

Editorial: Making an *Impact* in the Built Environment?

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As a relatively familiar construct amongst built environment professionals, the concept of 'impact' has a particular resonance for those involved in the design and implementation of policies, plans, projects, and programmes. Impact assessments are used, for example, in relation to the effects of development on the environment or human health, or the additional impacts on transport or retail. They serve to predict potential future consequences of proposed action; to review the perceived costs, benefits and effects of interventions already in operation; and to identify possible mitigation and adaptation strategies. Understanding impact in this context is thus concerned with existing and new forms of action. Furthermore, impact assessments are required to consider the differential effects the introduction of particular initiatives or policies may have on race, gender and disability, for example. Given the breadth of potential impacts to be taken into account over time, space and sector, a variety of assessment instruments have been developed in order to assist policy makers, developers, industry, politicians, decision-makers, together with the public, systematically to consider the environmental, social, economic, and other concerns involved.

In providing a general overview of impact assessment, the International Association for Impact Assessment (2009, p.1, emphasis added) notes that the term 'impact' is frequently used interchangeably with 'effect' and, put simply, signifies 'the difference between what would happen *with* the action and what would happen *without* it'. As an approach, impact assessment has become an integral feature of attempts to enhance regulatory activities and improve governance. Following the guidance provided by the Department for Business Enterprise and Regulatory Reform (undated), for example, impact assessment is thus promoted as both a technical *tool* for considering evidence, and a continuous *process* to assist policy-makers to think through and weigh up the available evidence in relation to the consequences of intervention or non-action. Moreover, as an integral part of a process, impact assessment can be undertaken at a number of points from the developmental, option generation, consultation, implementation or review stages, and serve to legitimise the rationale for intervention, justify the selection of a proposed plan or policy, inform the nature of implementation, and support a decision to halt a project or withdraw a programme. From this perspective, assessment presents an opportunity to identify positive and negative effects and offers the potential to offer corrective measures. Impact assessment may then be understood as providing diagnostic feedback to policy-makers and those working in the built environment.

Importantly, impact assessment is more than just an institutional tool or legal procedure; it is underpinned by a number of values. The International Association for Impact Assessment (2009) asserts that impact assessment not only affords the analytical basis for informed action but also provides decision-makers with the potential procedures and methods for

follow-up actions that may be required to mitigate or monitor adverse consequences. In addition, and, when used appropriately, impact assessment can improve transparency and accountability and create a political space for participatory decision-making. Ultimately impact assessment is held to contribute to 'environmentally sound and sustainable development' (International Association for Impact Assessment, 2009, p.1). More than a statutory requirement or instrumental check-list, however, impact assessment may also be understood as presenting a valuable opportunity to enhance critical reflection and learning amongst stakeholders (Jha-Thakur *et al.*, 2009). Integrating insights from both the sciences and social sciences, impact assessment has become a professional discipline in its own right as well as featuring in a range of built environment curricula (Glasson *et al.*, 2005; Sanchez and Morrison-Saunders, 2010), including, architecture, housing, landscape, planning and transport.

In the UK, new conversations are emerging in relation to impact across the higher education sector as a consequence of its introduction as a feature of the government's revised approach to evaluating academic research quality. In piloting the capture of 'impact' for the evolving Research Excellence Framework, impact was defined 'as any identifiable benefit to or positive influence on the economy, society, public policy or services, culture, the environment or quality of life' (Higher Education Funding Council for England, 2009a, p.3). Related arguments are being advanced for a more society-oriented form of scholarship to extend scientific knowledge beyond the boundaries of individual disciplines (Higher Education Funding Council for England, 2009b). Revisiting the impact of research in this way has particular implications for researchers in terms of scoping, designing, executing, and disseminating their research. Notwithstanding the normative and technical issues involved in capturing and measuring impacts (Grant *et al.*, 2009), it begs questions not only as to *what* impacts are deemed desirable, beneficial and positive but *how* best to ensure that these impacts are secured and demonstrated. In this editorial I encourage those involved in publishing educational research to engage in discussions around questions of what is being constructed as impact.

