The University Of Queensland
AUSTRALIA

CREATE CHANGE

Master of Architecture

Studio and Research Offerings
Teaching Period 5 & Semester 2 2024

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ARCH7003
Advanced Architectural Design: Adaptive Capacities

Course coordinator
Yohei Omura

Course assist
Jonathan Kopinski

Suburban Creek Landscape: Strategies of Adaptation

This studio proposes an expanded adaptive design approach, shifting the focus beyond heritage structures to encompass the broader concept of cultural landscape. Specifically, we will delve into the communal potential of the suburban creek — natural arteries that are both overlooked by or hidden within plain sight of the suburban fabric that surrounds them.

Our focus lies on Scrubby Creek, situated on the Brisbane-Logan border. Logan is one of Queensland's fastest-growing regions, and Scrubby Creek exemplifies the pressures of suburbanisation. Here, diverse elements — ecosystems, historic structures, new housing developments, commercial and industrial buildings, multicultural community facilities, and religious institutions — exist in close proximity, yet remain largely autonomous from each other. We view the creek, which traverses these designated zoning areas, as an opportunity to foster unexpected and intricate community networks. This also presents a chance to establish a complementary coexistence between these creek ecosystems and newly emerging communities.

The studio will commence with an exploration of conventional architectural typologies found along the creek, paying particular attention to their unique relationship with the waterway. We will investigate the adaptation of these established natural and urban environments by transforming existing buildings (such as private residences, offices, and industrial sites) into semi-public spaces. This will involve the insertion of new programs while preserving the original purpose and functionality of each existing structure. Each student will develop a network of small- to medium-scale projects across multiple buildings and sites, always prioritising the ecological integrity of the environment.

This studio aims to envision a transformed Scrubby Creek landscape, that both supports the community and is in turn supported by the community.

ARCH7004
Advanced Architectural Design: Dwelling and Density

Gentle Density for the Missing Middle

Course coordinator
Michael Dickson

Housing policy, neighbourhood design, and housing design are inextricably linked. Choice, diversity, access to open space, community amenity, walkability, and employment and leisure activities come together to create vibrant and loved neighbourhoods. A whole-of-suburb approach improves the sustainability of our cities with strong social and community support networks.

Missing middle is a buzz phrase that describes small to medium scale multiple dwellings that sit in a spectrum of types and scales between detached suburban houses and larger scale apartments. This type and scale of housing is beneficial to increase suburban densities to sustainable levels for provide critical mass for better access to services and public transport without significantly impacting the amenity of current residents. In current housing policy, the term *missing middle* is being replaced with *gentle density*; similar approach but updated to reflect the progress made in retrofitting our suburbs over the past 10 years.

However, there is still a large *missing middle*. This is not about housing, but people. There is a lot of press around the demand for social housing but who is eligible for it? Supply constraints and eligibility categories have made difficult the lives of those people who are not disadvantaged enough to qualify for social housing, but not advantaged enough to sustain a house in the private rental or ownership market. Strategies to address this kind of *missing middle* present a more difficult problem.

The S2 2024 Dwelling and Density studio will address the people of the *missing middle*. We will use a large site near public transport in the Brisbane middle ring to develop a whole-of-precinct solution that accommodates a spectrum of housing types. This leading urban design work will be done in groups. Following the lead in work we will break into three streams taking on either co-housing, affordable community housing provider housing, or market led affordable housing. We will have input from client advocacy groups including the Housing Older Women group and subject matter experts involved in the sector policy and design. We will focus on affordability from cost, to operation, and focus on novel forms of construction including prefabrication and emerging forms of tenure and ways of living.

ARCH7007
Advanced Architectural Design: Masterclass

This course is co-badged with UDAD7004 Urban Design: Masterclass.

"Community Oriented Development": The Urban Designer as Choreographer, Conductor, Performer in Harmonising Development Pressures and Community Needs.

Course coordinator
Dr Susan Holden

Studio Leader
John Achari
Director of Achari Concepts (Singapore and Australia)
https://www.achariconcepts.com/about
https://www.linkedin.com/in/john-achari-627a6021/

John is an internationally experienced strategic planner and urban designer with a focus on sustainable development. He will be based in Brisbane for the duration of the course and will lead the weekly studio sessions.

As we integrate new technologies to improve our daily lives the liveability of cities continues to be challenged by the effects of climate change, housing needs, urban economics, socio-cultural challenges, and societal pressures from demographic shifts, amongst other factors.

