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ZAMAN, Q.M. and TROIANI, I.

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Introduction: Transdisciplinary Urbanism and Culture

Quazi Mahtab Zaman and Igea Troiani

Abstract This book originates from the contemporary research approach and ideology centred on inter-disciplinarity to examine issues in urbanism and culture. The crux of that research lies at the heart of academic institutions, in particular the way in which various disciplinary discourses are available and the manner in which researchers are currently trying to address issues in urbanism and culture with inter-disciplinary research methods and approaches. This introductory chapter opens up different aspects and dynamics in urban research. It shows how established and early-career researchers are conceptualising and attempting to address various urban research strands, which were discussed at the 9th Annual AHRA (Architectural Humanities Research Association) Research Student Symposium.

Keywords Transdisciplinary · Pedagogy · Praxis · Urbanism · Culture · AHRA

Transdisciplinary Urbanism and Culture: From Pedagogy to Praxis is a collection of critical, multi-disciplinary essays on urban research by established and early career researchers who participated in the 9th Annual AHRA (Architectural Humanities Research Association) Research Student Symposium.[1] The authors

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[1]The symposium was held at the Scott Sutherland School of Architecture and Built Environment, Robert Gordon University in Aberdeen from Saturday 19th May–Sunday 20th May 2012. It was organised by Quazi Mahtab Zaman. Guest speakers included David McClean, Richard Laing, Gokay Deveci, Rosa Cervera and Javier G. Pioz from Architects Cervera and Pioz, Madrid. The conference was run with IDEAS Research Institute, Robert Gordon University with Knowledge Partners, IDEAS (RGU); Waste Concern; Global Built Environment Network; and Global Built Environment Review. Igea Troiani attended and presented a conference address as Chair of the AHRA (2009–2012).

Q.M. Zaman (&)
The Scott Sutherland School of Architecture and Built Environment, Robert Gordon University, Aberdeen, UK
e-mail: q.m.m.zaman@rgu.ac.uk

I. Troiani
School of Architecture, Oxford Brookes University, Oxford, UK
e-mail: itroiani@brookes.ac.uk

depict contemporary research issues in urban development in search of new and fresh approaches that reflect the changing principles and praxis of urban conditions. The common ambition is to create new lines of knowledge enquiry in urban research. Due to socio-economic, political and technological changes to urban production and patterns of consumption and a drive for inter-, cross-, multi-, transdisciplinary practice the essays more or less mirror the ideological shift occurring in faculties of research and external academic research organisations.

The non-profit academic organisation, AHRA was established in 2003 to promote, support, develop and disseminate high-quality research in the areas of architectural history, theory, culture, design and urbanism. AHRA also aims to consolidate an emerging collective voice in architectural humanities and architectural design research that seeks to go beyond the strict confines of academic work defined by established research organisations in the United Kingdom. The AHRA gives academic kudos to individuals working in research and practice in the architectural humanities, whether from an institutional base or an independent situation such as architectural, urban and arts practitioners. It is purposely not a learned society with membership open to all at no cost. This benefit allows AHRA to provide an inclusive, multi-disciplinary network of researchers in architectural humanities across the United Kingdom and overseas. At the point of publication of this book, AHRA had over 1200 members worldwide from around 50 countries. The collaborative, critical, global and cross-institutional nature of the AHRA continues to enable and support many activities that allow formal and informal dialogues to occur when they might not otherwise. In an increasingly competitive institutional higher education context, where space for, and acknowledgement of new scholarship that goes beyond the boundaries of conventional research is changing, AHRA offers its members the opportunity to participate in conferences and disseminates the work of its members through a range of self-driven publications.

The AHRA hosts two conferences per year as platforms for knowledge dissemination. One is the Annual International AHRA Conference for emerging and established researchers, held around November each year and from which the AHRA book series *Critiques: Critical Studies in Architectural Humanities* and conferences issues of the international, interdisciplinary peer-reviewed journal *Architecture and Culture: Journal of the Architectural Humanities Research Association* are produced.[2] The other conference is the Annual AHRA Research Student Symposium for mostly emerging scholars and typically run in May that has resulted in ancillary publications such as this book. While other conferences have included urban research within their discourse remit, no other AHRA conference to date has focused on Changing Principles and Praxis in Urban Research. This is

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[2]The Series editor of the *Critiques* series is AHRA Founding member, Jonathan Hale. Eleven titles in the series have been published by Routledge between 2007 and 2015.

