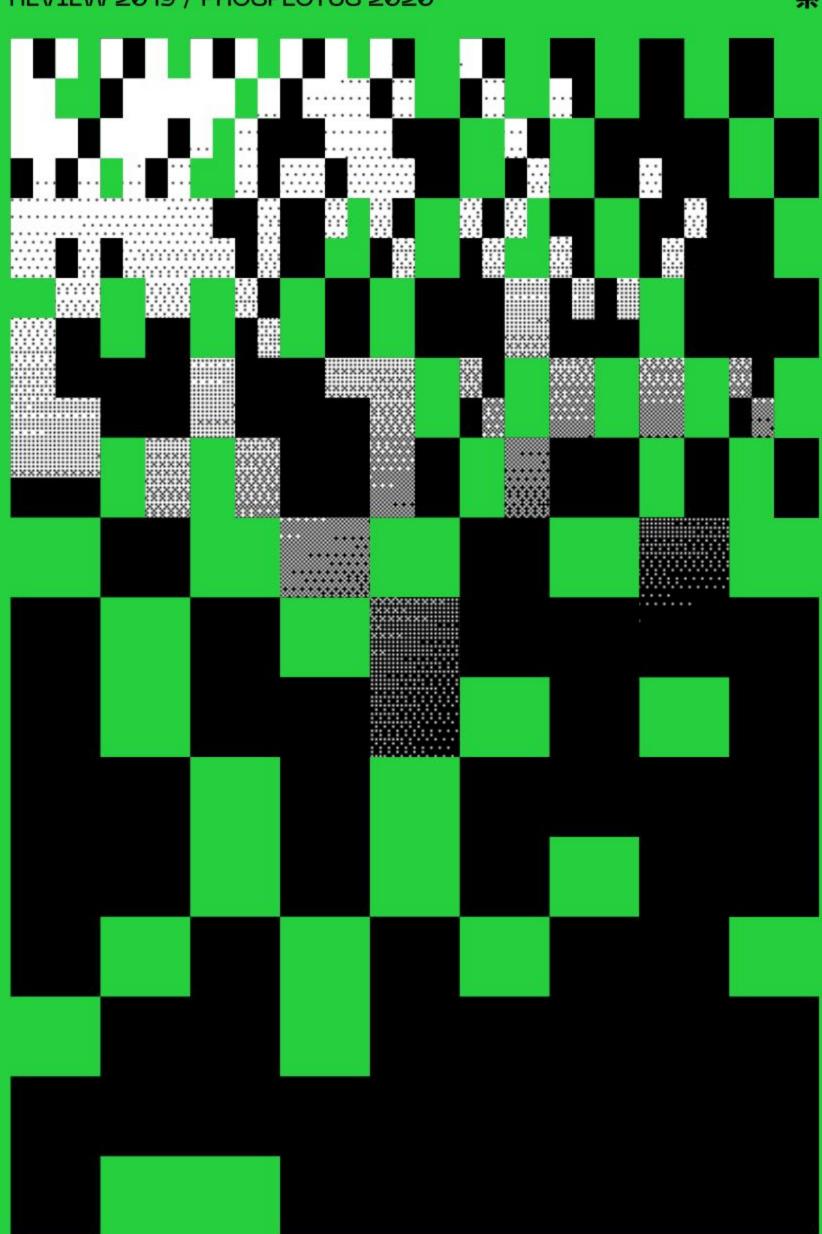


DEPARTMENT OF ARCHITECTURE THE UNIVERSITY OF HONG KONG REVIEW 2019 / PROSPECTUS 2020







DEPARTMENT OF ARCHITECTURE THE UNIVERSITY OF HONG KONG REVIEW 2019 / PROSPECTUS 2020



P22P₂8 P84 P146 P196 P204

BASc DES] BA(AS) PR MARCHP MARCHT MPHIL / F PUBLIC PF RESOURCE

GIN+ PROGRAM OGRAM ROGRAM HESIS HD PROGRAM 30GRAM/





THE UNIVERSITY OF HONG KONG

Ranked amongst the world's best architectural schools, the Department of Architecture offers an active, collaborative, and dynamic research environment. The professionals and scholars who constitute the teaching staff provide a diverse range of research opportunities for students. The scale and breadth of the topics examined within the curriculum cross disciplinary boundaries and compose forums for exchange. The undergraduate and postgraduate programmes collectively shape the Department's culture, while our energetic community of students, faculty, and alumni impact Hong Kong, Asia, and the world.

International experiences inform our educational approach, with courses taught in France, Chile, Italy, Finland, and Korea. Exchange programs with MIT, Yale, and Berkeley in the US, ETH in Switzerland, the Academy of Fine Arts Vienna in Austria, and UCL in the UK enliven our world view. Visiting professors and design professionals, including Wang Shu, Yung Ho Chang, Dietmar Eberle, Fernando Menis, and Winy Maas, among others, contribute to our studio culture. Graduates from the BA(AS) programme return to HKU or attend other leading architecture schools in the world for their MArch studies. Through our alumni network, the dialogue begun at HKU spans generations, with each generation informing and helping the next.

Studying architecture at HKU entails producing work through experimentation and prototyping ideas. Education takes place both through a broad range of studios, lectures, and seminars and our public programs and reviews. Academic diversity is a priority of a student's architectural education at HKU, producing a culture of innovation and experimentation within the traditional academic context of the university. Thinking through making is at the core

of what we do and is on full display in the Faculty's extensive fabrication capabilities, which continue to increase each year. Fabrication equipment such as robotics and waterjet cutting workshops compliment laser cutting, CNC, and three-dimensional printing labs.

The knowledge learned through architectural education at HKU extends well beyond architecture, and the leadership, entrepreneurial, and communication skills gleaned through the programme last a lifetime. Each of our graduating classes enjoys nearly full employment, and evinces the demand for architects who are building within this region and further afield.

This prospectus serves as a retrospective review of recent territory we have covered and a vision of the direction and strategy we will collectively take going forward. Through our shared institutional goals, generated in coordination with students and faculty, we are determining the future of architectural education at HKU and the future of architecture across Asia and throughout the world.

IN THE SECOND SE

Architectural diversity is intrinsic and essential to the future of Hong Kong, the Pearl River Delta and China; this diversity will be characterized by innovation, conservation, sustainability, and the demands of rapid development. Unique cultural riches and core values make it possible to address issues such as high-density urbanism, the rapidly changing urban-rural scenario, the high-rise typology and sustainable development in architecture and landscape.

Design research in the Department of Architecture responds proactively to this unique region and these specific issues, optimizing the synergy between ideas and practice. A diverse faculty, including globally recognized designers, experts in building sciences and technology, and renowned historians and theorists, leads the department in a constant questioning of global and regional issues.

Their efforts in the laboratory, design studio and classroom have led to innovations recognized with awarded built projects, exhibitions in international venues, and publications of theoretical investigations and design works in leading journals and books.

Research programs at the graduate and postgraduate levels offer students unique opportunities to study the contemporary cities and landscape of China and the Asia-Pacific region. Programs in architectural history and theory, urbanization, rural construction, housing and urbanism, computation design and digital fabrication, as well as technology and sustainability, form the foundation of our research agenda.

The Department of Architecture has strong links to society, industry and government, bringing architecture into communities through building, and successfully contributing innovative ideas from scholarship to many community projects funded by external bodies. The Department's research programs provide resources for students and teaching members, with an interest in focused areas of study in topics of growing importance to the region and the globe.



設計與研<mark>究</mark>

A historical consciousness is imperative in the education of an architect. Rather than limiting the students' vision to technical aspects of professional training, an education in architectural history and theory encourages an examination of the discipline within a broad socio-cultural context. This helps students hone the necessary critical skills needed to navigate the diverse aspects and demands encountered in the practice of architecture.

Conventionally, architectural history survey courses have been taught in accordance with a strictly linear chronological order: from classicism and neoclassicism, to modernism and the contemporary. Such a history curriculum, beginning with the ancient Egyptian, Greek and Chinese temples often dampens a freshman's enthusiasm for architectural history at the very beginning of their studies. It also perpetuates the already obsolete idea of architectural history as an exclusive discipline with its own tradition, which stems from a distant space and time rather than as a complex of synchronic and diachronic sources, contexts and interrelationships. Students tend to think of architectural history as irrelevant to their own living conditions and remain woefully disconnected from their current architectural design courses.

We developed a series of five history survey courses. These began with 20th century modernism, focusing on the discussion of modern architecture in relation to modernity and modernization (1); tracing back to the various premodern architectural periods from a global point of view, with an emphasis on cultural exchanges and comparative studies (2, 3); extending to a survey on the global urban history, encouraging students to examine the spatial issues in the larger settlement and territorial scale (4); and concluding with a review of contemporary issues, prodding students into considering history in relationship to the contemporary.

The teaching of history and theory at HKU is in an evolving relationship with research on issues that concern architecture, the city and the region. Research on design development and discourses in the Mainland; trans-cultural exchanges between the post-colonial city of Hong Kong and Chinese cities, especially Shanghai and Shenzhen; between Southeast Asia, particularly Singapore, Asia at large, and the United Kingdom and beyond; challenge typical binary oppositions and asymmetrical analyses. Collectively, these various intersecting research trajectories have produced new notions of historiography in which Hong Kong's east-west adage is continually scrutinized and reframed. The feedback loop in teaching and research is crucial in the training of an architect and a citizen who is conscious of his or her participation in the thinking, making and inhabiting of the environment. In a society dominated by bureaucracy and consumerism, the goal of architectural history and theory is to enable students to develop a critical awareness of the contemporaneity and the social consequences of their spatial practices, making their actions more intelligent, considered and reflexive.



歷史與理論

Research and design in architecture within an urban context, is a fundamental principle and strength of HKU's architecture programs. Over the history of architectural thought, shifts and changes have often arisen out of a critical reflection on its evolving urban context. The present global trend of urbanization has changed the practice and discourse of architecture fundamentally. The importance of understanding the city is more pertinent today than ever before. HKU recognizes the complex and rapidly changing city of Hong Kong as an authoritative site of learning, providing a live classroom for the research of urbanisms, both past and emerging.

In the MArch program, urbanism and habitation are core knowledge categories that are taught through the format of advanced seminars. The seminars offer a stimulating learning framework within which to explore emerging concepts, knowledge and design tools to research and design the built urban environment. The seminars are taught through learning activities including textual

ON URBAN HABIA

readings, case studies and fieldwork. Graduate students can choose study options from diverse courses, ranging from mass housing, sustainability and globalization to rural-urban development, and urban renewal. The research seminars complement the advanced design studios in the MArch program, where design projects are often situated within complex social and spatial urban environments.

At the undergraduate level in the BAAS program, foundational knowledge of urbanism and habitation is taught both through lecture courses and design studios. The lecture courses of urbanism are embedded within history and theory course sequences. From the first year to the final Year Four, the design studios engage architectural projects situated within sites of increasing urban complexity. In addition, Year Four students have the opportunity to select a graduate-level seminar course to advance their knowledge of urbanism.

JUAN DU

ISIMA TION

都市與居住

One of the most important issues driving today's culture of design and construction is the idea of environmental sustainability. What does it mean for a building to be environmentally sustainable? How do we measure, analyze and understand the environmental performance of buildings? What can we learn from well-tested indigenous 'vernacular' knowledge of climate and construction? And how should we combine this knowledge with contemporary technology to create new potentials for architecture that are good for both people and the environment? These questions underpin the design research agenda and teaching pedagogy for the environmental technology curriculum at The University of Hong Kong.

Environmental forces are by nature, dynamic. Exploring the challenges and creative potential of airflow, sunlight, moisture and sound in the process of architectural design, requires new knowledge about the various technologies and building systems available today—whether passive or mechanical—and how they affect and are affected by environmental flows. Heating, cooling, lighting and comprehensive building services are examined, not as discreet and isolated problems but in the holistic sense of being integral parts of the larger task of environmental manipulation.

Of primary importance in this process are the fundamental design considerations of building technologies and their impact on formal geometry; the relationships between spaces in plan and section; the admission and control of solar radiation; day-light; airflow; and the adaptive mechanisms for occupants to enable thermal and visual comfort. Defining the conditions for a symbiotic relationship between architecture and the environment is of paramount concern for the appropriate use of technology in architecture. Knowledge and an understanding of the physical principles underlying this relationship, and the computational tools needed to translate them into the design process, are essential learning objectives for any serious student of architecture.

CHAD MCKEE

科技與環境

18 REVIEW 2019 / PROSPECTUS 2020 DEPARTMENT OF ARCHITECTURE THE UNIVERSITY OF HONG KONG



While architects have described buildings traditionally through drawings and physical models, there is now an emerging potential to output work as a digital model that could inform the building process. Design computation allows for instructions to be sent directly to machinery for the fabrication of building components. Three-dimensional printers, computer controlled milling, robotics, and laser cutters align with this approach to allow for the rapid prototyping of designs, allowing physical models to be used to evaluate building systems.

The digital modeling of complex conditions informs the assessment process, so that an understanding of both the technical problems and the potential of a design can be gained. Design computation techniques allow for the analysis of environmental factors such as solar, thermal, and ventilation conditions. Recursive feedback loops can be applied to study optimization possibilities and options, to dynamically alter the design for a more precise response to environmental factors. Similarly computational modules provide finite element analysis to approximate structural deformation and stresses. These can be combined with evolutionary solvers to determine the position and size of each structural element. Construction optimization scripts can make the result more efficient to build, using fewer materials and decreasing the need for a higher number of unique elements, while maintaining the overall design intention.

Digital models are able to organize intricate temporal systems, for instance predicting how the fluctuation of a currency could alter costs all the way through from construction to the demolition process. Building information modeling manages the budget, the project and construction, and once the structure is completed, the maintenance and operation. The rationale for designing with these systems is to increase productivity while understanding and controlling a greater number of parameters, for a more precise overview of the built environment.

Research in regard to design computation incorporates developing methods to utilize and enhance the information a model may hold. Other areas of study include developing interactive components for a building with kinetic facades programmed to respond to changing environmental conditions. Through the use of sensors, for example, buildings can be designed with a more ecological approach. These systems can be developed to become almost invisible, so that a technological language of efficiency does not displace the cultural and historic implications of a work of architecture. REVIEW 2019 / PROSPECTUS 2020

20

DEPARTMENT OF ARCHITECTURE

THE UNIVERSITY OF HONG KONG

The career of an architect, whether local or international, demands a wide range of skills and expertise. Besides design ability and technical knowledge, an architect needs a practice and the management capability to realize their projects. The Master of Architecture curriculum courses on practice and management are aimed at addressing these requirements in professional practice.

An understanding of socio-economic, political, technological, cultural and environmental issues that affect architectural practices are critical for a professional architect. An architectural graduate needs to be prepared for the leadership role required to coordinate the different parties and disciplines involved in realizing a project; from inception, feasibility and design, through to contract documentation, construction, post-occupancy evaluation, and facility management. These basic principles, ethics and developing a professional judgment, are addressed in this course, although they will be exercised and will mature throughout an architect's professional career.

An architect needs an awareness of the basic framework required for office organization, marketing, business planning, project negotiations and financial management. These are invaluable in the architectural office and in an architect's regular meetings with clients and professional consultants. Gradually, architects in professional practice become more familiar with development financing, building economics and construction cost control when working with quantity surveyors. An architect is also faced with the preparation and execution of building contracts and acting impartially with the building owner, contractors and consultants.

As a basic legal obligation, the architectural graduate needs an awareness of the legal context of architectural practices, the various laws that relate to the registration of an architect and the formal agreement to provide professional services. A compliance with building codes is a basic condition for the delivery of architectural services, and an architectural graduate must have an awareness of the ordinances, regulations and codes of practices for particular sites and building typologies including developable floor areas, occupancy classifications, means of escape, fire protection and the good practice guidelines for environmental control and sustainability.

An architect needs an understanding of their responsibility to the community at large, in particular with respect to public health and safety, lease conditions, outline zoning plans, building regulations, modifications, accessibility for the disabled, and sustainability factors for building administration, design and construction. In short, the architectural graduate needs an awareness of a wide range of issues to deliver competent and responsible architectural services.

WAH SANG WONG

實務與管理

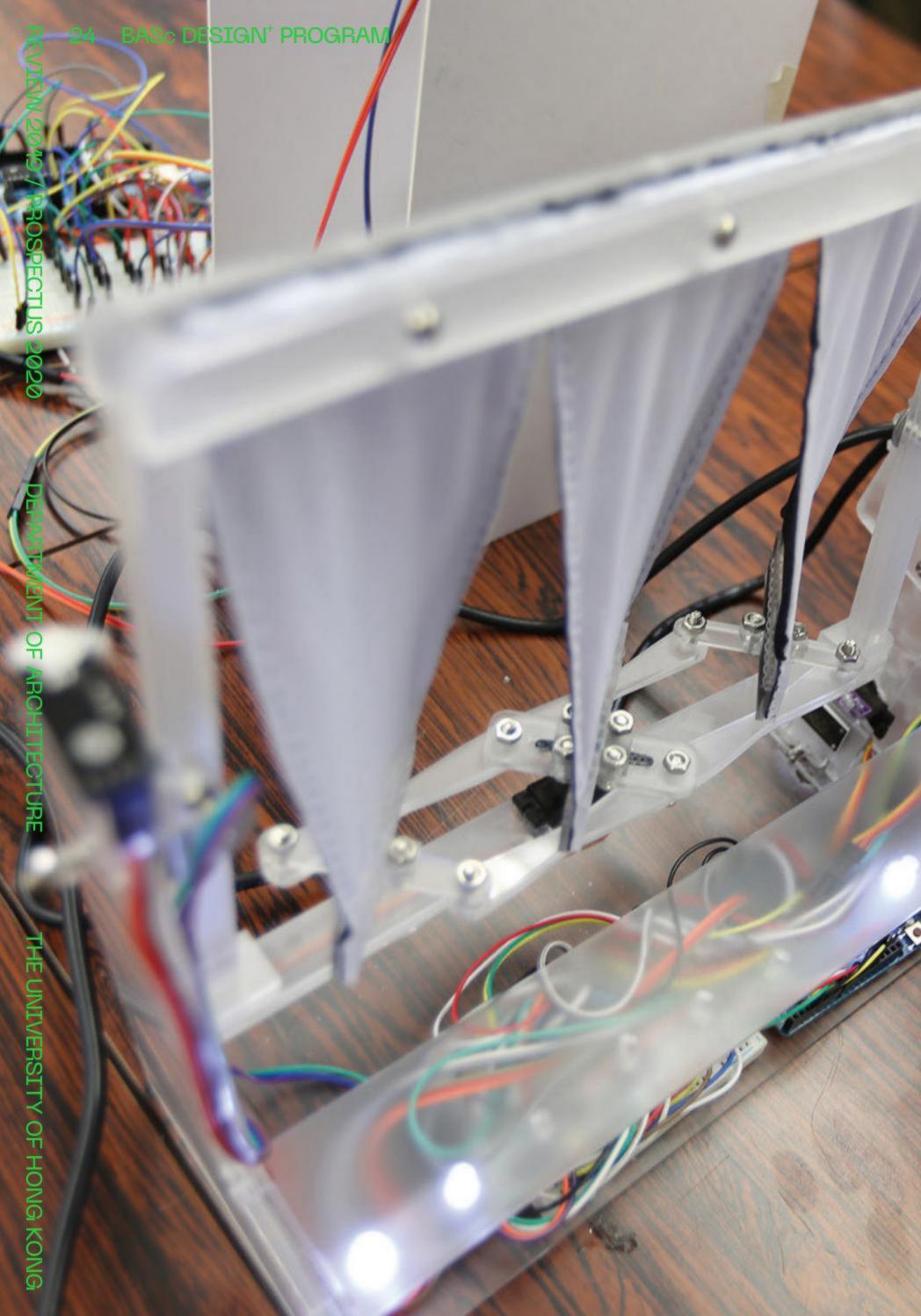
REVIEW 2019 / PROSPECTUS 2020

22

DEPARTMENT OF ARCHITECTURE

THE UNIVERSITY OF HONG KONG

設計 + 文理學士課程



BASc Design+ is an undergraduate degree under the Bachelor of Arts and Sciences programme. It is aimed at nurturing highly effective, adaptive and creative graduates who can lead across multiple disciplinary subjects, and who will become known globally for their distinctive qualities of creativity, analytical ability, critical thinking and innovative problem-solving. Cutting across traditional disciplinary boundaries, the programme is structured around design thinking as a distinct foundational approach to interdisciplinary studies, innovation and enterprise.

This degree prepares students to be innovators and creative leaders, training students who want to capitalise on both entrepreneurial and creative abilities. Combining insights, theory, research, methods and practices that embrace a combination of design thinking, functional design and process design, the academic focus provides students with a blend of thinking tools that will equip them for the challenges facing all sectors of society.

The new Bachelor of Arts & Sciences degrees, involving all ten faculties at HKU, are aimed at nurturing globally-minded thinkers and leaders able to leverage their interdisciplinary knowledge and skills to address the contemporary and future challenges of our increasingly complex world.







The BA(AS) Undergraduate Program offers an approach to architectural design that is rooted in the human condition and the spirit of making. It promotes design innovation, conceptual rigour and technological expertise to address the issues facing Hong Kong and the region.

The program is organized into four tracks: Design Studio, History and Theory, Building Technology and Visual Communication. Each track develops an independent trajectory over the course of four years. As knowledge is acquired, it is applied within the studio on scenario-based problems that intersect each track.

The design studios are organised to offer a progression of challenge and complexity. They begin in Year 1 with Tectonics, continuing on to Year 2 and Year 3 with Architecture and City, and culminating in Year 4 with an Integrated Project that brings together the knowledge gained in the three preceding years. Students work on projects that build knowledge from the fundamental principles of space–making, material form, and abstraction before going on to explore the impact of contextual relationships and pressures on an urban site. They conclude with working on developing a complex, multi-programmed building. The specific locations and problems investigated relate to critical issues facing the region; including rural development in China, urban regeneration in Hong Kong and Shanghai, and housing development in various cities throughout East Asia.

The aim of the program is to develop the core abilities necessary within the architectural profession including a strong connection to the historical and cultural foundation of the discipline. Skills and knowledge are complemented with an awareness of contemporary architectural issues, perceived from the unique intersection of global and regional perspectives that define Hong Kong.

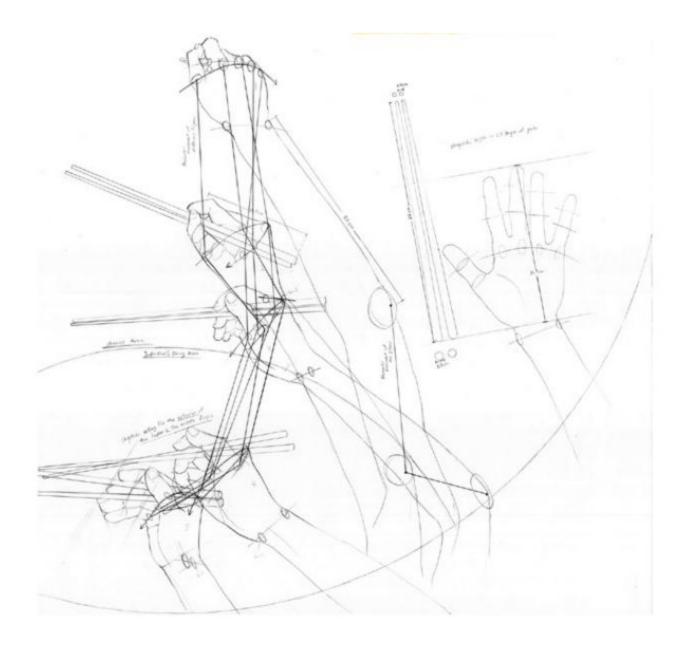
32 BA(AS) PROGRAM

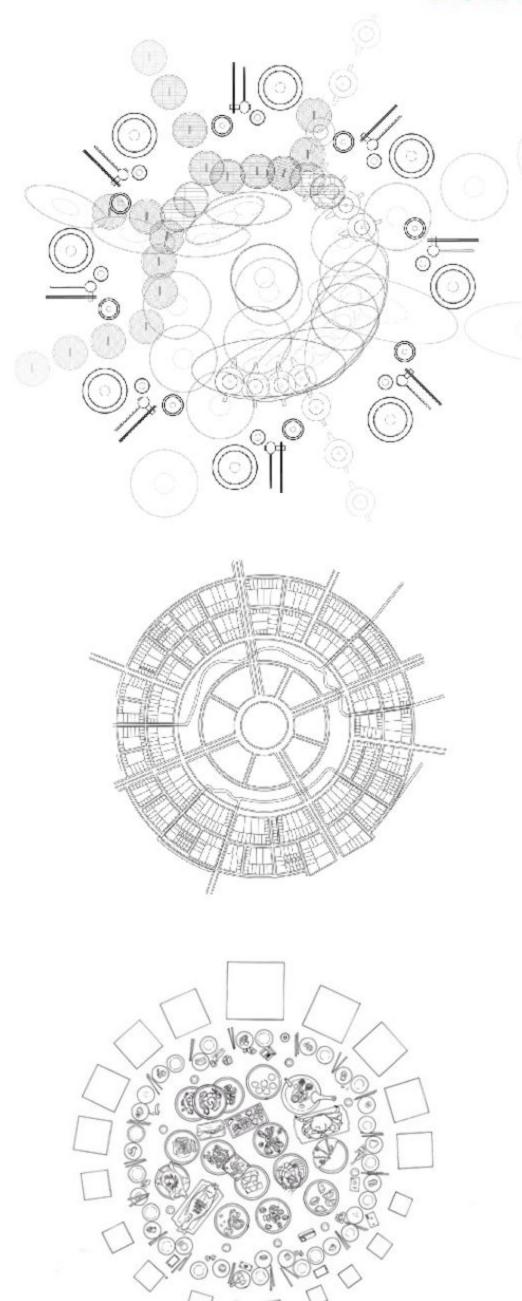
ARCH1074

DONN HOLOHAN JASON BOND HARVEY CHUNG HOLGER KEHNE EVELYN TING YEAR 1

MATERIAL SETTINGS

This course serves as an introduction to architectural design and the design studio – and explores making as an essential component of design. The theme for this first studio is the Table – understood both in its functional and structural terms but also in its cultural value as a place of exchange and community. With a strong emphasis on the collective, this studio introduces and promotes the principles of collaborative learning. Working with tutors, experts and each other, students are immersed in the complex, interrelated problems presented by the city, while simultaneously tackling material and logistic problems related to construction.













RSITY OF HONG KONG

BA(AS) PROGRAM 38

ARCH2074

ULRICH KIRCHHOFF GERALDINE BORIO SU CHANG WALLACE CHANG SUNNIE LAU ROSALIA LEUNG

YEAR 2

DESIGN SHAPING

ECOLOGIES -THE FUNCTION OF **ENVIRONMENT IN** ARCHITECTURE

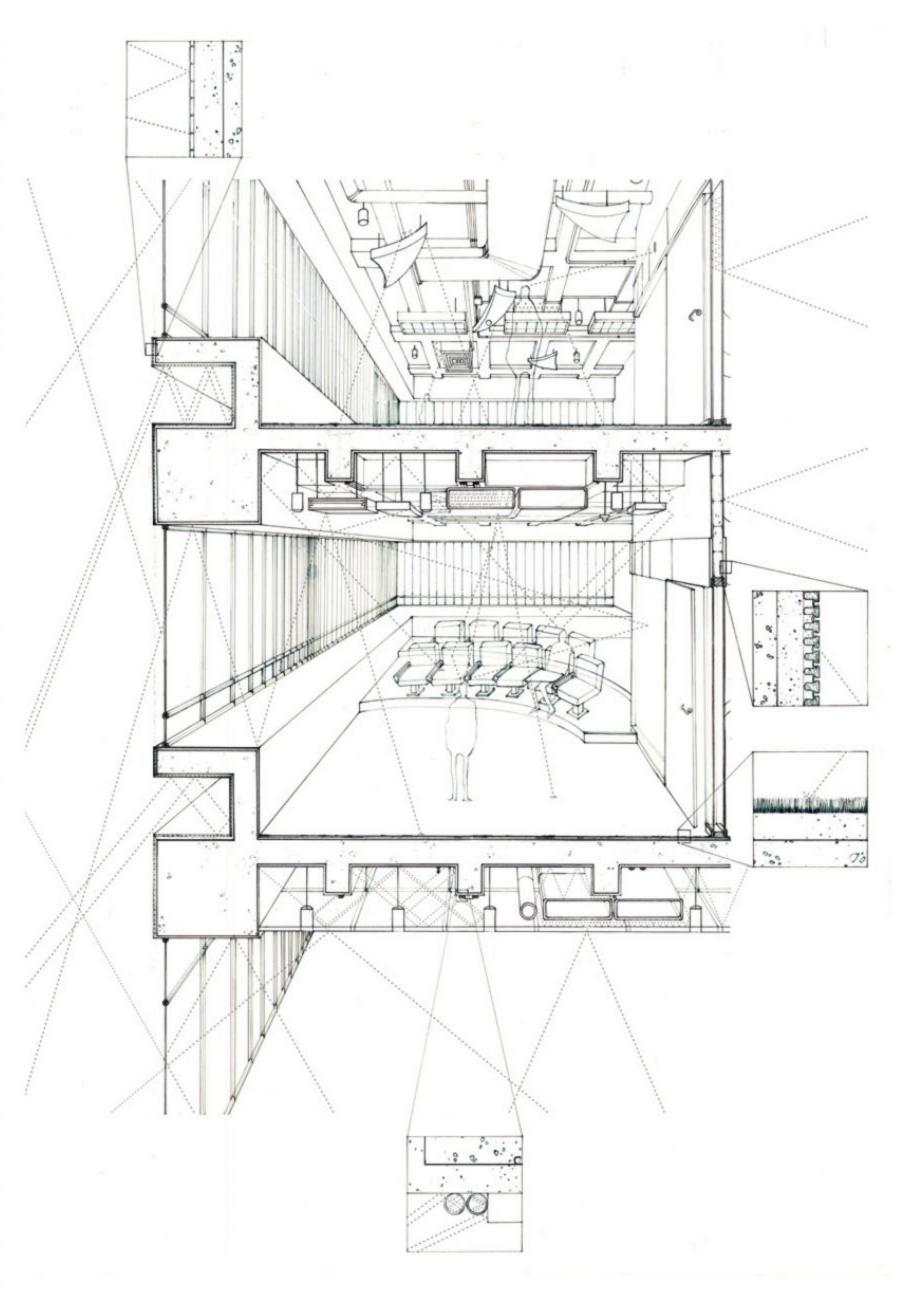
In Year 1 we were studying the relationship of the human body to their immediate surroundings and how proportions affect the functional aspect of design. In Year 2 we will expand that objective to a larger environment and will study the relationships of built environment and natural environment.

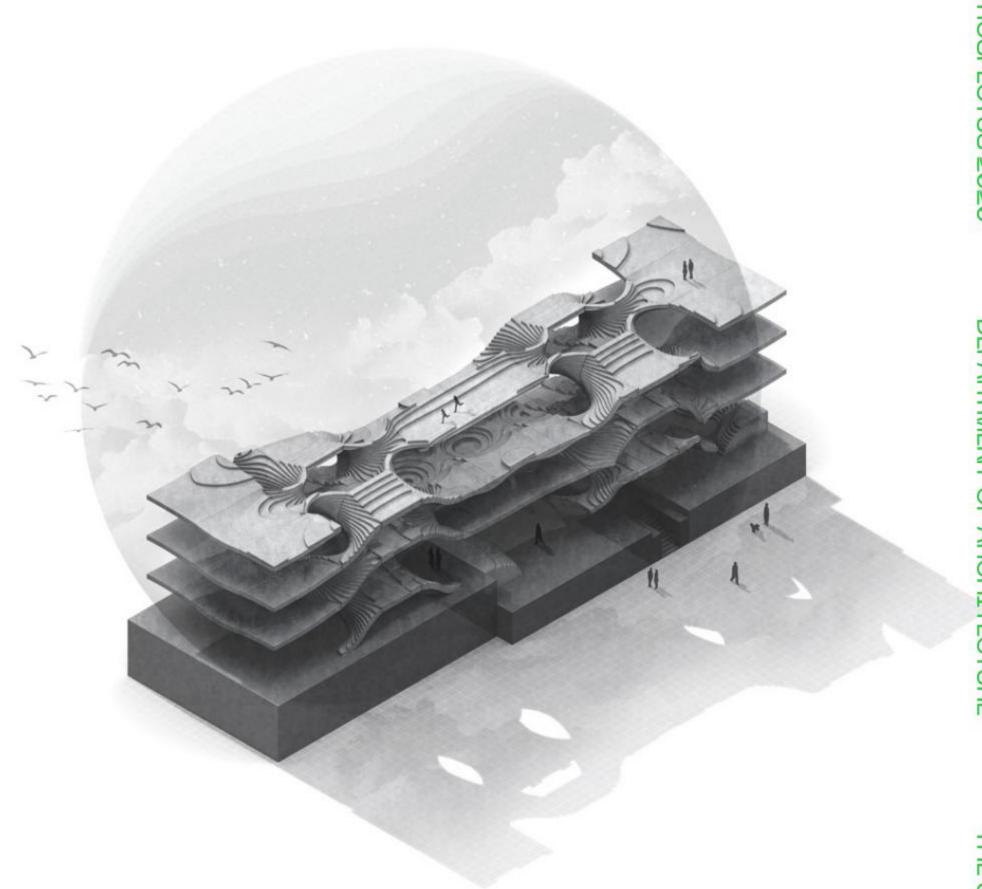
The objective of this year is to learn how to 1. Observe and draw a phenomenon, 2. Translate it into a conceptual idea in form of models and sketches, 3. Create architectural drawings of the design up to a detail level.

Every building is bound to a specific environment, which is influenced by all kinds of natural phenomena. Standardisation and proprietary solutions of the construction industry have negated the specific relationship of a building to its surrounding with the result that we build similar in Nordic climates as we build in tropical environments. The studio will be an introduction to a critical discourse about designing in a specific environmental context from an technological point of view. We will investigate techniques and technologies that deal with the relationship of building and nature in the context of Hong Kong.

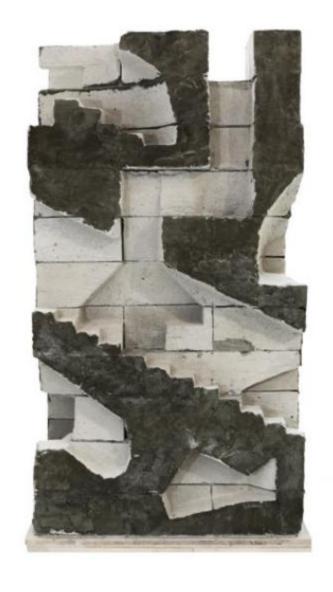
The HKU campus will be the basis of the investigation. Students will start off with a chosen topic and observe, analyse and draw how those topics affect the building and the external and internal spaces. Based on that topic, students will develop an idea for a specific architectural intervention on campus, that either enforces the topic or counter balances it or takes it as an inspiration for spatial experimentation. The program of the design intervention will be given by the studio supervisors, but will not exceed the size of a small pavilion of 150 sqm.



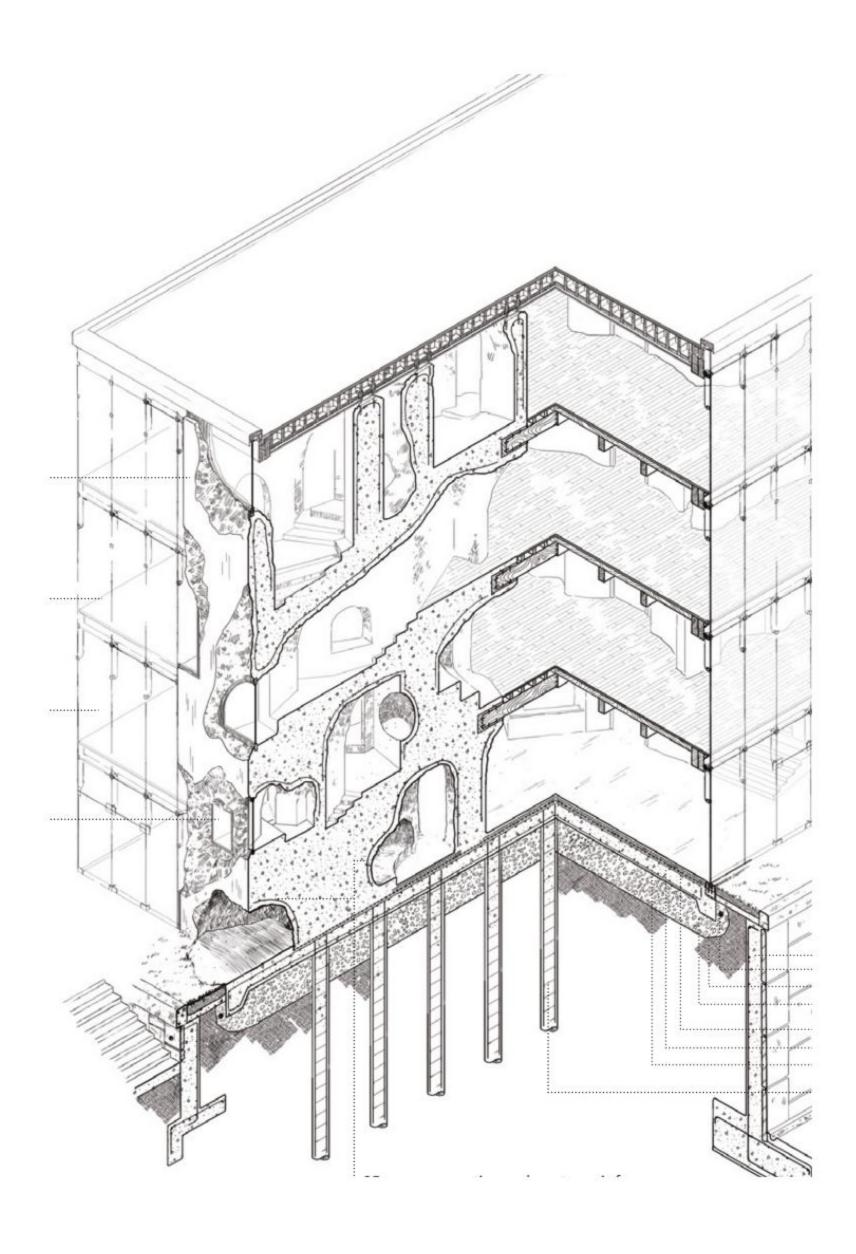




DEPARTMENT OF ARCHITECTURE







ARCH3072

INSTRUCTOR: FAI AU

YEAR 3

REVITALIZING CASTLE PEAK POTTERY KILN (DRAGON KILN) 青山陶窯(龍窯)

THE TRANSFORMATION INTO A LIVING MUSEUM AND CERAMIC COMMUNITY CENTER

Third year studios explore the idea of Locus as a lens to look at the city.

In this studio, Locus begins with research and analysis of a site along the Mid-levels escalator and into the life of those with an invisible locus – the homeless. The findings served as the basis for the students to generate and develop a design concept. Throughout the semester, students are expected to develop rational and critical ways of researching and analysing the mid-levels escalator area as the specific site and the homeless as the specific user group, then in turn speculate and explore the opportunities of place-making for these placeless ones.

45

THE UNIVERSITY OF HONG KONG

46 BA(AS) PROGRAM

ARCH3072

INSTRUCTOR: MIHO HIRABAYASHI YEAR 3

REVITALIZING YAU MA TEI FRUIT MARKET

The design studio explores Locus by looking at how architecture is shaped by the forces of the city and, in turn, how architecture can shape the city's transformation. The students will work on a dense site in Hong Kong's Sheung Wan district. Students are asked to develop design propositions for this existing urban context that explore "Bridge" as a structural, spatial and programmatic concept.

Students use a mapping of the site to construct a narrative. This narrative generates ideas for a programmatic intervention on a specific site and a spatial intervention.



TJUATJA EVELYN SUNARTA YONGKI

ARCH3072

INSTRUCTOR: MATTHEW HUNG

YEAR 3

GARDEN HILL: A NEW CULTURAL QUARTER

The studio explores Locus through the theme of Architecture and Waste.

The objective is to develop students' approach towards the methodological components of architectural design; research, positioning, brief development, concept design, and design development. Focusing on the district of Sham Shui Po, the studio will engage with both the physical realities of the site and non-physical contexts of the social, the environmental, and the technological in relation to the broad theme of waste. Through investigations into these overlapping contexts, students will propose unique briefs in response to their findings and in doing so develop their skills in architectural research and synthesis.

These briefs will form the basis for design proposals that students will test through architectural techniques of plans, sections, elevations, axonometric, modeling, and perspectives amongst others. Used as tools of enquiry, each technique will raise new questions of the design, requiring new modes of investigation to address in an iterative cycle of development.



