

ARCHDES 200 | DESIGN 3 | TOPIC OUTLINE | SEM 1 2019

The Domestic: An introduction to those things both familiar and unfamiliar in our understanding of home, family, privacy, identity, and community. Explores both the most intimate and the most exposed aspects of dwelling, and addresses scales ranging from the room to the block.

Dr. Anthony Brand

Anthony is a full-time lecturer at the University of Auckland, specialising in History, Theory and Criticism. He completed his undergraduate degrees at the University of Nottingham (UK), before coming to New Zealand in 2009.

Since then he has completed his PhD (entitled *Touching Architecture*), worked for Habitat for Humanity, and the Ponsoby-based practice, Rowe Baetens Architecture, whilst also running various design studios and supervising MArch thesis students.



Nomadic Dwellings: Spatial Explorations in Inhabitation

GENERAL COURSE INFORMATION

Course :	Design 3 ARCHDES200
Points Value:	30 points
Course Director:	Sarosh Mulla: s.mulla@auckland.ac.nz
Course Co-ordinator:	Kathy Waghorn: k.waghorn@auckland.ac.nz
Studio Teacher:	Anthony Brand
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Location:	TBC
Hours:	Tuesday and Friday 1:00-5:00pm

For all further general course information see the ARCHDES200 COURSE OUTLINE in the FILES folder on CANVAS.

Nomadic Dwellings: Spatial Explorations in inhabitation

This is a fast-paced studio with FIVE separate design challenges. At the beginning of each new challenge the students will be presented with part of the protagonist's narrative (Chapter summary) and asked to respond to a particular design challenge to enable the protagonist to continue with their journey and progress to the next Chapter.

In order to be successful students are required to respond effectively and efficiently to each new challenge (every two weeks).

Abstract: Loosely based on the narrative from the Netflix series *10*, this studio follows the challenges faced by a single protagonist in their post-apocalyptic search for a more habitable (extra-terrestrial) environment.

Chapter 1: A Kennel for Diogenes

Born from tragedy the story begins from the site of a plane crash on a desolate mountainside – a failed attempt to reach one of the final launch sites at Rocket Lab (Onenui Station, Mahai) in order to escape the dying planet.

You are one of four survivors. The first task therefore is to assemble a temporary shelter from whatever can be scavenged/salvaged from the wreckage before the impending storm sets in. It's unclear how long the storm will last so an effective and efficient shelter construction is paramount.

Challenge 1: in groups of four design a habitable shelter for four adults. The shelter should be designed to be constructed only from items/materials that could be reasonably assumed to be on a large domestic aircraft.

Chapter 2: Nomadic Abodes

After four days and nights of unrelenting rain the storm subsides. Unfortunately during this time your three other survivors have perished from their wounds. You must now continue with the rest of your journey alone. The last launch is in seven days. There is no time to lose.

Challenge 2: The next stage of the journey will be on foot - you must descend the mountain and continue across miles of rough and rocky terrain. You salvage anything that could reasonably be found in/on a large domestic aircraft (providing you can physically carry it). This is all you have to construct a shelter for the next seven nights.

Chapter 3: Theatrical Trailers for Mobile Domiciles

Weary and fatigued you reach base camp. Your makeshift shelter has begun to disintegrate. It is clear there is little chance of reaching the launch site on time if you continue by foot. You hunt around the few abandoned offices and vehicles that remain. Eventually you happen upon the rusting remains of a rickshaw that appears to be structurally intact. All is not lost and you may yet make the final launch!

Challenge 3: Using what supplies you can reclaim from the deserted offices and other vehicles at the camp, design and build a lightweight structure that attaches to the chassis of the rickshaw. This will be your temporary home when not actively cycling. It must be light enough to cycle (on mostly flat terrain), but sturdy enough to withstand possible (small) animal attacks during the night.

