

Learning Landscapes in Higher Education 2010

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Clearing pathways, making spaces, involving academics in the leadership, governance and management of academic spaces in higher education



Learning Landscapes in Higher Education

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MAPPING THE LEARNING LANDSCAPE

The Learning Landscapes project is a response to those in higher education who are concerned that decision making about the development of the learning and teaching environment is not as effective as it could be. Learning Landscapes offers the higher education community a practical and conceptual framework to consider the ways in which learning and teaching spaces are being designed and developed. This notion of 'community' extends to all who work in universities: academics, support and professional staff, as well as existing and potential students.

The increasingly diverse offering of global higher education effectively means that there is no longer a single prescription or model which represents the learning environment (pedagogy and infrastructure) in the 21st century. Although not prescient at the start of the project, the need for a critical review of a university offering is ever more important in the light of a reduced publicly funded higher education budget for the foreseeable future. Efficient and effective use of space can contribute not only to an enhancement of the academic offering, but it can also contribute significantly to savings other than in the staffing budget.

I am immensely grateful to the universities that took part in this project, giving access to their estates for the case study research and for their active participation as members of the Learning Landscapes Steering Group. My special thanks are due to our principal partner, DEGW and its Director, Andrew Harrison, who has worked closely with colleagues at the University of Lincoln, and with the participating universities to produce this report. I would like to record my gratitude to the Higher Education Funding Councils for England, Wales and Scotland who supported this project by providing monies for the research to be carried out.

On behalf of the Steering Committee, I express our sincere appreciation to Professor Mike Neary for his excellent leadership and impressive grip on the project throughout.

This report is a record of what has been an immensely exciting and innovative project. It is full of ideas, information as well as issues for debate and discussion. At its core lie a range of development tools by which colleagues working across all parts of the sector can support each other in further developing the Learning Landscapes in Higher Education.

I commend this report to you.

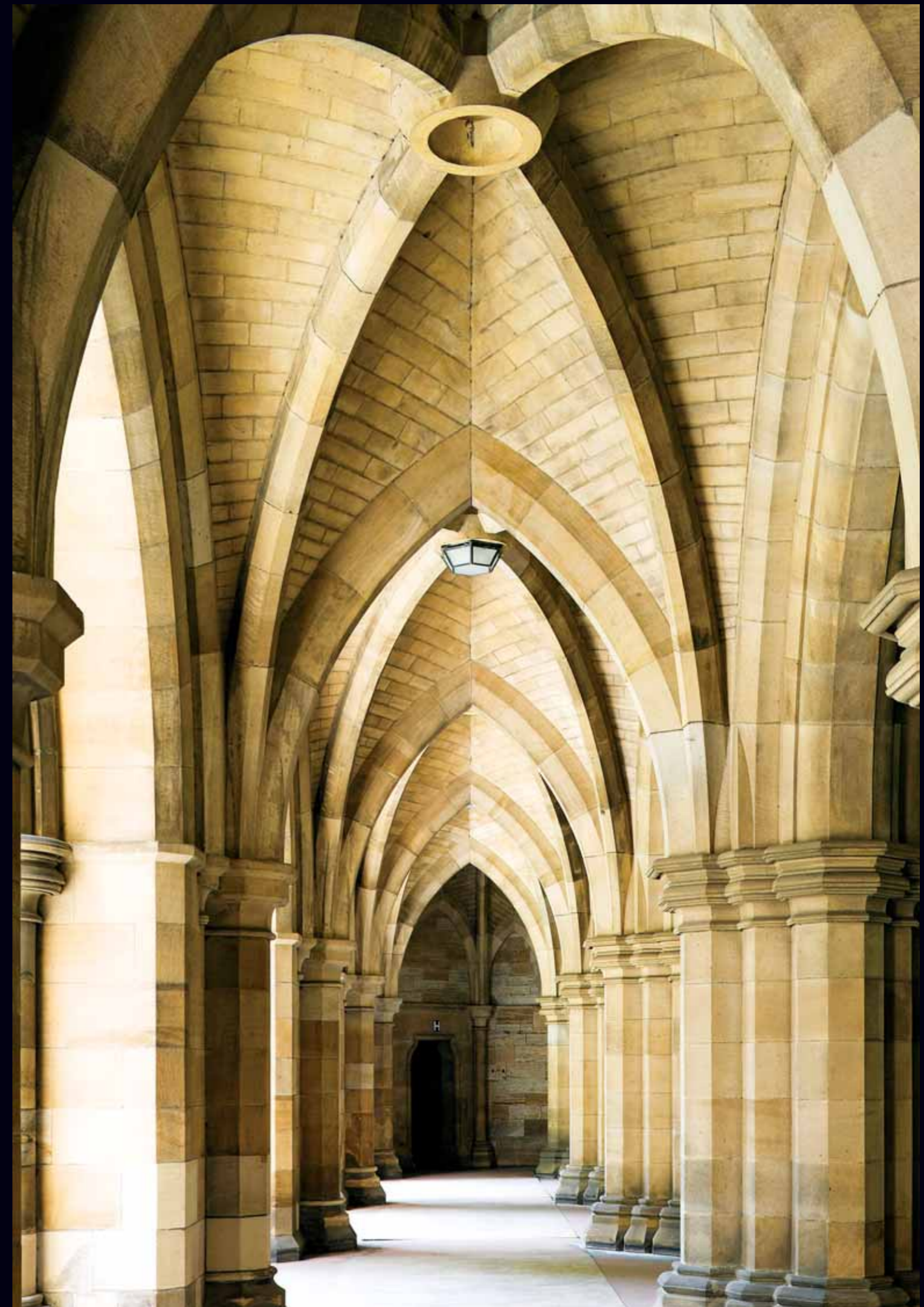
Professor David Chiddick

Project Director



Above The Teaching Grid, University of Warwick.

Right University of Glasgow 'Cloisters' in the Gilbert Scott Building, Gilmorehill Campus.



FOREWORD

Learning Landscapes: A catalyst for collaborative innovation

The last thirty years have witnessed dramatic developments in higher education. The changes have reflected increased student numbers, a broadening of curricula, alternative approaches to teaching and learning and many higher educational institutions re-defining their geographical and pedagogical boundaries. These shifts have been reinforced by the take up of new technology that has democratised knowledge, freed up where, when and how learning can be undertaken and changed perceptions of how we conceive the place and process of learning.

In parallel with these changes in learning has been a reappraisal of the provision, management and use of facilities and the role of estates. Universities under pressure to expand, change and find greater efficiencies, have recognised the value of their estate both as a real estate asset and vehicle to open up opportunities for innovative teaching. The intelligent Estates Director, from a position of blindly reacting to academic demands and maintaining the existing stock, has taken a pro-active role in contributing to the academic and business planning process by presenting options, identifying under-utilised resources, and mapping out pathways to achieving academic aspirations.

In the commercial sector, in response to an increasingly competitive environment, organisations in both the public and private sectors are embracing new ways of working. They recognise the rigidity of a real estate portfolio composed entirely of owned and purpose-designed buildings. Experience has shown that greater flexibility can be achieved by assembling a mixed portfolio of:

- **core space, that which is owned and purpose designed to meet specialised needs and express the unique identity and values of the institution**
- **flexi-space, on short leases, so as to be easily disposed of, where new courses can start and research projects or cross-disciplinary departments can be nurtured until they become established, and**
- **'just in time' space, where functions can share or rent space, for short periods of time, as demand arises.**

Such a strategy increases financial flexibility, reduces risk, and opens up new opportunities.

Universities, under severe financial pressure and faced with rapidly changing demands, are looking to learn from the commercial property sector, by questioning whether new purpose-built buildings are always the answer and assessing the opportunities to intensify the use of their current stock by innovative timetabling, and sharing resources with non-academic partners. The perception of academics that owning space, on a 'just in case' basis, signifies strength and status is changing, to one where space is recognised as just one resource that can be traded to allow for other opportunities. The relationship between pedagogical aspirations and building policy, as a driver of positive change, is being accepted and embraced.

Learning Landscapes sets out a process and provides the tools to bring the academic, estates and other key stakeholder interests together in one integrated process. Working together it provides a platform to assess existing resources, identify aspirations and propose achievable strategies through fresh eyes. Universities who have participated in the Learning Landscapes project recognise the need to change by not only valuing the importance of the built environment in supporting the university vision, but also identifying the need to dissolve the division between estates departments and teaching and learning, which so often results in silos of responsibility and a lack of understanding of each other's work and needs. The participating universities are aiming to improve the design language amongst academics and other key stakeholders, whilst estates staff become more aware of the requirements of academic space and behaviour.

Learning Landscapes uniquely provides a series of methodologies for integrating organisational and spatial understanding. All of the methodologies involve a collaborative approach, which can be undertaken over a short or longer time frame, requiring limited resources. What has been developed by Learning Landscapes is a powerful process that can be used to assess both the existing estate and new proposals, becoming part of the regular process of academic, business and estates planning. Applied in a spirit of understanding and collaboration, it sets out a process and provides the tools to understand both academic aspirations and real estate opportunities and constraints. The case studies have shown that as a hands-on interactive process engaging academics, administrators and students, who have a direct interest in the success of the outcomes, it can result in innovative proposals and an ownership of the outcomes. As universities recognise the opportunities to look outside the confines of their own property portfolios, the methodologies could be applied to reviewing with other public and private institutions the opportunities to share resources and identify potentially attractive synergies.

Learning Landscapes is not a methodology for auditing and control, but a means of questioning, changing perceptions and unlocking innovative thinking. I commend this report to all those who are willing to approach their estate with fresh eyes.

John Worthington

Founder DEGW
Graham Willis Professorship, University of Sheffield
Professorial Fellow, University of Melbourne

Executive Summary

Learning Landscapes in Higher Education is a UK-wide research project, looking at the ways in which academics work with colleagues in estates and other key stakeholders to develop and manage innovative teaching and learning spaces in higher education.

The purpose of the project has been to suggest ways in which the academic voice can be more fully articulated within the decision making processes at all levels of the design and development of teaching and learning spaces.

The project has been led by the University of Lincoln, working closely with DEGW, a major international design company, in collaboration with eleven British universities: Edinburgh – Napier, Glasgow, Glyndŵr, Loughborough, Newcastle, Oxford Brookes, Queen Mary – University of London, Reading, Warwick, Wolverhampton and York. The project ran from February 2008 until December 2009, and was funded by HEFCE, SFC and HEFCW.

Learning Landscapes in Higher Education looked at the relationship between campus planning and specific exemplary teaching and learning spaces in all of the participating universities. A key feature of the research was the way in which these exemplary spaces are integrated into an overall campus plan. Based on principles derived from the latest research in design and planning, Learning Landscapes in Higher Education looked at the way in which university teaching and learning spaces and campus master plans express the values and aspirations of the universities within which they are sited.

The project has produced a series of case studies that reveal the manner in which these innovative teaching and learning spaces have been developed, with a particular focus on the decision making processes and organisational structures within which these spaces were made. The information acquired about decision making provides knowledge about an aspect of the process that has been identified as a gap in the literature on pedagogy and the built environment (Temple 2007).

A central issue for Learning Landscapes in Higher Education is the extent to which the academic voice is engaged in the design of progressive teaching and learning spaces. This engagement includes the ways in which academics are involved with design decisions, the degree to which pedagogical principles are captured in the design of teaching and learning spaces, and, more fundamentally, the extent to which academic values are embedded within the processes and protocols through which universities are being refurbished and rebuilt.

These academic values extend beyond the preferences of any one individual or group of individuals to express the customs of specific subject disciplines, as well as the political and historical development of higher education. It is this articulation between design and the traditions of subject disciplines, linked to an intellectual discussion about



Participants at the Learning Landscapes conference at the University of Lincoln, 2009.

the idea of the contemporary university, that characterise the very specific quality of the Learning Landscapes project.

In order to facilitate these debates, and based on findings from the research projects, Learning Landscapes in Higher Education has designed a series of development tools for academics, estates and other key stakeholders so that they are better able to foster a culture and practice of collaborative working. These tools are based on the desire to create a common language through which academics, estates and other key stakeholders can better communicate their ambitions and aspirations for their built environment.

A defining feature of this language is that it is derived out of the vernacular and syntax of higher education. These development tools are:

- **Campus Mapping Profile**
- **Teaching with Space in Mind**
- **Pragmatics of Place**
- **Talking our Future into Being**
- **The Idea of the University.**

As a result of this work, Learning Landscape in Higher Education has established a set of principles that support and enhance the design and development of teaching and learning spaces. These principles include the importance of evidence-based decision making, the need for student engagement, the significance of leadership, the necessity of role clarification, the establishing of appropriate management structures and the need to ground the design processes in an academic culture of debate and discussion.

