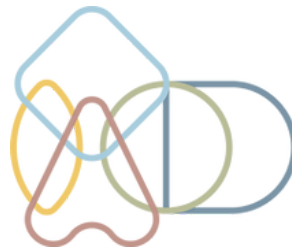


Sustainable Building Conservation: a new trend in architectural education

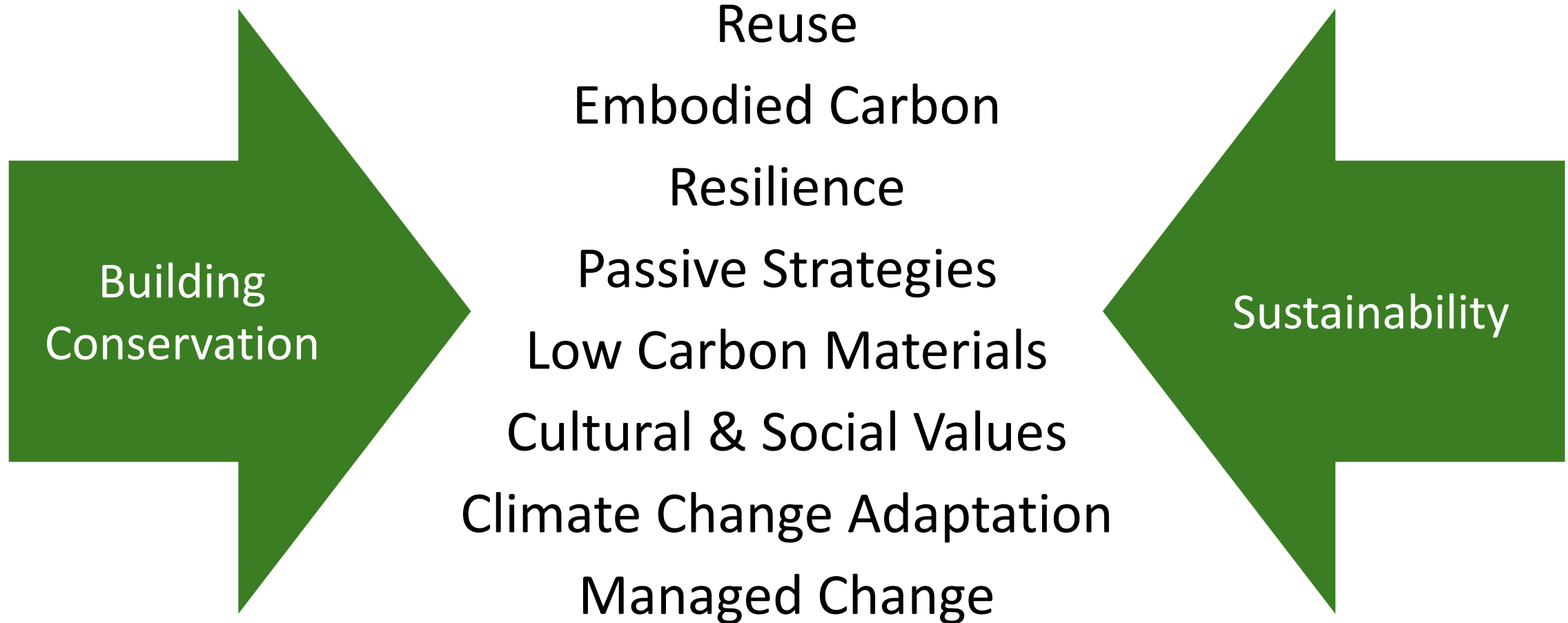
Dr Chris Whitman

Senior Lecturer
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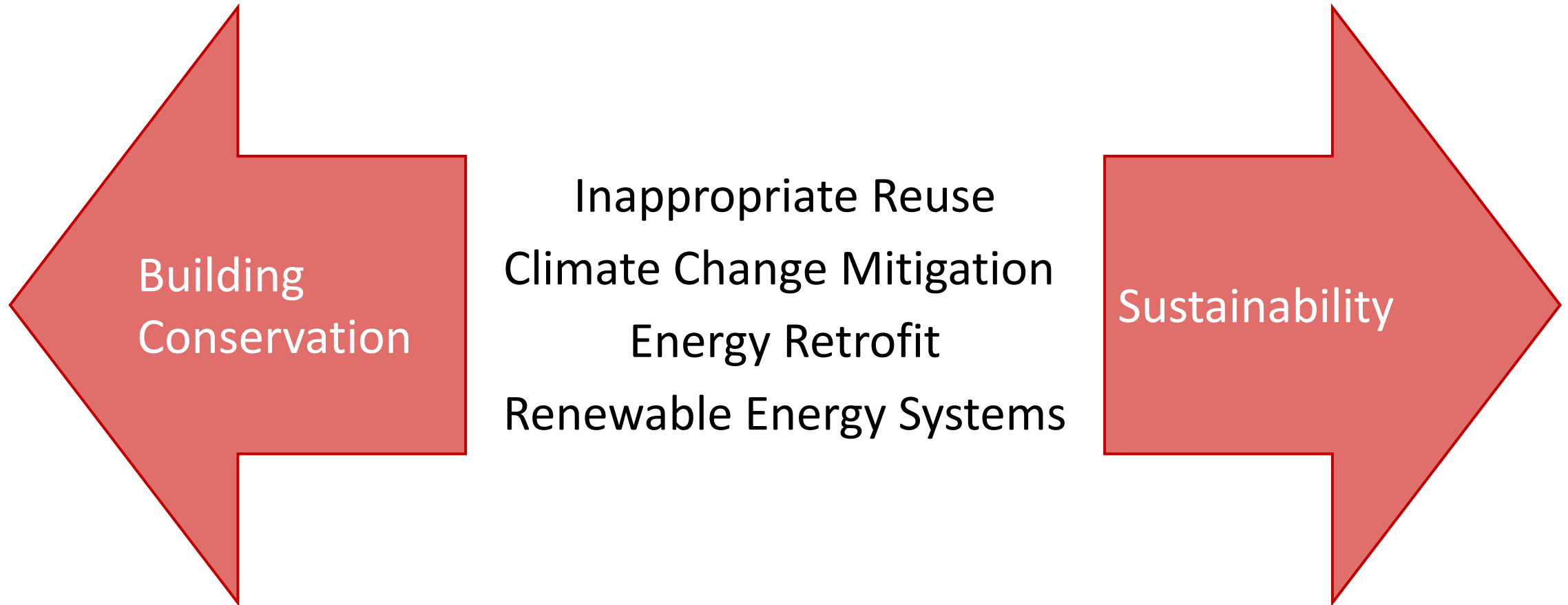


HERITAGE
INNOVATORS
DAY 2024





Many many aspects where Building Conservation and Sustainability share common aims.



However, there are other aspects where there are barriers or conflicts.

In May 2012 Prof Oriel Prizeman was asked by the Welsh School of Architecture to design an MSc in Building Conservation.

She therefore decided to develop a course that taught the necessary skills to address both the synergies of conservation and sustainability and the challenges.

MSc Sustainable Building Conservation, accredited by the Institute of Historic Building Conservation (IHBC) and approved by the Royal Institute of British Architects (RIBA) in February 2013. The course began in September 2013.

The course is unique in emphasising sustainability within the historic context: identified internationally by ICOMOS as the critical future direction of conservation education.

It focuses new career paths for experienced professionals across the sector as well as new graduates seeking a defined expertise.



Prof Oriel Prizeman
Course Founder and Director

Course Structure and Modules

Full-time Year 1			
Stage 1 Taught	The Conservator's Role	20cr	Part-time Year 1
	Tools of Interpretation	20cr	
	Energy Use in Historic Buildings	20cr	
	Case Studies and Regional Work	40cr	Part-time Year 2
	Design Tools: Methods of Repair	20cr	
Stage 1 Exam board			
Stage 2	Dissertation	60cr	

 Modules ART501, ART502 and ART505 are offered as optional modules for MA in Architectural Design



The Conservator's Role

Module Leader- Prof Oriel Prizeman

Comparative philosophies of conservation

History and hierarchy of the Conservation Movement,

Global and Local frameworks

Ethics and dilemmas of conservation

Economic dilemmas: World heritage people buildings, tourism

Marketing Heritage: Proving the value of identity

Climate Change: Our greatest challenge



Tools of Interpretation

Module Leader- Darren McLean

Researching historic buildings

Techniques of recording and measurement

Identifying the vernacular, patterns and trends
vs universal standards

Assessing Condition

Damp, rot, decay: Breathability, membranes
and repair

Technical dilemmas: Consultation and finding
specialists.



