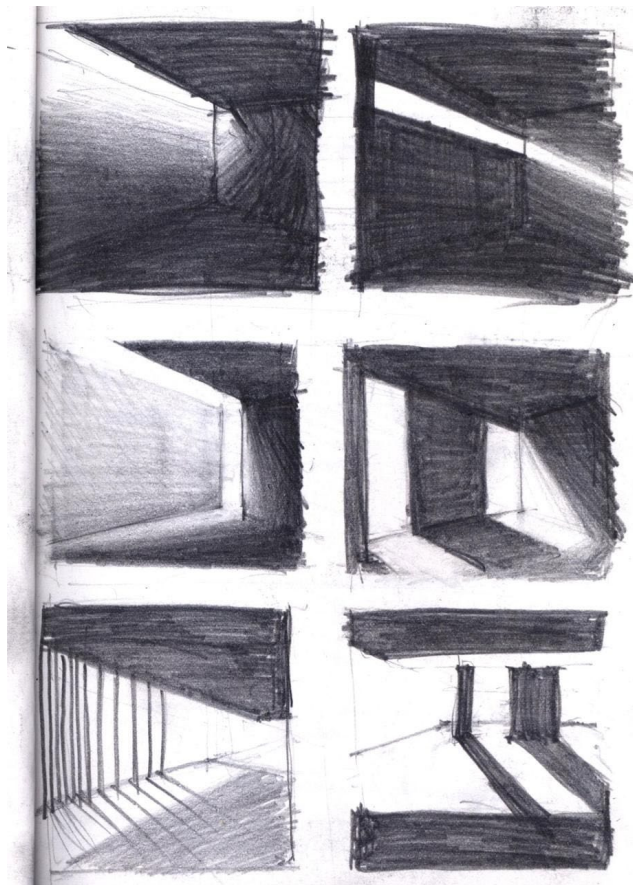
https://images.adsttc.com/media/images/5b29/358d/f197/cca8/a900/00d1/slideshow/Anna_Arquitetos_Associados.jpg?1529427294
<https://www.archdaily.com/896643/100-architectural-sketches>



Peter Zumthor's Thermae Vals/Maream Merza

<https://issuu.com/camilosuarquez/docs/> /59

APERTURE



Light Studies - Sketches

[Projet Labourdette, recherche sur la lumière, septembre 2011](#)

"A room is not a room without natural light." - Louis Kahn

aperture

Puare – hole, opening, vowel, aperture, be open, exposed hollow

opening, space, hole, crack, gap, rent, passage, breach, slot, vent, rift, slit, cleft, eye, chink, fissure, orifice, perforation, eyelet, interstice

The majority of **APERTURES** are made to describe **thresholds** for the passage of light, air and visual connection between external, exposed and internal, enclosed realms.

Light is one of the primary materials of architecture. Architecture is revealed by and in turn, defines light.

Light is one of the key elements an architect can play with to create a desired atmosphere in a space.

In defining **APERTURE**, **you explore** the quantity and quality of light in your architecture, in order to create intentional affects and lead the inhabitant through and around the architecture and its immediate context.

TASKS

You have been considering the approach to your architecture, now you will consider the circulation via apertures in the material of the spaces, together with considering the light quality and sense of enclosure or openness, and exposure in the different spaces, both in and around the architecture.

You may have very open designs which now require enclosure through the addition of walls. Modify your project to achieve the most appropriate developments aligning the physical experience with the underpinning concept and design objectives.

- What is the occupant's sensation as they move from space to space, how does the light change?
- Are the apertures high and broad offering expansive views to the far horizon, flooding the space with strong northern light?
- Are the apertures small and peripheral, offering ambient light, which reveals texture on a wall?
- Is the aperture in the roof, open to the soft southern light and the night sky?
- What is the experience that you desire the inhabitant to have in the various spaces?
- How does this effect the temperature and perception of the materials in those spaces?

1/ Make a model at 1:50 of your final project

Construct a model of your final architecture.

This will be placed in the landscape site model.

You will select a maximum of three final materials for the structure.

The model will include thresholds and apertures and figures in scale.



