



2027 Summer Research Project Description

Project title	CyBlocks: Machine-learning optimisation of robotic 3D-printed algae-based blocks
Hours & delivery	11 January–19 February 2027 (six weeks). Weekly hours within the 20–36-hour range; delivery mode; campus/facility; and working days. Robotic printing and image capture require scheduled access to approved fabrication facilities.
Positions Available	1
About the project	How might algae-based materials and intelligent fabrication help us rethink the way we build? BioBlocks brings architecture, materials research and artificial intelligence together to investigate robotic 3D printing with spirulina-clay composites. The challenge is to understand how material formulation, block geometry and printing settings interact, and to learn from limited experiments without relying on repeated trial and error. The research asks how machine learning (ML), supported by computer vision, can detect quality changes during printing and predict dimensional and surface performance afterwards. Cameras will observe material deposition as printing proceeds; calibrated photographs and, where available, 3D scans will measure shrinkage, warping and fissures after printing and drying. Linking these observations will help identify promising combinations for further testing. You will contribute to a reproducible learning workflow within an established programme of bio-clay experimentation, robotic fabrication and public exhibition, connected to the Building with Blue Biomass research context. Your work will help turn experimental observations into evidence for more resource-conscious design. This is an opportunity to explore a compelling question for architecture: how can we design with biological materials while learning carefully from the behaviour of each printed prototype?
What you'll do	You will begin by reviewing the BioBlocks research, organising existing records and helping define a manageable set of spirulina-clay formulations and printing parameters. Working with the supervisor, you will help calibrate camera capture and document baseline robotic prints, connecting images with material recipes, toolpaths and process logs. You will then develop image-based measures of deposition continuity and defects during printing, followed by measurements of shrinkage and geometric change after drying. Using Python, you will compare simple predictive models, assess error and uncertainty, and recommend promising settings for a limited confirmatory print series. Validation will separate complete print trials to avoid treating neighbouring video frames as independent evidence. You will finish by preparing a documented workflow, research report and presentation. All robotic operations and parameter changes remain subject to authorised supervision.
What you'll learn	You will learn to connect computational design with physical experimentation, developing an understanding of how biological materials behave through fabrication and drying. Practical learning will include experimental planning, calibrated image capture, dataset organisation and computer-vision methods for measuring print quality. You will also gain experience using Python to analyse data, compare machine-learning models and interpret prediction errors and uncertainty. Rather than assuming that a model is reliable because it fits existing examples, you will learn how to test its limits and communicate what the evidence supports. Maintaining reproducible records and presenting findings will strengthen your research communication. These capabilities will help you approach future design and research challenges with curiosity, technical confidence and critical judgement.



Project outcomes	By the end of the project, you will contribute a documented dataset linking material formulations, robot-process records, in-process video and post-print measurements. Expected outputs include prototype computer-vision workflows for live deposition assessment and post-print quality evaluation, together with a baseline ML model and ranked settings for future experiments. A limited confirmatory print series will depend on facility access, materials and safety approvals. A concise report and presentation will communicate the findings, uncertainties and next steps. The central achievement will be a tested method for learning from fabrication evidence, not a claim of construction-ready performance.
Who should apply?	This project welcomes motivated students in architecture, design, engineering, computer science, data science or related disciplines who are interested in sustainable materials and computational fabrication. Basic Python or equivalent data-analysis experience is desirable; previous machine-learning or robotics experience is helpful but not essential. Experience with digital modelling, image analysis or experimental documentation would also be useful. We value curiosity, careful observation, clear communication and a willingness to work across disciplinary boundaries. You should be comfortable learning through iterative experiments, including results that challenge initial expectations. Applicants must meet the Summer Research Program eligibility requirements.
Team & supervision	The project will be supervised by Associate Professor Fred Fialho Teixeira, Associate Professor in Design (Built Environments) in the School of Architecture, Design and Planning and Director of the UQ Visualisation Laboratory (VisLab). His research connects computational architecture, biological design and advanced fabrication. You will work with Fred on experimental planning, data interpretation and research communication, with fabrication activities coordinated through the relevant authorised facilities. Proposed supervision includes regular progress discussions and feedback on your analysis and presentation. [CONFIRM] Supervisor availability throughout the program and the laboratory support and access arrangements.
Additional opportunities	The project offers a foundation for a Summer Research presentation and possible future research or further study. Its wider context includes the Purpose Built and SHErobots exhibitions and Building with Blue Biomass exchanges across Copenhagen, Brisbane and London. Further dissemination, networking or publication may be explored where findings and opportunities are justified. These are not guaranteed outcomes of the six-week placement.
Additional requirements	Before practical work, complete the required laboratory and robotic-fabrication inductions and follow approved material-handling, personal protective equipment and data-management procedures. Robot operation and changes to printing parameters require authorised supervision. Facility-specific training and access arrangements will be confirmed before commencement.
Contact	Direct enquiries to Associate Professor Fred Fialho Teixeira: f.frederico@uq.edu.au .