Condition survey, Bute Station, Cardiff. @Tsetine, E. 2017



Condition survey, St James's Church, Pontypool, Torfaen. @Hartley, R. 2019

Design Tools: Methods of Repair Module Leader- Darren McLean

Repair techniques – philosophy, practice and impact

Metalwork

Historic glazing

Stone conservation

Timber repair

Structural conservation

Lime and the lime cycle



Energy Use in Historic Buildings

Module Leader- Dr Chris Whitman

Buildings and climate

Assessing and monitoring performance

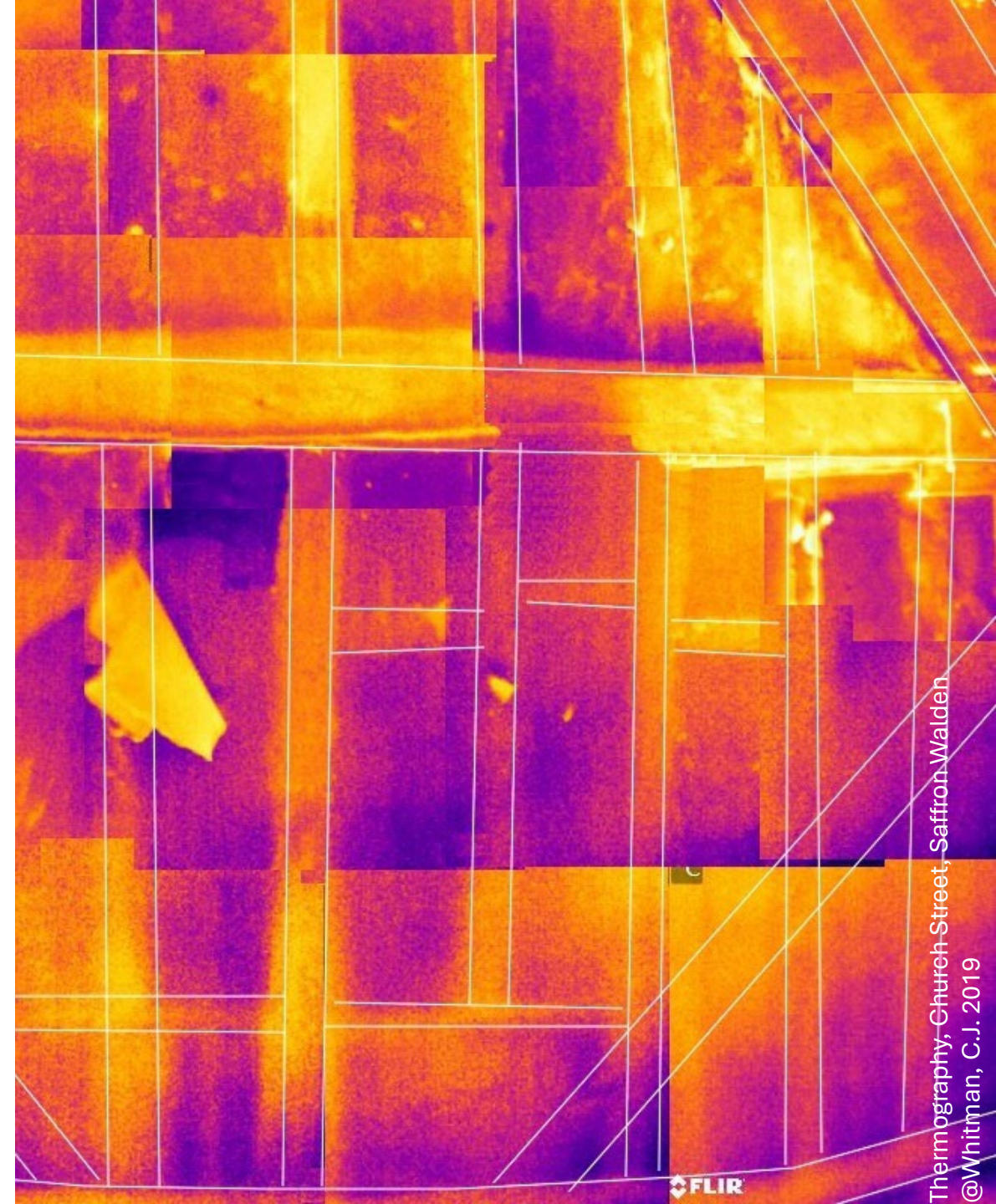
Improving performance

Quantitative and qualitative methods to justify retrofit

Renewable energies in the historic built environment

Life cycle assessment and embodied carbon

Services in historic buildings

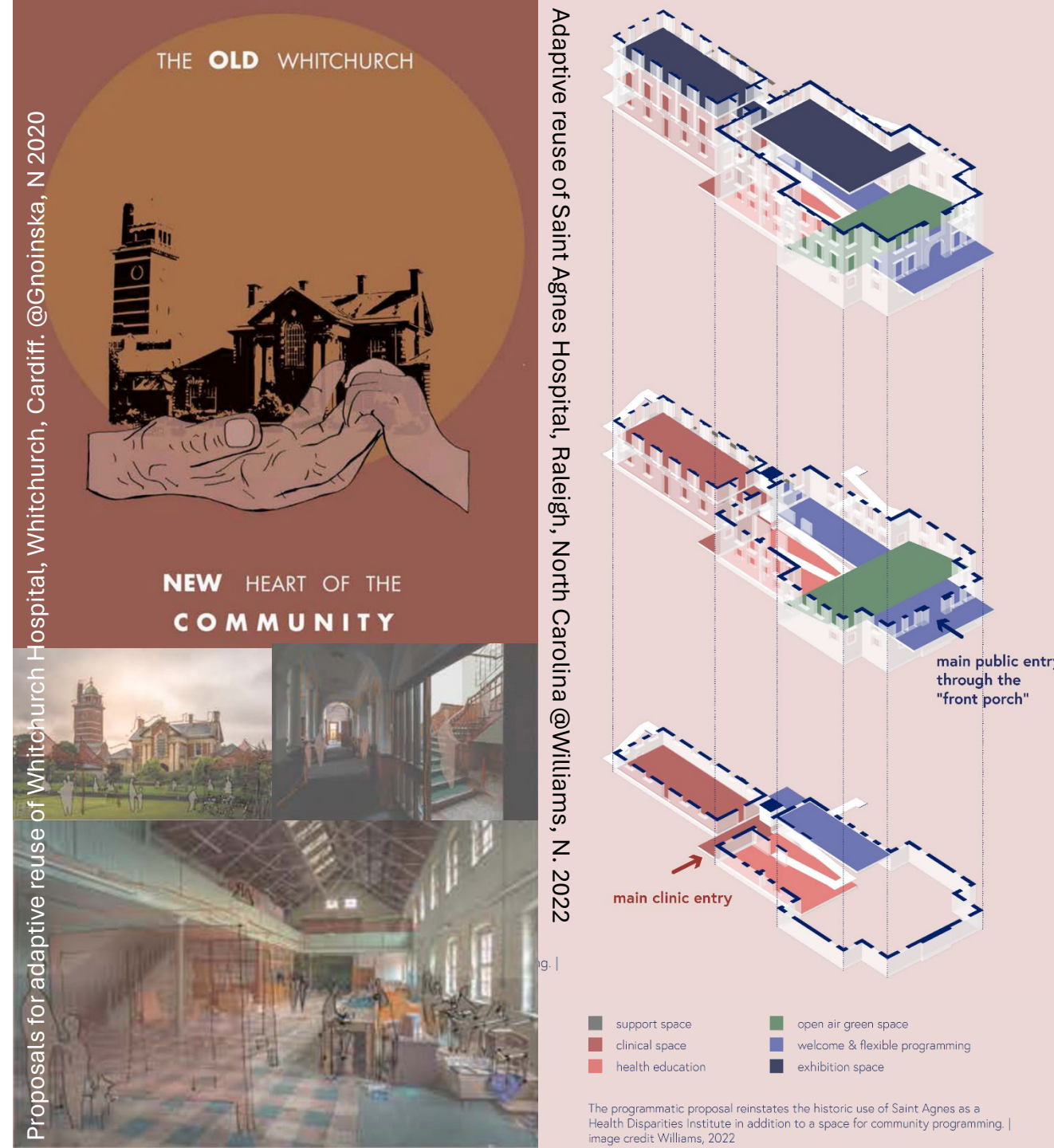


Case Studies and Regional Work Module Leader- Prof Oriel Prizeman

Regional issues

Design module

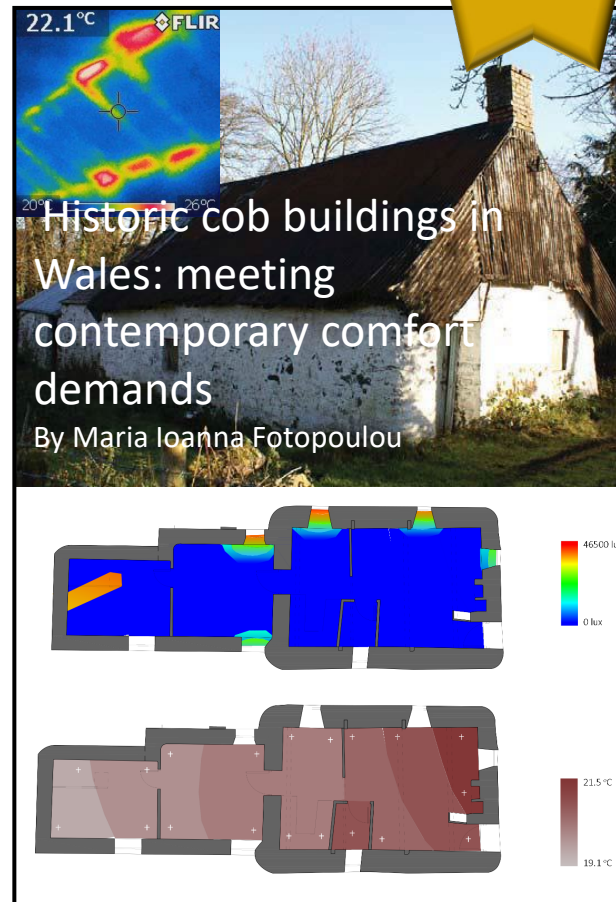
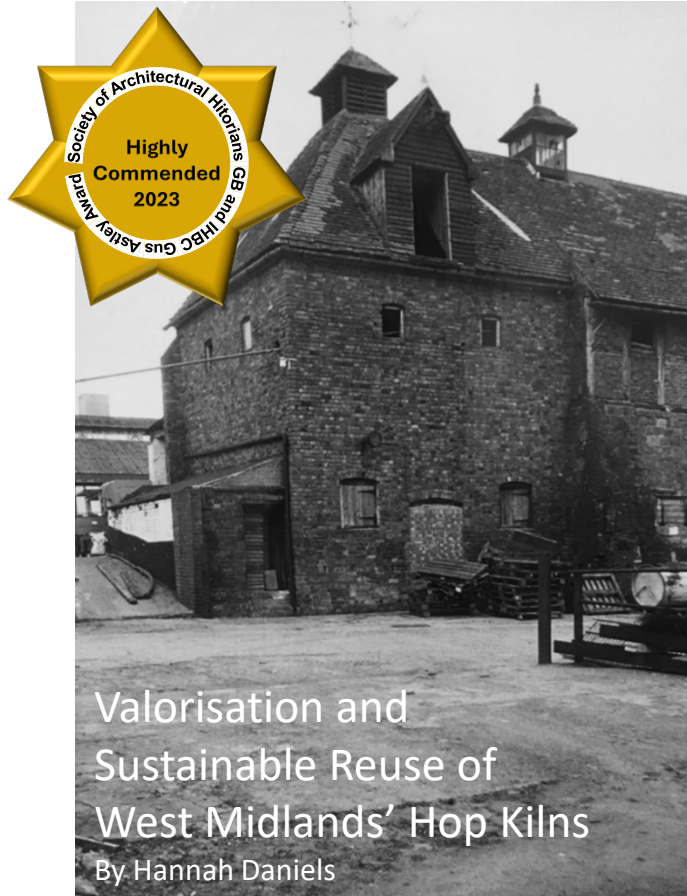
Propose and defend a design intervention
within an historic context



Dissertation

Module Leader- Dr Chris Whitman

Individual research on a topic of the students' choice





*An IHBC accredited
Masters' degree offered over
two years part time or
one year full time*

MSc Sustainable Building Conservation
Welsh School of architecture, Cardiff University
Celebrating the end of its 10 year



Word cloud from free-text requests from MArch (4th year) undergraduate students requests for final year design thesis unit topics for academic year 2020/21.