01 BACKGROUND TO THE LEARNING LANDSCAPE

Reviews of space utilisation across the UK Higher Education Estate found that utilisation rates of teaching spaces were often between 15% to 20% during core learning hours. In an effort to improve the situation the Funding Councils provided good practice guidance on the development of institutional estates strategies, the use of centralised timetabling for centralised learning spaces and the implementation of space charging systems as a method for highlighting the true cost of academic space to the occupiers of the space.

Subsequent reviews of space utilisation in many institutions found that there had been no substantial improvement in utilisation levels, with the median for predicted and surveyed utilisation remaining at around 25%.

In 2006 the UK Higher Education Space Management Group (SMG) was set up to assist higher education institutions to identify and implement best practice in the management of space. It was felt that effective space management techniques are an important management tool in the increasingly dynamic and diverse higher education environment. During its three years of operation the SMG undertook a number of significant research projects into space-related issues and produced a series of reports available on the SMG website (www.smg.ac.uk) on topics such as: space management and utilisation, space norms, cost models for the higher education estate and case studies of innovative practice.

During this period DEGW worked with a wide range of institutions in the UK and internationally to help improve the efficiency and effectiveness of their estates. To help institutions take a more holistic view of their estates, DEGW began to use the term 'learning landscape' to describe the range of spaces where learning takes place: the formal and informal spaces, the specialised and general spaces, the library, social and eating spaces as well as the formal teaching spaces and both the physical and virtual spaces.

Subsequent discussions with Professor David Chiddick, Chair of the Space Management Group, suggested that the learning landscape concept could provide a possible solution to the separation and dislocation of higher education good practice guidance in the areas of management and governance of estates. Academics are increasingly involved in the management of higher education and yet available good practice guidance does not fully address leadership, governance and management issues related to how academics can work with estates to develop and manage space effectively in higher education.

Available good practice reflects the separation of academic issues relating to the leadership, governance and the management of estates. Where publications dealing with the design of university spaces have sought to promote links between academic expertise, the strategic mission of the university and estates development, they do not include research into existing models of good practice nor have they suggested pathways by which connections between academics and estates might be established.

Much of the good practice guidance focuses on traditional learning and teaching environments and tends to ignore the very significant redesigns of teaching and learning spaces that follow from recent transformations in pedagogy and research activity, including the increasing emphasis on both collaborative and individual learning journeys. The emergence of these new learning landscapes requires much closer collaboration between academics and estates so these new spaces can consolidate and drive further innovation and experimentation without losing the strengths of the traditional academic teaching environment.

The need to develop a better understanding of the relationship between academics and estates in the leadership, governance and management of space in universities provided the genesis for this project, the goal of which is to suggest new pathways by which universities can link academic expertise to the process of estate development and the design of the university for the 21st century.

The New Technology Centre,
University of Wolverhampton.



02 THE LEARNING LANDSCAPES CONCEPT

A silent revolution?

The concept of Learning Landscapes has emerged as a way of thinking holistically about the refurbishment and rebuilding of universities. While there is no agreement or simple definition as to the precise meaning of the term 'learning landscape' (Thody 2008), the use of this metaphor allows for a level of multi-dimensional thinking about the construction of universities which has been missing from the debate about the future of higher education (Neary and Thody 2009).

The concept of Learning Landscapes has been used to describe the changes that are being made to teaching and learning environments across the educational sectors. Originally used in relation to schools and colleges, the term has recently been applied to higher education to describe what is regarded as 'a design in educational transformation' (Harrison 2006), and 'a silent revolution in the design of teaching and learning spaces in higher education' (Chiddick 2006).

The most compelling account of the concept is provided by DEG, who suggest that the new landscapes in higher education are the result of, among other things, the possibilities offered by new technologies, the demands of students for more collaborative and immersive experiences and the requirements of academic staff for interdisciplinary research. This has led designers to conceive of different kinds of physical learning and teaching spaces including the specialised and the flexible, the formal and the informal and the ways in which physical spaces are networked through the use of information technology. At the core of these designs are new pedagogies based on student-centred learning, greater collaboration and engagement between staff and students and the connections that are being made with communities outside of the campus (Dugdale 2009).

Learning Landscapes in Higher Education has found that progressive design companies and architects are working in collaboration with universities to develop strategies to advance the Learning Landscapes agenda. These strategies include: analysing the whole campus as a learning space, developing insights from user engagement, supporting multiple layers of learning, enabling experimentation and increasing space utilisation, forming strategic partnerships to develop informal spaces, linking space performance to assessment and developing learning spaces beyond the campus. Key to these new developments is that the new Learning Landscapes in Higher Education should operate efficiently and effectively, while at the same time expressing the values of their institutions (Dugdale 2009).

Learning Landscapes in Higher Education has sought to develop the concept of Learning Landscapes in three distinct ways:

1. By uncovering what Thody (2008) refers to as the messy reality of decision-making through which these new Learning Landscapes are made.
2. Designing a set of developmental tools, to provide a framework for further dialogue and debate, recognising the importance of dissensus as a critical stage of progressive development: the positive power of negative thinking.
3. Opening up the concept of Learning Landscapes to critical scrutiny by situating it within a paradigmatic framework for universities: as one 'ideal' among a series of progressive approaches to higher education. Exposing the concept to critical analysis enhances the possibilities for further radical transformation (Neary and Saunders 2010).



Inside the New Technology Centre at the University of Wolverhampton.

Teaching is spacious

A key issue for Learning Landscapes is the relationship between design and pedagogy. While it is logical to suppose that teaching and learning should drive design (Jamieson 2003), in practice it has been the case that design and pedagogy appear to have been disconnected (Barnett and Temple 2006), with design imperatives coming before any specific requirements for teaching and learning (Edwards and Usher 2003).

In the recent period, interest in the design and development of teaching and learning spaces in higher education has grown exponentially. A series of publications have appeared with case study reports making links between learning strategies and space designs as well as the connection between the virtual and the built environment. Other publications include conference proceedings and methods for effective evaluation¹. This Learning Landscape report is a contribution to this growing debate.

Despite the enthusiasm for the development of new teaching and learning spaces in higher education, the relationship between effective undergraduate teaching and learning and innovative new spaces is not well understood. This lack of understanding is perpetuated by the limited amount of research in this area (Temple 2007 4). The lack of research may be one reason why there is resistance to change among academics in higher education (Temple 2007 49).

While the architectural design of higher education has only recently connected to pedagogical issues, the literature on higher education pedagogy still tends to ignore the issue of space design (Temple 2007). Writing on teaching and learning in universities is aware of issues of 'context' and 'setting', but it largely ignores any direct engagement with issues of space or spatiality (Jamieson 2003, Temple 2007). This is apparent from a brief review of some of the most important work on effective teaching and learning practices in higher education.

Laurillard (2002) deals with teaching as a form of mediated as well as situated learning. And yet, despite the importance of creating learning environments, and her understanding that students 'are aware of the social, political and organisational context around them' (p.199), the physical spaces in which teaching occurs is not problematised.

Ramsden (1992) focuses on how students learn and the student experience. Despite dealing with all aspects of pedagogy in higher education there is no account of teaching spaces other than as places within which teaching and learning happens. Ramsden uses geological metaphors to describe best practice in teaching and learning - 'deep', for effective forms of learning, and 'surface' for ineffective forms of learning - but his work lacks a geographical or spatial imagination. Even though he argues 'What we need to do is to create an environment where university students and their teachers learn well' (p.234), there is no real sense of space and spatiality in his work.

Biggs (2001) seeks to develop the notion of 'deep' and 'surface' learning through the concept of constructive alignment, by which he means getting all of the curriculum components arranged in ways that support and enhance the learning process. Biggs uses the meteorological metaphor of 'climate' to describe the importance of creating the right atmosphere in the classroom and at the institutional level for effective pedagogical practices, but again there is no sense of the importance of space in his writings (p.25-26).

The notion of 'threshold concepts' sits at the cutting edge of approaches for effective teaching and learning in higher education (Meyer and Land 2005). 'Threshold concepts' require that university teachers make clear what is fundamental to know about their subject area and design their curricula accordingly. 'Threshold concepts' are said to have the capacity to shift students' onto logical perceptions and expose hidden connections in ways that are counterintuitive. Advocates of 'threshold concepts' refer to 'liminal spaces' as places that students occupy as they move from a confused cognitive state of mind on the way to grasping what 'threshold concepts' mean, but say nothing about the physical spaces where learning occurs.

Learning Landscapes contributes to these debates by making a very clear connection between research into effective teaching and the design of learning spaces, as well as demonstrating how to establish a relationship between design and pedagogical theory.

¹ Some examples of recent work includes:

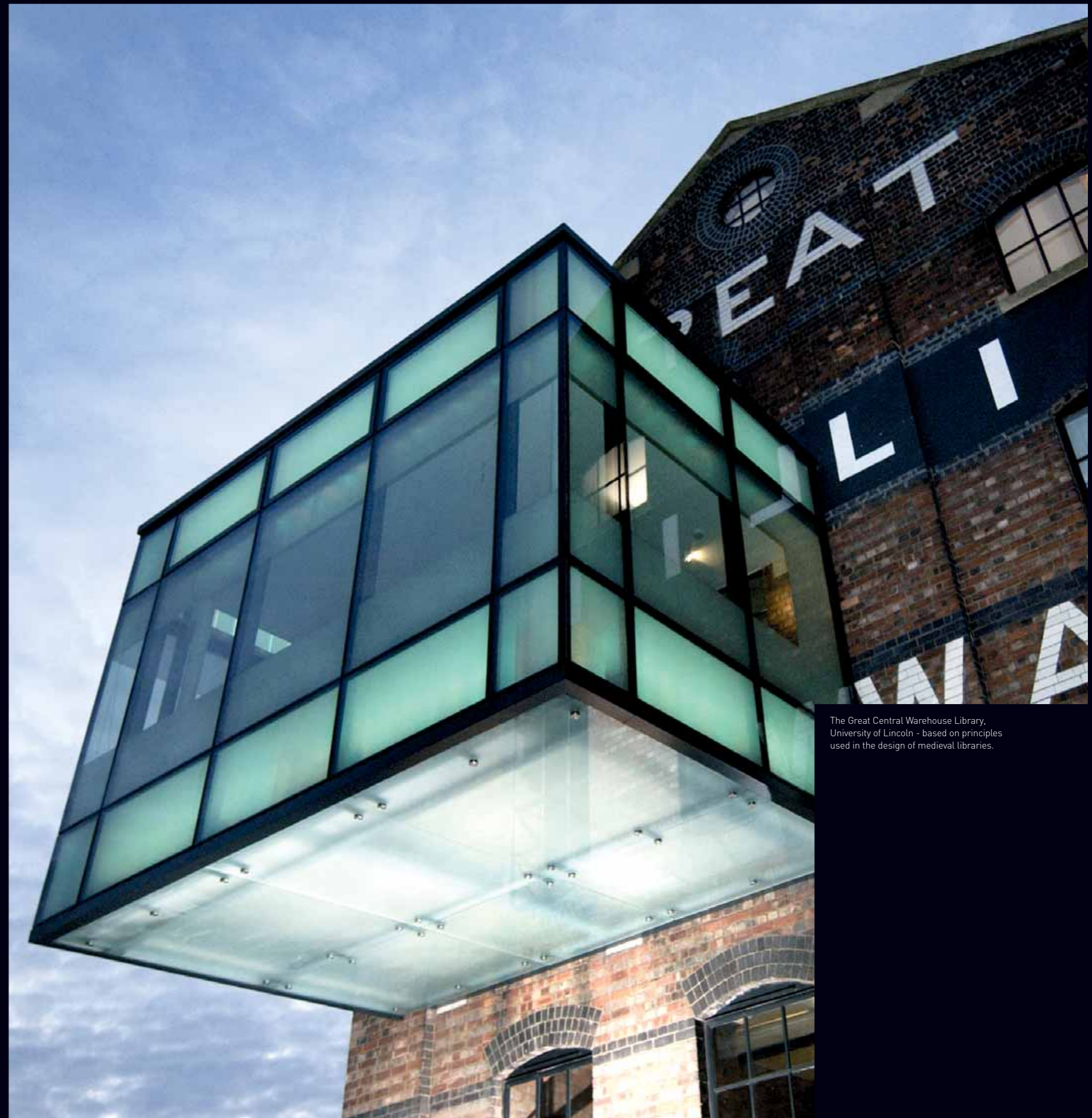
www.jiscinfonet.ac.uk/infokits/learning-space-design
www.jiscinfonet.ac.uk/Resources/external-resources/sfc-spaces-for-learning
www.jiscinfonet.ac.uk/infokits/learning-space-design/dsel
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educause.edu/ir/library/pdf/PUB7102.pdf
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www.jisc.ac.uk/media/documents/publications/learningspaces.pdf
www.sfc.ac.uk/nmsruntime/saveasdialog.aspx?ID=2310&SID=2281
<http://www.josboys.co.uk/>

03 RESEARCH

Learning Landscapes in Higher Education is grounded in a research project that looked at the campus profiles of each of the participating universities, as well as collecting data about an exemplary teaching and learning space on each of the university estates. The universities involved were drawn from across the UK, and from different types of universities within the sector.

