Unit of Study Outline

BDES3027 Architecture Studio 3B

Semester 2, 2021 | 12 credit points

Unit Coordinator: Dr Ross Anderson

Email: r.anderson@sydney.edu.au

Tutors:	Justine Anderson	(Group 1)	Christian Williams	(Group 8)
	Thomas Stromberg	(Group 2)	Paolo Apostolides	(Group 9)
	Neena Mand	(Group 3)	Russell Rodrigo	(Group 10)
	Sean Akahane-Bryen	(Group 4)	Alia Nehme	(Group 11)
	Mano Ponnambalam	(Group 5)	Isabel Gabaldon	(Group 12)
	Victoria King	(Group 6)	Peter Nguyen	(Group 13)
	Maria Cano Dominguez	(Group 7)		

Lectures: Weekly: Pre-recorded

Studio: Tuesday: 10:00am – 12:00pm

1:00pm – 4:00pm

108 Studio + 316 Studio + Zoom + Miro

Digital resources: Online ArchiStar Academy tutorials

1. Introduction

As the culminating design studio for the undergraduate architecture degree, students are presented with the opportunity to develop an architectural position within their projects. Architecture Studio 3B continues themes from Architecture Studio 3A, extending design understanding with respect to programmatic ambition and situating a symbolic public building proposal within a specific urban site. Particular attention is paid to the conventions of architectural representation as communications to conceptually clarify as well as generate design opportunities. Computational modes of modelling are a particular focus. Structural, technical and material thinking is encouraged in coherent relation to students' strategic design intent and through studied historical and cultural awareness. The studio consolidates students' abilities in communicating and translating architecture using advanced modes of graphic visualisation through 3D modelling software and associated fabrication potentials. Hybrid techniques for moving between computational and actual realms are promoted in parallel with clarifying attitudes toward contemporary imagined and constructed environments. Depth of design development is promoted via a dual emphasis: early analysis of exemplary architectural thinking is coupled with intensive speculative and projective exploration. Students aim to produce conceptually ambitious, integrated and compelling pre-professional architectural design projects confronting a variety of spatial contexts.

2. Schedule

Attendance (via Zoom or in person) at all scheduled lecture, tutorial and studio sessions of Architecture Studio 3B is mandatory, except in the case of illness or misadventure, in accordance with the School's attendance policy.

Attendance means arriving at the time required and staying until teaching ends. Attendance and contribution to class discussion will be monitored and may be factored into allocated grades. Announcements made at weekly Synchronous Zoom lectures are deemed to be made to the whole group. Contact with staff should generally be within the allocated teaching times. Consultation outside of these hours shall be by prior appointment, and in addition to, not in lieu of, the regular class time. The timetable is subject to minor adjustment, and individual tutors may issue more detailed schedules. Check your University email regularly as it will be the way any changes to the timetable or clarifications of the program are issued.

3. Assessment Tasks

Total number of summative assessment tasks: 3

Assessment Item	Category / Type	Individual or Group	Weight	Due	Learning Outcomes
1. Phase 1 Design Presentation	Submitted Work: Assignment, Design	Individual	20	Tuesday, 14th September	1, 2, 3, 4, 5, 6, 8
2. Phase 2 Design Presentation	Submitted Work: Assignment, Design	Individual	30	Tuesday, 9th November	1, 2, 3, 4, 5, 6, 7, 8
3. Design Book	Submitted Work: Assignment, Portfolio	Individual	50	Tuesday, 23rd November	1, 2, 3, 5, 6, 7, 8

4. Aims and Learning Outcomes

This unit of study (UoS) aims to extend students' capacity to propose and develop innovative, culturally literate, materially and structurally credible architectural propositions for a medium scale public building in an urban setting. Students conduct their own research and they work critically and creatively to initiate, develop and refine their architectural projects. They develop their capacity to express themselves effectively using verbal, written, graphic and modelled modes of representation and communication, and upon completion of this UoS, students will have met the learning outcomes, which contribute to their development of the University of Sydney's Graduate Qualities.

Learning Outcomes		Graduate Qualities	
1	Demonstrate an increased understanding of the conventions of architectural drawing and model making, and an ability to employ these for the purposes of both critical analysis and creative expression.	Depth of disciplinary expertise.	Critical thinking and problem solving.
2	Critically research and interpret an architectural brief for a medium-scale public building in an urban setting, and devise an imaginative and credible response.	Depth of disciplinary expertise.	Inventiveness
3	Evaluate multiple written and graphic sources in order to filter and synthesise information.	Information and digital literacy.	Critical thinking and problem solving.
4	Work productively in an architectural studio setting to assess, reflect and provide feedback on one's own design process as well as that of others.	Depth of disciplinary expertise.	Critical thinking and Problem solving
5	Convincingly convey architectural propositions using oral, graphic and written modes of communication.	Depth of disciplinary expertise.	Communication (oral and written).
6	Evaluate feedback from others in a manner that is both reflective and proactive.	Depth of disciplinary expertise.	Inventiveness
7	Write coherent and convincing accounts of the process of architectural design in sound academic prose, and to illustrate and compose these into formal documents.	Communication (oral and written).	Influence
8	Demonstrate ethical and cultural competence in design by recognising the intended and unintended consequences of design decisions, as well as by considering diverse and underrepresented stakeholders.	Cultural Competence	Integrated professional, ethical and personal identity

At the conclusion of the semester students will be given a final grade for BDE3027 based on the University grading system:

Grade	Description
High Distinction (85 – 100)	Work of outstanding quality, demonstrating mastery of the learning outcomes assessed. The work shows significant innovation, experimentation, critical analysis, synthesis, insight, creativity, and/or exceptional skill.
Distinction (75 – 84)	Work of excellent quality, demonstrating a sound grasp of the learning outcomes assessed. The work shows innovation, experimentation, critical analysis, synthesis, insight, creativity, and/or superior skill.
Credit (65 – 74)	Work of good quality, demonstrating more than satisfactory achievement of the learning outcomes assessed, or work of excellent quality for a majority of the learning outcomes assessed.
Pass (50 – 64)	Work demonstrating satisfactory achievement of the learning outcomes assessed.
Fail (1 – 49)	Work that does not demonstrate satisfactory achievement of one or more of the learning outcomes assessed.

