

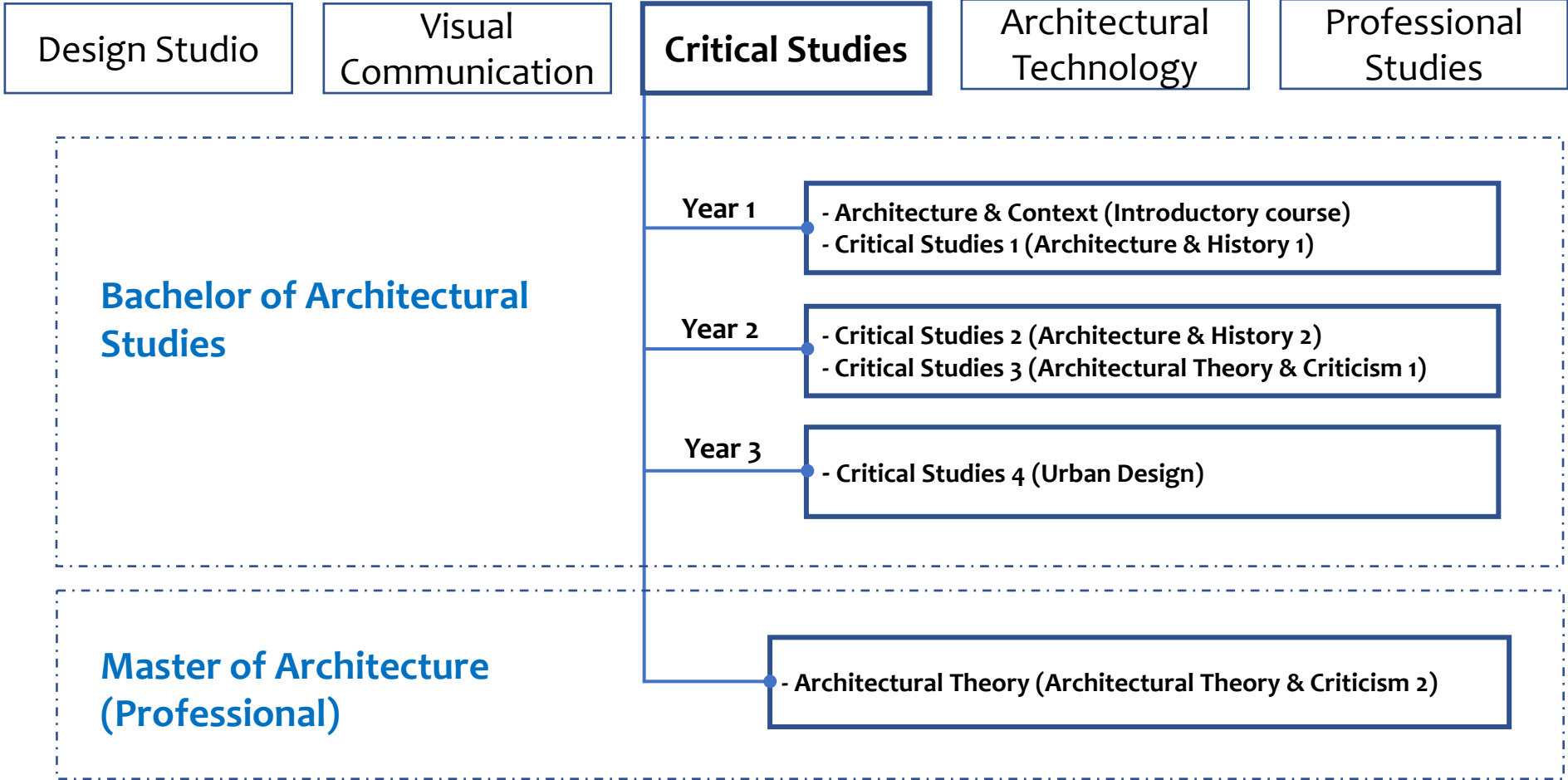
2022 Historic Places Aotearoa and ICOMOS NZ  
2022 Joint Conference  
“Harsh Reality: Current Challenges For Historic Heritage in NZ”  
12-13 November 2022

*Session Four: Neglect, Maintenance, Use and Re-Use of Built Heritage*  
*Presentation 9: Nigel Isaacs, Paola Boarin, Renata Jadresin Milic - Building Use and Re-Use*