The Editors-in-Chief of *Architecture and Culture: Journal of the Architectural Humanities Research Association* are Igea Troiani, Suzanne Ewing and Diana Periton. Three issues of *Architecture and Culture* are published per year. The journal was launched in November 2013 and is published by Taylor and Francis.

because of the high quality of material presented, discussed and debated at the Aberdeen conference by delegates from Spain, Norway, Scotland, Ireland, England, Canada, Hungary, Indonesia. The themes based on 'New Urban Conditions transforming the way we perceive urban issues and recognise new research strands' that this publication was produced. The Aberdeen conference sought to uncover the ideologies and methods that are fundamental to generate the built environment arguing they warrant a renewed re-evaluation. The renaissance in thinking presented here will help urban managers (architects and allied professionals) prepare themselves to countenance the improbability of the new and emerging urban conditions.

In alignment with the aim of the AHRA to support transdisciplinary discourse and research, the authors in the book present research in and across the disciplines of urban planning, landscape architecture, architecture, engineering, environmental science, environmental psychology, politics, anthropology, post-colonial studies, philosophy, history, and sociology. Through examining public space and urban planning in-between and across these disciplines, the authors offer insights into new inter-disciplinary knowledge and approaches to urban pedagogic practice. The themes of the essays reveal our attitudes to the very pertinent issue of sustainability, the impact of globalisation, the need to limit material use, the surge in overpopulation in some parts of the world. The themes also indicate how we might need to reconsider our relationship not only with our cities but also with nature, wildlife or uncivilised landscape through interrogating the urban either through design research or writing. The essays in this book respond to the questions: What are the current polemical debates and urban principles, issues and findings in urban research that allow us to look at and design our cities and architecture differently? What are the emerging methods or praxes in (inter-disciplinary) urban research?

To work discursively across and in-between disciplines, this urban research extends the palette of disciplinary praxes typically used. Using existing and new methodologies that include filmmaking (animation), new digital technologies, participatory design, visual ethnography (photography), and so forth, our understanding of practice on the urban is stretched beyond the quantitative into more speculative, playful and contemplative approaches to the cities and places in which we inhabit.

New Principles for Urban Design Practice

Throughout history, the city, architecture and public realm have tested many ways to address issues faced by generations. Methodologically various theories aided urban researchers and designers in responding polemically to urban issues and facilitating options in solving urban problems imaginatively. 1950s criticism of mid-century city planning and urban design triggered our reliance on classical urbanism—walkable streets, a socially-responsive built environment, a socially and culturally engaging public realm—to comprehend urban context. Urban design discourse and the profession have been increasingly seen to use economically-driven actions in place making and marketing. With the growing trends in anchoring 'sustainable agendas'

into professional and academic arenas, urban concerns concentred on various strands of ecological parameters. Technological breakthroughs pushing the boundaries of urban praxis into new imaginary possibilities are helping to shift our mindset to define and visualise urban conditions in more pragmatic and holistic manners.

Today urban discourse has turned to technology to solve urban issues. It is becoming more hybrid borrowed from interface theories found in the sciences. Many of the chapters in this book have reflected on new technology as a method to rationalise design proposals and re-visualise traditional spaces in ways that help us cultivate our imaginations. New principles and praxes in urban research today offer a great leap forward to a new journey of conceptualising and re-fabricating the design thinking process. The boundary of 'phenomenology in place and spaces' (Norberg-Schulz 1980) allows the authors to draw inspiration from philosophical and cultural movements of various periods including modern times.

Pedagogy and Built Environment

In "Pursuing Resilience in Architectural Design through International Experimental Projects: Exploring New Boundaries in the Design Studio Pedagogy" Silvia Bassanese, Benedetta Rodeghiero and Aida Espanyol present a new pedagogical reasoning by demonstrating a shift in the traditional studio teaching and design exercises (Bassanese et al. pp. 23–39). The research reflects a deviation from the traditional boundary of teaching methods, where the authors have engaged in system thinking as the major tool in responding to more complex urban crises that global cities are experiencing within which the struggle for both academics and practitioners is to act responsibly in designing and delivering sustainable built environments. The authors demonstrate a unique educational setup, Build Our Nation (BON) and its first application in the Taifa Letu Tujenge (TLT) through an international collaborative method applied in the design studio environment. This method sets a new principle and praxis in the process of conceptualising and delivering necessary urban transformations in our changing globalised world. This points to the deficiencies our Higher Educational Institutions have in comprehending real life teaching scenarios and the authors have reconceptualised the meaning of the university as 'manufacturer of real world projects'.

