Outer space beyond Earth's atmosphere >10,000km

Exosphere <10,000km (800-10,000km)

Thermosphere <800km (80-800km)

International Space Station +400km

Aurora +200km (100-300km)

Karman Line +100km
Mesosphere <80km (50-80km)

Ozone layer <50km (10-50km)
Highest freefall jump +41km

Hot air balloon (highest) +20km

High clouds +15km (7-16km)

Troposphere <11km
Aircraft +10km
Mount Everest +9km

Mid-level clouds +7km (2-7km)

Maximum height of human habitation +5km
Helicopter +4.5km

Mount Fuji +3.8km

Rain and low clouds +2km (0.5-2km)
Atmospheric boundary <1km
Burj Khalifa +0.8.3km

Giant Sequoia +0.12km

WHAT IS DESIGN BEYOND BOUNDARIES?

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DESCRIPTION

Unfixed Image

Scenery (風景) is an abstract notion. Just as different people vary in appearance, the word "scenery" evokes a multitude of distinct images. At times it may be difficult to convey this concept even if we translate it textually and explain with words. Yet when we try to illustrate with a drawing, a picture, a form of the visual, we call it a vague and large image without boundary, such as a mountain range of rolling peaks, the horizon that divides the sea and sky, or the particular cityscape of Hong Kong with its density of tall buildings.

By critically interrogating the tension between nature and human in this studio, we aim to carefully study and rethink what the idea of architecture can actually encompass, to explore its inherent connections with its surroundings, and to expand the possibilities of design by creating scenery together with architecture.

PROCESS

We ask students to approach design with a broadened, alternative perspective, enriching the process of design by opening it up to the knowledge and influence of fields outside of architecture. By drawing upon sources from other expertise, students can envision a mode of design beyond typical practice or studies to engage an expanded concept of architecture. Specifically, students are encouraged to focus their attention to various sites and conditions around Hong Kong, with in-person field study through site visits as the essential primary basis of their design thinking. This physical, visceral, experiential study of a place combines with both research and an analytical lens to inform a coherent architectural response.

To broaden the scope and dialogue of the studio by situating the work in a larger international context, there will be a series of joint workshops, events, and project milestones and collaborations for the studio in conjunction with design studios from Princeton University School of Architecture, the University of Tokyo Department of Architecture, and The Oslo School of Architecture and Design, among others. Through the exploration of different places, conditions, and design processes around the world, students can work to continually contextualize their own site approach within the specificities of Hong Kong's locale, while also comparatively expanding their own frame of reference for understanding the importance of place in defining scenery.

1. Research : Types of Architecture
In this world, there are many kinds of languages. Some areas speak similar languages, while other areas use languages and characters that are not similar to those of neighboring countries. In this sense, language and architecture may be two aspects of human culture that have somewhat similar characteristics. The skyscrapers that can now be seen in cities all over the world did not have a uniform scale in the past, but rather a city shape that spread horizontally depending on the shape of the land. Like the language, any city's particular quality has evolved into the unique character of each place, eventually becoming a cultural heritage and symbol.

While architects must always design within a specific site, often we believe that we do not have enough knowledge about the planet we live on when we study and design architecture. As such, we will first study the scenery and the site, as the foundation for designing architecture.

2. Site Design : The Natural World and the Human World
There are two environments on earth today, especially on land. One is the populated society we have created. The other is a natural society that has persisted since long before the existence of human beings. Originally, humans made a place for themselves in the large society of nature and lived without boundaries, just like other animals. However, over time humans have created small borders that isolate us from the larger society. In this sense, the architecture we study may have been the first human invention to separate these two societies. With the aim of interrogating this boundary, we will begin the architectural project through a close study of site, and even embark on its remaking as a design endeavor. While our trajectory begins with and is grounded in research, we will not leave research behind, but instead continue to cyclically revisit research as part of the design process.

3. Architectural Design : Architecture and Time

When architects design a building, they often do not take into account its lifespan. For instance, the durability of a material is reflected in the lifespan of a house, such as fifty years for a wooden house or one hundred years for a concrete house. However, if we look at buildings in Europe, we will find that even in the same residential area, five hundred year old structures have a longer lifespan than modern buildings. This is partly due to the local environment, yet there are also wooden temples in Japan that were built over one thousand years ago. In this sense, designers are creating without taking time into consideration. On the other hand, if the lifespan is examined, it would require meticulous calculation, especially in modern architecture which could collapse within a single generation.

For humans, creating space means isolating from nature and preserving certain qualities in a fixed state, built on the premise that it will not change. The lifespan of the preserved space depends largely on the materials and methods used to create it. On the contrary, the creations of nature keep changing every minute and every second, yet simultaneously in the long run, they seem to appear completely unchanging. In this sense, natural society and human society do not share the same time scale at all. Perhaps this misalignment produces a major distortion between these two societies. With an acute awareness of this typical disjunct, we will approach the design of architecture through a temporal sense attuned to the inherent materials and processes of building coupled with its connection to site.