2027 Summer Research Project

Project title	Exploring the Foundations of AI and Large Language Models for City Science
Hours & delivery	Duration: 6 weeks 11 January – 22 February 2027. Weekly commitment: Approx. 25 hours/week. 150 hours in total. Delivery mode: Hybrid — a weekly supervisor meeting held on campus or online, with a dedicated workspace available for independent and empirical work. Location: Zelman Cowen Building (Building 51), St Lucia campus.
Positions Available	1
About the project	Cities are increasingly adopting AI-enhanced tools to collect data, analyse urban systems, and automate planning workflows from chatbots that answer permitting questions to agentic systems that draft development applications. Yet the fields of urban planning, city science, and urban technology have barely begun to offer <i>a systematic, plain-language account</i> of what these tools actually are, how they work, or what core vocabulary ("agent", "skill", "fine-tuning", "retrieval-augmented generation") means outside an engineering or information science context. In short, industry practice is significantly outpacing academic pedagogy. This project addresses that gap directly. Over six weeks, you will build <i>foundational literacy</i> in generative AI and large language models (LLMs), using AI tools themselves as a primary research method for learning about AI's role in cities. "Learning about AI with AI" is treated not as a gimmick but as an efficient, reflexive research strategy: the student will use LLMs to survey the technical literature, test AI systems against real planning tasks, and critically interrogate the resulting outputs. The student's work will directly shape a research note that synthesises core AI/LLM concepts, models, and current applications for a non-technical planning audience - a foundation for a future field manual for educators and practitioners.
What you'll do	The student will progress through structured phases of the research: onboarding to AI/LLM fundamentals and building a shared glossary of key terms; cataloguing real-world AI/LLM applications in city data, analysis, and planning workflows, sorted by underlying technical mechanism rather than marketing language; hands-on testing of LLM tools against planning-relevant tasks (e.g. summarising a plan, drafting a notice) with documentation of observed capabilities and limitations; and critically comparing industry claims, academic literature, and first-hand findings to identify terminology inconsistencies and translation gaps. The project culminates in drafting, revising, and finalising a research note, alongside a landscape map and glossary for research showcase presentation.
What you'll learn	Students will develop foundational technical literacy in generative AI and large language models, including core concepts and terminology used across the AI industry. They will gain practical experience conducting a structured literature review that bridges academic and industry sources, and hands-on experience testing and critically evaluating commercial AI tools (ChatGPT, Gemini, Claude and Copilot) against real planning tasks. The project builds skills in critical synthesis, such as comparing claims across sources and identifying gaps or inconsistencies, as well as academic writing and research communication, through drafting a substantive research note under mentor feedback. Students will also gain experience presenting research findings to a broader academic audience.
Project outcomes	By the end of the project, you will have produced a research note offering a rigorous but accessible synthesis of foundational AI/LLM concepts, models, and applications in city science. This research note will lay the groundwork for a subsequent field manual aimed at educators and practitioners with limited technical backgrounds. The student will also have developed a landscape map and glossary of AI/LLM applications in urban planning. Participation in a research showcase presentation is encouraged.



Who should apply?	This project suits undergraduate students from urban planning and design, geography, data science, computer science, civil engineering or related disciplines who are curious about the intersection of AI and cities. <i>No prior technical background in AI or machine learning is required</i>, though an interest in emerging technology and willingness to critically test and evaluate AI tools is essential. Strong written communication skills are important, as the project centres on producing a clear, accessible research note. Students who enjoy independent reading, synthesising diverse sources, and structured research writing will thrive in this project.
Team & supervision	The project will be supervised by Dr Frank Zou, School of Architecture, Design and Planning. The student will work directly with Dr Zou through weekly meetings (on campus or online) to review progress against the project's checkpoints, receive feedback on drafts, and refine the research direction.
Additional opportunities	Students are encouraged to participate in a research showcase to present your findings. Cross-comparison between popular gen-AI tools (Claude, Gemini, ChatGPT, and image generation tools) will be conducted.
Additional requirements	Interested students must contact the project supervisor prior to submitting an application. Evidence of supervisor support must be uploaded as part of the application process.
Contact	Direct enquiries to: zhenpeng.zou@uq.edu.au



