

Designing lecture theatres to accommodate divergent learning styles and teaching methods



Caroline Pepper : Loughborough University
Nicholas Burwell : Burwell Deakins Architects

University Context

Loughborough Students and Their Expectations

- ‘e-students’
- mobile learners in time and space
- Physical and online spaces
- collaboration

‘Blended learning model’



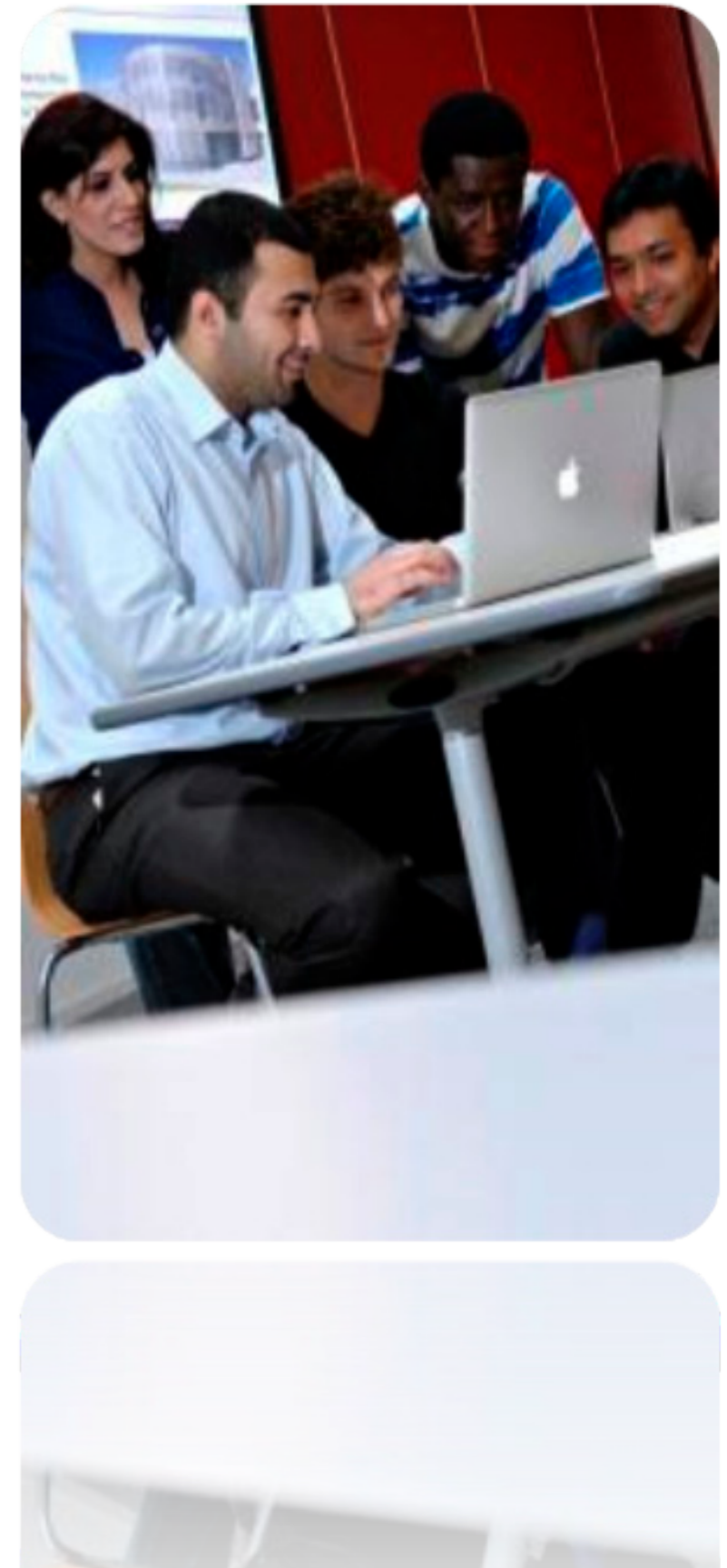
Learning and Teaching Strategy