ARCH3071

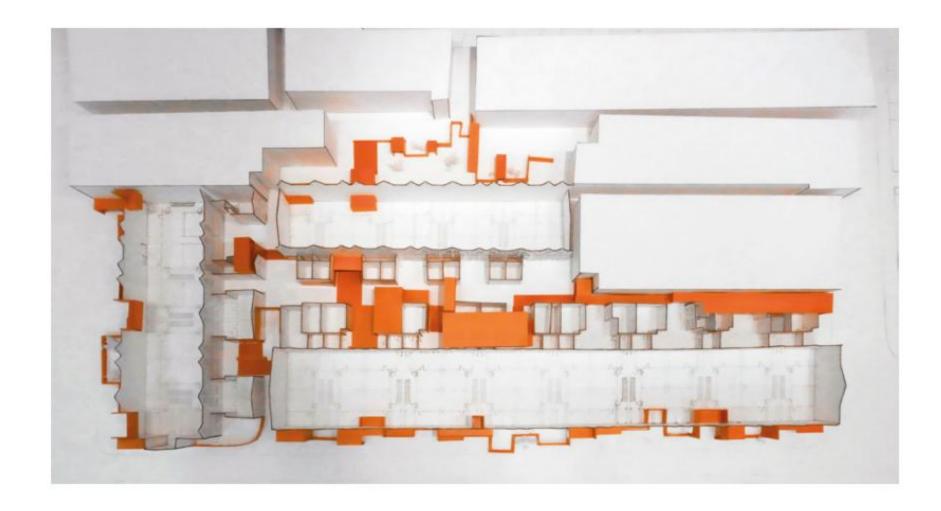
INSTRUCTOR: OSCAR KO YEAR 3

TILANQIAO UNDER TRANSFORMATION

The studio calls for the design of a museum in the traditional li-long neighborhood in Tilanqiao district. The size of the building is between 3000-4000sqm. The project aims to use a "neighborhood museum" that includes an additional program of the student's design as an instigator of effective public space that enriches the daily life of local residents, as well as to become a place for tourists and local citizens to understand the transformation of Tilanqiao.

The studio addresses the following questions: How can the "ordinary" landscape blend in with a museum? What kind of public spaces are needed in this neighborhood? How does the insertion of this museum impose a new spatial strategy that will better the immediate environment and serve the civic need of the community?

The current boom of museum construction has resulted in the showcasing of museums as icons. The choice to situate a museum in this traditional residential setting challenges us to think about how an art museum can embody residents' everyday life in terms of space, form, material and program.





ARCH3071

INSTRUCTOR: JIANJIA ZHOU YEAR 3

NEW VILLAGE

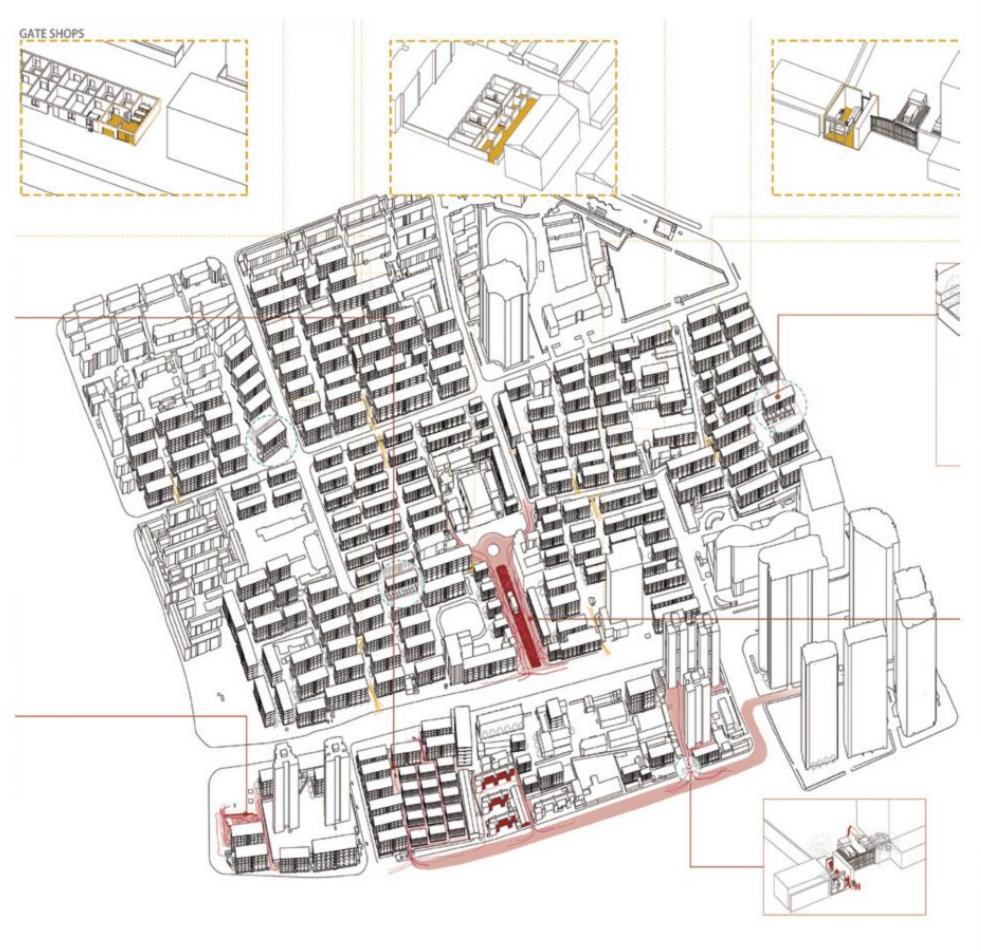
This studio introduces students to one of the most seminal urban forms in Shanghai — the Workers New Village.

Laoshan New Village is one of the earliest examples of this urban form and was implemented in the Pudong district of Shanghai in the early 1950s. Besides the specific spatial scheme, the Workers New Village embodies a set of social and cultural values against the backdrop of Chinese government pragmatism.

Meanwhile, Lujiazui District, the area adjacent to Laoshan New Village has experienced profound transformations in the last fifty years, this physical fracture leaves a drastic contrast in urban form.

Here, Locus comprises not only the built environment but also a social field with important political implications. This studio encourages students to look at the urban form of the new village in a broad social, ideological and social context.

Through research and analysis of Laoshan New Village, this studio touches issues that are fundamental to the architectural discipline, such as prototype, program, function, etc., in the urban scale. Furthermore, students are encouraged to draw comparisons between public housing in Hong Kong and in Shanghai. These issues will be addressed through both a range of prototypical studies and design proposals. It is a critical revisit to this neighborhood unit that ubiquitous in Shanghai, addressing the question of how New Village can be advocated and reconstructed under current social conditions.



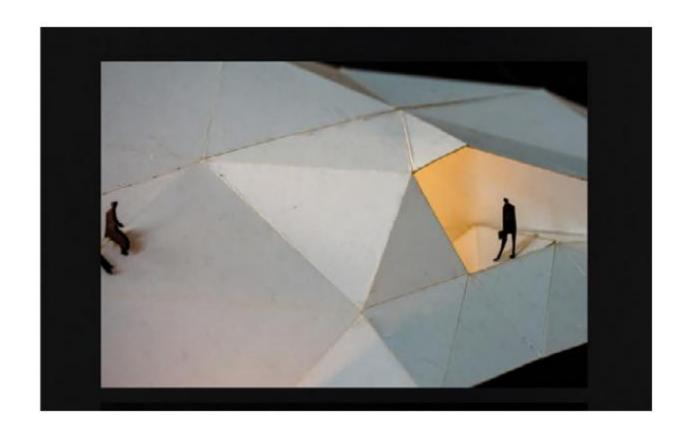
ARCH3072

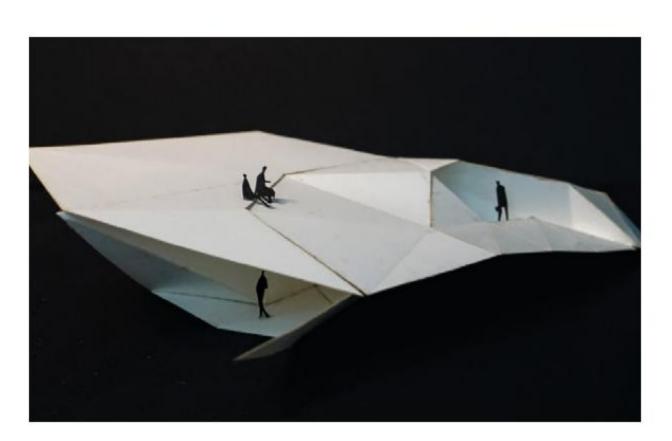
INSTRUCTOR: YING ZHOU YEAR 3

INTERFACING CHATER GARDEN

Chater Garden(遮打花園) in Hong Kong serves as the point of departure for this studio's investigations of Locus as driver for architectural design in the city.

The choice of this site in Hong Kong's Central is a continuation of an earlier, year long architectural design studio that focused on the same broader area of investigation. This year, students research and analyse the area around the garden which is at once an important office district and the historic center of the city. The studio asks how the interventions into the garden and its surroundings can make the site more responsive to its programmatic needs and civic potential. Students use their reading of the site to develop an architectural prototype that will be tested and refined as a design proposal.







ARCH3072

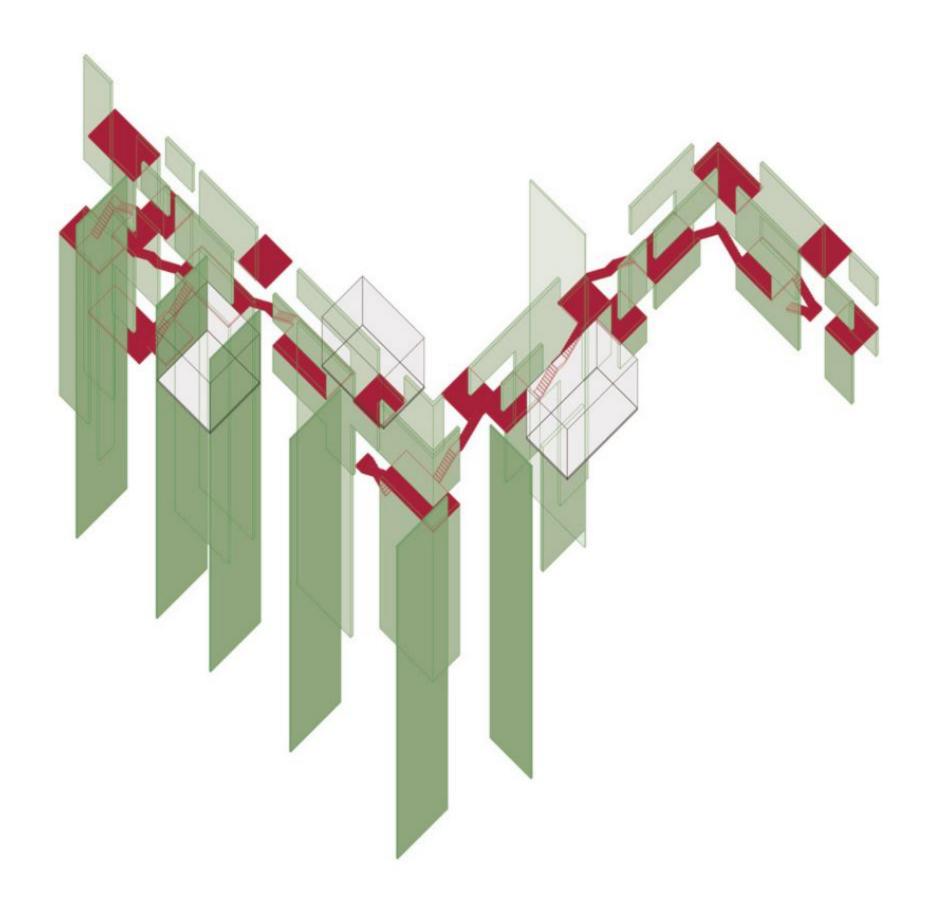
INSTRUCTOR: BEISI JIA YEAR 3

PREFABRICATION FOR ELDERLY

The problems of housing development after World War II were largely caused by a design pedagogy that was dominated by functionalism and industrialization. As programs change fast, the buildings built in this period are inflexible and unadaptable, proving too costly to be upgraded from both an ecological and economical point of view.

Housing industrialization, including the prefabrication of building structure, façade and infill components, is developing rapidly in Hong Kong and China. The question remains however of how to address the essential quality of cities and building in a way that is sustainable for the long term future.

This studio is a study of the prefabrication of buildings, focusing on three building issues: context, structure and infill. In addition, these issues will be looked at through the specific program of elderly housing in the context of a mixed use development.



THE UNIVERSITY OF HONG KONG

58 BA(AS) PROGRAM

ARCH3072

INSTRUCTOR: ANDERSON LEE YEAR 3

SITUATING SITUATION: HONG KONG MODERNITY AND MODERNISM

There has been a growing interest in rediscovering the history and culture of Hong Kong since handover in 1997. Hong Kong has experienced the reawakening of its own history in the past 20 years through a form of post-colonial fascination — from the intangible cultural heritage of herbal tea and the egg waffle to the much debated preservation of Ho Tung garden and King Yin Lei.

This studio highlights a few key moments that reflect the arrival of so-called "Hong Kong Modernism" through the lens of architecture. In the roaring 50s and 60s, Hong Kong experienced a big push for public housing development (Shek Kip Mei Public Housing) with the British-ruled government. With the sudden increase in population there existed a new demand for entertainment, thus Hong Kong witnessed a blossoming of cultural/infrastructural building types such as the New City Hall in Central(1962) as well as numerous theaters being planned all over the colony.

At the same time, the architecture program at HKU (the only Tertiary Educational provider at the time) was at its infancy, its first graduating class in 1955.

So the question remained: Who was prepared and had the expertise to respond to the increasing demand for housing?



ARCH4072

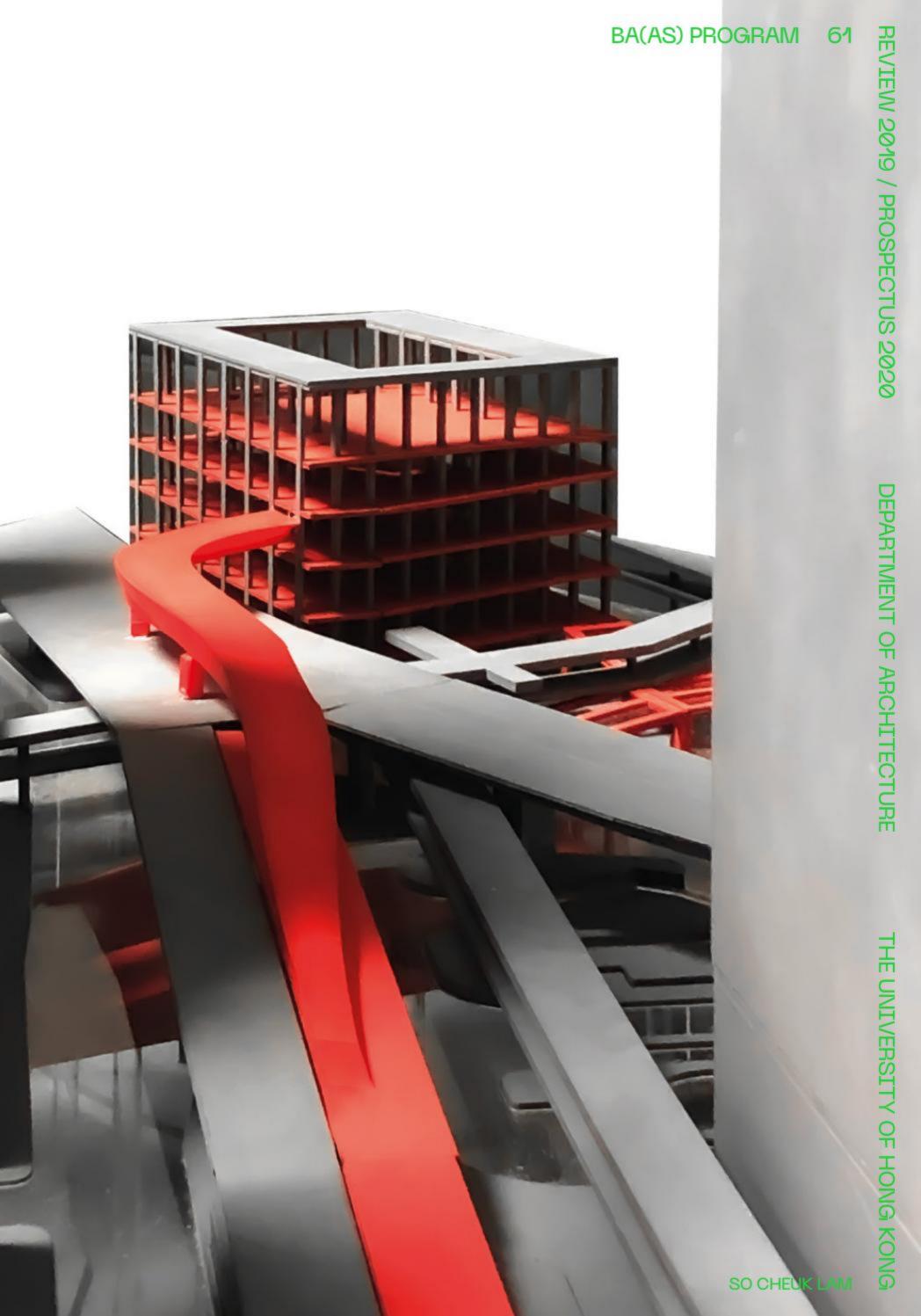
INSTRUCTOR: SONY DEVABHAKTUNI YEAR 4

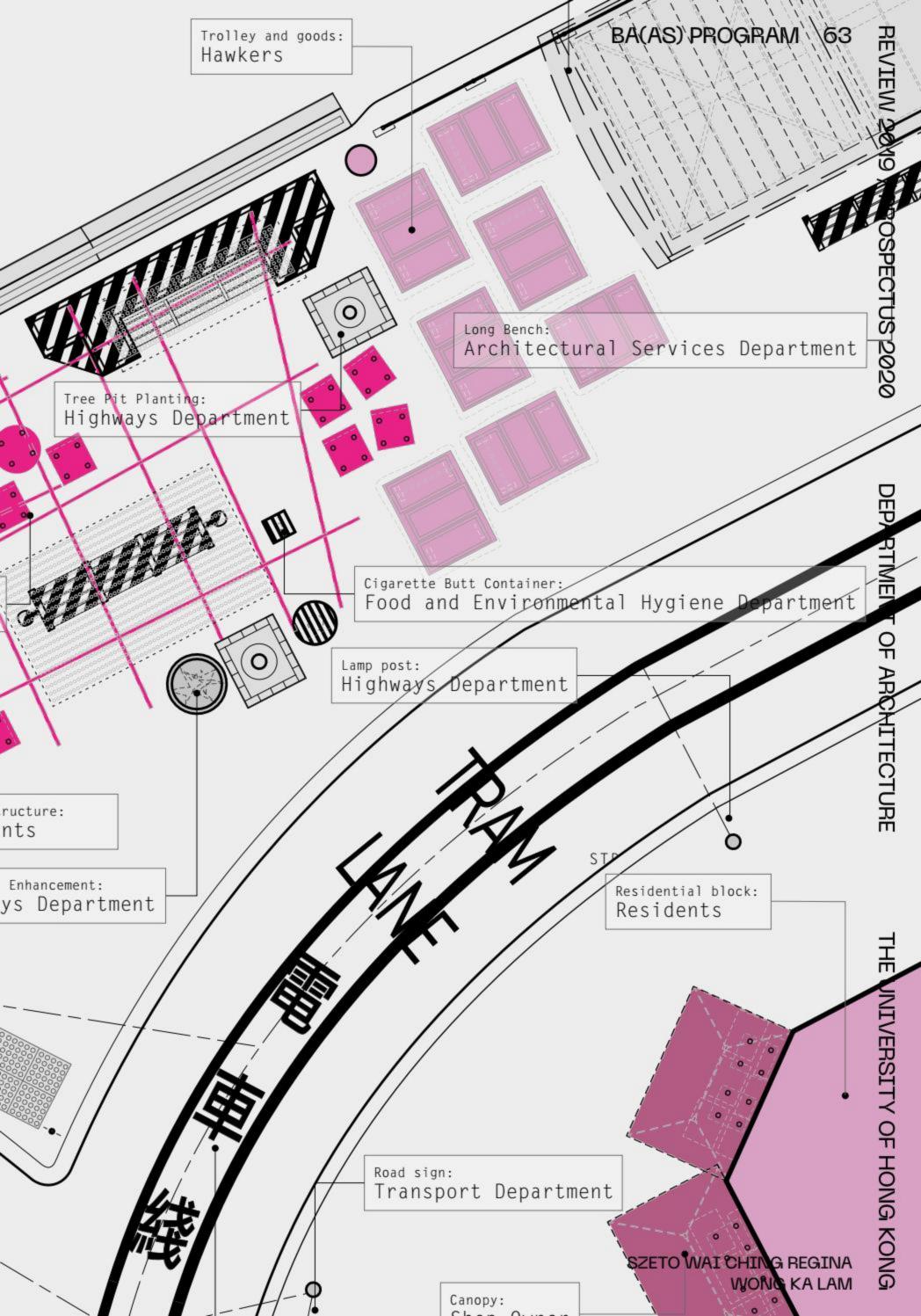
CURB-SCALE STUDIES: RUMSEY STREET FLYOVER DEMOLITION

As a site of constant negotiation, the street becomes increasingly important as cities around the world begin to question the late 20th century prioritization of vehicular traffic over other forms of urban mobility. These questions are, for Hong Kong, ever more challenging due to the extreme topography of the city and the typological diversity of its streets.

On January 20th, 2019, Hong Kong will inaugurate the Central-Wan Chai Bypass, one of a number of large-scale infrastructure projects that is transforming the territory and its relation to China. The bypass promises not only to cut travel times between the eastern and western half of Hong Kong island but also to liberate heavily trafficked arteries and roads, opening the possibility of rethinking entire districts. These possibilities have already been the subject of numerous studies and will continue to make their way through various stages of negotiation, design and implementation to become projects that reflect the priorities and ambitions of the territory as it projects into the future.

One of the complex knots of infrastructure that is potentially loosened by the Central-Wan Chai Bypass is found east of Shun Tak Centre. This confluence of roads, overpasses and elevated walk-ways will be radically rethought when one of its major branches – the Rumsey Street Flyover – is demolished. Although the flyover represents no more than 100 metres of elevated autoroute, the consequences of its demolition could be exponentially significant. Activating the street, rethinking transportation networks, linking to the water or new programs for the site could all be envisioned through a careful analysis of the issues and concentric areas of impact that are implicated by the flyover's demolition.





ARCH4072

INSTRUCTOR: MICHAEL KOKORA YEAR 4

SPATIAL DENSITY

As a continuation of last semester, this studio will explore spatial and structural innovation through model making as a form of spatial research. The work produced last semester is considered "collective research" and may be appropriated and critically reassessed by anyone in the studio. We will begin the semester by first looking at this "collective research as making" and use it as a spring board for projects throughout the semester. The studio will be divided into 3 parts, with 3 reviews.

The first part of the studio will work through a critical reassessment of last semester and production of new ideas. Any spatial technique, material, method may be used by anyone in the studio, which may or may not include the original maker. Exquisite corpse's are possible from working with another student's project, as are new experiments. This is done in part to integrate new students to the studio and part to critically reassess past work. The second part of the studio will respond to the first review and allow freedom for further experimentation before entering the third part of the studio and design development.

Emphasis will be on how density manifests internally and how the tall building relates to density externally and testing how new spatial/structural conditions can perform to those ends. The studio will work intensively in physical model form (sketch/concept/presentation). The models will eventually be sectional (in one or more axis) and can be photographed and collaged or drawn on top of where drawings help illustrate particular ideas. No renderings or computer generated images will be used, only physical models, photographic reproductions, and collage will be used where needed to describe an idea.





THE UNIVERSITY OF HONG KONG

68 BA(AS) PROGRAM

ARCH4072

INSTRUCTOR: JOHN LIN YEAR 4

FROM RURAL TO URBAN — REDEFINING THE COLLECTIVE

Tulou are large, introverted earthen buildings of the Hakka culture in Southern China that have emerged hundreds of years ago. Extended families built thick earthen walls for collective defense, while maintaining a shared open space for farming activities in the center. In the traditional tulou individual families live in a vertical section of rooms which are wrapping the collective court-yard space and are accessed through shared balconies. Having emerged as a form of communal dwelling, the tulou's center has housed other functions over time: religious activites, marketplaces or schools. A proto-urban condition where the collective spaces were not only used privately but as public institutions in an increasingly developing region.

As a form of collective housing, tulou no longer correspond with contemporary desires for dwelling. Across Fujian Province, remaining spaces outside of, and inbetween, these large earthen buildings are quickly filling with a dense fabric of individual houses. As a result, the abandoned tulou would often preserve the only available open spaces in what nowadays are densely populated territories behind their protective walls. We are witnessing the tulou's transformation from an urban building in the rural to a rural building in a newly surrounding urban context. The few remaining residents have often radically transformed or expanded their tulou. For example, by directly plugging in a modern house from the outside of the old house's wall, or by rebuilding their tulou section by section in brick and concrete – each family with individual style and layout but retaining the collective courtyard in their middle. These adaptations are not only physical in nature but transform the notion of collectivity within the tulou. At the same time, they prove the tulou's flexibility for programmatic, structural and spatial transformation.

Both the changing relationship between rural/urban and individual/collective ask to radically rethink the tulou. Within this transformed social and urban context we would like to propose a programmatic mutation and rethink the abandoned tulou as a public building. We explore how to renovate existing buildings for this programmatic change, exchange ideas with local communities and government and see how negotiating with reality grounds our ideas for prototypes of public buildings developed in the first semester. On three distinct sites the old house for collective living will be transformed into a new house for collective experience. As public institutions, could these abandoned structures become once again centers for a new form of collectivity?

REVIEW 2019 / PROSPECTUS 2020

DEPARTMENT OF ARCHITECTURE







72 BA(AS) PROGRAM

ARCH4071

INSTRUCTOR: ANDREA PINOCHET YEAR 4

OPEN STRUCTURES

Open Structures investigates architecture that has the capacity to operate as frames for a myriad of programs or activities: structures that may be have been conceived to fulfill a particular need or host a particular program, but that are nonetheless open in character and capable of assimilating undetermined futures or evolving contexts.

To that end, this studio offers a close examination of the trade of architecture focusing primarily on material experimentation and the design of construction processes, while developing an architecture of radically simplicity, chasing modesty and delight in working with the industry and the socioeconomic realities of a project.

Through an in-depth study of a particular trade, participants gain an understanding of the complexity involved in the realization of a simple work of architecture. Studying a selection of materials commonly used in the local building industry, their physical and chemical properties and how raw matter is extracted, transformed and assembled, the studio reflects on its inherent formal and aesthetic qualities.

The studio observes the construction site as a laboratory of scientific management; a place of highly organized labor, fast paced production and diverse social capital, asking participants to conceive of architecture as a dynamic process. Thus, instead of thinking of architecture as a static object, we address architecture's capacity for reproduction and discuss the conception of an architectural work as multiple acts of synthesis and manufacture: building as structure and assembly—building as a verb.

The second semester, deals with the cultural and literary dimensions of the program through a parallel study of selected texts, films and surveys, addressing issues relating to context, division of labor, building ethics and the politics of the construction site.







76 BA(AS) PROGRAM

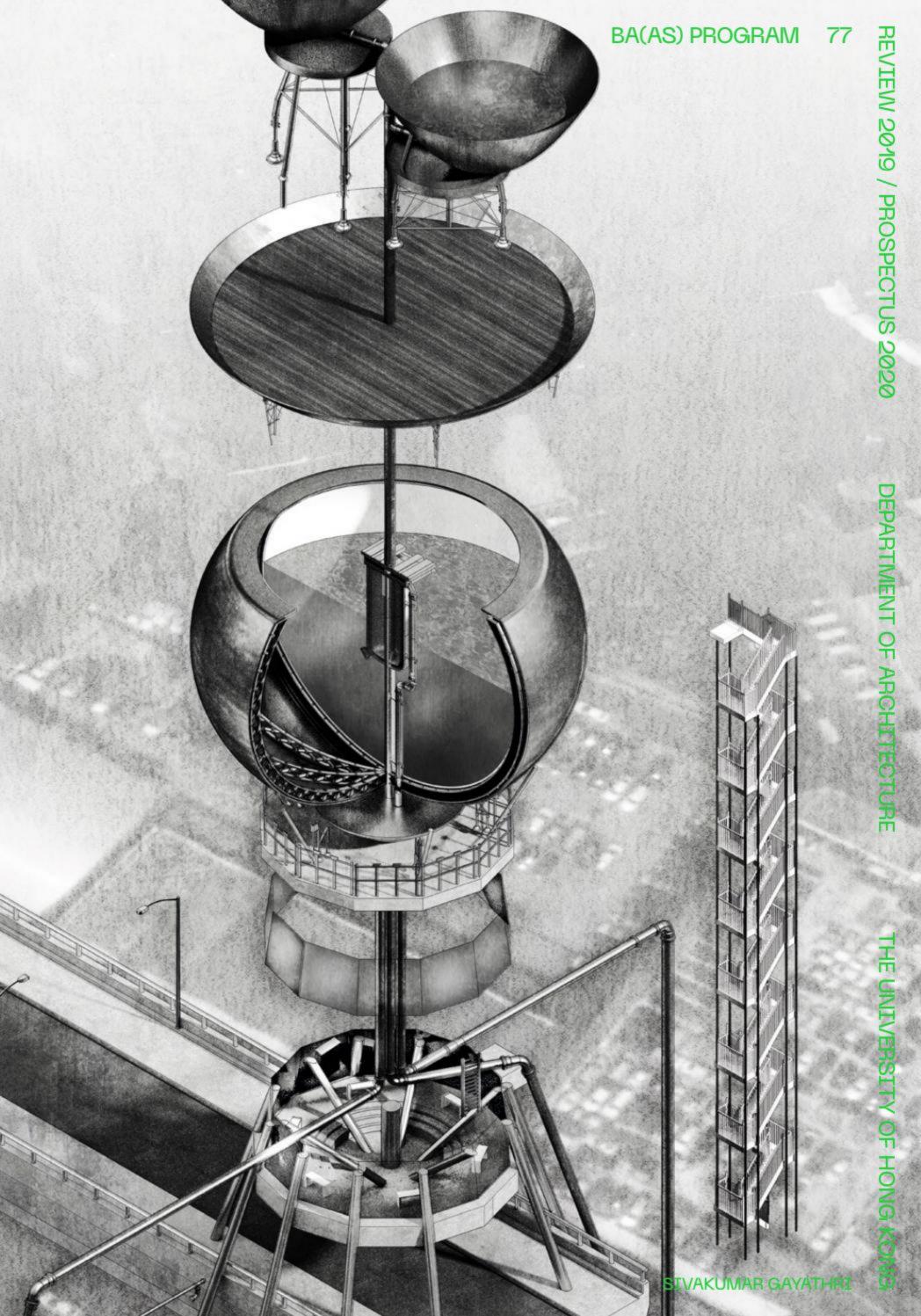
ARCH4071

INSTRUCTOR: ROBERTO REQUEJO-BELETTE YEAR 4

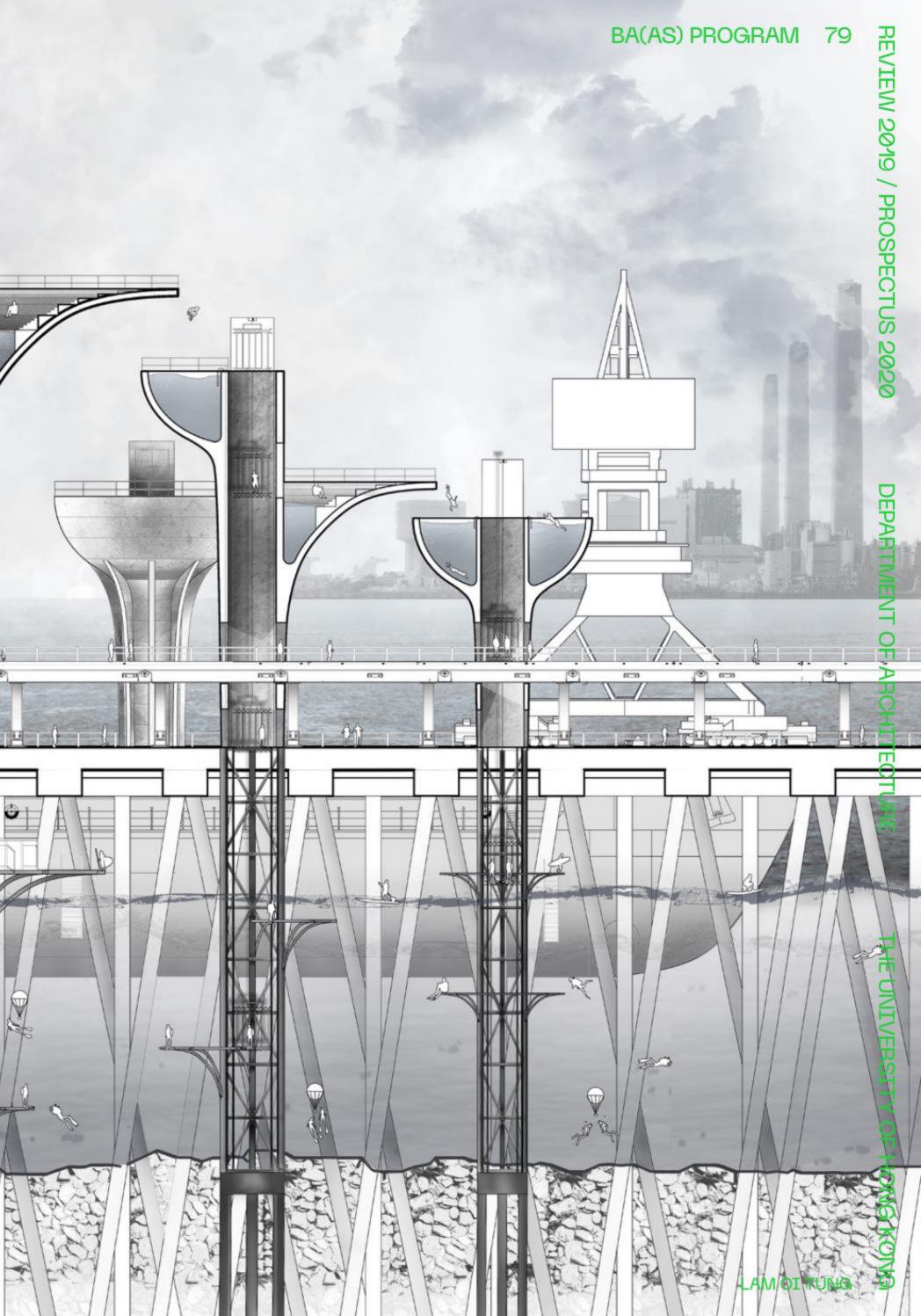
FABRICATED GROUND: URBAN PIER INTERVENTIONS

The last decades have seen cities around the world regenerate their postindustrial urban waterfront. Sites that were once scattered with ships, factories and pollution are now spaces full of activity and programmatic innovation. The water's edge is once again the locus of public space, mediating between the city and its immediate and abrupt absence. This is also a time when building resilient cities begins at the water's edge.

In this context, the studio will be investigating, not the waterfront, but a distinct feature thereof; the Urban Pier. Primarily intended to facilitate access into maritime vessels, piers distance themselves from the water's edge by stretching out into the sea. Conceived as infrastructure and built for different purposes, from cargo-handling, to transport, to leisure, once-obsolete piers have been repurposed for an even wider range of uses. The course will consider the pier in broad terms, as fabricated ground over a body of water tasked with negotiating passage from city to water. Working from the presumption that density plays a critical role in injecting program and volume into the pier, particular attention will be given to urban conditions.







THE UNIVERSITY OF HONG KONG

80 BA(AS) PROGRAM

ARCH4072

INSTRUCTOR: CHRISTIAN J. LANGE YEAR 4

AUTOBRICK FORMATION II

Mies van der Rohe once said "Architecture starts when you carefully put two bricks together. There it begins." With recent developments in the digital fabrication sector, I believe we can now say Architecture starts when you carefully design and make a brick. There it begins. Over the past two decades, digital technology has enabled us to be much more involved in the making of a building and partially triggered a return to crafts and material. With the advent of robotics in architecture, this trend has even deepened. Around the world practitioners and researchers work on new material systems and technologies that not only involve the design, but also the design of the whole set-up of making, including programing, tool design, and much more. We are currently witnessing a fundamental shift in architecture that involves new modes of production, new material systems but also new roles for the architect.

The studio Autobrickformation II is a continuation of the Fall 2018 March studio and is aligned with the research that is currently undertaken in the Robotic Fabrication Lab at HKU. The focus of the studio is to understand the potentials of robotic 3d printing and its impact on architectural design and its production.

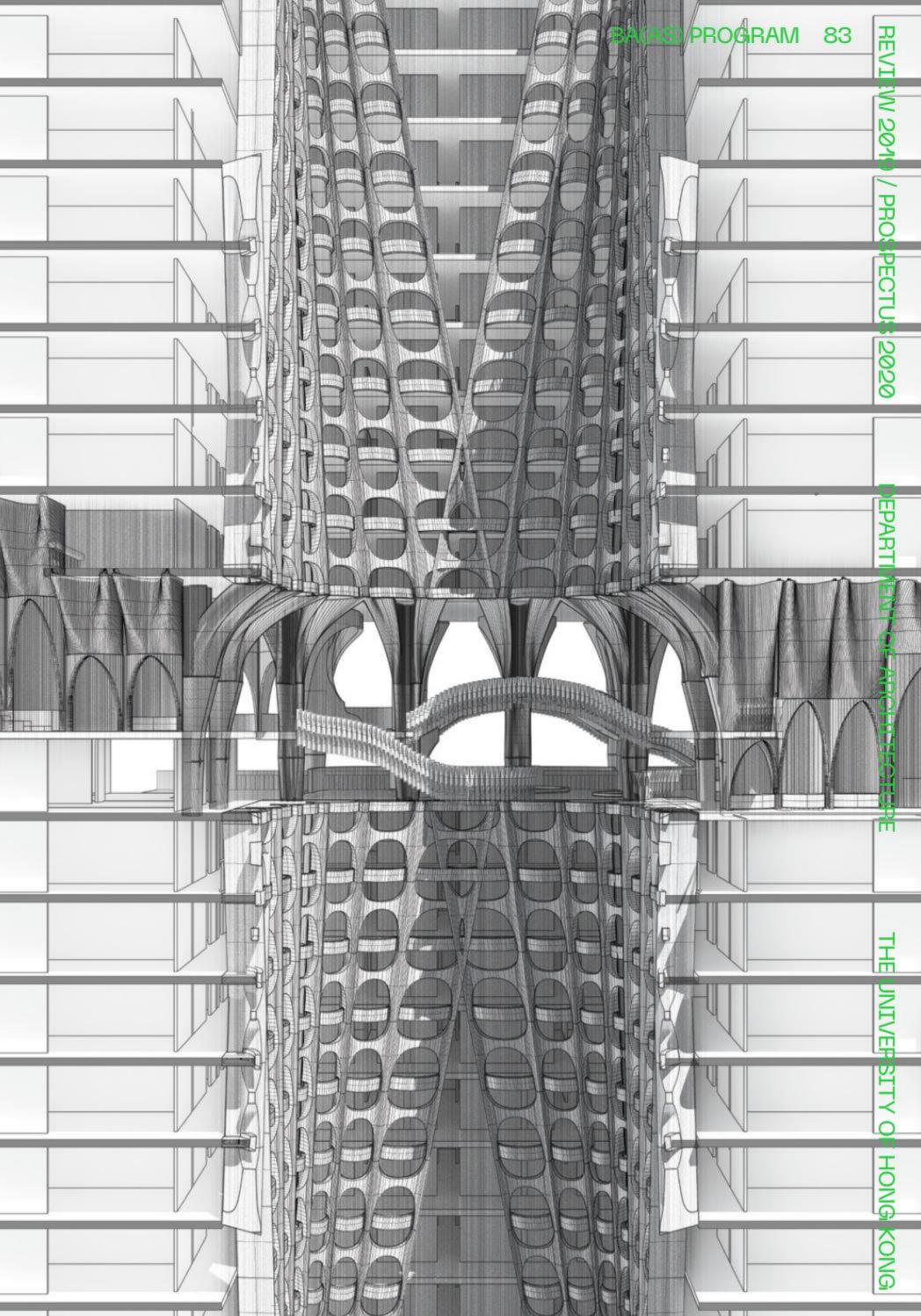


DEPARTMENT OF ARCHITECTURE

THE UNIVERSITY OF HONG KONG







84

THE UNIVERSITY OF HONG KONG



M ARCH (DESIGN)

The new MArch 3-year Design Degree was initiated in September 2019. The course offers the chance for students from a diverse set of undergraduate degrees to study architecture. Whether from science or arts backgrounds, the intention is to enable talented individuals who have the passion, discipline and drive to study architecture, a chance to do so. In time, these students will develop a broad spectrum of knowledge empowering them to make valuable contribution to the field and to practice.

In the first year, students will become fully immersed in the study of architecture. They will undergo intense design exercises involving physical modelling, drawing and analysis as well as developing principles of construction and structure, and an understanding of history and theory. This rigorous training ground, learning design methods and procedures, equips students to enter the two year MArch program in the following year, undertaking exactly the same studio courses as their colleagues.

This course, although common in many US schools is unique to Asia. By offering this course, the Department of Architecture is creating a platform of knowledge made up of a rich mix of attitudes and positions towards architecture that will be necessary to tackle the key issues impacting the future of Hong Kong and the region.



M ARCH

The Master of Architecture Program aims to influence architectural and urban discourse regionally and internationally. It is committed to taking on the most pressing issues affecting architecture and urbanism today. The creation of unique spatial conditions brought on by the interplay of urban dynamics between political, social, cultural and environmental forces, have led to a diversity of challenges that must be addressed by a new generation of future architects. This is intensified in the context of Asia, as rapid and expansive forms of urbanisation reshape the ground, alter communities, build infrastructures and change ecological systems. These urgencies act as a framework for the curriculum that drives the content of design studios, technology workshops and history and theory seminars. Issues also reflect the research interests of faculty and are broad in scope and ambition; including the impact of big data, digital craft, informal settlements, toxicity, extreme density, peripheral urbanisation, rural transformation, and our changing ecology.