2027 Summer Research Project

Project title	Finding Connection: Mapping and Understanding Third Places in Brisbane
Hours & delivery	Hours: 21-24 hours per week (3days) Delivery mode: Hybrid Location: St Lucia Campus, The University of Queensland Students will work primarily during weekday business hours, with flexibility for meetings, collaborative activities, and independent research tasks.
Positions Available	2
About the project	As Australians increasingly divide their time between home and work, opportunities for everyday social connection are becoming more important than ever. Sociologist Ray Oldenburg described "third places" as the informal spaces that exist beyond home and work, including libraries, cafés, parks, community gardens, sports clubs, cultural venues, and community centres. These places provide opportunities for social interaction, belonging, and community life. Research shows that strong social connections contribute to improved wellbeing, better health outcomes, and more resilient communities. However, access to third places is not evenly distributed across cities. Many suburban areas face challenges associated with social isolation, changing retail patterns, and the loss of traditional gathering spaces. This project will investigate the geography of third places across Greater Brisbane. Using spatial analysis, demographic data, and case study research, students will explore where third places are located, who can access them, and how planning and design can support vibrant and connected communities. The research forms part of a broader program examining social infrastructure, community wellbeing, and the role of urban planning in creating more inclusive cities. Students will contribute to generating evidence that can inform planning, policy, and investment in social infrastructure across South East Queensland.
What you'll do	Working as part of a research team, you will contribute to several stages of the research process. Activities will include reviewing academic and policy literature on third places, social infrastructure, community wellbeing, loneliness, placemaking, and urban design. You will assist in developing a typology of third places across Brisbane and use GIS to identify, map, and analyse their distribution. Students will explore demographic and spatial datasets to examine accessibility patterns and identify potential gaps in the provision of social infrastructure. You will also investigate examples of successful third places in Brisbane and other Australian cities and explore how digital technologies influence the discovery and use of community spaces. Findings will contribute to research reports, maps, visualisations, policy recommendations, and presentations.
What you'll learn	This project provides practical experience in urban and community planning research focused on social connection and wellbeing. Students will develop skills in Geographic Information Systems (GIS), spatial analysis, mapping, accessibility assessment, and data visualisation. You will gain experience working with demographic and spatial datasets to address real-world planning challenges and learn how evidence can be used to support decision-making in local government and community planning. The project will also strengthen your literature review, research synthesis, report writing, and communication skills. These capabilities are highly relevant to careers in urban planning, public policy, geography, community development, public health, architecture, and urban research. Students will gain valuable insight into how planners and policymakers can support healthier, more connected communities.



Project outcomes	By the end of the project, students will contribute to an annotated literature review, an inventory and typology of selected third places, a portfolio of maps and spatial analyses, and a research briefing report outlining key findings and recommendations. Students will also participate in presenting findings to supervisors and invited stakeholders. The outputs will support ongoing research into social infrastructure, community wellbeing, and urban planning. Findings may inform future academic publications, policy submissions, public engagement activities, and collaborative projects with local governments and community organisations.
Who should apply?	Applications are encouraged from students studying urban and regional planning, geography, GIS, public policy, sociology, architecture, environmental management, public health, data science, or related disciplines. No advanced GIS experience is required. Students with an interest in cities, communities, public spaces, social connection, placemaking, or urban policy are encouraged to apply. We are looking for students who are curious, analytical, and interested in understanding how places shape community wellbeing and everyday social life. The project is well suited to students seeking experience in applied research with strong community and policy relevance.
Team & supervision	Students will work closely with Associate Professor Stephanie Wyeth (School of Architecture, Design and Planning) and Professor Jonathan Corcoran (School of the Environment), who have extensive expertise in urban planning, community wellbeing, spatial analysis, and applied urban research. The project forms part of a broader research program focused on social infrastructure, community connection, urban wellbeing, and inclusive city-making. Students will join a collaborative research environment and engage with researchers working across planning, geography, and urban analytics. Regular meetings, mentoring, and feedback will support students throughout the project.
Additional opportunities	This project builds on research and insights generated through the Love and Kindness Project Pattern Book 1.0 and responds to growing stakeholder, industry, and media interest in social connection and community wellbeing. Students may have opportunities to engage with local government, community organisations, and industry stakeholders interested in strengthening social infrastructure. Strong performance may provide pathways to honours projects, future research opportunities, conference presentations, and academic publications.
Additional requirements	No specific requirements apply. Students should have access to a laptop capable of running GIS and data analysis software. An interest in community wellbeing, public spaces, and urban planning is desirable.
Contact	Direct enquiries to: Associate Professor Stephanie Wyeth School of Architecture, Design and Planning The University of Queensland s.wyeth@uq.edu.au