A key issue here is that of scale, making a link between discrete learning and teaching spaces in relation to the campus of each university where the learning and teaching spaces are situated.

The types of learning and teaching spaces that formed part of the study include: social learning spaces, social learning spaces supported by students, experimental teaching spaces, research and teaching spaces, technology-rich spaces and postgraduate provision.



The Great Central Warehouse Library, University of Lincoln - based on principles used in the design of medieval libraries.

3.1 Methodology

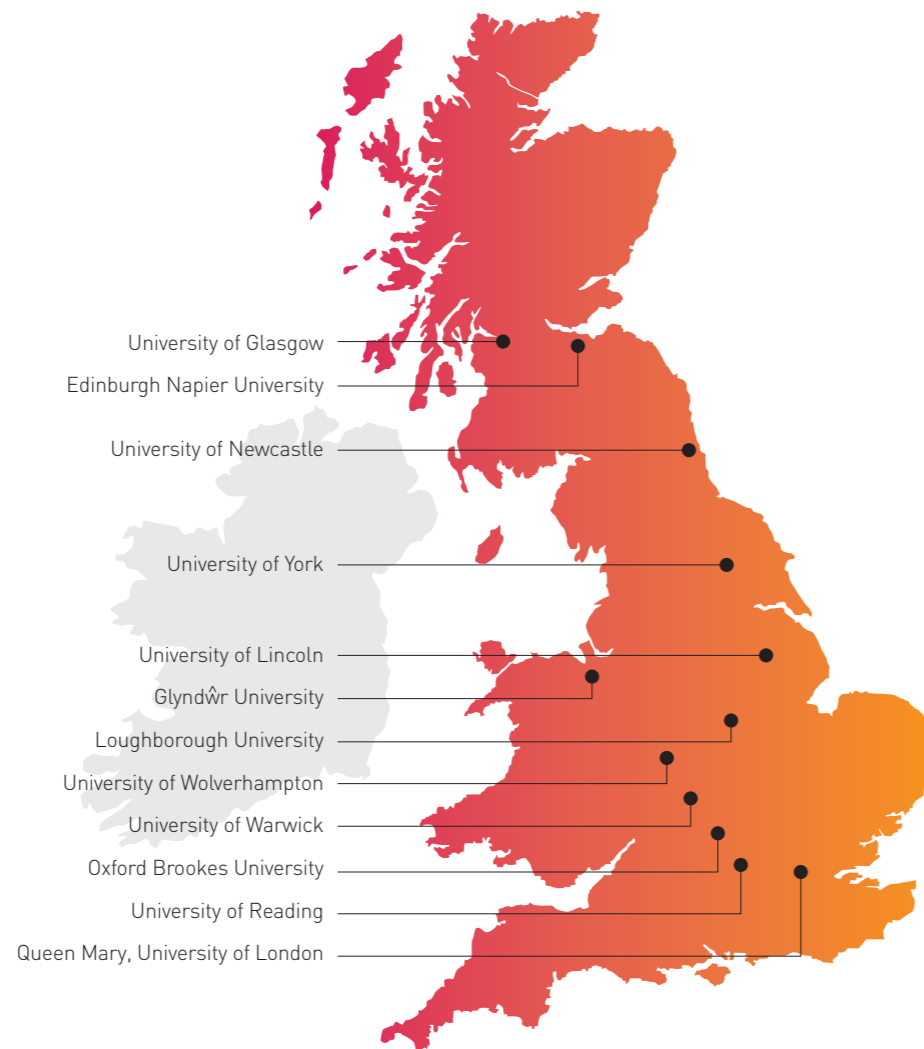
The research was carried out as a series of site visits, lasting between two to three days, giving the research team the opportunity to experience the estate and understand its physical context. The subject of the research project was the campus of each of the participating universities and a detailed investigation of a particular learning and teaching space.

The research was based on semi-structured interviews and documentary analysis. Interviews allow for a fluid conversation around the issues and topics chosen by the research team, and an opportunity for expressions of opinion and insight into an institution. In total, the research team conducted over sixty interviews, with members of staff and student representatives from the twelve universities.

In so far as the campus profiles were concerned, the interviews focused around the aspects of the campus which each institution would like to retain, to get rid of, as well as aspects of the estate that the institutions would like to create. The responses to these questions are formulated within the framework of the campus profiles as Keep, Toss and Create.

Information was recorded and structured using a prototype mapping profile, which was developed by DEGW, with reference to urban design literature and theory. Photographs and university campus maps were used as base material to develop the mapping profile further.

For the research that focused on the learning and teaching spaces, the main issues were the relationship between innovation and the mission and vision of the institution, as well as matters to do with leadership, governance and management in relation to organisational structures for decision making. Other areas for investigation were project management and evaluation.



Interviewees included:

Senior Executive Manager:

To give context to the corporate plan and to provide a strategic overview.

Senior Estates Manager:

To provide background to the estates strategy in relation to the corporate plan and detail on the estates situation.

Senior Learning and

Teaching Academic Manager:

To discuss the teaching and learning strategy in relation to the corporate plan and other relevant matters.

Project Manager:

To give context to the project in relation to the rest of the campus corporate plan, and the experience of the project in operation and development.

Student Union Representative:

To provide an insight into student involvement in the creation of university strategy and the development and management of space.

3.2 Documentary Analysis

The documents analysed included:

Corporate Plan:

Contains the strategic overview and the leadership vision, as well as an understanding of the institution and its aspirations, setting out the target and way forward for the university.

Teaching and Learning Strategy:

Sets out the pedagogical vision of the university and any supporting actions to be taken. This provides an insight into the direction, needs and actions to be taken across the institution so as to realise a delivery model for the student experience that will support the corporate plan.

Estates Strategy:

This provides the facts and figures relating to the estate and the steps that estates management will take to support the corporate plan.

Committee Structure Overview:

These documents give an overview of the interfaces between various committee groups and subgroups. This allows for an analysis of the involvement of relevant stakeholders in decision-making and the channels of dialogue between them.

3.3 Some Limitations

While the research methodology adopted allows an in-depth examination of the processes involved in the design of teaching and learning spaces, there are a number of limitations. The findings are based on a small number of interviews, usually five, conducted at each university and, as such, it is difficult to ascertain whether the information gathered at each university is representative of other individuals. The respondents were selected by each of the universities, perhaps allowing for dissenting or divergent views to be diverted away from the focus of the study. In addition, the primary research was conducted in a relatively small time scale, over three days, effectively producing a restricted snapshot of each of the participating universities. This makes it difficult to gain a detailed insight into the workings of the day-to-day organisational structure of each university. However, the research did find consistency amongst the respondents at each of the participating universities, which indicated dependency and credibility in terms of the findings.





The Brayford Campus

3.4 Campus Profile

This report features the campus profile for the University of Lincoln as well as key learning points from all of the case studies.

A full report of the case studies can be found at

learninglandscapes.lincoln.ac.uk

University of Lincoln, Brayford Campus

The Brayford Campus was established in 1996 and accommodates around 10,000 students. It is a linear campus, divided by a railway line that cuts the campus into two. There is also a circular road that visually separates the student housing buildings from the main campus. At the north edge of the campus is the Brayford Quay which has potential for social activities along the waterfront and developing visual links with the rest of the city. The east of the campus is in close proximity to the main High Street in Lincoln.

Part 1: The Vision

Understanding the university's vision and then distilling this into a succinct and accessible format is critical to facilitating discussion between stakeholders. This is a 'soft skill' approach that requires interpretation and lateral thinking and is not a rigorous scientific approach. The research team used interviews, document research and an activity based around aspects that the university would wish to Keep, Toss and Create to distill the vision.

Core values:

- All are treated with respect and integrity
- Creativity and innovation are championed
- Quality is evident in everything we do
- Strong links are maintained with the local community to widen opportunity, advance knowledge and improve society.

Vision statement:

'By 2020 the University of Lincoln will be a leading UK Higher Education centre in one of the world's great small cities...with a distinctive reputation for research which is integrated with teaching and learning and underpinned by engagement with local, regional, national, international employers and partners'.

Strategic objectives:

- Be recognised for teaching and learning that is relevant to practice as well as for students and academics
- Produce independent enquiring graduates who enjoy learning, are enterprising, employable, and able to make a positive contribution to society
- Attract, develop and retain the best staff
- Maintain financial stability and sustainability
- Engage with and contribute to the development of our partners and communities, locally and further afield
- Enhance the reputation and external profile of the university.

The vision line is set against:

KEEP:

- Sense of innovation of a new university moving forward
- Intimate and high quality student experience
- Communication and team work between stakeholders (academic, students, community)
- Walking campus.

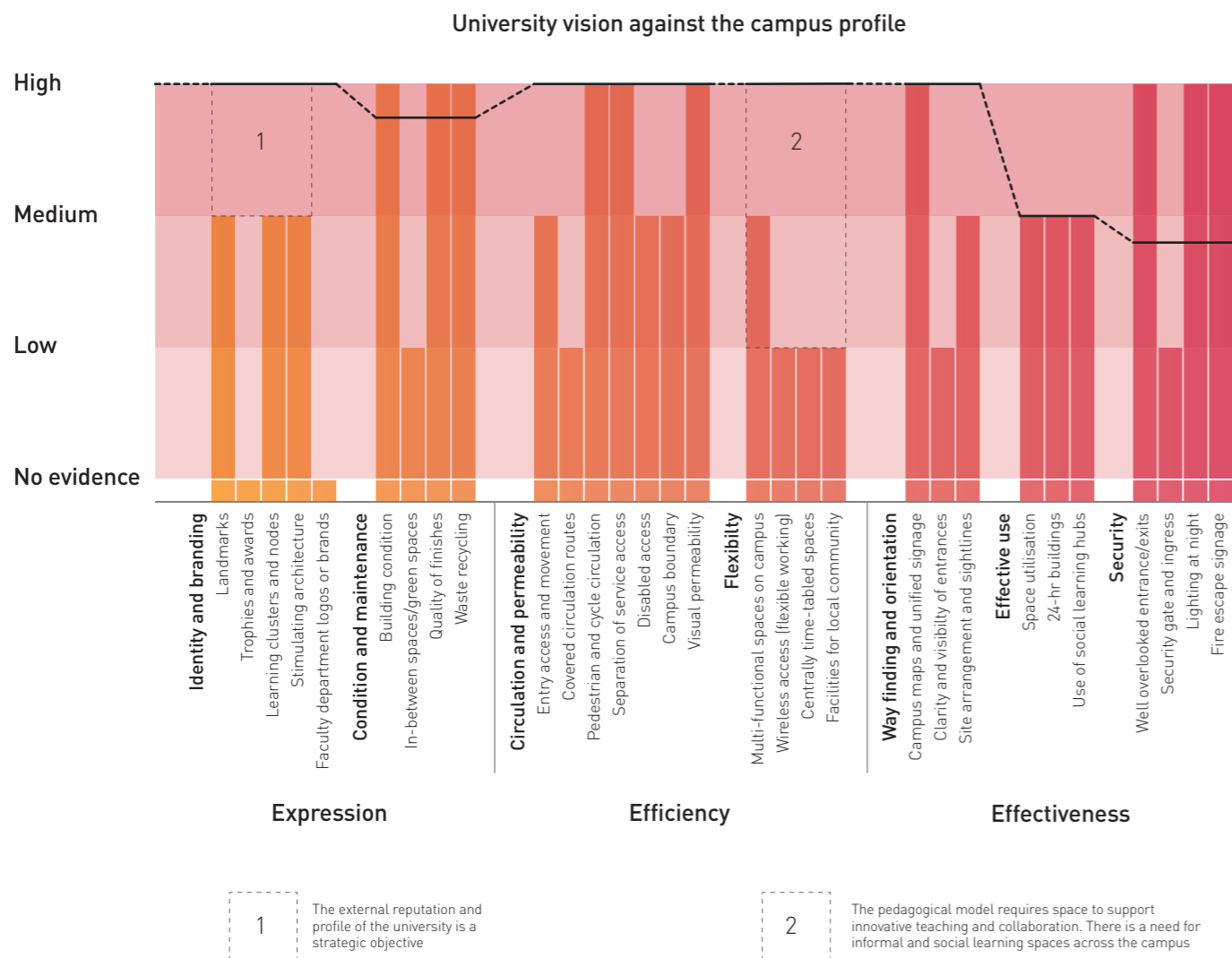
TOSS:

- Estates wish to move away from a reactionary process to a more pro-active decision making model
- Teaching delivery models based on the teacher as gate keeper of knowledge
- The schism between research, teaching and learning.