Over the course of the MArch Program, students will delve into a range of these topics and acquire techniques for design and research inquiry, building up expertise in order to formulate and test their own unique position. This culminates in the thesis project that synthesizes the student's approach and critical contribution to the discipline. It operates both as a conclusion and more importantly as a beginning of the student's future career as an architect.

The Department's location in Hong Kong enables it to be a hub connecting academics and practitioners from across the globe. Forums for discussion and debate bring together multiple voices from the US, China, UK, Brazil, Australia, Europe and Asia. In 2019, we initiated the first Visiting Professor Programme where we invited 5 visiting professors from around the world, selected for their emerging significance to the discourse, to lead our design studios. This together with our international lecture series and exchange programme with leading institutions, maintains the Department's unique position as a leading voice and interface for the exchange of ideas.

Looking to the future, HKU offers a new 3-Year MArch (Design) degree for students wishing to study architecture who have a degree in another subject. This encourages the development of new perspectives on architecture, enabling HKU to work with talented individuals who have the potential to make a valuable contribution to the field and to practice.

As the world around us transforms, we aim to enrich and influence the future of the discipline as it responds to these new challenges.

ARCH7061 / 8071

INSTRUCTOR: JOSHUA BOLCHOVER

KEYWORDS:
DISPLACEMENT
RELOCATION STRATEGIES
SLOPE TECTONICS
RURAL-URBAN TRANSFORMATION
BRUTALISM

FALL STUDIOS

ANTICIPATING
THE URBAN:
GROUND CONTROL

Infrastructure has been a key tool to project urban processes into rural territory. As Brenner articulates in his thesis on "Planetary Urbanism", the concept of the city as a bounded entity has become superseded by a differentiated, yet continuous landscape organised to "support the continued agglomeration of capital, labour and infrastructure". This concept is explicitly spatialized in the urbanisation of the countryside in China: the territory has become co-opted to facilitate growth, primarily through industrialisation. Infrastructure, via highways and high-speed rail, has been the conduit for this process of "projection". The roads and rail connect raw materials to factories, labour from villages to urban areas, and products to sites of consumption or for export.

The construction of infrastructure creates a series of displacements: agricultural land is destroyed, villages erased; people relocated; and vast amounts of earth and rock are removed. Slopes and hillsides are made vulnerable to erosion and collapse and local forms of connection can be disrupted and settlements bisected. On the other hand, new economic drivers are created including roadside commerce, real estate, manufacturing and logistics.

The studio reacts to the current construction of a new highway in Liuyang Village, Changsha, to design a series of prototypes that respond to the volatile displacements occurring in this transformation process.

The government has already started the construction of the highway and the demolition of people's homes. The villager shown in the photograph is heralded as an example by the government to encourage others to leave their homes, claim their compensation, and rebuild. However, the sites that the government has offered the villagers for the resettlement are not attractive to some who desire plots as close to the highway as possible. This has stalled redevelopment creating an urgency to create design alternatives that can mediate the needs of both villagers and government. The studio develops projects for housing and programmatic catalysts that can respond to the demands of the new context.







ARCH7061 / 8071

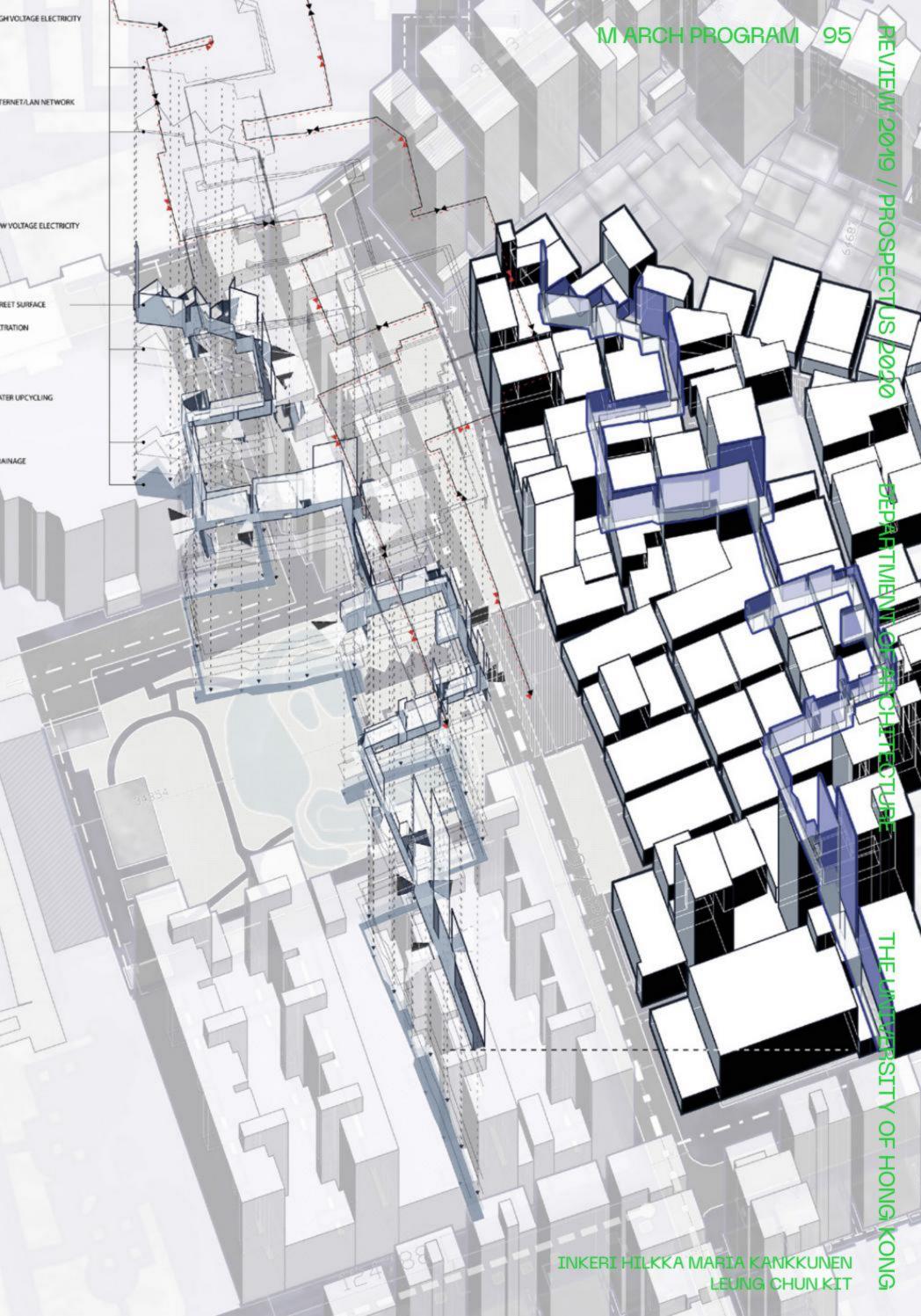
INSTRUCTOR: JUAN DU

KEYWORDS:
INFORMAL SETTLEMENTS
URBAN VILLAGES
URBAN RENEWAL
COLLECTIVE HOUSING
ARCHITECTURAL ETHNOGRAPHY

FALL STUDIOS

URBAN ECOLOGIES: EMBRACING TRANSFORMATIONS AND RESISTING DISPLACEMENT

The Urban Ecologies Studio aims to confront conventional urban renewal practices with alternative sustainable architectural design strategies for the contemporary city of accelerated (re)development. By understanding the city as a synthesized ecosystem comprised of Environmental (resources and services), Social (people and communities), Economic (costs and effects) and Constructed elements (buildings and infrastructure), this line of investigation proposes architectural interventions that negotiate the relationships among these elements. This design research methodology expands upon existing analysis and design techniques utilized within the field of architecture by introducing important understanding from knowledge fields such as history, landscape, geography, sociology, economics, and political science. The agenda is to create an architecture that is not overwhelmed by the complexities of the city, rather to view the multiple resources and conflicts as agencies of effective design.



ARCH7061 / 8071

INSTRUCTOR: KURT EVANS

KEYWORDS: DISTRICT GENTRIFICATION SIMULATION RETAIL INSTANT **FALL STUDIOS**

ACCESSORIZING SEOUL

A new paradigm of urban redevelopment has begun to emerge in creative cities across the globe, one betting squarely on design en masse and its retailer beneficiaries – the design district.

Seoul is one of the most dynamic and innovative retail environments in the world. Like many frenetic consumer markets, it also nurtures a rich creative community of artists, designers, filmmakers, musicians and beyond. And where the creatives go, the retailers soon follow – a tenuous, but all too predictable arc of development from frontier to gentrification.

Historically, such an evolution might take decades to fully arrive. Neighborhoods are, after all, broad swaths of plots and parcels, typically under different ownership, different motivations, different outlooks from one to the next. So change is slow.

But the design district inverts all that. In this emerging model, ownership is consolidated and assembled into large plots. Masterplans are drawn and enacted in a matter of years. Change is near instantaneous. What previously was an organic transformation is now made a synthetic, real estate driven response. Anchor tenants are introduced. 'Traffic drivers' placed strategically. The district is an economic engine camouflaged under a thin veil of architecture.

Design is wielded as a signifier of culture, rather than an outcome of it. Presto – an overnight neighborhood.



ARCH7061 / 8071

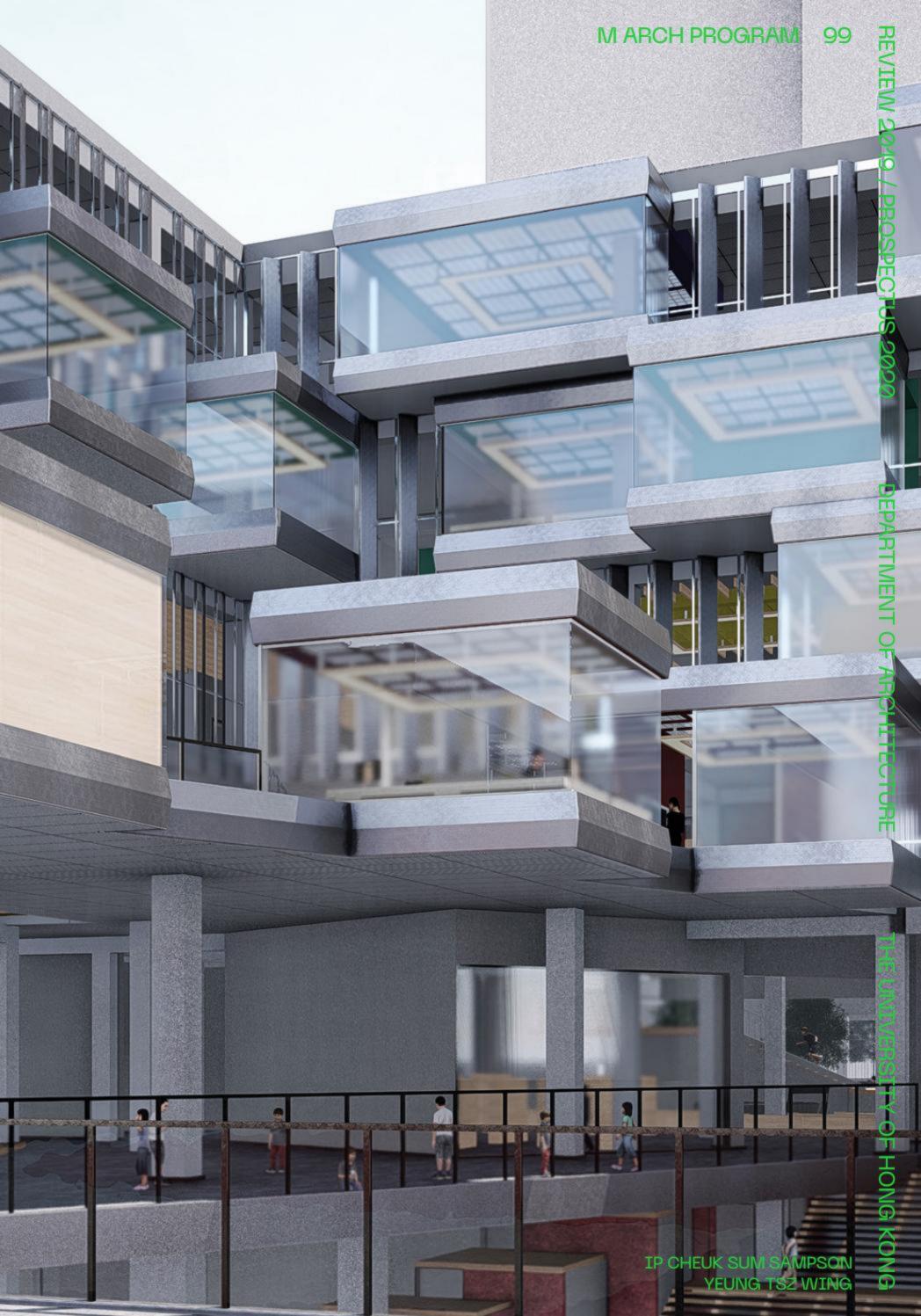
INSTRUCTOR: YAN GAO

KEYWORDS:
APPLIED DESIGN RESEARCH
DIVERSIFIED LEARNING
PERFORMANCEORIENTATED DESIGN
PARAMETRIC DESIGN
ENVIRONMENTAL METAPHYSICS

FALL STUDIOS

FUTURE SCHOOL

This studio focuses on applied design & research in order to address the urgent local issues for immediate impact. The pedagogical goal of this studio is to fill in the gap between the academic design which focuses on certain academic idealism, and the professional design which frustrates with the lack of innovation and in-depth reflection upon the critical issues. This time the project is to collaborate with the Peace Experimental Primary School (PEPS) to investigate new form of school environment and spatial mechanisms which support the school's vision in diversified and inspiring learning. Through engaging with the real users, students are expected to understand the complexity of design process in generating valuable design ideas, as well as to get inspiration from the stake holders outside the architectural discipline. We investigate how to codify the new forms of learning in today's context with the environmental factors that affects the learning outcomes, in order to generate new design possibilities and to evaluate design feedback. Our design objective is to address a series of dualities including Nature and Culture, Safety and Adventures, Collaboration and Independency and, Resources and Demonstration.



ARCH7061 / 8071

INSTRUCTOR: JIANXIANG HE

KEYWORDS:
APPLIED DESIGN RESEARCH
DIVERSIFIED LEARNING
PERFORMANCE- ORIENTATED
DESIGN PARAMETRIC DESIGN
ENVIRONMENTAL METAPHYSICS

FALL STUDIOS

REDISCOVERING FUNG KING 風景: TOWARDS A NEW URBAN SCENARIO

The PRD metropolitan area (currently "the Greater Bay"), the largest and densest urban area on earth, has been explosively erected on the ground of a continuous delta landscape. History and material tradition are sub stantially erased by the rapid wave of urbanization, especially in large cities. The hyper progressing modernization is becoming a flux of pure capital and political operation.

We believe architecture is related to and built upon history; or, it ought to be a history. Therefore, in order to effectively intervene to the "flux modern" condition, we must reconstruct a site history, literally, and culturally and spatially. The new architectural intervention seeks to articulate between the site and the surroundings, between the hidden past and the visionable future and between the steady and the mobile.

"The aim is to change "landscape" from a noun to a verb. It asks that we think of landscape, not as an object to be seen or a text to be read, but a process by which social and subjective identities are formed. (W. J. T. Mitchell, Landscape and Power)"

We are hence thinking of the possibility of Fung King, Chinese term for "Landscape", revival in the city and architecture, and asking whether Fung King, incorporating both the Chinese tradition about "scenicology" and the contemporary study on "landscape" worldwide, is able to be developed to a certain practical approach in architecture and urban design.

Fung King has the triple meaning in the studio:

- Retrospective conception of Fung King about the ecological relationship between the city and the landscape, between the built and the natural.
- Rediscovering Fung King 's Chinese Literati tradition which refers to personal and situational interaction to the space and environment.
- 3. Understanding about Fung King on its contemporary (mostly) art and social function to the super networking urban reality.



Tianhe Sports Center // 1986 Landmarks among the Rural Land



Tianhe Sports Center // 2018 Void in the Urbanised City

ARCH7061 / 8071

INSTRUCTOR: BEISI JIA

KEYWORDS: PLACE INFRASTRUCTURE ENVELOP **FALL STUDIOS**

INFRASTRUCTURE IN PLACE

We investigate an alternative approach in urban design. We remain critical to a deductive reasoning which presuppose particular solutions to problems around the study site according to preferred modes of functional zoning. Alternative methods are sought considering urban analysis, objectives and urban space.

We are doubtful of compositional unities which affirm order and stability. We encourage multiplicity and indeterminacy with all their forms of divergence, ambiguity and transformation.

Urban form is portrayed as an accumulation of information, material substances and time, forming compacted or loosely arranged agglomerations. We observe this phenomenon, which has existed for centuries and which this project is imposed upon.

We emphasise less on the notion of place-making as genius loci than on space production. Producing space is characterised by a dispersion of events which remains strategically open. Architecture design does not submit to finite conditions but circumscribes fields of possibilities, open to entice other forms of 'reading and writing'.

The studio is built on three basic urban issues: place, infrastructure and envelop. The traditional linear sequence of analysis and design is abandoned to allow working in parallel. Thinking on several levels and across many scales is required in each exercise.



ARCH7061 / 8071

INSTRUCTOR: HOLGER KEHNE

KEYWORDS: STRUCTURE MATERIAL SPLAY LAYERING TOWARDS A NEW- ARCHITECTURE **FALL STUDIOS**

DEEP STRUCTURE / TRANSVERSAL ARCHITECTURE

The podium tower has gained hegemony in Hong Kong and all over Asia due to its basic fitness in combining the needs for housing and commercial spaces at maximum GFA. On the positive side this contributes to a dense and compact urban fabric, even loads on transportation and other infrastructures and the round-the-clock liveliness of many areas. Yet it is rightly criticized for a wide range of urban, environmental and social problems. Tectonically, the notorious transfer plates- necessary to shift the loads from densely distributed vertical shear walls of the residential towers to a much sparser series of columns within the commercial podium beneath- are not only wasteful and cumbersome but also separate what happens below from the above. The studio focuses on exploring integral three-dimensional structural and massing solutions that in turn enable continuities, connectivity and new architectural potential and expression.

Programmatically, the bipolar banality of private residential repetitive units above a shopping mall is in dire need for revision: can the vertical combination be expanded to include all necessary ingredients for a self-sustainable urban fabric and respond to specific needs and potentials of their location?

Urbanistically, the podium needs to engage properly with the public realm, its neighbours and the various datums around it. For air flow and other kinds of movement, additional porosity and connections will be necessary.

From a hands-on comparison of various load transfer systems such as arches, vaults, trusses, frames, and Dougong systems, students work in groups to project a range of experimental, paradigmatic building systems, that are applied to various sites in Macau. The tiny SAR has even less available buildable land supply in comparison with Hong Kong and Singapore while at the same time needs to keep growing and diversifying its highly successful casino and integrated resorts economy and provide housing and amenities to a growing population. In addition to reclaimed land from the sea, it appears that more radical steps will be required: students develop a range of idiosyncratic sites with a diversely layered mix of programs and spaces. Examples are the existing airport terminal, the old Maritime Terminal, one remaining casino/ resort plot on the Cotai Strip and the Gongbei border crossing facilities. In addition to employing density to project architecture, the aim is also to coalesce the currently separated realms of tourism and inhabitants and to replace Macau's borrowing of 1980s Las Vegas with a new iconicity of diversity and coherence aligned with the dynamics and sensibilities of the New Millennium.



ARCH7061 / 8071

INSTRUCTOR: CHRISTIANE LANGE

KEYWORDS:
COLIVING
FUTURE OF LIVING AND WORKING
CONTEMPORARY ARCHITECTURAL
RESEARCH AND DESIGN PRACTICE
FLIPPED CLASSROOM ENVIRONMENT
FIELD OVER CROSS AND MIX USE OF
METHODOLOGY

FALL STUDIOS

EXPLORING
RESEARCH
AND DESIGN
METHODOLOGY
IN ARCHITECTURE
THROUGH THE
INVESTIGATION OF
COLIVING

This is a design studio that places special emphasis on the use of 'field over cross and mix use of methodology' while studying the phenomena of coliving in the discipline of Architecture.

In this studio we discuss initially issues of research and design, methodology, discourse and debate in architecture, related to both praxis or academia. Then we explore and map other ways of working and modes of thinking by interviewing those in the field of Architecture and other fields at the University of Hong Kong. We collect, map and compare thought models and methodologies generated and we use them in your study of the phenomenon of coliving. Learning from this investigation we develop a position and a thesis to coliving, and we learn how to place this thesis into a relevant debate. This translates into a proposition, conclusion, or suggestion that would need to have a spatial proposition to coliving.



THE UNIVERSITY OF HONG KONG

108 M ARCH PROGRAM

ARCH7061 / 8071

INSTRUCTOR: CHRISTIAN J. LANGE

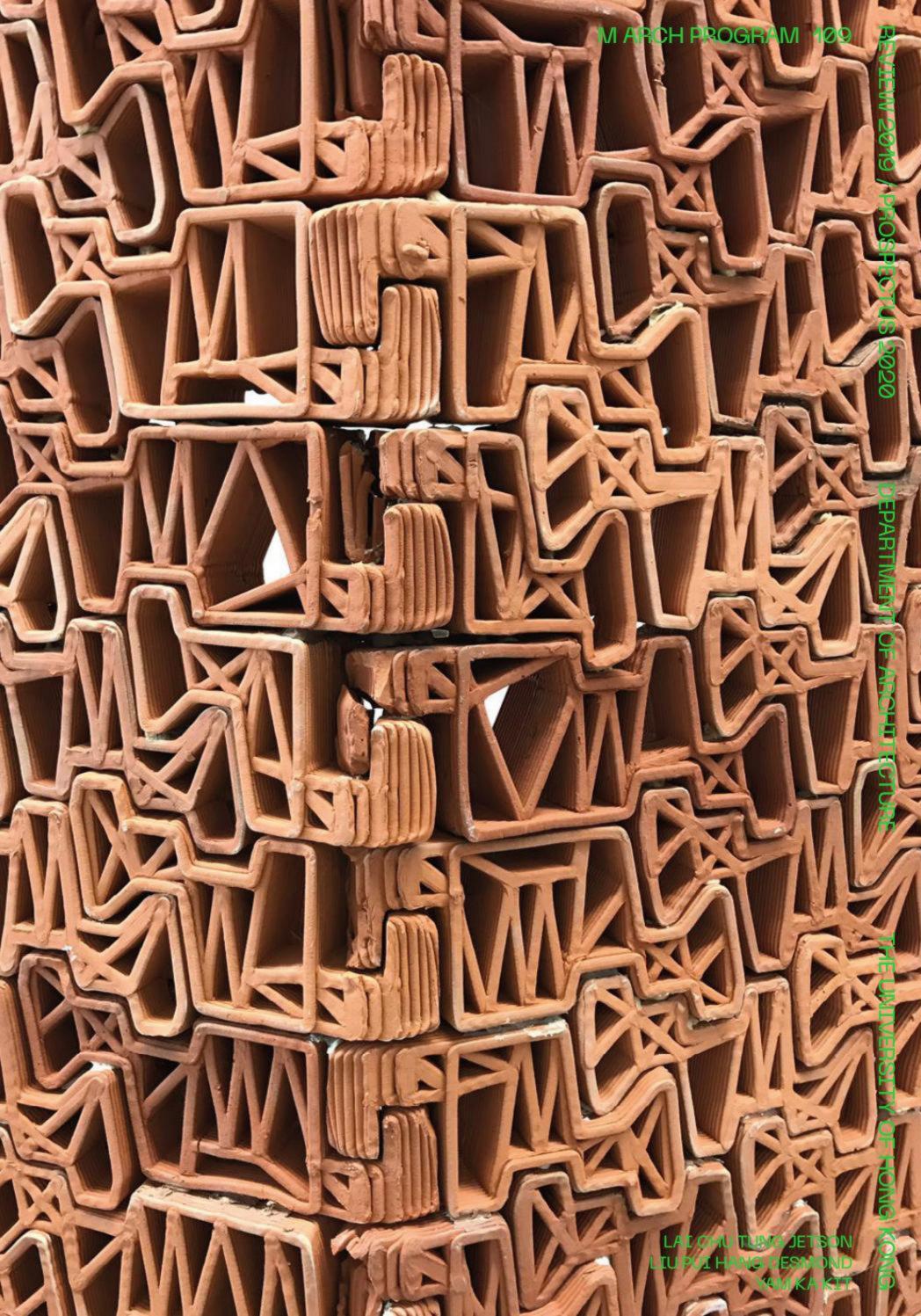
KEYWORDS:
ROBOTICS IN ARCHITECTURE
MATERIAL SPECIFICITY
PERFORMATIVE SYSTEMS
TOOL DESIGN
CERAMICS IN ARCHITECTURE

FALL STUDIOS

AUTOBRICKFORMATION

The history of architecture is primarily based on a model of parts-to-whole. One of the oldest building material that is the ultimate embodiment of this concept is the brick. The brick was until modern times the standard component to build mundane buildings around the world. It represents a building material that can be flexibly assembled, is good in compression, and though it's based on a standardized logic has within its system a large range of architectural expression. Originally bricks were made through slop moulding. Today, most industrially produced bricks are made through a die extrusion process, a method that is fast and economical but has its limitations in complexity achievable.

In the past decade, 3d printing technology has become more and more advanced and has made its way into architecture. Many of the professionals in the industry driving the development are dreaming of fullscale production with large-scale printers that print entire houses, which can take on any form. Though, there are quite a few promising developments on the horizon, I believe that this trend will be only one trajectory of how we think about new technologies to drive contemporary architectural production. The studio therefore will focus on the brick and try to understand how recent technologies can rethink this 7000-year-old building material.



ARCH7061 / 8071

INSTRUCTOR: OLIVIER OTTEVAERE

KEYWORDS:
CONCRETE FORMWORK
TIMBER FRAMING
MATERIAL PROPERTIES
STRUCTURE PERFORMANCE
CONSTRUCTION PROCEDURES
NATURE

FALL STUDIOS

VILLAGE HOUSE PROTOTYPE, FROM CONCEPT TO CONSTRUCTION

The studio not only explores how a concept of a building can be transformed into a real built experience but also experiments with materials in practice as well as suitable building technologies for rural construction in China.

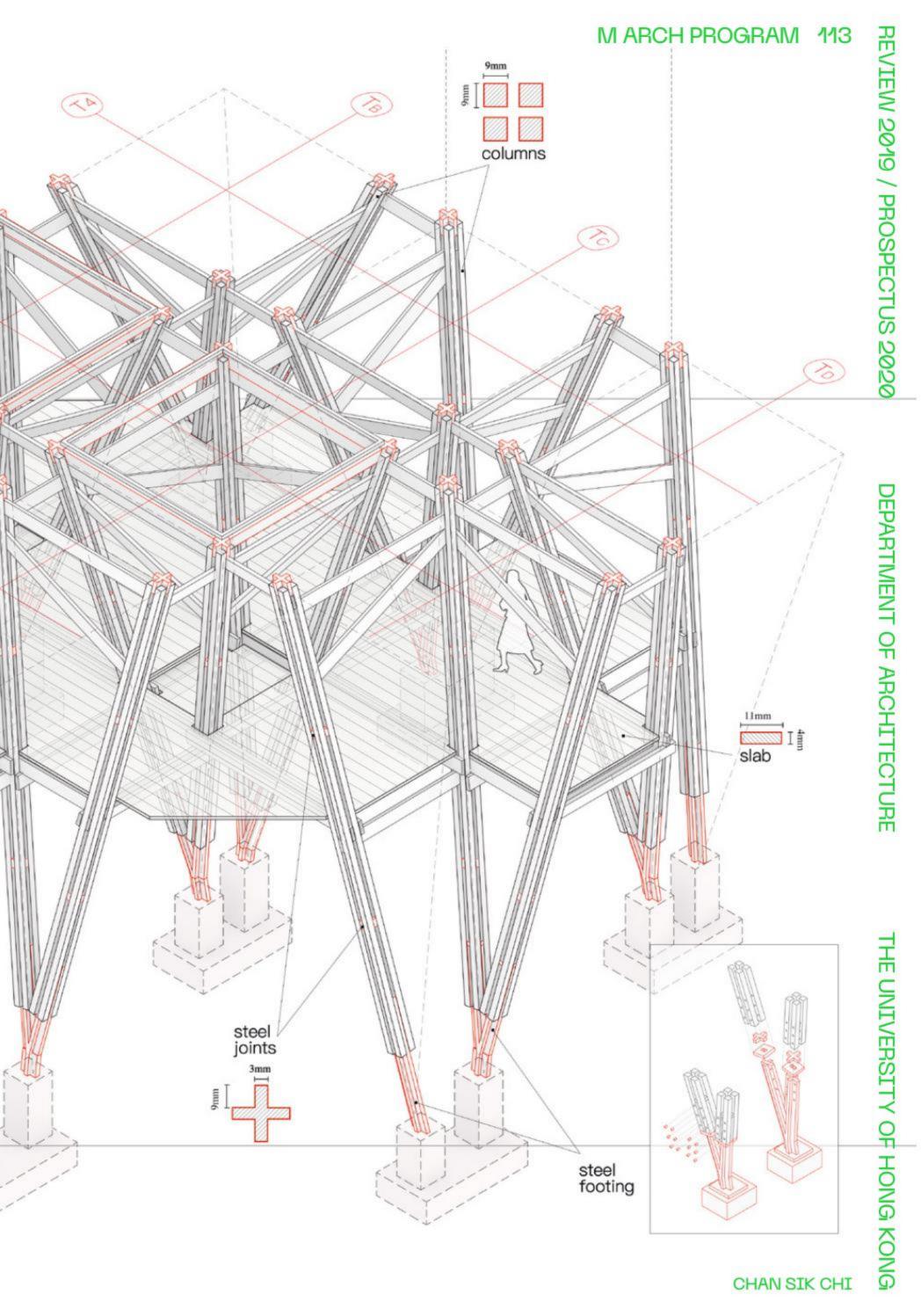
Rather than focusing on broader village revitalization issues, we specifically rethink architecture's relationship to nature in the countryside by developing a prototypical house. Located between mountains and farming fields, the chosen site for the house is a sloped terrain, initiating a productive tension between ground and roof.

The house's construction will be sponsored by the local government in Guizhou, Urban Environment Design magazine (UED Beijing) and China Building Centre (CBC Beijing), presenting an alternative educational platform for township construction in China.

To prototype ('first-strike' in Greek) a house in this specific context has the potential to open up a series of chain changes in larger rural areas and to generalize more pragmatic results; benefiting the local industry, injecting new social and cultural resources in the area and promoting new economic conditions.

Through hands-on experimentation with materials and their active properties (e.g. formwork for concrete casting), the studio seeks novel construction procedures able to influence the project outcome and direct its design process and methodology.

A site visit also serves as essential design criteria to the house's development.



ARCH7061 / 8071

INSTRUCTOR: VALERIE PORTEFAIX

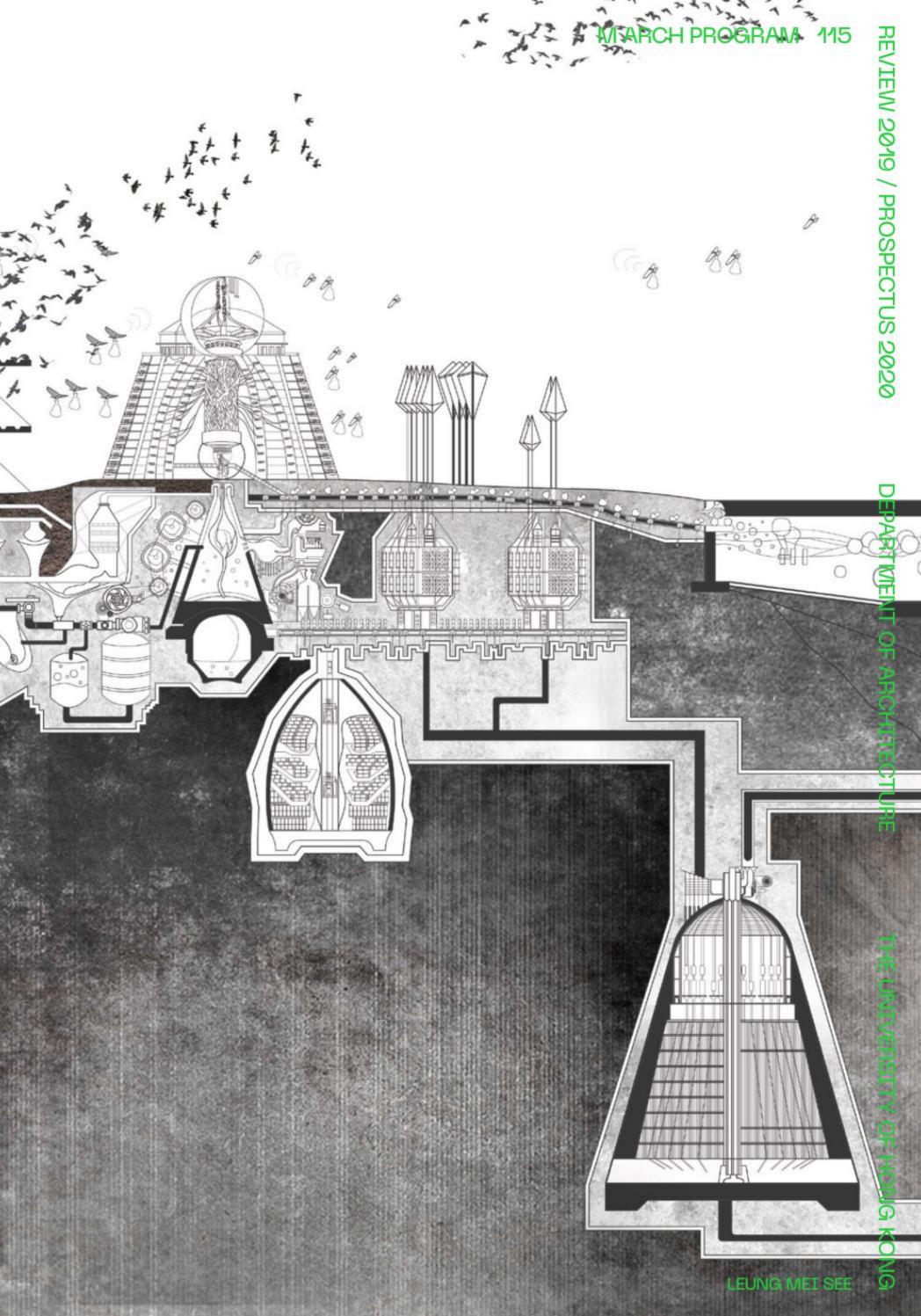
KEYWORDS:
NETWORKED ECOLOGIES
BORDER INFRASTRUCTURE
TERRITORIAL SEA
ISLAND LABORATORY
SUBSISTANCE
ARCHITECTURAL ETHNOGRAPHY
COASTAL LANDSCAPE
SEASONS, TIDES AND MOON

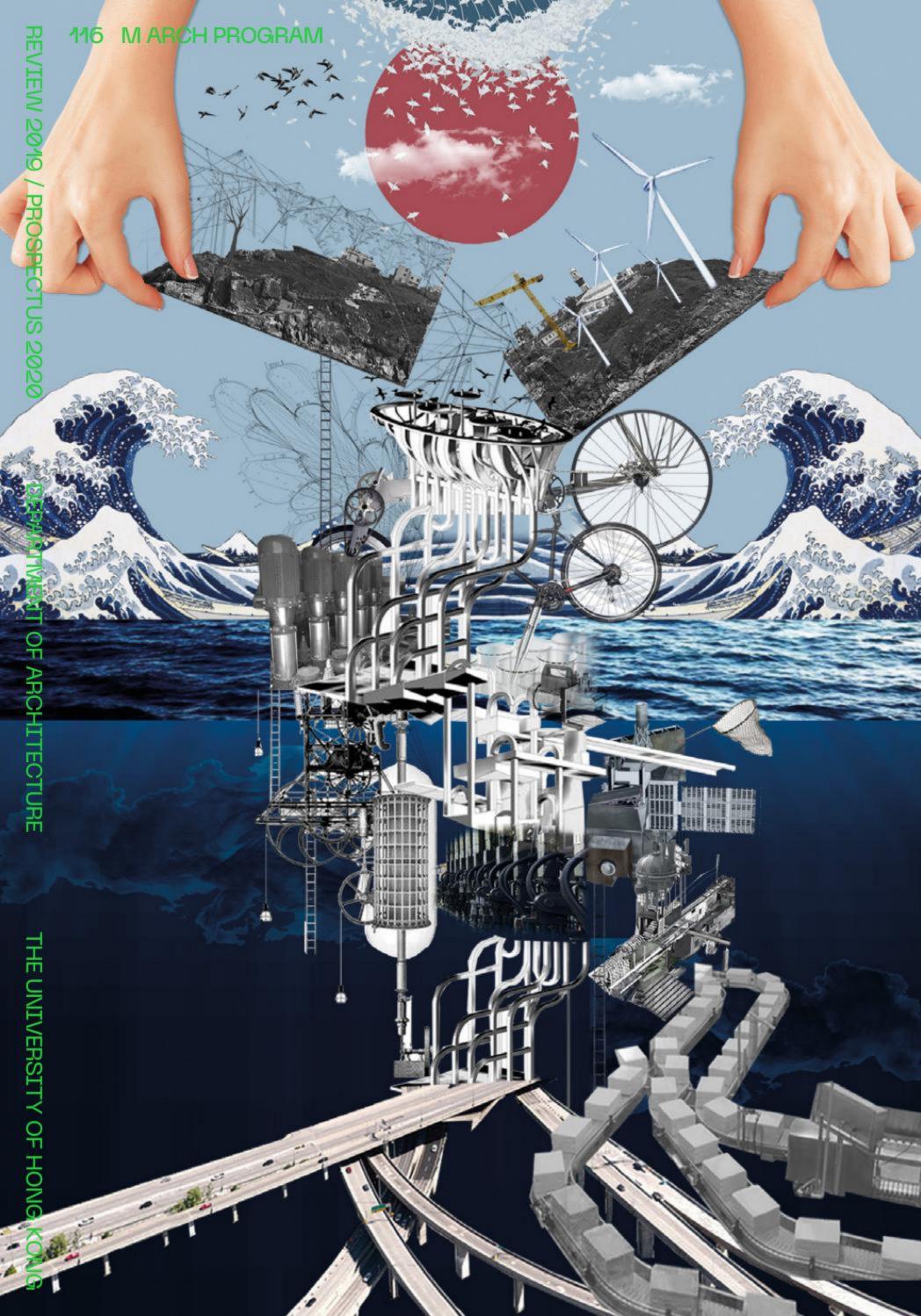
FALL STUDIOS

TERRITORIAL
SEA | ISLAND
INFRASTRUCTURE:
ECONOLOGY OF
THE COASTLINE
TRAJECTORY #2

With more than 250 islands, mostly uninhabited, and fifty percent of the territory composed of water, Hong Kong has the potential to reinvent a positive future where human economies are rebalanced with new territorial ecologies. In this context, islands are fragments of land that are barely used, or rather, their various forms of occupation have often been kept secret by the successive Hong Kong governments. Rehabilitation center for drug addicts, low-nuclear waste management plant, isolated refugee camps, islands have since long been used for hosting the leftover of our societies.