# *Heritage Architecture at Unitec School of Architecture*

Dr Renata Jadresin Milic, Associate Professor, School of Architecture, Unitec





... integrating heritage in DS and AT core courses across the BAS and March Prof programmes

... including lectures on heritage topics:



### ARCHITECTURAL TECHNOLOGY – ARCH 8411

Course Co-ordinator: Sameh Shamout

Semester 1, 2022

#### Master of Architecture (Professional)

10	24/05	A	Structural integrity in buildings – Long span structures	SSh
		B	<b>Assignment 2:</b> Reflecting on examples of past students	SSh
11	31/05	A	Heritage Breathe: State of art technologies in heritage conservation and passive design	Prof. Laila Khodeir Assoc. Prof. Hanaa Moosa
		B	<b>Innovative Case Study Lecture 3:</b> Innovative Timber Materials and Technologies	ABODO
12	7/06	The Architecture Technologies and Materials Workshop at our School Foyer, starts at 10 am sharp, and <b>attendance is Mandatory.</b>		Operated by EBOSS and SSh
13	14/06	Assignment 2 + Design Studio Final Critique		SSh

\* The highlighted rows are colour coded as follows:: (Blue: Site Visit; Yellow: Architecture Technology and Materials Workshops; Green: Case Study Lectures; Grey: Public Holidays and Mid Semester Break)

# **Building Conservation** – Level 8 elective course (15 credits) in Unitec’s MArch(Prof) programme (introduced 2016)

## **Course aim**

To develop a critical understanding of the history, theory and practice of building conservation in Aotearoa New Zealand.

## **Key Engagements**

- Consideration of heritage as a source of cultural identity and valued memory
- Range of conservation strategies (with particular attention to adaptive reuse) outlined in ICOMOS NZ Charter (2010)
- Significant events and episodes in the history of heritage protection and building conservation practice – internationally and in bi-cultural Aotearoa New Zealand

## **Assignment**

Comparative study of two heritage buildings (one local, one overseas) that have been subject to architectural intervention and repurposing.

## **Guest presenters** (this year and/or previous)

Robyn Byron (Heritage NZ), Adam Wild (Archifact), Pamela Dziwulska (Salmond Reed), Allan Matson, Pip Cheshire (Cheshire Architects)

and Unitec colleagues:

Dr. Renata Jadresin-Milic, Dr. Christoph Schnoor, Dr. David Turner, Chris Murphy

## **Key texts**

ICOMOS New Zealand Charter 2010.

Miles Glendinning. *The Conservation Movement: A History of Architectural Preservation*. London; New York: Routledge, 2013

# Building Conservation – Level 8 elective course in Unitec's MArch(Prof) programme (introduced 2016)



# **Re-designing Earthquake Prone Buildings** – Level 8 elective course (15 credits) in Unitec's MArch(Prof) programme (introduced 20..)

## **Course aim / Outcome Statement:**

To explore, in depth, the present day issues confronting earthquake prone buildings within Aotearoa New Zealand.

## **Learning Outcomes:**

- Evaluate the political, economic and social constraints that have shaped inner city urban environments.
- Critically examine the legislation governing the structural upgrade of earthquake prone buildings within Aotearoa New Zealand and its implications for many old commercial buildings.
- Analyse the implications such legislation will have on a particular chosen building typology such as the shopping precinct.
- Document the plans and constructional details required to achieve this structural upgrade and design initiative for a particular chosen building.

