

Understanding built environment realities

Between conceptual frameworks and experimental fieldworks

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Abstract

Purpose – Following the successful transition of Archnet-IJAR to Emerald, the introduction of new process and editorial teams, and the production of the first issue last March (Volume 13, Issue 1), the purpose of this paper is to outline key aspects of the contributions published in this edition of Archnet-IJAR: *International Journal of Architectural Research*, Volume 13, Issue 1, July 2019.

Design/methodology/approach – Premised on two generic understandings of built environment research: conceptual frameworks and experimental fieldworks, a classification of topical contents and an identification of approaches within the studies published in this edition, a narrative on evolving interests and themes is developed to outline these undertakings.

Findings – Five themes are identified from 13 papers contributed by 27 researchers from academic institutions in 13 countries and territories. Themes include: complexity and prosperity of informal settlements and slums; east–west dialectics of environmental design research and sustainable urbanism; educating future built environment professionals; grassroots research and design strategies; and performance, perception and behavior.

Originality/value – Understanding and appreciating various research approaches for unveiling key aspects of built environment realities including the spatial and social dimensions would facilitate effective contributions in architectural and urban research. This is coupled with the advancing thematic aspects that enthruse a re-thinking of the key purpose of architectural and urban research while stimulating future research endeavors.

Keywords Design, Architecture, Built environment, Research approaches

Paper type General review

1. Introduction

Volume 13, Issue 2, July 2019 is the second issue of Archnet-IJAR to be published by Emerald Publishing following the successful transition to Emerald platforms earlier in 2019. The level of engagement with the journal has exponentially increased as evident in the number of submissions, the amount of queries the editorial team receives, as well as the engagement in e-campaigns that goes beyond the sector average. The journal maintains its close ties with various associations and academic institutions in North America, Europe, South East Asia and the Middle East and aims to reach out to other regions, especially Latin and South America. Yet, there are clear indications that being part of Emerald is already enabling widening, deepening, as well as expanding current academic ties and professional relationships with important organizations and research institutions.

Presenting brief contemplations, this editorial offers a review of the papers published in this issue and through a short account that conveys the richness, multiplicity and diversity in the themes and approaches adopted in these papers, which have been a standard focus for Archnet-IJAR (Salama, 2019a, b). This is echoed in five themes identified, including: complexity and prosperity of informal settlements and slums; east–west dialectics of environmental design research (EDR) and sustainable urbanism; educating future built environment professionals; grassroots research and design strategies; and performance, perception and behavior. Unquestionably, these themes are diverse and distinct and reflect some of the key aspects of built environment realities as depicted, approached and analyzed in the papers.



2. Five themes for understanding built environment realities

Notions of plurality and diversity in architectural and urban research have been discussed in earlier editorials (Salama, 2017, 2018). However, this edition uncovers the way in which these aspects remain vital to the central emphasis and drive of the journal. In total, 13 papers shape the content of this issue in addition to this editorial. They come from 27 scholars and academics of universities and higher education institutions in 13 countries and regions that include: Australia; Bahrain; Belgium; Denmark; Egypt; Japan; Malaysia; Russia; Sultanate of Oman; Turkey; Turkish Cyprus; UK; and USA. Notably, the range of topics discussed in the papers demonstrates how the journal sustains its full commitment to cover issues of interest to the global academic and professional community while underscoring its position and essence as a global arena for showcasing contemporary research in architecture and urbanism.

Theme 1: complexity and prosperity of informal settlements and slums

Two contributions represent an articulation of this theme (Pojani, 2019; Abubakar *et al.*, 2019). On the one hand, Pojani (2019) argues that despite the substantial amount of research addressing informal settlements, there is a lack of studies of the urban form of these settlements. She develops a conceptual framework that considers various aspects of informality including the spatial and social dimensions. In essence, her work enables a better understanding of the potential implementation of sustainable strategies to improve informal settlements while attempting to address professional urban designers with respect to learning from contemporary vernacular settings.

On the other hand, based on the complexity and the continuously changing dynamics of slums and prosperity, viewed as two separate phenomena, Abubakar *et al.* (2019) propose an approach to frame slums within the perspective of prosperity by establishing the salient influential and effective links between them to develop possible intervention strategies according to patterns of change in both slums and the wider city developments. The agenda they propose integrates contextual and temporal urban complexities while having the potential to enhance urban practices that enable controlling the growth of slums.