Underpinning debates about impact with respect to the Research Excellence Framework is a concern with linking quality research with robust indicators corresponding to the reach and significance of specific research and how these dimensions might be corroborated in practice. Importantly, potential beneficiaries of research are acknowledged as many and varied, although whether students are beneficiaries within the academic sphere as a consequence of being an integral part of the advancement of scientific knowledge is a moot point (Higher Education Funding Council for England, 2009a). Nevertheless, the extent to which research undertaken in a particular institution impacts on a student's knowledge, understanding and future values, behaviours and practices raises the thorny issue of whether teaching is, variously (and not exclusively), research-led, research-informed or research-oriented. Assumptions about the degree to which curricula embed institutional research or support research-based learning as part of a porous academic environment potentially run the risk of rendering students passive by-standers as research institutes and units of assessment focus on excelling with respect to their external impacts. This might then be an unintended consequence of the Research Excellence Framework.

Adopting an eco-systems perspective, researchers and students could potentially enjoy a symbiotic relationship through which the processes (and habits) of research become (like impact assessment) a continuous tool for reflection and critical learning, supporting on-going professional development and life-long learning. Explicitly incorporating assessing the impact of research on built environment curricula and the enhancement of student learning and professional development could offer a relatively more transparent, accountable and inclusive appreciation of the effects of research on institutional thinking, cultures and behaviours. Drawing on the reflexive potential of impact assessment tools and processes, the built environment disciplines are perhaps well placed to advance the social reconstruction of impact in the academy, and, equally importantly, within professional practice. Indeed, the international papers in this issue illustrate the extent to which academics in the built environment are concerned with integrating learning across disciplinary domains. Within the built environment there is evidence that scholars are critically considering the impacts of educational processes and outcomes as well as outputs across a diversity of traditional and novel subjects.

This Issue

The prospective transferability of learning across the built environment disciplines and a fundamental concern with enhancing the impact of pedagogical practices to improve student learning is evident in the articles published in this issue. The very title of the first article, 'Navigating Ambiguity: Comedy Improvisation as a Tool for Urban Design Pedagogy and Practice', reflects the creativity and innovation required in preparing future practitioners in the built environment to deal with ambiguity, uncertainty and collaborative working. Aseem Inam, from the Massachusetts Institute of Technology, USA, effectively works the boundaries of what may be considered to be the discrete disciplines of comedy improvisation and urban design in order to draw out the relevance of the exercises and techniques used in one societal domain for another, emphasising the benefits to be derived for practice and highlighting the impact of the learning experience from a student perspective. Based on an experimental urban design studio, Inam specifically discusses the reflective and spontaneous nature of learning through comedy improvisation. Commenting on how students relate and react to working with others in unexpected ways confirms the importance of being able to respond in a dynamic manner to change and divergent views. Critically, in drawing out the wider implications of the innovation, Inam highlights the non-linear and inter-professional nature of design processes where goals may conflict, solutions are contested and there is a degree of informed risk-taking. Importantly, he steers practitioners away from a reliance upon specified solutions and formulae to a model of creative collaboration that is nevertheless grounded in a structured and disciplined approach. The positive impact of this initiative on the students' appreciation of urban design is demonstrated in a number of reflective commentaries on their learning and a clear willingness to challenge assumptions.

The second paper 'Overcoming Isolation in Distance Learning: Building a Learning Community through Time and Space' by Nicholas Croft, Alice Dalton and Marcus Grant from the University of the West of England, UK, addresses the lack of physical interaction and discussion between students on non-cohort built environment distance learning courses and

suggests ways to support constructivist approaches to learning. In tackling a topical issue, the authors stress the importance of retaining flexibility in educational provision as the nature of, and context for, learning changes. Indeed, the discussion emphasises the impact that distance learning may have on meeting the identified skills shortages in the built environment and responding to demands for new modes of part-time and on-line study. Understanding how best to *incorporate* dimensions of face-to-face learning experiences then becomes of fundamental concern. Enriched by insights from the published literature, the article differentiates between conventional and distance-learning teaching methods in order to advance a supportive scaffolding for bridging individuals' potential feelings of loneliness, isolation and alienation and to create a learning community. In presenting a number of recommendations likely to be of relevance to a range of disciplines, the authors highlight the interactive and reflective benefits to be gained through engaging in action orientated research where the impacts of intervention are continually reflected upon and shared between participants.