CREATE:

- Greater offering to postgraduate and international students
- Innovative and 'joined up thinking' spaces for learning and teaching beyond the four walls of a classroom
- Campus as a destination
- Joined-up delivery model of teaching, learning and research, so as to develop student participation in research
- To be a university with a culture of well-being and a commitment to healthy working environments
- Enhance the student experience within learning environments and beyond to include cultural and sporting aspects.

Qualitative analysis of the Brayford Campus profile



Part 2: Creating the Mapping Profile

In order to create the mapping profile the vision line is set off against judgements made against a number of set criteria based on expression, efficiency and effectiveness. These criteria are gained from the urban planning and design literature. At the University of Lincoln these include:

Expression

Landmarks: Although the buildings along the quay front on the Brayford Campus are well signposted, they are of moderate impact as landmarks and brand identity markers.

Learning clusters and nodes: The campus has distinct clusters that are created by the site constraints of the railway line and the road. These clusters are enhanced spatially by

the creation of central nodes or focus points (e.g. the food hall within the main administration building) which create an identity for the cluster. Moreover, the Students' Union and enterprise incubator units adjacent to the library seem to have a good synergy of uses that could feed off each other in terms of resource provision and time of use. There is a design potential in linking up these synergies by stimulating the in-between spaces.

Stimulating architecture: The architectural style at the Brayford Campus is modern and the buildings are mostly new and all in excellent condition. Lincoln benefits from a range of architectural buildings and space types on offer.



Inside the Main Administration Building, Brayford Campus, University of Lincoln.

Efficiency

Circulation and permeability: There are several roads that lead into the campus from the west, south and east. The quay at the northern edge could be developed to allow for connectivity via boats and water craft. Movement through the campus is partially restricted by the railway track that runs through the centre. However, in general, there is an ease of circulation through to most areas of the campus.

Campus boundary: The campus is at the periphery of the main city centre although there is a fluid edge with non-restricted access into the campus. However, the western edge of the campus is cut off from the city centre, and the railway and main road create partial disconnections from the rest of the city.

Visual permeability: The linear arrangement of the campus allows for an easy visual permeability across most areas.

Facilities for the local community: The campus has a Primary Care Trust unit which is open to the local community.

Effectiveness

Campus maps and unified signage: Campus maps are present at both of the main entrances of the campus and there is additional signage through the campus. The signage across the campus follows a unified graphic style.

Clarity and visibility of entrances: The new entrance at the east edge (library entrance) is well marked and clearly indicated with an aspiration to be the new connection into the High Street and the city centre. The entrance at the western end of the campus, however, is hidden and could be easily missed.

Sightlines: The linear site allows for easy orientation and way finding, with straight sightlines across most of the campus. Additionally, the campus is not very large and the routes through it linking the different building clusters are clear.

Use of social hubs on campus: The indoor social hubs on campus are well used, and contain catering provision and wireless access. The outdoor seating areas are underused and not supported for informal learning.

Part 3: The Vision Line

Using the information created by distilling the vision allows the research team to create a 'vision line' against the criteria of Efficiency, Effectiveness and Expression, thereby allowing the vision to be articulated on the spatial profile.

Part 4: Mind the Gap

The gaps between the vision line and the graphic blocks, illustrated by the dotted blue lines, are the spaces for possible interventions and discussion. They show possible divergence between the vision of the institution and performance of the estate under the headings of Efficiency, Effectiveness and Expression. This can be further analysed by looking at the specific criteria within each of the three E categories and thereby give a direction for possible solutions using the estate. This is not an exact science and again is about focusing conversations between academics and estates professionals. However it can provide a common agreement about where priorities in the estate may need to be developed.

3.5 Learning and Teaching Spaces

The project has developed a series of case studies based on teaching and learning spaces in each of the participating universities.

Learning Points

From each of the case studies it is possible to draw out a series of learning points. For a full write up of each of the cases see learninglandscapes.lincoln.ac.uk

These case studies include a range of different types of spatial provision:



Social learning spaces

A range of informal spaces with comfortable, flexible furniture and technologies to support independent as well as group and collaborative working among students



Social learning supported by students

Learning spaces for which students have some supervisory responsibilities



Experimental teaching spaces

Teaching and learning spaces that provide academics with resources, including expert advice, to develop their teaching and learning practices



Research and teaching spaces

Spaces that support the connection between research and teaching among academics, postgraduates and undergraduate students



Technology/media

Teaching spaces enhanced by the very latest technology for teaching, informed by pedagogies driven by technological imperatives



Postgraduate provision

Study spaces designed exclusively for postgraduate students

University of Newcastle



The Culture Lab



This space offers a unique and flexible teaching and research environment, which allows students, academics and practitioners to work beyond the traditional disciplinary boundaries.

Spatial Deconstruction

- Real innovation deconstructs the way in which academics and other key stakeholders think about spaces and the ways in which these spaces may be used, enabling these spaces to grow organically beyond the initial brief
- Teaching and learning spaces should be teacher-centred as well as student-centred, i.e., designed in ways that academics feel supported and involved
- Evaluation should include effectiveness as well as efficiency. Evaluation needs to go beyond space utilisation to include a review of what academics are attempting to achieve in the space
- Credible professional expertise is key: often acting as a 'go-between' for academics and estates, so as to maintain the original vision of the space and drive it forward without undermining the original vision
- The vision for experimental spaces needs to be articulated in ways that are clear enough to enable 'buy in' from different stakeholders. This vision should be articulated through a common language and a shared vocabulary
- Teaching and learning spaces need to be embedded in already-existing university structures, e.g. library provision, Student Union, as well as school and department structures to generate a greater sense of ownership by academics and students.

University of Warwick



The Teaching Grid



The Teaching Grid is an innovative space, based within the library at Warwick, allowing academics to experiment with progressive pedagogies before using them in a classroom situation.

Supporting Teaching and Learning

- Academic staff need support and mentoring when developing their pedagogic style, as well as an inspirational space in which to practice
- Conventional committee structures and management procedures are not always helpful in designing innovation into teaching and learning spaces
- Universities need to provide a programme of formal planning that supports strategic experimentation. This programme needs to be based on a free-flowing process, as well as projects that are derived out of more central planning protocols
- Service departments, and particularly the library and other learning resource providers, can act as catalysts within institutions
- Teaching and learning spaces are most effective when seen as part of a network of spaces on campus, each fulfilling different tasks linked to a progressive pedagogical agenda
- The development of successful professional relationships can be built up over time by working on a range of projects
- Evaluation should be ongoing and accessible, e.g. online, to inform an evidence base for learning space design. However, it is difficult to assess the value of new spaces in objective terms, e.g., the ways in which innovative teaching spaces affect student grades.

University of Lincoln



The Great Central Warehouse Library



This is a modern facility designed with reference to medieval libraries. A key feature is the integration of the library with the University campus and the city within which it is situated.

Learning City

- Effective designs for university buildings are driven by ideas with intellectual substance. University buildings on urban campuses are most effective when they connect to the history of the host city
- Experimentation and innovation is best facilitated by committee structures that promote creative and critical thinking
- A culture promoting innovation and experimentation in the teaching and learning environment can be established by developing a common language for shared understanding. This can be done through internal conferences, imagineering events, workshops and projects that promote engagement and involvement with key stakeholders and groups
- The engagement with students is key, but students need training and support to be effective in their roles. Chairs of committees need training in facilitating student involvement in committee meetings
- Estates should understand there is no 'standard issue academic', and enable academics to express their ideas spatially through offering what is possible rather than prescriptive models.

University of Reading



S@il



The S@il zones (students engaged with independent learning) are a series of informal work spaces that are situated around the campus in different locations. These spaces consolidate the teaching-research nexus at the undergraduate level.

Research-based Design

- New learning space projects should be aligned with a university's key strategic planning. The S@il spaces support the university's commitment to creating an inspiring research-based culture, that includes research in the undergraduate curriculum
- Committee structures need to be created that generate the opportunities for creative and informed discussion and decision making
- Spaces designed to facilitate creativity and social learning can themselves be used to develop thinking about new ideas, in relation to teaching and learning spaces
- A common language and common understanding in relation to teaching and learning space can be developed by ensuring that university documentation is well designed, accessible and easy to read
- Decision making about designs for teaching and learning spaces should be informed by research, evaluations and be evidence-based
- Ways to facilitate the relationships between academics and estates can be developed, for example, 'walk arounds': situational discussions between academics, estates, other key stakeholders and students on what works best in terms of the design of pedagogical places
- The student voice is key, but universities have not yet found the best way to engage effectively with students on matters to do with the provision of teaching and learning spaces.

Queen Mary,
University of London
The Hive

A key feature of this social learning space is the way in which students manage and take responsibility for the space.

Iconic and Iconoclastic

- Iconic and iconoclastic teaching and learning spaces provide very clear messages about the commitment of a university to teaching and learning
- The involvement of students in the supervision of teaching and learning spaces creates a sense of ownership and commitment to a space, as well as providing a sound base for space evaluation
- Academics can be encouraged to experiment with teaching spaces by exposure to the innovative practices of their colleagues
- Credible academic leadership is important in driving the agenda for the progressive development of teaching and learning spaces
- Ways can be found to facilitate the relationship between academics, estates and other key stakeholders through a greater awareness of each others preoccupations
- Be ambitious. Creative thinking about building design in the initial stages need not be constrained by budgets. Ideas can be rationalised once budget limits have been set.

Loughborough University



engCETL



This is a multifunctional building which provides spaces for progressive teaching practices as well as facilitating usage by external partners.

Go-between Leadership

- Progressive relationships between academics and estates can be facilitated by 'go-between' leadership roles, where a senior manager acts as a liaison person between academics, estates, client groups and design professionals
- New teaching and learning spaces based on progressive designs can act as catalysts and inspiration for further innovation, as well as providing an important learning experience to support further design projects
- Crucial to the development of the design brief is that client groups have a significant amount of time to work through the issues associated with creating new teaching and learning spaces
- It is important to disseminate learning across the sector through HEFCE, the HEA and the Subject Centre Network, as well as other regional, national and international events
- Effective teaching practice and the spaces within which progressive teaching takes place do not have to be 'funky' or radical.

University of Wolverhampton



New Technology Centre



This building combines state of the art IT learning facilities with radical office design for academics.

Classroom Without Walls

- Committee structures, no matter how well aligned with strategic planning, can impede decision making. Systems may need to be set up outside of mainstream committees to drive forward innovation and experimentation
- Buildings are influential and can act as change management tools, to transform the way in which a university approaches teaching and learning – a new building is not just a building project
- New designs need to stretch conventional thinking: only genuine innovations can take teaching and learning forward
- Staff need support in how to use and develop innovative teaching and learning spaces, particularly when the designs are genuinely radical.

University of York



New Law School Building



A key feature of the new Law School is the way in which problem-based learning and blended-learning zones have been designed into the fabric of the building.

Problem-based Learning

- Effective design for teaching and learning spaces should be driven by sound pedagogical principles, based on experience, research and evaluation
- Progressive design development for teaching and learning spaces is facilitated by flat management structures, providing decision making processes that empower academic staff to experiment and innovate
- Academic leadership at a senior level is required so that projects are connected to the university estates strategy, while at the same time are driven by academic imperatives and are not estates-led
- Significant client involvement is required, working alongside architects from an early stage to support and challenge academics not used to working on building projects
- Learning from experience is formalised through evaluations. It is important that evaluations reflect the activities that are actually taking place in the space. The student voice is key to the process of evaluation.