2027 Summer Research Project

Project title	Who Works and Plays After Dark? Gendered and Age-Differentiated Participation in Brisbane's Night-Time and Dawn Economy
Hours & delivery	Hours: 21 – 24 hours per week (3days) Delivery mode: Hybrid Location: St Lucia Campus, The University of Queensland Students will work primarily during weekday business hours, with flexibility for meetings, collaborative project work, and independent research.
Positions Available	2
About the project	Cities do not stop functioning when traditional business hours end. Across Brisbane, thousands of people work, travel, socialise, exercise, and access services during the evening, overnight, and early morning periods. While the night-time economy is often associated with entertainment and hospitality, much activity is driven by workers in healthcare, logistics, transport, manufacturing, emergency services, and other essential sectors. Similarly, Brisbane's emerging dawn economy includes early-morning workers, commuters, fitness participants, and service industries operating before conventional business hours. This project investigates how participation in Brisbane's night-time and dawn economy varies by gender and age. Using large-scale mobility datasets, including aggregated mobile phone data, alongside Geographic Information Systems (GIS) and spatial analysis techniques, the project will examine where people travel during non-traditional hours and how these patterns differ across demographic groups. The research forms part of a broader program exploring equitable access to employment, services, transport, and urban opportunities outside standard daytime hours. Student researchers will contribute to analysing mobility patterns, producing maps and visualisations, and generating evidence that can inform planning, transport, safety, and economic development policy. The findings will support discussions about how Brisbane can become a more inclusive and accessible twenty-four-hour city, and be ready for the Brisbane 2032 Games.
What you'll do	Working as part of a research team, you will contribute to several stages of the research process. Activities will include reviewing academic and policy literature on night-time economies, dawn economies, gender and mobility, age-related travel behaviour, and twenty-four-hour cities. You will explore mobility and demographic datasets, assist with data preparation and interpretation, and undertake introductory spatial analysis using GIS software. Students will help produce maps and visualisations showing patterns of activity across Brisbane and contribute to analysing differences between age groups and genders. You will also assist in identifying different types of activity areas, including employment-focused, consumption-focused, and mixed-use precincts. Findings will be summarised through research briefings, presentations, and communication materials for academic, government, and industry audiences.
What you'll learn	This project provides practical experience in urban analytics and contemporary planning research. Students will develop skills in Geographic Information Systems (GIS), spatial analysis, mobility data interpretation, demographic analysis, and data visualisation. You will gain experience working with real-world datasets to investigate urban challenges and learn how evidence can inform planning and policy decisions. The project will also strengthen your literature review, critical analysis, academic writing, and professional presentation skills. These capabilities are highly relevant to careers in urban planning, transport planning, geography, public policy, data science, consulting, and research. Students will gain exposure to emerging methods used by governments, industry, and researchers to better understand how cities function throughout the day and night.



Project outcomes	By the end of the project, students will contribute to an annotated literature review, a portfolio of maps and spatial visualisations, descriptive statistical summaries, and a research briefing report outlining key findings. Students will also participate in presenting findings to supervisors and research group members. The outputs will support ongoing engagement with government and industry stakeholders interested in transport planning, economic development, gender equity, workforce participation, and the night-time economy. Findings may contribute to future research publications, conference presentations, and policy discussions relating to Brisbane's growing twenty-four-hour economy.
Who should apply?	Applications are encouraged from students studying urban and regional planning, geography, GIS, data science, economics, public policy, sociology, statistics, environmental management, or related disciplines. No prior experience with mobility datasets is required. An interest in cities, transport, human behaviour, spatial analysis, or public policy would be advantageous. Experience with GIS, mapping, statistics, or data visualisation is desirable but not essential. We are looking for students who are curious, analytical, and interested in using data to understand real-world urban challenges. The project is well suited to students seeking experience in applied research with clear policy relevance.
Team & supervision	Students will work closely with Associate Professor Stephanie Wyeth (School of Architecture, Design and Planning) and Professor Jonathan Corcoran (School of the Environment), who have extensive expertise in urban planning, spatial analysis, and human mobility research. The project forms part of a broader interdisciplinary research program focused on mobility, accessibility, urban equity, and planning for twenty-four-hour cities. Students will join a collaborative research environment and engage with researchers working across planning, geography, and urban analytics. Regular meetings, mentoring, and feedback will support students throughout the project.
Additional opportunities	Students will have opportunities to engage with research that is directly relevant to government and industry stakeholders, including organisations involved in transport planning, urban development, workforce policy, and the night-time economy. Strong performance may provide pathways to honours projects, future research opportunities, conference presentations, and academic publications.
Additional requirements	No specific requirements apply. Students should have access to a laptop capable of running GIS and data analysis software. An interest in spatial thinking, cities, and evidence-based policy is desirable.
Contact	Direct enquiries to: Associate Professor Stephanie Wyeth School of Architecture, Design and Planning The University of Queensland s.wyeth@uq.edu.au