CARBON PASTS, LOW CARBON FUTURES:

VISIONS OF A SUSTAINABLE FUTURE FOR CRUMLIN NAVIGATION COLLIERY

You are invited to join us at Crumlin Navigation Colliery to view the work of final year MArch students from the Welsh School of Architecture.

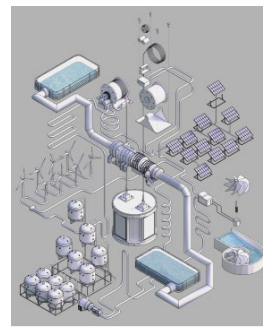
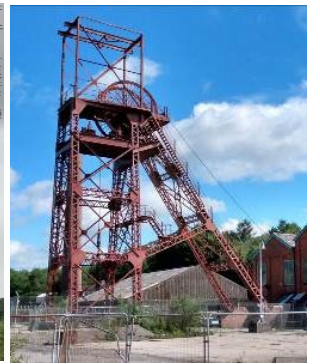
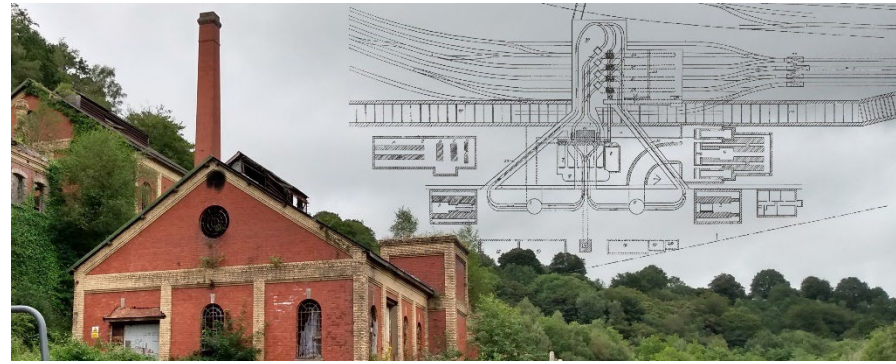
SUNDAY|26|JUNE|2022
11:00-16:00

THE POWER HOUSE, CRUMLIN NAVIGATION COLLIERY

The student's designs explore their visions of how this historic site might be brought back to life and play a role in Wales's fight against climate change.

Whilst fictitious, it is hoped that their architectural proposals will inspire others to see the potential of this historic site. The exhibition will also include an update on current real initiatives, with participation from Friends of the Navigation, Cardiff Business School, Cardiff University Civic Mission Innovation for All, ARC Academy, The Coal Authority and more.

For further information, contact:
ARCHITeachingOffice@cardiff.ac.uk @cardiff.ac.uk



CARBON PASTS, LOW CARBON FUTURES:

Visions of a Sustainable
Future for Pontypridd
Market Quarter

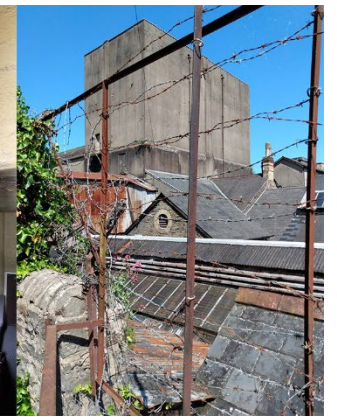
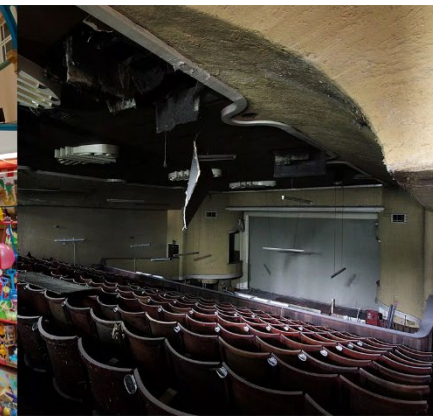
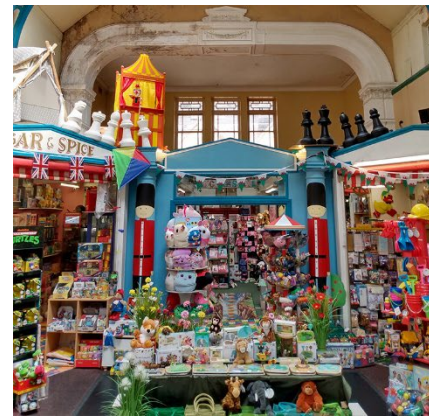
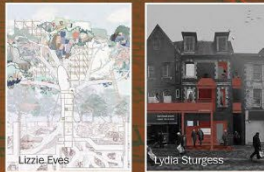
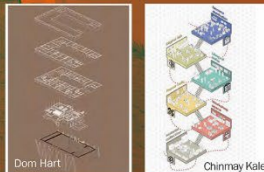
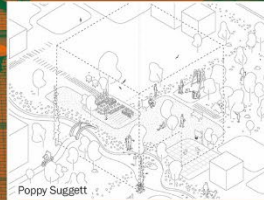
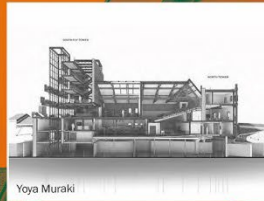
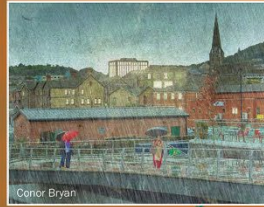
You are invited to join us to view the work of final year
MARCH students from the Welsh School of Architecture.

SATURDAY 1 JUNE | 10AM-5PM

VENUE: Canolfan Calon Taf,
Ynysangharad War Memorial Park
Pontypridd CF37 4PF

The student's designs explore **eight visions** for the future of the Market Quarter and how its vacant spaces, including the Town Hall Theatre, might be brought back to life to play a role in Wales's fight against climate change. Whilst fictitious, it is hoped that their architectural proposals will inspire others to see the potential of this historic location.