Glyndŵr University



Creative Industries Building



This building has been designed to generate collaboration between students as well as engagement between students and academics. The building further consolidates the teaching-research nexus at the undergraduate level.

Building Spaces Creatively

- The most compelling buildings articulate the mission and ambition of the university, and the way in which the university mission connects with the needs and capacities of its host city
- The most effective teaching and learning spaces are designed around approaches to pedagogy that are clear and convincing: in this case collaboration between staff and students
- Effective decision making requires streamlined committee structures, and the avoidance of policy being created by informal conversations. The membership of committees is key, as are the abilities of committee chairs to move agendas forward
- Effective professional working relationships between academics and estates can be engendered through the establishment of formal working groups, which include operational and technical staff as well as teachers and researchers
- The process of consultation between the architect and the client group is crucial so as to invoke a sense of ownership for a project, foster creative thinking and to generate aspirations beyond the individual experiences of the staff involved.

Oxford Brookes University



The Reinvention Centre



This space is designed to facilitate collaboration between students and to consolidate the teaching-research nexus at the undergraduate level.

Connecting Teaching and Research

- The most effective teaching and learning spaces are based on approaches to pedagogy that are clear and convincing: in this case connecting research and teaching in the undergraduate curriculum
- Creative thinking is not something that happens only outside of committee structures, university committees are important places to influence and affect change
- Relations between academics and estates work well when each understands each others' role, with academics taking the lead and where estates are committed to the provision of efficient and effective spaces for teaching and learning
- The problem of managing different cultures is not restricted to academics and other university professionals, but includes possible tensions across subject areas and, as in this case, between different universities.

Edinburgh Napier University



The Screen Academy

This building creates a culture of professional collaboration for the creative industries.

High Impact Space

- The impact of new learning spaces depends on location, symbolism, visibility, usage, cutting edge technology, and the ways in which the clarity of the vision for the space is articulated in the building design
- It is important to develop a shared understanding between academics and other key stakeholders, including estates, project managers, technicians and architects
- Managing space is about more than the space itself, and includes the infrastructure that supports the space, including timetabling: not just space but space-time
- Evaluation of a learning space can take many forms – one of the most effective forms of evaluating the Screen Academy is by informal dialogue between academics and other key stakeholders, including students.

The University of Glasgow



Post Graduate Centre

The Post Graduate Centre provides the opportunity for private as well as collaborative study in a central campus location.

Beyond the Service Model

- Buildings do not run themselves: teaching and learning spaces require effective operational and management support
- Estates need to extend their role beyond that of being service providers for academics. They can do this by finding ways to better understand the teaching and learning experience of students within their institutions, through surveys and other forms of reconnaissance
- Clarity of leadership needs to be established from the outset, within a clear set of guidelines as to responsibilities relating to specific roles. This clearness of vision and how it is to be achieved needs to be set within a context in which the ambitions of a project are realisable and realistic
- Students complain about a lot of things – but rarely about space: yet it is important to include them in the consultation and evaluation process.

04 DEBATE - ISSUES FOR DISCUSSION



Debate and Discussion

It is clear from the case studies that the design and development of teaching and learning spaces to support the staff and student experience is a complex and, at times, contradictory process.

A number of compelling issues have been derived from the research which can serve as a basis for debate and discussion.

Innovation versus Conservatism

The findings support conventional knowledge about the effectiveness of social learning spaces in facilitating collaborative and independent learning. The case studies reveal the incremental nature of the design of social learning spaces. Colleagues are learning from work that has gone on in other institutions, adapting it to their own contexts. The strength of this process is that innovation is being consolidated across the sector. One possible limitation of these adaptations is that something essential about a successful social learning space is lost in translation. The learning from other institutions means that there is a tendency towards conservatism, to replicate what has worked elsewhere and a reluctance to experiment:

'There is a tendency among academics in higher education to be a bit conservative when it comes to thinking about teaching and learning spaces. Or maybe it's because they have not given it much thought. Often any suggestions are based on them having seen a teaching and learning space in another university that they quite liked. I think it goes back to a lack of research as the people who are briefing me don't know the documents. I don't think many staff know what is out there, so they don't know the possibilities. They are simply not research informed. And the students are even more conservative' (Architect).

Deconstruction: Research and Teaching

The most compelling innovations are spaces that attempt to re-engineer the relationship between teaching and research. Spaces have been created to link teaching with research activity between undergraduates and postgraduates, and to facilitate collaboration between students and academics.

These spaces show the development from student-centred learning to research-engaged teaching, marked by collaboration between undergraduates, postgraduates and academic staff. The development of these spaces is sometimes grounded in intellectual debates about the role and nature of higher education in the 21st century. These spaces deconstruct, or 'debaptise', the meaning and nature of teaching and learning in higher education:

'...reinvention is about reinventing the undergraduate curriculum to have a mainstream focus on research and getting students involved in research-based learning... so it was a small leap to say that students need appropriate spaces, especially when these student research projects are often collaborative projects that work in ways that do not necessarily fit with a conventional library or classroom' (Senior Academic).

Support and Service Models

The case studies reveal the importance of creating service models to support teaching and learning spaces. These service models demonstrate how academics can use new teaching and learning spaces effectively, including how to make use of teaching technologies. The most progressive service models support high levels of responsibility among students for the management of teaching and learning spaces:

'...as well as developing the space you also need to develop the service model... we did not just open the doors and hope for the best...the support element is increasingly important because there are a variety of different technologies and approaches to teaching and learning out there. The support mechanisms enable staff to feel comfortable with these new technologies and, therefore, more prepared to give them a try' (Support Staff).

Evaluation and Research

The research reveals the need to develop appropriate metrics for evaluation, designed to capture the effectiveness of innovation and experimentation, beyond the mainstream measures of efficiency and utilisation. These measures should include retention, assessment grades and employability, but other measures should be devised that reflect the aspects of experimentation and innovation:

'The problem is that twenty-first century dreams are being evaluated by twentieth century mindsets, which are not able to map the appropriate matrix to measure the activity and to evaluate its contribution' (Senior Manager).

Decision Making: supporting strategic experimentation

The formal governance structures that characterise university decision making are not the most appropriate frameworks for generating innovation. Yet committees provide the basis on which decisions are made, connecting teaching and learning objectives with estates priorities, ensuring that strategic objectives are aligned with broader institutional agendas. The most progressive institutions provide programmes of formal and informal planning that support strategic experimentation:

'HEIs need to provide a programme of formal planning that supports strategic experimentation. This programme needs to be based on a free-flowing process, as well as projects that are derived out of more central planning protocols. It may be that conventional committee structures and management procedures are not helpful in designing innovation into our teaching and learning spaces. Service departments, and particularly the Library and other learning resource providers, can act as catalysts within institutions' (Senior Manager).

Academics and Estates

Higher Education institutions are establishing relationships of trust between academics and other key stakeholders, emphasising the importance of 'knowing' each other as a prerequisite for working with each other. These relationships are facilitated by institutional processes, e.g., 'walk-arounds',

where groups of academics, IT and estates professionals meet on-site to share ideas about the design of teaching and learning spaces.

There is a certain amount of negative stereotyping between academics and estates professionals, with a feeling that both groups speak in different languages and work in different paradigms:

'... the interface between academics and estates is not so great and the two groups have different sets of expectations... academics speak the language of activity and we speak the language of space' (Senior Manager).

Within institutions where relationships are most well developed, 'there is no standard issue academic or estates professional' (Space Manager).

Visions and Missions: a matter of scale

The research has identified that one of the biggest difficulties for the sector in terms of space planning is how to keep the strategic plan aligned to individual projects. The problem is how to embed the vision and mission of the university in the design fabric of a particular learning and teaching space. This is an issue of how the university expresses its own particular identity, but it is also a problem in terms of how facilities are provided across a university campus:

'When you go into project mode all of a sudden the walls go up in peoples' minds, and they fail to see the big picture. Colleagues tend to worry about their own particular project and forget that if something is value-engineered out of their project it'll have to be picked up by another project' (Senior Academic).

Leadership

The research reveals the importance of charismatic individual leadership: 'champions', for the development of new teaching and learning spaces. Leadership works best when it is distributed at various levels throughout the institution, covering academic and other supporting professional roles. In some institutions this role is recognised and rewarded, for example, through the establishment of a specific 'go-between' management position to act as motivator and facilitator:

'...this means using very simple language, translating into lay terms what the architects were telling me, feeding back to the academics and saying look, we've got a completely new plan, let's rethink the research activities we've been talking about' (Senior Manager).

Notwithstanding the centrality of inspirational leadership, the extent to which new academic spaces are based on the vision of a particular charismatic individual can undermine the sense of ownership and commitment by other university staff.



Students in the Post Graduate Centre, University of Glasgow.



Student Voice

The research reveals the importance of the student voice, yet students feel uncertain of their abilities to fully contribute to debates and discussions about new academic spaces. Students are asking for more training and support so that they can be more effective in committees and for Chairs of committees to be trained in how to work with students. Space does not register highly as an issue that students are concerned about:

'Students seem to find it difficult to articulate what they want, they know what they do not like, but they find creative thinking about space very difficult' (Senior Academic).

'All students want are good basic conditions in their teaching rooms, if we start talking about the relationship between space and pedagogy only a minority would be interested' (Student).

Virtual and the Built environment

Technology is ubiquitous in teaching and learning in higher education. Learning on-line is most effective when the technology is an enabler or facilitator. Learning spaces driven by technology are challenged by obsolescence and a fear of the future. The digital learning environment challenges the notion of the University itself, not least in terms of the limits and boundaries of the built environment. This matter extends beyond the remit of the Learning Landscapes project but is a key issue for future development and more extensive discussions.

05 DEVELOPMENT TOOLS

This section describes the development tools that have been created to support work across professional boundaries, between academics, support services, other key stakeholders and students. For instructions on how these tools can be used please go to: learninglandscapes.lincoln.ac.uk

5.1 Common Language: The value of academic values

Learning Landscapes in Higher Education has built a set of development tools to further the collaborative work between academics, estates and other key stakeholders.

These development tools are based on a common language grounded in the vernacular and syntax of higher education¹. A key concept for establishing this common language is 'value'. The concept of value has become increasingly important for the design and development of effective and efficient buildings, as well as spaces that express the ideals and the identity of the client and customer.

Raising academic aspirations, inside the Brayford Campus.



¹ The development of a common language was crucial not only in terms of the project as a whole, but in enabling members of the Steering Committee to communicate effectively together. The Steering Committee itself reflected the diversity of occupational roles in higher education. The group included a Vice Chancellor, a Senior Vice Principal and Pro-Vice Chancellors, Estates Directors, academics from a range of different disciplines including civil engineering and social science, architects, urban planners, designers, librarians and educational and architecture consultants.

Good design is a complex arrangement of the values that stakeholders bring to a building commission. Each stakeholder has different values and will perceive value as the balance between what they are prepared to invest in a project against the benefits to be extracted. In simple terms what they get for what they give. Clients, too, have different preoccupations. An academic has a very different set of inputs and expectations from a Director of Estates. The substantive content of a well-balanced value framework involves a series of cost-benefit judgements made against time, effort, money and materials consumed. The outcomes from a building project are those benefits desired by a party, moderated by any sacrifices they must make, in a series of trade-offs that form part of a situation where resources are increasingly limited (Pinder et al 2009). The complexity of this process is reflected in the data collected from the case studies and campus profiling of the participating universities.

The substance of value can be linked to the goals of efficiency, effectiveness and expression. A focus on desired outcomes is about maximising effectiveness and expression, whilst minimising resources is based on efficiency. All too often the emphasis appears to be on improving value through efficiencies rather than working on the issues of effectiveness and expression.