4. Designing Architecture as Scenery

Scenery has no boundary, and does not create fixed space. Our aim is to explore how architecture may embody these properties as well. What is architecture without boundaries? What is architecture without steadfastly preserving the quality of space? Can architecture maintain its present form? Through the cumulative design process of the studio, we will expand our outlook to think about architecture from a freer perspective to engage the aspects of becoming scenery.

DELIVERABLES

Physical models, drawings, images, photographs, renders, collages, even paintings are subject as deliverables. Scale will be determined based on individual sites and projects. Above all, you will always need to keep in mind how your medium, format, representation, and presentation supports your design idea. Therefore, we will not require that all students make realistic renders, for example, but instead to always question why you wish to present in one particular way. As the subject of our focus is designing a human-made construction in the physical world, we will ask all students to make physical models for studies, midterm reviews, and final presentations.

LEARNING OUTCOME

1. Ability to create architectural designs that satisfy both aesthetic and technical requirements.
2. Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences.
3. Knowledge of the fine arts as an influence on the quality of architectural design.
4. Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scal
5. Understanding of the methods of investigation and preparation of the brief for a design project.
6. Ability to generate complex design proposals showing understanding of current architectural issues, originality in the application of subject knowledge and, where appropriate, to test new hypotheses and speculations.
7. Ability to evaluate and apply a comprehensive range of visual, oral and written media to test, analyse, critically appraise and explain design proposals.
8. Awareness of the theories and methods of inquiry that seek to show the relationship between human behaviour and the physical environment.
9. Understanding of the basic principles of sustainable development and architects' responsibilities with respect to the social, economic and environmental sustainability in architecture and urban design.
10. Understanding of the principles of structural behaviour in withstanding gravity and lateral forces, and the range and appropriate applications of contemporary structural system.

11. Ability to assemble a comprehensive programme for an architecture project, including:
12. Ability to respond to natural and built site characteristics in the development of a programme and design of a project.
13. Ability to work cooperatively with others in a team setting. Ability to discuss architectural ideas with non-architects, to listen objectively to their opinions and to consider those opinions in designing.
14. Ability to speak and write effectively on subject matters contained in the professional curriculum in English.
15. Ability to use appropriate representational media, such as drawings, models, diagrams, charts, including computer technology, to convey essential design information at each stage of the programming and design process.

ASSESSMENT SCHEME

1_Midterm Reviews (30%)
1. Midterm Review 1, October (10%)
2. Midterm Review 2, December (10%)
3. Midterm Review 3, March (10%)

2_Final Review (50%)
1. Final Project Presentation, May (50%)

3_Project Book (20%)
1. Project Book to have three parts: Position/ Technology / Process
2. To be started at the beginning of the year and reviewed throughout.

COURSE FORMAT

1_Group Work
1. Students are allowed to work in groups only the first semester.
2. The second semester will be all individual projects.

2_Teaching Days
1. The Design Studio will be taught two days a week Monday and Thursday 13:30 to 18:00

3_Studio Spaces
1. Each Studio will have their own space, accommodating a desk for each student
2. Layouts will be issued at the start of the academic year

FIELD TRIP

At present all foreign trips are suspended until further notice. If the COVID-19 situation improves, the school will inform the Design Studio tutors.

REQUIRED READINGS

Earth in Human Hands, David Grinspoon

Reading the Rocks: The Autobiography of the Earth, Marcia Bjornerud

A Doctor Builds an Irrigation Canal, Tetsu Nakamura

From My Land to the Planet, Sebastião Salgado

An Introduction to Ecology of Hong Kong, I J Hodgkiss, S L Throwe, and Man Shek Hay

Hong Kong Landscapes: Shaping the Barren Rock, Bernie Owen and Raynor Shaw

IMPORTANT NOTE TO STUDENTS

Attendance
Class attendance is required in all courses. For an excused absence, the instructor must be notified and presented with documentation of illness or personal matter. Please note: **Three (3)** or more unexcused absences may result in a failing grade for the course.

Academic Honesty
Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at: http://www.cuhk.edu.hk/policy/academichonesty/. With each assignment, students may be required to submit a statement that they are aware of these policies, regulations, guidelines and procedures.

Student Work
Submission of studio documentation must be complete and correctly formatted. Missing or incomplete submission of the documentation folder will result in the grade for the course being withheld. This will prevent registration for the following term or delay graduation. In addition, a grade deduction of *one letter grade* will be made.