In Yasser Zarei's "When Practice Dictates Change: The Necessity of a New Framework in Architectural Education" (pp. 41–51) the development of new interdisciplinary urban design practice is seen possible through bridging the space between artistic practice and methods of digital drawing and representation. Zarei argues that to achieve true interdisciplinary praxis in urban design, the designer needs to manoeuvre in-between and across a mixture of disciplinary boundaries. In the instance of digital design, Zarei argues that the use of digital software used in other related design fields does not constitute an adequate platform upon which the architect-urban designer can operate. Zarei calls for a change in the knowledge and praxis in urban research and for the architect-urban designer to learn software

programming to develop a process of design praxis. To achieve this, Zarie proposes the curriculum for architecture courses needs to change so that digital knowledge can be given to the urban designer making new technologies serve their means rather than be a servant to less relevant ones. This argument proposes a significant pedagogical shift to the education of the architect and urban designer since it provides them with inter-, multi-disciplinary praxes from the outset of their training.

With the similar attitude towards nature and environmental concerns, Rosa Cervera's 'Recycling the City: A New Pedagogical Approach to the City of the 21st Century' (pp. 53–72) debates the challenges humanity now confronts to maintain the growth and sustainable management of cities today. Central to all crises is the demographic shift, perhaps, a conventional mindset in setting scapegoats in the situation where we fail to accommodate growing population in an urban 'black-box'. Anything we have done to bring changes to the built environment seems ineffective and has fallen into the trap of reinventing the wheel without shifting our focus to the concept of retention, otherwise known as 'recycling or reuse'. How can a city be reused? This would perhaps be a major change in the way we have treated the city. Cervera exposes, through her own Design Studio of the "University Master in Advanced Project in Architecture & the City" (MUPAAC) offered at the Alcalá University (Madrid, Spain), a state-of-the-art pedagogical approach demonstrated by the "Recycled City". In the 'Recycled City' various methods have been tested, such as fractal volumes, decomposition, disintegration and prototyping housing styles. Interestingly the figure-ground theory by Trancik (1986) has also been reframed as 'Built and Vacuum' analysis as a reflection of how urban researchers are changing with the intention of generating new guidelines and methodologies to look at the traditional and contemporary urban crises. Requalification of the blocks is such an attempt to seek a new method to reinvent urban conditions within the existing footprint.

Philosophy and Built Environment

"Cloud10: Inflated Ideas" by Lisa Cumming (pp. 75–88) uses animation to propose a new lightweight and adaptive approach to articulate form and spaces in which society can live flexibly. Cumming argues a shift in material construction and a focus on mobility will allow a more dynamic and site responsive buoyant urbanism thereby reducing 'the lethargic nature of architecture' (Cumming, p. 78). It will also alleviate the impact of human inhabitation on the ground plane—in this instance on the fluctuating Antarctic landscape. Based on the practice-based research and design work of Category 5—a team of MArch (Architecture and Urbanism) graduates at the Architectural Association School of Architecture in London, of which Cumming is one—"Cloud 10: Inflated Ideas" and the urban design work contained in it proposes a more fluid and dynamic architectural program which presents a shift in principles and praxis in urban research. Through using the time-based drawing media of animation rather than conventional architectural drawing, the architect-filmmaker-urban

designer's practice is extended so that, to quote the British mathematician, Gordon Pask (cited in Frazer 1995), "the role of the architect, here […] is not so much to design a building or city as to catalyse them; to act that they may evolve".

Using a cinematic methodology as the focus of enquiry Maryam Fazel discusses in "Live Montage in Mediated Urban-experience: Between media and architecture" (pp. 89–97) how the concept of montage as understood in film studies can be reframed to enhance the design of the urban place and the architecture of everyday life. The juncture between realism and the virtual that struggles to reinstate our sense of perception within the urban realm that is often diluted by the fragmentation of semiotics brings the question of the 'point of indiscernibility' (Deleuze 2005). Fazel's interpretation of live montage repositions our concept of the real and the virtual and their inter-relationship, sometimes an undefined territory. Fazel establishes these territories through borrowing from media and architecture as two disciplines and examines their interfaces to understand the experiential yet virtual relationship between body, place, time and image. This is defined as 'Time montage and place montage' where architecture 'becomes the site of interface between reality and virtual'. Fazel also brings in new technologies. Our contemporary lifestyle reliant on social media that collectively gives us the 'circular repetitive temporal sense of time' and where as soon as we check our mobile phones for new emails our perception of the temporal structure of time is triggered to go beyond the conventional perception of what constitutes the notion of 'past, present and future'.