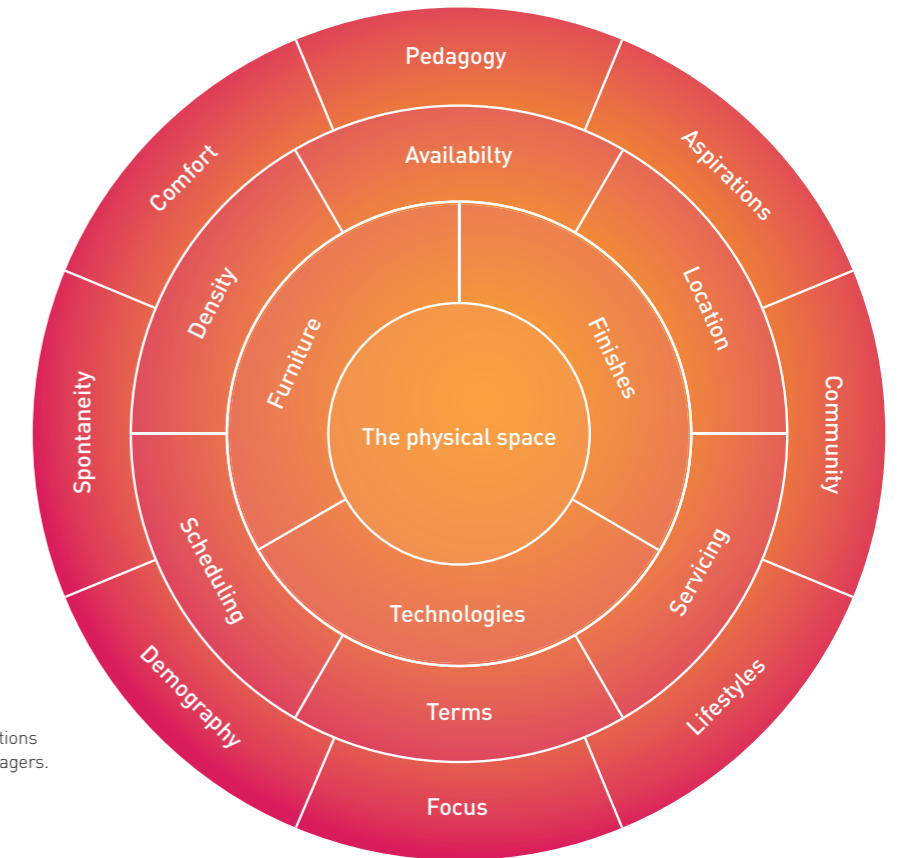
The strength of this generic approach is that it is applicable across a range of different types of organisations, but it needs to be customised for designing spaces in higher education institutions. Learning Landscapes extends the concept of value into universities by making more explicit the academic values that are particular to higher education. Extending the concept of value is reinforced by the academic literature on the role and nature of higher education (Savin – Baden 2008; Barnett 1990), and is implicit in the case studies by the way in which pedagogical theory is integrated into the design process, as well as the importance given to research-led decision making.

At the core of the idea of academic value lie the notions of:

Research: Learning Landscapes brings a research attitude and sensibility to the design and development of teaching and learning spaces (Jamieson 2003).

The science of space: Learning Landscapes recognises the importance of subject disciplines and encourages academic staff to bring the principles of their subject areas to the design of teaching and learning spaces (Lefebvre 1991).

Academic tradition: Learning Landscapes recognises the traditions within which academic values are made, and suggests that the ideals on which the modern university is based are debated when designing contemporary higher education institutions (Mclean 2008, Barnett 1990, Savin-Baden 2008).



Pragmatics of place

Wheel illustrating the pre-occupations of space planners and space managers.

5.2 The Development Tools

The tools are derived from issues that emerged from the campus profiling exercises and the case studies. The tools are set up to support academics, estates professionals and other key stakeholders in responding progressively to these issues. The tools are informed by academic literature on design and its relationship with educational psychology and the social sciences. These tools are:

Campus Mapping Profiles, designed as a prototype mapping tool to carry out research at the level of each university campus. This profiling device has enabled colleagues from all parts of the university to engage in a situational analysis of the relationship between the vision and mission of the university with its built environment. The output provides a strong visual impression of the estate's performance, identifying areas for potential interventions.

Teaching with Space in Mind is based on a key point coming out of the research, that the most effective teaching and learning spaces are based on ideas that are evidence-based and research-informed; and that designs for teaching and learning spaces need to be informed by pedagogical principles, rather than being estates-led. This tool can be used to develop the educational brief for a particular project.

Pragmatics of Place provides an insight into the preoccupations of space planners and space managers in higher education. Based on the urban design principles of efficiency, effectiveness and expression, the tool reveals the theoretical and practical aspects of estates activities in a way that is intellectually stimulating and very pertinent to academics engaged as part of a learning space client group. The tool attempts to counteract some of the negative stereotyping revealed by the case study research.

Talking our Futures into Being is based on the problem, identified in the research about the nature and purpose of client project groups, and how to fulfil the roles and responsibilities as a member of such a group. This tool is written without recourse to any building or design jargon and in a language that is engaging and inspirational.

The Idea of the University is designed to enhance the academic voice in relation to the way in which teaching and learning spaces are conceptualised. Within this tool the academic voice moves beyond cost-benefit analysis, to encourage debates and discussions grounded within the academic literature on the role and nature of higher education. The progressive ideas expressed in this literature might negate some of the more conservative tendencies expressed by academics and students in the case study research.

Campus Mapping Profile

The mapping tool provides:

- A way for estates professionals, other key stakeholders and academics to communicate
- A spatial framework within which the performance of the learning landscape can be considered
- A 'supply' side analysis of the estate against an institution's vision, allowing for a new method of 'Gap Analysis'. This can help support prioritisation of possible areas of intervention
- An exercise in exploring an institute's vision.

The university estate can act as an important resource in supporting any effort to achieve a vision and meet strategic objectives. Equally the estate can hinder the ability of an institution to work towards its goals, if the environment is not conducive to the activities and ambience the institution may wish to achieve.

The estate is made up of both 'hard' aspects (buildings, landscaping, circulation routes etc) as well as important 'softer' aspects, which are often less tangible, harder to quantify, more difficult to agree upon and, as such, prone to being overlooked or marginalised during discussions about estate management. These important 'soft' aspects include issues such as identity, synergies of uses, and the importance of the space in-between buildings, all of which can have an important impact on the experience and learning of those on-site.

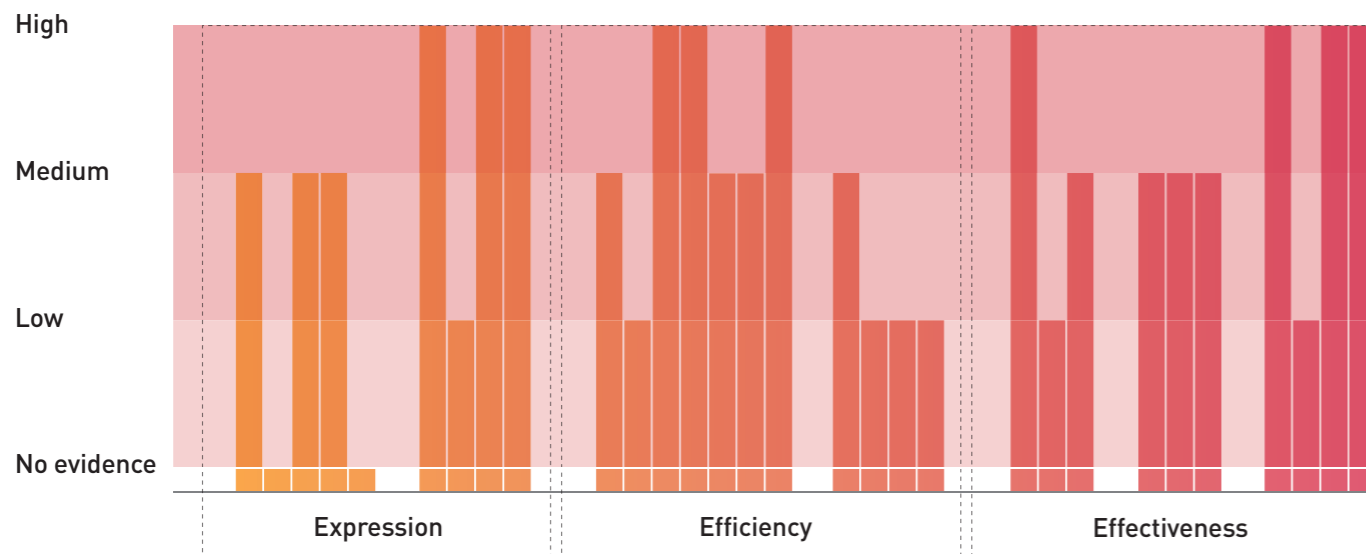
It is this capturing and interpreting the various 'hard' and 'soft' aspects of an estate, against the vision and aspiration of a university, which forms the basis for the mapping tool. The tool is essentially a matrix that investigates the spatial criteria that are encompassed in three fundamental qualities of good design. These are:

- Efficiency
- Effectiveness
- Expression.

The spatial questions are influenced by several existing urban mapping tools used by architects and urban designers. The intellectual framework for these tools can be found in Kevin Lynch's (1960) *The Image of the City*, Jane Jacobs' (1961) *Death and Life of Great American Cities*, and Rob Krier's (2006) *Town Spaces: Contemporary Interpretations in Traditional Urbanism*.

Using the information gathered from the Mapping Profile an institution is able to value the performance of their estate according to their own understanding of what is considered High, Medium and Low in terms of Efficiency, Effectiveness and Expression. These judgments are based on a high level of subjective interpretation. Furthermore, an institution is free to adjust or add categories as they see fit, so long as they cover the three over-arching headings of Efficiency, Effectiveness and Expression, which are key to capturing the 'hard' and 'soft' aspects of the estate.

The Mapping Profile



Teaching with Space in Mind

This tool is based on a research-informed awareness of what constitutes effective teaching and learning in higher education. The tool provides a framework through which academics can create an educational brief for a teaching and learning space, in a way that can be presented to space planners and architects to support the design process.

One of the key issues identified in the Learning Landscape research is the importance of designing the project brief for a new learning space.

The Teaching with Space in Mind tool

- Encourages academics to make use of the literature on effective teaching when designing new teaching and learning spaces
- Supports a sense of spatial imagination and a heightened consciousness about the importance of space in the teaching and learning process. It is clear from research that there is a lack of tools to facilitate this process and, therefore, there is a pressing need to create tools that are linked closely to the most effective forms of teaching and learning.

The principles for effective teaching that form the basis for this tool have been synthesised from key approaches, established through research into effective pedagogical

practices in university teaching. The principles are further supported by the work that has been done as part of the Learning Landscapes research project. This includes an engagement with the principles of critical pedagogy. These key approaches are:

- Collaborative and Engaged Teaching
- Recognising Diversity, Difference and Dissensus
- Feedback and Assessment
- Student Leadership
- Teaching and Technology
- Research: the scholarship of teaching and learning.

These effective forms of teaching and learning are not presented as a definitive list, indeed colleagues are encouraged to produce their own most effective practices based on their own activities and research.

The activities described by this tool provide staff with the opportunity to discuss the relationship between pedagogy and the design of learning spaces in higher education so as to develop a common understanding among key stakeholders.



Pragmatics of Place

This tool provides an insight into the preoccupations of space planners and space managers in higher education. Based on the principles of efficiency, effectiveness and expression, the tool reveals the theoretical and practical aspects of estates activities in a way that is visually and intellectually stimulating.

The tool suggests that estates professionals shift their focus from 'spaces' to 'places'. This requires a greater degree of holism in planning of estate interventions, because the goals and considerations of 'place' creation are primarily social and pedagogic, rather than material and financial.

Much of the existing guidance on project management and design aims to facilitate academics' engagement with existing estates' process designs. This tool suggests that academic institutions should, in addition, aim to subvert these processes themselves, instilling in them an academic sensibility which reflects the nature of their host organisations and increases the scope for genuine engagement of academics.

Estates professionals are encouraged to view their institutions as research subjects, taking responsibility for a rigorous understanding of the academic and other activities taking place in university spaces, and how they are best facilitated. This knowledge may be derived through a combination of primary research methods. Estates professionals are encouraged to enrol as students on their employing institutions' academic programmes to gain first-hand experience of teaching and learning within the spaces and places they manage.

The tool advocates the adoption of a common vocabulary and syntax for communication between academics and estates professionals, and calls for greater emphasis on the social construction of shared meaning and shared narratives grounded in the myriad sources of data available to space users and space managers. It calls for estates professionals to focus on compelling, relevant communications which integrate all available data sources, including:

- Timetable data
- Space data
- Utilisation surveys
- Student satisfaction data
- Transparent Approach to Costing data.

The tool emphasises the importance of developing measures of estate performance based on outputs or activities, which are more relevant to the academic community than traditional cost-based measures. The tool describes a number of novel approaches for the communication of activity and performance levels in teaching and learning spaces:

- Enhanced mapping of timetabled and surveyed space utilisation data
- Extracting actionable estates intelligence from the National Student Survey
- Activity-based metrics of teaching space performance.



