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FROM ARCHITECTURAL THEORY TO URBAN STUDIES AND FROM SPATIAL ANALYSIS EXPLORATIONS TO BUILT ENVIRONMENT EDUCATION

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Keywords

Abstract

Archnet-IJAR, volume 12, issue # 1, March 2018 reveals the multitude and multiplicity of architectural and urban research, which I have discussed in an earlier editorial. The journal remains committed to cover issues of interest and concern to the global academic and professional community. This issue is intensive in terms of quality and quantity and encompasses a wide spectrum of topics that range from architectural theory and history, to urban studies, and from spatial analysis and application of technical systems in building design and components, to education for sustainable development, and architectural and planning education. The edition includes a section that is exclusively dedicated to selected papers from the Education and Training Forum of PLEA International Conference – Design to Thrive, Edinburgh – July 2017. By and large, the contributions presented here cover many parts of both the global north and the global south, raise questions, introduce proposals, and offer lessons important to their contexts as well as to the wider community of architectural and urban researchers.

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Archnet-IJAR: International Journal of Architectural Research continues to advance its position among the world leading journals in architecture and urban studies. The journal is part of several scientific and research databases including Avery index to Architectural Periodicals, EBSCO-Current Abstracts-Art and Architecture, Directory of Open Access Journals, Pro-Quest, Scopus-Elsevier and many university library databases, Archnet-IJAR is part of the Web of Science Core Collection of Clarivate Analytics (formerly Thomson Reuters) and the Emerging Sources Citation Index http://ip-science.thomsonreuters.com/mjl/. The Journal is also included in China National Knowledge Infrastructure (CNKI), which expands its reach and impact. At this stage, we are expecting to hear news about the ranking and classification of journals in Scopus and Scimago, which will be announced during the period between May and July 2018. This comes after the achievements the journal has made in 2017. As part of Scimago, Archnet-IJAR is now ranked: in Architecture (Q1) 18 out of 117 and in Urban Studies (Q2) 57 out of 138 and as part of Scopus its ranked in Architecture (Q1) 23 out of 87 and in Urban Studies (Q2) 60 out of 134.

Archnet-IJAR, volume 12, issue # 1, March 2018 reveals the plurality and diversity in architectural and urban research which I have discussed in an earlier editorial (Salama, 2017)—the journal remains committed to cover issues of interest and concern to the global academic and professional community. This issue is intensive in terms of quality and quantity and encompasses a wide spectrum of topics that range from architectural theory and history, to urban studies, and from spatial analysis and technical systems in building design and components, to education for sustainable development, and architectural and planning education. The issue includes a section that is exclusively dedicated to selected papers from the Education and Training Forum of PLEA International Conference – Design to Thrive, Edinburgh – July 2017 (Roaf, Brotas, and Nicol, 2018).

In the area of History and theory four papers can be identified in four different contexts and historical periods. The paper of Emina Zejnilovic, Erna Husukic explores the reciprocal connection between culture and architecture as a social product as manifested in residential development in Sarajevo, Bosnia. It identifies key barriers in the process of cultural transformation, indicating an urgent need for addressing the issues of cultural vitality (Zejnilovic and Husukic, 2018). Marwa El-Ashmouni examines nationalism in Egypt during the late 19th century. Her work aims is to challenge polarized depictions of nationalism while valuing the progressive creative and intellectual transformation that shaped the country before the militaristic or religious representations of nationalism that dominated the 20th century until the present (El-Ashmouni, 2018).

The work of Majd Musa scrutinizes the role real-estate advertising discourse of early-twenty-first-century megaprojects in Amman, Jordan, plays in creating an image of the city. She validates the premises of her study by arguing that although the city inhabitants have the least agency in the instigation of megaprojects and advertising discourse surrounding them, they exercise some power as they make sense of the advertisements, by either resisting or accepting the developers' preferred reading of these advertisements (Musa, 2018). In the context of contemporary Cairo, Haitham Selim's work attempts to understand various reactions to architectural globalization and the way in which it is comprehended by various generations of architects. This is coupled with a case study that critically analyzes the impacts of globalization in relation to three projects located in Cairo on the basis of a number of factors: technological, morphological, cultural, and environmental. These projects are the American University in Cairo (AUC), Futures University (Futures), and Smart Village. He calls for the need to continuously encourage the professional community and decision makers to assess the current realities of architectural practice with respect to what global forces has produced (Selim, 2018).