Chapter 4: (space)ship-shape

Arriving at the launch site there is one shuttle left – the reasons for which soon become clear: the interior is completely unfinished! The body of the ship appears to be otherwise in good condition, and the functional necessities for launching and landing are all present and correct. The workshop for constructing space shuttle interiors is nearby and well equipped with an assortment of material and tools (luckily!).

Challenge 4: The journey to IO will take approximately eight months. Working within the strict internal confines of what space remains, you must design and configure the volume to accommodate your needs for the duration of the journey (hint 1: in zero gravity...). (hint 2: you may not return to earth after the launch: when you land on IO you will only have the contents of the ship from which to construct an extraterrestrial dwelling...)

Chapter 5: A Home for Moonwalkers

After a many months floating in a confined space you finally reach your destination: IO. Touching down on solid ground you take your first tentative steps onto your new *home* planet. Now to build the home...

Challenge 5: Using the industrial 3D- printer contained within the hold of the shuttle, design and print a new home for yourself with potential to expand for a larger family in the future. The house is to be fully self-sufficient with provisions for energy storage, water recycling, food production and so on (see *IO* for further inspiration)

TOPIC STRUCTURE AND CONTENT

The course is divided into separate chapters that each tackle a new and different challenge along the journey related to questions of inhabitation (discussed above).

The chapters are as follows:

Chapter 1: a kennel for Diogenes

Chapter 2: nomadic abodes

Chapter 3: theatrical trailers for mobile domiciles

Chapter 4: (space)shipshape

Chapter 5: a home for moonwalkers

Each Chapter challenge will be addressed over a two week period (see timetable below), beginning with an introduction to the challenge and ending with an informal design review with formative feedback (does not count towards final grade). The requirements for each review are the same (see “Required Production”) but the scale and level of detail that each should address will be different and specific to that particular challenge.

SPECIAL NOTE:

A field trip is currently being organised to undertake the Tongariro Alpine Crossing to acclimatise the students with aspects of the challenges (such as only being able to take what you can carry) and imagine what it might be like to inhabit a desolate and otherworldly environment. While it is not a compulsory component of the course, students interested in taking part should be aware that, as with any 19.4km trek over rugged and inclined terrain, a moderate-high level of personal fitness would be required. There would also be a cost involved (approximately \$300/student for return coach transport from auckland, two nights shared accommodation, breakfasts and pack lunches). Full details are yet to be confirmed and prices/dates subject to change.

Week	Date	Event
Week 1	Mon 4.3	12:00 All architecture meeting, rm 311
	Tue 5.3	1:15 Design 3 staff presentations and studio ballot Design 3 Studio classes commence. Introduction to studio, elaboration of course outline, Q & A. Introduction to first design challenge.
	Fri 8.3	Design Workshop and Tutorials
Week 2	Tue 12.3	Skills presentation 1. Design tutorials
	Fri 15.3	Review of Chapter 1 work. Introduction to second design challenge.
Week 3	Tue 19.3	Design workshop and tutorials
	Fri 22.3	Skills presentation 2. Design tutorials
Week 4	Tue 26.3	Design tutorials
	Fri 29.3	Review of Chapter 2 work. Introduction to third design challenge.
Week 5	Tue 2.4	Design workshop and tutorials
	Fri 5.4	Skills presentation 3. Design tutorials
Week 6	Tue 9.4	Design tutorials
	Fri 12.4	Review of Chapter 3 work. Introduction to fourth design challenge.
MID-SEMESTER BREAK		

Week 7	Tue 30.4 Fri 3.5	Design workshop and tutorials Skills presentation 4. Design tutorials
Week 8	Tue 7.5 Fri 10.5	Design tutorials Review of Chapter 4 work. Introduction to fifth design challenge.
Week 9	Tue 14.5 Fri 17.5	Design workshop and tutorials Skills presentation 5. Design tutorials
Week 10	Tue 21.5 Fri 24.5	Design tutorials Review of Chapter 5 work. Conclusion of Journey
Week 11	Tue 28.5 Fri 31.5	Editing narrative for final review (design tutorials) Editing narrative for final review (design tutorials)
Week 12	Tue 4.6 Fri 7.6	Design 3 Final Studio Reviews