Learning spaces to address emerging pedagogy

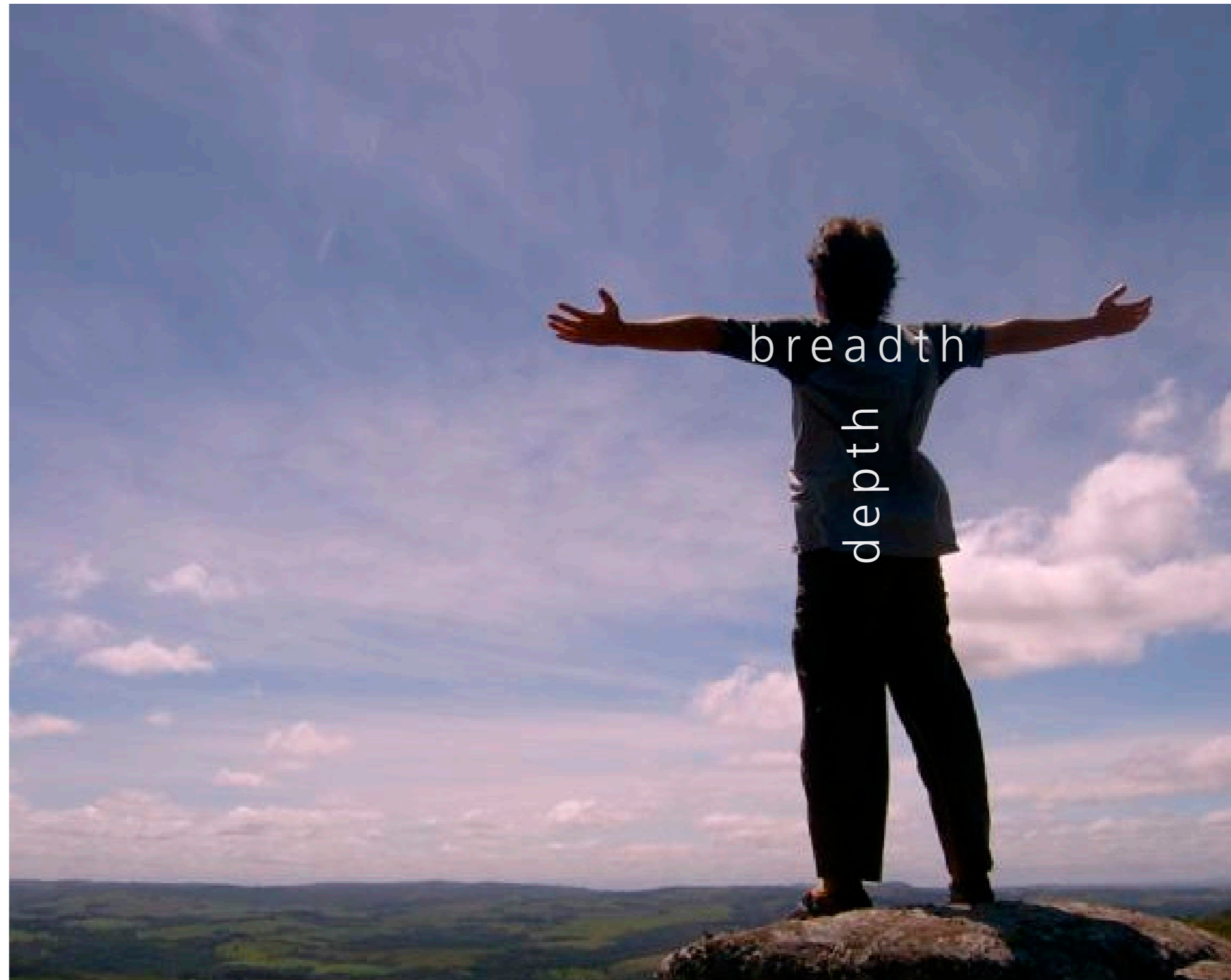
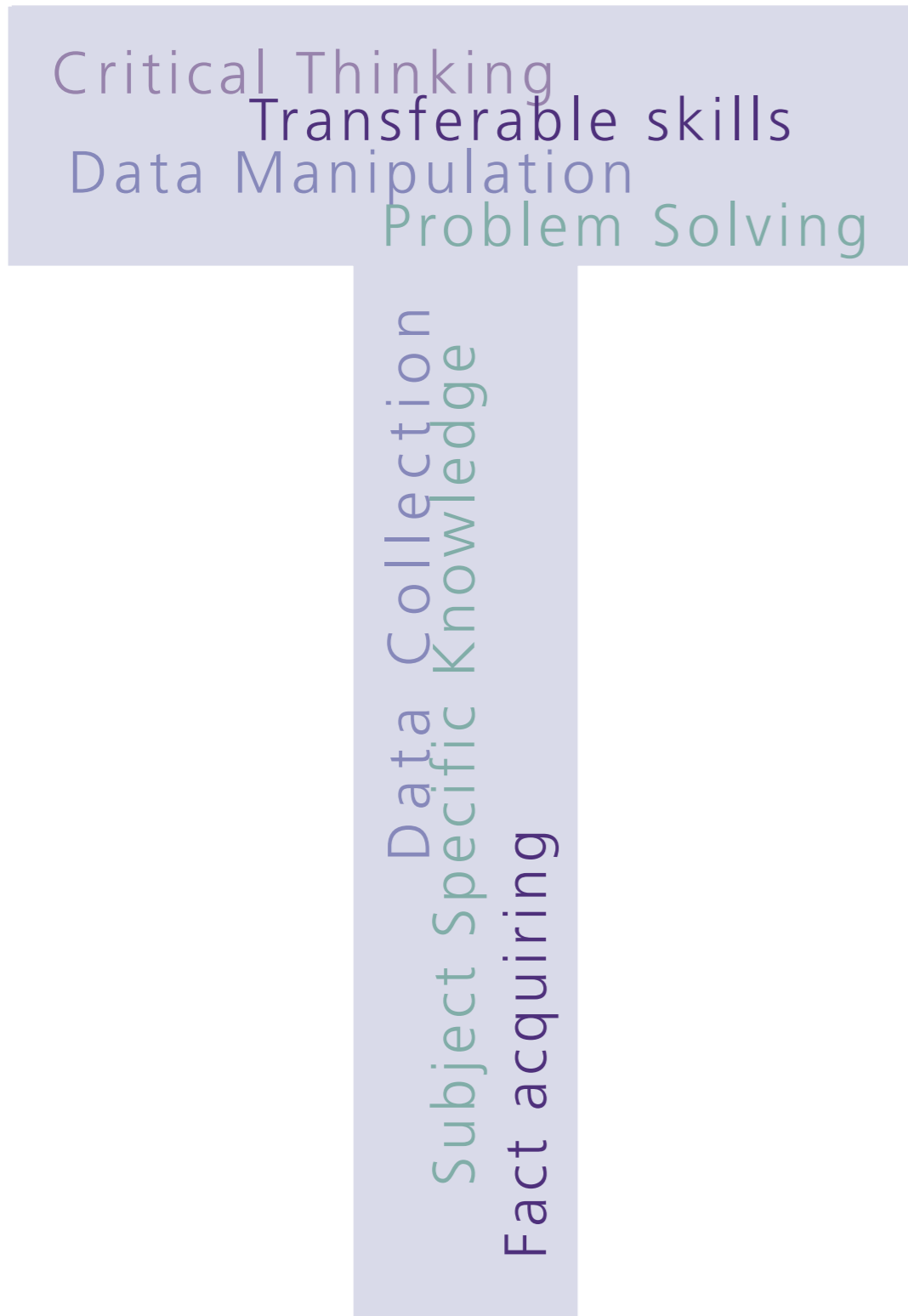
A strategy to:

- To encourage students to learn by conversation not isolation
- Appropriate environments: diversity of design

To develop the “**Loughborough Standard**”



What skills are we trying to develop?



The T shaped person and the learning environment

What is the purpose of a contemporary lecture theatre ?