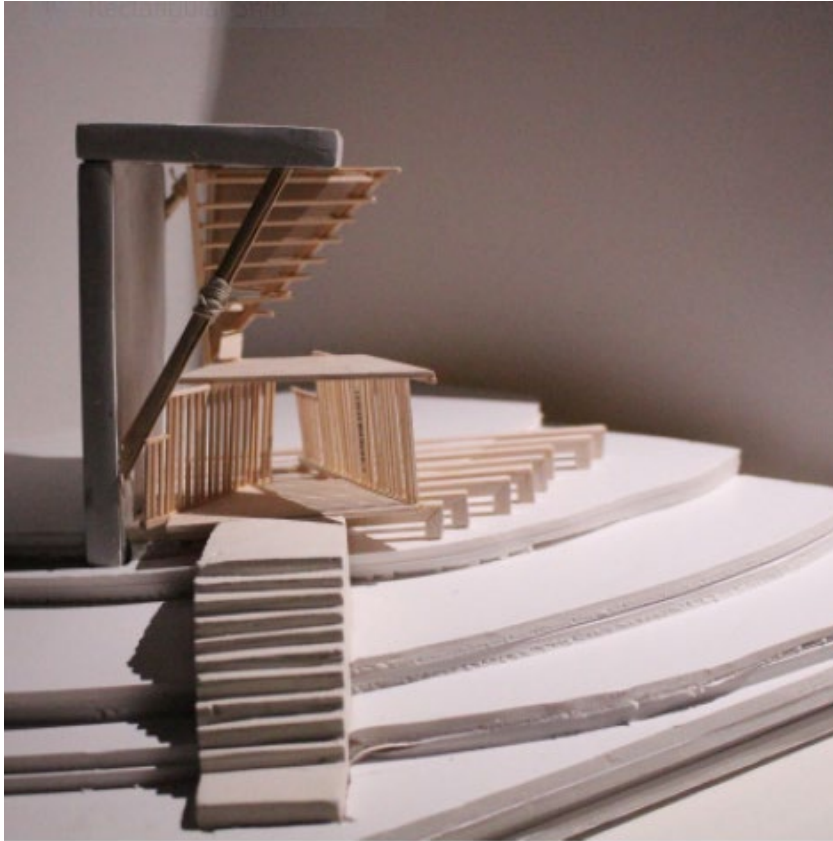
Student Exemplar (11): Model of Final THRESHOLD + APERTURE Project



Student Exemplar (12): Model of Final THRESHOLD + APERTURE Project



Student Exemplar (13): Model of Final THRESHOLD + APERTURE Project



Student Exemplar (14): Model of Final THRESHOLD + APERTURE Project



Student Exemplar (15): Conceptual Statement and Model of Final THRESHOLD + APERTURE Project

2/ Draw a roof plan showing the site and apertures

Draw a roof plan, at 1:50, which describes the plan view looking down at the structure in the landscape.

This will indicate the approaching pathway and landscape, the main threshold and roof planes, together with any apertures or skylights.

3/ Draw an architectural plan of your structure

Draw an architectural plan of your project, at 1:50.

An architectural plan is a describes the walls, apertures and thresholds when you cut a structure horizontally at 1.2 metres above floor level.

The height of this horizontal cut may be raised or lowered to describe important aspects of the space.

Walls are shown as solid, while thresholds and apertures are shown by fine line, indicating where light passes in and out and occupants pass through a building.

The architectural plan will include any external or internal circulation such as stairs, ramps or bridges.

4/ Draw two critical sections

Select and draw two critical sections through your architecture.

Choose your sections strategically to indicate the progression through your structure revealing the most information you can about the thresholds between the various spaces.

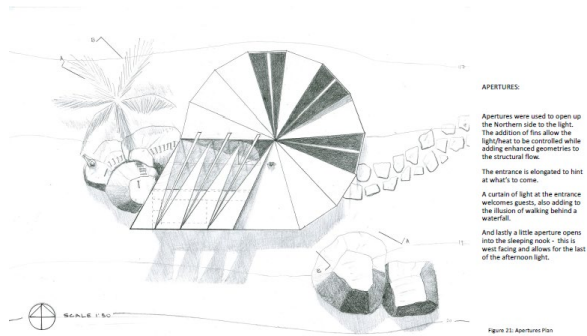
These drawings will indicate where the walls and materials are solid and where the apertures allow the passage of light and air.

Be sure to indicate clearly the location of the section lines on both your roof and architectural plans.