## **Assignment**

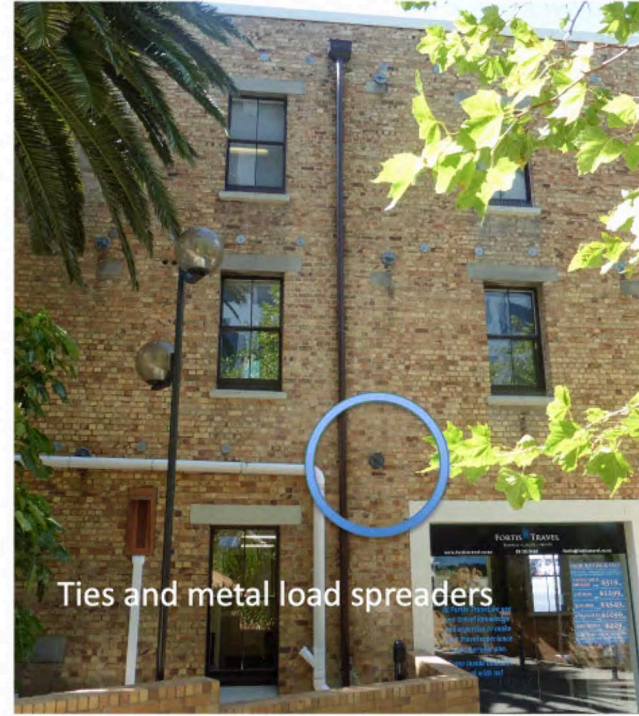
Assignment (written report) + Assignment (design and detailing) + Seminar presentation

## **Learning and Teaching:**

- Lectures
- Field trip
- Studio workshops
- Group and individual work

# Re-designing Earthquake Prone Buildings – Level 8 elective course (15 credits) in Unitec's MArch(Prof) programme

## Strengthening strategies

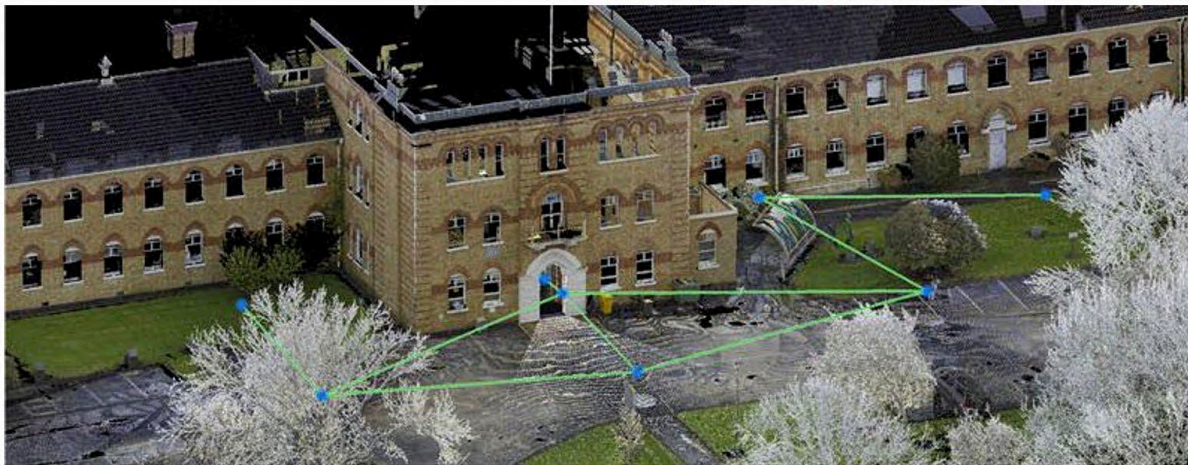


## (3) Out-of-plane strengthening

### Inter-floor wall supports

- Inter-floor wall supports: Vertical Steel struts. Break up UBM wall into smaller sections, transferring loads to floor diaphragms – thereby limiting out-of-plane collapse.
- Inter-floor wall supports: Horizontal steel strut mid way. Diagonal steel struts above and below to floor or ceiling diaphragm.
- *Disadvantages: Can be visually obtrusive*





## ARCH7624 SPECIAL TOPIC 3 - DIGITALISATION OF HERITAGE

### **DETAILS**

Elective Course // Semester 2 2021 // Level 7 - 15 credits // Class number 5733

Thursdays 1-3pm // location: 170-2033

Lecturer(s): Renata Jadresin-Milic

### **DESCRIPTION**

The use of digital technologies in heritage projects and academic research is becoming increasingly topical worldwide. In this course, students will have practical and theoretical modules in a digital and analogue survey of heritage buildings, with both taught and hands-on experience, and with many opportunities for discussion and debate.

