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# Reflection 2: shifting research paradigms: urbanism and culture.

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# Shifting research paradigms

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## Overview

Over a period of many decades, urban development has led to new issues emerging within the study of architecture and the built environment. A growing realisation of the complex relations between people and the constructed and natural environments have logically invited the study of themes not previously considered part of the mainstream architectural research, with the central notions of what constitutes architectural and urban theory challenged to embrace new directions of enquiry. Within the past two decades, the central position of buildings, building users, design and policy-making in the pursuit of a low carbon agenda has become central to research policy and funding, and has moved significantly to the mainstream.

This shift has perhaps been most manifest in trying to understand the notion of the city, against a background of increasingly scarce resources. For example, need to develop integrated aesthetic and technical responses to the need for low energy designs represents in itself a major challenge to all disciplines involved in built environment. The notion of sustainability, while quite clear regarding its actual definition, may be difficult to address fully within the context of architectural projects where opportunities and pleasures concerning the economics, environmental background and social impact of an architectural design may be unequal and difficult to control in any case.

One approach through which architectural practice and research have tried to address these challenges has been a focus on aspects of sustainability. These include, for example, studies specifically looking at the energy consumption and performance of buildings (Berggren, Hall, Wall, 2013) or studies concerning the inter-related carbon footprints of buildings, transportation and other infrastructure (Nye and Rydin, 2008). There has also been recognition that humans themselves can have a significant role to play in reducing energy use and carbon emission, primarily through changes in behaviour and lifestyle (*inter alia* Bonham and Koth, 2010, Carrico and Riemer, 2011), and this has formed a further strand of research activity being undertaken by academia and both public and private external partners.

An important point worth bearing in mind is that much of this research has embraced and modified methods and methodologies, which originally emanated from quite a wide range of fields. The chapters contained within this volume, in addition to dealing with theoretical issues which are clearly central to the development of architecture as a discipline, also draw on approaches taken from the environmental psychology, various strands of engineering, the mathematical sciences (including computing) and methods taken from historical research.

At its best, one could argue that research being undertaken at the moment within the field of architecture is dealing with some of the most pressing issues facing humanity and society. Also reflected in the chapters is a desire to engage with the complex range of individuals and organisations who can both determine and influence the future direction of many architectural projects, but who will also be affected by those projects in numerous ways. For example, at the individual level, that influence may be minor (unless the individual happens to be the client) yet the effect on lifestyle and health could be significant (Jackson, 2003). At the organisational level, whilst there may theoretically be greater capacity to influence the original design of new architecture, the manner in which this can be facilitated is in itself complex, and the implications of poor quality design are quite clear in terms of productivity, energy use, sustainability and even staff welfare (Johansson, 2009).

Increasingly, governments of both local and national level recognise the importance of a built environment, which is sensitive to environmental impact (both social and ecological), and there has been clear rhetorical support for approaches to urban development, which strive to recognise and address the social implications of architecture. For example, this can be evidenced through apparent

political support for new urbanism and various sustainable transport initiatives (at the European level through initiatives including CIVITAS, and through various Interreg strands).

Therefore, and as is evident throughout this book, the approaches and techniques used to analyse research data within architectural research now extend well beyond those traditionally found within the arts. In order to properly address the complexity inherent within themes mentioned, research questions will often require the application of analysis methods from technical, social and economic perspectives, perhaps in addition to a consideration of aesthetic or historical concerns.

### Research practice

In recent years, there has been a shift in research practice. When considering the range of activities funded by research councils (particularly in the UK, but not exclusively), this change has been manifest in the intrinsically cross-disciplinary nature of large-scale funded research within the built environment (see, for example, the EPSRC 'Sustainable Urban Environments' programme). At a wider geographical level, initiatives by the likes of the European Commission have identified very large-scale themes (e.g. Smart Cities) which often require evidence of innovation in terms of research, the inclusion of both academic and industry-based partners, the expectation that the investigation results will somehow find their way into practice, as well as a desire to undertake research work which is sufficiently original and ground-breaking to merit a place in highly rated and widely read academic journals (the value of interdisciplinary working exemplified in Patterson and Bierlaire, 2010). Therefore, this situates much of the research being undertaken by academic departments within a context which extends far beyond theory, yet which demands that the theoretical basis for all research work be sound, and can demonstrate innovation, or the potential for innovation, in a practical sense.

While it is perhaps also true that many key journals within the field still aspire to follow a particular direction of enquiry, it is arguable that those directions often come from research ideas and findings, rather than from an exclusive notion of disciplinaryity. Therefore, and perhaps in recognition of this move towards multi-disciplinary working, AHRA is an excellent platform from which to explore these trends. Although many of the chapters contained within this volume have been prepared by authors working individually as part of a doctoral program, the subject matter of most of them lends itself to scrutiny in terms of how the themes, problems, issues and methodologies employed might be seen to take on a different complexion if viewed through the lens of multi-disciplinary participants.

As noted at the outset, in recent years there has also been a clear shift in the subject matter being studied by academics within the areas of architecture and the built environment. Key themes emerging from this volume touch on some of these issues, including research concerning:

- Theoretical underpinning
- Local vs. Global thinking and practice
- Concepts of the city
- Cities and health
- Sustainable design and development
- Scarcity
- Ownership and contested values

It is clear that research concerning urban policy requires an integrated approach if our cities can be allowed and enabled to flourish in the future. An interesting aspect of the chapters contained within this volume is how authors approaching the subject matter from a range of disciplinary backgrounds have developed distinctive themes and theories. The overall subject of a changing urban condition arguably demands an integration of disciplines, with individuals working together to develop innovative ideas, which may not naturally emerge from a single discipline. A challenge for research practice in the future must surely be to embrace interdisciplinary working, and to explore what the implications of such research may be, both within academia and in wider society.

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