

studio • mOOO 2022 Digital Design and Research

studio

A group of architecture graduates from the most competitive architecture schools collectively formed a multidisciplinary design platform - studio mOOO. A core mission is to guide students or young professionals alike in formulating their projects. Through studio-based training, the students will improve their design and research skills, and they will also need to improve their presentation skills and as well as ability to engage in group discussions. Ultimately maximise their talents and potentials to thrive in brutally competitive design schools or jobs.

New Studios Original Design Briefs

A new venture that will deepen mOOO's agenda of promoting young architects and our continuous effort to launch competitions as a form of research.

We thought to extend the effort and invite some of our colleagues to pursue their thesis projects. They are practising and teaching at industry-leading firms and universities. Now they will open new fields with us and run their design units at studio mOOO.

Our young and dynamic architects and educators have prepared a wide range of design and research agendas; original design briefs: 1) Vacation Hotel to the Solar System, 2) The Fleeting Love - Celebrating the transience, 3) Space_Autopsy. 4) Visual Diary from 2030

We discussed with the tutors and selected the most suitable briefs for eight-week studios. Some tutors push digital design agendas; some tutors indulge you in narrative-based units. And some thesis projects will expand your interpretation of architecture education, forever change your pre-conception of being architecture students.

Our team made some collective reflections on our education from studying overseas in the UK and US. Our goal is to involve you, and you will experience the different learning models available to you in world-leading universities. When you choose to apply later on, you will find yourself better positioned to deal with the challenges.

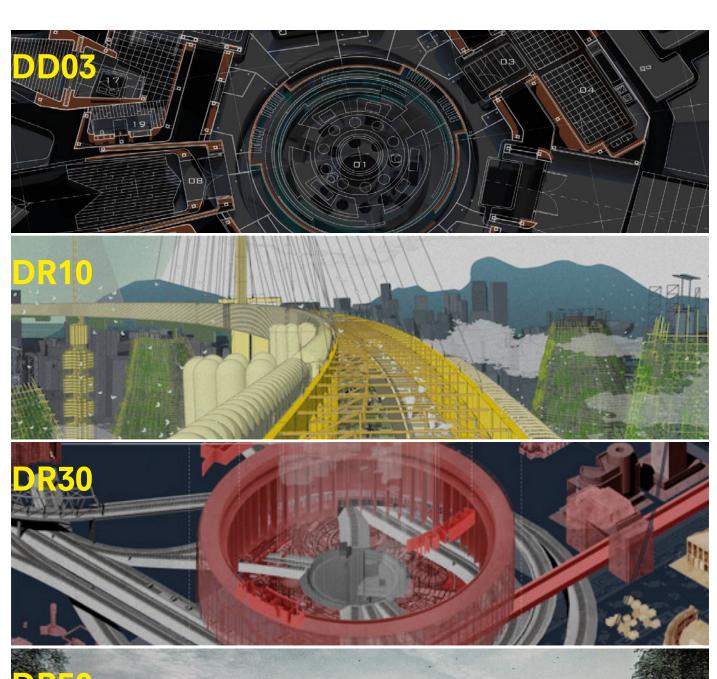
Some of you choose to continue down the path others define for you; some of you might decide to define your own pursues. Anyway, in theories, we will find directions forward.

DD03 - Vacation Hotel to the Solar System,

DR10 - The Fleeting Love - Celebrating the transience

DR30 - Space_Autopsy

DR50 - Visual Diary from 2030





DD03

Vacation Hotel to the Solar System

Research on the solar system; Panic a little!

Nature is always more imaginative than us! We learned that the solar system's terrestrial planets (Mercury, Venus, Earth, Mars) are like twin siblings. They formed at the same time (about 3.6 billion years ago) and experienced many common growths and catastrophes. We are just lucky to live in an oasis that has temporarily escaped the fate of fate.

Not so alien after all:

Compared to other worlds, our planet is not unique; their composition, structure, and chemical elements are almost the same. 1) Today, we find that Mercury closest to the sun, there is still a large amount of water ice in the polar regions; 2) Venus used to have the same vast ocean and delicate atmosphere as Earth, especially like the environment of Venus high atmosphere is very close to the Earth's atmosphere; 3) The Martian environment was once more humid and habitable than Earth; 4) Europa has underground oceans and underwater hot springs. Of course, there are more and more data returning from on-going space expediations.

From scientific facts to architectural concepts:

The challenge is to put forward convincing architectural proposals under reasonable physical criteria, especially related to the living environment period and associated parameters, such as planetary gravity, temperature, pressure, climate, atmospheric wind, geological activity, solar radiation, fundamental design conditions. These fascinating scientific knowledge provide a fertile foundation for innovative architectural concepts.