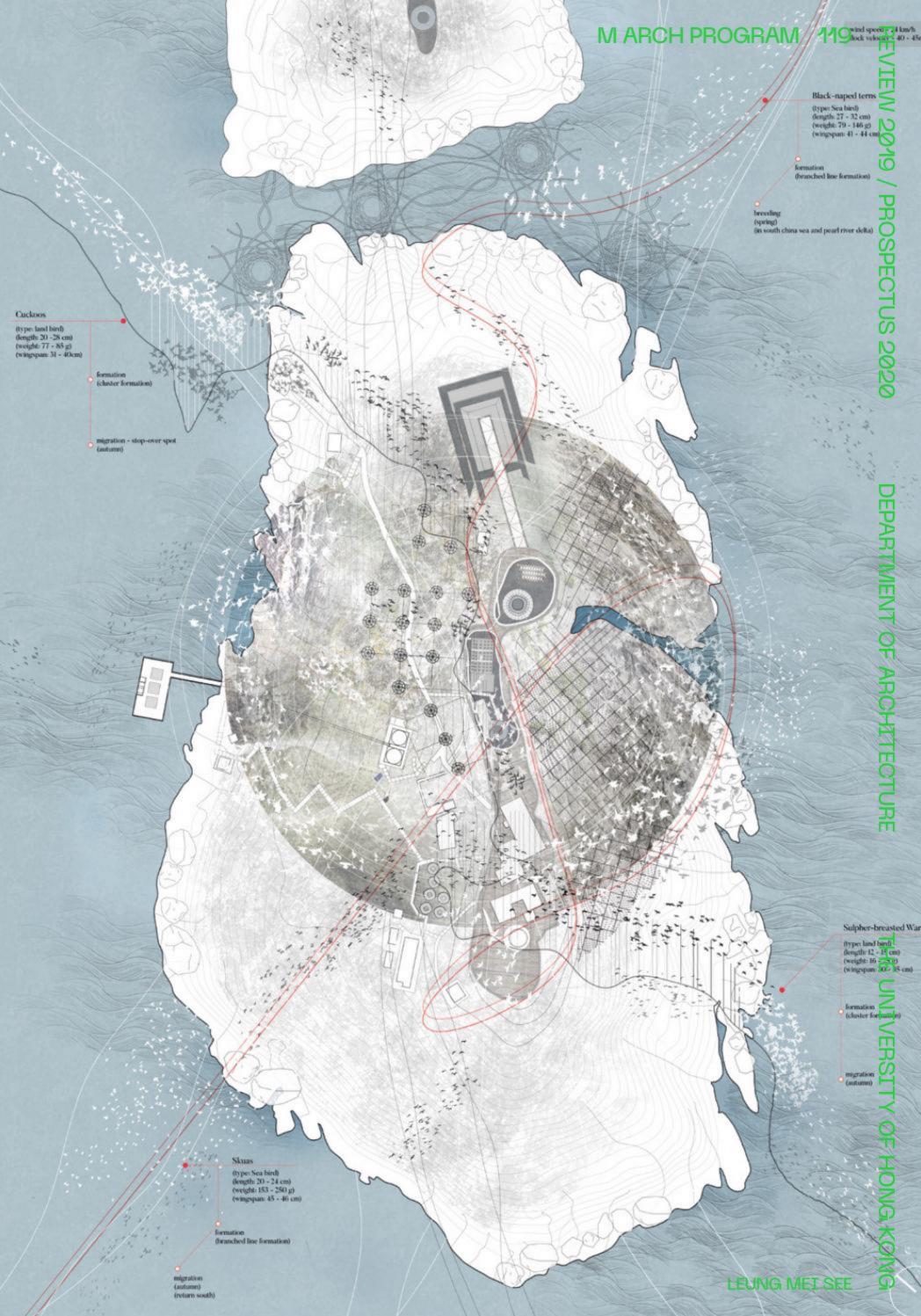
The main objective of the studio is to reterritorialize those forgotten or invisible territories by defining a liquid trajectory starting from Cape d'Aguilar and HKU Marine biology department, passing through Stanley to join the Po Toi Islands. Those various sites opportunities should allow the development of multiple possible futures, beyond simple capitalistic and other materialistic perspective.











ARCH7061 / 8071

INSTRUCTOR: ESPEN VATN ANDREA PINOCHET

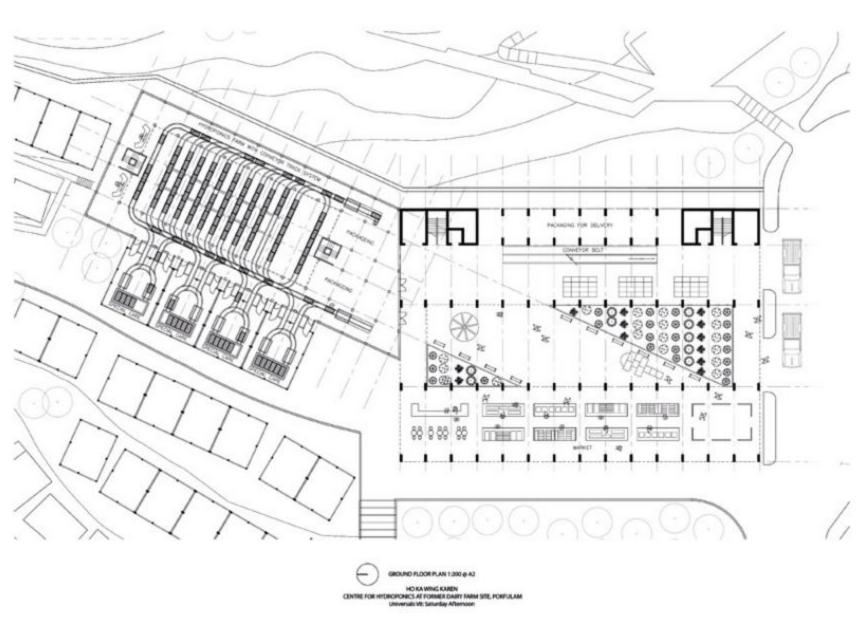
KEYWORDS: STRUCTURE REINDUSTRIALIZATION FACTORY DETAILED DESIGN **FALL STUDIOS**

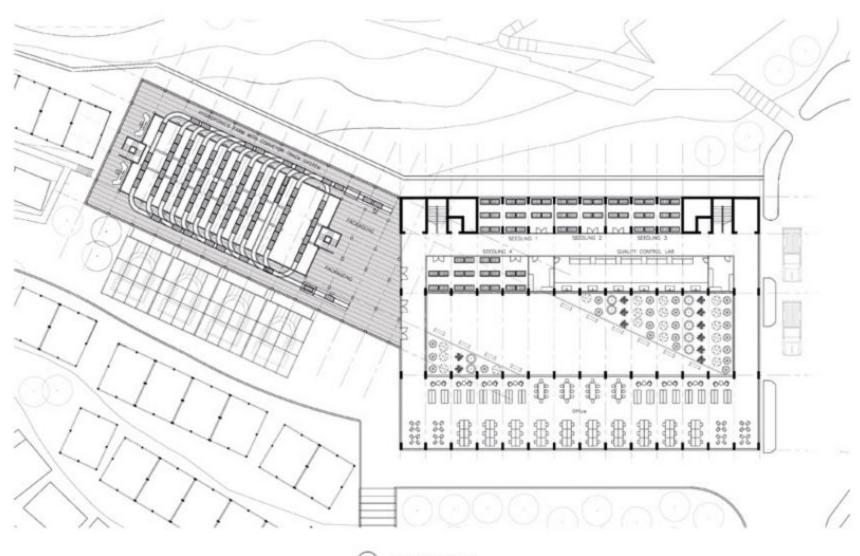
SATURDAY AFTERNOON: SPACES FOR THE REINDUSTRIAL REVOLUTION IN HONG KONG

In Laurence Stephen Lowry's painting "Saturday Afternoon" (1941) from Pendlebury, Lancashire we see the looming presence of the factory amidst the festive leisure of a sporting event on a Saturday afternoon. The image is haunting, and has for the better half of the 20th Century been the antithesis of an ideal relationship between industry and the city. Yet, industrial architecture has served as inspiration for architects since the beginning of modernity, it has always to some extent been regarded as 'incomplete'; its building elements only becoming high-art when applied elsewhere.

Hong Kong has a significant industrial and manufacturing history dating back to the 19th Century. But since the 1970–80's the industries moved out of the city and was largely replaced by the financial services. There is now an explicit goal to reindustrialize Hong Kong in order to diversify the economy and take part in a growing technology sector. At the same time the perception of industry in the city is changing as we are seeing clean technology companies moving into the center of cities in order to attract staff and encourage synergy effects of being around universities, research centers and commercial enterprises. Thus, today's factory is perhaps also gallery, a club, a school, a research center, think tank, far removed from the dusty, polluted ancestor.

The studio will aim to place industrial architecture in the centre with the ambition to use architecture as a critical tool to conceive of spaces for a new kind of interaction between industry and the city. In this pursuit we will work from within the discipline of architecture, employing drawing, models and text as the primary tools.





ARCH7061 / 8071

INSTRUCTOR: THOMAS TSANG **FALL STUDIOS**

WHERE EVERYTHING, ANYTHING AND NOTHING IS ARCHITECTURE

Hong Kong, 12th December, 2018

HKU Faculty of Architecture

MArch Design Studio

Tutor: Thomas Tsung

Editor: Vernon Wais-Lun Cheung

UID: 3035421849

FALL 2018

Everything Daily

Where Everything, Anything and Nothing is Architecture...

POLITICS

Nothing as tool to uncut the Hong Kong - Shenzhen border

If the word 'uncut' sparks ideas of behind the scenes, or all the moments the director didn't want you to see, you need to move on with the times. Oxford Dictionary has named 'uncut' as one of its 'Word of the Year for 201K, but defining it as 'the act of corting through space, material or immatered, in a way that reveals or exposes what wann't wishle before.

Oxford Dictionary's website said candidates for the wound of the year are selected from the publisher's language rewards from their association stated that the word or expression in 'padged to reflect the othor, mod, or procecupations of the passing year, and have lasting potential as a term of cultural significance.

The dictionary defines 'uncut' and faintly, the

raginscance. The dictionary defines 'uncut' as 'not out' or 'complete,' and the word 'cut' has carried layers of measing since its Germanic to Makélle English origins. From the first recorded instance (c.1300), it meant a liberal incision for the purpose of dividing into two se more parts. A certany later, it became interpreted as, 'to intersect or cross and early 15c,' to abridge or shorten by omitting a part.' The multi-layered measing of 'cut' say immediate public confusion when an anonymous mediator conde said records and control of the confusion when an anonymous mediator conde said records and control of the confusion when an anonymous mediator conde said records.

and faintly, the polluted sky

of Shenzhen.

I must be in
heaven!**

No infusion or deaths have been reported since, as announced by the Hong Kong police in a proconference last month.

Data from Oxford Dictionaries show a 250 percent increase in the number of times people have searched the wood, Cut on its website after this incident.

Calling this phonomenon a cut has been met with strong one physically directe and uplit being Kong police in a proconference last month.

is survented in the city currently. Hong Kongres have long resisted come border integration, despite the city's neunflustion with Chins two decades ago. Recent surveiled infrastructural projects, such as the Hong Kong-Zhuhai-Macau bridge and High Spood railway utterput as address this stone. Hely have been sunsuccounful however, to the extent that locals still refuse to cross the border. A recent narvey by the Chu Hait College of Higher Education conducted that 54% of respondents had no plans to set foot in the Genetic Ray Area in the coming year. Nevertheless this may charge, as the new opening stimulates a curiosity that was hadden before by the skycraper sufficient producting, mountains us landscape of Hong Kong.

Zeoming back into the city

No injuries or deaths have been approximate an approximate since, as announced by the Hong Kong police in a pressure conference leat mosth.

Large open corridors cutting through the urban fabric is not the care fluctuation of the conference of th

Street performers from Mong Kok have immediately taken the opportunity to enlinen the city again and on Sundays, the domestic believes have a brand new space to occupy and giving. It is no, that many are calling this something, the unexit or ecospiele version of Hong Kong. There is an air of change lingering in the humid skyaraper city. Who knows how it will develop and what this may inspire in other cities across the world.



Landscape as a city's security

the Alps, mountains have historically drawn natural borders



Map of Hong Kong, 1841

Geography has divided Hong Keng with the Mainland since the very beginning. When Isong Kong became the Grown Cadony of the Bettish Empire in the Tentry of Nanking signed or 29 August 1842, it's boundary was limited to the shores of Vaneta's Indehous After the First World War Inosecser; the Bettish became increasingly sortied about the security of their fine port. It was an isolated island, surrounded by mountains still under Chinese control. The British decided the answer would be to lease a buffer zone around Hong Kong that would account for Kong Kong that would

to invasion.

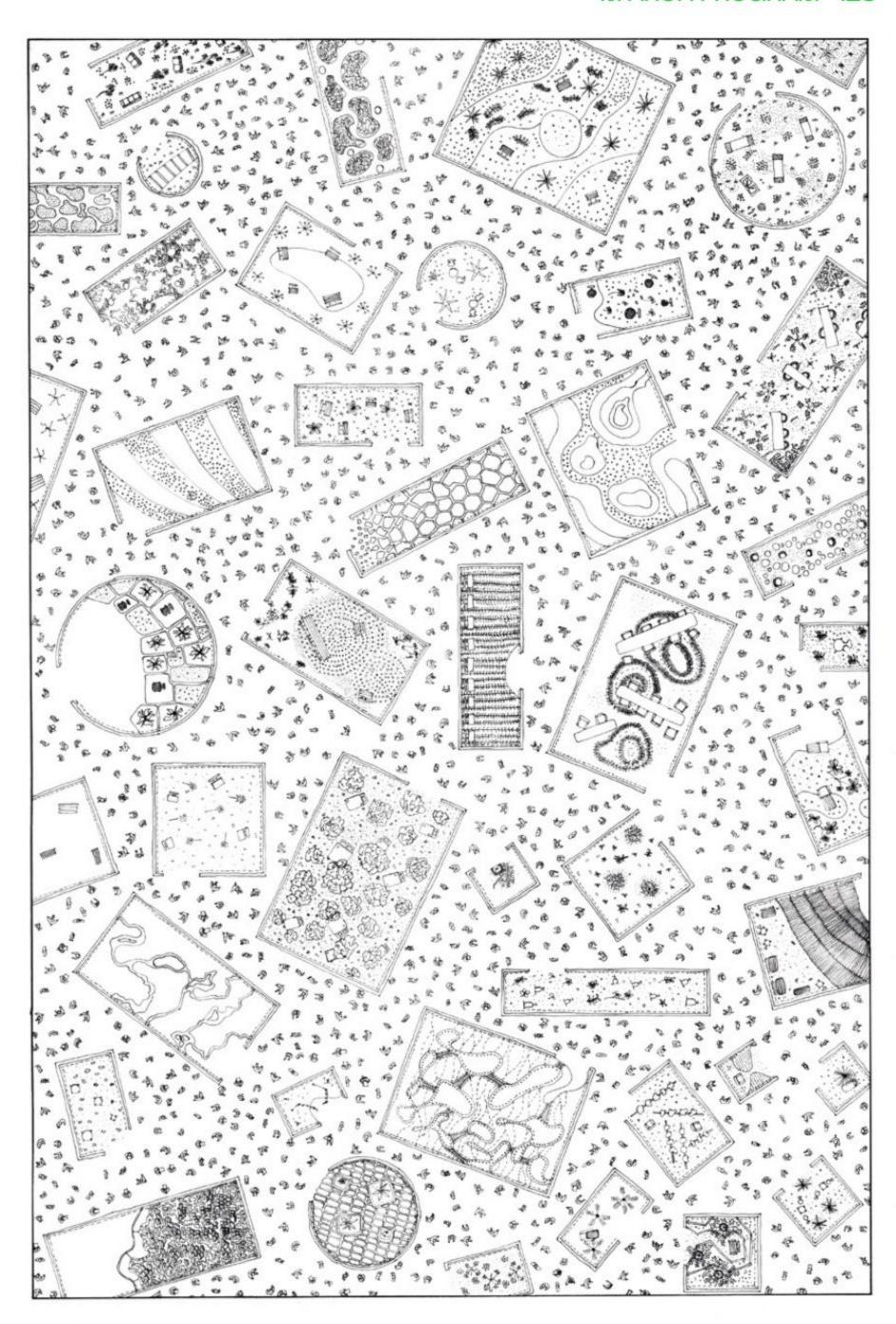
Boundary Street today is the remnants of the perpetual leave unser the Kordsons Pertinnals, a pushing of this boundary inland, it was an agreement as part of the Convention of Beijing that ended the Second Optom War in 1890. In 1898 however, the cold pushing the second Convention of Peking would push this boundary even further North, to include the city's highest mountain today. Tai Mo Shan, It is curious to imagine what Hong Kong would be like if the inclusion of the mountains into its herritory was never successful, to have a pographic relationship like the neighbouring oid Pertuguese Columy of Macau.

The mountains act as the city's security burrier even today. The disjunction between Hung Kong and Mainland China is defined by the ridge-line that



Quote of the Day

once asked Goethe what colour he liked best. "I like rainbows," he said. That's what I love about architecture If it's good, it's about every colour in the spectrum of life; if it's bad, the colours fade away entirely.



ARCH7061 / 8071

INSTRUCTOR: TAO ZHU

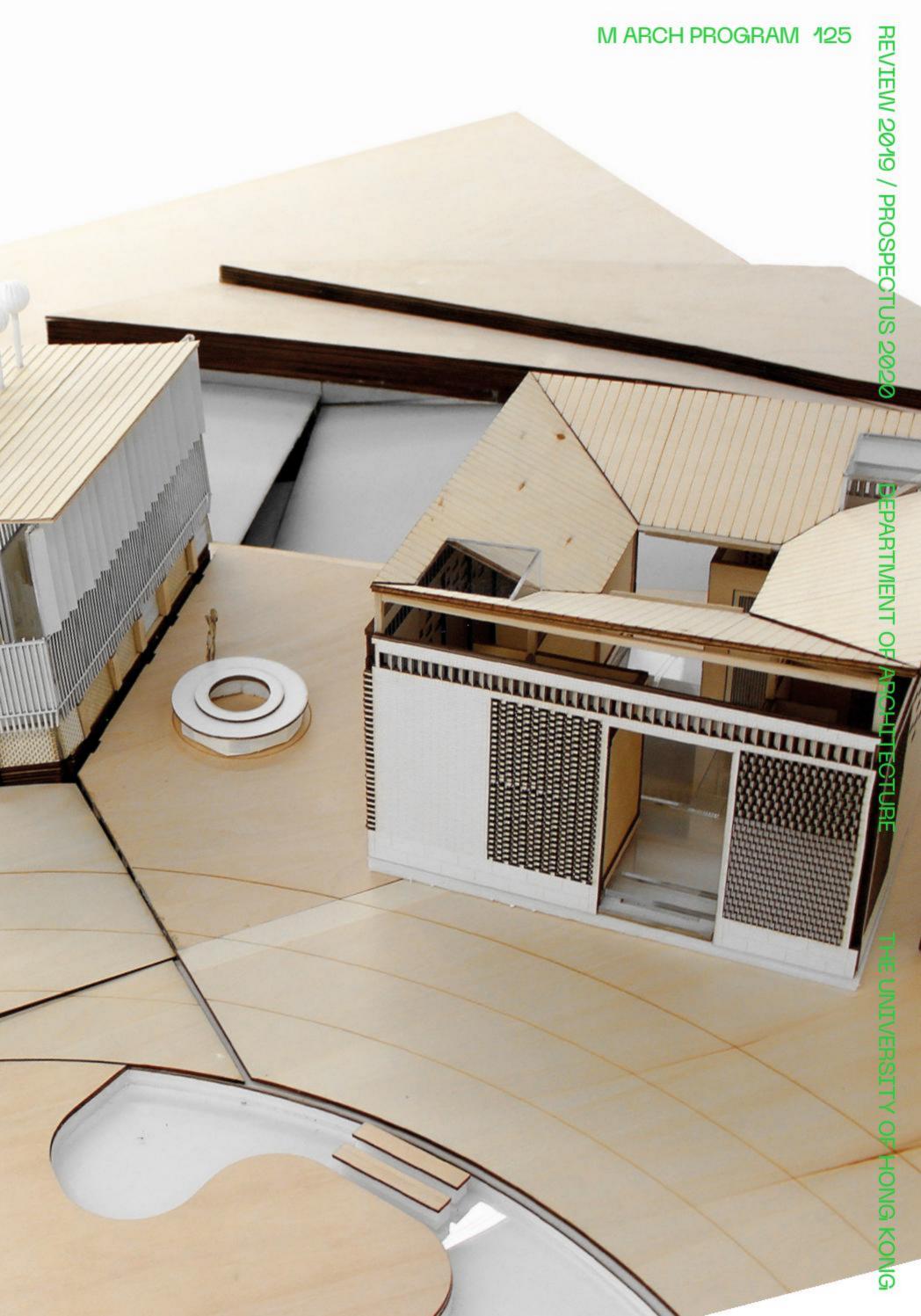
KEYWORDS: COMPOSTING TOILET PUBLIC SPACE **FALL STUDIOS**

BOTTOM UP

AN ALTERNATIVE SPATIAL — SOCIAL PRACTICE TOWARD CHINA'S 'TOILET REVOLUTION'

SH!T happens, every day. We make it happen every day. But do we ever think about it?

This studio thinks about it and works on it. We first explore the spatial, social and technical issues involved in the toilet design, and develop a new composting toilet system for an elementary school and the individual families in a Yunnan village. Beyond the rudimentary project dealing with human excretion, we also work on human communication. We try to use the toilet upgrading as a catalyst to trigger a spatial-social campaign to improve the entire village's public space system.



ARCH7062

INSTRUCTOR: THOM MORAN ELLIE ABRONS ADAM FURE MEREDITH MILLER (T+E+A+M)

KEYWORDS:
RENDERING
POSTDIGITAL
VIRTUAL REALITY
PHOTOGRAMMETRY
EXPERIENCE

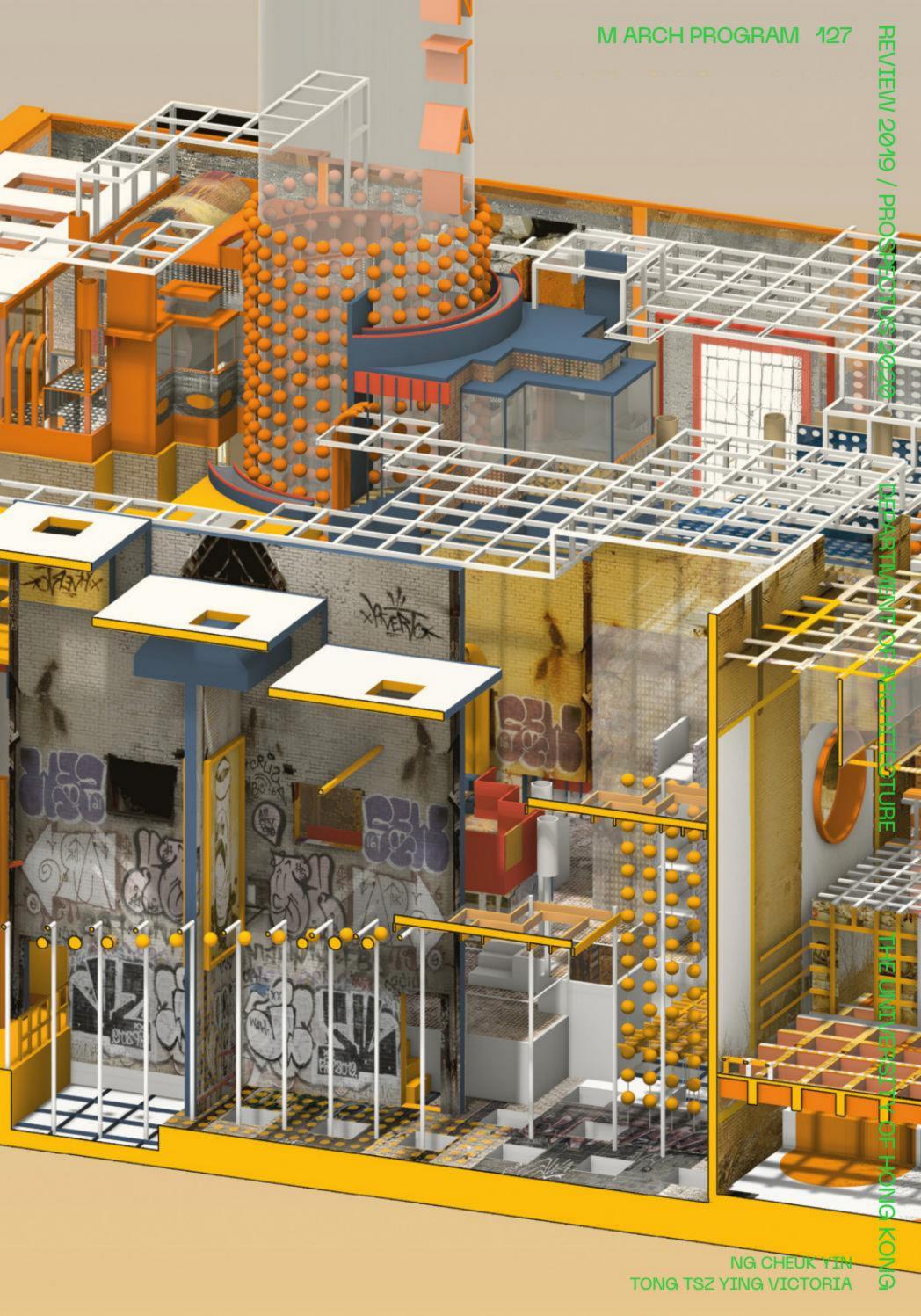
SPRING STUDIOS

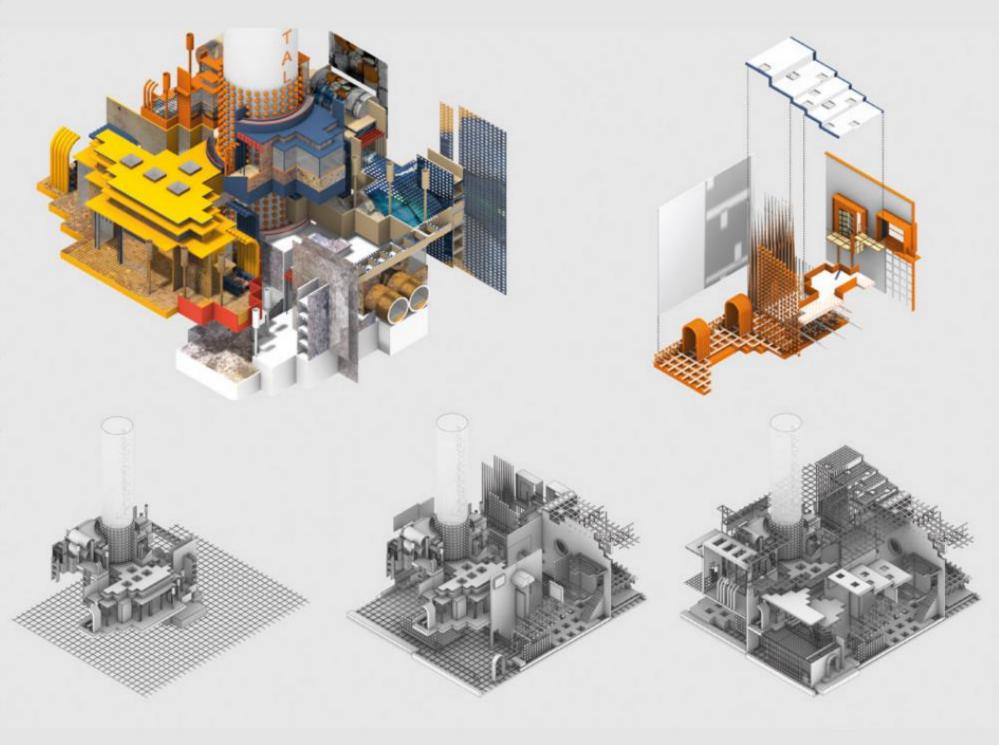
BUILDING RENDERING

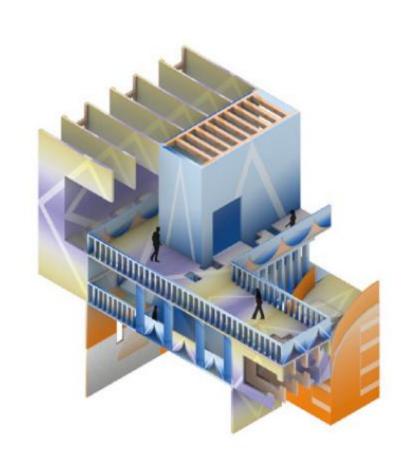
"The Digital" is no longer simply a tool for the production of architecture, but the context in which architecture is conceived. This shift calls for a fundamental rethinking of some of our most commonly used tools and techniques. For example, digital renderings were once an expedient way of depicting (soon-to-be) "real" buildings through photorealistic, computergenerated images. With improvements in processing power, software, and virtual reality, rendering now happens in real-time, through immersive, interactive environments. This shift from static to dynamic is more than a simple shift in perspective, it is an invitation to rethink how architecture is conceived, produced, and experienced.

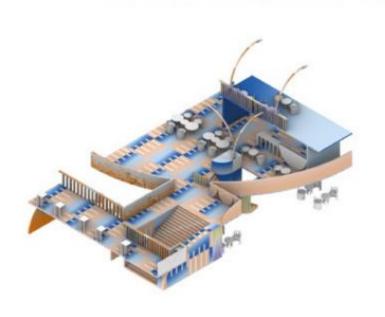
In this studio, we will take up rendering as a means of visualizing the built environment, but also as a framework for design and experience. This approach collapses distinctions between physical and digital, and turns visualization tools into generative ones. Thus, the components of rendering (UV mapping, mesh topologies, and so forth) will be the material we author as architects.

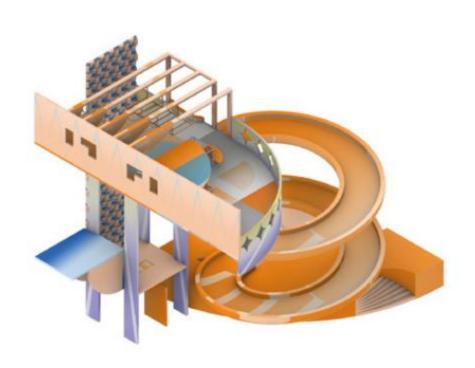
Our site will be Detroit, a city accustomed to digital mediation. Students will study Detroit remotely, utilizing digital tools such as Google Earth to form a basic understanding of the city's topography. Mid-semester, students travel to the site, gathering information for the design of a building to be designed in a virtual Detroit.

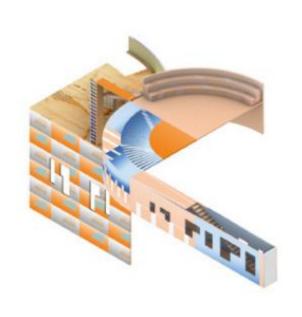


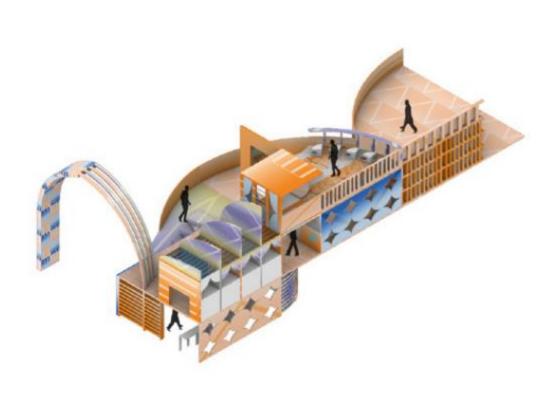














ARCH7062

INSTRUCTOR: HAORU CHEN

KEYWORDS:
RURAL COUNTRY
CONSTRUCTION AS COLLECTIVE
FIELD RESEARCH
NATURAL BUILDING
REINVIGORATION

SPRING STUDIOS

FIELD RECONSTRUCTION

The current worldwide rural challenges are being manifested in China's recent rural reconstruction efforts. This class investigates rural villages and provides analysis of the current rural society including its agricultural production and construction systems. A discussion of new development strategy in the rural site aims to reconstruct, its physical environment and its social fabric. A series of studies into building methodology examine aspects of location, ecology, natural materials, construction collectives, tectonics, forms, and shelters. A comprehensive solution to the selected place is discussed, through architectural prototypes, intervention strategies, and media dissemination. These chain link events contribute to the reconstruction of village collectives in the future.

SITY OF HONG KONG

132 M ARCH PROGRAM

ARCH7062

INSTRUCTOR: SAM JACOB

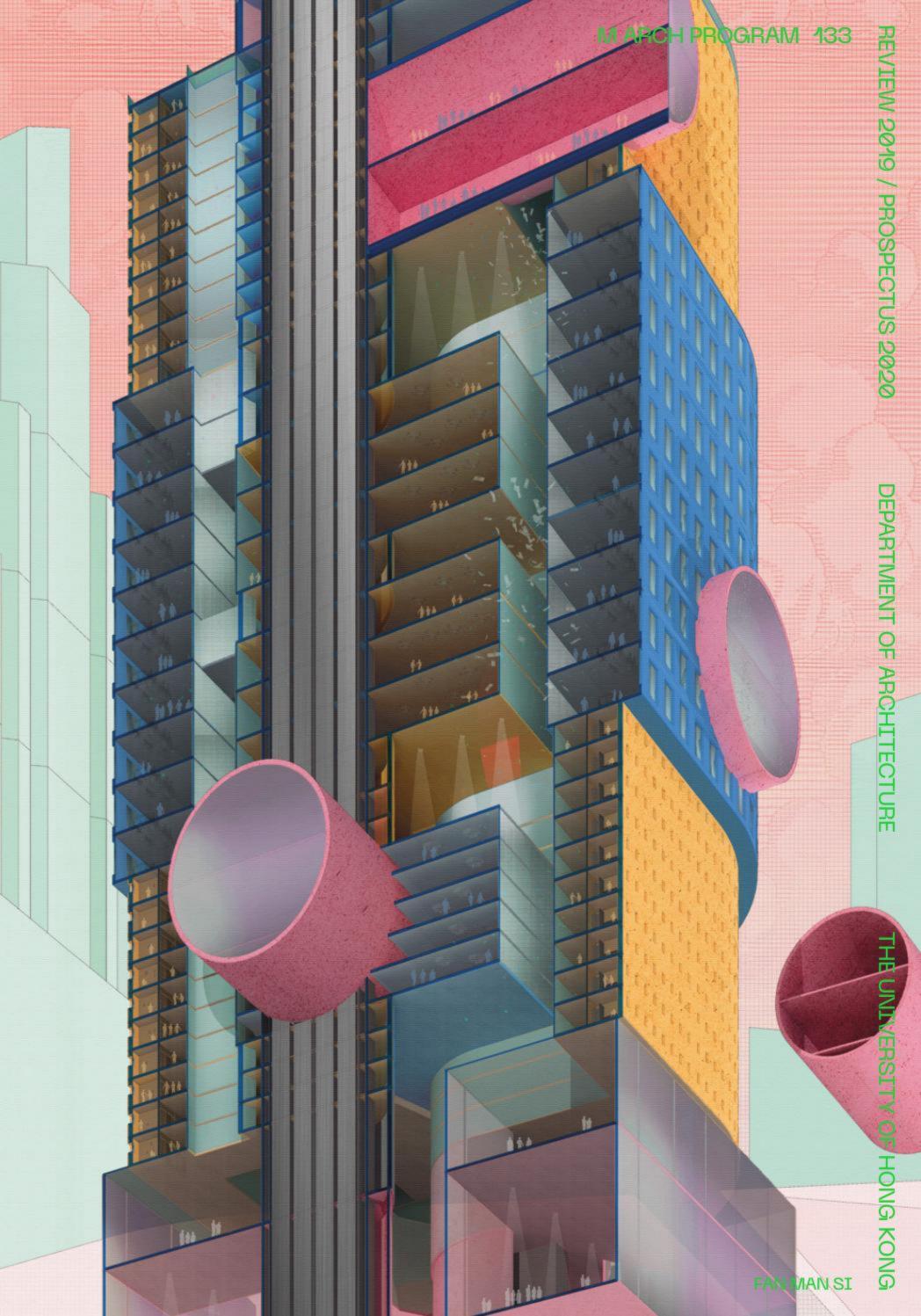
KEYWORDS: HYBRIDS COLLAGE REPRESENTATION **SPRING STUDIOS**

AMALGAMATED ARCHITECTURE STUDIO (OR DIFFICULT WHOLES AND ROUGH BEASTS)

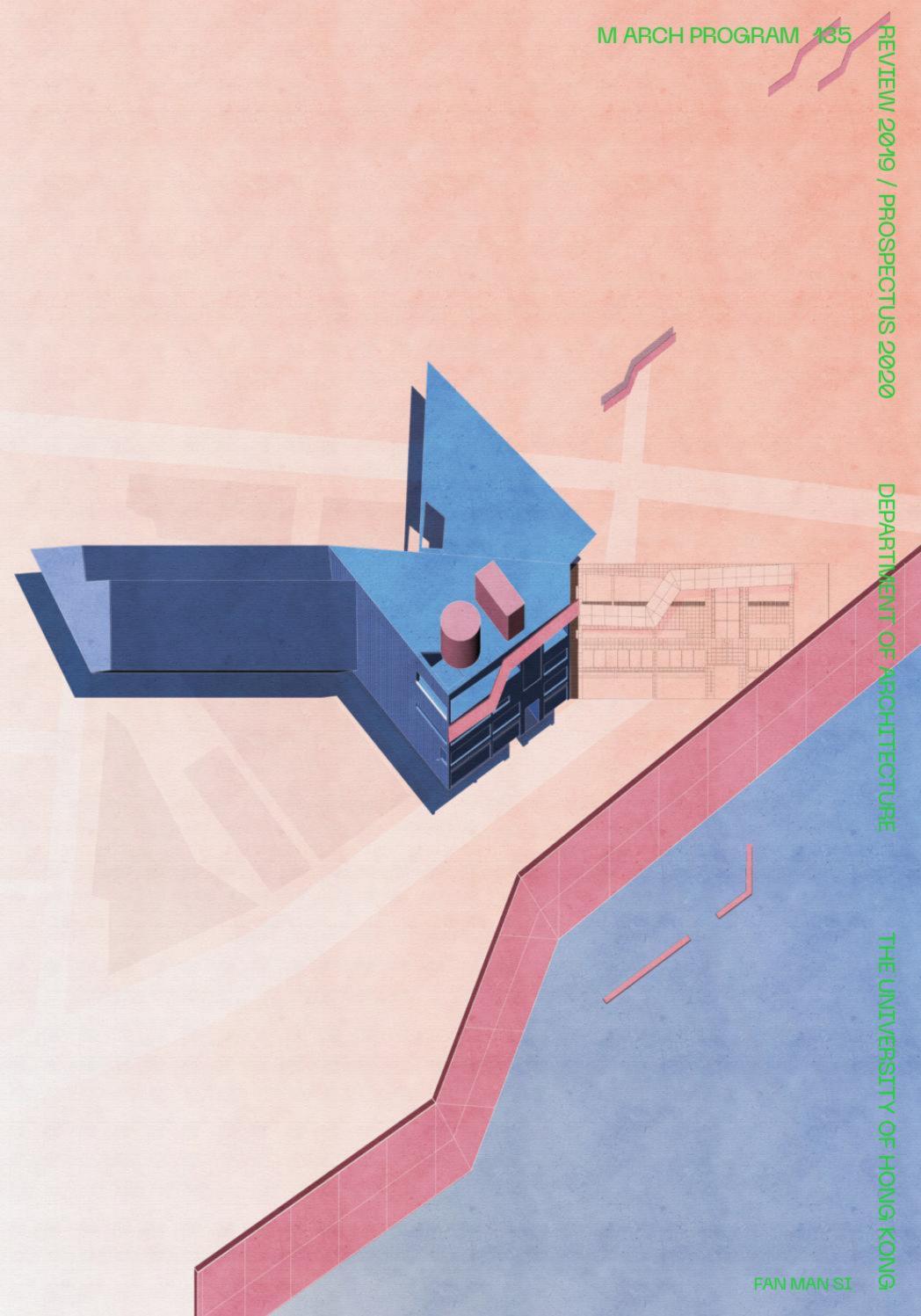
Hong Kong is a city where cultures intersect. Forces of colonialism, politics, ideology, and economics have exerted themselves to shape the city in extreme ways. Urban form, architectural character, programme and even geology have been moulded, trained and bent by these forces into a unique urban ecology. Our studio investigates and speculates within this culture of ultra-hybrid urbanity.

It does this in two ways: First by 'reading' Hong Kong through close observation. This produces a series of 'portraits' of existing architectural phenomena. These act as studies but also as potent manifestos of architectural potentials. These explore and explain how unique forms of architecture have thrived within the Hong Kong ecosystem. From very small to very large, historic and futuristic, global and local, individual and collective, we use the act of drawing and modelmaking to articulate our readings as positions.

Secondly we work with elements of architectural culture, raiding history for ingredients and tactics that we can use ourselves to create alternative histories and possible futures. These give us disciplinary foundations that shore up our speculations.