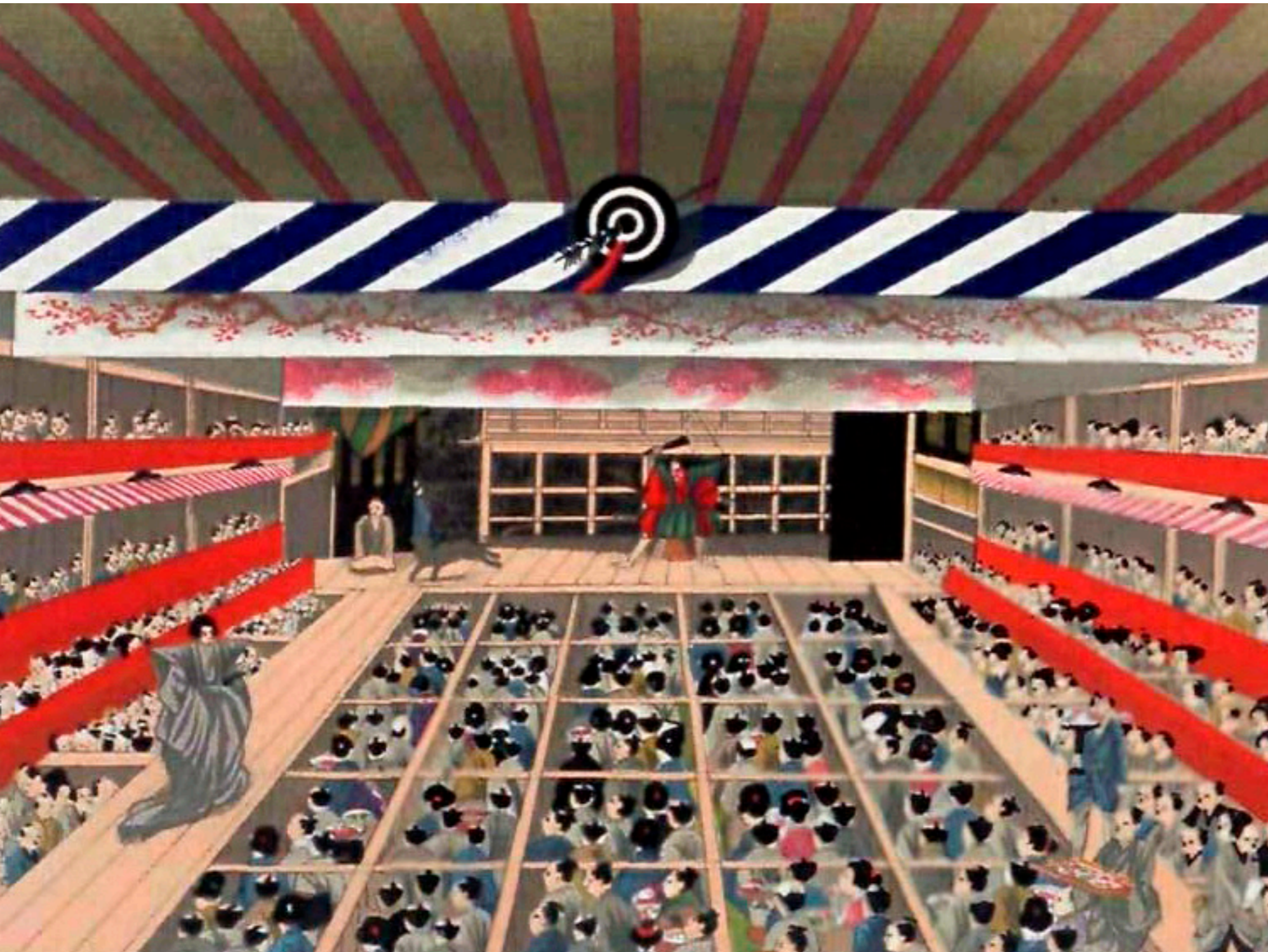
To gather information...



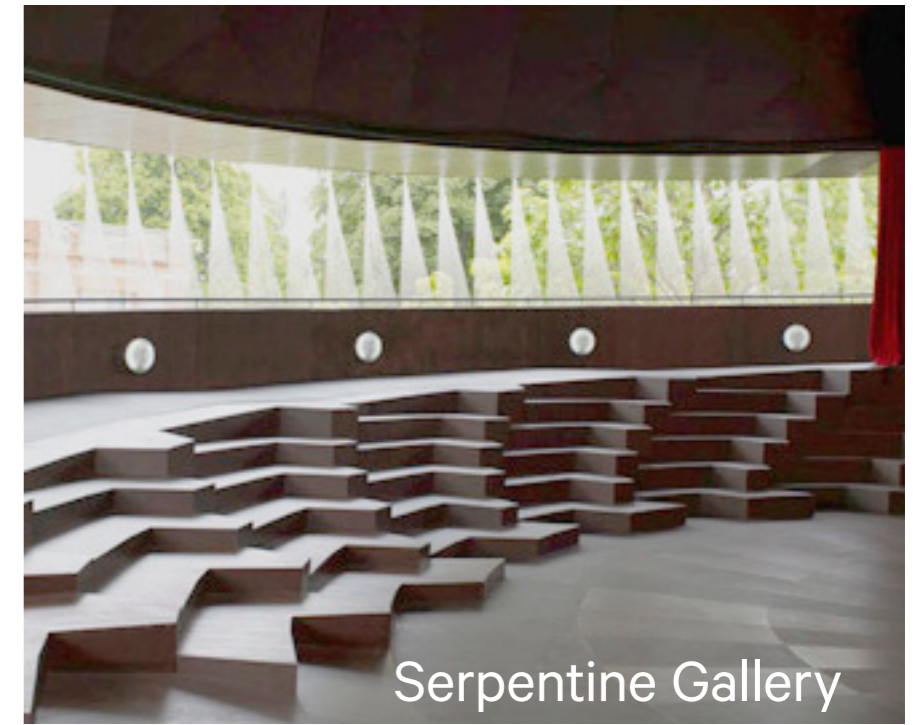
...and/or...

to discuss, review and consider what flows from previously collected information?