Assessment Results and Feedback

Assessment results and feedback will be provided within 2 weeks of submission.

Digital Tools

Students should independently access the ArchiStar Academy site via their university Email, and work through a suite of online material resources according to their design interests. The website provides self-taught tutorials to build technical capacity with a variety of software.

Project Description:

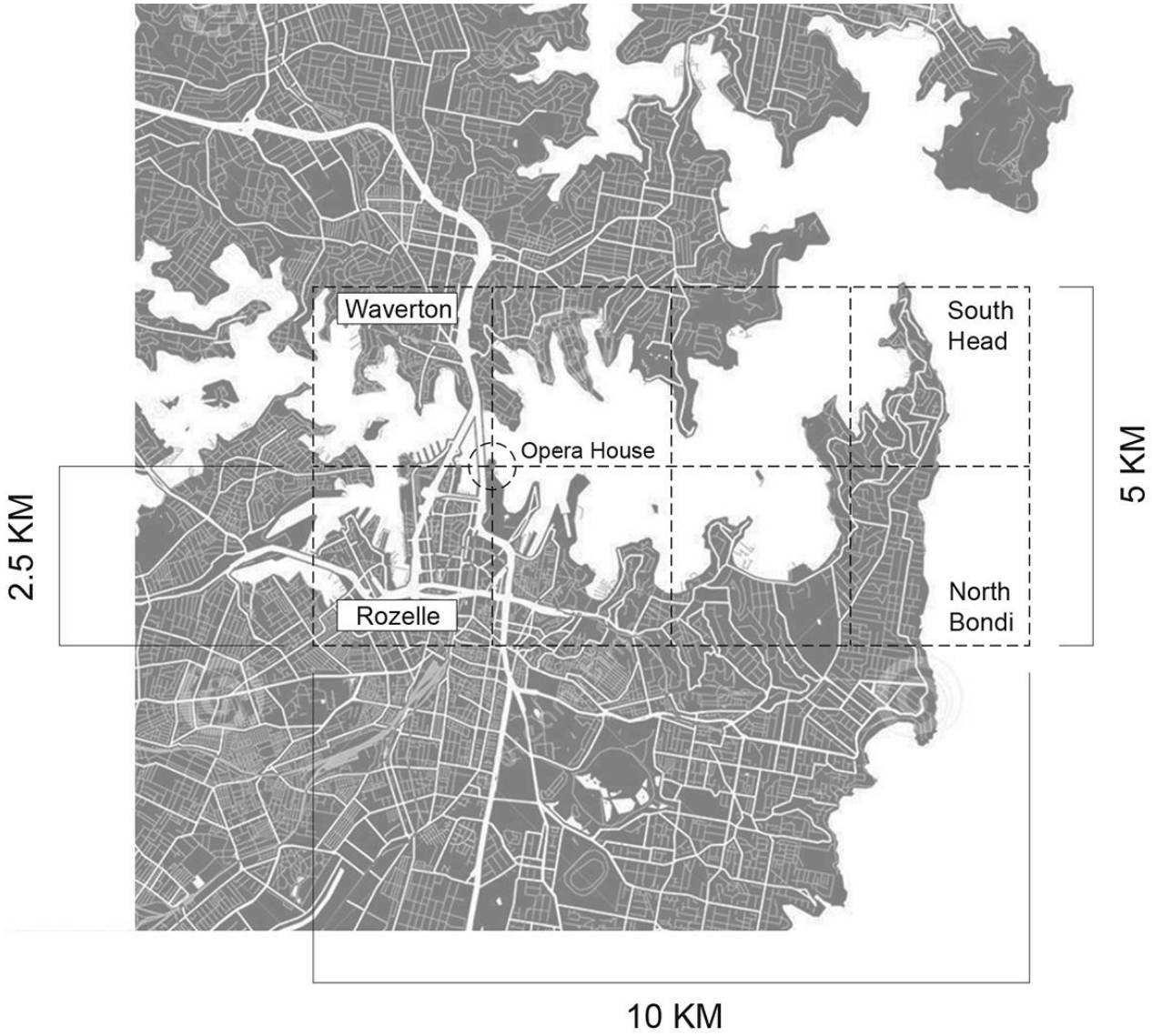
Sydney Harbour Drama House (SHDH)

The project for Architecture Studio 3B is a theatre, but not an ordinary one; it takes its cues from the Italian architect Aldo Rossi's *Teatro del Mundo* – a temporary floating theatre designed and built for the 'theatre and architecture' section of the 1980 Venice Biennale. In its time, the *Teatro del Mundo* had a physical presence in the city much larger than its footprint, and it now possesses a place in the architectural imagination that defies its long-gone transient existence. Rossi himself said of his remarkable theatre that it was "situated between the house of infancy and the house of death as a place that is purely for performances, and memory and foreboding belong to it."

This Sydney Harbour Drama House project exchanges the ancient, urbane waterways of Venice for those of our fresh antipodean harbour with its crumpled shoreline of coves and points, bays and headlands that it meets sometimes calm and glistening and at others with the full force of nature. If, as William Shakespeare wrote in *As You Like It*, "All the world's a stage', then the corner of it that Sydneysiders gaze upon is their harbour, as they did on the eve of the new millennium when the word 'eternity' was writ-large up on the bridge as fireworks exploded in choreographed precision from the mouth of the Parramatta River in the West to the Heads in the East. That is the sweep of watery expanse that this project adopts as its territory in place of the typical demarcated site for an architectural project that is a plot of land unmoving and bound.