The 2024 Semester 2 Masterclass offers students a platform to address these global challenges within a local urban context. It emphasises the role and function of suburban and regional centres as Community Oriented Developments (COD), which include multi-modal transit facilities supported by appropriate land uses and development density, while balancing community needs.

In this course students are encouraged to role-play as urban designers, facilitating the development of an urban context while facing challenges encountered by professionals in urban development. They will learn to use various tools to strengthen their propositions through persuasive arguments.

The primary objective is to identify feasible outcomes through the physical transformation of a piece of the city via urban social innovation, including land use changes, mobility strategies, and considerations of green and blue infrastructure. Students will critically evaluate the issues presented, research opportunities to support their proposals, and explore implementation methods. These methods might include physical development proposals, regulatory frameworks, and partnerships, all underpinned by social, environmental, and economic evaluations.

The project task involves identifying a suburban location in Brisbane that currently is or has the potential to become a regional centre. Students will leverage its community and transit-oriented potential to develop innovative, feasible and implementable urban design solutions for transforming the precinct.

ARCH7015
Advanced Architectural Design: Generative Structures

Deep shade in Forest and Field

Course coordinator
Dr Cathy Keys
Dr Kim Baber

In ARCH7015 Generative Structures, students will establish a critical position regarding the cultural and historical role of the sustainable management of forest resources, and design a suite of landscape interventions and novel structures. The project will look at best practice timber construction methodologies and how they may be applied to agricultural buildings and timber infrastructure. Over the semester, students will investigate the design of an ambitiously spanning agricultural building with accompanying public showground pavilions and a timber pedestrian bridge.

The course will include a close collaboration with Civil Engineering students from CIVL4334 and involve detailed studies of timber construction undertaken as groupwork. Students will attend tutorials on campus and these are intended to involve a degree of hands-on experimentation working with timber models and prototypes in the Workshop and Co-Lab beginning with an intensive build during O-Week.

UDAD7016
Urban Design: Responsive Environments

Course coordinator
Dr Paola Leardini

Studio Leader
Cathryn Chatburn

TEACHING PERIOD 5: This course runs from 24 June 2024 until 17 August 2024, with a two-week intensive from the 1-12th of July.

Brisbane 2032 Olympic Legacy
A design toolkit to deliver resilient urban futures.

The green and gold road to Brisbane 2032 will be paved with opportunities to transform our state forever. Its legacy can profoundly shape our communities, our city, region and nation[1].

Studio Context
The Brisbane 2032 Olympic and Paralympic Games, to be hosted across multiple venues and sites in SEQ and Queensland, will be the first contractually obliged to operate as 'climate positive' - they will need to offset more carbon emissions than they produce. In preparation for these Games, all levels of government, industry and community are undertaking planning to ensure not only the success of this international event, but the ambition and opportunity for the Olympic legacy are realised. 'Olympic legacy' includes the long-term benefits that the Olympic Games create for the host city, its people, and the Olympic Movement before, during and long after the Olympic Games[2]. Critical to this ambition will be the creation of a vibrant urban setting of connected precincts that deliver social, environmental and economic benefits for residents and visitors to Brisbane, South Est Queensland (SEQ) and Queensland well beyond the Games. In this scenario, 'legacy' means enhancing everyone's access to social and economic opportunity through connected, high quality public spaces, and spreading the well-being benefits of the Games to all by making more walkable, climate resilient and ecologically healthy urban environments.

Studio Focus
The studio will focus on Brisbane, as the centrepiece of the Games. It will consider the city as a platform to develop urban initiatives and interventions that contribute to the delivery of a successful Olympics program and achieve the long-term urban resilience and community benefits central to the Olympic Legacy commitments.

Studio Format
The core of this studio is an intensive, 2-week design workshop, where students will work alongside industry exploring the opportunities for precinct scale urban resilience triggered by the Olympics. They will be encouraged to test, and challenge, established thinking and large-scale design schemes, before undertaking a micro scale, location-specific study to develop and iteratively advance through local implementation a design toolkit for urban resilience. The collective output of the studio will create an urban design resource with region-wide applicability to deliver long term urban sustainability, resilience and community benefits following a successful and memorable Games.