The area of urban planning and urban studies seems to have occupied an important position in this editon of Archnet-IJAR where seven papers have addressed various contexts in Australia, Europe, the Middle East, the Far East, and Southeast Asia. The work of Nada Shehab and Ashraf Salama examines the different levels of manifestation of migration using two case studies from Scotland (Glasgow) and Sweden (Gothenburg), to demonstrate different mobility patterns. Their work enables a wider comparison of urban responses to the different magnitudes of influx of migrants and their highly diverse distributions. Their contribution calls for a shift in stereotypical architectural conception towards more resolved contextual solutions that address current socio-cultural needs in urban areas that host displaced communities (Shehab and Salama, 2018).

In the context of Docklands in Melbourne, Australia the work of Jacob Bjerre Mikkelsen, Quentin Stevens, Catherine Hills, and F. Mueller explores the possibilities for people to engage with water within the public spaces of contemporary waterfront projects. Using a temporary design installation as a tool to transform concepts into realities, they examine materialities and affordances at the interface between land and water. They also investigate underused and mono-functional waterfront spaces as potential sites for physical engagement and play with water. Their work dismisses the notion of the waterfront user as a passive observer, and studies opportunities for facilitating active play through bodily engagement with the water environment as a unique spatial condition (Mikkelsen et al., 2018). In the context of Japan, the paper of Marco Capitano focuses on a representative case study that juxtaposes issues of peripheries and aging: Tama New Town, approximately 30km west of Tokyo Station. His work places emphasis on four liveability factors relating to urban morphology, embedded in a wider socio-economic context: density/compactness, diversity of uses, walkability and green/water space (Capitano, 2018).

Other explorations in urban studies examine various contexts as they relate to formal housing and supporting social infrastructure in the context of Indonesia (Yuliastuti et al., 2018), to historic urban quarters (Dastgerdi and De Luca, 2018), and spatial transformation processes in the historical peninsula of Istanbul (Mutman and Turgut, 2018). They all offer lessons important to their contexts as well as to the wider community of urban researchers. In the milieu of Arab cities, the contribution of Ahmed El-Kholei traces the development of the capitalist agenda, its concomitant societal schematic transformations, and their implications for cities in the Arab region. In a thorough comprehensive manner, he reviews the development of planning theory and practice in the developed world and its implication for Arab cities. The work is important in the sense that it offers narratives on the challenges and opportunities while suggesting remedial scenarios for actions within the remits of theory research, practice, and education (El-Kholei, 2018).

Three papers demonstrate the expanding scope of architectural and urban research including spatial analysis and assessment studies. On the one hand, the work of Tarabieh et al., (2018) outlines an analysis of a typical "static space" in a mosque building in terms of its spatial logic. A typical configuration for a prayer hall consisting of a bilateral symmetry space with four columns is examined. Utilizing apace syntax procedures and behavioural studies their work illustrates how the most basic alterations to the configuration of the plan can affect the spatial experience and cognition of the place. On the other hand, addressing two very different but important scales the work of Arranz et al., (2018) offers a comprehensive assessment of windows using a product indicator as a tool for this purpose, while the work of Elbakheit (2018) explores ways in which passive and active renewable energy technologies and systems, green and sustainability measures can be integrated into the design of tall buildings.

This issue of Archnet-IJAR enjoys a substantial and important series of contributions in the area of architectural and built environment education. The paper of David Grierson and Karen Munro surveys the relationship between education for sustainable development (ESD) and interdisciplinarity in the context of architecture and engineering higher education. Grierson and Munro present a case study of the University of Strathclyde Glasgow's Sustainable Engineering (SE) postgraduate programme, within the wider context of common principles and practices present across higher education in the UK. The work provides insights into the practices and outcomes while presenting opportunity for reflective comparison with similar undertakings (Grierson and Munro, 2018). Utilizing experimental and empirical approaches, the work of Han Hee Choi and Mi Jeong Kim explores different strategies to overcome design fixation, which is defined as a lack of flexibility in relation to a limited set of design ideas. They call for introducing the digital context as one of the promising strategies that enhance design thinking while promoting creativity (Choi and Kim, 2018). Discussing the studio learning environment, Mohd Zairul (2018) reports on the initial results of the exploratory research related to student-centered learning (SCL) in final year architecture studio education at the UPM—University Putra Malaysia, which offers an additional capacity for a dynamic reconstruction of knowledge.

The preceding contributions offer key lessons relevant to the way forward in education in built environment related fields at various levels, ranging from curriculum development to design thinking and students abilities. Five papers have been selected from the Education and Training Forum of PLEA International Conference – Design to Thrive, Edinburgh – July 2017. The papers were submitted to the journal and have been subjected to a second layer of peer review process. In this context it is important highlight some key aspects of the forum including the scope, plurality of topics, and emerging themes (Salama, 2018).