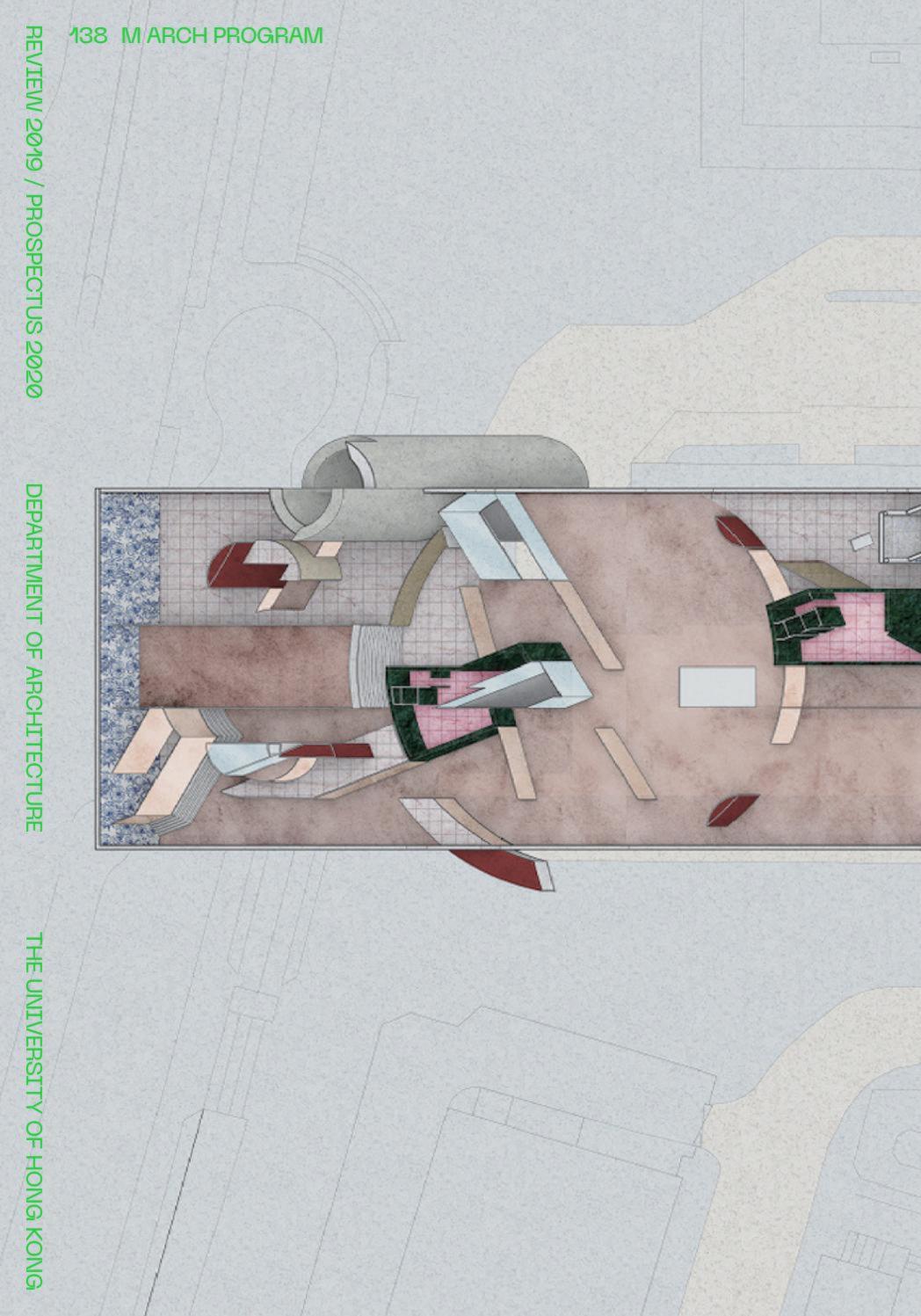


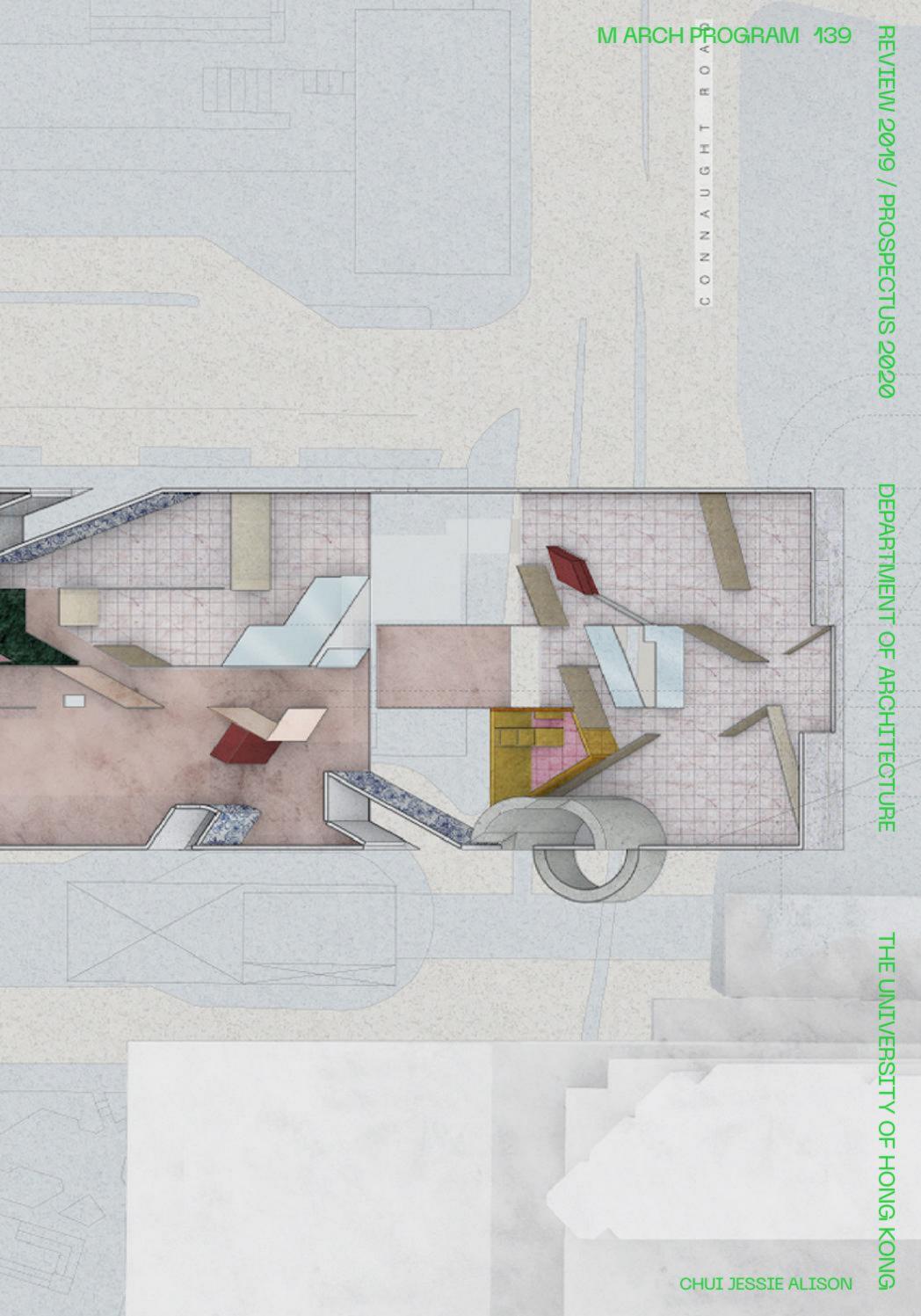
134 MARCH PROCEAM











ARCH7062

INSTRUCTOR: YUSUKE OBUCHI

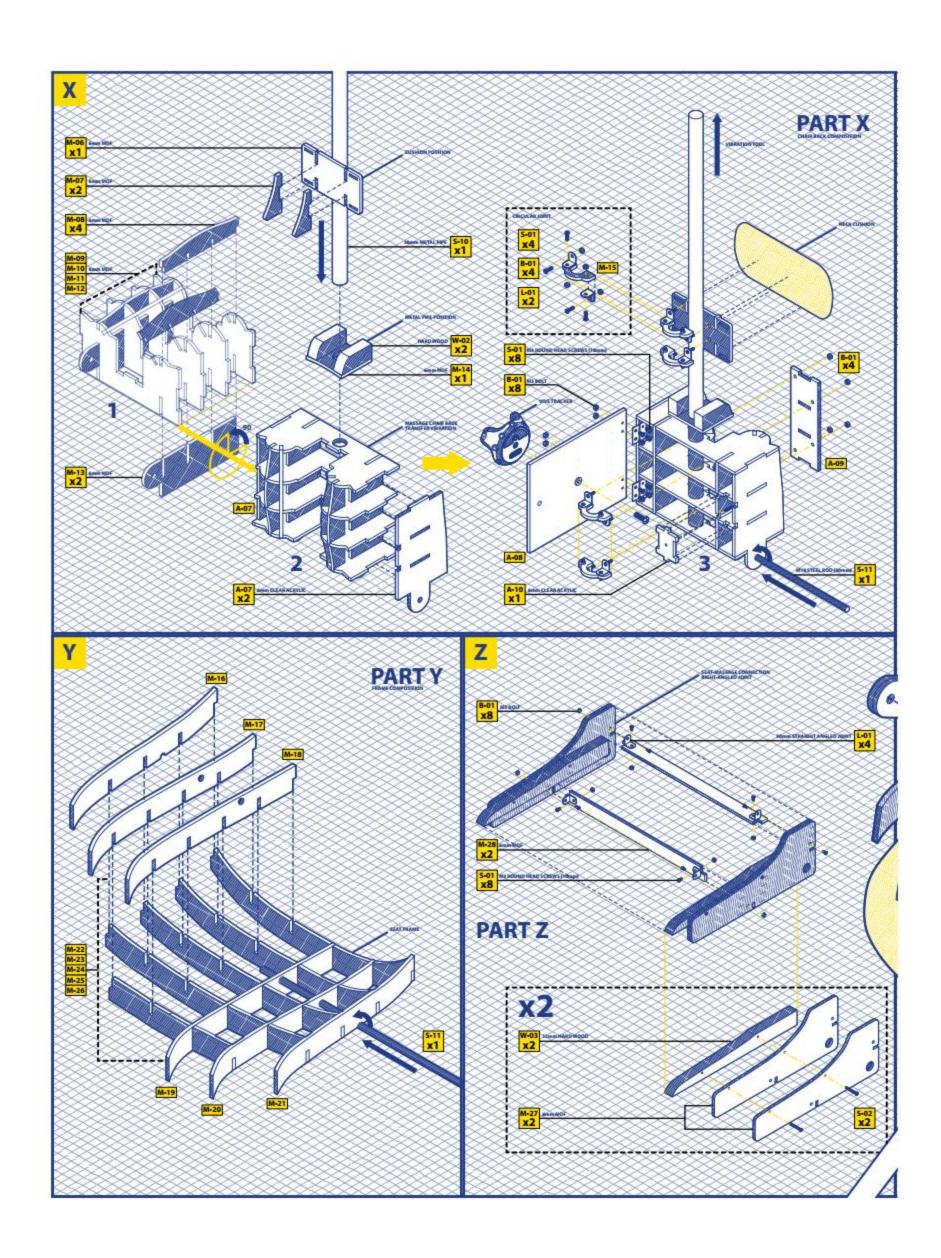
KEYWORDS:
DIGITAL FABRICATION
HUMAN CENTRIC DESIGN
INFORMAL URBANISM
POST-CONSUMER SOCIETY
URBAN MINING

SPRING STUDIOS

DEMOCRATISATION
OF ARCHITECTURE:
WALLS IN TOKYO
REVISITED BY HUMAN
CENTRIC DIGITAL
FABRICATION

An arms race is on in the worlds of computation and architectural fabrication research. Robots with increasingly large, fast, and powerful capabilities are available and can produce outputs with military-grade precision. The assumption is that, through the use of these advanced tools, architects will also advance the production of outputs, but can these tools be developed with traditional forms of human engagement still in mind? Robots are not particularly adaptive. They do not integrate changes with ease—at least, not yet. Humans, on the other hand, exhibit great capacity for adaptation but lack the precision of robots. How could precision and adaptation be combined in architecture, specifically within the context of Japan, where imperfections are embraced as part of an ideal form?

Exploring this question, we investigate human centric digital fabrication as a primary vehicle to conceptualise, design and build a design proposal.



ARCH7062

INSTRUCTOR: GUSTAVO UTRABO

KEYWORDS: SHADOW UNPROGRAM SPACE PUBLIC AREAS ATMOSPHERE SPRING STUDIOS

DRAWING THE SHADE

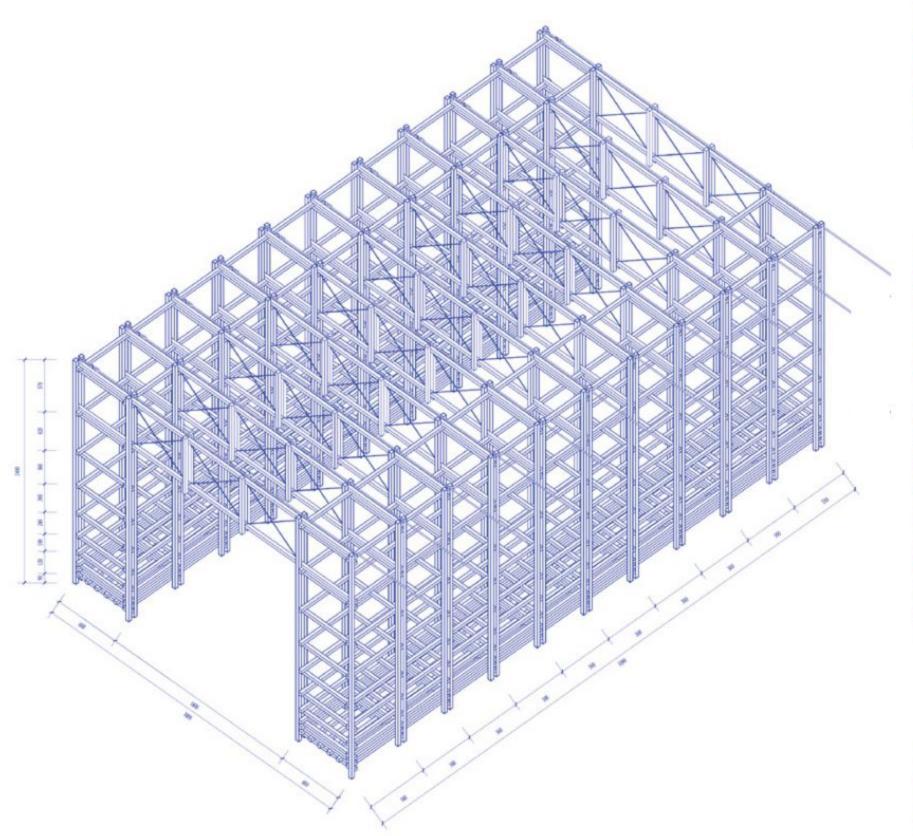
This discipline seeks to research the use of shade as a public program generator. The shade, in areas of strong heat, not only provides shelter, but also enables multiple occupations. It functions as a transition element between public and private spaces and also as a generic space, waiting for a specific use.

I possess no specialized knowledge of architecture, but I understand that in the Gothic cathedral of the West, the roof is thrust up and up so as to place its pinnacle as high in the heavens as possible—and that herein is thought to lie its special beauty. In the temples of Japan, on the other hand, a roof of heavy tiles is first laid out, and in the deep, spacious shadows creates by the eaves the rest of the structure is built.

Tanizaki, Junichiro - In Praise of Shadows, Leete's Island Books, 1977

Traditionally, shaded spaces are used as transition zones between the inside and the outside, like the varandas in Brazil or in Japan. These spaces create an expanded boundary and a more fluid connection between programs.

This studio intends to study these spaces as a central element of the work and discuss its use in a broader context, without neglecting the ephemerality of the shade and its spatial qualities.









REVIEW 2019 / PROSPECTUS 2020

DEPARTMENT OF ARC TECTURE **G KONG**

"Man must realize the precariousness of his situation and immediately develop the processes for food, water, and clothing production which his researches show as feasible. Our human resources in brain and man power are being misapplied.... This is where the architect comes in. Not only will the responsibility lie with him of producing the shelter, that the new way of life and the new processes required for the maintenance of life will demand, but he will also be responsible for ensuring that the environment in which all this occurs sustains the dignity and the finer aspirations of man as a human being."

 Professor W.G. Gregory, "The Architect and Survival," Jienchu: The Hong Kong University Architectural Society Journal (1963-64), 4-5.

Design thesis occupies vital if precarious terrain within the discipline of architecture. It figures both as a capstone experience for graduating MArch students and prepares them for future experimentation as a professional designer. Students must establish a degree of expertise in relation to their selected mode of inquiry, but it's also important that they imagine ways of conceptualizing and making that may be unfamiliar and new. Through thesis, a student demonstrates an ability to anticipate and adjust to as-yet unforeseen demands placed upon them as designers and the practice of architecture itself. By asking that students develop specific yet open-ended methods for experimentation, speculation, and risk-taking, thesis—in all of its various forms and incarnations—ensures the discipline's continual regeneration.

Professor W.G. Gregory's 1964 text, "The Architect and Survival," reminds us that precarity is not a new condition for architects, nor for architecture in general, particularly in Hong Kong. The Department of Architecture at HKU has grappled with the uncertainties of the built environment since its founding in 1950 amid a rapid and unexpected population boom fueled by Chinese refugees fleeing mainland China and its civil war. These realities imbued architectural education at HKU with a sense of public service and urgency, particularly the department's thesis program, which offered a platform for testing



new design methods and strategies capable of quickly and economically supporting the city's unstable and transient population.

Design thesis at HKU has evolved over time, and in accordance with broader shifts taking place within the city, the region, and the discipline itself. As architecture schools, departments, and programs around the world currently debate how to best prepare students for architectural practice in a rapidly changing world, important questions emerge concerning design's particular modalities relative to conventional academic research. Design thesis lies at the heart of these issues.

Themes of urgency, experimentation, and a commitment to public life will remain hallmarks of what thesis is and how it is taught at HKU, even as the program continues to adapt to the realities of our dynamic global systems. Ultimately, it is important that we understand design thesis as an important but fluid part of perpetual inquiry into the ways we inhabit the world. Today, design thesis at HKU provides students with an opportunity to formulate an architectural design-based proposition on their own, develop creative methods for testing that proposition, and synthesize those methods into an iterative and convincing process of design, thus demonstrating a particular and defined form of expertise. Thesis projects are not finished products but remain works in a state of productive precarity—a condition that we hope ensures students will continue to engage with thesis as part of a lifelong engagement with architecture.

Ideally, the work on display straddles the boundary between the real and the fictional, the established and the speculative, and the unfinished and the complete to produce a vision so compelling in its notional totality that we all are obliged to believe it. It is work that takes architecture's power seriously and, in so doing, challenges preconceptions of what architecture is in favor of what it could be.

COLE ROSKAM



CHAK LEONA KA YAN

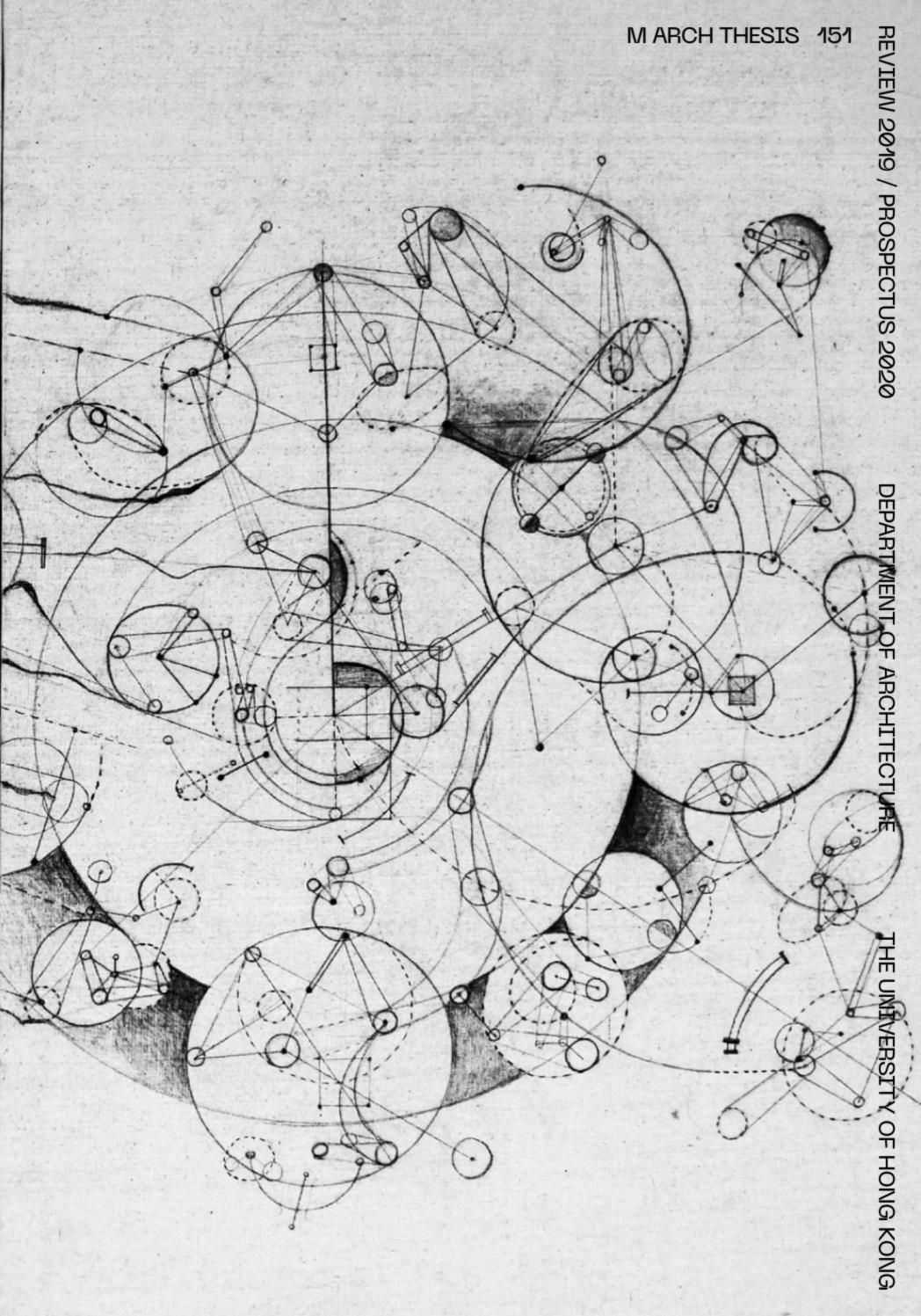
ADVISOR: ROBERTO REQUEJO GÉRALDINE BORIO

PLATFORM: INFRASTRUCTURE

THE DRAWING GAMES

The project questions representations that focus on the physicality of matter, and introduces a representation that sees architecture in new spectacles. Exploring how drawings capture architecture that is invisible to the eye, through the lens of sports. And further on how the drawn lines connect things, and allow that to become a basis of the author's thinking, questioning and proposition.

The project aims to bring in discussions of architecture's strength as an intellectual act instead of a built object. How drawings work as a methodology instead of an artefact. Where drawing as the translation of the our thinking, is itself architecture in action.



CHENG TAK HEI IVAN

ADVISOR: ULRICHKIRCHHOFF HOLGER KEHNE YAN GAO

PLATFORM: INFRASTRUCTURE

HOUSE RULES

The thesis attempted to challenge the homogeneity of public housing by proposing a 'rule-based design method', within which inhabitants are given the autonomy to extend their living envelopes under the control of the architect. Compared to the 'catalogue' method, which provided inhabitants with only a handful of options by the architect, the 'rule-set' enables great range of possibilities within the defined spectrum.

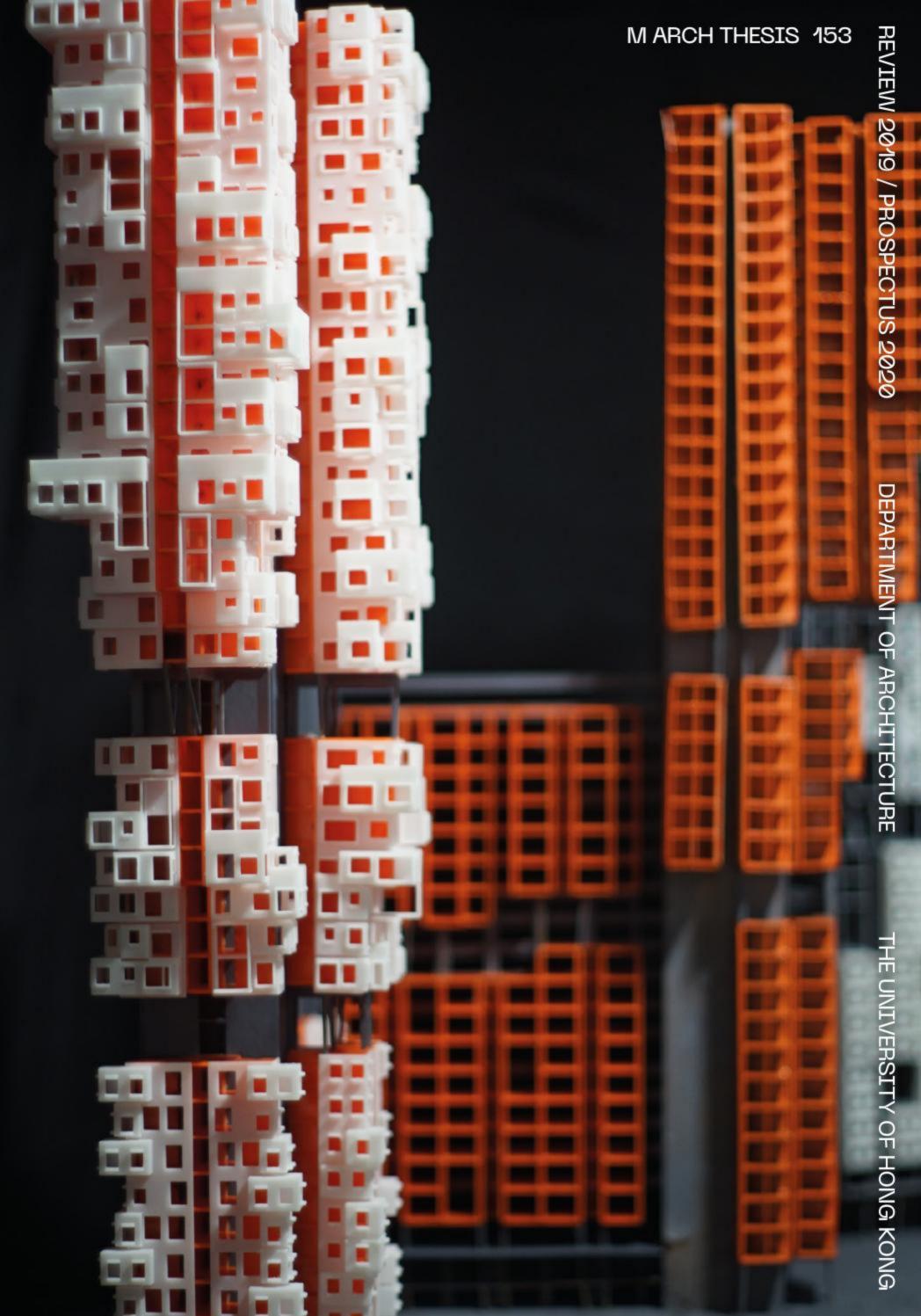
Under this system, the role of the architect is changed, apart from designing the static hardware-infrastructure, including sky gardens, lift core and prefabricated shell units with different values, he also has to create a rule set, that is a software-infrastructure that governs further dynamic alterations by the inhabitants.

Apart from existing planning regulations, the rule set should also include stylistic rules from architect's subjectivity, which brings coherence to the building's outlook amidst the complexity.

The effect of the ruleset on the overall building massing and façade is simulated by both computational and manual means in this thesis project.

With parametric tools, encoded rules were able to be applied in vast quantity, creating a rough overall image of the building created by the ruleset.

On the other hand, plans are manually drawn, acting as a qualitative means to apply the rule set from perspective of the inhabitant at a greater resolution.



THE UNIVERSITY OF HONG KONG

154 M ARCH THESIS

CHEUNG WAI LUN VERNON

ADVISOR: DONN HOLOHAN JOHN LIN

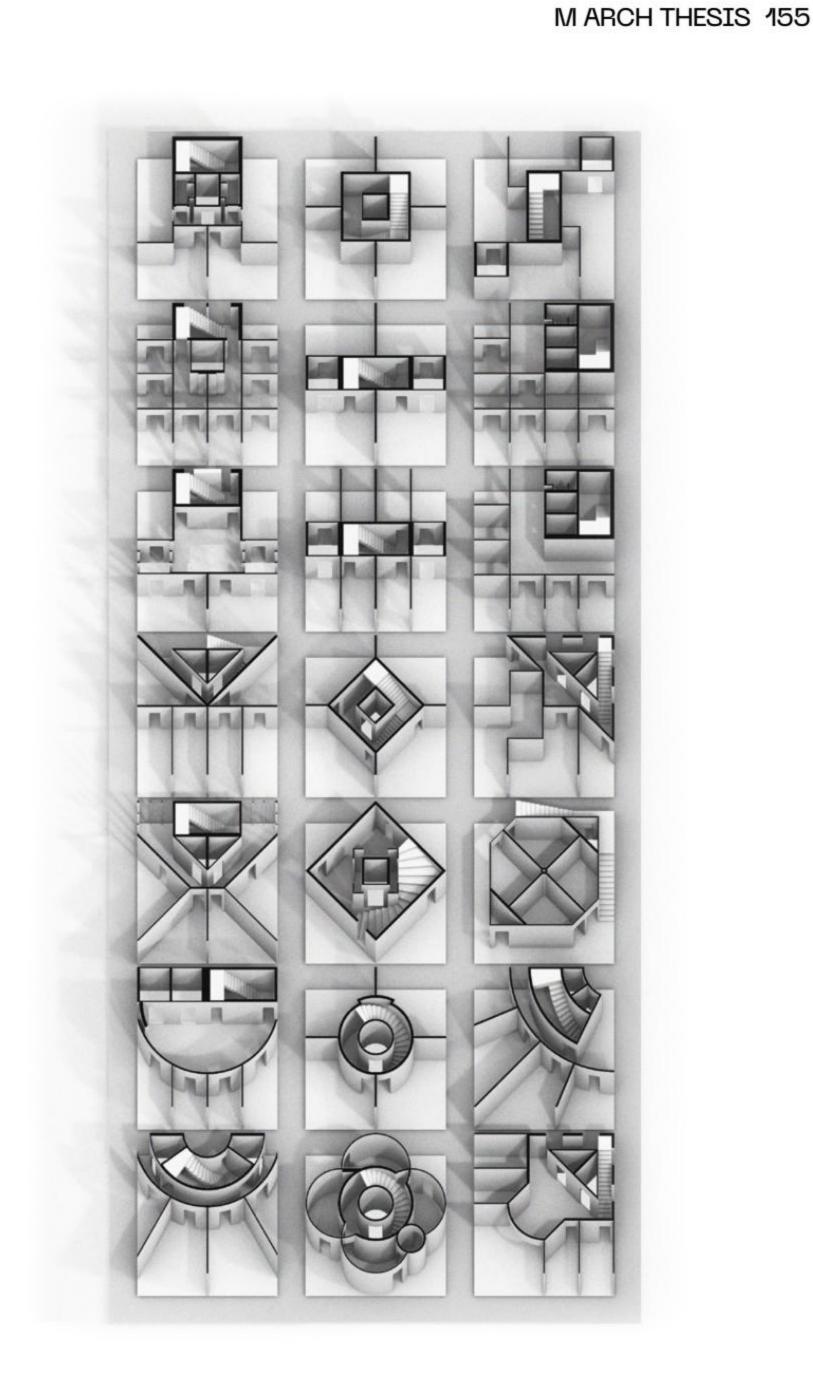
PLATFORM: MATERIALS

IN THE UNIVERSE OF SMALL

"For our house is our corner of the world... our first universe, a real cosmos in every sense of the word. If we look at it intimately, the humblest dwelling has beauty."

Poetics of Space, Gaston Bachelard 1958

'In the Universe of Small' seeks to reconsider the overtly utilitarian and automatic thinking of multi-residential design. Specifically, it responds to a new housing typology emerging in Hong Kong where apartments are approximately the size of a standard carpark space. Despite its physical constraint, they continue to act as miniature houses, containing a private bathroom, kitchen, living and outdoor area. The thesis questions this current practice of repetitive individualisation and aspires to liberate architecture from the functional stacking of units. Three canonical houses are chosen and then interpreted through writing, iterative drawings and physical models. This methodology allows for a theoretical ground to produce a cross dialogue between the chosen projects and the micro domestic condition of today. While discovering architectural strategies for unravelling the universe of the small, the project simultaneously evaluates the challenge for a new notion of unit in the city.



CHONG YUK LUN ALLAN

ADVISOR: JOSHUA BOLCHOVER ANDREA PINOCHET

PLATFORM: ECOLOGIES

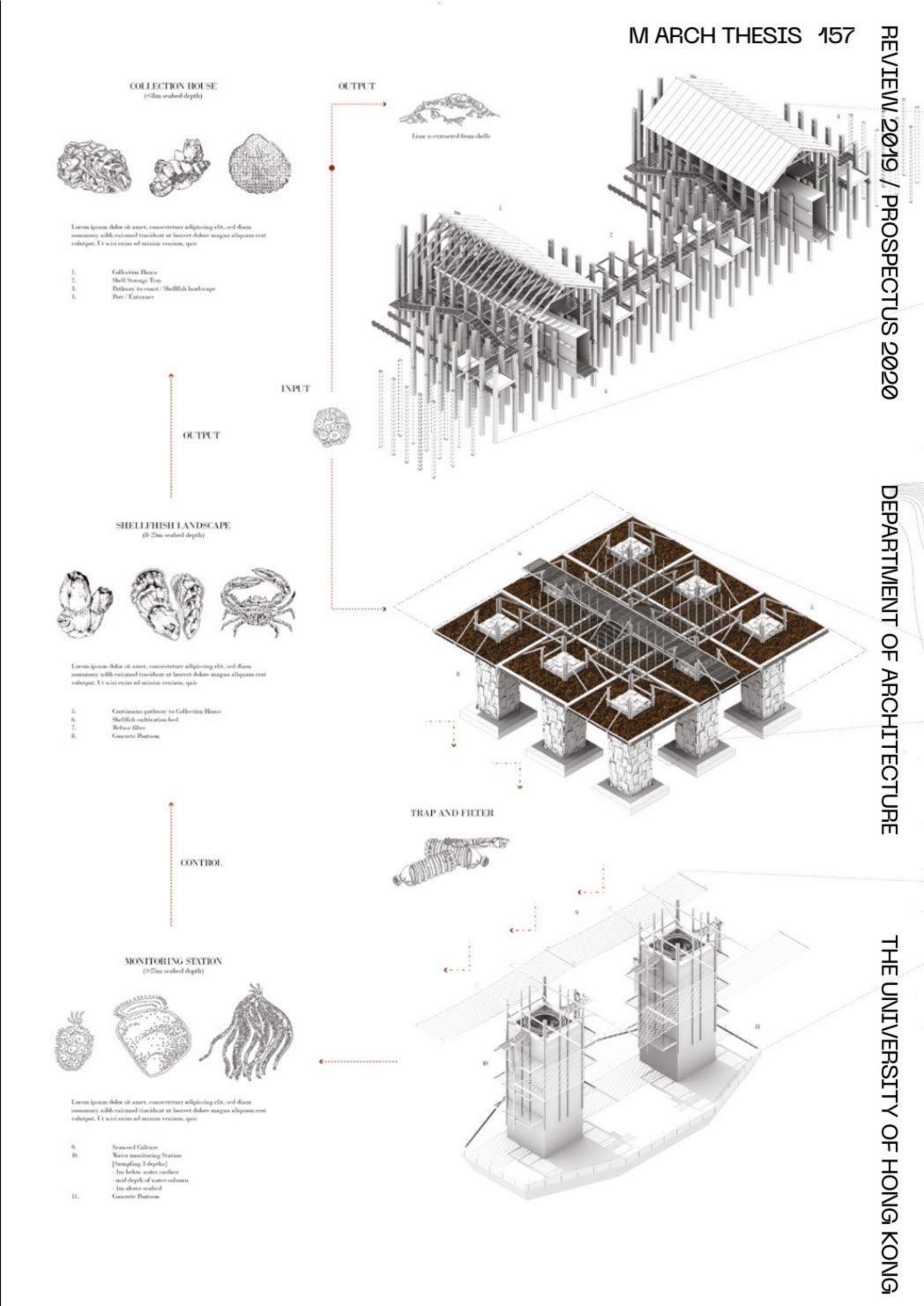
ISLAND DEFENDER; AN ARCHITECTURE FOR ECOLOGY

A proposal for the protection of desert islands, and learning to coexist with Hong Kong's unique landscape, 263 islands that make up the city. These fragile, unprotected islands are seemingly fallen of the face of the Earth. Stonecutters Island, Harbour Island, Junk Island, Pillar Island, Mouse Island... Reclamation killed them off one by one.

This thesis is a critique of the existing environmental policy of protecting these 'Geographical Heritage', against which an eco-border is set up to perform multiple functions, a Cultivation Border, an Island Archive and a Reclamation Guideline.

Taking the shelter for cultivating shellfish at the border's structure across a fictional timeline, it eventually forms an ecological enclave in the middle of the sea, which also serves as a filter to purify the polluted seawater for the protected buffer. Throughout the life cycle, shells can be collected, and lime can be extracted as the building material for urban development.

This work recalls the role of architecture as a defender, to defend the island against human activities, and it also suggests alternative act for architecture in the Anthropocene, which teach us how to develop in relation to our environment while transforming the earth's land.





GUO YU GRACIE

ADVISOR: ROBERTO REQUEJO GÉRALDINE BORIO

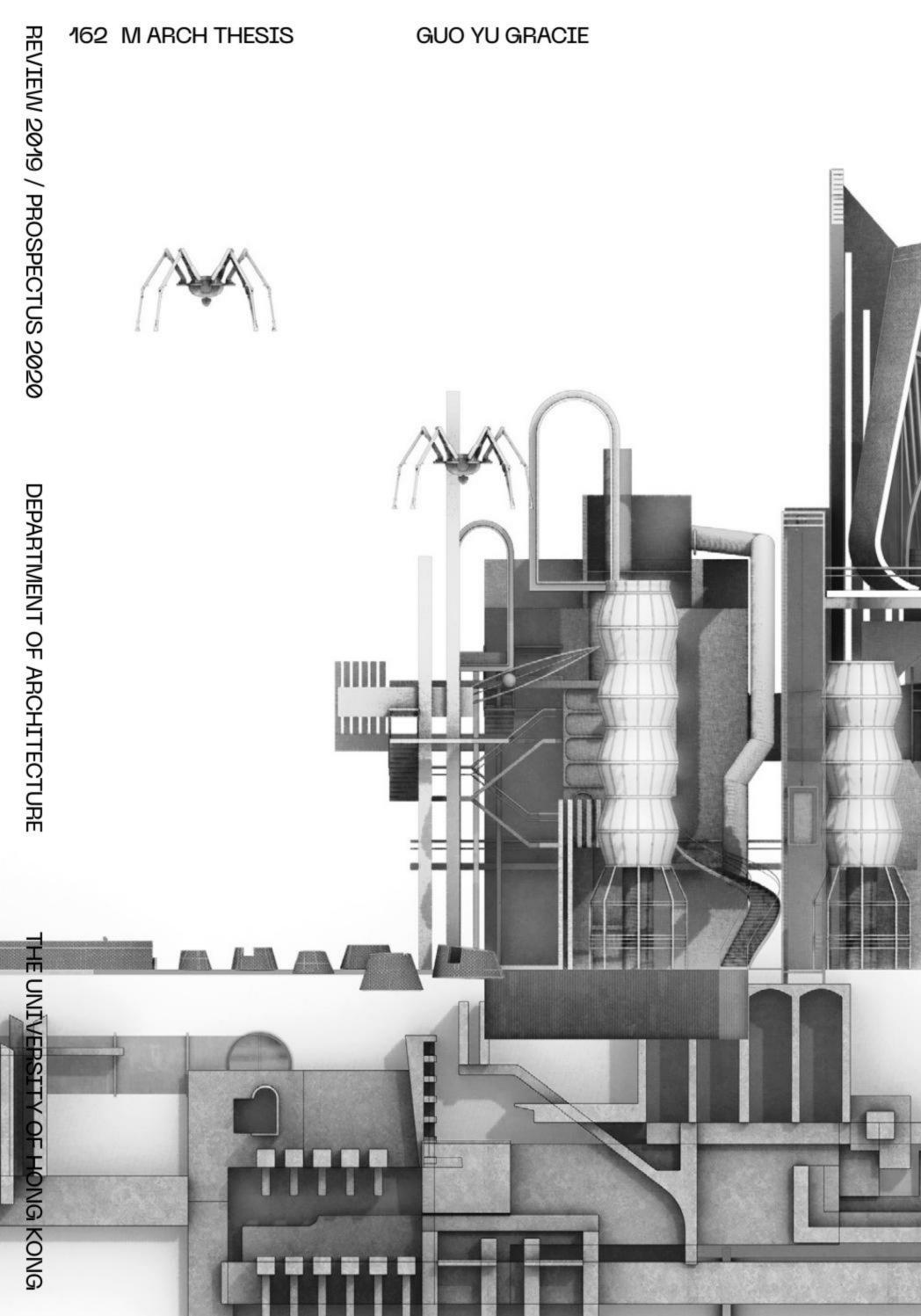
PLATFORM: INFRASTRUCTURE

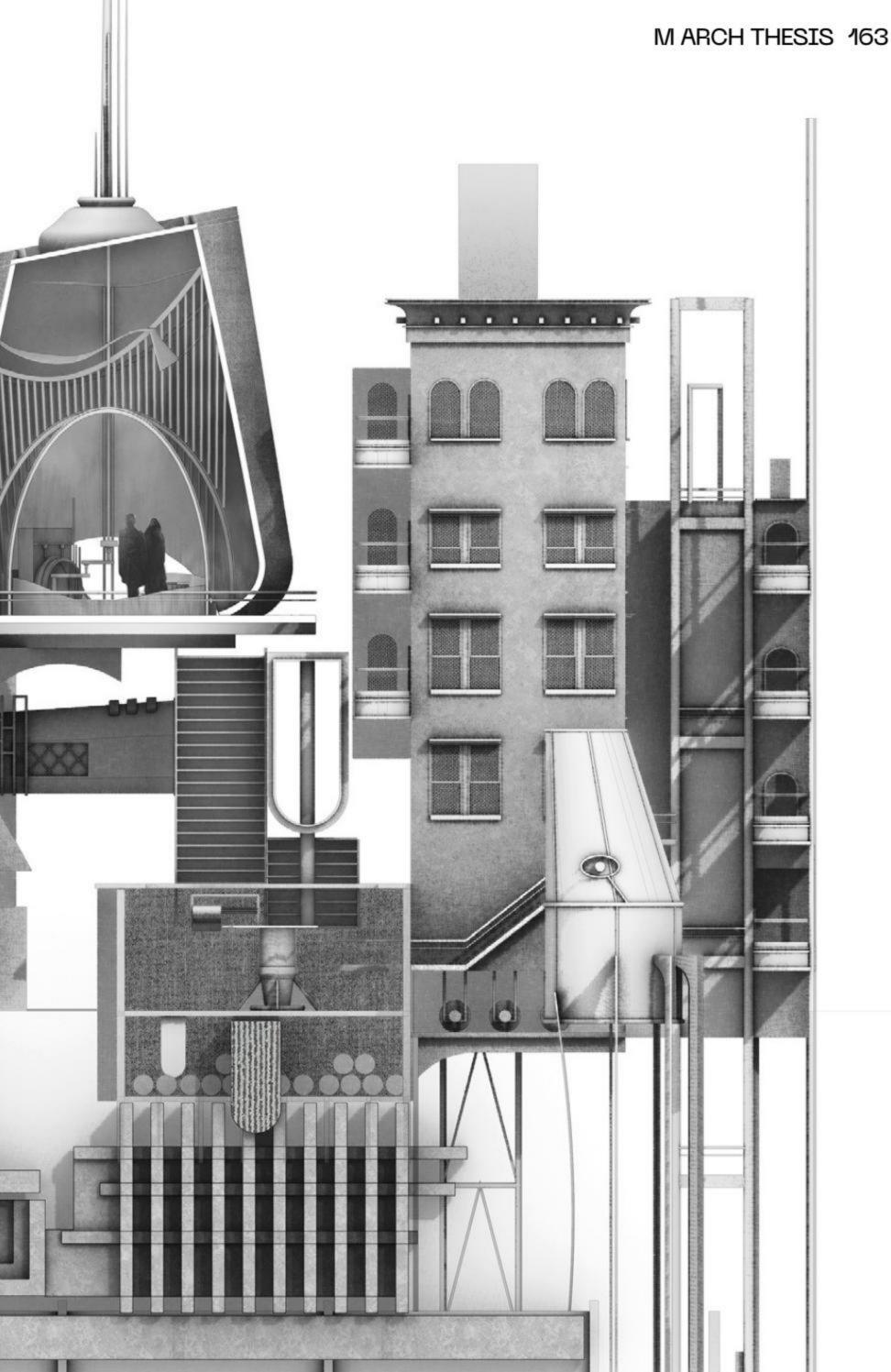
BLADE RUNNER

Blade Runner (1982) and its sequel Blade Runner 2049 (released in 2017) are set in a dystopian future where humans live in a high-tech but low-life environment with synthetic humans called replicants as their slaves. The film was regarded as one of the best science fiction films for speculating a retrofit future. Similarly, architects always concern with contemporary issues and project a future. The thesis explores the potential of a film serving as a site of analysis and speculation for an architectural proposition. If both film and site can become a territory subject, what are the implications of relying on a fictitious territory as a generator for the design of spaces?