Students are to decide for themselves where in the harbour their theatre for an audience of 250 is to dwell, whether it remains there permanently, moves around seasonally or drifts around daily at the mercy of the elements. They are to take serious account of the specific topographical and environmental conditions of their chosen location; the ebb and flow of the tide, the prevailing breezes, the reflections off the water in summer versus winter, and so forth. Their theatre may variously withstand or harness some of these environmental phenomena and incorporate them into the dramatic experience of the building. For both the performers and audience the theatre might be an island of insulated calm, or it might revel in its unsettling exposure to the come-what-may of its maritime conditions. And how do people *get* there? If by boat or ferry, is the water deep enough for the vessels to dock, or will a jetty that reaches out into deeper water be required?

And as much as the concerns are to do with the experience of the audience being out on the water, there will be implications for those who remain on shore; how does the near presence of the theatre transform the character of a location – Rushcutters Bay, for example – which is accustomed to unchecked access to the beckoning waters of the harbour, appreciated over oysters and champagne at the yacht club. Or, conversely, what happens if the theatre happens upon one of those out of the way nooks that are scarcely accessible by water or by land? Just as the location is up for grabs, so is the particular character of the theatre; it might be dedicated to one genre of performance or even one playwright, or it might attempt to provide a stage for a kind of theatre yet to come.


Waverton
South Head
Opera House
Rozelle
North Bondi
2.5 KM
5 KM
10 KM

Architectural Program

Your 250-seat *Sydney Harbour Drama House* should accommodate the following programmatic elements, for which nominal square metres are provided. These spatial requirements can be expanded or contracted somewhat, based upon the conceptual and functional requirements of your own distinct project.

Front of House

• **Auditorium** with a total capacity of 250 people. *Note that the auditorium might be configured as 2 interconnected spaces that each have a seating capacity of 125; or as 5 interconnected spaces that each have a capacity of 50; and so forth.	350 m^2
• Entry	70 m^2
• Café/Bar	120 m^2
• Kitchen	20 m^2
• Book/Gift shop	50 m^2
• Bathrooms	
Male (3 stalls + urinal + 1 accessible + 4 basins)	30 m^2
Female (4 stalls + 1 accessible + 4 basins)	30 m^2

Stage and Backstage

• Stage	60 m^2
• Backstage	160 m^2
• Performer changing rooms and bathrooms	60 m^2

Other

• Staff offices (4 x 20 m^2)	80m^2
• Staff lunch / meeting room	30 m^2
• Staff amenities	20 m^2
• Storage	50 m^2

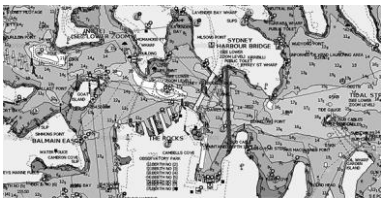
Weekly Schedule

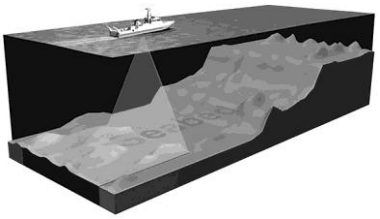
Week	Tuesday	Time	Teaching	Theme / Activities	Assessment
1	10th August	Pre-recorded	Lecture	*Charting the Territory Above and Below*	
		10:00 - 12:00 1:00 – 4:00	Studio		
2	17th August	Pre-recorded	Lecture	*That Which Came Before*	
		10:00 - 12:00 1:00 – 4:00	Studio		
3	24th August	Pre-recorded	Lecture	*Assembling a Narrative*	
		10:00 - 12:00 1:00 – 4:00	Studio		
4	31st August	Pre-recorded	Lecture	*Composing the Plan*	
		10:00 - 12:00 1:00 – 4:00	Studio		
5	7th September	Pre-recorded	Lecture	*Going, There, and Back Again*	
		10:00 - 12:00 1:00 – 4:00	Studio		
6	**14th September**	**10:00 - 12:00 1:00 – 4:00**		***Assessment 1: Phase 1 Design Presentation***	**1 (20%)**
7	21st September	Pre-recorded	Lecture	*Revision and Consolidation*	
		10:00 - 12:00 1:00 – 4:00	Studio		
	28th September	*No Classes. Universities Australia Common Vacation Week*			
8	5th October	Pre-recorded	Lecture	*Front of House*	
		10:00 - 12:00 1:00 – 4:00	Studio		
9	12th October	Pre-recorded	Lecture	*Back of House: Structure and Construction*	
		10:00 - 12:00 1:00 – 4:00	Studio		
10	19th October	**10:00 - 12:00 1:00 – 4:00**		***Phase 2 Interim Design Presentation***	**Formative**
11	26th October	Pre-recorded	Lecture	*The Decisive Detail*	
		10:00 - 12:00 1:00 – 4:00	Studio		
12	2nd November	Pre-recorded	Lecture	*Production*	
		10:00 - 12:00 1:00 – 4:00	Studio		
13	**9th November**	**10:00 - 12:00 1:00 – 4:00**		***Assessment 2: Phase 2 Design Presentation***	**2 (30%)**
	16th November	*No Classes. Study Vacation*			
15	**23rd November**	**10:00**		***Assessment 3: Design Book Submission***	**3 (50%)**

WEEK 1

(Tuesday 10th August)

Charting the Territory Above and Below



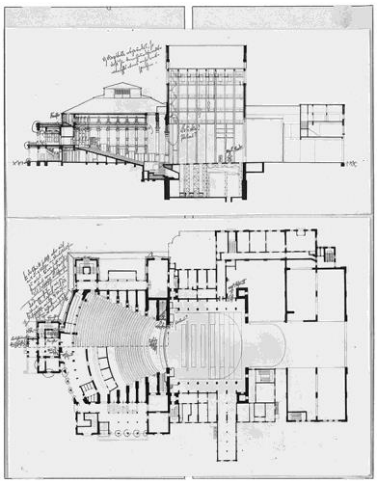


- Thoroughly familiarise yourself with Sydney Harbour. There are likely parts of it that you know very well, others you recognise, and yet others that are something of a mystery. Scour the shoreline (virtually – use SixMaps), looking for potential locations for your theatre. Identify three spots that you think look promising, and prepare straightforward 1:500 plans and sections of each of them (these drawings are just matter of fact, conveying information, not yet interpreting it). For the section drawings, consult Navionics, which is the go-to for charts of waterways – it provides depth soundings (measurements are in metres), locations of submarine cables and so forth.