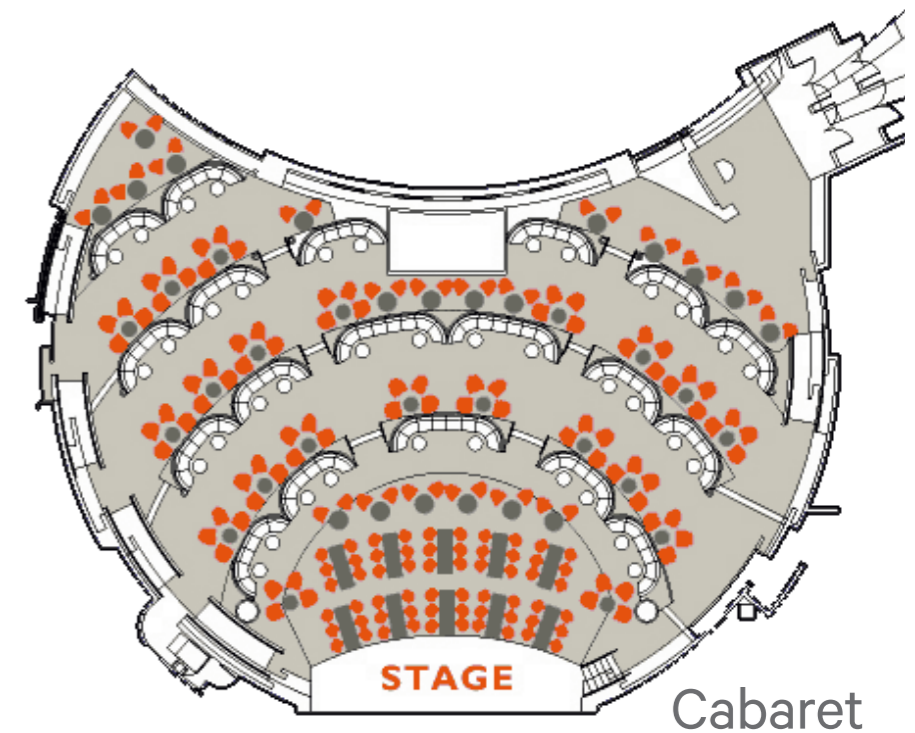
Models of Performance... what can be learnt?



Kabuki theatres



Serpentine Gallery



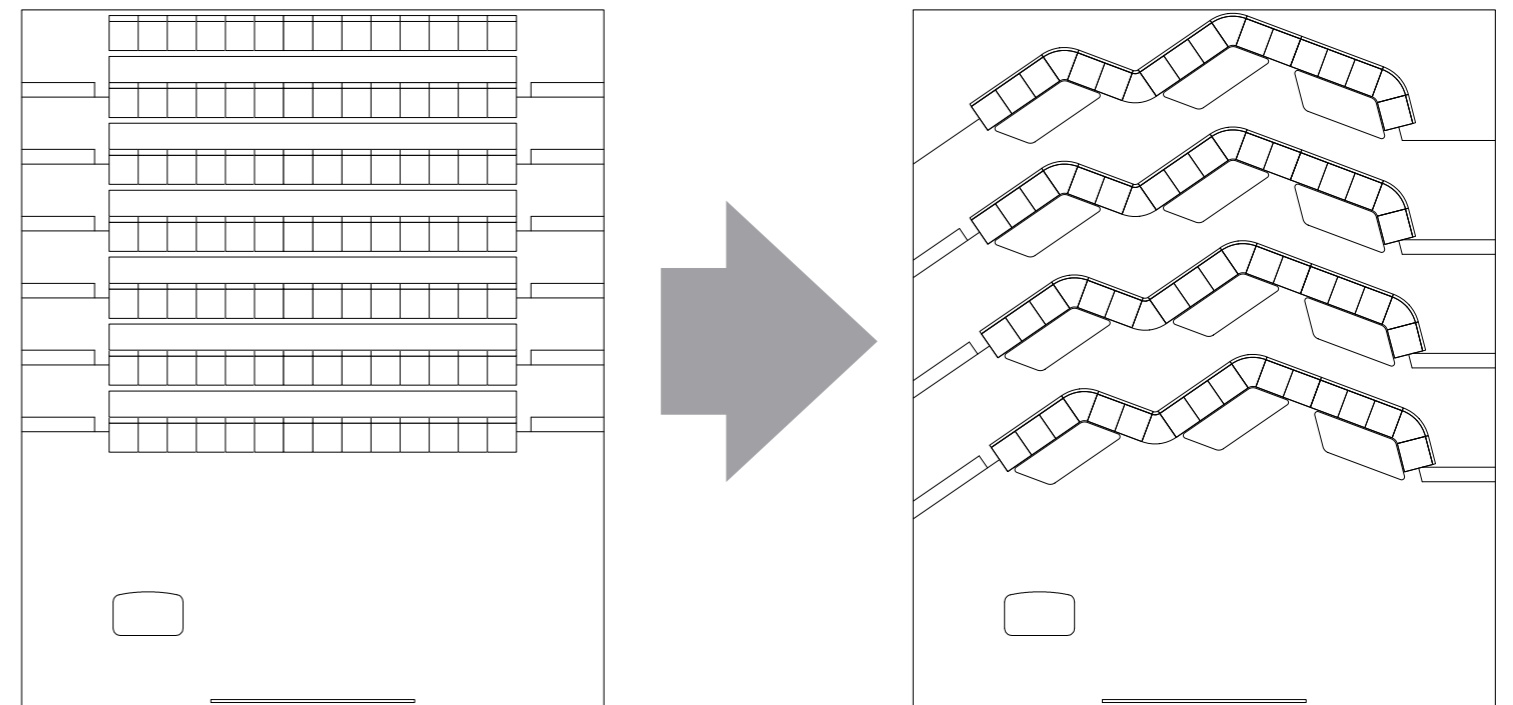
Cabaret

More engaged, collaborative working...

Informality and structure : Lessons from nature ?