Based on the film context, the analysis focuses on the timeline, storyboarding and scenes where the story plays out and then a missing scene is identified as the potential of an expanded story. The design is to construct a narrative with a greater scope than real projects. It is a design of the universe, a speculative reality with urbanism, architecture, interiority along with characters all serve as components of the narrative.







HO KA WING KAREN

ADVISOR: NASRINE SERAJI TAO ZHU JAE LIM

PLATFORM: INFRASTRUCTURE

THE PARLIAMENT OF THE GREATER BAY AREA UNION

The thesis resists the top-down planning and data control from the Central Government at the Greater Bay Area. The project is designing a moving vessel that contains a parliament and a data center based at the international waters.

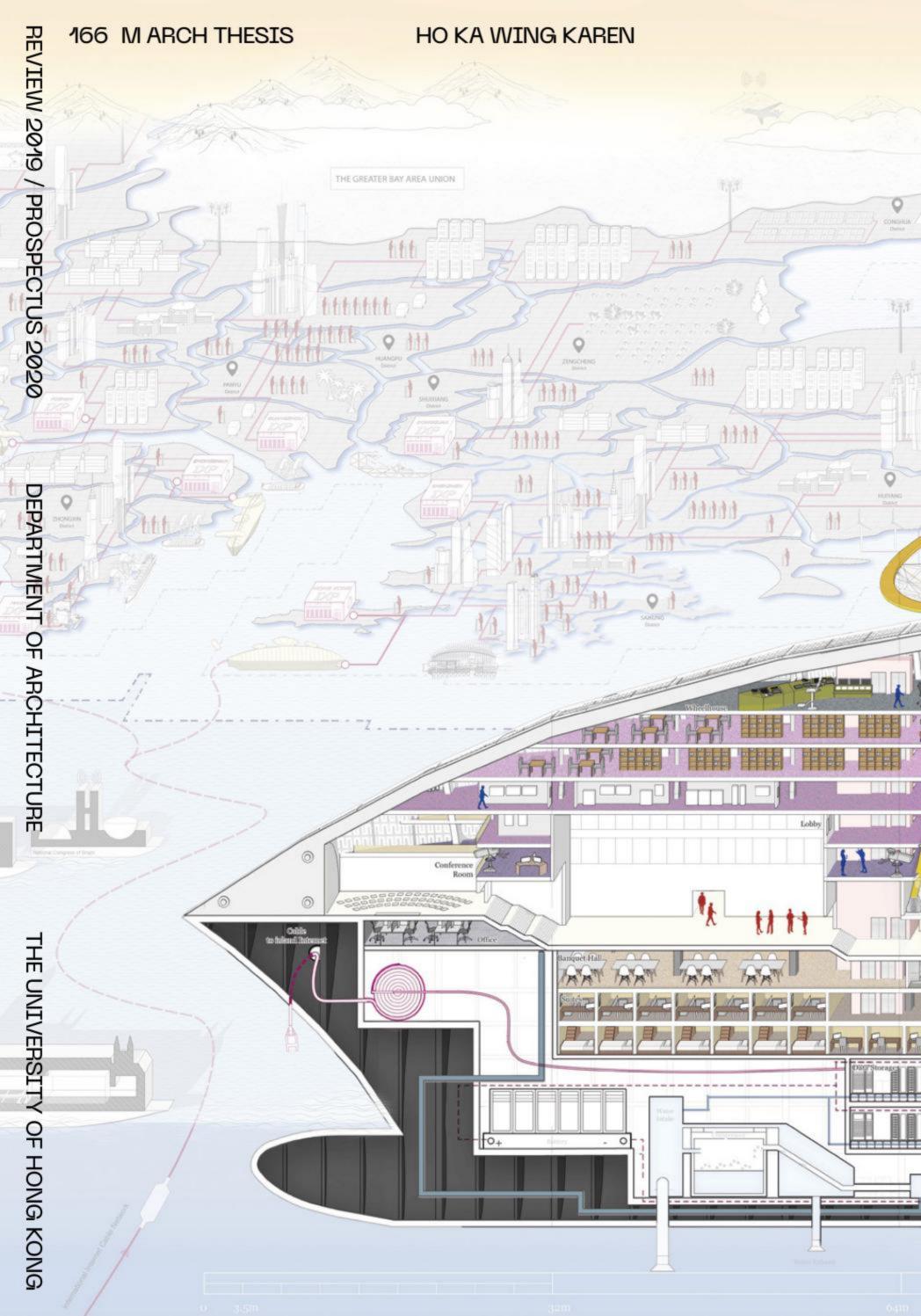
Politically, China has assigned the 11 cities at the Area each with a specific role without the consensus of its local citizens. Economically, China is using the data collected from its citizens as an instrument for surveillance, and control.

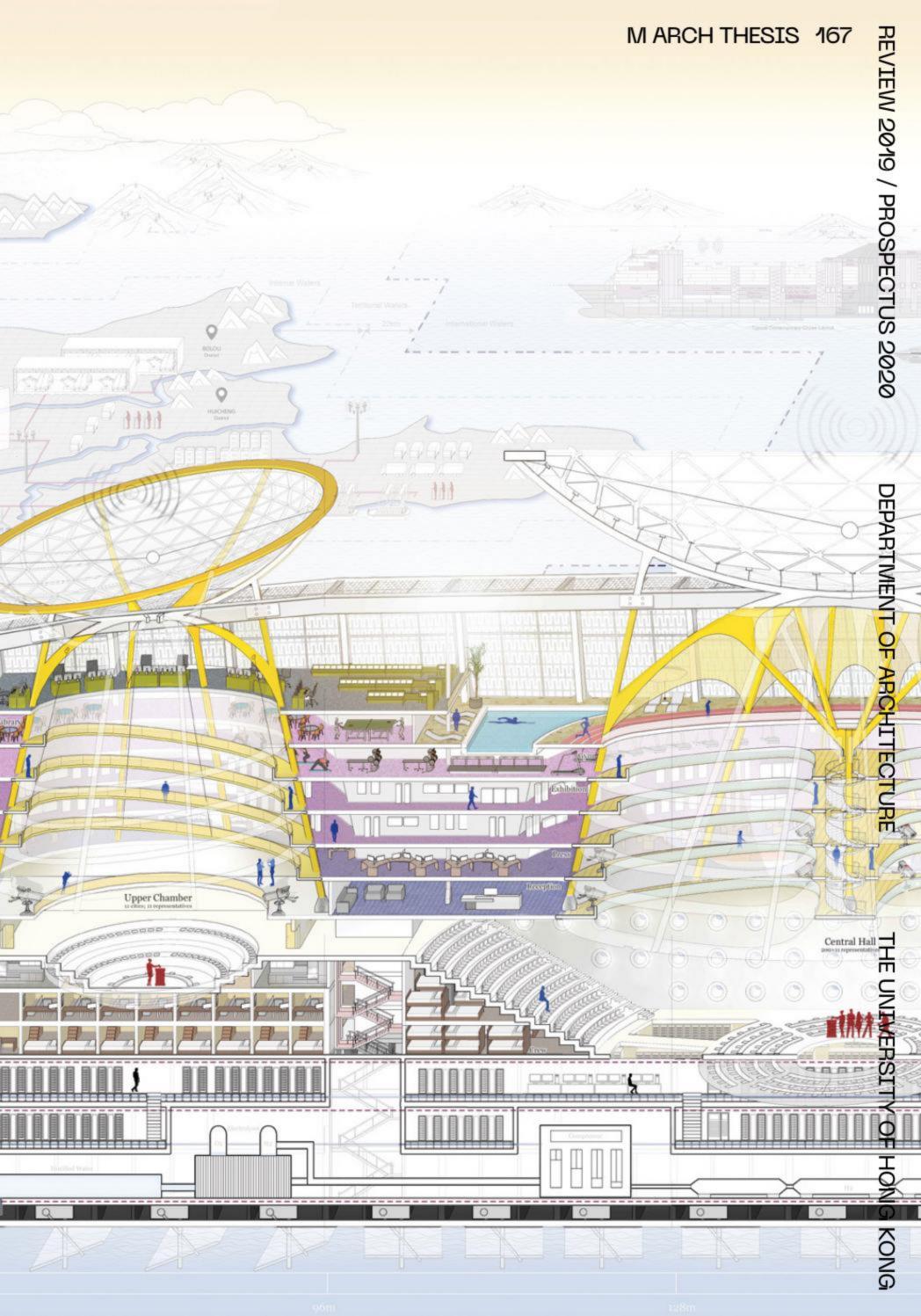
Instead of seeing the Area as 11 cities, the vision of the thesis is to see the Area as 131 individual districts. Each district will elect representatives to join the parliament at the vessel according to the proportion of population. This is to ensure an equal say between districts.

The vessel constantly travels around the Area, collects data through cables, and retreats back to the international waters. Data collected will be shared at the parliament as a reference for making democratic decisions for the Area.

The floating vessel would be a heterotopic space as discussed by Michel Foucault. It would be a new site for law making and a site that resists data dictatorship. It would be a self-contained city, referencing Le Corbusier's Ocean Liner and Unité d'habitation.





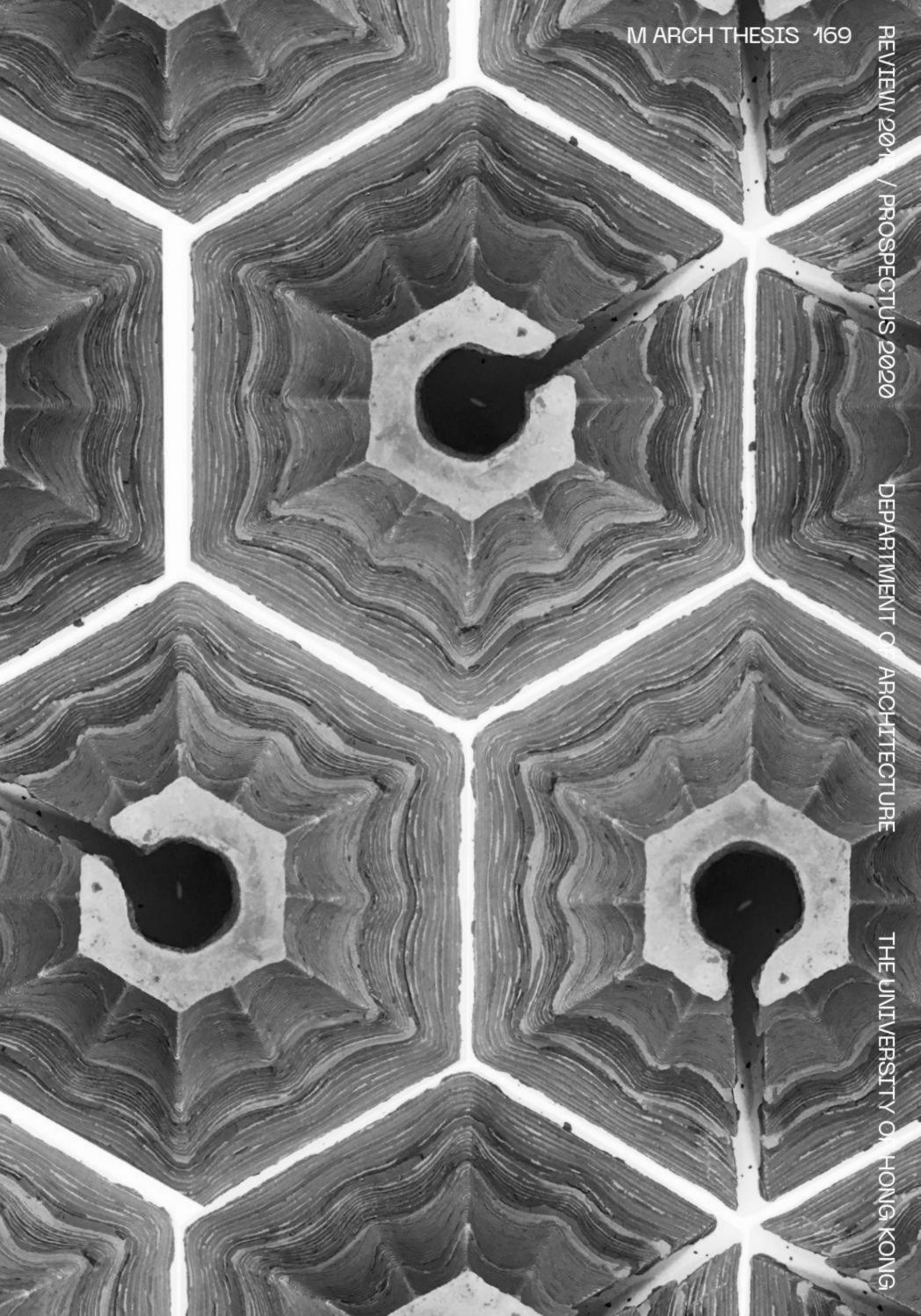


LAI CHU TUNG JETSON

ADVISOR: CHRISTIAN LANGE OLIVIER OTTEVAERE

PLATFORM: MATERIALS 3D PRINTED CLAY: FORM-WORK FOR PRE-FAB CONCRETE VAULT STRUCTURES

This thesis sets out to explore the possibility of concrete pre-fabrication by the use of clay form-work, with a core focus on robotic pre-fabrication, study of material and prototyping. By the use of a robotic arm, clay would be 3D printed through direct ink extrusion to provide a form-work for the pre-fabrication of concrete vault structures. The use of this method of making introduces a new and unique aesthetics to concrete structure and finishes, which also allows structural efficiency. Different from tradition concrete form-work, the clay form-work allows a relatively straight forward construction of complex surface geometry, and is recyclable upon uncasting of the concrete structure by reintroduction of water. The thesis evolves around a series of experiments starting with simple geometries to complex vaults. Through the series of geometric evolution, studies and observations on the behavior and performance of 3D printed clay form-work are analyzed and adjusted to better the prototypes. By continuous and rapid prototyping, test results are put into a feedback loop for comparison and advancement in the prototypical form. The final prototype of the concrete vault structure, an end result of a series of geometric evolution, is structurally analyzed with computational tools, resulting in a combination of unique aesthetics and structural efficiency.







LEUNG KA CHI

ADVISOR: CHRISTIAN LANGE OLIVIER OTTEVAERE

PLATFORM: MATERIALS

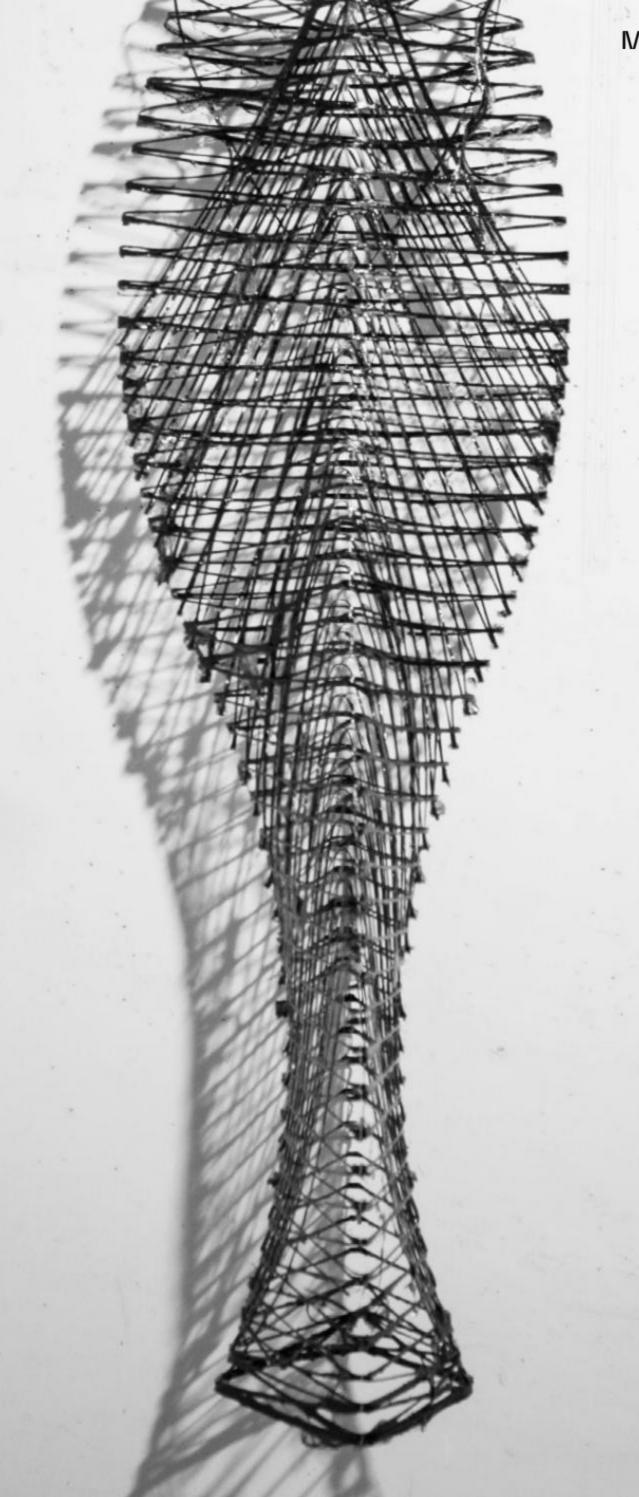
FIBROUS DIMENSIONS — ROBOTICALLY WOVEN STRUCTURES

My thesis examines on the possibilities of carbon fiber as a structural element. It aims to reduce the potential hazard brought by the deficient structures after the earthquakes by capitalizing on the lightweight and fibrous nature of carbon fiber.

This thesis departs from the fibrous system as enclosure in the four architectural elements suggested by Gottfried Semper in 1851. By understanding the limitations of the woven system of fibrous materials, this investigation is to challenge it to be a structural medium than merely a building envelope.

Carbon fiber has been commonly used in the automobile and aircraft industries since the 1980s, but rarely used in architectural construction due to the cost and scale. With the aid of digital simulation and robotic fabrication, the thesis investigates on the articulation of carbon fiber to achieve a higher structural stability for architecture.

The investigation of carbon fiber as a structural element consists of few stages. It begins with the testing of the thread pattern in both digital and handcraft ways, followed by the prototyping of the looms as the medium of the woven structure. At last, analog and robotic fabrication are implemented as the method of achieving the high weight-to-strength thread structure.



MAK CHI HONG

ADVISOR: JOSHUA BOLCHOVER ANDREA PINOCHET

PLATFORM: ECOLOGIES

THE DELIVERY CITY

The thesis seeks to explore the value of airspace through architectural interventions based on the future drone delivery system in an urban context.

The development of e-commerce causes heavy load on the delivery system, which mainly relies on lorry and manpower to fulfill the online shopping orders. In the coming decades, pilotless technology could take over the delivery works and become the urban infrastructure to connect households in a timeless way. To facilitate the drone navigation, the design of architecture should respond to the technological advancement by creating a relationship between architecture and airspace. The project is going to design an Air Delivery Centre in Kwun Tong that provides functions such as sorting, packing and storage of goods and droneport. Different from the traditional warehouses, the Air Delivery Centre would focus on vertical footprint to provide sufficient airspace for the drone circulation. The design is going to define the airspace as internal and external which would be shaped by architecture to enable the logistics of air delivery. Subsequently, the design makes use of the unmanned aerial vehicle to explore the new architectural typologies.



PANG LEONG LUIGI

ADVISOR: CHRISTIAN LANGE OLIVIER OTTEVAERE

PLATFORM: MATERIALS BUILDING WITH PRESSURE — INFLATABLE CONCRETE FORMWORK

Casting a concrete slab with an inflatable formwork is essentially carving out excessive material from the bottom of the slab with air pressure. This idea of removing material resonates with Pier Nervi's waffle slab, as well as Robert Maillard's mushroom slab. This thesis, however, also extends beyond the structural and construction realm, and becomes a design tool which uses the ceiling to articulate the spaces below.

The design of the inflatable formwork was inspired by the technique of upholstery; a method to provide structure to a sheet of PVC by pinning it down to a checkered grid and applying air pressure. The grid is defined by the position of the columns, and the sheet of PVC provides the concrete with a form active structure. Because of the nature of the fabric like material, ribs are formed around the columns and capitals, behaving as a second layer of structural supports against buckling. With increasing height, pressure, and corrugation in the formwork, a Gothic imagery ermerges and the slab has the potential to become a vault-like structure.

This thesis begins with a building method that is both material and cost efficient. And as it progresses a style emerges, it acts as a tool to help us rethink the ceiling as an architectural form, using its arrangement, depth and weight to convey the spaces beneath it.



THE UNIVERSITY OF HONG KONG

178 M ARCH THESIS

WU KING TIM

ADVISOR: CHRISTIAN LANGE OLIVIER OTTEVAERE

PLATFORM: MATERIALS

MINIMAL PAPER

The thesis is dedicated to the material on which this text is printed on – paper. Paper is associated with fragility and rigidity at the same time. Its dual properties contribute to its humanistic touch. Though uncommon, use of paper as a literal material in architecture is not novel. From the Japanese shoji which exhibits planarity and translucency of paper, to the innovative use of rolled or folded derivatives of paper (honeycomb, origami structures, Shigeru Ban's paper tube systems), paper remains in its pre-defined form. The thesis goes one step backward to the paper pulp and embraces the versatility of its geometric potential. The technique of Molded Pulp Packaging is taken as a key reference for opening up more formal possibilities and bringing breakthroughs to the application of paper in architecture. Specifically, the thesis introduces the making of paper with minimal properties in various aspects through iterative designs of wood-and-fabric-based paper-making formwork and techniques.

Minimal materials / The comparatively isotropic properties of paper pulp and the self-bonding properties of cellulose fibers upon drying allows the fabrication of physical minimal surfaces which locally minimize the surface area bound by a given network of boundary curves. Papers in the form of minimal surfaces obtain rigidity through their anticlastic profiles. Undulation and corrugation of the edges and stress lines give further reinforcement. The geometric manipulation in both the global and local geometry gives strength and intactness to the fragile paper. Spatially, it offers thinness and doubly-curved surfaces.

Minimal connections / The monolithic and self-connecting properties of paper pulp allow minimal connections among numerous pre-fabricated paper modules. The artefacts can come seamless and jointless.

Minimal waste / The recyclable nature of paper and the abundance of wastepaper around us makes this material perfect for fabricating temporary space without creating much waste. Paper components can be easily reduced to pulp again and serve another architectural life. Formworks produced are also reusable. As a side note, all the pulp used in the thesis originates from locally-collected wastepaper.





182 M ARCH THESIS

YIN CHUHONG HALEY

ADVISOR: ULRICH KIRCHHOFF HOLGER KEHNE YAN GAO

PLATFORM:
INFRASTRUCTURE

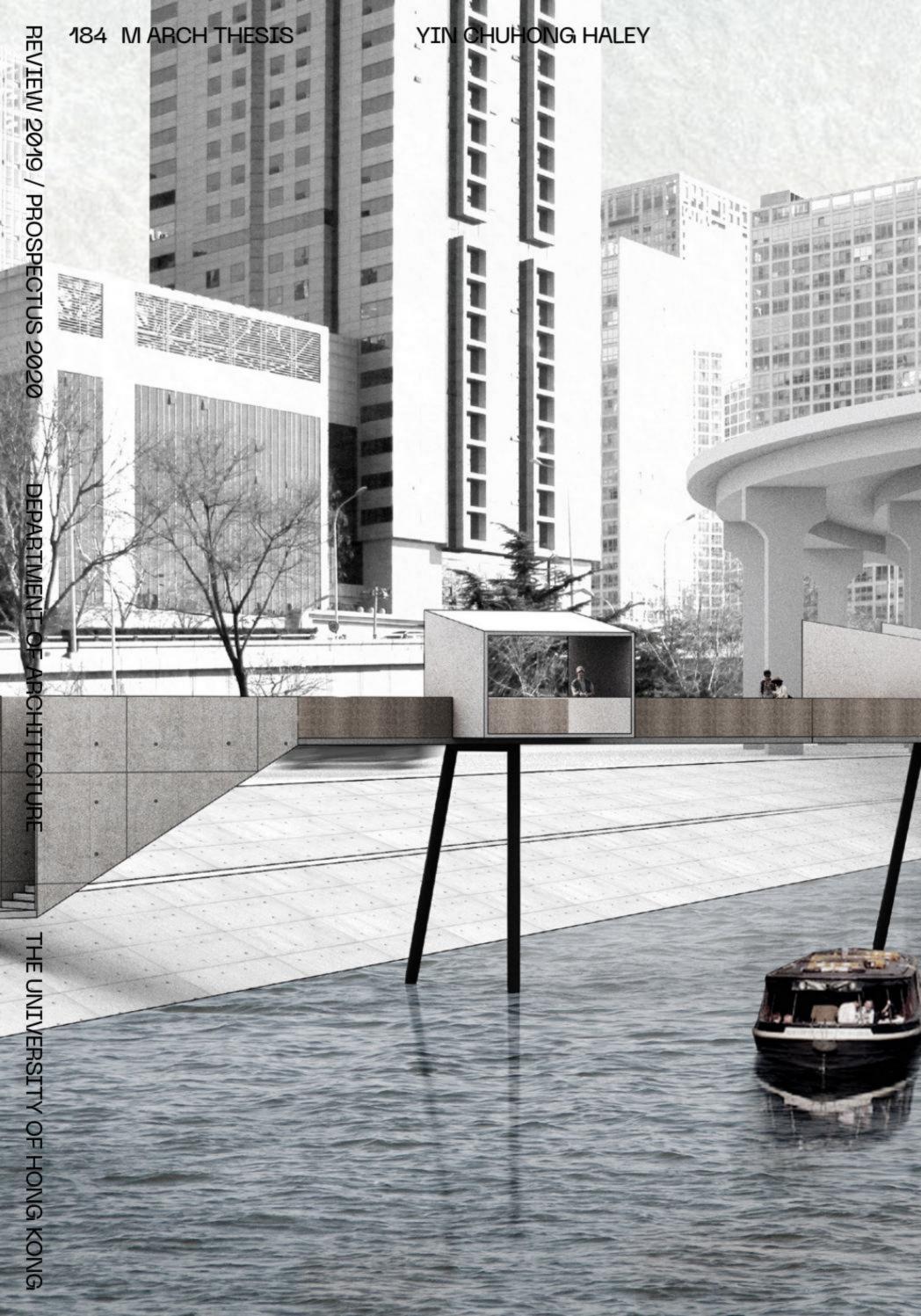
FRAGMENTED
CONTINUUM —
A NEW METHOD
OF REVITALIZING
AN OLD CANAL IN
BEIJING AS A NEW
URBAN AXIS

My thesis is to revitalize the full length of a 20-kilometer old canal in Beijing as a new urban axis by introducing a series of small scale urban infrastructure as the "fragmented continuum" other than merely landscaping the whole canal bank or do large commercial development on selected spots.

Historically, the canal was essential in transporting commodities between counties and cities. The series of stopping points such as water locks and piers alongside it enhanced the prosperity of surrounding villages. But since the railway system became dominant, the canal was gradually forgotten and abandoned. However, since the setup of the new sub-center of Beijing, there is the urgency and potential to revitalize the old canal to activate the linear urban space between the two centers.

The main challenge is to tackle the extremely large scale and the universal context. My overall strategy is to overlay a regular frame system on the canal and pick one spot per kilometer. Then I compress all of them and compose a new collaged fictional site. After that, I propose a linear infrastructure on the fictional site, consist of two main types of program which are homogeneous exhibition space and local-specific community spaces. Once everything has been settled in the linear infrastructure, it will be divided into 20 pieces again and redistributed to the actual location. The canal itself would be activated as the stretched internal circulation and space of the proposed fragmented infrastructure. By doing so, the whole canal can be revitalized and act as the backbone of its surrounding linear urban space.







186 M ARCH THESIS

YIP YI KWAN JENNIFER

ADVISOR: NASRINE SERAJI TAO ZHU JAE LIM

PLATFORM: INFRASTRUCTURE

HONG KONG TOMORROW VISION

The thesis criticizes the government's proposal of building an artificial island at the eastern coast of Lantau Island as land reserve for housing supply and another core business district. The research analysis looks into current land distribution in Hong Kong, housing supply and demand, average living area and rent and housing development trend in order to reflect on the necessity of expanding the land territory into the ocean for additional land supply.

Comparing the current land use in Hong Kong and the zoning plan, 8.5% of the total landmass is unplanned while 24.3% is built up land and 40% is country park. It is estimated that there are about 1300 hectares of brownfields in the New Territories. Part of them have been included in the new development areas but there are still more than 700 hectares of brownfields not included in any development plans. On the other hand, comparing the number of domestic households and the number of residential flats in the current market, there is in fact a surplus of 200,000 flats. This indicates that land supply or housing supply is not the real issue that we should look at.

Inspired by Rem Koolhaas's 'Delirious New York: A Retroactive Manifesto for Manhattan', in which Coney Island is used to solve the problem of pleasure and becomes a testing ground for Manhattan, the thesis carefully evaluates stages in the evolution of Lantau Island and projects its future development in conjunction with Hong Kong in order to open the discussion between political and social ideology, architectural discourse and city development.

WHAT IS OUR REAL HOUSING PROBLEM?

Currently, more than 200,000 people in Hong Kong live in subdivided flats with average area of 48 square feet where the average rental price per square foot is around HKD\$70.

The estimated population will peak in 2043 and the number of domestic households is also estimated to peak in 2046. Comparing the number of domestic households and number of residential flats in the current market, there is in fact a surplus of 200,000 flats. Taking into account the targeted number of new residential units to be completed in the coming 10 years, there will be a surplus of 380,000 flats by the time number of domestic households reaches the peak.

More than 200,000 people in

Hong Kong live in subdivided

If housing supply is not the actual cause to our

social dispute, how does reclamation or building

an artificial island be an ideal solution to "land

The population in Hong Kong is predicted to reach

the peak of 8.22 million in 2043 and decrease to 7.22 million in 2066.

Currently, more than 200,000 people in Hong Kong live in subdivided flats with average area of 48 square feet where the average rental price per square foot is around HKD\$70.

It takes up to 21 years for an average family to buy a home in Hong Kong, without spending money on anything

On the other hand, according to a survey done by urban planning consultancy Demographia, to bes a home in Hong Kong, meaning an average-sized apartment, an average family with an average income needs to save for up to 21 years - that is, if they can survive without spending money on anything else. Demographia found that the median multiple, which is the ratio of the median property price to the median household income, was 205 times in Hong Kong. The consultancy denied the figure based on a home price of HK\$7.169 million and household income as HK\$343,000 By Demographia's definition, a city with a median multiple of 5.1 or above is considered "severily unaffordable". Hong Kong's median multiple s

Government data shows that during the past for months, prices of Hong Kong's lived-in home have gone down 7.2 percent. Despite the drop. scholars believe that the home prices in Hong Kong will only continue to rise.

four times that.

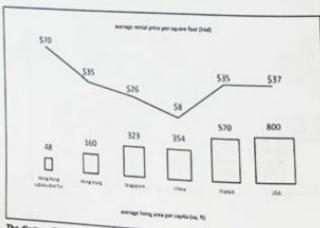
else.

60% new land to be formed in the new development areas are channeled to private housing developments.

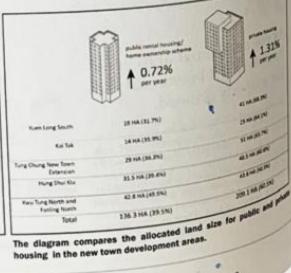
Comparing the flat production of public her and private housing in the last 10 years, seply of public housing rose only by 0.72 percent per year while that of private housing rose by 131 permi The government blamed the acute public beaut shortage on land shortage, but is unwilling to ge the fact that 60% new land to be formed in the less development areas in the coming years will be channelled to private housing developments. It obvious that the housing development used a the towards the unaffordable private market.



The diagram illustrates the relationship between the number of residential flats and the number of domestic households in 2018 and in 2046 when the number of households reaches the peak.



The diagram illustrates the relationship between the average living area per capita and the average rental price per square foot in different cities.



HONG KONG TOMORROW VISION

animal with site.

Hong species of maine life are rich in cology. It the protected wild at It also n Burrowin kind of rankcoral, is a

spec animals live ocean.

destroy the preciou expensive in rastruct least (The cost is a only exhaust. Hong ineffectively solves

mini

options (less than 10 long-term options (1) and 8 conceptual opt

survey conducted b development of brownich is 80% cheap build up to 140,00



SITY OF HONG KONG

HIGHLIGHTS



problem? More than 200,000 people in Hong Kong live in subdivided fluts with average area of 48 square feet where the average reasonal price per square feet is around 19005 70.







Hong Kong Tomorrow Vision

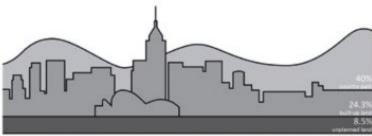
June 2019 VOL. 01

EMAIL | jyip0203@gm

EXCLUSIVE

LAND SHORTAGE IS A LIE

Comparing the current land use in Hong Kong and the zoning plan, 24.3 percent of the total land area is built up land, 40 percent is country park and 8.5 percent is unplanned including brownfield sites.



1,111 km

Land reclamation has been a major source for urban growth in Hong Kong since the British colonial rule. But do we really lack the land?

Out of a total landmass of 1,111 square kilometres, 40 percent of the Hong Kong land is restricted for use as country parks and natural reserves and only approximately 24.3 percent is used for urban development. By comparing the current land use in Hong Kong and the zoning plan, there is in fact 8.5 percent of land unplanned, which makes up to 96.8 square kilometres, including brownfield sites. Most of which are concentrated in the New Territories, around Tin Shui Wai and Yuen Long. and Yorn Long

But why does Hong Kong rely so heavily

To begin with, Hong Kong was a Beitish colony for over 150 years from 1841 to 1997. Bong Kong Island was orded to Britan after Chien lot the first Opsiem War in 1841. The Hotish took the Kowkon Penirsula when Chien Jot the second Opsiem War in 1860 and claimed the New Territories on a 99-year lease in

1898 when the Chinese power waned.

For the coloniser, there were two purts of Hong Kong. One part was the land they took from China after winning the war including Hong Kong Island and Kowloon Peninsula while the other part Kowlooe Peninsila while the other part was the New Territories, which they horrowed from China on lease. The New Territories covered most of the landmans in Hong Kong and the original settlers there were not easy to deal with. The British government had no choice but expanded the land servitory by orelination partial, the most for other accord. Lord expanded the land territory by reclamation to satisfy the need for arbun growth. Land nuclamation by private companies began shortly after the beginning of the Bernish occupation in 1841 whereas large-scale land occlamation led by the povernment started in 1850s as a means to alleviate the high population density, housing and hygiene problems due to the rapid increase in population.

Hong Kong has not properly planned or used the land in the New Territories.

On the other hand, there was no long-ten On the other hand, there was no integreem planning for the "bestowed land". The British government did not properly plan or offine the land of the New Territories for urfant development. Hence, land use in the New Territories has been inefficient

This historical background illustrated why Hong Kong has not properly planned or used the land in the New Territories.

It is estimated that there are about 1300 hectares of brownfield sites in Hong Kong.

According to a research done by Liber Research Community, a local non-profit independent research group, is in estimated that there are about 1300 bectures of brownfield sites in Hong Kong. Although some of the brownfield sites have been included in the new town development areas, there are still more than 700 hectares not included in any development plans. The government claimed that these brownfield sites have

are scattered and irregular in shape. But in fact, around 1100 hoctarus of the sines have been identified as 'boswrifield' clusters', meaning each of them is bigger than 2 hoctares. Some of the clusters are even larger than 30 hoctares.

lands is disperse. It may take some time and cost a fortune to resume the land but it is not impossible. According to the Lands Resurrotion Ordinance (Cap. 124), it is justified to resume private land in the name of public interest.

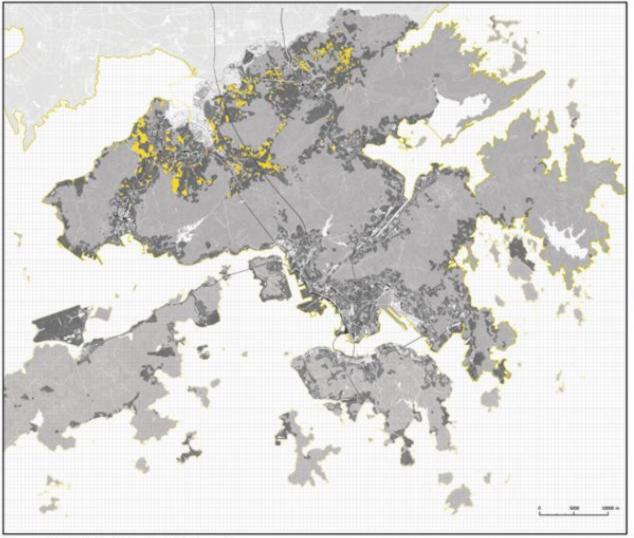
84 000 residential units could be provided if brownfield sites are properly planned.

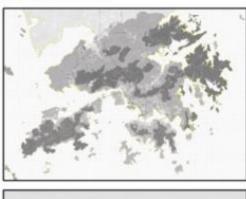
According to the Hong Kong Planning Standards and Guidelines, development densities need to be much lower than those in the setun areas. Take for instance mose in the total narias, take for instance Rural Development Dennity Zione 1 and 2, in which medium and low-rise residential blocks up to 12 and 6 floors suspectively are allowed, could provide 500 and 200 residential units respectively on each becture of land. There are 723 hoctairs of brownfield clusters excluded by existing development projectories. hectures of brownfield clusters excluded by existing development projects/not having development timetable. Assume 13 could be used to develop into raral-type public housing, and within this portion, half of them are developed using Roral Development Density Zone 1 and the other half using Density Zone 2, it is roughly estimated that \$4 000 residential units could be provided.

If land supply is not a real problem as portrayed by the government, reclaiming from the ocean and expanding one nerviewy does not solve anything. Taking a large part away from the ocean permanently certainly does not make sense









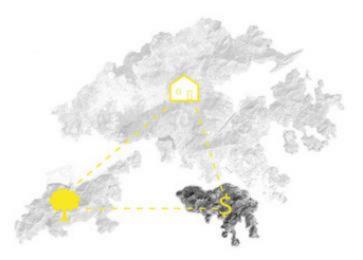


VOL.0I Juni 2019 Hong Kong Tomorrow Vis

SPECULATION

MONETARY CITY

The Monetary City is not for living. There is no living. There is no streets, but giant shopping malls. There is no park, but vehicular drop-off area for private cars. There is no facade design, but standardised building envelope.



Mari balance bedance Salar autor and consum to materials

The Monetary City has no neighbourhood, but partly commoniated development. There is no building height limit. A new type arises accommodating shopping malls, hostels and banks in the super skysumpers. However, the new type is not tailored for the public realm. It is purely the first of money, meant to maximise the plot ratio and the revenue made per plot.

It is purely the fruit of money, meant to maximise the plot ratio and the revenue made per plot.