- Think back to a theatre performance that *moved you*. Was that because it was joyous or despairing, confronting or enlightening? And what role did the theatre itself play in the experience? Did it serve as a neutral backdrop or was the architecture foregrounded as part of the performance?

WEEK 2

(Tuesday 17th August)



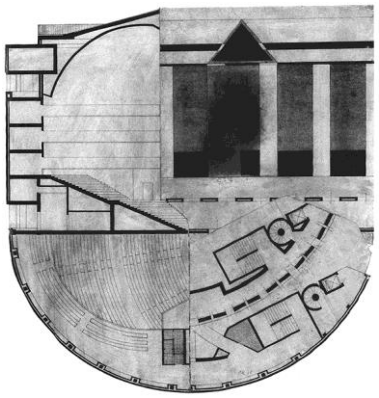
That Which Came Before

- Conduct a precedent study of a theatre of your choosing. What is typical about it, and what is unique? Why is it laid-out the way it is? How do the audience find their way to their seats, and how do the performers make their way to the stage? Which materials are the theatre made from, and why has the particular mode of construction been chosen?

- Draw one annotated plan and one section of the theatre at 1:200.

WEEK 3

(Tuesday 24th August)



Assembling a Narrative

- Produce an A3-size metaphorical drawing/collage/photomontage as a way of intuiting the architecture of your theatre and its terms of reference. This time, your cut and paste drawing is to be rather an interpretive and subjective evocation than it is a dimensionally accurate suggestion of a building to come. How will your building *feel*?

Reading(s):

- Jennifer A.E. Shields, *Collage and Architecture* (New York: Routledge, 2014): 63-81

- James Corner, "The Agency of Mapping: Speculation, Critique, Invention", in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999): 213-53

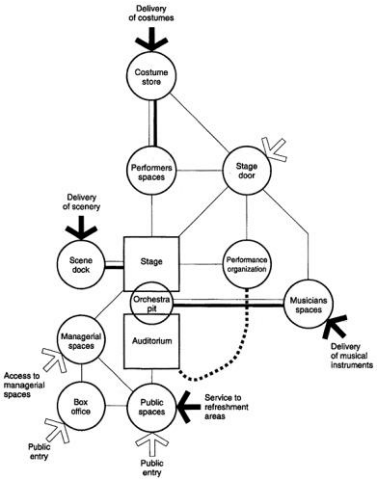
- Umberto Eco, "On the impossibility of Drawing a Map of the Empire on a Scale of 1 to 1" [1982] in *How to Travel With a Salmon & Other Essays*, trans. William Weaver (New York: Harcourt Brace & Company, 1994): 95-106

WEEK 4

(Tuesday 31st August)

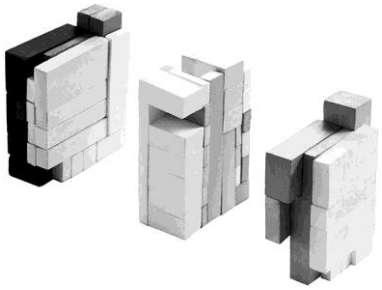
Composing the Plan

- Commence the space planning of your theatre. Make a list of all of the spaces that are required and categorise them as 'public', 'private' or 'circulation', and note their relative sizes.
- Lay-out the spaces in both plan and section at 1:200 scale, colour-coding them as per the categories above.
- Continue to refine the planning of your project and consider the ways that the constituent spaces can be accommodated within the volumetric constraints that you have established.



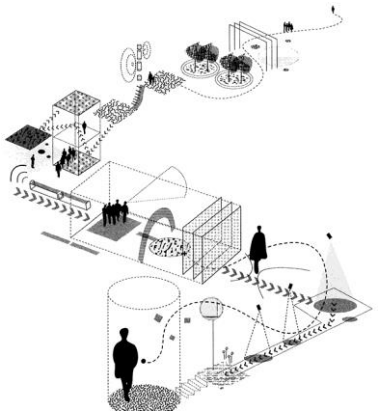
Reading(s):

- Pamela Buxton, ed., "Auditoria" in *Metric Handbook: Planning and Design Data*, 6th ed. (London: Routledge, 2018): 15.1–15.86
- Francis Ching, *Form, Space and Order*, 3rd ed. (Hoboken, NJ: John Wiley & Sons, 2007): 185–194
- Karl Ove Knausgaard, "Hollow Spaces" in Winter (London: Harvill Secker, 2017): 173–175



WEEK 5

(Tuesday 7th September)

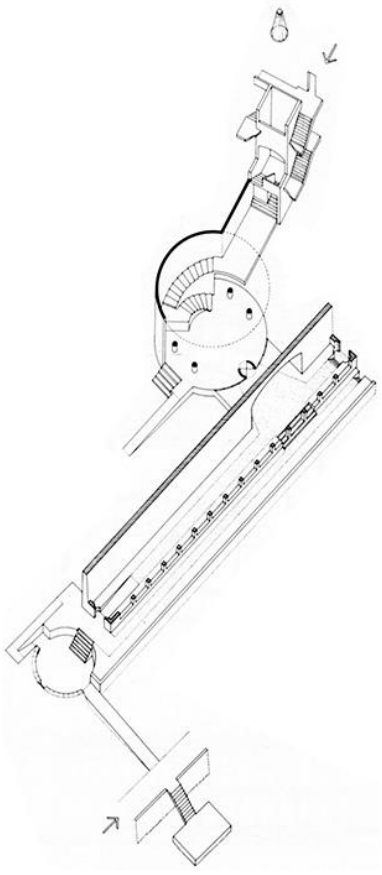


Going, There, and Back Again

- Further develop the planning of your building, and give consideration to the ways that people will arrive, move around and depart, paying particularly close attention to key 'threshold moments'. Is the moment of arrival explicit or hidden, standoffish or welcoming? Once inside, which spaces will people linger in, and which will they hurry through? Are there multiple ways for the general public to navigate the building, or is there a single circulation route? Are there areas that need to be accessed separately for security or other reasons?