5/ Draw two critical elevations

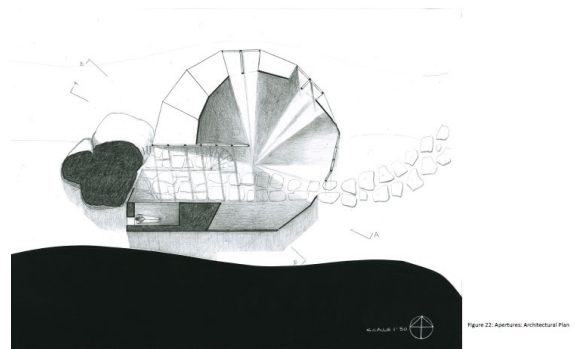
An elevation is a side view of the exterior of a structure describing the cladding and material composition of the facade, indicating the position and dimensions of apertures and thresholds.

Select and draw the two most interesting and significant elevations which describe your architecture within its context.



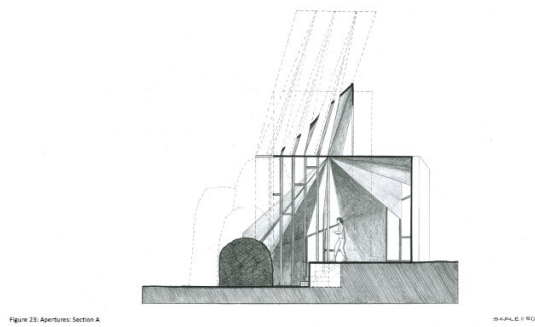
Roof Plan

Scale 1:50



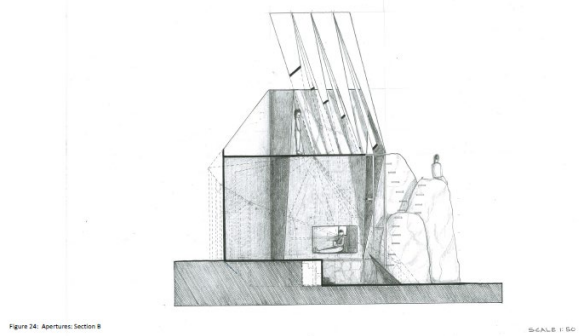
Architectural Plan

Scale 1:50



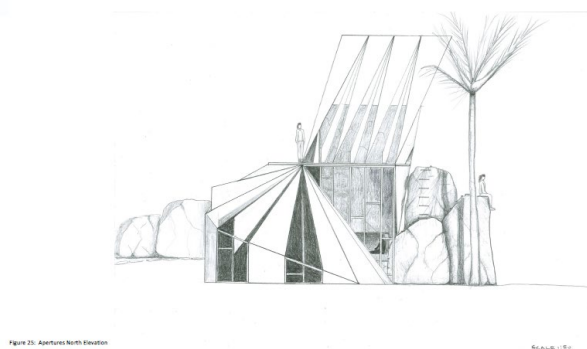
Section AA

Scale 1:50



Section BB

Scale 1:50



North Elevation

Scale 1:50



East Elevation

Scale 1:50

Work on the plans and sections at the same time.