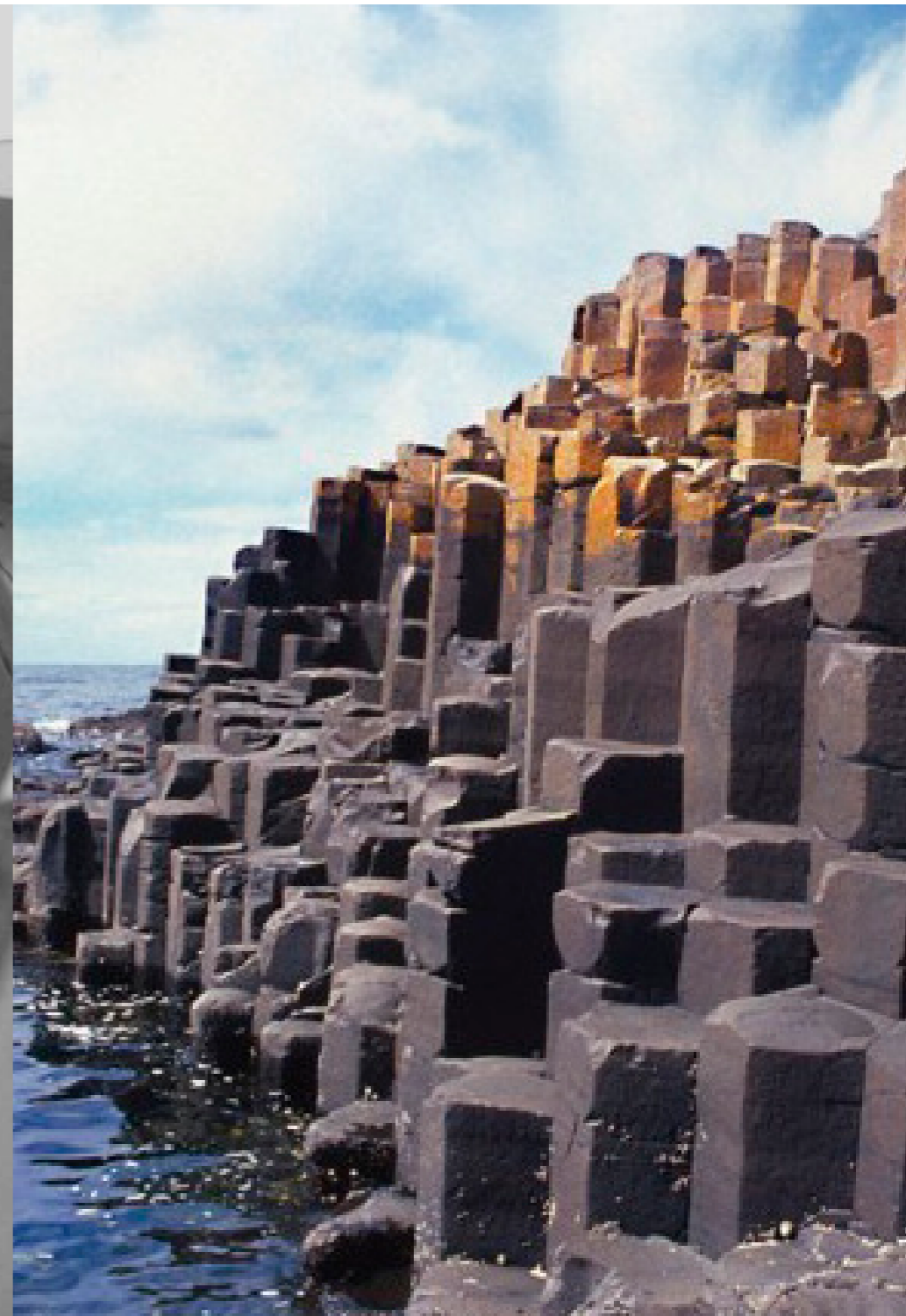
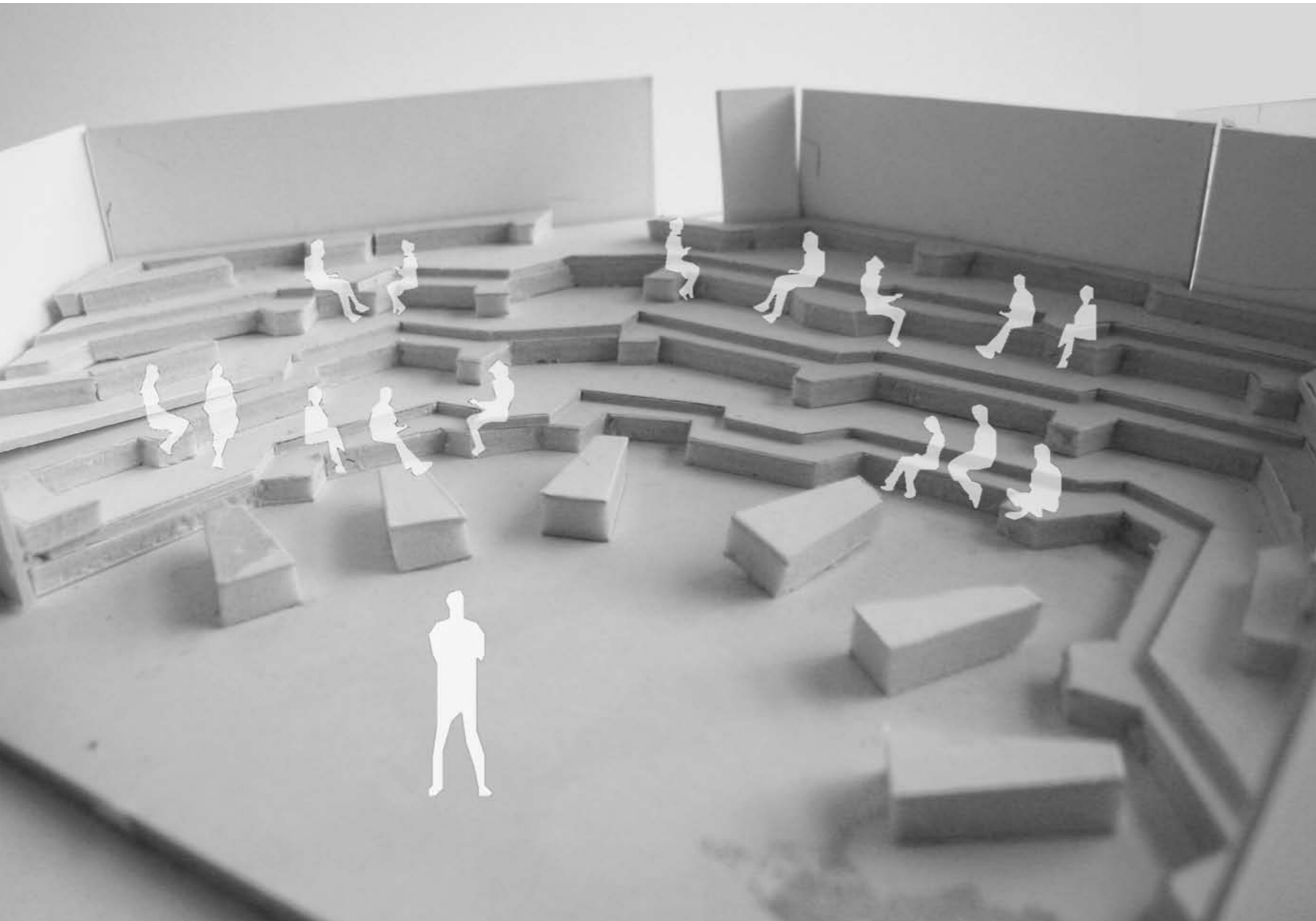
Didactic and Collaborative