- Draw an axonometric (45/45°) line drawing of your building at 1:200 scale, demarcating the circulation spaces (stairs, corridors, paths etc.) in red, and everything else in black.

- Draw one threshold moment in your building in both plan and section at 1:50 scale.



Reading(s):

- James Stirling, "Axonometric Drawings" in "The Architecture of James Stirling 1964-1992," *OASE* 79 (2009): 17–30

- Simon Unwin, "Experiencing Doorway" in *Doorway* (Abingdon, UK: Routledge, 2007): 73–90

- Sensual City Studio, "Manifesto" in *A History of Thresholds: Life, Death & Rebirth: A Visual Narrative* (Berlin: Jovis, 2018): 147-52

WEEK 6

(Tuesday 14th September)

Assessment 1:

PHASE 1 Final Design Presentation

(SUMMATIVE 20%)

Submission Requirements:

Drawings

- **A1 panels:**

  Panel 1:

  - This panel documents the range of weekly drawings that you have made since the start of the semester.
  - A one-page (ca. 400 word) summary statement that articulates the ideas that underpin your project and that clearly describes the ways that you have embodied these architecturally. The statement is to be incorporated into the panel.

  Panels 2 and 3:

  - Location plan (1:5000)
  - Site plan (1:500)
  - 1:200 plan drawings (as many as required)
  - A single 1:200 sectional perspective drawing

Model(s)

- 1:500 site model
- 1:200 building model

WEEK 7

(Tuesday 21st September)

Revision and Consolidation

- Together with your tutor, decide which aspects of the project you will keep, prioritise, develop and refine, and which you might discard or re-imagine in light of the points of critique made on your PHASE 1 Design Presentation

(Tuesday 28th September)

No Classes.

Universities Australia Common Vacation Week

WEEK 8

(Tuesday 5th October)

Front of House

- Consider the external expression of your theatre building. Does the architectural program have an unmistakeable presence? Or does the building deliberately withhold its purpose from the viewer? Does the building have a single architectural identity that is accommodated by one formal and material expression, or do individual programmatic elements assert themselves (front of stage – auditorium – backstage, for example).

- Produce one highly realistic perspective rendering of your theatre building, as seen upon approach (by ferry, a bridge, a boardwalk ...). The rendering is to be in colour and should convey the texture and materiality of the exterior. And it should accurately portray shadow, reflections and so forth. Consult the courses in the 'Visualisation and Rendering' stream in Archistar Academy.

- Prepare a clean set of plans and 1 section through your building at 1:100 scale. These will be the basis for your Week 9 structural activity.

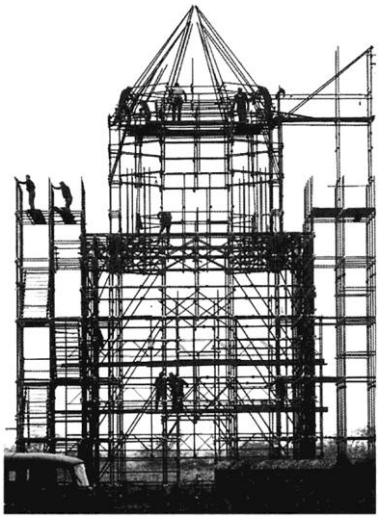
Reading(s):

- David Dernie, "Urban Setting" in *Architectural Drawing (Portfolio Skills)* (London: Laurence King, 2010): 186–191

- Francis Ching, "Rendering Tonal Values" in *Architectural Graphics*, 4th ed. (Hoboken, NJ: John Wiley & Sons, 2003): 125–156

WEEK 9

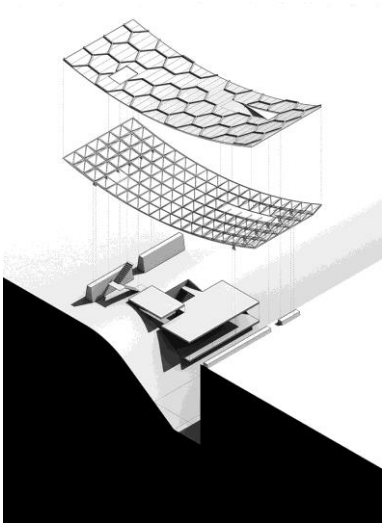
(Tuesday 12th October)



Back of House: Structure and Construction

- Consider the overall structure of your building. Will a single structural system be able to serve the entire building, or will two or more be required? Establish a hierarchy of primary, secondary and tertiary structural / constructional elements.

- Communicate your structural logic in a diagrammatic exploded axonometric drawing.



- Closely consider the planning of your building in reference to the structural logic that you have determined. Lay tracing paper over 1:100 plans of your building and, using different coloured pens, highlight which elements are load-bearing and which are only space-enclosing. Check whether loads can be carried down through the building in a sensible manner. Do columns/load-bearing walls line-up on each level of the plan? If not, how are loads transferred (transfer beams or trusses?). Are all elements that pass through the building vertically (stairs, elevators, mechanical and electrical services shafts) able to be accommodated in the system, and possibly even contribute to the structural integrity of the building by being consolidated in one or more strong cores that provide lateral stability? Adjust the planning of your building in light of these concerns, or revise your structural system if necessary.