Talking our Future into Being: the power of discourse

Any project involving space, be it refurbishment or new build, requires a client brief to instruct those tasked with carrying out the work. In higher education building projects, the client is generally a multiplicity of voices with many different views on who the client is, what the requirements might be and how best to meet them. Developing the client brief is essentially about enabling these voices to collectively talk their future into being. **This is done by tuning in and joining in.** We tune in by paying attention to what people are noticing and talking about. We join in by participating in conversations that progressively move us from **how we are now towards how we believe we could be.**

Being a client is not easy. Many institutions seem to experience confusion, and occasionally frustration, when different parts of the educational body come together around a building project. This briefing tool seeks to clarify what's involved in being a client, identifying requirements, making decisions and managing expectations. It suggests ways in which conversations around key issues might be structured, to balance the needs of all stakeholders and to encourage a **both/and**, as opposed to **either/or**, approach to developing their client brief.

In formulating this brief, institutions are in effect saying: **given what we know about our past, present and future, this is our best guess for what we believe is required.** We suggest that institutions already know much more than they think they do. There is, after all, a considerable amount of data to draw upon - academic plan, corporate plan, financial plan, student satisfaction survey, retention figures, vision documents, ICT usage, timetabling information, space utilisation survey, estate strategy, condition survey, master-plan and so on. These different data-sets are rarely reviewed together, yet when they are, the gaps or over-laps between them often reveal new and compelling ways forward. Indeed, findings from the Learning Landscapes project suggest that the degree of innovative space development is related to the quality of dialogue between different stakeholders, the most innovative examples being those that seek to unite teaching, learning and research needs.

To be talked about:

- Who is the client?
- Making the journey
- Managing expectations
- Involving everyone
- Getting the brief right
- Determining value for money
- Understanding return on investment
- Developing the brief in layers
- The future is now.

As institutions become more skilled at tuning in and joining in, it is hoped that better futures can get talked into being sustainable futures that support both tradition and innovation in an ongoing process of learning what a university is.



Above 'A machine for teaching in...' (Neary and Thody 2009), The Reinvention Centre at the University of Warwick.

The Idea of the University

A key aim of the Learning Landscapes project is to provide a clearly understood vocabulary within which the future development of the University can be articulated, in order to better inform the design of the built environment of higher education.

This language can be based on the vernacular and syntax derived from the custom and tradition of the University itself, including its contemporary expression.

This vernacular and syntax emerges from a fundamental discussion about the nature and role of the University. This discussion can be grounded in the intellectual history and tradition of the University through the notion of the Idea of the University. What distinguishes the University as a public institution is precisely the extent to which idealism underpins its real nature. The idea that the University is based on an ideal was a common assumption in the development of thinking about universities (Delanty 2001).

As Mclean puts it: 'I believe that "ideas" about the purposes of universities have accumulated and are available to us as resources which may or may not be taken up... even if it is not possible to claim one big idea for the University' (Mclean 2008 38). The responsibility for reformulating the Idea of the University lies with the academic community (Smith and Webster 1997; Mclean 2008).

The debate can be framed around a number of 'ideal' types of universities:

- Medieval – detached and disinterested
- Liberal – research and teaching
- Industrial – research
- Postmodern – radical
- Entrepreneurial – student as consumer.

The context for the current situation in higher education is that there is a good deal of uncertainty about the future of the University:

'British universities have been guilty of a failure to redefine their identity in a new, diverse world of higher education... The most essential task is to recreate a sense of our own work by refashioning our understanding of our identity – our understanding of what the word "University" means' (Graham 2002 199).

The future of the University is an important debate with which the Learning Landscapes in Higher Education project is fully engaged. The approach taken by the Learning Landscapes project is that the new university that emerges needs to be grounded in its own intellectual history and tradition in a way that fits and shapes the contemporary world.

Architectural syntax and vernacular:
'the red brick university'.



06 THE SCIENCE OF SPACE

At the core of Learning Landscapes in Higher Education lies the challenge of engaging with academics in the design and development of teaching and learning spaces. A response to this challenge is to develop new academic spaces through the concepts and ideas derived from particular academic subject areas.

This section demonstrates the way in which academic values, within a particular subject tradition, might be mobilised to affect the design of teaching and learning spaces. Written in the paradigm of critical pedagogy, this section considers the way in which sociological categorisations might impact on the shape of pedagogical spaces.



Critical Pedagogy as a Design Principle

The Pragmatics of Place development tool created by the Learning Landscapes project insists that an important aspect of innovative design is the subversion of what constitutes conventional wisdom:

'Much of the existing guidance on project management and design aims to facilitate academics' engagement with existing estates' process designs. This tool suggests that academic institutions should aim to subvert these processes themselves, instilling in them an academic sensibility which reflects the nature of their host organisations and increases the scope for the genuine engagement of academics' (see Pragmatics of Place p.36).

In the social sciences, subversion is based on the notion of critique which, in relation to teaching and learning, emerges as critical pedagogy (Freire 1970). Within critical pedagogy a framework can be developed in relation to the design of teaching and learning spaces through the application of the sociological concepts of class, gender and race.

Education theorists argue that much of the writings on educational change are at the level of technical implementation with 'few attempts to provide a wider framing, which explicitly highlights the spatial ordering of curriculum and learning' (Edwards and Usher 2003 2). Any inclusion of the spatial ordering of teaching and learning would involve extending the work of educational psychology (Scott – Webber 2004, Gardner 1993) to include a sociology of space (Edwards and Usher 2003 2), framing the approach to spatiality and teaching within a more critical pedagogy (Freire 1970).

What Edwards and Usher mean by a sociology of space are the ways in which space is socially produced: as place. The difference between space and place is that a space is seen as a box within which things happen, containing activities that can be measured and assessed in a variety of quantifiable ways; while place, on the other hand, is a site shaped by the relationships between the subjects and the objects that connect in a given situation. Each place or site is the product of the social context out of which it has emerged and, therefore, each situation will be context specific. The key issue here is that while spaces are fixed and immutable – no matter how much flexibility is created – each place has the potential to be redefined by the activities that occur between its walls and beyond (Massey 2007).

The concept of place rather than space is implied by Cosgrove's (1998) definition of landscape, i.e., a space that is made with a particular social logic, or unifying principle:

'In geographical usage landscape is an imprecise and ambiguous concept whose meaning has defied the many attempts to define it with the specificity expected of a science...As a term widely employed in painting and imaginative literature as well as in environmental design and planning, landscape carries multiple layers of meaning...the suffix "scape" posits the presence of a unifying principle which enables us to consider part of the

countryside or sea as a unit and as an individual, but so that this part is perceived to carry the typical properties of the actually undivided whole...That unifying principle derives from the active engagement of a human subject with the material object. In other words landscape denotes the external world mediated through subjective human experience... Landscape is not merely the world we see, it is a construction, a composition of that world' (p.13).

Writers who engage with this more sociological concept of place are often concerned with notions of class, gender and race. Coffield et al (2004) are very explicit about this in their critique of educational psychology and the notion of learning styles:

'The main charge is that the socio-economic and the cultural context of students' lives and of the institutions where they seek to learn, tend to be omitted from the learning styles literature. Learners are not all alike, nor are they all suspended in cyberspace via distance learning, nor do they live out their lives in psychological laboratories. Instead they live in particular socio-economic settings where age, gender, race and class all interact to influence their attitudes to learning. Moreover, their social lives with their partners and friends, their family lives with their parents and siblings, and their economic lives with their employers and fellow workers influence their learning in significant ways. All of these factors tend to be played down or simply ignored in most of the learning styles literature' (p.610).

This more sociological approach to space is inspired by the work of Henry Lefebvre, who is credited with inventing the social science of space. In *The Production of Space* (1991), Lefebvre argues that every form of society produces its own form of space. He maintains that in capitalist society the pureness or neutrality of space is being dispelled, slowly. Space is historical, physical, physiological, linguistic and mental. In other words there is a logic of space, as a machine for living in and loving in and working in: sociable and denaturalised. In the modern world space is capitalised: the logic of capitalised space is abstract labour, or capitalised work. Lefebvre talks of this process of abstraction as a form of repression which is always resisted: as counter-space, e.g., when a community fights the construction of a motorway and demands amenities, empty spaces for play and other adventures. It is through the production of counter-space that a pedagogy of space begins to take shape - between the human and the heroic, i.e., a science of space or spatiology.

Lefebvre has been influential on a generation of sociologists and human geographers, providing a focus for a critical engagement with the notion of space as it relates to class (Harvey), gender (Rose) and race (hooks).



Class

Marxist geographers, following on from Lefebvre, have further emphasised the ways in which space has been manufactured by capitalist relations of production. While Lefebvre's work demonstrates a sophisticated theoretical understanding of space, critics in the Marxist tradition argue that Lefebvre's work demonstrates a 'romanticism of perpetually unfulfilled longing and desire' (Harvey 2000 183). David Harvey seeks to rectify this through critically re-thinking a working class perspective based on the notion of the 'insurgent architect'. For Harvey, architecture is a 'supremely speculative and heroic profession' (p.254). In his work, *Spaces of Hope* (2000), Harvey looks for the inspiration that drives this insurgency:

'Yet the architect can (indeed must) desire, think and dream of difference. And, in addition to the speculative imagination which he or she necessarily employs, she or he has available some special resource for critique, a resource from which to generate alternative visions as to what might be possible. One such resource lies in the tradition of utopian thinking... Utopian thinking of spatial form typically opens up the construction of the political person to critique. They do so by imagining entirely different systems of property rights, living and working arrangements, all manifest as entirely different spatial forms and temporal rhythms. This proposed reorganisation (including its social relations, forms of reproductive work, its technologies, its forms of provision) makes possible a radically different consciousness (of social relations, gender relations, of the relation to nature, as the case may be) together with the expression of different rights, duties, and obligations founded on collective ways of living' (p.237-238).

Gender

Women writers have made a very significant contribution to debates about academic space. In *A Room of One's Own* (2008), Virginia Woolf discusses inequality and exclusion at Oxbridge, contemplating the relationship between women and fiction and the problems for women who wish to write while denied the facilities of an Oxbridge college. *A Room of One's Own* is written after Woolf's intention to read a manuscript in an Oxbridge library is prevented by the rules of an all male college:

'That a famous library has been cursed by a woman is a matter of complete indifference to a famous library. Venerable and calm, with all its treasures safe locked within its breast, it sleeps complacently and will, so far as I am concerned, so sleep for ever' (p.9).

She argues that in order to write, women need the right kind of space, a 'room of one's own', and financial independence.

Woolf pursues the theme of university architecture in *Three Guineas* (2008). In this text she rehearses a speech to be given to the National Society for Women's Service, an organisation that aims to increase the presence of women in higher education and the professions. In this speech she talks specifically about the ways in which university buildings can be made free from the traditions of competition, acquisition and militarism, values which she argues dominate research and teaching.

In response to a request for money to rebuild a college for women she suggests the sponsors should ask the question:

'Before you begin to rebuild your college, what is the aim of education, what kind of society, what kind of human being it should seek to produce...the old education of the old colleges breeds neither a particular respect for liberty nor a particular hatred of war – it is clear that you must rebuild your college differently. It is young and poor; let it therefore take advantage of those qualities and be founded on poverty and youth. Obviously then it must be an experimental college. Let it be built on lines of its own. It must be built not of carved stone and stained glass, but of some cheap, easily combustible material, which does not hoard dust and perpetrate traditions. Do not have chapels. Do not have museums and libraries with chained books and first editions under glass cages. Let the pictures and the books be new and always changing. Let it be decorated afresh by each generation, by their own hands. Cheaply.' (p.198-199).

The issues that Woolf is writing about are still not resolved. Morag Shiach, Pro-Vice Chancellor for Teaching and Learning at Queen Mary, University of London – with responsibility for space development, and editor of the Woolf collection that contains the work cited above, writes:

'The extent to which higher education should foster intellectual and cultural liberty, in the face of pressing economic demands from industry and government, is still unresolved' (p.xxviii).

In her book *Landscape for a Good Woman* (2000), Carolyn Steedman talks about the ways in which, even by the 1960s, and as one of the Robbins' generation of University entrants, her position as a female student was still as an outsider in a male dominated academic culture, in a landscape within which women could not find a space to tell the stories of their lives. Her theme for the book is how can working class female academics establish a presence in higher education:

'Where is the place that you move into the landscape and can see yourself?' (p.142).