Christian Parreno's "Boredom in Space" (pp. 99–109) sets out a history of the principle of our modern condition of boredom and how it relates to our experience of space. Referring to the writings of mostly philosophers, Parreno argues that boredom as a part of the modern experience, emerged due to the industrialisation of labour grounded in regular working hours and patterns. As a consequence, our contemporary 'standardised way of life' (Parreno, p. 105) means that our cities have changed. The industrialised city is a noisy one with "cars and lorries in the streets, industrial noise, and the resemblance to a wasteland". What Parreno concludes from his classification of three types of boredom—individual, modern and historical—is that due to changes in patterns of standardised work life, people adept with technology living in the contemporary city are moving between an interior personal (virtual) world space and the external public (physical) world space more fluidly than before. Modern boredom requires that we be titillated in both domains differently—and in the case of the real space and the architectures within it—we need to respond increasingly to our desire for satisfying physical and sensorial experience in a world of ever-growing excess. Pleasurable spatial engagement of the void spaces in-between internal and external domains requires the immediate attention of architects and urban designers.

Sociology and Built Environment

Antonius Karel Muktiwibowo's "A Street with Informal Regulation" (pp. 113–125) expands on the established territory that intersects urban design and research with studies in sociology and social activism. Muktiwibowo sets out a debate on the fundamental urban economics in urban design, by establishing that the 'smaller denominator of urban activities', that cities in the East rely on, are more about 'informality' than a formality that occurs in the West. They do so by sustaining economic activities and ensuring livability in maintaining the community ambience. Informality, or informal economic activities in cities, is seen as the precursor to invigorating the public realm that emerges within the formality of urban regulations —a somewhat natural progression that many cities in the East are structured around. This allows a renewed interest in formalising 'informality' as a way to address sustainable planning processes to recognise the relevant socio-economic conditions with which many cities in the East have defined their public realms coherently.

Rully Damayanti discusses the 'third space', otherwise known as 'informal space' that clusters around marginalised society in slum situations. Informal Space is a well-established issue in fringe societies that has been researched by Mukhija and Loukaitou-Sideris (2014) in their *Informal American City: Beyond Taco Trucks and Day Labor.* Due to "[…] globalization, deregulation, and increasing immigration flows […]" informal activities aiming to have economic gain, and manifest in the 'underground economy' (Mattera 1985), are visible to consumers taking advantage of low-cost consumer goods but strategically invisible to law and enforcement agencies trying to eradicate the pseudo growth of 'third space'. In "'Kampung Kota' as Third Space in an Urban Setting: The Case Study of Surabaya, Indonesia" Damayanti (pp. 127–139) re-establishes informality as the wealth or resources in a city which creates an 'underground or uncharted' economy (Mattera 1985) which originated at the cross-road of urban and rural, named as 'Kampong Kota' in Surabaya, Indonesia (Kampong—village/rural and Kota—urban). The chapter uses very significant arrays of sociological urban theory—Lefebvre (1968), Bhabha (1994) and Soja (2000)—to establish the notion of space as the reflection of time and society as proponents of structuring [third] spaces. Third Space or Informal Space, if defined in real economic terms, is an urban opportunity that brings life into the city, provides a clear planning agenda that recognises this third space and regulates in a manner that safeguards formal spaces and other public realms using mechanisms of co-habitation.

The chapter by Richard Bower (Bower, pp. 141–152) 'Lefebvre's Treatise on Dialectical Materialism and the Work of Developmental architect, John VC Turner" focuses on Henri Lefebvre's spatial contextualization of Marx and Engels' methodology of dialectical materialism or 'diamat', which originated in the philosophy of science and nature. Bower's chapter tries to re-contextualise Lefebvre's renowned observations of a spatial trialectic—perceived, conceived and lived—within his earlier observations of praxis as a descendent of Hegel's notion of sublation.

Praxis and Built Environment

In "Good Places through Community-led Design" (pp. 155–164) Vera Hale discusses the value of community-led design for generating 'good places' but debates its inherent definition and modality of participatory design.. The Glass-House Debate series, analysed by Hale, generates our debate on the very traditional norms and ideologies of 'participatory design' that keeps us busy at all aspects of 'community responsiveness' through design. Glass-House (Hale, pp. 155) stems from a charity to skill building as a community-led design. Hale argues it should be seen alongside other community enhancement programmes elsewhere as this is a subject not within distinct geographical boundaries. More widely, the value and implications of 'participatory design' (Hale, pp. 159) are recognised since the objective of participatory design is always debatable in its strategic value to the society as a whole. Hale brings out common issues, such as 'Inspire to Aspire'; 'Empowerment; 'Expectation' and the value of participation amongst society who, regarded as 'social capital', are the recipients of any outcome that can be generated through the involvement.