Geometry explorations driven by extreme activities:

Since, we position the studio to investigate and propose architecture designs that are reachable at a predictable time from the perspective of technological theory; before 2050. Most crucially, we must question our preconception of architecture related to travels, it means we need to untrain ourselves as earthling architects then we must imaginatively digest extreme conditions on other planets with romance and playfulness. Our studio speculates on a future space tourism/ vacation industry. We ask students to design a small-scale vacation hotel with corresponding local vacation activities.

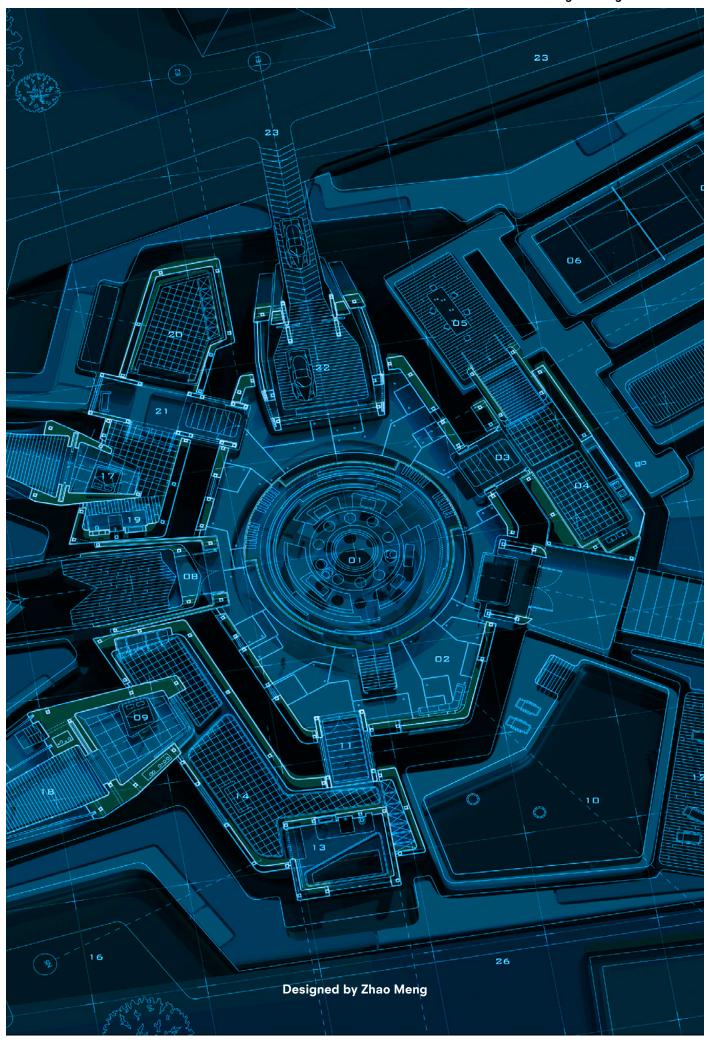
Outer space architecture representations:

We hope to face the real space environment and challenges. The technology we have combined with the appropriate imagination to re-imagine the problem of survival in outer space and design the lifestyle of outer space, instead of avoiding the issue by distant deified technology, so that we can give more references to the realisation of interplanetary species in the future.

Software:

Prior knowledge of 3D modelling is preferred for this workshop, the studio will also provide Modo software training. We will mainly use Rhinoceros 3D for concept/massing designs, V-ray for rendering and as well as Modo-Mesh Fusion for procedural 3D modelling. Students should install the software mentioned before the workshop.

- Last revised on 24th October 2021



DR10

The Fleeting Love - Celebrating the transience

A Flash in the Pan

Human's obsession with eternity has been widely recognized and discussed since prehistorical times. We fear expiry, ageing and dying; we long for eternity. For some, it has been a utopian fantasy to be immortal. Many societies, architects, and city planners have conceived architecture as solidly stable and resistant to the weather, nature and time. Buildings tend to outlive their makers, and as we often live in cities surrounded by buildings that were made mostly by the dead, architecture has always been intimate with the mortal and immortal. Often, buildings that do not last are understood only in terms of failure and decay.

Night-blooming cereus, aka the Queen of the Night, famous for its medicinal properties in many Asian cultures is a species that rarely blooms and only at night, and its flowers wilt before dawn. It is however the rare and brief appearance of the blooms that make us appreciate the beauty of it. In Japan, cherry blossom is not just a natural phenomenon, but it also represents the seasonal celebration of Spring. As it only occurs with certain climate conditions, it is also seen as a natural indicator of climate change. In many cultures, flower bouquets are a manifestation of love and appreciation, which also seems to have symbolized the ephemeral ecstasy of romantic love.