RESOURCES

Suggested, though by no means exhaustive, reading, researching, watching list (look up the following):

Mas Yendo

Bartlett Book of ideas

Devices, CJ Lim

Jan Kaplicky

Architect's Sketchbooks, Will Jones

Visionary Architecture, Neil Spiller

Michael Web (specifically the designs for the Cushicle and the Suitaloon)

Alison and Peter Smithson (House of the Future)

Lebbeus Woods

Watching:

IO (Netflix)

Moon

Interstellar

Mad Max

10 Cloverfield Lane

TED talks: https://www.ted.com/playlists/334/apocalypse_survival_guide

REQUIRED PRODUCTION

Students are encouraged to answer questions¹ on the nature of inhibition and particular spatial/ergonomic challenges through investigative models and drawings at specific scales (for each Chapter).

Chapter 1 (NTS)

Chapter 2 will be 1:1

Chapter 3 will be 1:10

Chapter 4 will be 1:50

Chapter 5 will be 1:100

(Additional drawings/models at other scales are also welcome).

By the conclusion of the final (fifth) Chapter (end of week 10), the student should have accumulated the following **from each challenge**:

A **series** of iterative concept/design models (to scale) that explore various ideas and possible design solutions

1 x finished model of the chosen design solution for that challenge

1 x sectional/cutaway axonometric of the chosen design solution for that challenge

In addition, the student should also submit a “journal” detailing the challenges faced and design strategies worked through along the protagonist’s journey. This journal will form the basis of the final presentation (final crit). More details on the preferred content will be discussed in class.

ASSESSMENT & FEEDBACK

This course is assessed as 100% coursework. Conversational feedback is given throughout the semester. Written feedback, with indicative grading, is given at a date around the mid-point of the semester. All further information regarding assessment is available in the ARCHDES 200 Design 3 Course Outline (on Canvas).

LEARNING OUTCOMES

General Course Outcomes: On successful completion of this course students should be able to:

¹ Said questions will be generated by the group through discussion during the introductory sessions to each new Chapter

- Theory: Demonstrate a critical understanding of the domestic and pursue a consistent line of questioning to uncover architectural opportunity within the familiar, and explore that opportunity through the development of design propositions.
- Architectonics: Demonstrate abilities to develop the tectonic characteristics of the project through the making of material propositions.
- Performance: Show evidence of an understanding of how the design proposition behaves as an environment (in terms of light, heat, ventilation ...) and how it responds to and influences the site and spatial context it occupies.
- Form and space: Show evidence of conceptual and developed design skills in terms of three dimensional formal/spatial composition through the making of scaled 3-dimensional architectural propositions.
- Media: Demonstrate productive engagement with media specific to the discipline of architecture – plans sections, elevations, perspectives, models – and understandings of their uses and relationships to one another.

Specific Topic Outcomes: This studio topic will engage the general course outcomes in the following ways:

- *Theory: Interrogating the notion of dwelling through discussion and models that explore theoretical constructs of what it means to dwell: what a habitat needs to be as well as the non-functional requirements that afford the act of inhabitation.*
- *Architectonics: To develop an understanding of material properties and characteristics, and how to marry these at different levels/scales and contexts through models and drawings*
- *Performance: Use iterative models and concept sketches to efficiently and effectively explore ideas of space, kinaesthetics and ergonomics.*
- *Form and space: recognise and appreciate how different conditions (structural, material, spatial, climatic, functional etc.) can come to influence needs and actions of the user as demonstrated through an array of variegated designs that reflect the particular conditions for each of the five design challenges*
- *Media: develop enviable skills in apprehending and comprehending the feel of a space and how it would be to inhabit said space through studious practice of drawing and model making at various scales.*