[1] Hon Minister Stirling Hinchcliffe, Minister for Tourism, Innovation and Sport and Minister Assisting the Premier on Olympics and Paralympic Sport and Engagement
[2] https://olympics.com/ioc/olympic-legacy

ARCH7075
Research Lab: Computation & Digitisation

Course coordinator
Dr Dan Luo

This course introduces computational design tools related to all building design professions, as well as methods for digital interoperability between design processes. It provides a systematic exploration of digital technologies encompassing design, structure optimisation, fabrication, and construction. These topics are presented based on research into digital workflows of built projects conducted by pioneering research groups and industry practices.

To enhance students' familiarity with interdisciplinary digital workflows, this course will be co-taught with Civil Engineering students enrolled in CIVL7360. The assessments have been carefully designed to align with the learning objectives of both courses. Additionally, extensive research information has been prepared to support students in developing their final projects.

The course content includes the early introduction of the concept of component modularity and interchangeability, emphasising their importance within the digital workflow. The technical tutorials is revised to include latest software capacities. Moreover, an advanced fabrication section has been included to establish a comprehensive digital design workflow that bridges design, structure analysis, and fabrication. Students with access to school facilities will have the option to apply these processes using UQ Innovates fabrication facilities, including 5-axis CNC mills or UR10 robots.

ARCH7094
Research Lab: Culture & Place

Course coordinator
Ms Carroll Go-Sam

This course focuses on the uses and understanding of Indigenous built environments and how designers can adapt them to better meet resident cultural, economic and social needs through supportive living environments. The course introduces theoretical and methodological skills of evidence-informed design such as forms of analysis, evaluating evidence, research and design practices. The course includes a critical understanding of the principles of engagement, statutory regulation, relevant codes, housing policy and resident responses to the houses they live in. Students will learn researching, documenting and analysing existing built environments to propose evidence grounded design solutions.

Students will explore the discrepancy between current Indigenous housing and town designs and the United Nations' criteria for housing adequacy. Guided instruction will focus on retrofitting existing housing models to better cater to the diverse requirements of community residents across all age groups

DSGN4000
Special Topics

Enduring Design Masterclass

Course coordinator
Dr Kelly Greenop

Expert participants
Uncle Bumi Peter Hyde

Dr Shaneen Fantin (People Oriented Design, Cairns)

Peter Marquis Kyle (co-author of the Illustrated Burra Charter)

Jack Barnes (expert timber master crafter)

Maurice Potrzeba (master bricklayer)

Steve Sullivan (stone masonry teacher Queensland TAFE)

Plus more to be confirmed.

This course is a unique collaboration between UQ and the King's Trust Australia, and numerous heritage craft experts to provide a hands-on series of workshops where students learn traditional building practices and knowledges ranging from First Nations to colonial building traditions.

Workshops will include First Nations traditional shelter building – a *bulmba* – with Uncle Bumi Peter Hyde (Gimuy Walubara Yidinji), traditional Queenslander timber work, stone masonry, brick laying, heritage building hand-measuring and architectural hand-drawing, and life drawing.

In the Enduring Design Masterclass students will learn about and seek to understand some aspects of the diverse traditional building cultures found within Australia. Students will take some element of their experiences from the workshops and build this into a research project around that building tradition, skillset, or other component. These workshop sessions will be taught by invited craftspeople and eminent heritage professionals, and students will learn, document, practice and enquire into the place of these traditions within a contemporary architectural context.

This 2-unit course is only open to a limited number of students. Enrolment for DSGN4000 in Semester 2 2024 is by **application only**.

Please visit the following page for more information including how to apply: https://adp.uq.edu.au/2024-enduring-design-masterclass

UDAD7014
Contemporary Urbanism

*Students following the 2023/2024 Master of Architecture program structure must complete UDAD7014 as a **MArch Core Course.***

*Students following the pre-2023 program structure can choose UDAD7014 as a **MArch Research course.***

Course coordinator
Dr Susan Holden

UDAD7014 offers a critical analysis of contemporary urban development and design that considers the history of cities, the effect of modernity on urbanisation, and a range of theoretical positions that engage with environmental, social and economic challenges of urban habitation. The course introduced key projects and concepts that define the urban design field. It also introduces students to the diverse ways built environment professionals engage with the design of cities, and the disciplinary frameworks that inform contemporary urban design practice. Students acquire knowledge and skills relevant to the urban design field by completing an advanced research project, and develop skills in the critical analysis and evaluation of urban projects through a range of learning activities and an exam

MGTS7618
Wise Leadership

*This course is only available to students following the 2023/2024 Master of Architecture program structure and will count as a **MArch Elective Course.***

Students following the pre-2023 program structure cannot choose MGTS7618 as this course will not count towards the pre-2023 program.

