

Te Kura Hoahoanga/School of Architecture ARCH 8121- Semester ONE - 2022

Re-imaging Milan's canals

Hugh Byrd

The Project

Milan has a long history of navigable canals that formed a fundamental part of the city's economy and the growth of the whole region, providing a direct connection between the northern lakes down to the sea. Within Milan, the Navigli canal transported both people and goods throughout the city, but at the start of the 20th century the city's inner canals were covered to add to the city's road system. The Navigli canals now run underneath the streets but have the potential to be rediscovered and bring back Milan's "water city charm".

For this project, you are tasked with conceptualising the Milan of the future and envisioning a symbiotic relationship between the city and the Navigli canal. Projects should focus on environmentally friendly design, mobility, and the relationships between water and urban spaces. The site design must also include a long-span building that has a structural span of no less than 25m. The use of the building must be appropriate to the site and could include: a market or a concert venue or a museum or any other appropriate building. The building structure will be of timber construction with the aim of achieving a zero-carbon building.



Typical before and after images available.

Resources

You can select from 3 possible sites in Milan. For each site there is a 2D CAD drawing and a 3D CAD drawing as well as site photographs and historical images.



Typical historical photo and 3D models available.

Formal presentations during studio time will be given to assist with long-span timber structures and zero-carbon design.

The Process

At every studio session we will all meet from 1pm until 1.30pm. We will then split into groups of 3 for half-hour sessions.

Keeping appointments is paramount and allotted times must be kept to avoid others becoming delayed. You are welcome to sit-in and observe each other's tutorials.

Since no site visits are required, work on the project can start immediately.

Quarter 1 (40%) will focus on a masterplan of the selected site. A draft of all work for Q2 is expected at the end of Q1 when there will be a crit. At this stage, detailed drawing should be complete alongside sketch models. You will be required to produce 2D & 3D drawings of an appropriate scale that illustrate a clear understanding of the design proposals and the location, type and technology of the long-span building. Hand drawings and sketches to support CAD drawings are essential as the grading for Q1 will be based on your design development over Q1 as well as the finished product. A bound sketchbook of development is essential. This should include all concept and developed sketches including those discarded through trial and error.

Quarter 2 (60%) will focus on presentation techniques, modelling and building information. The final outputs will include technical drawings supported by sketches and physical models. It is expected that there will be a site model (at approx. 1:500) and a sketch model of the long-span building (at approx. 1:100) to demonstrate both the context and detail of the proposal. The sketchbook from Q1 should be available. Drawings should also include dimensions, details of grids, levels and other relevant topographical data.

ARCH 8121 Learning Outcomes

By the end of the course the student will be able to:

- 1. Research a range of sources and ideas in the interrogation of a complex architectural brief by drawing on architectural precedent case studies, theoretical writings, representational systems, technical studies and form-making design research processes including the generation and evaluation of design options.
- 2. Derive and argue a conceptual or theoretical position to drive the design process.

- 3. Design with creative imagination and aesthetic judgement to devise and integrate formal, spatial, circulatory, constructional, environmental and contextual place-based strategies to generate coherent design for high-rise, long-span and large-volume buildings.
- 4. Generate detail solutions for selected structural, material and constructional and environmental systems aspects of a project.
- 5. Evaluate and apply appropriate techniques and phases of design project communication.

Attendance and Contact Hours

During the first quarter the studio will be online. The studio will require attendance on Tuesday during semester time between the hours of 1:00pm and 3:00pm. Any variations to this schedule will be advised a minimum of one week in advance of these events.

Once we are back on campus, you are encouraged to attend and engage with your peers and to use the Unitec facilities. You are required to follow Unitec's Nga Tikanga Whakahaere/Code of Conduct and guidelines. Students are expected to maintain regular and punctual attendance in the Design Studio (studio room: 48-1043). Participation is critical for you to progress. Participation means not just being in Studio but being in Studio prepared with new work to present for discussion every time.

Late Submission

Projects are due on the date, time, and place specified. Late submissions will be penalised in accordance with Unitec's submission guidelines. Please note that incomplete submissions may not be accepted for critiquing. Incomplete refers to substandard presentation materials and/or insufficient material to fully explain your scheme. Any sources not referenced may be considered as plagiarism.