creating informal arrangements from regular, fixed patterns...



...that naturally create groupings

The power of Metaphor to unlock the qualitative ?



Informal groupings requiring no alteration to achieve didactic or collaborative modes

Developing the design...

People that believe in progress...

Project Champions to promote the idea...

A team that will actively engage...

A fallback position!

Tony Hodgson

Caroline Pepper

Race Furniture



Develop : Test : Refine

Courage : There may be some set backs



It is easy to find reasons not to...

Sustainable, naturally ventilated, collaborative...



...space efficient?

Surprisingly so...

Didactic lecture theatre @ 0.9-1.1msq per person
Break-out space @ 0.9-1.5msq per person



OR

Collaborative lecture theatre = 1.20 msq per person

A multi award winning design that moves the teaching debate forwards

Outcomes

Loughborough Design School – LDS017

- Training
- Marketing
- Management, allocation & timetabling constraints
- External interest



Evaluation

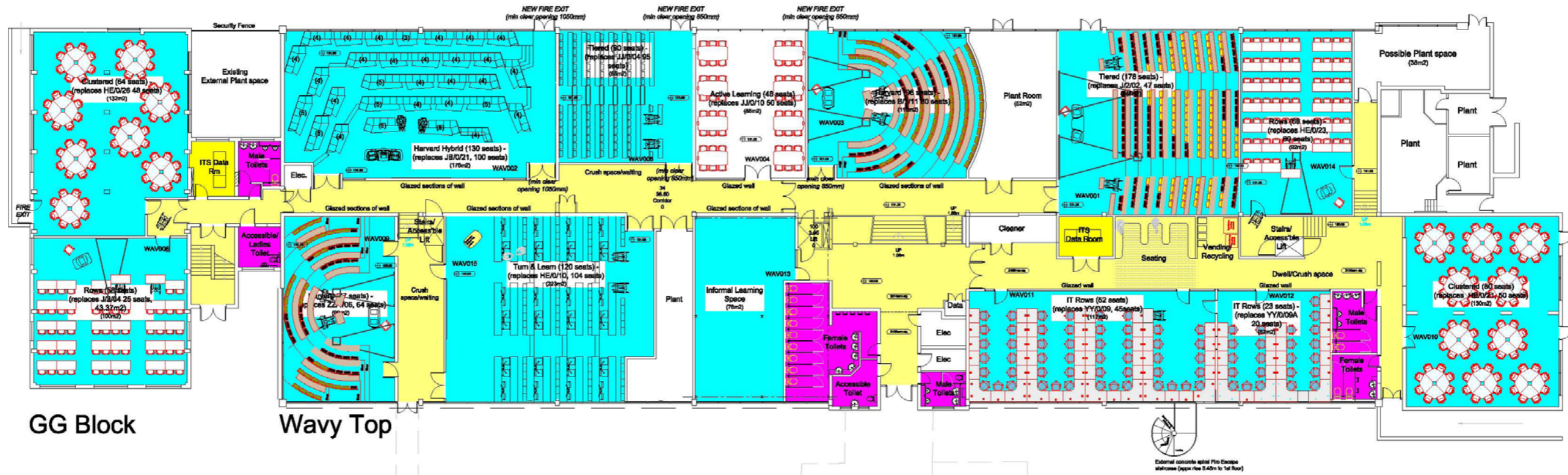
Loughborough Design School – LDS017

- Focus groups / teaching observations
- Student surveys
- Concepts and boundaries – formal/informal
- Space for collaboration
- Stakeholder expectations



Future Implementation

Future projects for Loughborough and Burwell Deakins Architects



Making it work as a refurbishment...



Queen's University Belfast

Developing a variation to suit deep, steep spaces ?