Reading(s):

- Francis Ching, Barry Onouye and Douglas Zuberbuhler, "Structural Patterns" in *Building Structures Illustrated* (Hoboken, NJ: John Wiley & Sons, 2009): 42–75

- Cecil Balmond, "Bordeaux Villa" in *Informal* (Munich: Prestel, 2007): 19–44

WEEK 10

(Tuesday 19th October)

Phase 2 Interim Design Presentation

(FORMATIVE)

Submission Requirements:

Drawings

A1 panels

- Location plan (1:5000)
- Site plan (1:500)
- Site section (1:500)
- 1:100 grey-scale plan drawings (as many as required)
- 1:100 grey-scale elevation drawings (as many as required)
- One 1:100 sectional perspective drawing
- One external perspective rendering
- A maximum of 3 conceptual diagrams

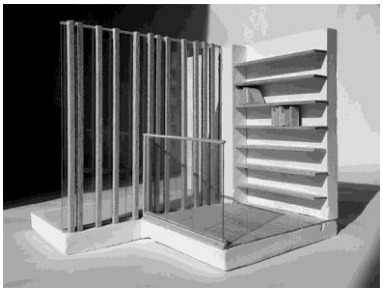
Models

- 1:500 site model (revised from Phase 1)
- 1:100 working model

WEEK 11

(Tuesday 26th October)

The Decisive Detail



- Choose one important 'detail', 'fragment' or 'moment' in your building that, even when apprehended in isolation, nonetheless serves as a key or clue to the architectural character of the whole building. It might be a 'threshold moment', or it might be another location. If so, how do the two spaces meet? Does one pass through the other, or is there a gap? Do they abut directly, or are they mediated by a third form or material?

- Construct a 1:50 model of the decisive detail. Use materials and construction techniques that closely resemble those that would be used in reality. It is anticipated that part(s) of the model will be digitally fabricated in DMaF Lab and others will be carefully crafted by hand.

Reading(s):

- Kenneth Frampton, "Carlo Scarpa and the Adoration of the Joint" in *Studies in tectonic Culture* (Cambridge, Mass.: MIT Press, 1995): 299–333

WEEK 12

(Tuesday 2nd November)

Production

- Refine all aspects of your scheme and develop a strategy for completion of your final presentation models and drawings with your tutor.

WEEK 13

(Tuesday 9th November)

Assessment 2:

Phase 2 Final Design Presentation

(SUMMATIVE 30%)

Drawings

A1 panels

- Location plan (1:5000)
- Site plan (1:500)
- Site section (1:500)
- 1:100 grey-scale plan drawings (as many as required)
- 1:100 grey-scale elevation drawings (as many as required)
- One 1:100 sectional perspective drawing that is carefully rendered in colour
- One external perspective rendering that is carefully rendered in colour
- A maximum of 3 conceptual diagrams

Models

- 1:500 site model (revised from Phase 1)
- 1:100 model
    - This model is to be a finely crafted artefact that reveals the material qualities of the project— textures, colours, properties of materials, methods of joining and so forth. It is your opportunity to communicate those aspects of the project that can't be conveyed through drawing. It should be possible to remove parts of the model, such as the façade, or the roof, in order to reveal the inner-workings of the building.
- 1:50 Decisive Detail model

WEEK 14

(Tuesday 16th November)

No Classes. Study Vacation

WEEK 15

(Tuesday 23rd November)

Assessment 3:

Design Book Submission

(SUMMATIVE 50%)

The Design Book is to be a summary document of the work conducted throughout the semester in BDES3027, including a small amount of carefully selected supplementary material. Students are expected to declare a theoretical position and trace the ways that thematic, programmatic, contextual, technical and aesthetic dimensions of the project have been played-out in the process of design. They might give a particular focus to their Design Book, but all students need to cover the set range of issues listed below. The Design Book is to be a carefully organised document that is a well-conceived piece of design in its own right, with text, titles, labels, typography and images thoughtfully and consistently composed and laid-out. It is to measure exactly 420mm x 420mm (the short edge of an A3 page squared). The Design Book is to be digitally submitted via Canvas as a PDF that is named according to the following convention:

BDES3027_ Group #_Design Book_Surname_First Name

E.g. BDES3027_ Group 1_Design Book_Smith_Chris

Introduction and conceptual framework

This section sets-out the thematic agenda, parameters and architectural ambitions of the studio project, and articulates them in clear prose. It is to be around one page in length.

Response to the Architectural Brief

This section presents a summary of, and critical response to, the architectural brief. Essentially, this section outlines what has been designed.

Response to the Site

This section articulates the stance that has been taken in regard to the particular location in which the program is sited. It provides a rationale for the selection of the site, and notes its spatial and environmental opportunities and constraints. It also lays-out the historical and cultural context of the immediate surroundings.

Reflective Summary of Weekly Design Process

This section briefly traces the development of the design across the semester through drawings and model photographs, dedicating say one page per week. Students are to be judicious in their selection of material, foregrounding the moments at which significant decisions were made, and providing critical reflections on these moments as brief annotations to the visual material.

Assignment 1 and Assignment 2 Presentations

Students are to provide reduced versions of their Phase 1 and Phase 2 Final Presentations, and photographs of associated models.

Bibliography and precedents

Students are to provide a list of the books that they consulted during the semester and that informed their project. They should also provide a second list of buildings that served as precedents. All direct and indirect references that served as source material should be noted, ensuring that all material that is not their own is explicitly cited and properly referenced throughout the Design Book.

Written sources are to be referenced according to the 'Chicago Manual of Style' See: http://www.chicagomanualofstyle.org/tools_citationguide.html).