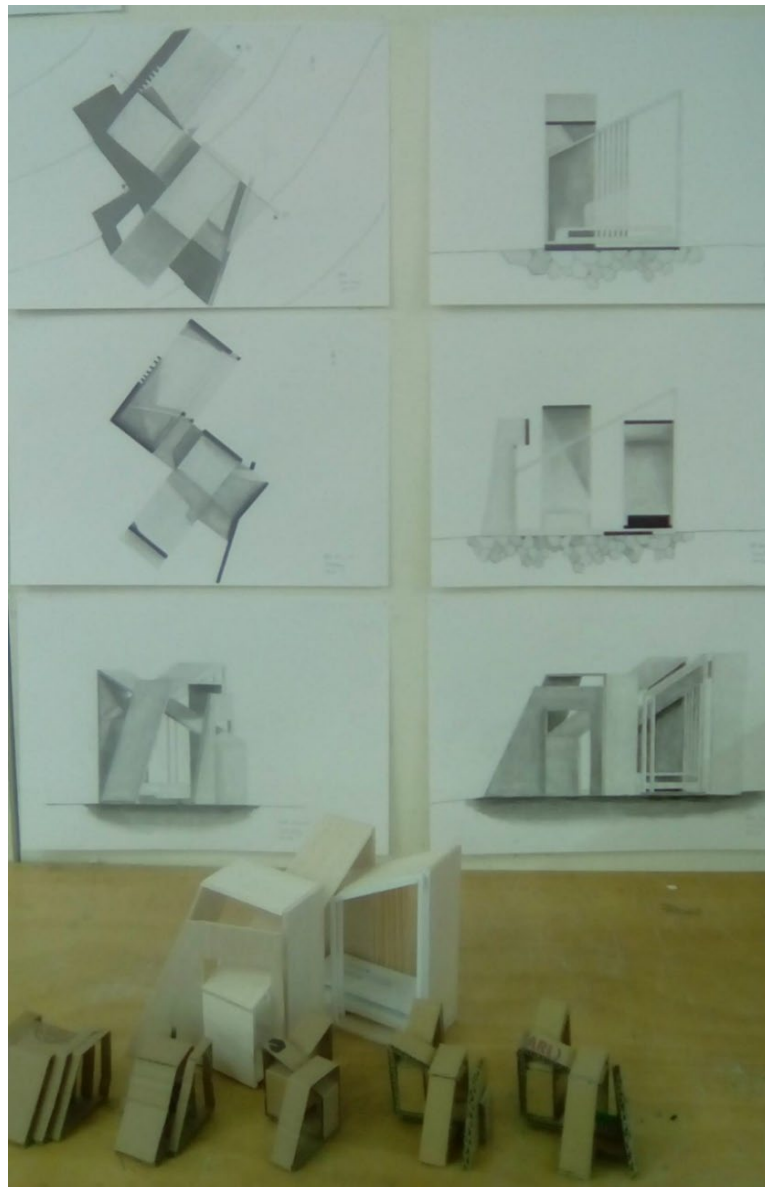
Sections must show the bodies inhabiting the places and moving through the architecture. Carefully notate the plans and sections to describe clearly where the cut lines are.

Render the plans, elevations and sectional drawings with shading to indicate the light, shadow and atmosphere of the different spaces, their volume and material qualities.

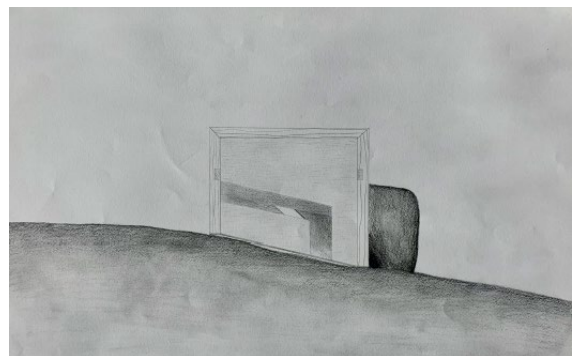
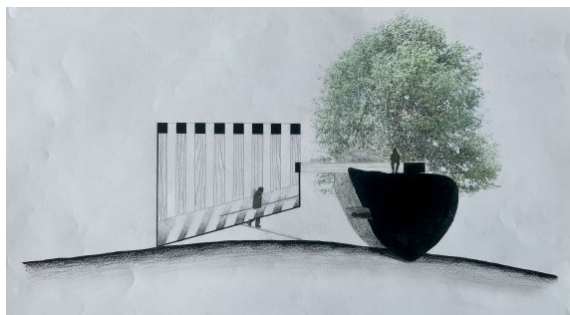
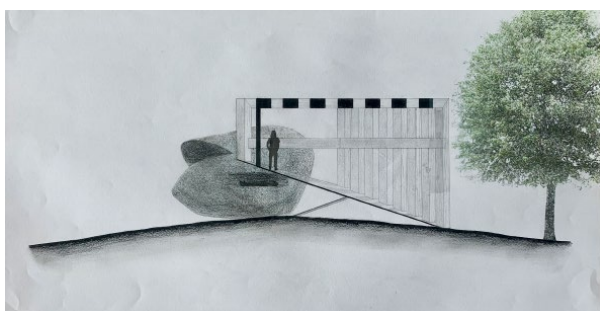
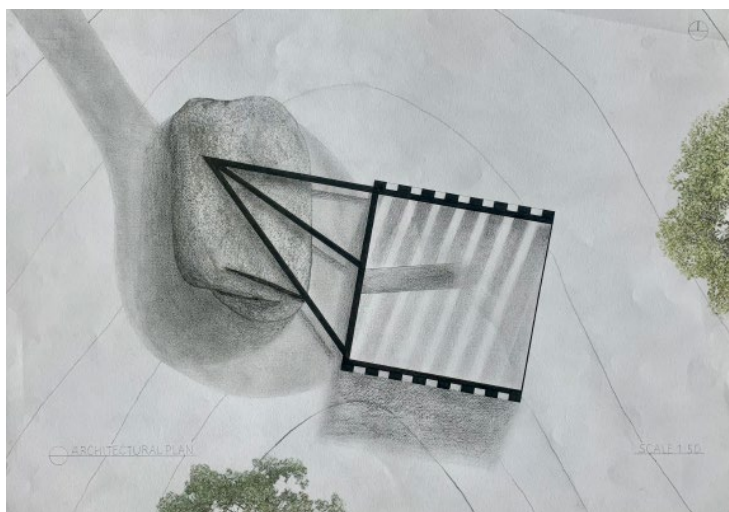
All drawings MUST include carefully drawn figures.