Feminist writers working in a geographical context have sought to introduce issues of gender into the subject of space and spatiality. Much of the writing reflects the invisibility of women in the geographical literature. The role of women within geography is discussed in terms of their relationship to private and public space. Private space is seen as the domain of women, dominated by domesticity and mothering, home and home making and a sense of belonging. Private space is about emotionality, sensual delight, physical pleasure and affection for particular locations. Feminist writers argue that these attributes and activities are seen as female sensibilities. Public space, on the other hand, is dominated by men and represents sites of fear, unease and insecurity for women. Feminists argue that, for women, a resolution to this sense of public exclusion is found in the notion of community, as a site of resistance and of political struggle for social change. Gillian Rose (1993) theorises the concept of community as a type of paradoxical space, i.e., a site which self consciously challenges the contradictions that lie at the heart of the life of women and space: visibility-invisibility; margins-centre; same-other; personal-public; inside-outside. Rose argues that paradoxical space represents for women the politics of an emancipated space.



Race

In *Teaching to Transgress* (1994), bell hooks writes as a black educationalist and activist, against all forms of educational discrimination.

She relates the issue of race, class and gender directly to the classroom and to a spatial sensibility linked to questions about how and why and what we teach:

'The academy is not paradise. But learning is a place where paradise can be created. The classroom with all its limitations remains a location of possibility. In that field of possibility we have the opportunity to labour for freedom, to demand of ourselves and our comrades an openness of mind and heart that allows us to face reality even as we collectively imagine ways to move beyond boundaries, to transgress. This is education as the practice of freedom' (p.207).

hooks refers to this practice of freedom as an 'engaged pedagogy', which she describes as being:

'...more demanding than conventional critical or feminist pedagogy. For, unlike these two teaching practices, it emphasises well-being. That means that teachers must be actively involved and committed to a process of self-actualisation that promotes their own well-being if they are to teach in a manner that empowers students' (p.15).

Learning Landscapes as a Unifying Principle

If we are to follow Cosgrave's idea that the suffix 'scapes' implies the concept of a unifying principle for the spaces and places within which we are living and working, what critical unifying principle can be used to inform the design of our teaching and learning spaces?

07 LEARNING LANDSCAPES PRINCIPLES

The most effective processes for the design and development of teaching and learning spaces:

■ Drive research into effective teaching and learning

There is an increasing amount of research into what constitutes effective spaces for teaching and learning. This research provides a basis for the design and development of new pedagogic environments. Decisions based on research evidence add a sense of security and confidence, as well as an academic sensibility, to the design development process. This research-based evidence challenges academics to reconsider the ways in which they use space in their own teaching and learning activities. Some of the most compelling evidence shows that the most effective spaces are those that deconstruct the dichotomy between teaching and research.

■ Provide support models for staff and students on how to use innovative spaces, with provision for mentoring

Teachers and their students need help in using new spaces effectively. Without support, there is a tendency to revert to traditional practices even in the most innovative pedagogic environments. Experimental spaces enable academics to try out new ways of working with the support from staff with particular expertise, for example, how to use technology to enhance teaching and learning in different situations. Key to this culture of support and mentoring is that new spaces should be both teacher and student centred.

■ Include students, as clients and collaborators, ensuring their voices are heard

Student intelligence is an important resource for the design of teaching and learning spaces. Students come to university with a wide variety of experiences derived from the innovative use of space at school, college, work and play. The experiences of students can be used to inform the design and development of new teaching and learning spaces. The views of students can be gathered from already existing student satisfaction data, e.g. the NSS. The student voice needs to be supported and developed so as to impact effectively on decision making processes in the design and development of new spaces. Academic staff can be educated so as to be able to support and hear what students are saying. The most effective spaces occur when students have responsibility for what goes on in the space and how the spaces are being used.

■ Evaluate spaces in ways that are academically credible, based on measures of success that reflect the kinds of activities that are taking place

Evaluations of teaching and learning spaces in higher education tend to be based on occupancy levels, i.e. efficiency. Evaluations of space do not usually include the extent to which space is being used effectively with regard to the types of activities that are occurring in the space. This means moving from a focus on 'spaces' to 'places' with an emphasis on the social and pedagogic rather than the financial and the material; as well as the development of outputs that are more relevant to the academic community than cost-based measures. These outputs might include rates of student success and achievement, retention, accessibility and employability. The development of these student centred measures will facilitate greater engagement with academic staff in space planning and development.

■ Understand the importance of time as an issue for space planning: not just space, but space-time

Key to the successful development of new teaching and learning spaces is the relationship of the new space to the teaching timetable. It may be that the traditional timetable model runs counter to the possibilities that are provided by new pedagogic environments. Consideration should be given to the amount of time required by different types of spaces to ensure these places are used effectively. It may be the case that spaces can be used differently depending on the time of day, for example, teaching and learning during office hours, and as a place for research and quiet study at other times of the day and night.

■ Connect the learning and teaching space with the campus as a whole, in ways that articulate the vision and mission of the university

The vision and mission of higher education institutions can be enhanced by the ways in which teaching and learning spaces are designed and developed. The distinguishing feature of the most effective university architecture is its visionary quality, and the extent to which it challenges the utilitarian and the ugly, the functional and the flexible. While effective teaching and learning spaces have distinguishing and discrete features, the vision and mission of a university can be enhanced by ensuring that each new teaching and learning space is designed so as to create the feeling of a coherent campus by articulating a sense of community and connectivity based on a university's identity and brand.

■ Recognise and reward leadership that supports the development of learning and teaching spaces

Academic staff must be motivated and inspired to engage with teaching space design and development, and to take the lead in driving this agenda forward. An awareness of the importance of the learning landscape can be written into a university's professional as well as promotional material, forming part of an educational provision to support continuing professional development and an essential requirement for gaining promotion. Universities can provide funding to support innovations in the design of pedagogic space as well as awards for achievements in this area. Each institution should develop 'champions' to generate and maintain enthusiasm for the development of teaching and learning spaces. Students can be made ambassadors for the learning landscape. The role of the champion can be professionalised by the creation of formal posts at sufficient levels of seniority to be able to affect real institutional change.

■ Create formal and informal management structures that support strategic experimentation

Formal committee structures are not the most appropriate forums to promote innovation. Universities should develop processes that promote strategic experimentation while remaining connected to the central decision-making structures. These can take the form of action groups working on the development of particular projects, or 'think tanks', or 'imagineering' or 'sand pit' events, i.e., interactive and free thinking sessions where academics from a range of disciplines, as well as students, estates professional and other support staff and key stakeholders come together as part of a collaborative thinking process in a creative environment to uncover innovative proposals for the development of new teaching and learning spaces. The most innovative spaces for teaching and learning tend to emerge from institutions with devolved leadership structures and high levels of autonomy and independence between the central administration, schools and departments.

■ Clarify roles, grounded in supportive relationships between and across professional groups

Universities can develop processes that support progressive working practices between academics from different subject areas, estates, professional and other support staff and students. By gaining insight into each others' professional preoccupations, these processes can counteract negative stereotyping between different professional groups, and generate a culture of mutual trust and respect. A key to the development of progressive working relations is that different professional groups remain within their own particular areas of expertise, and that the roles within project working groups remain unambiguous. For example, it is important to be clear about which individual has responsibility for the 'sign off' of a project. Some institutions use the spaces designed for student social learning as spaces to facilitate debate and discussion among and between professional groups.

■ Intellectualise the issues: generate debate on the nature of academic values and the role and purpose of higher education: the idea of the university

Academics are contributing to the design and development of teaching and learning spaces as clients and customers of project management groups. The academic voice can be further enhanced by challenging academics to intellectualise the debate about teaching and learning space by reference to the custom and tradition, principles and preoccupations of their own subject areas. These debates can be generalised to include academics from other subject areas within an institution and from across the higher education sector. The subject of this generalised debate is teaching and learning space in the context of the role and nature of higher education. Situating the learning landscape debate within the context of academic values grounds the concept of innovation and design as part of an ongoing debate about 'the idea of the university'. This debate must be made accessible to all staff and students, and extend beyond the university campus.

08 THE FUTURE

Learning Landscapes in Higher Education has been a collaborative project between twelve universities and DEGW looking at the ways in which academics have been engaged with estates and other key stakeholders in the development of teaching and learning spaces. A key feature has been to look at the relationship between design and pedagogy, through an examination of the decision making processes by which these environments have been built.

Based on its findings the project has developed a series of development tools to further facilitate innovation and experimentation. The design principle for these tools has been to create a common language by which academics, estates and other key stakeholders can articulate their professional expertise across academic subject areas and occupational proficiencies.

The concept which links these different proficiencies is the notion of value, providing the basis for a connection between different professional discourses. For Learning Landscapes, value relates to cost-benefit analysis between the different client and customer groups, the values within which subject disciplines are grounded, and, fundamentally, the values and ideals which underpin the custom and traditions of higher education. At a time of increasing uncertainty for higher education it is important to consolidate the notion of academic value so that universities do not become overwhelmed by competing agendas, and can provide leadership and resilience in a time of global insecurity.

The future for the project is to embed the Learning Landscape principles in the procedures and protocols of the universities who have been engaged with the project, and to take Learning Landscapes in Higher Education to other universities across the sector.

This work has already begun, through a series of conference presentations and workshops. The feedback has been encouraging and supportive, with ideas and suggestions for how the Learning Landscapes tools can be improved and developed.

We look forward to meeting you in the near future and receiving any comments you may have on any aspect of our work.

Iconic and Iconoclastic:
building universities for the future,
The Blizzard building, Queen Mary,
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APPENDIX

Outputs

Keynotes and presentations

Neary, M. (2010) 'Learning Landscapes: the Struggle for the Idea of the University', Fifth Symposium on Social Learning Spaces, University of Warwick

Neary, M. (2009) 'Learning Landscapes in Higher Education', JISC online conference, Innovating e-Learning

Harrison, A., Neary, M., Dugdale, S. and Felix, E. (2009) 'Learning Landscapes in Higher Education', SCUP, Portland, Oregon

Neary, M. (2009) 'The Learning Landscapes Project', Managing Innovation, AUDE, University of Wales, Newport

Neary, M. and Saunders, G. (2009) 'Learning Landscapes – Constructing a Contemporary University' Fourth Symposium on Social Learning Space: Learning Outside the Box, Oxford Brookes University

Chiddick, D., Harrison, A., and Neary, M. (2009) 'Learning Landscapes in Higher Education', Leading Transformational Change, Leadership Foundation for Higher Education and Higher Education Funding Council for England, London

Neary, M. (2009), 'Learning Landscapes – Constructing a Contemporary University', University of Southampton

Chiddick, D., Harrison, A., McConnell, J., and Neary, M. (2009) Leadership Foundation for Higher Education Governors' Development Programme, 'Estates Fit For Learning: The Governors' Role', London

Neary, M. (2008) 'Learning Landscapes: Constructing a Contemporary University', Academic Registrars' Conference on Enhancement, University of Lincoln

Conferences

'Making Working Spaces Work' (2009) Learning Landscapes Conference at the University of Lincoln

'Working in Partnership' (2008) Learning Landscapes Conference at the University of Lincoln

'Constructing a Contemporary University' (2007) Learning Landscapes Conference at the University of Lincoln

Workshops

Learning Landscapes in Higher Education (2009), University of Lincoln

Learning Landscapes in Higher Education (2009), University of Loughborough

Learning Landscapes in Higher Education (2009), University of Wales Institute, Cardiff

Working Papers

Thody, A. (2008) 'What Lessons Can be Transferred to Higher Education from the Leadership, Governance and Management Processes of School Design Projects', Working paper 2, Centre for Educational Research and Development, University of Lincoln

Thody, A. (2008) 'Learning Landscapes for Universities: Mapping the Field', Working Paper 1, Centre for Educational Research and Development, University of Lincoln

Book chapters

Neary, M. and Thody, A. (2009) 'Learning Landscapes – Designing a Classroom of the Future' in L. Bell, H. Stevenson and M. Neary (eds) The Future of Higher Education: Policy, Pedagogy and the Student Experience, Continuum, London: 30-42

Documentary Films

'Learning Landscapes – Constructing a Contemporary University' (2008), produced by Electric Egg, Lincoln

'Learning Landscapes – Working in Partnership, Working with Partner Colleges' (2009), produced by Electric Egg, Lincoln

Opposite This poster design was used to publicise the Learning Landscapes conferences that were held at the University of Lincoln, 2007 - 2009.

Learning Landscapes

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