To demolish or to keep has triggered a heated debate in society. After all, Hong Kong is too used to demolishing its past and rebuilt the city for the sake of "city development". Another new type arises following the debate, as at extension of the existing buildings. Structures are added on top of the pre-existing buildings, growing vertically and connecting boricontally. This forms the second vault for the city.

If one stands on the ground level, he might not be able to see the sky. Daylight

becomes almost a fuxury to lower levels and hence large podiums are usually built at the bottom of the development defining the ground datum for the Monetary City. Pre-existing residential buildings, however, are eventually term down to make noom for the city development.

Structures are added on top of the pre-existing buildings, growing vertically and connecting horizontally.

The Monetacy City has no streets, but giant shepping malls. There is no park, but vehicular drop-off area for pressue cars. There is no facade design, but standardised building envelope.

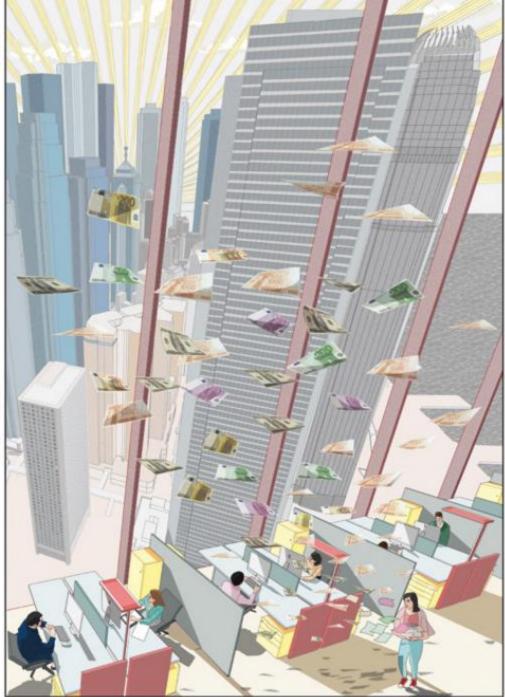
77

The city is running 24 hours. It has no closing hour.

The Monetary City is not for living. There is no living. The city produces capital for the entire Hung Kong and purely that. The city is running 24 hours. It has no closing hou. Employees go to work on shift. Most of them choose to work more

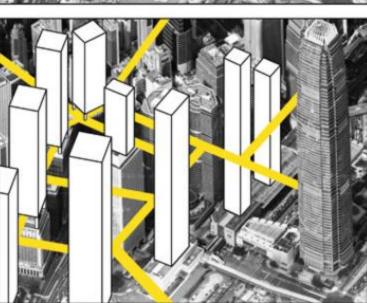
s shifts or over-time to make more money to st of this money-making machine as time is an invaluable asset. The city has high mobility for everyone just stays temporarily. Come and go.

Thanks to the Monetary City, the rest of Hong Kong finally but the capacity for afferdable boosing for its citizens and redefined its strategy for posservation.

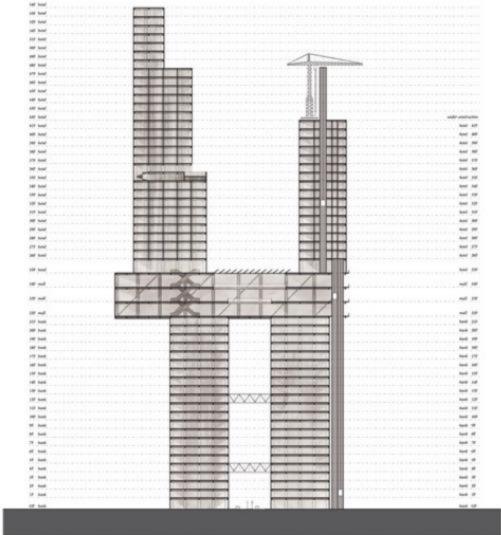


The city is running 24 hours. It has no closing hour. Employees go to work on shift. Most of them choose to work more shifts or over-time to make more money out of this money-making machine as time is an invalvable asset.





eve: Control, Hong Kong, 2018



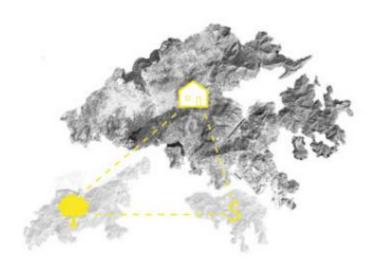
(3.500) New types arise to accommodate shopping males, hotels and banks in the super skyscrapers, as well as to respond to the urgancy of preservation, altering the existing buildings

THE UNIVERSITY OF HONG KONG



LIVING CITY

The superimposition of programs activates the city making it a glant living condenser. The city is ready to expand, fully serving as a connector between the new and old, the city and the countryside, and most importantly, the architecture and its inhabitants.



The Living City bosses all citizens in Hong Kong, including citizens previously residing in other parts of Hong Kong, When the government decides to netrieve the howmfield land for the larguscale affordable housing development scheme in the Living City, it has occeived

strong oppositions from developers. But according to lands resumption ordinance (cap. 124), it is justified to resume private land in the name of public interest. The congened loining condition and high property price has created enough social dispute in Hong Kong that it is totally justifiable to resume these land

for building affordable housing for its people. The scheme takes around 10 years to realise, from land resemption to decommissiation of polluted land to the completion of residential complex.



77

According to Lands Resump-tion Ordinance (Cap. 124), it is justified to resume private land in the name of public interest.

77

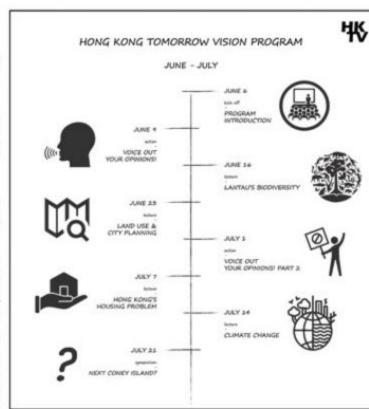
The quality of living and the prerequisite of forming a living city are redefined during the

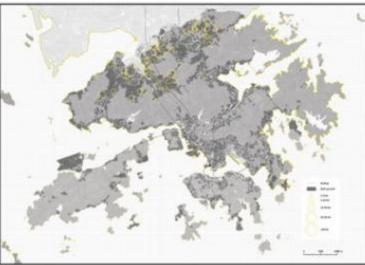
Supported by the existing influstructure, the cost for developing the Living City in much lower than the estimated cost for building an artificial island. Apart from the number of units produced in each locture and the standard unit size, the quality of living and the prorequisite of forming a living city are redefined during the process.

The city is composed of 10m x 10m x 10m cubic units, each containing one or 10m cubic units, each containing one or 10m cubic units, each containing one or 10m cubic units, each containing the each color of its inhabitants including dining space, sortes, playground, school, marker, etc. The superimposition of programs activates the city making it a giant living condenser. In Living City, there is no city centre but multiple neighbourhoods in which its inhabitants live and socialise. The city is roudy to equand ventically, horizontally and diagnorally fully serving as a connector between the new and old, the city and the countryside, and most the city and the countryside, and most importantly, the architecture and its inhabitants.



The city is ready to expand, fully serving as a connector between the new and old, the city and the countryside, and most importantly, the archi-tecture and its inhabitants.







HONG KONG TOMORROW VISION

SPECULATION

OASIS OF **NATURE**

has significantly changed. It is perhaps the right time for

It be city's biggest resource is its natural resources and its biggest enemy is climate change. The Intergovernmental Panel on Climate Change (IPCC) report that warned us last year that we have little more than one decode to pay massive effort on reclucing carbon emission. "The rate of global change in nature during the past 50 years is unprecedented in human history," the report says species loss is accelerating at a nate tens so hundreds of times higher than the average rate ever the past 10 million years, Of the 8 million knewn animal and plant species. It million knewn animal and plant species. It million for extinction. In coastal areas like Hong Kong and the Pearl Rivur Delta, 100 million to 300 million people face increased risk to life from floods and hurricanse the to loss of coastal habitats and coral reefs. Humann have "significantly altered" 55 pencent of all land and 66 percent of all secan areas. The doubling of the world's urban nota since 1992 - with an additional 25 and life 50,000 large dams and 17 million securities. and the 50,000 large dams and 17 million reservoirs have altered entire ecosystem. Just under 300 million hectares of forests have been lost since 1990.

77 We are living in an incredibly exciting and slightly absurd moment. namely that preservation is overtaking us.

New York: OSAPP Stroke, 2014

Facing climate change, the role of archi-tects and architecture has significantly changed. Comparing with the organic for preserving the natural environment and minimising carbon entitation, designing new forms is no longer relevant. signing new forms in to longer relevant, h is perhaps the night time for another movement. How do we stove focusard in the architectural discipline? Building new forms, advancing in modelling technology, parametric designing, none of these really matter comparing to the signery for perceivation and sustainable development.

Comparing with the urgency for preserving the natural environment and minimising carbon emission, designing new forms is no longer relevant.

Currently, the LEED system is in Currently, the LEED systems is implement-of to promote green buildings, however, the credits do not encorrigions many green building aspects. For instance, LEED does not address ecology of a building at all. A newly constructed LEED certified building could destroy a robust native ecosystem, and be built on an invaluable section of a suterfield; and none of these

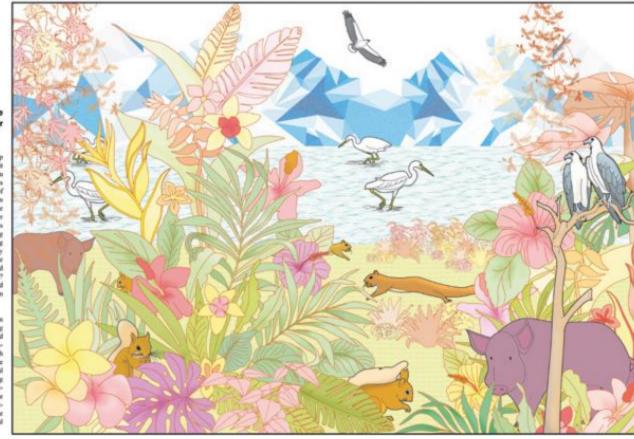
a new ecosystem according to the credit system. The LEED certification system also does not address the user awareness and education of inhabitants or visitors of in buildings, besides for a certification plaque placed on a recognizable place on or within the building. Without user awareness and education, inhabitants awareness and enlocation, institution are not conjugate of the proof building aspects within the building. By making inhabitants aware, they are more likely to conserve energy use, and live a more environmentally aware lifestyle. Could this perhaps be our next movement? Nonetheless, we will have to set new and out fast to being use our moral obligation. act fast to bring up-our moral obligation as a remody to global climate change.

A wide variety of species have been discovered on Lantau Island including Chinese White dolphins, an endangered species and Roger's tree flogs, an en-dernic species to Hong Kong. The rich densic species to Hong Kong. The rich biodirensity and high ecological value nucleu Lantan Island an usus of natural resources to Hong Kong, Instead of doing further harm to the natural habitat crue-ing another core business district in the middle of nowhere, Lantan Island dedi-cates all of its landmass to protected zone considering as biological and geological intercentage.

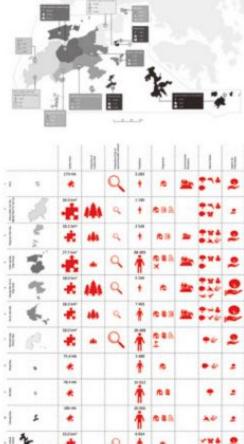
All constructions prohibited on the island.

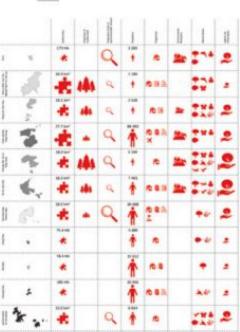
While the city's economic development is concentrated on the Moustary City and its inhabitants live in the Living City, Lantau Island is finally five from all the obligations boosting the city's economy or being a leisure destination. It has become the only Ousis of Nature in the become the only Ossis of Natine in the region of the Geneire Bay, All construc-tions are problemed on the island. No visitor is allowed although occasionally some people would risk going against the rule and paying a visit to the island "for

...the question of what kind of city we want cannot be divorced from the question of what kind of people we want to be, what kinds of social relations we seek, what relations to nature we cherish, what style of life we desire. what aesthetic values we hold.









192 M ARCH THESIS

ZHANG XIANGYU

ADVISOR: NASRINE SERAJI TAO ZHU JAE LIM

PLATFORM: INFRASTRUCTURE

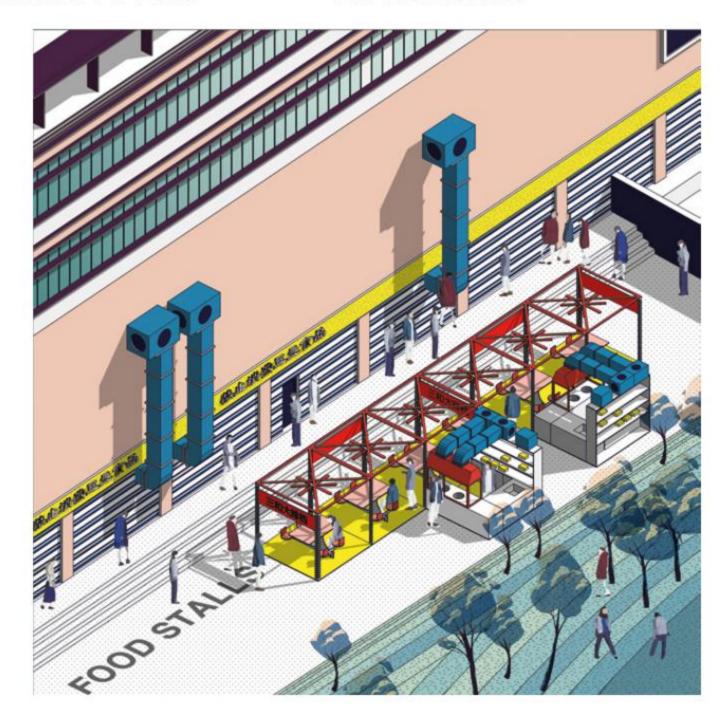
MISUSED ARCHITECTURE

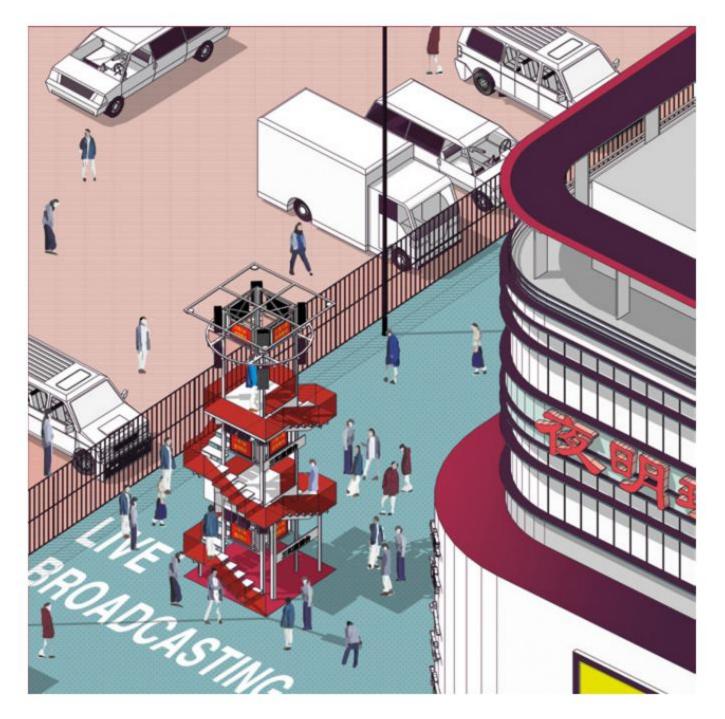
The thesis is dealing with the problem of Sanhe Masters/Legends (三和大神) within Shenzhen, an industrialized city and also a polarized city with numerous wealthy people, but at the same time a lot of destitute laborers who have no future and no way out.

The young laborers in Sanhe are falling into an endless loop that they keep finding temporary jobs, quit the job after one day or two, then quickly spend their wages and start searching for jobs again. Even though they have a destitute state of living and ridicule themselves a lot, they keep a high degree of self-esteem and self-respect. Sanhe Masters are desperate to find jobs only if the job is tidy and decent. Otherwise, they would rather stay hungry and wait.

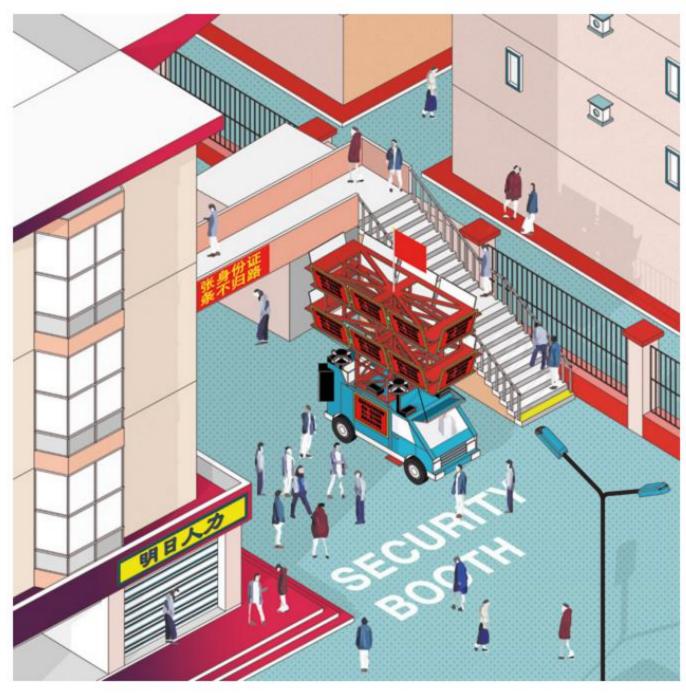
To address this social problem, the project uses a series of amenities and fictitious facilities as a tool to highlight the issue. It does not need to be real. The thesis radicalizes, exaggerates, and fantasizes the scenarios where these Sanhe Masters (三和大神) occur to arouse awareness and catch public attention towards the social issue.











196

PRO-

REVIEW 2019 / PROSPECTUS 2020



The MPhil/PhD programme in Architecture offers independent research in architecture, landscape architecture and urbanism. It is intended for persons who wish to enter teaching and advanced research careers with a commitment to make an original contribution to the field. The programme places emphasis on originality, significance, and methodology in topics engaging pertinent issues in Asia and China, as well as important intersections with international and cross-cultural contexts. The Department houses a number of research centres associated with the HKUrbanLab, the research arm of HKU's Faculty of Architecture, including the Centre of Chinese Architecture and Urbanism (CCAU), Architecture, Urbanism Technologies Lab, Urban Ecologies Design Lab, and Virtual Reality Lab of Urban Environments and Human Health.

The Program is intended for persons who wish to enter teaching and advanced research careers in architecture, with an agenda of making original contributions to the field. Students fulfill coursework requirements in their first year of study, in preparation for research work and writing their thesis. Coursework is directed towards advanced scholarly research. Students are required to take four Graduate School core courses. Department coursework requirements include a compulsory course on Research Methodology: Seminar for Research students, and three elective courses.

Academic training opportunities extend beyond coursework. Apart from the regular workshops conducted by members of the supervisory committee, the programme is also supported by regular organized visits by international renowned scholars from leading institutions including Columbia University, DTU Denmark, ETH Zurich, IAAC Barcelona, NUS Singapore, SUTD Singapore, Tsinghua-Tongji China, TUDelft, UC Berkeley, UNSW Australia, and University of Washington. The programme hosts a biannual Research Postgraduate Student conference and a CIB Student Chapter, which organizes international conferences at regular intervals. The 2018 biannual Research Postgraduate Student Conference on Mobilities and Knowledge Transfers in the Built land-scape will take place in late spring.

Students present their ongoing research work at monthly departmental RPG seminars. In addition students who have successfully completed their first year of coursework are expected to participate in the instructional activities of the Department.

MAJOR RESEARCH AREAS

History and theory of architecture, urbanism and habitation; built environment and urban landscape for public health and well-being; architectural and sustainable technologies; analysis and development of buildings, landscapes and regions with focus on social, cultural, economic, technological, ecological and infrastructural systems; and urbanism with attention on high-density, compact cities, housing research and design methods. DEPARTMENT OF ARCHITECTURE

STUDY OF LONG-TERM PREFERRED LANDFILL AFTER USE DEVELOPMENT FOR NEARBY DENSE URBAN COMMUNITIES

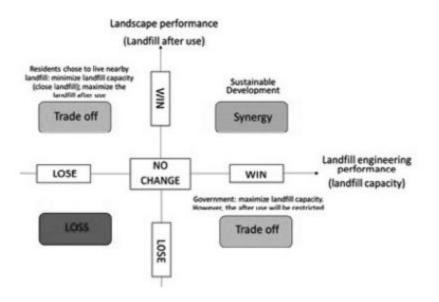
CHEN YUXIAO

PRIMARY SUPERVISOR: BEISI JIA CO-SUPERVISOR: MATHEW PRYOR

In the past several decades, rapid population growth in dense cities within highly constrained territories like Hong Kong, have resulted in a dramatic increase in the number of people living close to operational landfill sites. This has raised serious concerns to the public on operation nuisances, environmental impacts and health risks. To this end, the thesis is a threefold study on landfill after use development.

First, the suitable after use development is analysed in consideration of the tolerance of settlement, minimum area requirement and maximum slope of a closed landfill cover. This understanding is valuable for designing landfills and developing effective and efficient longterm preferred after uses. Second, using data collected from face-to-face questionnaire survey, the study evaluates the impacts of two different longterm after use scenarios on alleviation of resident's opposition to the operating landfill. The results reveal that it is possible to gain more support by incorporating the green cover plus recreation after use. Third, the study takes into account the analysis of the resident's attitudes towards a rational process using cost-benefit calculations. The results suggest that thoroughly considered after use strategies would moderate acceptance attitudes of the communities located at different distances to landfill sites, and alleviate and forestall potentially damaging operating impacts.

Overall, this study provides a criterion for future landfill developments and further landfill acceptance investigations in Hong Kong, and serves as an important reference for high-density cities in other regions of the world.



SHANGHAI PLASTER: A HISTORY OF CEMENT ARCHITECTURE AND COLONIAL MODERNITY IN HONG KONG, 1920S - 60S

LAI CHUN WAI CHARLES

PRIMARY SUPERVISOR: EUNICE SENG CO-SUPERVISOR: TAO ZHU

This thesis posits that modern cement-based building finish was a culturally and politically charged material that played an important role in the shaping of modernity in twentieth century Hong Kong. Though variations of cement plaster like Shanghai Plaster and Terrazzo (Italian Plaster) were used extensively in different kinds of projects, they often represent different or even contrasting ideals of modernity. The history of their origins, names, recipe, and crafts was lost. Assumptions on their definition and history were often made carelessly and 'passed-on' without much elaboration. The intent of this thesis is to excavate historical data regarding these finishes and organise them into a coherent account, and to provide knowledge support for further historical research and conservation work on modern architecture, materiality, and techniques. It shall also demonstrate that the diffusion of modern construction techniques and knowledge was far more complex than a unilateral transfer from the "metropolis" to the "outposts". The hybridised architectural culture produced within the colonial context was propelled by the combined effort of industrialists, researchers, contractors, clients, and architects, and involved an uneven process of experimentation, local adaptations and transferal of techniques among different sites that were either formally part of, or informally influenced by, the British Empire. To this end, the thesis argues that architecture involving the use of cement in Hong Kong was not solely a result of "Western" domination during the colonial era, but a process of intercultural and transnational exchanges shaped by the interactions between the coloniser and colonised, as well as their intermediaries, under the complex power structures of colonial modernity.

Green Island Cement Co. Ltd.
Snowcem Advertisement
Source: Hong Kong and Far East Builder, v8,
no6 (Sept-Oct 1950): pp29



202 MPHIL/PHD PROGRAM

THINKING OF CHINESE GARDEN IN CHINA'S REFORM ERA

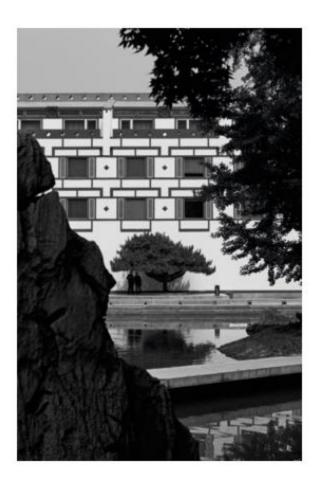
LUO RAN, OLIVER

PRIMARY SUPERVISOR: TAO ZHU CO-SUPERVISOR: WEIJEN WANG

This thesis examines the modern study of Chinese traditional garden conducted by three generations of Chinese architects since the 1930s, and a series of 'new gardens' built in China during the period of 1980s-2000s.

The research includes two parts. The first surveys the evolving concepts and methods of garden study in China from the 1930s to the 1980s, during which the writings of Tong Jun, Liu Dunzhen, Peng Yigang, Pan Guxi and Zhu Guangya are examined. The second analyses a series of built gardens, including the Fragrant Hill Hotel designed by leoh Ming Pei in 1979–82, Fangta Garden by Feng Jizhong in 1978–81, and China Academy of Art Xiangshan Campus by Wang Shu in 2002–06. In each case study, the thesis not only makes formal analysis, but also pays close attention to the case's socio–cultural background. It investigates how the architect had received various cultural influences before, and how he was responding to his contemporary cultural trends, social needs, and economic shifts during his design process.

Through archival study, field survey and interviews, the thesis attempts to provide new understanding of China's modernization process in the fields of architectural and landscape design.



LAND RECLAMATION, LANDSCAPE FORMATION AND THE PEARL RIVER ESTUARY FROM THE EARLY SIXTEENTH CENTURY

TIAN MENGXIAO, MECHELLE

PRIMARY SUPERVISOR: WEIJEN WANG CO-SUPERVISOR: EUNICE SENG

This dissertation examines the shift in the geographic pattern of the Pearl River Estuary over time, taking into account the extensive land reclamation that took place from the early sixteenth to the mid-twentieth century. It defines "reclamation landscapes" as the settlements that developed in the reclamation area with the land fill itself while identifying various prototypes of landscape formation. It seeks to understand why and how the landscapes are shaped. This thesis argues that the physical appearance of the Pearl River Estuary is not the result of the domination of a single power but is rather the outcome of competition between human agency and natural forces, as well as shifts in the idea and perception of the relationship between land and water. In building a spatial-temporal network for morphological analysis based on key factors in selected areas and distinct periods, this work also reveals how the environmental and geographical differences of land and water influenced the pattern of human migration. It scrutinizes the impact on cultural and technical communication and how technological progress and differences in the reclamation mechanism result in various types of built environments. Through a feedback loop, the latter has reshaped the relationship between land and water. Through a lateral perspective and comparative analysis of the sustainability of reclamation landscapes, this thesis underlines the importance in a critical understanding of the interrelatedness of the human and natural processes, reclamation activities, and the built environment.



REVIEW 2019 / PROSPECTUS 2020

DEPARTMENT OF ARCHITECTURE

THE UNIVERSITY OF HONG KONG

204



THE UNIVERSITY HONG, ANG



The Department of Architecture offers students a variety of opportunities for international study and travel. Design studios go on study tours within the region to sites of particular interest for architecture and urbanism in East Asia. Teaching and research programs are organized at the Faculty of Architecture's Shanghai Study Center for both undergraduate and graduate students. This center offers students a unique opportunity to gain a first-hand understanding of the context of China's urban and rural environment. The Department also hosts undergraduate academic exchange programs with leading institutions in North America and Europe. Jointly taught graduate level studios with other leading universities offer opportunities for students to engage with their peers globally.

The Department has a strong commitment to the environment, and to engaging communities in the South China region. Design studios, design research projects, and the Faculty of Architecture's Community Projects Workshop see staff and students participating in design projects in China and Hong Kong, ranging from the construction of housing, school and public architecture to the building of pavilions in public spaces.

The Public Lecture Series, discussion forums, symposia as well as exhibitions held by the Department offer a platform for students, outside professionals, and the broader public, to engage critical issues emerging from within the discipline of architecture.

208 PUBLIC PROGRAM / RESOURCES

PUBLIC LECTURE SERIES

The Public Lecture Series organized by the Department of Architecture at the University of Hong Kong is a platform to engage critical issues emerging from within the discipline of architecture.

SPRING 2019 IDEAS OF THE NORTH

Following Agendas for the South in 2018, Ideas of the North in 2019 continues to outline the nuanced and diverse geographical, sociocultural and technological contexts of architectural practices through the register of building and discursive positioning of the invited architects.

January 29, 2019 Jonathan Sergison

Housing Models in the European City

February 15, 2019 Andrew KF Lee Lectureship

Rocco Yim 嚴迅奇 From the Beginning ...

March 1, 2019 Rossana Hu 胡如珊 and Lyndon Neri 郭錫恩

Recent Works

March 18-19, 2019 Yung Ho Chang 張永和

Six Reflections on Architecture Brick: Pushing Rationality (March 18) South: Re-orienting Space (March 19)

March 22, 2019 Beate Hølmebakk and Per Tamsen

Constructions on Sites and Paper

March 26, 2019 David Benjamin

Vital

March 28, 2019 Alberto Viega

Resonances

March 29, 2019 Winy Maas

Choose Your Tower:

Housing beyond Uniformity

April 2, 2019 Andrew KF Lee Lectureship

Kazuyo Sejima 妹島和世

Architecture & Environment

April 9, 2019 Iñaki Ábalos

A House, A Palace

April 16, 2019 Li Hu 李虎

OPEN Questions



THE UNIVERSITY OF HONG KONG

FALL 2019 THE CITY AND ITS PUBLIC SPACE

The Fall 2019 Public Lecture Series of HKU Architecture will highlight the theme "The City and Its Public Space." Through dialogues, forums and presentations by invited architects, artists and scholars, the series aims to examine the urgent issues of urban public space through both local and global lenses.

September 20, 2019 The City and Its Public Space Dialogue 1

Chan Koon Chung 陳冠中

Heterotopia and Spatial Politics

Sampson Wong 黃宇軒

Be water: Hong Kong Protests & Urbanism

September 27, 2019 The City and Its Public Space Dialogue 2

Li Ju Chuan 李巨川

Struggle for Space: Several Cases

Roan Ching Yueh 阮慶岳 Awakening of the Citizen

October 3, 2019 Lee Bul 李昢

with Pauline J. Yao and Cole Roskam

In Conversation with Lee Bul

October 25, 2019 Peter Rich

Reconciling African Space Making with the

Transforming African Cities

October 29, 2019 Nivaldo Vieira de Andrade Jr.

Challenges in the Conservation of

Modern Architecture in Brazil

November 1, 2019 Perry Kulper

Evidentiary Traces + Approximate Surfaces

November 8, 2019 Giancarlo Mazzanti

A Participatory Architecture Told from

Six Strategies

November 11, 2019 Doriana Fuksas

Love will save the World

November 14-15, 2019 Yung Ho Chang 張永和

Six Reflections on Architecture

City: Resisting Sprawl (November 14) Education: Interpreting Discipline

(November 15)



212 PUBLIC PROGRAM / RESOURCES

CONFERENCE

TRANSFER: DIFFUSIONS AND MOBILITIES IN THE BUILT LANDSCAPES OF ASIA AND BEYOND

While modernity has been widely perceived as a universal phenomenon that encompasses different localities in Asia, the forms of cities and urban land-scapes have been shaped and reshaped by specific histories, shifting geopolitics, and more recently growing collective concerns over ecology and sustainability. By analyzing the exchange and transfer of knowledge of built environment disciplines, this conference aims to interrogate the roles of the agents and institutions involved in the production of built landscapes in Asia and beyond.

This conference pulls together graduate students from architecture, landscape architecture, anthropology, and the arts to gathering under the subject of diffusions and mobilities of transference in the built landscape. The focus of these investigations include buildings, landscapes, infrastructures, city plans, construction sites and ecological engineering.

May 31, 2019 Giovanna Borasi

We Won't Be the Same After This

Conversation...Well, At Least We Shouldn't Be

Kelly Shannon

Designing Territories of Resistance: Coproducing Urbanism in Vietnam

June 1, 2019 Jiat Hwee Chang

Transferring, Translating and Transforming Air-Conditioning Complexes: Histories of Sociotechnical and Built environmental Hybridities in Singapore and Doha

SYMPOSIUM

THE COUNTRY [SIDE]: INFRASTRUCTURE FOR THE CITY?

The symposium and its future publication can use this project as a timely pretext, an opportunity and an entry to the critical examination of spatial, environmental, geographical questions that it triggers. If Edgar Chambless' 1910 "Roadtown" triggered the plan Obus for Algiers, Broadacre City and the Ciudad Lineal, can architects, urban planners, landscape architects, architectural historians and critics today initiate a debate on the necessity of a "new deal" between metropolisation processes and the development of non-urban territories? Can intellectual debates, speculative research based projects create new spatial opportunities that bring about new ecologies?

April 11, 2019 <u>Landscape Urbanism</u>

Vicente Guallart The Distributed City

Susan Dunne

Mega Ports and Globalism, On Land and Off-shore: Conceptualizing Complexity

Doreen Heng Liu

Defining Publicness in Infrastructural Architecture

Ashley Scott Kelly

Engaging Development through Critical Landscape Practice

Michel Desvigne

Natural Infrastructures and Shapes of Time

April 12, 2019 <u>Urban Landscape</u>

Javier Arpa Fernandez

The (Failed?) Infrastructures of Power

Inge Goudsmit

Masterplanning in Asia: Conflicting Forces

Nathalie Roseau

Infrastructural Dialectic:

Temporalities and Scales of The City-Territory

214 PUBLIC PROGRAM / RESOURCES

FABRICATION AND MATERIAL TECHNOLOGIES LAB

CERAMIC CONSTELLATION PAVILION SPATIAL SHIFTS THROUGH ROBOTICALLY FABRICATED TERRACOTTA BRICKS

CHRISTIAN LANGE DONN HOLOHAN HOLGER KEHNE

The Fabrication and Material Technologies Lab of The Faculty of Architecture at The University of Hong Kong has recently finished its first robotically manufactured intervention called "Ceramic Constellation Pavilion."

The Pavilion, which was built by researchers and students utilizing robotic technology, is the first outcome of a new collaboration between The Faculty of Architecture at HKU and Sino Group. The research initiative that supports arts, cultures, and technology is intended to foster cultural awareness of new technologies for the built environment.

In a context that has been largely shaped by standardization and mass production, the project seeks to overcome the constraints of today's architectural production through the introduction of a structure made entirely of non-standard components.

This inaugural workshop of the "Sino Group Robotic Architecture Series" utilized terracotta clay to test the possibilities and limits within robotic fabrication and to revitalize a material system that has a significant tradition in Asia.

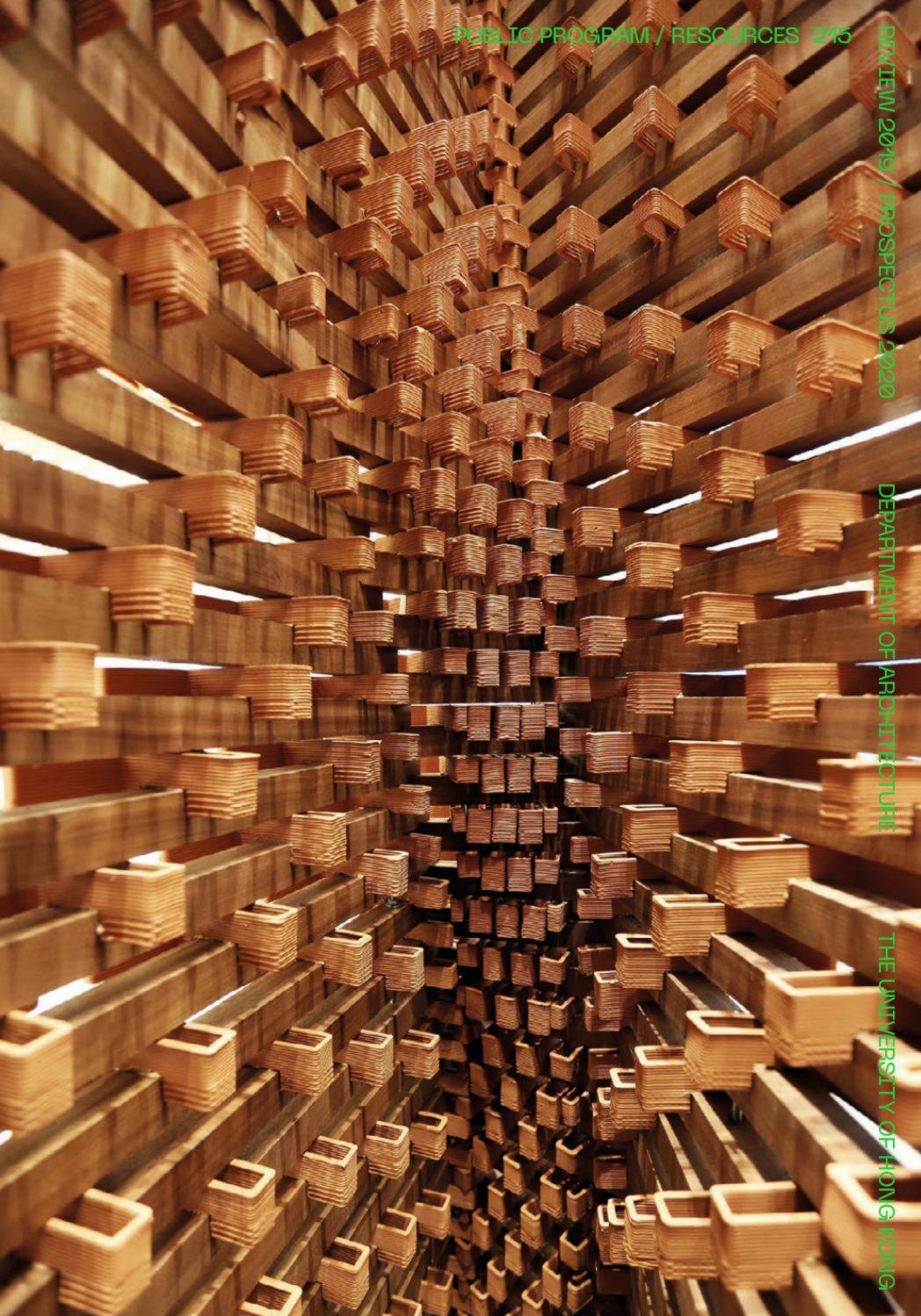
Departing from traditional brick bonds, the 3.8m tall project articulates a load-bearing composite structure with timber – where each of the nearly 2000 3d printed terracotta bricks is unique and different, enabling varying degrees of transparency, morphological shifts, and new experiences.

Around 700 kg of raw terracotta clay was printed over a period of 3 weeks into individual bricks that were then fired at 1025 degrees Celsius. With 2-3 minutes average printing time for each brick, the pavilion is one of the first of its kind in the world that incorporates this specific material system.

All components were fabricated with the equipment in the newly fitted Robotics Lab at HKU's Faculty of Architecture and assembled during a ten-day workshop by students from the Department of Architecture.

Research Assistants: Tony Lau, Anthony Hu, Teego Ma Jun Yin, Ernest Hung Chi Lok, Chau Chi Wang, Ren Depei, Mono Tung, He Qiye, Henry Ho Yu Hong

Workshop students: Go Yi, Sisay Sombo, Cheung Hoi Ching, Cheung King Man, Cheung Pak Yin , Ho Pui Lun, Verena Leung , Sharon So Cheuk Ying , Xu Junjie, Zhao Jinglun, Sampson Ip Cheuk Sum, Tan Shaoying, Yeung Tsz Wing



BUILDING CONSTRUCTION WORKSHOP

SUN ROOM SHELTER AND RESTING PLACE IN PEITIAN VILLAGE, FUJIAN PROVINCE, CHINA

DONN HOLOHAN
WITH ELSPETH LEE, JIANG HEJIA, AND HKU STUDENTS

Sun Room is an in-situ composite woven bamboo shell, which explores the potential of digital design and fabrication techniques to reinvigorate traditional craft.

Bamboo weaving is both a sustainable and culturally significant method of construction in China, but due to its complexity and reliance on skilled labour, is in deep decline. The Sun Room project sought to apply digital design methodologies to break down the complexity of this age old craft – simultaneously exploring its potential at an architectural scale and its accessibility as an alternative construction methodology for local people. Over the course of the project, students from the University of Hong Kong and local villagers worked with the last remaining bamboo weaver in Peitian to re-learn, adapt, and evolve this traditional process.

The village of Peitian has been a focus of study for a number of years at HKU, with the initial speculation engaging with issues of village reconstruction and development. Through this study, it came to be understood that aside from the pressing issue of village regeneration, there is an equally urgent crisis underway – in the decline of traditional crafts and trades and the significant loss of intangible cultural heritage that this represents.

The genesis of the project centres on reviving Peitian's unique "Tea House" typology. These earth and wood structures, embedded into the landscape, act as shelters for local farmers – and also as meeting places, stores or small workshops. Historically, these pavilions were often used by craftsmen to demonstrate their skill or to trial new construction methodologies. Today these structures have, for the most part, been replaced by generic outbuildings in concrete and brick.

Sun Room is a community space that provides a respite for villagers who work the land in the hot growing season. The form and siting of the shelter are carefully considered to maximise ventilation and view and to respect protected viewsheds that are a major feature of the landscape.

Supported by the Gallant Ho Experiential Learning Fund, and integrated within the University of Hong Kong's Introduction to Architectural Design course, The Sun Room project took 60 students to southern Fujian to aid in the construction of this community structure.