Precedent buildings are to be cited as follows:
Architect(s), *Building Name*, City, Country, Year of Completion

E.g. Kazuyo Sejima, *House in a Plum Grove*, Tokyo, Japan, 2003.

DMaF Workshop Use (not supervised by tutors)

Digital Fabrication Credit has been allocated to assist in the fabrication of course deliverables. Please read the amounts and terms carefully; it is each student's responsibility to manage their own access to these facilities including completion of the Safety Induction Competency Unit (SICU) together with the Laser Cutting and 3D Printing inductions.

Laser Cutters

- 1 x 30-minute booking per student – **expires end of Week 6**
- 1 x 30-minute booking per student – **expires end of Week 13**

Booking & Payment Process

Bookings for the laser cutters can be made via the DMaF Lab website. Click the BOOKINGS tab and follow the prompts to select a suitable time and machine. On completion of your laser cutting appointment, bring your student ID to the DMaF Lab Laser Supervisor who will mark your free session as completed. Any materials used need to be paid for.

3D Printing – Ultimakers

- 1 x $20.00 credit in 3DPrinterOS (N.B. Maximum build size of 220 x 220 x 300 (W x L x H)

Booking & Payment Process

Bookings for FDM 3D printers can be made online through 3DPrinterOS. If you completed the 3D printing induction prior to July 2019, you will need to complete an online refresher to gain access to the DMaF Lab printers in 3DPrinterOS. Further information regarding the 3D printing process and file preparation requirements can be found on the DMaF Lab website.

Terms

DigFab credit is not transferrable between students or machines and cannot be used for materials. Please remember that it is a requirement that all users of DMaF wear their DMaF Lab Competency Card whilst in the labs. Students are also required to bring their student card to be cross-checked against DigFab Credit List. All materials are to be paid for at the time of use.

Workshop Hours

Students will need to sign up for a session. DMaF is supporting our learning in this course but during this period they need to maintain occupancy limits at any one time. Please visit the workshop for more details.

5. Readings and Electronic Resources

The Canvas site for this unit can be accessed at https://canvas.sydney.edu.au/login/canvas.
The course outline, recorded lectures, readings and supplementary materials will be uploaded to this site throughout the semester. These include links to library services. Students will submit their assignments through Canvas.

This course also promotes student access to an online tutorial site "ArchiStar Academy", which offers tutorials in digital software acquisition. Students can sign in via their laptops to access these self-guided tutorials at university or at home. Successful completion of four modules is required for BDES3027 Studio 3B, but students are able to access a wide range of additional software tutorials via this site to consolidate and extend their digital visualisation skills.

Required Readings

Please refer to the Weekly Schedule above.

Precent Buildings and Projects

- *The Ancient Theatre at Delphi*, Greece (ca. 350 BCE)
- *Amphitheatre in Pompeii* (70 BCE)
- Andrea Palladio, *Teatro Olimpico*, Vicenza, Italy (1585)
- Lord Chamberlain's Men, *Globe Theatre*, London, UK (1599)
- Claude-Nicolas Ledoux, *The Theatre of Besançon*, France (1784)
- Karl Friedrich Schinkel, *Schauspielhaus*, Berlin, Germany (1821)
- Gottfried Semper and Richard Wagner, *Bayreuth Festspielhaus*, Germany (1876)
- Heinrich Tessenow, *Hellerau Festspielhaus* (1912)
- Walter Gropius, *Total Theater* (1926)
- Ludwig Mies van der Rohe, *Theatre Project*, Illinois Institute of Technology, Chicago, USA (1947)
- Aldo Rossi, *Teatro del Mondo*, Venice, Italy (1981)
- Lina Bo Bardi, *Teatro Oficina*, São Paulo, Brazil (1984)
- Diller, Scofidio and Renfro, *The Memory Theatre of Giulio Camillo*, Brooklyn Bridge, New York, USA (1986)
- OMA, *Kunsthal*, Rotterdam, the Netherlands (1992)
- Grafton Architects, *Università Luigi Bocconi*, Milan, Italy (2008)
- Mario Botta, *The Theatre of Architecture*, Mendrisio, Switzerland (2018)
- Zaha Hadid, *Grand Théatre de Rabat*, Morocco (2021)

Precedent Stage Settings

- Adolphe Appia, *Orpheus and Eurydice*, Festspielhaus, Hellerau, Germany (1912, 1913)
- Oskar Schlemmer, *Triadic Ballet*, Bauhaus Dessau, Germany (1926)
- Daniel Libeskind, *Tristan und Isolde*, Staatstheater Saarbrücken, Germany (2001)
- Herzog & de Meuron, *Tristan und Isolde*, Staatsoper Berlin, Germany (2006)
- Frank Gehry, *Don Giovanni*, LA Philharmonic, Los Angeles, US (2012)

Bibliography

The following suite of references will provide initial orientation within the field of concerns of BDES3027. Students are expected to supplement these references with readings and architectural precedents related to their own lines of inquiry.

General Reference Texts and Handbooks on Architecture

- Pamela Buxton, ed., *Metric Handbook: Planning and Design Data*, 6th ed. (London: Routledge, 2018)
- Francis Ching, *Form, Space and Order*, 4th ed. (Hoboken, NJ: John Wiley & Sons, 2015)
- Miriam Delaney and Anne Gorman, *Studio Craft & Technique for Architects* (London: Laurence King, 2015)
- Julia McMorrough, *Materials, Structures, Standards* (Gloucester, Mass.: Rockport, 2006)
- Ernst Neufert and Peter Neufert, *Architect's Data*, 5th ed. (Chichester, UK: John Wiley & Sons, 2019)