2027 Summer Research Project Template

Project title	Designing space for recovery and wellbeing: The Brain Garden - UQ Herston Campus
Hours & delivery	Hours: 21-24 hours per week (3 days) Delivery mode: Hybrid Location: UQ Herston Campus, with some activities at St Lucia Campus Students will work primarily during weekday business hours, with flexibility for site visits, meetings, collaborative activities and independent research tasks.
Positions Available	2
About the project	The Brain Garden is a proposed neuro-rehabilitative landscape and living laboratory at UQ's Herston Campus. Conceived as a living metaphor for the brain, its pathways will reflect neural connections, and its therapeutic zones will respond to the cognitive, emotional and sensory needs of people recovering from acquired brain injury. The initiative brings together the Queensland Brain Institute, STARS Rehabilitation and The Brain Garden documentary (led by Randall Wood,) with the ambition of translating research in neuroplasticity, brain injury and environmental neuroscience into an accessible landscape for recovery, research and community wellbeing. Its Herston location creates opportunities to connect design research with the wider health precinct and contribute to a lasting Brisbane 2032 health and inclusion legacy. This Summer Research Project will support the early feasibility and concept design phase. Students will investigate evidence-based approaches to therapeutic landscapes, biophilic and trauma-informed design, universal accessibility and neuroinclusive placemaking. Working within a design-led research team, they will help develop a concept for a safe, welcoming and measurable rehabilitation environment that connects research, clinical practice, lived experience and landscape design.
What you'll do	Working as part of a design-led research team, you will review academic, clinical and design literature on therapeutic landscapes, environmental neuroscience, neuroplasticity, acquired brain injury, biophilic design, trauma-informed design, universal accessibility and neuroinclusive placemaking. You will analyse relevant precedents, including therapy gardens and rehabilitation environments, and assist with site and contextual analysis for the UQ Herston Campus. You will contribute to co-design preparation and engagement with QBI, STARS Rehabilitation, people with lived experience and relevant design or industry partners. Activities may include mapping user needs, developing design principles, testing spatial concepts, preparing visualisations and assisting with indicative costings. Your work will inform an early concept design and evidence base for the proposed Brain Garden.
What you'll learn	This project provides practical experience at the intersection of architecture, landscape, urban design, health research and community wellbeing. You will learn how evidence from neuroscience, rehabilitation and environmental design can be translated into spatial principles and an early concept proposal. You will strengthen skills in literature and precedent review, site analysis, co-design preparation, universal and trauma-informed design, concept development, visual communication and research synthesis. You will also gain experience working across disciplinary and organisational boundaries, including engagement with researchers, clinicians, people with lived experience and design practitioners. These capabilities are relevant to careers in architecture, landscape architecture, urban design, planning, public health, health-facility design, community engagement and research. The project will provide insight into how design can support recovery, inclusion and measurable health and wellbeing outcomes.