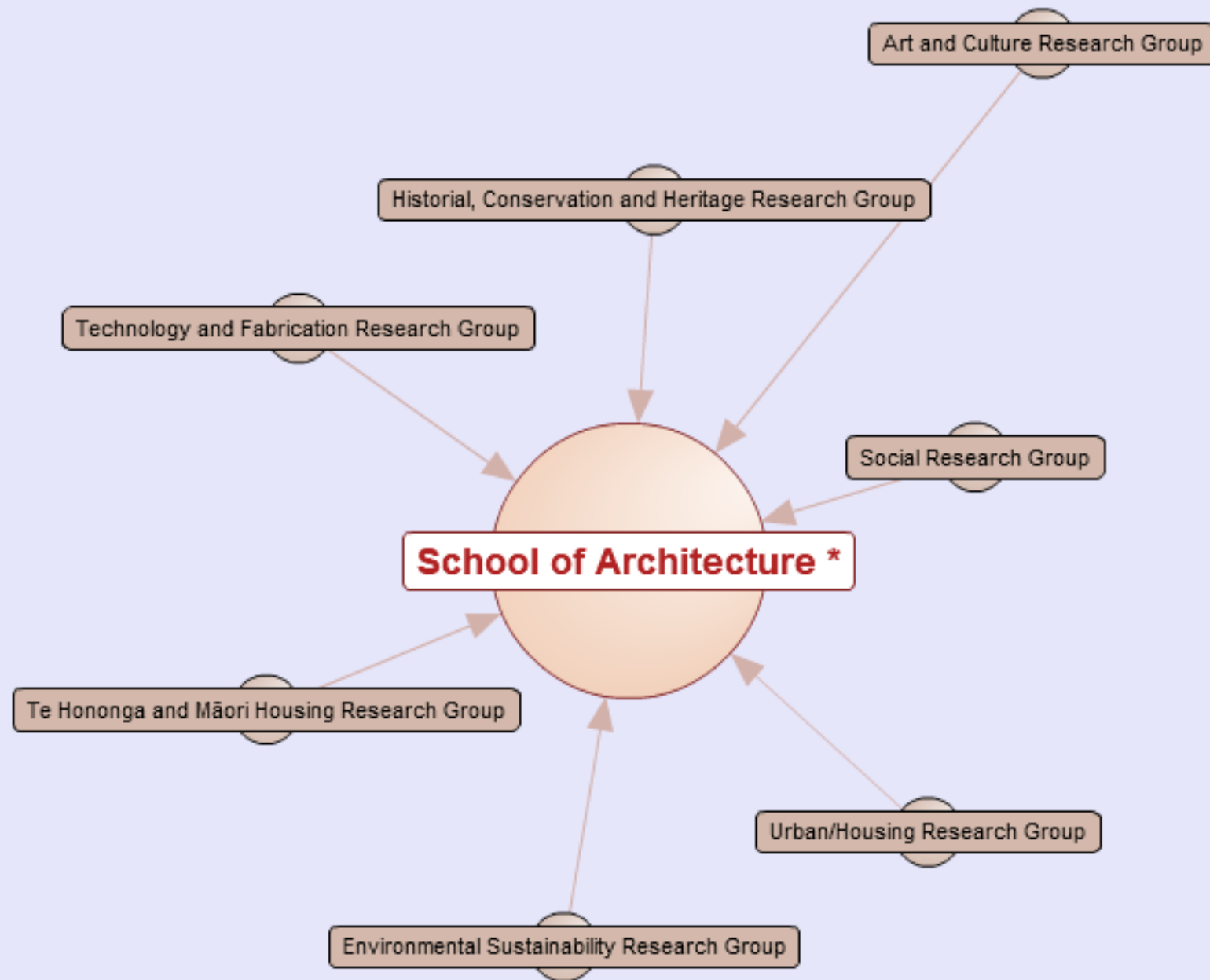
### **LEARNING OUTCOMES**

1. Analyse and evaluate pertinent issues, and
2. Proficiently communicate findings in accordance with recognised academic protocols.

The students will practice 3D scanning and 3D data processing on a real-world example with the guidance of the experts from the field. The learning value includes:

- Learning about digital tools and equipment; knowledge about digital technologies used by architects today: Comparison of new digital technologies skills learned during the elective course with software already in use – How they “work” together? How does this experience in surveying architectural heritage with new digital tools can change the way we deal with architectural heritage?
- Technical skills - Set up survey control skills;
- Learning how to use software (point cloud processing);
- Set up a central model (the industry standard now) skills;
- Architectural Drawings and Representation skills;
- Systematic reflection examining the outcome critically.





*School of Architecture seven research groups*

Thank you