BUILDING CONSTRUCTION WORKSHOP

CONCRETE PROTOTYPE IN XIA MU TANG VILLAGE, JIANGXI, CHINA

OLIVIER OTTEVAERE WITH CHONG CHAK YUEN, YANG MENG TING, HUNG CHI LOK, LEUNG KA CHI AND HKU STUDENTS

This prototype tests, at a larger scale the concept of responsiveness for concrete formwork with cheap and local materials in the making of a room. A series of bamboo poles mediates a geometry changing from a circular footprint at grade to a trefoil outline at the top. The double sided formwork uses bamboo poles and canvas from which a sequence of varied concrete undulations is cast. The experience of the interior space of the wet room is amplified by the concrete's revived forces gained by engaging closely with the properties of the concrete material in response to the formwork.



BUILDING CONSTRUCTION WORKSHOP

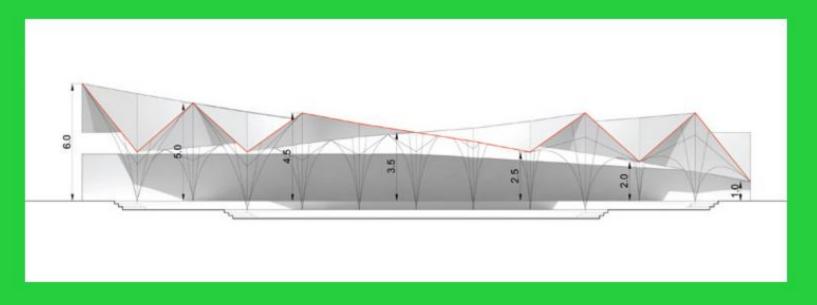
CREST NATIONAL UNIVERSITIES BAMBOO DESIGN AND CONSTRUCTION COMPETITION IN ANJI, ZHEJIANG, CHINA

OLIVIER OTTEVAERE, WEIJEN WANG, CHAD MCKEE, YVONNE MENG WITH HE YIZHEN, JI XIANG, LIU KAIXUAN, SUN KEXUAN, SONG HUIQING, ROMEO CHANG, KEVIN LAI, CHAN SHUMAN

'Crest' is a rest area and restaurant situated on a gentle slope along a river bank. It is accessed from the main road and served by a pedestrian path descending along the 40-meter length of the project. 'Crest' is made of three distinct parts; a retaining wall and concrete foundation receiving a bamboo structure which in turns supports a pleated roof, covering a shaded area of around 150 sqm.

A double retaining wall houses the main facilities and services such as toilets and kitchen from which a series of concrete slabs cascades towards the river bank to partly function as seating. The bamboo structure is organized in three rows of columns secured along the slabs' edges. 31 different size columns, made of bundles of bamboo poles, are each flaring upwards, splitting and bending in 4 different directions to delineate the specific roof profiles. A succession of V-shaped channels aligned longitudinally with the retaining wall articulate the roof-scape, gradually changing from peaks to valleys. At one end of the wall, the roof crest peaks over 6 meters, echoing the mountainous silhouette in the background. Towards the other end, the roof channels downwards to eventually merge and disappear with the landscape.

The main social space below the roof is qualitatively demarked by the articulation of its ceiling plane. In areas identified with more solar exposure, bamboo poles are placed closer together to provide greater shading, whereas in zones with less direct sun exposure, the clearance between poles is increased. Consequently, this not only offers a unique and differentiated material expression but also a confortable space for leisure, responsive to its environment.





BUILDING CONSTRUCTION WORKSHOP

LANTERN
INTERNATIONAL BAMBOO DESIGN AND CONSTRUCTION
COMPETITION IN ANJI, ZHEJIANG, CHINA

DONN HOLOHAN, OLIVIER OTTEVAERE WITH RUBY HUANG (PROJECT LEADER), LEUNG LOK YAN, JIANG XINJIE, PU CHUNPENG, NG HEI TING, WANG YADIAN, HUI TSZ NAM, TANG XIAO, TAN REGINA TANIA, CHEUNG WING LAM

This workshop will provide a hands-on introduction to bamboo construction, material technology and the making of real architecture - combining theoretical study and practical experience.

Over the course of a week-long workshop, and as part of the 2nd International Bamboo Design Competition, participants will live and work alongside over 150 students from China's highest ranking universities, including Tsinghua and Tongji, as well as master craftsmen, scholars and experts.

Throughout the workshop, students will be challenged to tackle the material and logistical problems of making architecture while engaging with an age-old craft - working at the interface of technology and building culture in remote rural areas.

The output of the workshop will be a permanent structure, providing shelter and a performance space for visitors to the region, while demonstrating through its material form the potentials of bamboo as an innovative construction material.





BUILDING CONSTRUCTION WORKSHOP

THE RESIDUAL CITY

DONN HOLOHAN, BEN HAYES
WITH KEVIN LIN, HENRY CHUNG, GRACIA WONG, RUBY HUANG, JACKY LAI,
HENRY IP, IVAN CHENG, GLADYS YEUNG, ROCHELLE YU

This project examined the unused residual spaces on Hong Kong Island exploring the possibilities and limits of these spaces through the design and making of 1:1 scaled installation using state of the art digital scanning technologies. Hong Kong is one of the densest urban areas on the planet, its' public spaces have become a uniquely rarefied commodity made of up of a network of interstices. Within these areas there is an abundance of unused residual spaces, often no more than a few feet wide and highly irregular in shape on both horizontal and vertical planes. These unique, unplanned and underutilised pockets - found in alleyways, in between towers, within underpasses and on rooftops - formed the entry point for this workshop. Over the course of 10 days, students critically examined these spaces, deploying state of the art 3D scanning technology and photogrammetry to forensically map them. During the workshop, students conducted rigorous physical testing and experimental production in order to explore directly the material consequences of their invention. The result of the workshop was a temporary cinema space, constructed in a few hours from lightweight materials that were easily transported to the site. The design of the structural elements were fabricated both digitally and traditionally and were made to match precisely the on-site conditions.





BUILDING CONSTRUCTION WORKSHOP

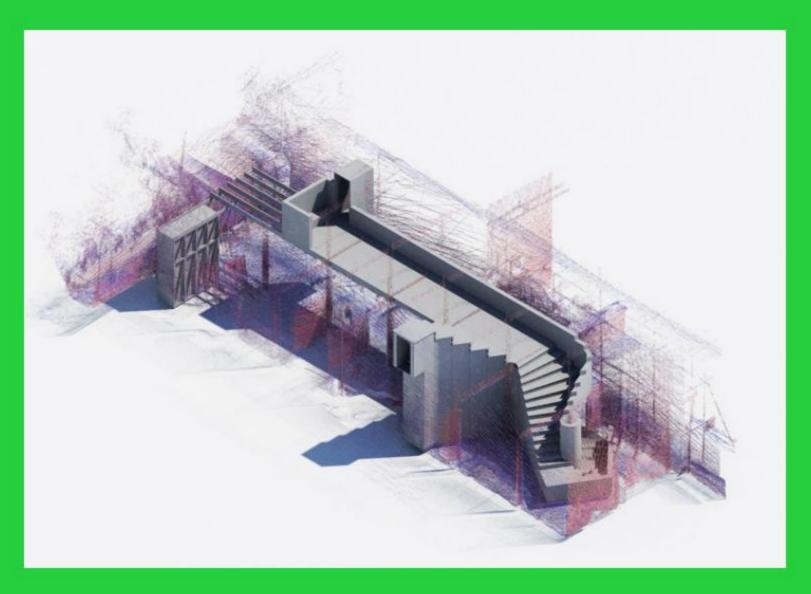
THE LIVING MUSEUM

DONN HOLOHAN
WITH HKU ARCHITECTURE STUDENTS

Building on the relationships fostered during the construction of the Wind and Rain Bridge and Sun Room projects, and in parallel with continuing discussions relating to sustaining and expanding the impact of this work, the concept of a 'Living Museum' has evolved.

The museum will act as a bridge – educating the public and providing a learning/workshop space. As such, it represents a significant platform for knowledge exchange where crafts and skills can be disseminated, promoted and updated as knowledge is shared between students, teachers, villagers and the academic community. There is demonstrable and significant interest in the village for a place of learning and archive, and the proposed museum would ensure that this growing body of knowledge would remain in the region and would act as a catalyst for further development.

The framework developed through this integrated approach offers at once an alternative vison for the reinvention and conservation of traditional crafts, while helping to improve the viability of the village – offering education, employment and tourism opportunities. The architecture of the museum will respect the history of the village, merging vernacular means and methods with digital tools. This process aims to further demonstrate the material intelligence behind many traditional ways of working; and as result, the built form of the museum will itself represent an archive.





JOCKEY CLUB HKU RURAL-URBAN DESIGN PROJECT

RETHINKING THE COLLECTIVE: RENOVATION STRATEGIES FOR THE TULOU

RURAL URBAN FRAMEWORK
WITH HKU AND HKU SPACE ARCHITECTURE STUDENTS

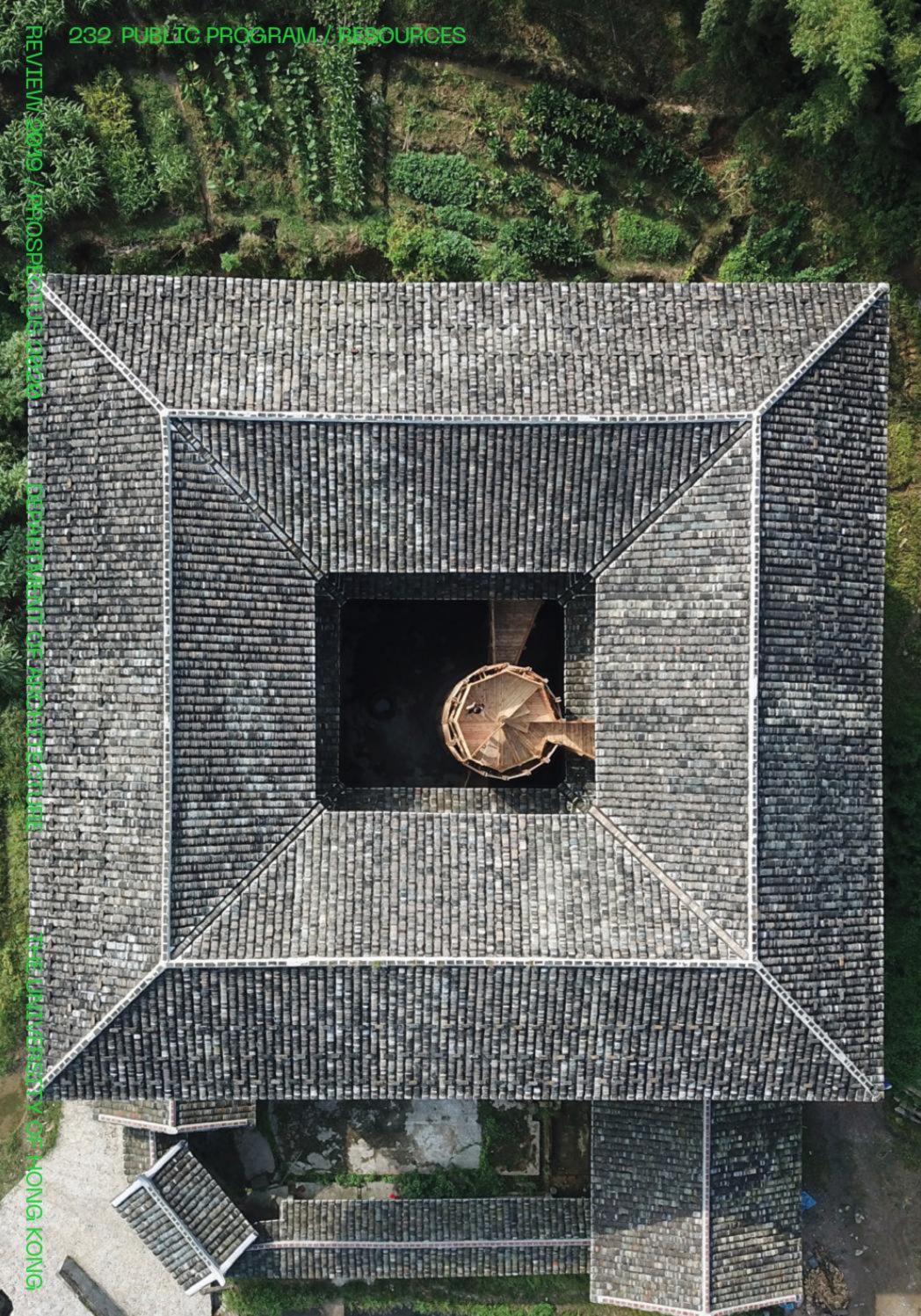
Over a 1000 years ago, large introverted earthen buildings (tulous) of the Hakka culture emerged in Southern China as a traditional form of collective housing in the rural. Extended families built thick earthen walls for collective defence, while maintaining a shared open space in the centre. As the tulous are now surrounded by a new urban context and are not corresponding with contemporary desires of dwelling, many of them are experiencing individual transformations or becoming abandoned. Responding to the changing relationship between individual/collective and rural/urban, these prototypes, built with students from The University of Hong Kong and Hong Kong Design Institute, radically rethink the tulou through programmatic, structural and spatial transformations towards a new commons – finding new reasons for living together.

We propose two strategies: the Plug-in on the outside and the Tower on the inside of the tulou.

The Plug-in project rethinks the defensive wall by taking the tulou inside out, opening it to the new surroundings. Individual transformations such as plug-in of toilets already occurred in the tulou that was previously renovated into a children's school by the Government. This prototype transforms a small window in a new entrance, adding a public reading room to the already functioning school. The funnel staircase plugged into the opening invites people to sit, read and rest in the shadow, while serving as an open amphitheatre for activities in the courtyard.

The Tower project rethinks the public space of the tulou raising up the traditional collective courtyard, connecting each floor to a circular stairway to the sky. The upper corridor of the tulou will become a public reading room; the changing rhythm and dimension of the steps encourage people to sit, and read, drink tea, walk on the bridges or contemplate the view from the upper balcony.











JOCKEY CLUB HKU RURAL-URBAN DESIGN PROJECT

DEFINING COMMUNITY: THE GER INNOVATION HUB

RURAL URBAN FRAMEWORK
WITH HKU AND HKU SPACE ARCHITECTURE STUDENTS

For thousands of years, Mongolians have been living in gers – portable structures made of timber, felt and canvas. They are highly evolved designed objects: their circular form is structurally stable; the timber component parts make it easy to disassemble, move and reassemble in a matter of hours. It is a perfect house for the nomads. Yet, when this house forms the basic unit of inhabitation for the city, fixed in place, bounded by a fence and replicated hundreds of thousands of times, the resulting urban condition becomes highly problematic. These districts have no running water or sewage systems and in the extreme winter, with temperatures reaching –40 °C, coal is the main source of heat, resulting in debilitating air pollution. 70% of Ulaanbaatar's population live in these sprawling settlements that also desperately lack civic and community infrastructure. The aim of the project is to create a new focal point to enable residents to strengthen their community and forge new methods of collaboration.











SHANGHAI STUDY CENTRE

The Shanghai Study Centre of the Faculty of Architecture, The University of Hong Kong, was established in 2008. It is housed in the historical Post Office Building, on Suzhou Creek. The education of an architect, of landscape architects and real estate/surveying professionals is immersed in issues of globalization, and the Faculty of Architecture is fully cognizant of the importance for students at HKU of broadening their education beyond Hong Kong through an immersion in the issues and cultures of China. To address this, the Faculty of Architecture initiated and set up a program whereby every undergraduate in the Department of Architecture and the Division of Landscape Architecture is required to spend one semester of their studies at the Shanghai Study Centre, without interrupting their degree program at HKU. The primary motivation for the establishment of the Centre was to create a place devoted to the education and the dissemination of ideas in architecture, landscape, and urbanism, and to create a site for research, experimentation, speculation, and invention—where discourse and practice may be combined. Shanghai is a cosmopolitan city with a global vision on a par with Hong Kong and the Centre's location in Shanghai is ideal for the Faculty of Architecture. The city has some of China's top universities, a number of which have been academic and research partners with HKU for many years. The Centre benefits both HKU and those partnering universities involved in joint teaching with the Faculty of Architecture, including Tongji University, Harvard, Princeton and Yale Universities, and The University of Pennsylvania. It also provides a common and convenient platform for future academic exchanges between Hong Kong and Mainland China and for overseas students pursuing studies in architecture, architectural conservation, construction management, landscape architecture, real estate, surveying, urban design and urban planning.

FACILITIES

Coupled with a robust network infrastructure and expert staff, the Department of Architecture provides a rich educational and research driven environment, allowing Architecture students to merge traditional craft-based construction with digital imaging and fabrication techniques.

The Department has created a comprehensive, state-of-the-art Fabrication Laboratory, through a combination of the traditional wood workshop with substantial computing and imaging facilities.

The Fabrication Laboratory comprises a wood workshop and individual laboratories for laser cutting, rapid prototyping and CAD. It is open to all students enrolled in the Faculty of Architecture and provides a range of fabrication equipment including laser cutters, a CNC mill, 3D printers and a various traditional machinery. Trained technicians are on hand to offer advice and assistance, and moderate access to the equipment.

WOOD WORKSHOP

The Wood Workshop is equipped with standing machines and both hand and power tools for working in wood, in some plastics, and in soft non-ferrous metals. Students are provided with instruction, and with facilities for model-making and general fabrication methods.

LASER CUTTING LABORATORY

The lab operates seven laser-cutting machines of various sizes and capabilities allowing students to cut or engrave patterns into materials such as paper, cardboard, MDF, and cast acrylic sheets up to 6mm in thickness.

RAPID PROTOTYPING LABORATORY

The Rapid Prototyping Laboratory (RPRO) houses a number of digitally driven additive and subtractive manufacturing systems including a 3-axis mill and a range of 3D printing machines.

CAD LABORATORY

The CAD Laboratory is the main room for teaching software. It hosts more than 50 computers, with roughly half the workstations equipped with Full HD displays. A third of the computers are replaced each year and most of the software is purchased with upgrade subscriptions. The CAD Laboratory is open 24 hours a day, 7 days a week.

THE KENNETH FRAMPTON ARCHITECTURAL BOOK COLLECTION

The Department's collection of books is primarily focused on architecture and urbanism, and has been assembled over the past half century by Kenneth Frampton, an internationally revered architectural historian and critic. Consisting of approximately 10,000 books, the library combines original architectural documentary material covering a wide range of geographical areas, as well as complementary critical studies and scholarly interpretations. A vital centre of architectural knowledge, the collection embodies the passion and dedication that sustained Professor Frampton's tireless pursuit of architectural ideas throughout his long career.

In the spring of 2016, with a generous donation from a group of architects in Hong Kong and Mainland China, and the gracious consent of Professor Frampton, the Department of Architecture (DoA) at HKU shipped the books from his apartment in New York to Hong Kong, where they will be placed as part of the permanent collection in the Department. The collection will be accessible to HKU teachers and students, visiting scholars and professionals and will serve as a cultural base for the DoA to build its archival collection and support a broad range of academic programmes. With the installation of the Kenneth Frampton Architectural Book Collection, the DoA offers a rich source of knowledge, enabling a unique cultural exchange between HKU, the architectural community in Hong Kong, the Asian region and the world at large.

SCHOLARSHIP OPPORTUNITIES

HKU and Faculty of Architecture provides merit and need based scholarship opportunites for incoming and current students, including the following:

HKSAR Government Scholarship Fund

HKU Foundation Scholarships for Outstanding Mainland Students

HKU Worldwide Exchange Scholarship

Aedas Travelling Scholarship

P&T Travelling Scholarship

Chiap Hua Cheng's Foundation Scholarship

Francis Lau Scholarship

Jardine/Henry Lo Scholarship

The Italian Cultural Society of Hong Kong – Leo Tung-hai Lee Fund

The Nascence Scholarships for Postgraduate Students in Architectural Studies

Szeto Wai Architecture Scholarship

Wong Tung & Partners Scholarship

Yu Chun Keung Memorial Scholarship

David Wong Memorial Prize

Fosroc Prize

Ho Fook and Chan Kai Ming Prizes

Hong Kong Institute of Architects Student Medal

J.H. Kinoshita Prizes

Professor K.C. Lye Design Prize in Architecture

Leigh & Orange Design Prize

Minnette de Silva Prize

Sir Ove Arup Prize for Structure

Y.M. Wong Memorial Prize

Reaching Out Award

Rev.Fr.E. Bruzzone Memorial Travelling Scholarship

The Centenary Scholarship Fund

Wharf Architectural Internship

HKIA Student Medal

K&W Architects Scholarship

INTERNATIONAL STUDENT EXCHANGE PROGRAM

In line with the University of Hong Kong's commitment to developing a global perspective and cross-cultural understanding among its students, the Department of Architecture has an international student exchange program for advanced undergraduate degree students in architecture with top ranked schools worldwide. This program provides students with invaluable opportunities to benefit from broader perspectives and experiences that diverse academic and cultural environments offer.

Established and semester-long international student study programmes are hosted by the following institutions:

EUROPE

Academy of Fine Arts Vienna (Austria)
Ecole Nationale Supérieure d'Architecture Paris Malaquais (France)
IE University (Madrid, Spain)
Swiss Federal Institute of Technology Zurich (Switzerland)
University of Amsterdam (Netherlands)
University College London (United Kingdom)
Aalto University (Finland)
The Royal Danish Academy of Fine Arts (Denmark)

UNITED STATES/CANADA

Massachusetts Institute of Technology (Cambridge, USA)
University of California (Berkeley, USA)
University of Michigan (Ann Arbor, USA)
Université de Montréal (Quebec, Canada)

MAINLAND CHINA/ASIA/AUSTRALIA

Tsinghua University (Beijing)
Tongji University (Shanghai)
Tianjing University (Tianjing)
Southeast University (Nanjing)
University of Tokyo (Japan)
Griffith University (Brisbane, Australia)
National University of Singapore (Singapore)

STAFF

Staff at the Department of Architecture includes both scholars and practicing professionals committed to the integration of scholarship and design research. With opportunities for design workshops, international exchanges, and study travel, graduates of the Department of Architecture are well prepared to engage with and lead both international and local communities of architects and designers.

HEAD OF DEPARTMENT

Schuldenfrei, Eric H.

BArch Cornell; MPhil Cambridge; PhD Cambridge; AssocAIA

eschulde@hku.hk

ANDREW KF LEE PROFESSOR IN ARCHITECTURE DESIGN

Wang, Wei Jen 王維仁

BSc, MSc Nat Taiwan; MArch UC Berkeley;

FHKIA; HKID wjwang@hku.hk

PROFESSOR

Seraji, Nasrine 師瑞琪

AA dipl FRIBA ns1001@hku.hk

VISITING PROFESSOR SINCE 2014

Abrons, Ellie

BA NYU; MArch UCLA; University of Michigan

T+E+A+M

AlSayyad, Nezar

President, International Association, IASTE Editor, TDSR; Professor, Architecture and Planning IIC Parkelov

Planning, UC Berkeley

Chang, Yung Ho 張永和

Founder and Principal Architect, Atelier Feichang, Jianzhu; Professor, Tongji

University and MIT

Chen, Haoru 陳浩如 BSc NYU; BArch CCNY

Chu, Karl

Principal, Metaxy; Professor, School of Architecture, Pratt Institute, New York

Correia Utrabo, Gustavo

BArch (Brazil); Estúdio Gustavo Utrabo

Dan, Norihiko 團紀彥 Principal, Norihiko Dan & Associates

Eberle, Dietmar

Founder, Baumschlager Eberle, Switzerland

Ge, Ming 葛明

Professor, Vice Dean, School of Architecture, Southeast University

Hu, Rosanna 胡如珊

Founding Partner, Neri&Hu Design and Research Office, Shanghai

Jiang, Ying 蔣瀅

Principal, O-Office, Guangzhou

Jacob, Sam

BArch MSA; Grad Dip (Arch) Bartlett UCL; Sam Jacob Studio

Kojima, Kazuhiro 小嶋一浩

Professor, Yokohama Graduate School of Architecture

Kontozoglou, Kalliope

Founder, Kalliope Kontozoglou Architects

Liu, Xiaodu 劉曉都

Principal, Urbanus Architecture & Design Inc., Shenzhen

Maas, Winy

Director, Founder, The Why Factory, TU Delft; Co-Director, Co-Founder, MVRDV, Rotterdam

Menis, Fernando

Principal, Menis Arquitectos Architectural Studio, Tenerife

Obuchi, Yusuke

BArch UToronto; BArch SCI-Arc; MArch Princeton; PhD UTokyo

THE UNIVERSITY OF HONG KONG

248 PUBLIC PROGRAM / RESOURCES

Onoda, Yasuaki 小野田泰明

Professor, Department of Architecture and Building Science, Graduate School of Engineering, Tohoku Univ, Tohoku

Takeyama, Kiyoshi Seyi 竹山聖

Professor, University of Tokyo

Wang, Shu 王澍

Principal, Amateur Architecture Studio, Hangzhou, China; 2012 Pritzker Architecture Prize Laureate

ASSOCIATE PROFESSOR

Bolchover, Joshua P.

DipArch UCL; MA Cantab MArch Program Director jpbarch@hku.hk

Chang, Wallace P.H. 鄭炳鴻

BA(AS), BArch HKU; MArch MIT; RIBA, FHKIA; HKIUD; AssocAIA; RA (HK, PRC) phchang@hku.hk

Du, Juan 杜鵑

BDes Florida; Cert (VIA); MArch Princeton; AssocAIA jduhku@hku.hk

Garcia, Renato J.C.

BSArch, BSCE UP; UAP; PICE; Arch, Civil Eng, PRC (Philippines) rjgarcia@hku.hk

Jia, Beisi 賈倍思

BEng Nanjing Inst of Tech; PhD Southeast; PGCArch, PDR ETH Zurich; IFHP; CIBW104; AssocHKIA bjiaa@hku.hk

Lin, John C.H. 林君翰 BArch Cooper Union

johnlin@hku.hk

Roskam, Cole 羅坤

BA Connecticut College; MA, PhD Harvard roskam@hku.hk

Seng, Eunice M. F. 成美芬 BA(AS) NUS; MArch Princeton; MPhil, PhD Columbia; RA (SBA); AssocAlA Departmental Research Postgraduate Committee Chair eseng@hku.hk

Tsang, Thomas H.K. 曾慶豪 BArch Cooper Union, FAAR howtsang@hku.hk

Zhu, Tao 朱濤 BSc Chongqing U; MArch, PhD Columbia University taozhu@hku.hk

ASSOCIATE PROFESSOR OF PRACTICE

Lee, Anderson L.C. 李亮聰 BSc Michigan; MArch Princeton; RA (Hong Kong, New York); AIA HKIA RIBA andelee1@hku.hk

Ottevaere, Olivier
BSArch McGill; BArch Cooper Union;
MscArch Bartlett UCL
BA(AS) Program Director
otteva@hku.hk

Tam, William 譚偉霖 BA(AS), DipArch(Dist), MA, Sheffield; RIBA; ARBUK; HKIA; RAHK; PRCRA (Class 1) Qualification

ASSOCIATE PROFESSOR (TEACHING)

Lange, Christian J.
Dipling HTWK Leipzig; MSAAD Columbia;
AIK-SH
cjlange@hku.hk

THE UNIVERSITY OF HONG KONG

ASSISTANT PROFESSOR

250 PUBLIC PROGRAM / RESOURCES

Au, Fai 歐暉

BArch RMIT; MDes Harvard; MA(Philosophy) CUHK; HKIA; RA(HK) faiau@hku.hk

Borio, Géraldine

BArch MArch EPFL; RA(Swiss) gborio@hku.hk

Devabhaktuni, Sony

BA Stanford; BArch Cooper Union; Fulbright Fellow; MA Paris III (Indian Studies) sonydev@hku.hk

Holohan, Donn

BSc(Arch), MArch UCD donn@hku.hk

Kirchhoff, Ulrich Nikolaus 悟理柯和

Dipl.-Ing. Arch ulrich@hku.hk

McKee, Daniel Chad

BDes Florida; Cert(VIA); MArch CCNY; LEED AP; RA (New York State) dcmckee@hku.hk

Schling, Eike

DR.-ING. Architect; BYAK schling@hku.hk

Wee, H. Koon 黃向軍

BA(AS) Singapore; BArch W Aust; MArch Yale; RA, SBA koonwee@hku.hk

Xu, Zhu 徐翥

BArch(Zhejiang); MArch, PhD(HK) zhuxu@hku.hk

Zhou, Ying 周穎

BSc(Eng) Princeton; MArch Harvard; PhD ETHZ; Fulbright Fellow yinzhou@hku.hk

PUBLIC PROGRAM / RE	:SOURCES 251
---------------------	--------------

SENIOR LECTURER Gao, Yan 高岩

BArch Tsinghua; MArch AA; RIBA; ARB

Jung-Harada, Cesar 原田実

MA Design Interactions,

Royal College of Art; MA Animation Film, École Nationale Supérieure des Arts D

écoratifs

harada@hku.hk

Lim, Jae Hyun 林宰賢

BArch Cooper Union jaelim@hku.hk

LECTURER Catalan, Marta

BArch, MScArch UPM; PhD HKU

Ettel, Nikolas

BArch AkBild; MA(AH) Bartlett

Lampard, Peter

B.EnvD Texas A&M; MArch HKU

Leung, Rosalia H.C. 梁皓晴

BAAS, HKU; DEA, M.Arch, ENSA Paris-

Malaquais

Requejo-Belette, Roberto

BArch Cornell AAP; MSAAD Columbia GSAPP;

NCARB; Assoc. AIA

Su, Chang 蘇暢

BA(AS) HKU; MArch Harvard; RA; AIA

Ting, Evelyn H. C.

BA(AS) Columbia; MArch MIT

Wu, Edwin D.H. 吳鼎航

BA HNU; MEng SCUT; PhD HKU

ASSISTANT LECTURER Ratoi, Lidia V.

BArch UAUIM; MArch UAUIM; PgD IAAC

252 PUBLIC PROGRAM / RESOURCES

ADJUNCT ASSOCIATE PROFESSOR

Kehne, Holger

BSc(Arch), Pg Dip(Arch) UEL;

(Arch) ARB AKNW

Portefaix, Valerie M. F.

BA France; MArch, M.Phil ENSA-PB;

PhD UPMF

Yeung, Mona T. N. 楊紫萼

BES, MArch U of M; HKIA; RIBA; RA(HK), AP

ADJUNCT ASSISTANT PROFESSOR

Bedir, Merve

BArch, MArch Turkey, PhD TU Delft

Bond, Jason

BED Texas A&M; MArch Yale

Chung, Harvey

BSArch Michigan; MArch Yale

Evans, Kurt Erik

BSArch Michiganl MArch Yale; MSRED,

Columbia

Hirabayashi, Miho 林平美穗

AA Dipl AA London; RIBA

lp, Tony C. M. 葉頌文

BEng, MSc(Eng), MArch (Dist.), MUD (Dist.)

HKU; BBE(Arch) (Dist.) QUT;

MSt IDBE Cambridge; AP(HK); HKIA; HKIUD; PIA; BEAM Pro; BREEAM AP, LEED AP BD+C &

ND; WELL AP

Kokora, Michael

BA UMN; MArch Yale

Mui, Paul

BA(AS)HKU, AA Dipl; RA(ARB UK); HKIA RA

VISITING ASSISTANT PROFESSOR

Pinochet, Andrea

BArch Cooper Union; MEng UPC

Vatn, Espen

BArch Cooper Union; MArch AHO

VISITING LECTURER

Herunter, Eva M.

BArch Vienna; MscArch EPFL

THE UNIVERSITY OF HONG KONG

PUBLIC PROGRAM / RESOURCES 253

HONORARY PRO	PESSOR
--------------	--------

Chang, Yung Ho 張永和 MArch Berkeley; AIA

Lung, David P.Y. 龍炳頤

BArch, MArch, MA Oregon; FHKIA; HonHKIP;

RA(HK); JP; SBS; MBE

Yim, Rocco S.K. 嚴迅奇

BAAS(Hons); BArch(Dist); DSocSc(Hon)(HK);

BBS; JP; FHKIA; RIBA; HonAIA(HK)

HONORARY ASSOCIATE PROFESSOR

Maing, Minjung 孟玟廷

BA; BSc (U. Pennsylvania); MArch (MIT); MS (Stanford); RA (USA); AIA; NCARB; Professional Engineer (P.E.); LEED AP

Wong, Wah Sang 黃華生

BA(AS); BArch; PhD(HK); FHKIA; RIBA; ARAIA;

APEC Architect: RA(HK); AP

TEACHING STAFF AT SHANGHAI STUDY CENTRE

Ko, Oscar Y.T. 高亦陶 B.Sc.(Arch) Michigan; MArch Columbia

Liu, Kenan 劉可南 BArch, MArch Tongji

Li, Zhaofan 李兆凡

Pan, Bin

Zhou, Darren

BA(Arch) Columbia; MArch Princeton;

LEED AP

Zhou, Jianjia 周漸佳

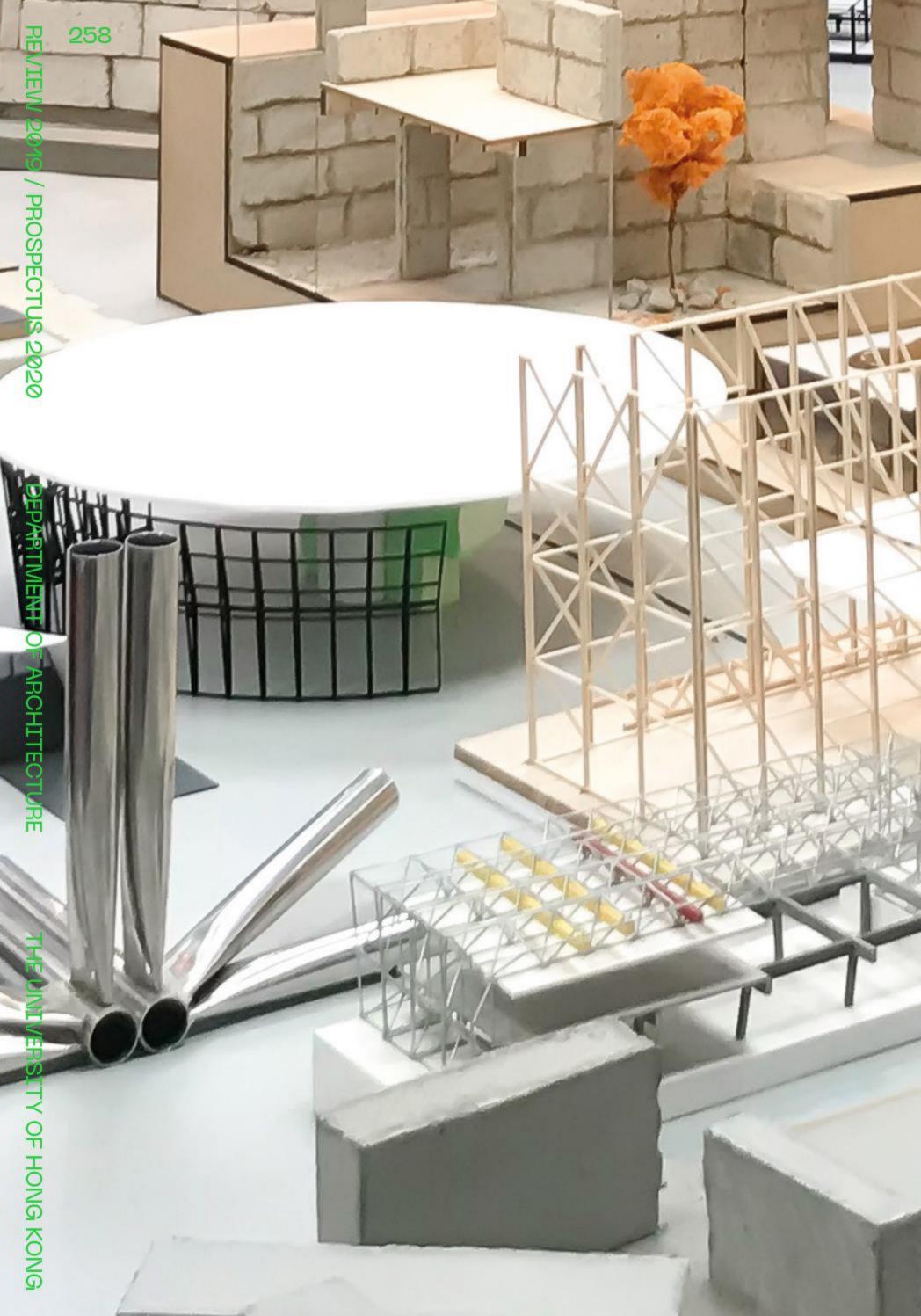
BArch, MArch Tongji; MArch Cooper Union













BOOK DESIGN Anthony Lam

TYPEFACE IN USE Neue Machina by Pangram Pangram Foundry DM Sans by Colophon Foundry

PAPER Ivoprint Ivory Woodfree (FSC™ Certified) 120gsm Biancoflash Ivory (FSC™ Certified) 300gsm

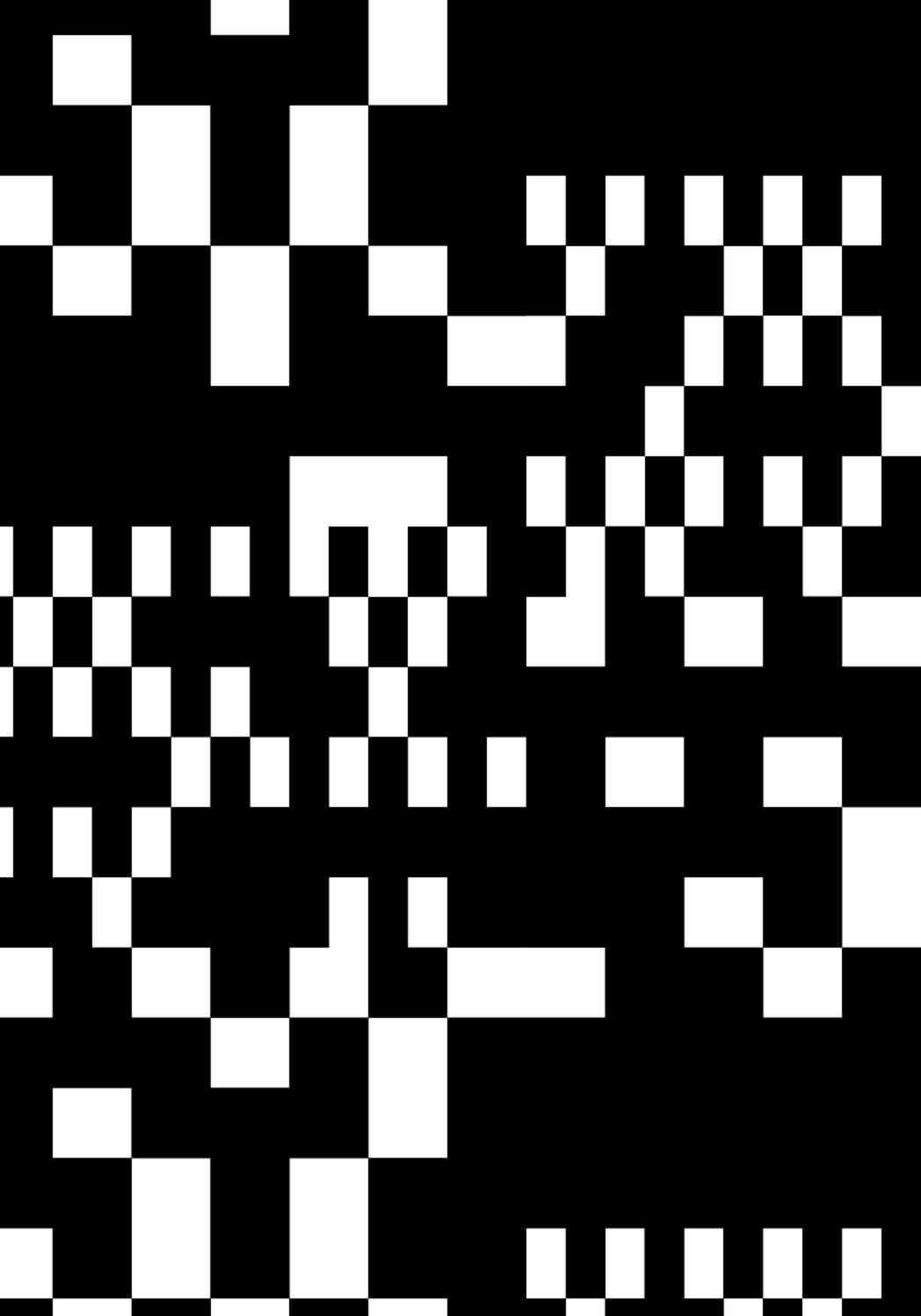
PRINTED AND BOUND IN HONG KONG BY Regal Printing Limited

PUBLISHED BY Department of Architecture The University of Hong Kong

Images by Department of Architecture, The University of Hong Kong. All rights reserved. No parts of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic mechanical, photocopying, recording or otherwise, without prior permission Department of Architecture, The University of Hong Kong.

For information about admissions to the academic programmes please contact the Secretary of the Faculty of Architecture faculty@arch.hku.hk.

ISBN 978-988-78350-0-4



DEPARTMENT OF ARCHITECTURE THE UNIVERSITY OF HONG KONG

T (852) 3917 2133 F (852) 3917 0067 E architecture@hku.hk 提明 物速

http://arch.hku.hk