Project outcomes	By the end of the project, students will contribute to an evidence review and precedent study, a site and user-needs analysis, a set of evidence-based design principles, and an early concept design for The Brain Garden. Outputs may include spatial diagrams, plans, sections, visualisations, an accessibility and sensory-design framework, and indicative implementation or costing considerations. Students will also help prepare a concise project brief and presentation for the research team and invited stakeholders. These outputs will support the garden's feasibility and design development, future co-design activities, partnership discussions and potential research protocols linking QBI and STARS Rehabilitation.
Who should apply?	Applications are encouraged from students in architecture, landscape architecture, urban design, planning, design, public health or related disciplines. Experience with concept design, site analysis, visual communication, design software or participatory methods would be valuable, but a strong interest in the project is equally important. We are seeking two students who are curious, collaborative and sensitive to the experiences of people living with acquired brain injury. The project will suit students interested in therapeutic landscapes, neuroinclusive and universal design, health and wellbeing, rehabilitation, placemaking or the Brisbane 2032 legacy. Applicants should be comfortable working across disciplines and translating research evidence into clear, practical and visually engaging design propositions.
Team & supervision	Students will work with Associate Professor Stephanie Wyeth from UQ's School of Architecture, Design and Planning, the documentary team, collaborators from the Queensland Brain Institute and industry leaders in design. The project will also connect with STARS Rehabilitation and, where available, people with lived experience and relevant design or industry partners. Students will join a collaborative, interdisciplinary research environment spanning architecture, urban design, planning, neuroscience, rehabilitation and health. Regular supervision meetings, mentoring and formative feedback will support the development of research, engagement and design outputs. The project emphasises respectful collaboration, evidence-based design and the translation of specialist knowledge into an inclusive and practical landscape concept.
Additional opportunities	The project offers opportunities to contribute to a high-profile, interdisciplinary health and design initiative connected to the Herston Health Precinct and the longer-term Brisbane 2032 legacy. Subject to project timing and partner availability, students may engage with neuroscientists, rehabilitation practitioners, people with lived experience, landscape and design professionals, and UQ Property and Facilities. Strong performance may create pathways to honours or postgraduate research, future co-design and project-development activities, conference presentations, public engagement, academic publications or continued collaboration as The Brain Garden progresses through feasibility and design.
Additional requirements	No formal prerequisites apply. Students should have access to a laptop capable of running relevant design and visualisation software. Skills in Adobe Creative Suite, CAD, GIS, 3D modelling or visualisation are desirable but not essential. Because the project concerns acquired brain injury and rehabilitation, students must approach engagement and representation with care, empathy and respect. Any contact with people with lived experience or clinical stakeholders will follow approved project protocols and supervisor guidance. Availability for occasional site visits and in-person meetings at UQ Herston during weekday business hours is desirable.
Contact	Direct enquiries to: Associate Professor Stephanie Wyeth – s.wyeth@uq.edu.au School of Architecture, Design and Planning



2027 Summer Research Project

Project title	Housing Atlas for Australia national research project: Drawing as embodied research
Hours & delivery	The project will align with program dates (11 January to 19 February) with a schedule of 25 hours per week. It will be delivered on campus including archival visits to the ARMUS and Fryer Libraries and involve some desktop work accessing databases and producing drawings using CAD programs and other software.
Positions Available	1
About the project	How can we learn from Australia's most important housing projects, and what role can drawing play in understanding their design? This summer research project offers students a unique opportunity to contribute to the Housing Atlas for Australia, a major national research initiative bringing together eight universities and leading architectural researchers from across the country. The Housing Atlas responds to the need for accessible, high-quality documentation of Australian housing. Focusing on high and medium-density housing, the project is creating a national resource that showcases innovative responses to climate, culture, community, and place. Led by Australian Institute of Architects Gold Medallist Professor Kerstin Thompson in collaboration with the Urban Lab at Monash University, the Atlas will become a key reference for researchers, designers, students, and policymakers. As project participant, you will investigate significant historical housing examples in Queensland and contribute original research for inclusion in the Atlas. The project explores a key research question: how can drawing function as an embodied method of architectural research, enabling deeper understanding of housing design and architectural history? Through documenting and analysing selected case studies, students will examine how architects responded to environmental, social, and cultural conditions and how these lessons remain relevant today. The research supports a nationally significant research initiative that will represent Australia at the Venice Biennale of Architecture 2027 and contribute to a future public exhibition and publication. Participants will help generate drawings, visual analyses, and research materials that advance understanding of Queensland's housing heritage and its broader contribution to Australian architecture.
What you'll do	As part of the research team, you will investigate significant Queensland housing projects and help uncover the stories behind some of Australia's most notable residential designs. You will analyse architectural drawings, photographs, publications, and archival material to understand how these projects responded to their social, cultural, and environmental contexts. A key part of the project will involve producing analytical drawings that reveal the design thinking embedded within each case study. You will also assist in compiling project information, organising visual material, and preparing research outputs for inclusion in the Housing Atlas archive. Throughout the program, you will participate in discussions about architecture, housing, history, and research methods while gaining experience of how large-scale collaborative research projects operate.
What you'll learn	This project offers hands-on experience in architectural research while developing skills that are valuable across design practice, academia, and the broader built environment professions. You will learn how to investigate and interpret architectural projects through historical research, visual analysis, and critical thinking. By using drawing as a research tool, you will develop new ways of understanding design decisions, spatial relationships, and environmental responses.