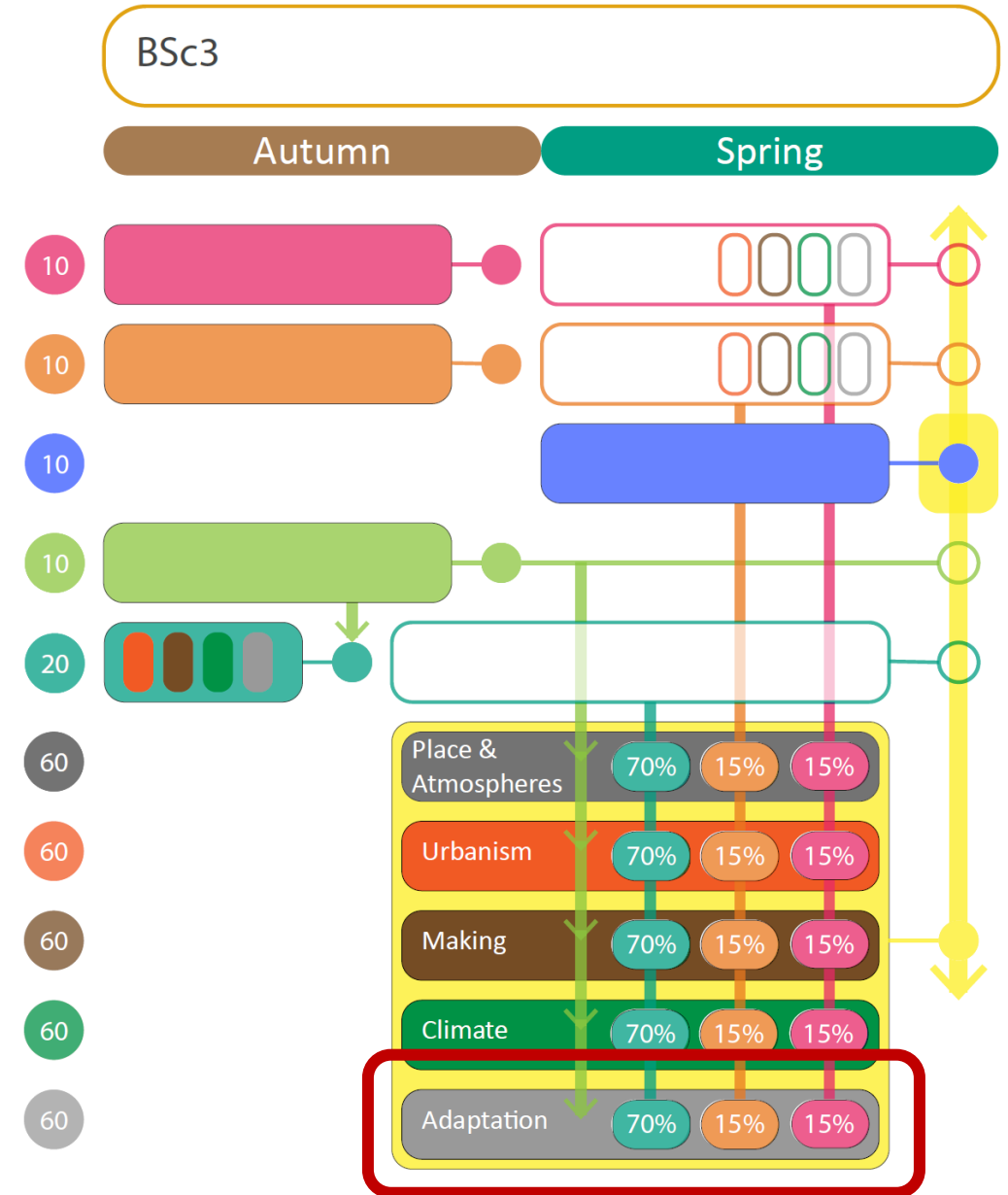
whitmanj@cardiff.ac.uk



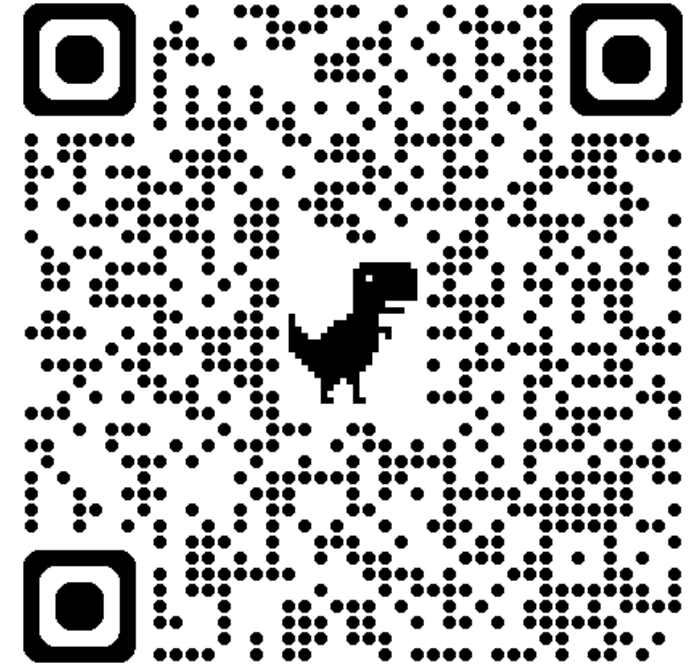
Our BSc Architecture Undergraduate course has just completed a comprehensive redesign which will see the introduction of thematic studio in 3rd year, including **“Adaptation”** focusing on the sustainable reuse of existing buildings and making our built environment resilient to climate change.

This will be supported with related electives in 1st & 2nd year.

The programme will launch in September 2025.



Thank You



For more information on the
MSc Sustainable Building Conservation

Dr Chris Whitman

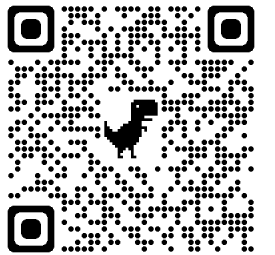
Senior Lecturer

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HERITAGE DECLARES
Climate & Ecological Emergency