Gary Jebb
Jacqueline Kearns
Roland Carson



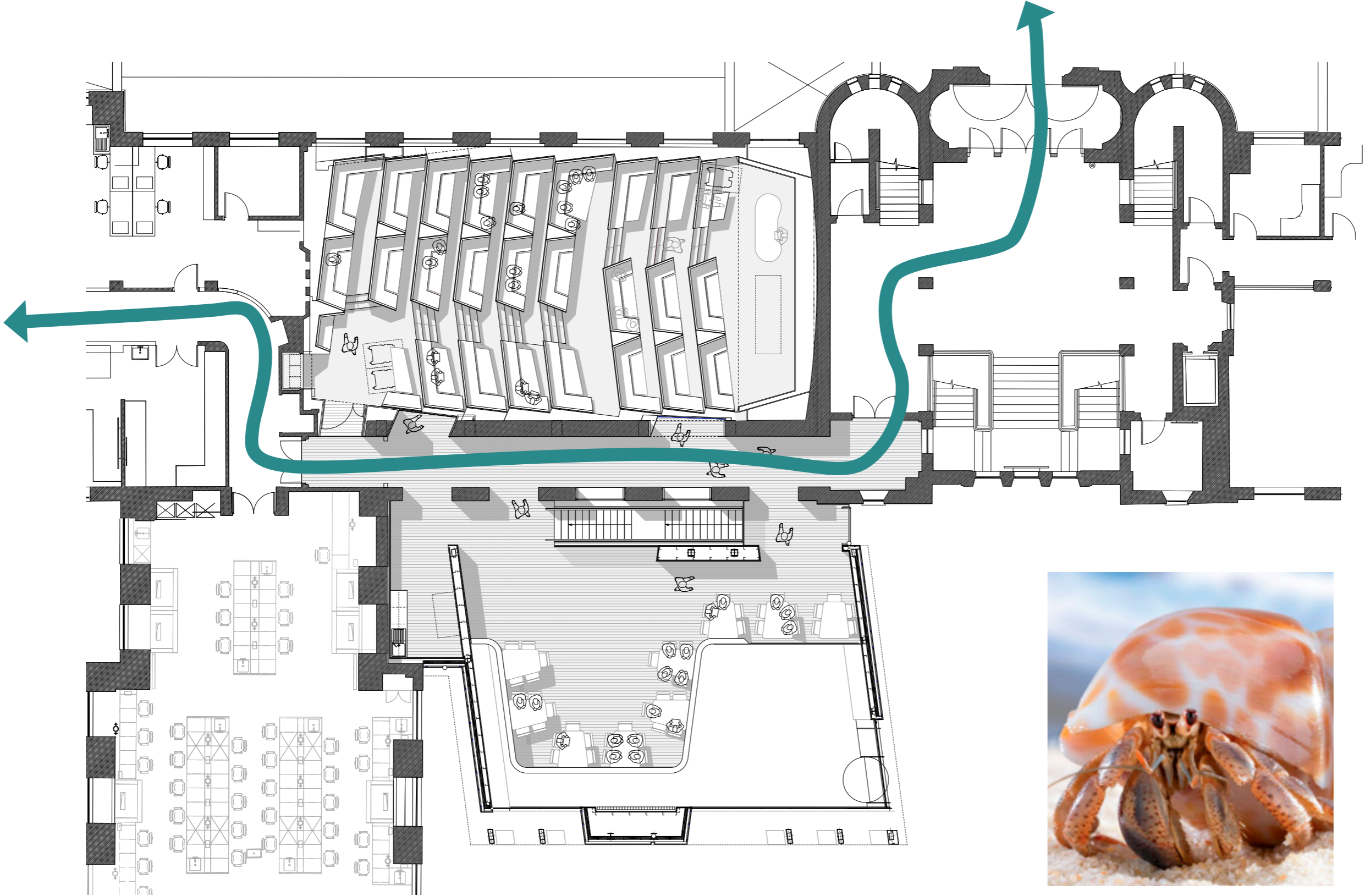
Finalist WAN world education building of the year 2015