The essence of temporality has also challenged our preoccupation with long-term strategies and masterplans and questions our ability to achieve these in the face of increasing resource constraints and political and economic uncertainty. The Burning Man is an annual event that celebrates the temporality. in the Neveda desert which attracted tens of billion visitors. The event is in fact a temporary city that was built by the community to last for 9 days. most of the structure. as a symbolic act, would be burned down to devote love and memories to the loved ones. While the Kumbh Mela hosts millions of Pilgrams for every 12 years. Located at the floodplain of the River Ginges, the 23km sq of the festival will be submerged into the water and no traces will ever be found until the next Kumbh Mela.

Previously our studio has investigated into how the manifestation of immortality can be employed in architectural and urban design. The projects responded to different

context and scenarios where we questioned the very fundamental desire of human civilization. In this workshop, we revisit and critically reflect upon the topic of eternality. By critically assessing the potential possibilities from being transient and short-lived, our studio aims to celebrate the grace of the temporality, and argues that decay and being temporary represent potential as well as loss and identifies an alternative and significant history of architecture in which a building can be designed, occupied and imagined to decay, disintegrate and disappear.

The understanding of contemporary urban landscape will address social transformation in culture and communities, economies and ecologies, politics and policy. Here, the temporary city will be informed by individual studies to establish core interests, narrative and program. We encourage students to imagine and invent alternative realities, through researching, analyzing and synthesising urban visionary ideas along with innovative technical disquisition, environmental science and entrepreneurial narrative.

Gaming and digital augmentation tools will be incorporated to explore the potentials of an alternative representational means in the final outcome.

- Last revised on 24th October 2021



The Fleeting Love - Celebrating the transience

DR30

Space_Autopsy

'I am for messy vitality over obvious unity.' -Complexity and Contradiction in Architecture, Robert Venturi

Prologue | Setup: Territorial Design(?)

The City once made a broken promise to all its citizens.

Urbanity is terminal with a virus, retracting into itself, becoming a singular entity covered in forgotten architecture, past occupancies, aborted projects, and popular fantasies. Cities have become nothing more than a series of phantom objects connected by nothing other than the time in which they were constructed and their proximity to one another.

In this studio we articulate that not all forms of architecture are discernible from their surface, they have deeper structures at play. Today all these phantoms are instructed by diverse antisocial layers, redundant economic enclosures and residual historical spaces which produce a sense of being in a complex environment.

But the world will not evolve past its current state of crisis by using the same thinking that created the situation. Through the lens of urban design, we challenge you in this studio to see what others don't.

The studio will propose a territorial urban strategy, exploring architecture as a catalyst for spatial and political change, and weave together new spatial conditions through the design of micro-infrastructures that exist within an urban schematic.

Phase One | Research: Architectural Dissection

This phase is defining as a direct response to a contemporary crisis in The City.

As architects, we are often presented with an urban context as a formal starting point of a project, we are challenged to constantly rethink how we embrace the dynamic between the architecture we produce and these external forces. We can use the ongoing crisis in the city as the true opportunity to reflect and renew, so that we can respond, rather than insecurely react.

Since crises are always latent until officially declared, we will attempt to extract the meaningful, revealing the anthropological extent of a condition through a curated constellation of objects, media, events, and histories. Engaging socio-economically and geo-politically, to highlight key moments in time where we begin to make clear and irreversible decisions.

Phase Two | Mapping: Urban Design & Spatial Diagnostics

Through an urban design proposal, you will begin to amass your speculative urban design proposals and test their architectural associations through micro-design provocations. We will sway back and forth in your declared crisis, between things that we have revealed, yet to be declared, and things that are seen, but yet to be understood.

This phase will be structured through several design exercises and guest workshops in QGIS, AutoCAD, Revit, Rhino and Grasshopper.

Phase Three | Architectural Design: The Brief to the City

As the wider role of architecture in our society is unconstrained, this studio argues for the power of continued traditional provocations. Used to explore the architectural scale through materials, components, proposals, composition, and time; the provocation is a platform for architectural experimentation, it pushes the argument to an extreme, to be abundantly clear of the position taken and our attitudes towards the discipline.

Provocations are not intended to be a true representation of a solution but are powerful images that speak of many levels of the project.

In this phase we will move to intense design experimentation. We will actively build your architectural project(s) as a series of crucial moments and discreet interventions. These will slowly grow in numbers and complexity as they will make up a wider, geo-political and socio-economic territorial project.

These select moments will require a combination of conceptual agility, technological fluidity, and spatial intelligence. By critically positioning ourselves to existing strategies and their territorial impact, we can reposition ourselves to produce an uncompromising territorial transformation.

The end result will be a short, but powerful brief to the city.

Design Software & Workflow

Phase One: QGIS, AutoCAD Phase Two: Revit, Rhino, Grasshopper Phase Three: Illustrator & Photoshop

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DR50

Visual Diary from 2030

The Prompt

'I accidentally time travelled and this is my visual diary.'