Theme 2: east–west dialectics of environmental design research and sustainable urbanism

East–west exchange of ideas, theories and impact have been an issue of interest in architectural and urban discourse. Implicitly and explicitly, three papers in this edition appear to expand the discussion on this theme (Kiyanenko, 2019; El-Kholei, 2019; Abdelwahab, 2019). The work of Kiyanenko (2019) establishes a comparative scientometric study that examines how the academic culture of the global west plays a unique role in the development of knowledge within the field of EDR and the way in which it has impacted Russian architectural discourse.

El-Kholei (2019) develops a framework, which attempts to contextualize sustainable development in the Arabian city while considering aspects of history, culture, and religion. El-Kholei utilizes Ibn Khaldun’s writings as a model that seems apt for planning a sustainable city in the Arab world. While as an Eastern Arab scholar, Ibn Kaldun’s work has been covered in specific circles within Western academia, the work of El-Kholei is based on the conviction that interrogating Ibn Khaldun’s writings can offer lessons to scholars, planners, architects and city administrators to elaborate and implement plans for sustainability in Arab cities while asserting the suitability of the model in addressing urban concerns in these contexts.

Abdelwahab (2019) espouses Foucauldian discourse on institutions of “knowledge and authority” to approach the power relations between the actors involved in the “event” of the construction of Naguib Mahfouz (Noble Prize Winner for Literature) Square which occupies an important part of Gamaet-Aldowel-ALArabyia street. This is another demonstration of utilizing a western theory in a study of an urban event in an eastern context: Greater Cairo, Egypt.

Theme 3: educating future built environment professionals

Based on the belief that built environment education is not only and simply the imparting of knowledge and skills necessary for successful practice but it involves the development of values, ideological positions, and cultural and behavioral attitudes, four contributions are identified to articulate this theme (Ceylan and Soygeniş, 2019; Sgambi *et al.*, 2019; Sadri and Sadri, 2019; Rice, 2019). The work of Ceylan and Soygeniş (2019) establishes a case for the role of social sustainability in architectural education arguing that the social aspect of sustainability has been mostly left out of emphasis in current educational practices. Utilizing a design studio for third-year architecture students the outcomes of the student works are assessed as examples for design approaches to reflect the effects of the built environment on social sustainability. Overall, this contribution enables a holistic understanding of sustainability including its social dimensions while facilitating awareness of its importance for future architects.

Promoting students' critical thinking and creativity, Sgambi *et al.* (2019) report on an active didactic experience speaking to students of architecture at the Politecnico di Milano, Italy and the Université Catholique de Louvain, Belgium. Following a discursive framework that involves three components: the stimulus, the practice and the discussion, their work articulates active learning mechanisms and innovative methods to stimulate the study of structural engineering by students of architecture. In a different context, addressing the tools through which students acquire professional skills, the work of Sadri and Sadri (2019) introduces de-urban design studio's philosophy and the experience of employing miniature as a way of representation and as an inclusive communication medium that enables dialogical learning.

The work of Louis Rice (2019) addresses the severe lack of knowledge on whether designers of the built environment are adapting their practices to tackle the relationship between health and the urban environment. Utilizing a multi-method approach that involves systematic mapping, structured review and thematic analysis, findings of this contribution demonstrate that there are almost no requirements for the compulsory inclusion of health across institutions and agencies that have the power to implement and command the scope of architectural profession, training, education, practice or knowledge. The work of Rice calls for integrating health as a crucial dimension for designing spatial and urban environments.

Theme 4: grassroots research and design strategies

Principles and cases that represent the growing movement and momentum of participatory architecture and democratic design have been covered in various volumes of Archnet-IJAR over the past decade. In continuing the Journal's interest in this theme, two papers are identified to capture some of the key qualities of grassroots research and design strategies (Pasalar and Hallowell, 2019; Hjort *et al.*, 2019).