Course coordinator
Dr J. Brienza

The concept of leadership is now widely understood neither as charismatic nor transactional. Instead authentic leaders who can transform organisations are desired by organisations as diverse as the armed forces and medical practice. Effective leaders need to be able to create missions and implement strategies that respond to longer term sustainability of the organisation as well as the society in which it operates and, ultimately, the very earth from which we sustain life. This course asks participants to continually reflect on their leadership capability in terms of wisdom principles of leadership that evolve throughout the course.

ENVM7100
Foundations of Sustainable Development

*This course is only available to students following the 2023/2024 Master of Architecture program structure and will count as a **MArch Elective Course.***

Students following the pre-2023 program structure cannot choose ENVM7100 as this course will not count towards the pre-2023 program.

Course coordinator
Dr Anthony Halog

Our world continues to face difficult and confronting issues relating to our past and present development pathways. This course thus provides foundational knowledge of the principles of sustainable development as a possible way to balance social equity, environmental sustainability and economic needs. This course draws on numerous case studies from around the world to illustrate the complexity of sustainable development issues and their implicit trade-offs.

ARCH7061/ARCH7063
Architectural Research: Thesis

Course coordinator: John Macarthur

ARCH7061 – Year-long, four-unit thesis
ARCH7061 is a guided independent research project conducted through a series of advisory meetings and self-directed study. It is a year-long, 4-unit course that will require a submission in May 2025. Thesis offers students the opportunity to undertake a focussed research project in a specific area of research interest. The course expects students to achieve an advanced level of academic argument and the mastery of instruments for constructing and expressing that argument.

The research project culminates in a body of work that communicates the process, outcomes and value of the research. This may include, as agreed with the thesis advisor, a written dissertation, fieldwork reports, artefacts from material experiments, and research reports.

Students will have an individual advisor and meet one hour per week, or a blocked equivalent. The thesis student cohort, coordinator and advisors will meet together during the semester to provide all with an overview and comparison of the research being undertaken and the expectations for thesis.

ARCH7063 – One Semester, two-unit thesis
ARCH7063 is a 2 unit thesis course. The thesis will be submitted in Semester 2 2024. ARCH7063 has the same expectations for research quality and findings as ARCH7060, and the same requirements for the length of the dissertation, which will be marked on the same criteria. It is only suitable for students who have made substantial research findings in a prior Research Course that can be tightly articulated with 2 units of work in ARCH7063 to reach the standard of a thesis. A student's work in ARCH7063 can draw on work previously submitted for Research Courses, but this work must be clearly identified in the thesis and overall the thesis must represent two units of new work in research and writing carried out in the current semester.

Students who are considering enrolling in a Higher Degree by Research degree (Master or Doctor of Philosophy) in the future **are strongly encouraged to undertake the Thesis option.**

Thesis is available to students who:

- have completed **16 units** of the MArch program
- have, or expect to have a **GPA of 5.5** or above,
- for ARCH7063, have completed **2 units of Research Courses**
- and have the support of a potential advisor on a topic outlined on the application.

Students who do not meet the criteria above will be considered on a case-by-case basis.

There will be an information session about Thesis in the M.Arch program **Thursday 20th June, from 2.00-3.00pm, in 51-304**. John Macarthur will explain why you should consider enrolling for the Thesis and what is involved in the courses.

Application process
1. Identify a potential advisor who is a member of the full-time academic staff within the School. Please be aware that staff members are generally taking on Thesis students on top of their allocated teaching load, so you need to be working on a project of interest to them and where they have expertise. You can find descriptions of staff research interests at UQ Researchers We are unable to take on topics where no suitable staff are available to advise.

2. Discuss your ideas for thesis with the proposed advisor. You are welcome (and encouraged) to propose topics of your own interest.

3. If you are applying for ARCH7063 please show the research findings you have made in a previous course can be the basis of a thesis completed with 2 units of work.

4. Complete the application:
https://survey.app.uq.edu.au/ThesisApplication
Please complete this application form by **11:59pm 30 June 2024.**

5. The Course Coordinator will decide on applications in consultation with the proposed advisor, and on the basis of academic record. Following this, the School of Architecture, Design and Planning will advise you of the next steps.

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