Scope: No other professions have undergone as dramatic a transformation in the past decades as that of the design and construction professions. In local, regional, and global contexts, education for the creative and construction industries continually encounters demands to assimilate increasingly rapid changes in building markets into the courses and enable their more effective integration into practice. Education in architecture and urbanism provides the fundamental foundations for the aspiration of "designing to thrive", by facilitating the transfer of knowledge and skills from the market requirements into the design professions to help them to continue to meet the wishes and needs of their society, economy and environment. This requires constant updating of our educational systems. In recent decades the way in which design education and training are provided, and their consequences and impacts, have been treated as a research field on their own. Awareness has grown of the need to keep education's underpinning theories, contents and contexts, methods and tools continuously questioned and diagnostically examined to ensure they are fit for purpose in the 21st century, genuinely addressing contemporary environmental and societal challenges and taking advantages of emerging opportunities as they arise.

Plurality of Topics and Emerging Themes: Aimed at broadening and deepening the debate on how well the education and training of design professionals are contributing to shaping a *Thriving Future* papers were invited to the Forum on subjects relevant but not limited to: teaching delivery models, experiential and inquiry-based learning, design studio experimentation, trans-disciplinary experiences, and the way in which these help shape such a future. Over 60 papers were received and after the conference academic/peer review process 34 papers were accepted, of which 31 papers were presented as part of the Education and Training Forum Sessions in July 2017. The diversity of topics and issues allowed for the development of an exciting programme that enabled effective presentations and discussions. Themes can be identified in four categories as outlined below.

Built Environment Education for Sustainability: Expanding the Scope: This theme represents an attempt to address the way in which the scope of built environment education for sustainability is expanding. Issues relevant to the notion of sustainable architecture and the underlying multitude of perspectives were part of the discussions. As well, the juxtaposition of how the term 'sustainable architecture' is understood in western and eastern cultures was a core topic. Key questions discussed within the session were centered on capacity building and the development of CPDs for built environment professionals, introducing issues relevant to climate change as part of standardized curricula at the European level, and the ethical commitment to sustainability in the learning process.

Community and Social Responsibility in Architectural and Urban Education: This theme generated a lively discussion about the role of the university in shaping the future of social sustainability within and beyond the boundaries of learning settings (studios or classrooms). Questions related to social sustainability and the way in which it can be addressed in the studio were debated, the concept of urban metabolism was discussed from a social perspective, and the tools and techniques for the co-creation of community architecture were key aspects of the debate. The paper of Rachel Sara and Matthew Jones on the co-creation of live community architecture clearly articulates this theme (Sara and Jones, 2018).

Renovation, Technology, and Materiality in Design Pedagogy: Sustainable architecture and innovative technologies for deep renovation of school buildings, as part of design learning experience was an important key topic. Coupled with explorations of sustainable material use and holistic sustainable renovation of dwellings topics relevant to technology in its broadest sense were an integral part of this theme. This included the introduction of a design competition module as a primary motivator for learning about sustainable technologies (Bibbings, Bieluga, and Mills, 2018), utilizing design frameworks and full-scale construction, and the development of guidance documents for sustainable construction. The unique particularities of contextual issues were important components of the discussions.

Architectural Education Across the Boundaries of Cultures and Regions: From Berkeley, California; to the vernacular context of Egypt (Dabaieh et al., 2018); to Haifa, Israel (Natanian and Aleksandrowicz, 2018); to the Indian Sub-Continent and from South America to East Africa, key approaches, perspectives, experiences, and experiments were deliberated. Topics included experiential aesthetics; institutional challenges facing architectural education, diploma and graduation projects, as well as incorporating sustainable traditional construction techniques in the architectural curriculum. These topics enabled reflections and raised questions relevant to their contexts.

Design Learning for Efficiency: The richness of approaches to address efficiency in designing built environments including lighting design, energy conservation, and smart building design was reflected in this theme. The development of appropriate metrics for lighting design in built environment education, the integration of education, research, and knowledge transfer n the area of energy efficiency, integrating building information modeling as an important learning paradigm, the role of social media in the learning process (Domínguez-Amarillo, J. Fernandez-Aguera, P. Fernandez-Aguera, 2018), were among the topics discoursed. Moreover, discussions involved specific applications of various techniques to building types such as houses, residential environment, and educational environments.

I invite colleagues interested in the discourse generated by Archnet-IJAR to navigate various contributions and to consider contributing to future issues.

A.M. Salama,
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