	You will also gain experience working within a national research collaboration, contributing to outcomes with public impact and international visibility. Along the way, you will strengthen your communication, analytical, and visual representation skills while building an understanding of how research contributes to exhibitions, publications, and professional architectural discourse.
Project outcomes	By the end of the project, you will have contributed original research and visual analysis to the Housing Atlas for Australia. Outputs will include analytical drawings, housing case-study documentation and supporting research materials that help build a nationally significant housing resource. You will gain experience producing research outcomes intended for public and professional audiences while contributing to a project with exceptional visibility. Your work will support an initiative that will be showcased at the Venice Biennale of Architecture 2027 and will inform a future exhibition, digital platform, and major publication documenting Australia's housing history and design innovation.
Who should apply?	We welcome applications from students who are curious about architecture, housing, cities, and the stories buildings tell. The project is particularly suited to students in architecture and urban design who have a keen interest in combining their research and digital drawing skills. We are looking for a student who is enthusiastic, inquisitive, and willing to engage deeply with architectural projects through drawing and analysis. An interest in architectural history, visual and digitally drawn communication, housing design, or design research will be advantageous. Students who enjoy investigating ideas, working collaboratively, and contributing to meaningful real-world research will thrive in this opportunity. Those with prior skills in AutoCAD and similar programs are encouraged to apply.
Team & supervision	The research project will be undertaken through the School of Architecture, Design and Planning, EAIT Faculty at the University of Queensland. The UQ Lead on the Housing Atlas for Australia project, Professor Antony Moulis, has been a part of the broader Housing Atlas project from the project's inception in 2024. He has overseen the creation of almost 20 case studies for Queensland working with Michael Dickson (2024) and Associate Professor Siliva Micheli (2026) and their students in the 'Dwelling and Density' Master of Architecture studios. This research project will be supervised by Professor Moulis focusing on fresh historic housing exemplars in Queensland to be contributed to the project, accessed through archival research at UQ's Fryer library and practice office archives. The research will also involve liaison with the main project team at Monash University.
Contact	Direct enquiries to: Professor Antony Moulis – a.moulis@uq.edu.au



2027 Summer Research Project

Project title	Global Observatory of Healthy and Sustainable Cities: South East Queensland Indicators
Hours & delivery	Hours: 30-36 hours per week (working hours can be negotiated) Mode: Hybrid Location: St Lucia Campus, (with opportunities for remote work).
Positions Available	1
About the project	Cities play a critical role in addressing some of the world's most pressing challenges, including climate change, public health, and social inequality. The Global Observatory of Healthy and Sustainable Cities is an international research initiative that develops evidence-based spatial and policy indicators to assess how well cities support healthy, sustainable, and resilient communities. The long-term goal of the project is to evaluate and compare 1,000 cities worldwide. This project focuses on expanding the observatory's coverage across South East Queensland (SEQ). The student will contribute to reviewing, compiling, and analysing spatial and policy data for local government areas within the region. Building on existing work completed for Brisbane and the Gold Coast, the project will help strengthen Queensland's representation within this internationally recognised program. The project addresses important questions about how urban planning, transport, housing, public open space, and environmental policies influence health and sustainability outcomes. The student's contribution will support the development of internationally comparable indicators, inform future research publications and grant applications, and contribute to evidence that can guide better planning and policy decisions for growing cities.
What you'll do	As part of the project, you will work with an international urban research framework to collect, review, and synthesise spatial and policy information for South East Queensland local government areas. Activities include identifying relevant planning policies, evaluating policy data, compiling spatial datasets, and undertaking basic spatial analysis using Geographic Information Systems (GIS). You will also assist with literature reviews, data quality checks, and the preparation of research summaries and indicator documentation. Throughout the project, you will work closely with the supervisor to contribute to a globally recognised urban health and sustainability initiative. Your work will directly contribute to expanding the observatory's Queensland database and supporting future research outputs.
What you'll learn	This project provides an excellent opportunity to develop practical research skills in urban planning, sustainability, and spatial analysis. You will receive training in internationally recognised methods for assessing healthy and sustainable cities and gain experience working with spatial and policy datasets. Students will strengthen their skills in policy analysis, data management, spatial analysis, and critical evaluation of planning frameworks. You will also develop an understanding of how planning decisions influence urban health, liveability, and sustainability outcomes. Experience with GIS, research communication, and collaborative research practices will further enhance your professional capabilities.
Project outcomes	By the end of the project, an evaluation of spatial and policy indicators for selected South East Queensland local government areas will be complete. The findings will be published on the Global Observatory of Health website. The work will support future academic publications, research funding applications, and ongoing expansion of Queensland's participation in this global initiative.