Affected Performance Consideration (APC)

The purpose of applying for Affected Performance Consideration (APC) is to ensure your academic progress is not unfairly affected by critical personal circumstances beyond your immediate control. You can apply for Affected Performance Consideration (APC) for final examinations or other summative assessments. Further information on the subject and where to apply can be found at:

https://www.unitec.ac.nz/current-students/study-support/student-forms

Use of Studio Space

Please keep the studio tidy and clean. This a shared space and is used by other year groups. Dispose of all your rubbish, keep tables and floors tidy, and move back furniture back to where you found them. Unitec is not liable for the removal of your work if deemed to be a hazard. All unauthorised/non-compliant electronics and furniture will be removed without notice. The studio (or any other space at Unitec) is not a place for alcohol. Please refer to the 'Student alcohol and drug policy' of you are unsure of the rules. For further information please review Unitec's Nga Tikanga Whakahaere/Code of Conduct.

Assessment and Grading Description

A student's final grade is calculated from an aggregation of all summative assessment activities prescribed for that course. The following grading scale applies in the Master of Architecture (Professional) Programme for all level 8 courses:

Grade mark range

A+	90	 100	
А	85	 89	
A–	80	 84	
B+	75	 79	
В	70	 74	
B–	65	 69	
C+	60	 64	
С	55	 59	
C–	50	 54	
D	40	 49	(fail)
Е	0	 39	(fail)

Grades profile

A (pass)

- Very good knowledge and understanding of all primary concepts.
- Good knowledge and understanding of secondary concepts.
- Integrates concepts very well.
- All-round competence at relevant skill.
- Very good level of appropriate communication and presentation.

B (pass)

- Good knowledge and understanding of all primary concepts.
- Moderate knowledge and understanding of secondary concepts.
- Integrates concepts to a moderate degree. Competence at relevant skill.
- Good level of appropriate communication and presentation.

C (pass)

- Adequate knowledge and understanding of all primary concepts.
- Indications of ability to understand secondary concepts.
- Indications of ability to integrate concepts. Competent level of appropriate communication and presentation.

D (fail)

• Has demonstrated at least adequate knowledge, understanding, relevant skills and communication abilities in some areas, but these are compromised by inadequacies in other areas.

E (fail)

• A general failure to demonstrate adequate knowledge, understanding, relevant skills, and communication ability.

A 'plus' (+) may be used in conjunction with passing grades (eg. "B+") and indicates that the student has clearly shown some significant characteristics of the grade above. A grade of "A+" indicates all-round assurance and finesse in meeting the requirements of an 'A' grade.

A 'minus' (-) may be used in conjunction with passing grades (eg. "B-") and indicates that all grade profile components are at the bare minimum for that grade.

NCSA Criteria

This course is taking consideration of the National Standard of Competency for Architects (NCSA) accreditation requirements 1.2, 1.4, 2.1, 2.2, 3.1, 3.2, 3.4, 3.5, 3.8, 4.1, 4.2, 4.3, 4.5, 4.6, 5.3, 6.2, 6.4, 6.5:

1.2 - Establishment, analysis and evaluation of client project requirements and objectives.

1.4 - Identification of factors that may impact on client project requirements and objectives.

2.1 - Identification, analysis and integration of information relevant to siting of project.

2.2 - Application of principles controlling planning, development and design for the project site.

3.1 - Design response integrates the objectives of brief, user intent and built purpose.

3.2 - Application of creative imagination, aesthetic judgement and critical evaluation in formulating design options.

3.4 - Design response incorporates assessment of relevant legislation, codes and industry standards.

3.5 - Exploration and application of ordering, sequencing and modelling of threedimensional form and spatial content.

3.8 - Application of manual and digital graphic techniques and modelling to describe three-dimensional form and spatial relationships.

4.1 - Evaluation of design options in relation to project requirements.

4.2 - Evaluation of design options against values of physical, environmental and cultural contexts.

4.3 - Application of creative imagination aesthetic judgement to produce coherent design.

4.5 - Investigation and integration of appropriate structural, construction, service and transport systems in the project design.

4.6 - Investigation and integration of appropriate material selection for the project design.

5.3 - Evaluation and integration of regulatory requirements.

6.2 - Continuing coordination and integration of information and project material from relevant consultants, specialists and suppliers.

6.4 - Timely completion and communication of accurate and comprehensible documents that will include, as required, drawings, models, specifications, schedules and other relevant modes of information.

6.5 - Nomination of quality and performance standards with regard to selected materials, finishes, fittings components and systems.