Narrative: Documentary from the Future

In this design studio, we invite students to look at a location of your choice in the year of 2030 through the first person perspective.

Students are encouraged to look at pop culture references wich would drive the first part of the narrative: drawing up a visual diary as documentary of the past, in the future.

Possible Time Travel references

Did you wake up from a coma / hibernation? Did you fell into a wormhole / black hole in space? Could you still return to the present day? Why did you start drawing up this visual diary?

Projecting the Past to the Future

In the history of human technological development, the urban cities have been evolving in an exponential way. Students are encouraged to look at past architectural references such as the 'Invisible Cities' by Italo Calvino written in 1972. Some of these historical 'futuristic' predictions did actualise with new technologies being available.

The studio asks students to envision what could happen with certain conditions being met in the future. This could develop into an interesting project to look back at as we time travelled to 2030 in the slow and usual way.

Research Topics

- 1. Technology Advancement
- 2. Change in Social Philosophy
- 3. Urban or Landscape Development

As part of the imaginative future, tutors would guide students into in research in 3 key focuses within these categories above.

Possible Utopian & Dystopian Futures

Ideologies & Social Movements (e.g. anti-racism, veganism, gender equality, inclusivity, etc..)

Transportation (e.g. Hyperloop, Rockets, Scooters, etc..) Political (e.g. Government surveillance, human rights, international relations, etc..)

Financial (e.g. Cryptocurrency, NFTs, etc..)

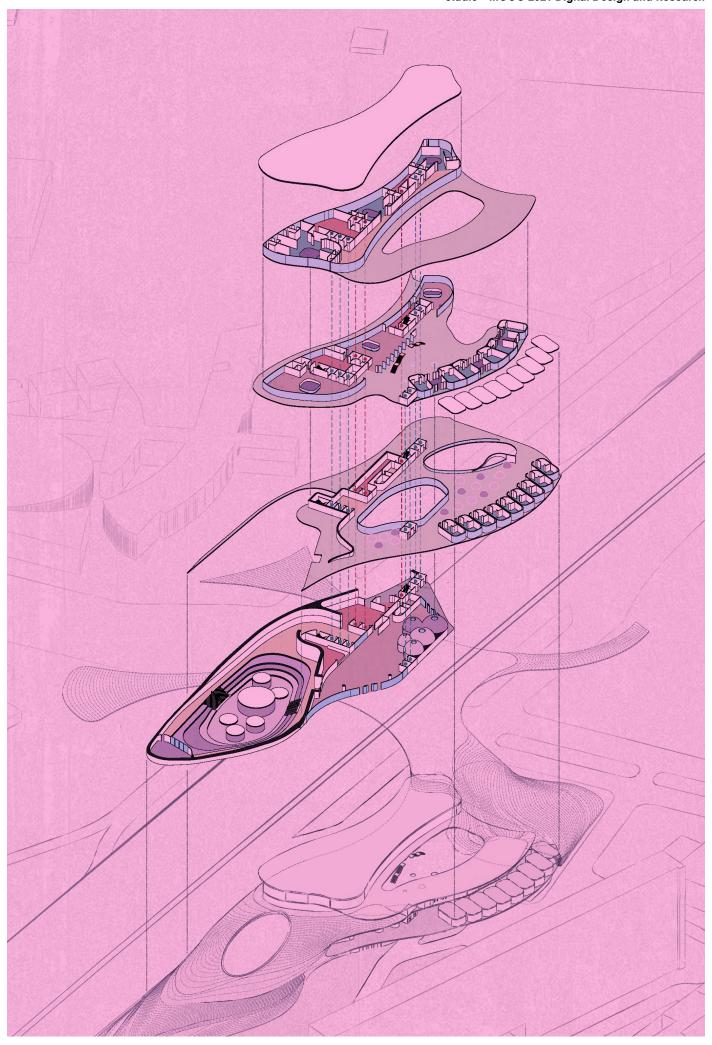
Global problems (e.g. Overpopulation, energy crisis, global warming, panedmics, etc..)

Design Methodology

The research topics and the project site of your choice will be fundamentally focusing on spaces in the human scale and the urban scale. The research fundings would be the parameters that students should utilise for building design beyond week 4. Tutorials would then be given on computational design software Grasshopper that are specified to your project needs

Design Software & Workflow

Concept: Photoshop & Illustrator Modelling: Rhino & Grasshopper Rendering: Lumion & Enscape



Timeline

An overview to the eight-week studios, subject to your tutors' changes

Week 1 - Brief tutorial, reading club, site research

Week 2 - Preliminary site studies, programme and massing studies

Week 3 - Finalise the programme analysis,

Week 4 - Finalise the massing option

Week 5 - Interim Review and scheme development

Week 6 - production: scheme development

Week 7 - production: scheme development

Week 8 - Final tutorial

Week xx - Final presentations (to be coordinated across studios)