In their paper, Adam Krezel and Gayle Morris from Deakin University, Australia, apply current ideas in assessment thinking in the context of a project management discipline stream in construction management in order to present an integrated assessment model to support the development of judgement. As an approach, the model they explore not only addresses learning in purposeful and engaged practice-based contexts but supports the cultivation of professional learning and identity formation. The model challenges conventional assessment approaches by incorporating a non-sequential and overlapping approach, including individual and shared processes of critical reflection through peer review. Following Boud (2009) who differentiates between assessment as part of the educational system and assessment as an integral activity in the world of work, Krezel and Morris assert that assessment should be anchored in the professional rather than the educational world, and place an important emphasis on the inconsistencies and divergent realities that graduates will likely face and need to confront in practice. The authors' discussion emphasises how different orientations towards assessment open up fresh opportunities to extend the impact of assessment to support future learning and reflection. Such a model stresses the benefits of an iterative and interactive social construction of assessment.

Wei Pan from the University of Plymouth, UK, provides a critically reflective case study into technology appraisal in building and construction management. Alert to the role built environment students will play in delivering sustainable development, Pan emphasises the attributes, attitudes and dispositions required if graduates are to display thoughtfulness in their selection and application of relevant construction technologies and places a strong emphasis on forms of research-based learning. Importantly, he argues that there is a need for student learning to be informed and supported by an appropriate mix of 'learning stakeholders' in order to encourage critical enquiry and deep learning. This line of reasoning points to the benefits to be derived from early interaction with employers, professional bodies, trade associations and industry and implicates a range of stakeholders in the development of graduate skills in appraisal techniques. Such a view of supported learning emphasises the potential value of external exchange and interaction if graduates are to develop appropriate skills. It is evident that identifying measures for improved sustainability

and the selection of appropriate solutions and new technologies require high order critical thinking skills in a changing world.

The concluding paper in this issue critically discusses the partial history of architecture in the built environment as this is disseminated in English texts. In an analysis of the literature cited in a number of US and UK curricula, Zeynep Aygen from the University of Portsmouth, UK, considers the implications of the relatively narrow focus of text and reference books used primarily in architecture. In effect, Aygen argues that, whilst claims are made that the published literature encompasses a view of world architecture, in practice, materials are limited to Western architecture. She contends that linguistic and cultural barriers can only be crossed if architectural historians learn to work across disciplines. Drawing on the Globalising Art, Architecture and Design History (GLAADH) project, the author suggests that, whilst there is a will to engage with 'other' architectures, the existing lack of suitable (English language) resources is a limiting factor. To redress the balance and provide a more complete understanding, Aygen advocates a cross-cultural approach as a way to promote a relatively more informed and comparative understanding of the history of the built environment. It is clear that without such materials a shared appreciation of the significance of others' creativity and culture will be partial. It is important to extend the global interpretation and reach of this knowledge and understanding.

The discipline of impact assessment seeks to propose a systematic and predictive approach to identifying the future consequences of our actions in a holistic and inclusive way. Practice and experiential learning within the built environment alert us, however, to the need to be able to identify and respond to uncertain and unpredictable circumstances and unintended consequences in the task of supporting sustainable development. Continuous monitoring and review, together with enabling all voices to be heard, are therefore fundamental to appropriate and responsive processes of critical reflection and adaptation. The articles in this issue variously illustrate a concern with ensuring that built environment graduates and post-graduates possess the relevant knowledge, confidence and lifelong learning skills to adapt their understanding and *praxis* to meet changing contexts and conditions. In disseminating their research, innovations and critical reflections, the authors present some thought-provoking ideas and advance debates and arguments about how to effect pedagogical and technological improvements in higher education. In a number of ways, the authors' attempts to enhance the student learning experience have already impacted those involved, as may be evidenced by the students' reflections and observations. Over the longer term, the articles published here may well influence educational practices and make a difference by leading to further improvements in the design of quality public realms, supporting collaborative action, facilitating shared learning, and extending and enriching appreciations of cultural diversity.

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Editor

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