The presence of bodies in the spaces clearly describe the occupation, function and scale of the project.

Include the contour and the relationship of the structure to ground.



Student Exemplar (17): Plans, Sections and Elevations of THRESHOLD + APERTURE Project



Student Exemplar (18): Plans, Sections and Elevations of THRESHOLD + APERTURE Project

ASSESSMENT EVENT – THRESHOLD + APERTURE

Thursday 15th June

FINAL CRIT PRESENTATIONS

9:00am – 10:00am – Pinup and Preparation

10:00am – 3:00pm - In-Person Presentation Crits of Final Project

Every student MUST present their work in-person.

NOTE: these crits are also an Assessment Event for the Design Communication paper

All students should be present for the whole session, to make the most of the learning from participating in the presentations, and to offer support and respect to all the students who are presenting the hard-won results of a full semester of engagement and mahi.

FINAL DELIVERABLES FOR THRESHOLD + APERTURE

The final pinup for Semester 1 should be a carefully composed narrative of the development of the Island Project, from the creation and description of the landform, through to the final Threshold + Aperture project.

- PREVIOUS WORK to be included the PIN UP

5/8 x process drawings/models from throughout the semester

Include models, drawings and images which are your best work from the progress to this final outcome.

This may be your original ink blot and/or sectional Island model, a photograph of your Form or Structure model, sketch models or drawings.

- THRESHOLD + APERTURE PIN UP

5 x sequential drawings or models of Approach

1 x site drawing	Scale 1:200 420mm x 420mm
1 x design concept statement	150 words
2 x Parti drawings – 1 plan + 1 section	
1 x Model (3 materials) and 3 photographs of Final Model	Scale 1:50
1 x roof plan showing apertures	Scale 1:50
1 x architectural plan indicating apertures	Scale 1:50
2 x critical sections showing apertures	Scale 1:50
2 x critical elevations showing apertures	Scale 1:50

ALL WORK IS TO BE LEFT UP FOR GRADING ALL DAY ON THURSDAY.
All Work MUST be removed after 4pm.

Any drawings and models left in the rooms after Friday will be removed and storage cannot be guaranteed.

NOTE: Digital Hand-In of submission by 4pm on Friday 16th June

- 1 photo of the overall pin-up presentation is to be included together with images of **ALL** submitted drawings, photos and models, composed into a single comprehensive well edited PDF document.