Developing the teaching wall



...creating a clean, uncluttered focus for didactic teaching

Synergies with informal learning areas

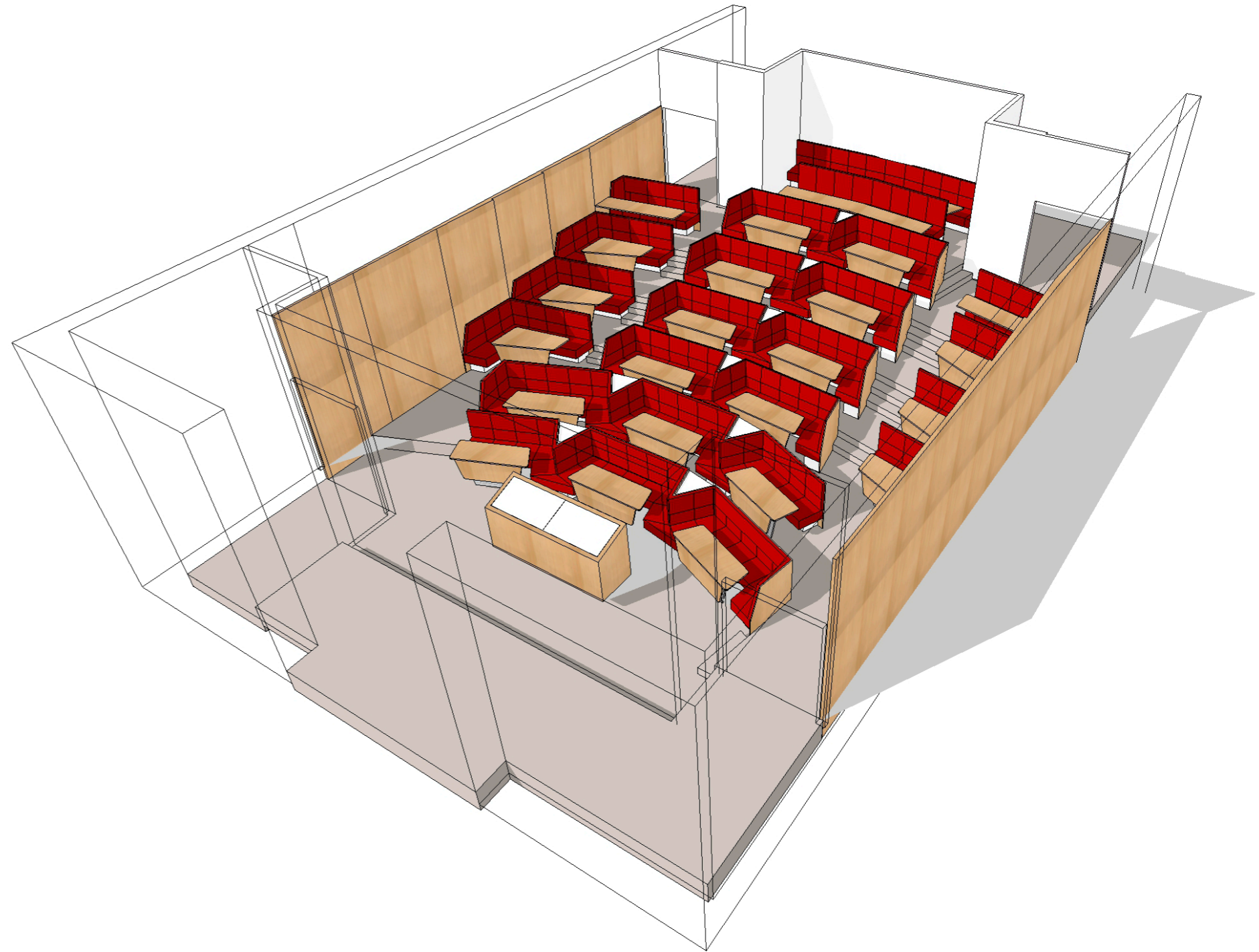


Developing a wave form with Falmouth & Exeter Universities



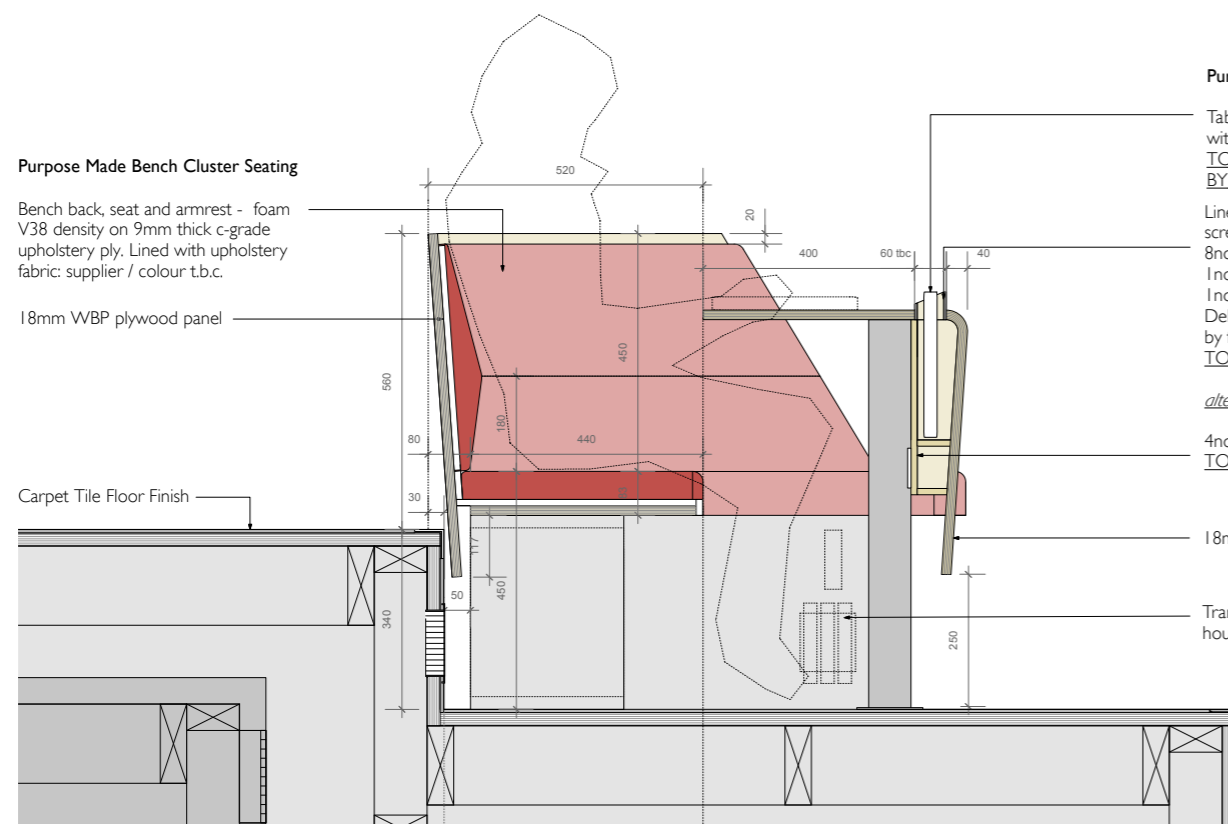
Anne George
Lucy Black
Andrew Asbury

Incorporating technology : Working with the University of Leeds



Incorporating technology : Working with the University of Leeds

Collaborating with
Liz Brittain & Steve Jackson to
integrate technology.



Purpose Made Bench Cluster Seating

Bench back, seat and armrest - foam V38 density on 9mm thick c-grade upholstery ply. Lined with upholstery fabric: supplier / colour t.b.c.

18mm WBP plywood panel

Carpet Tile Floor Finish

Purpose Made Desk

Tablet (touch screen monitor) device - housed within built in slot
TO BE FREE ISSUED TO FURNITURE SUPPLIER BY UNIVERSITY / AV SUPPLIER

Linear unit with stainless steel trim incorporating screen slot,
8no. USB charging ports,
1no. HDMI input on retractable cable (laptop connection),
1no. light switch for spot light above table,
Delegate microphone system positioned at either end of the unit (free issued by University/ AV supplier for furniture supplier)
TO BE PROVIDED AND BUILT IN BY FURNITURE SUPPLIER

alternatively the entire pre-assembled linear unit could be provided by the AV supplier

4no. Power Sockets on fascia beneath desk
TO BE PROVIDED BY FURNITURE SUPPLIER

18mm WBP plywood desktop / fascia panel

Transmitter, Switcher and Receiver device housed under bench seating, with access panel

And the rest of the Design School...



...that was a collaborative process too!

“The creation of this style of space has positively challenged the way we teach. The layout enables students to be engaged in a more effective way.”



Dr Julie Holland : Director of the Glendonbrook Centre for Enterprise Education.