Who should apply?	This project is well suited to undergraduate and postgraduate students in Urban Planning (Urban and Regional Planning) or related disciplines. Students with an interest in cities, health, sustainability, climate change, transport, urban policy, or spatial analysis are encouraged to apply. Experience with GIS and policy analysis would be beneficial but is not essential. Most importantly, applicants should be motivated, organised, detail-oriented, and eager to contribute to a collaborative research project with international relevance.
Team & supervision	The project will be supervised by Dr Sara Alidoust, Senior Lecturer in Planning at The University of Queensland, who is a member of the Global Steering Committee for the Global Observatory of Healthy and Sustainable Cities. The student will be based within UQ's School of ADP and will work closely with Dr Alidoust and other researchers involved in the project.
Additional opportunities	Students will have the opportunity to contribute to research with strong publication and funding potential and gain experience working within an international research collaboration. Depending on project progress, there may be opportunities to contribute to conference presentations, co-author publications, or continue involvement in the project beyond the summer research period. Students will also gain exposure to researchers and institutions participating in the Global Observatory of Healthy and Sustainable Cities network.
Additional requirements	Familiarity with GIS software, planning policy, or research methods would be advantageous but is not essential. Training will be provided.
Contact	Direct enquiries to: s.alidoust@uq.edu.au



2027 Summer Research Project

Section	Description
Project title	Digitising the Aboriginal Data Archive and in the process, flagging future research topics and possible HDR topics based on the archival resources.
Positions available	2
Hours & delivery	Summer Scholars will be primarily located in the Aboriginal Data Archive located in the Chamberlain Building (Building 35) at St Lucia Campus. Scholars will be expected to work 30 hours per week between 23 Nov 2026 – 22 Feb 2027).
About the project	The Aboriginal Data Archive of the Aboriginal Environments Research Collaborative (AERC) is resource developed over the last 60 years and contains a large collection of unique primary research materials and research literature about the Indigenous peoples of Australia and their architectural history. This research project aims to help bring the archive into the digital age and increase its accessibility for School of ADP researchers.
What you'll do	Summer Scholars will determine a specific topic or geographical region of Australia, for which they will collate and digitise the available research resources within the archive. These materials may include handwritten and printed materials, as well as graphic materials such as maps, photographs and drawings. These materials will be scanned, stored and catalogued in the ADA digital archive and inputted into an Endnote of Zotero Library to improve accessibility of the archive for future study using the Archive. The scholars may also help draft reports on the information available in the archive about their chosen topic.
What you'll learn	The project will provide an opportunity for Summer Scholars to gain experience of the research process and develop fundamental skills in literature and archival research. It will also provide an opportunity for students to expand and develop their knowledge of Aboriginal architecture, culture and history in an area of their choosing.
Project outcomes	Students will develop a digital archive and reference library using software such as Endnote of Zotero for source materials about their chosen topic. If they choose, they may also produce a report on the materials available. The students will be welcome to use the collated resources for their own future research projects.
Who should apply?	The applicant should be undertaking the Masters degree in the School of Architecture, Design and Planning, however Bachelor students <i>may</i> be considered. Students must be able to work independently. This project is best suited to a student who has an interest in the research of Aboriginal architecture, culture and history, particularly if they are interested in undertaking further postgraduate study. We are looking for someone who is methodical, has a good understanding of referencing and cataloguing of data, and has experience using referencing software, such as EndNote or Zotero, or is a quick learner.
Team & supervision	Prof Paul Memmott will be the principal supervisor. Senior Research Assistant, Jess Kane will be available for day-to-day questions and guidance. Scholars may receive input and guidance from other members of the AERC such as Assoc. Professor Kelly Greenop, Carroll Go-Sam and Dr Tim O'Rourke of the School of ADP, as well as Assoc. Prof Nina Lansbury in the School of Public Health, or Dr Simon Quilty, Director of the Wilya Janta Aboriginal Housing Corporation.
Additional opportunities	This project provides an excellent opportunity for students to develop their knowledge and research skills, particularly for those who are interested in research and are exploring undertaking Higher Degree Research. Students will also be able to meet and



discuss their research interested in members of the Aboriginal Environments Research Collaborative.

Contact

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