NOTE: choose paper size of final drawings as appropriate

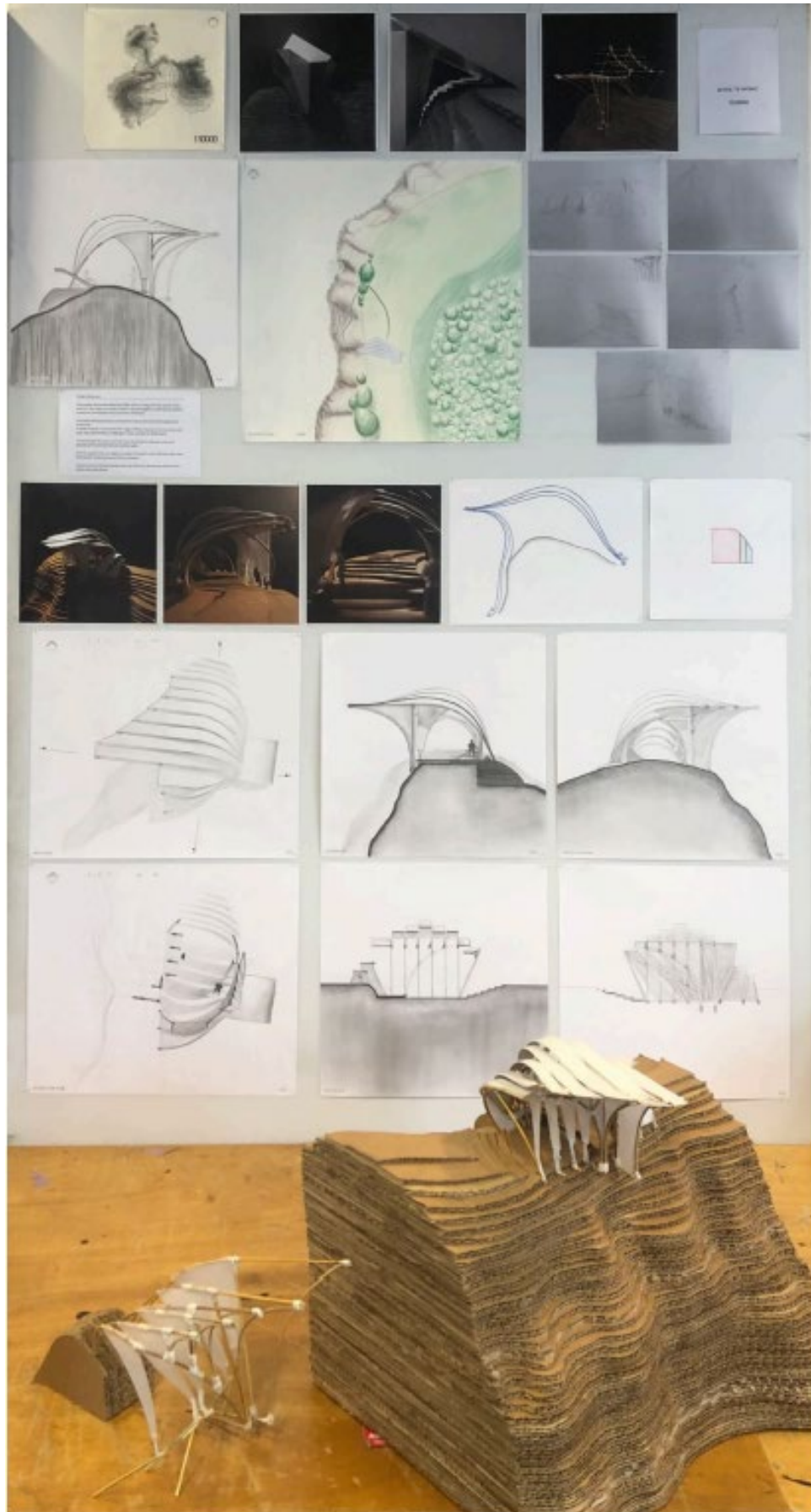
THRESHOLD + APERTURE GRADING CRITERIA **26% of semester grade**
(Associated L/O's 1,2,3,4,5)

1. Sketch drawings or models, indicating the exploration of the journey to the structure	5 sketches	10%
2. Site drawing showing relevant aspects of site and clearly identifying approach to your architecture	1 site plan	10%
3. Design concept statement which includes strategies and devices in the journey to the architecture and Parti diagrams – one plan + 1 section of threshold considerations	150 words + 2 diagrams	10%
4. Final Model of the project in context, accompanied by three carefully, composed images	1 Model + 3 images	20%
5. Roof plan and architectural floor plan of architecture with emphasis on aperture and atmosphere (light, quality of spaces)	2 plans	15%
6. Sections through, and elevations of, your design showing all thresholds and apertures and the quality of light and atmosphere in interior spaces	4 drawings	25%
7. Edited, effective and integrated pinup presentation including curated development of work over semester + participation in student led critiques	PDF layout + presentation	10%

RESULTS

A (100 - 80%), B (79 - 65%), C (64 - 50%), D (49 - 40%), E (39 - 0%)

Student feedback by arrangement with your tutor after Final Crits.



Student Exemplar: THRESHOLD + APERTURE Final Pinup