In the context of medium-size growing urban territories in North Carolina, the work of Pasalar and Hallowell (2019) presents a bottom-up participatory process for understanding the identity of an urban district to ensure that future branding strategies stem from its community goals. Examining a recently completed grassroots endeavor used to uncover key physical, economic and cultural resources of the Southwest Raleigh district in the State of North Carolina, Pasalar and Hallowell utilize interdisciplinary methods including surveys, interviews, mapping and economic analysis to unravel the way in which residents and businesses perceive the district's identity. The study establishes strong connections between a growing economy and aspects relevant to livability including walkability, proximity, connectivity and availability of amenities and community resources. By and large, the study sets the stage for future in-depth investigations that aim to democratize architectural and planning design processes and practices in the context of growing economies.

Hjort *et al.* (2019) present a design strategy that engages with the systematic use of interdisciplinary knowledge through a transparent decision-making process. The development of the strategy is based on a methodological approach that utilizes elements from “knowledge to action,” surveys, and a “list of value concepts.” The study demonstrates how architects can import knowledge, skills and values from other disciplines such as environmental psychology and active living research to improve the decision-making process of future sport and recreation projects. While conducted in very different contexts and reacted to different tenacities, the two studies (Pasalar and Hallowell, 2019; Hjort *et al.*, 2019) demonstrate and assert the feasibility of participatory and grassroots strategies in research and design.

Theme 5: performance, perception and behavior

While this theme appears to be eclectic in nature, it captures key aspects of performance in the built environment. On the one hand, the performance of shading and efficiency in urban spaces of hot arid climate regions was a subject of an experimental study by Khudhayer *et al.* (2019). Their contribution introduces the shading effects as one of the primary factors that enable the restoration of thermal comfort and attract pedestrian activities. Through an assessment tool developed to calculate the shading efficiency at urban space floor level the study generates guidance to architects and urban designers on the effective configurations of the urban space with respect to shading and thus maximizing the possibility of pedestrian use. On the other hand, the performance of the spatial environment of primary schools with respect to children’s perception and behavior was a subject of an empirical study conducted by Türel and Gür (2019). It examines the way in which the spatial and physical characteristics of the school’s environment affect the child’s spatial perception and behavior in primary schools within the context of Istanbul’s Kagithane region. The results demonstrate the spatial organization and physical characteristics of primary school buildings with a structure that allows for change and transformation while contributing to the physical and cognitive development of children.

3. Between conceptual frameworks and experimental fieldworks

It is postulated that the papers within this issue are instigated and developed based on conceptual frameworks or experimental fieldworks or both with the aim of uncovering various aspects of built environment reality. It should be noted however that the current utilization of the terms “conceptual framework” or “experimental fieldworks” is still not clear and is vaguely articulated.

On the one hand, the term conceptual framework has been defined in the literature from various disciplinary perspectives. Yet, the closest definition to the disciplines of architecture, urban design, and some areas within city research is that of Jabareen (2009). He defines it as “a network, or a plane, of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena,” arguing, and rightly so, that: the concepts that constitute a conceptual framework should support one another, should articulate their respective phenomena, and should enable the establishment of a framework-specific philosophy. In this respect, any conceptual framework involves ontological dimension – the nature of reality and epistemological dimension – the way in which knowledge about that reality is acquired, recorded, and conveyed or communicated (Salama, 2019b). Whilst this is not explicitly articulated in the papers, it is tacitly embedded while generating various structured research approaches.

On the other hand, while the approaches to “experimental fieldwork” are gaining impetus in recent research endeavors, they, in their broadest sense, are still not fully exploited by researchers in architecture. In essence, they need to be expanded, and adapted from other disciplines such as social and cultural geography, to include ideas and methods for field

research that are presented as innovative and experimental in terms of their approaches to observation and/or description and their choice of objects and/or themes (Phillips, 2018).

Whether adopting approaches related to conceptual frameworks or experimental fieldworks, or both, the 13 peer-reviewed papers identified for this issue generate important research questions and issues that are highlighted to reveal the striking qualities of built environment realities and various characteristics of research in architecture and urbanism. The five themes instigated by the discourse within the papers include: complexity and prosperity of informal settlements and slums; east–west dialectics of EDR and sustainable urbanism; educating future built environment professionals; grassroots research and design strategies; and performance, perception and behavior. Palpably, the papers meet the fundamental requirements of architectural and urban research including rigor, logic and reason, clarity, depth and breadth of the questions and issues interrogated. In maintaining and exceeding these qualities the Archnet-IJAR team will continue to support the interested contributors working closely with them to disseminate their research work in the most efficient and effective manner.

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