SCHEDULE

Important Dates

SEMESTER 1
1_Midterm Reviews (30%)
Midterm Review 1, 25-29 October 2021 (10%)
Midterm Review 2, 06-10 December 2021(10%)

SEMESTER 2
Midterm Review 3, 01-04 March 2022 (10%)

2_Final Review (50%)
Final Project Presentation, 03-06 May 2022 (50%)

3_Project Book (20%)
Project Book to have three parts: Position/ Technology / Process, 13 May 2022 (20%)

ARCH 5110_ADVANCED ARCHITECTURAL DESIGN STUDIO I

Term 1: 6 September 2021 (Mon) – 4 December 2021 (Sat)

	WEEK 01	
06.09	**INTRODUCTION**	**STUDIO SELECTION**
09.09	**Assignment 1**	Results Announced, Course introduction/ Group discussion

	WEEK 02	
13.09		Assignment 1 : Research
16.09		Assignment 1 : Research

	WEEK 03	
20.09	**Pin-up**	Presentation Assignment 1 : Research
23.09	**Assignment 2**	Assignment 2 : Site Design

	WEEK 04	
27.09		Assignment 2 : Site Design
30.09		Assignment 2 : Site Design

	WEEK 05	
04.10		Assignment 2 : Site Design
07.10		Assignment 2 : Site Design

	WEEK 06	
11.10		Assignment 2 : Site Design
14.10		Chung Yeung Festival

	WEEK 07	
18.10		Assignment 2 : Site Design
21.10		Assignment 2 : Site Design

	WEEK 08	
25.10 – 29. 10		**MIDTERM REVIEW 1 (10%)**

	WEEK 09	
01.11	**Assignment 3**	Assignment 3 : Architectural Design
04.11		Assignment 3 : Architectural Design

	WEEK 10	
08.11		Assignment 3 : Architectural Design
11.11		Assignment 3 : Architectural Design

	WEEK 11	
15.11		Assignment 3 : Architectural Design
18.11		Assignment 3 : Architectural Design

	WEEK 12	
22.11		Assignment 3 : Architectural Design
25.11		Assignment 3 : Architectural Design

	WEEK 13	
29.11		Assignment 3 : Architectural Design
02.12		Assignment 3 : Architectural Design

	WEEK 14	
06.12 – 10.12		**MIDTERM REVIEW 2 (10%)**

Term 2: 10 January 2022 (Mon) – 23 April 2022 (Sat)

	WEEK 15 (2022)	
10.01	**Assignment 4**	Assignment 4 : Designing Architecture as Scenery
13.01		Assignment 4 : Designing Architecture as Scenery

	WEEK 16	
17.01		Assignment 4 : Designing Architecture as Scenery
20.01		Assignment 4 : Designing Architecture as Scenery

	WEEK 17	
24.01		Assignment 4 : Designing Architecture as Scenery
27.01		Assignment 4 : Designing Architecture as Scenery

	WEEK 18	
31.01 – 05.02		**Lunar New Year Vacation**

	WEEK 19	
07.02		Assignment 4 : Designing Architecture as Scenery
10.02		Assignment 4 : Designing Architecture as Scenery

	WEEK 20	
14.02		Assignment 4 : Designing Architecture as Scenery
17.02		Assignment 4 : Designing Architecture as Scenery

	WEEK 21	
21.02		Assignment 4 : Designing Architecture as Scenery
24.02		Assignment 4 : Designing Architecture as Scenery

	WEEK 22	
01.03 – 04.03		**MIDTERM REVIEW 3 (10%)**

	WEEK 23	
07.03		Assignment 4 : Designing Architecture as Scenery
10.03		Assignment 4 : Designing Architecture as Scenery

	WEEK 24	
14.03		Assignment 4 : Designing Architecture as Scenery
17.03		Assignment 4 : Designing Architecture as Scenery

	WEEK 25	
21.03		Assignment 4 : Designing Architecture as Scenery
24.03		Assignment 4 : Designing Architecture as Scenery

ARCH 5110_ADVANCED ARCHITECTURAL DESIGN STUDIO I

	WEEK 26	
28.03		Assignment 4 : Designing Architecture as Scenery
31.03		Assignment 4 : Designing Architecture as Scenery

	WEEK 27	
04.04		Assignment 4 : Designing Architecture as Scenery
07.04		Assignment 4 : Designing Architecture as Scenery

	WEEK 28	
11.04		Assignment 4 : Designing Architecture as Scenery
14.04		Assignment 4 : Designing Architecture as Scenery

	WEEK 29	
18.04		**Easter Monday**

	WEEK 30	
25.04		Assignment 4 : Designing Architecture as Scenery
28.04		Assignment 4 : Designing Architecture as Scenery

	WEEK 31	
02.05		**The day following Labour Day**
03.05-06.05		**FINAL REVIEW (50%)**

	WEEK 32	
09.05		
13.05		**PROJECT BOOK (20%)**
		Project Book to have three parts: Position/ Technology / Process