In "A Study on the Schemes of the Inner Ring Road of Sheffield in the Early Mid-20th Century" (pp. 165–179), Like Jiang discusses the merits of the ring road system as engineered to solve traditional social problems, such as congestion that affect everyday life and the economy. The ring road seems the issue that points not only to physical form as a generator of mobility but, rather a social value that sustains—by organised movement in the manner in which road users in Sheffield view the ring road—as a facilitator of sustainable city functioning. Jiang's specific case refers to various other strategic solutions, one of which is General Motor's Futurama Pavilion. Through the historical positioning of the ring road in Sheffield, this localised urban issue has strong relevance in other urban problems faced by many developed and developing countries.

Jordan Lloyd in his essay "Strategic Design: Implications for Wider Practice" (Lloyd, pp. 181–192) attempts to depict the general uncertainty in decision-making about urbanism and sets out how institutions and professionals would seek alternatives to decision-making with a strategic approach to uncertainty. Strategic design, in particular, demonstrates a viable option for meeting the needs and objectives of any large-scale projects. Lloyd emphasises the contextual value of strategic design, such as is the case in the United Kingdom, but questions the pedagogical value in the educational settings as a truly integrated system widely capable of changing the urban realm in any parts of the globalised world. The significant role of designers should pitch strategic design practice to gain advantages over conventional methodologies.

New Methodologies in Urban Design and the discipline's search to implement the good design by planning practice is a growing need as global and local are in the crux of transformation with the immediate and long-term effects of technology and environment as two prime dominating issues in urban research.

"Bionic Science as a Tool for Innovation in Mega-cities" by Rosa Cervera and Javier Pioz (pp. 193–212) seeks to explore nature as alternative sources of technological solutions in new building practices. Cervera and Pioz question the way nature is considered balanced and sustainable. They argue that learning through nature is a valid pathway towards innovation in urban conditions that is unpredictable; urbanised and demographically over-stressed. Referring to their design project in Kolkata Cervera and Pioz (pp. 199) explore and apply by default the notion of nature that is simple, rational and sustainable. Ecological solutions are a centrepiece of Bionic Science that the authors have engaged in the Kolkata project by which the traditional built environment and practices put high leverage on biological sciences depicted in the intricacies and structural coherence found in natural elements. A hybridity in building technology derived from nature demonstrated by Cervera and Pioz indicates the need for a change in design praxis.

In "Search for a Genuine Regionalism: a Regenerative Agenda for the Peripheries", Vilmos Katona (pp. 213–226) redefines regionalism and discusses the marginal societies generated within the dictum of centre and periphery—two extremes in urbanism and a product of globalised techno-society that fails to respond sustainably to bring genuine regionalist responsiveness. Katona's chapter draws on the struggle between regeneration to reposition new urban order giving significance to the marginal world. By questioning what constitutes regionalism (Frampton 1983), Katona believes that genuine regionalism is non-aesthetic or non-modern (Katona, pp. 218) by way of being anti-political and tends to masks the politics of architecture. However, genuine regionalism is free from political dogma. Genuine Regionalism is real and essential to reinforce the reality of localism where authenticity and pride help shape and strengthen the truth of locale.

Changing Principles and Praxis: Reflections on the work of the AHRA and their 9th Annual Research Student Symposium

So, what are the current polemical debates and urban principles, issues and findings in urban research that allow us to look at and design our cities and architecture differently? What are the emerging methods or praxes in (interdisciplinary) urban research? The discourse presented in this book brings new attention to changes in principles and praxis in urban research through the use of creative inter-, cross-, multi-, transdisciplinary practice modes of knowledge and research practice.

The protagonist event for this publication, the 9th Annual AHRA Research Student Symposium, provided a unique multi-disciplinary platform upon which to discuss the future directions of urban research. One of the most ambitiously organised and thought provoking student events organised by the AHRA, it allowed emerging researchers the opportunity to establish and evolve their personal urban research direction through generous discourse and feedback from delegates. The conference itself aligned with the aim of the AHRA to create friendly inclusive research environments through which to develop individual research projects but also to build a greater network in the researcher's field. *Changing Principles and Praxis in Urban Research* offers an exemplary model for forthcoming student symposia because it validates the contribution of the delegates whose work offers

thought provoking methodologies or visions for urban research. While some of the essays presented in this book conceptualise research along more traditional routes, it is the intellectual and critical assertions about urban research that make this volume a unique contribution to knowledge in the field.

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