Architectural Drawing – Technique

- Stan Allen, *Practice: Architecture, Technique and Representation*, 2nd ed. (New York: Routledge, 2012)
- Atelier Bow-Wow, *Graphic Anatomy* (Tokyo: TOTO Shuppan, 2007)
- Francis Ching, *Architectural Graphics*, 6th ed. (Hoboken, NJ: John Wiley & Sons, 2015)
- Francis Ching, *Design Drawing*, 2nd ed. (Hoboken, NJ: John Wiley & Sons, 2010)
- David Dernie, *Architectural Drawing (Portfolio Skills)*, 2nd ed. (London: Laurence King, 2014)
- Paul Lewis, Marc Tsurumaki and David Lewis, *Manual of Section* (New York: Princeton Architectural Press, 2016)
- Simon Unwin, *Analysing Architecture*, 4th ed. (New York: Routledge, 2014)
- Randow Yee, *Architectural Drawing: A Visual Compendium of Types and Methods*, 4th ed. (Hoboken, NJ: John Wiley & Sons, 2012)

Architectural Drawing – History and Theory

- Peter Cook, *Drawing: The Motive Force of Architecture* (Chichester, UK: John Wiley & Sons, 2008)
- Peter Eisenman, *Ten Canonical Buildings 1950-2000* (New York: Rizzoli, 2008)
- Robin Evans, "Translations from Drawing to Building", AA Files 12 (1986): 3-18
- Robin Evans, *The Projective Cast: Architecture and its Three Geometries* (Cambridge, Mass.: MIT Press, 2000)

Mapping

- James Corner, "The Agency of Mapping: Speculation, Critique, Invention", in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999): 213-53
- James Corner and Alex S. MacLean, "*Taking Measures Across the American Landscape*," AA Files 27 (Summer 1994): 47-54
- Manuel de Sola-Morales, "The Culture of Description," *Perspecta* 25 (1989): 16-25
- Edward R. Tufte, *Envisioning Information* (Connecticut: Graphics Press, 1990)

Architectural Model Making

- Nick Dunn, *Architectural Modelmaking* (Portfolio Skills) (London: Laurence King, 2010)
- Chris B. Mills, *Designing with Models: A Studio Guide to Architectural Process Models* (Hoboken, NJ: Wiley, 2011)
- Karen Moon, *Modelling Messages* (New York: The Monacelli Press, 2005)
- Megan Werner, *Model Making* (New York: Princeton Architectural Press, 2011)

General Texts on Writing, Design and Typography

- Robert Bringhurst, *The Elements of Typographic Style*, 4th ed. (Seatle, WA: Hartleye & Marks, 2015)
- Katherine Fry and Rowena Kirton, *Grammar for Grown-Ups: A Straightforward Guide to Good English* (London: Square Peg, 2012)
- Mary jo Krysinski, *The Art of Type and Typography: Explorations in Use and Practice* (London: Routledge, 2018)

6. Learning and Teaching Policies

Penalties for late submission of work and related policies are included in the Resolutions of the University of Sydney School of Architecture, Design and Planning, which are available at http://sydney.edu.au/handbooks/architecture/rules/faculty_resolutions.shtml. It is your responsibility to familiarise yourself with these policies. Applications for special consideration must be lodged online at http://sydney.edu.au/current_students/special_consideration/apply.shtml.

Academic honesty is very important to the University of Sydney. You are responsible for ensuring that all of your University work is academically honest. Visit http://sydney.edu.au/policies/showdoc.aspx?recnum=PDOC2012/254&RendNum=0 to read the University of Sydney Academic Honesty in Coursework Policy. To foster academic honesty, the University uses Turnitin® as similarity detecting software. You should note that all of assignments submitted in this unit of study may be submitted to similarity detecting software. An online Academic Honesty Education module and Learning Centre workshops are available to help you learn how to avoid plagiarism. Visit http://sydney.edu.au/elearning/student/EI/index.shtml to learn about these resources.

7. Concerns About Teaching and Assessment

There is a three-step process to **appeal an academic decision**.

1. Informal appeal: approach the original decision maker to discuss your concerns about the academic decision (e.g. your mark). University policy requires you to raise concerns within 15 working days of the academic decision (e.g. release of mark).
2. Faculty-level appeal: if you feel that your appeal has not been adequately addressed at the informal level, you can submit a formal written appeal to the School of Architecture, Design and Planning's Academic Support Unit at adp.asu@sydney.edu.au. Your appeal should include a letter outlining the grounds for your appeal and any evidence you have to support your appeal. The Associate Dean Education or a delegate will assess the appeal and a formal outcome will be sent to you in writing. University policy requires you to file a faculty-level appeal within 20 working days of learning the outcome of the informal appeal.
3. University-level appeal: If you are dissatisfied with the findings of the formal appeal and believe that due academic process was not followed, you can submit an appeal to the Student Appeals Body within 15 days of receiving the outcome of the faculty-level appeal.
   For more details on Academic Appeals, see:
   http://sydney.edu.au/student_affairs/academic_appeals/process.shtml

There is a two-step process to **complain about a non-academic decision**.

1. Informal resolution: approach the person that you believe is responsible for the issue, explain the problem, and ask that they behave differently.
2. Make a complaint: if a problem cannot be resolved through informal resolution, or if informal resolution is not appropriate, you can refer your complaint to the Student Affairs Unit of the University.

   For more details on the complaint procedures, see:

   http://sydney.edu.au/policies/showdoc.aspx?recnum=PDOC2015/408&RendNum=0

8. Support Services and Resources

The Learning Centre runs many workshops on academic skills, free of charge to all students. Learn more at http://sydney.edu.au/stuserv/learning_centre/.

Disability Services is located on Level 5 of the Jane Foss Russell Building. For further information, visit http://sydney.edu.au/stuserv/disability/.

Counselling and Psychological Services is located on Level 5 of the Jane Foss Russell Building. For further information, visit their website at http://sydney.edu.au/current_students/counselling/.

The Indigenous Tutorial Assistance Scheme is available to assist Aboriginal and Torres Strait Islander students with their studies. To find out more, visit https://sydney.edu.au/students/indigenous-tutorial-assistance-scheme.html.

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