Salama, Ashraf M. (2018) Post-professional architecture and academia : foreword. In: Neo-liberalism and the Architecture of the Post Professional Era. The Urban Book Series . Springer International Publishing AG, Switzerland, pp. 271-277. ISBN 9783319762678 , http://dx.doi.org/10.1007/978-3-319-76267-8

This version is available at https://strathprints.strath.ac.uk/63979/

Part V:
Post-Professional Architecture and Academia

[Foreword] to Part V: Post-professional Architecture and Academia

Ashraf M. Salama

Fundamental approaches for the survival of architecture

Architecture is an integral part of human activities and affects every day experiences and actions. Today architects must face and respond to the challenge of creating built environments that support, nurture, enrich, and celebrate human activities. The creation of cities, towns, and buildings has always been the result of a combination of cultural, social, environmental, and economic factors and needs. New demands require architects to take pro-active responsibility for these factors, and promote designs that support a responsive environment. In addition, social and ethical approaches to the profession, which are amenable to invigorate such a responsibility, need to be considered and acted upon. In response to the continuous transformations of the profession and the changing role of the architect three concepts have emerged in the last three decades: these are programming or pre-designing, post-occupancy evaluation-POE or building performance evaluation-BPE, and community design or user participation (Salama, 2015).

Due to client/user dissatisfaction with the built environment and the continuous lack of public awareness of what architects do and how they do it, these concepts must continue to evolve in a responsible manner. While they have not long been part of architectural professional practice, they are now seen as a valid and important part of practice and research in architecture, although not, in practice, fully integrated as a triad. They must be viewed as the basis for social and ethical approaches to architecture since they are characterised by generic qualities that cover a wide range of factors architects must respond to in their practices. Such qualities include the following:

- Identifying human and social needs within the context of the environment in which socio-behavioural, geo-cultural, climatic, political, and economic aspects are employed.
- Evaluating the built environment toward making appropriate adaptations and adjustments.
- Involving people affected by the built environment in the process of decision-making.

Programming and pre-designing

Architectural programming has developed as an activity related to design, but somewhat distinct since it is typically defined as an additional design activity, or pre-design service (Cherry, 2003). It can be defined as the process that analytically, and systematically, translates the objectives of an organisation, community group, or individual clients into an integrated activity that results in an efficient, functional environment (Preiser, 1978). Architectural programming is thus intended to facilitate communication among the designers and clarifies and identifies, for the client, user, and the architect, the environmental needs and requirements that exist for a given project. Programming for architecture is responsible for articulating the values and goals to which the architect should respond in design.

Three categories of values within the process of programming can be identified: enduring values, circumstantial values, and institutional values (Hershberger, 1999). Enduring values, usually referred to as architectural qualities, are exemplified by Vitruvius' definition of architecture as commodity, firmness, and delight; these generally have a direct impact on people. Socialisation, privacy, and personalisation are examples of socio-behavioural phenomena that should be explored in the programming process and before a design task starts. In essence, functional and social goals should be articulated in the architectural program. In addition, another challenge to programming is the need to articulate people's preferences and interpretations of the visual environment with respect to socio-cultural contexts.

As well as considering enduring values, the architect must identify circumstantial values and aspects that include human, societal, technological, economic, and aesthetic, pertaining to specific environments. Programming can clarify institutional values include the purpose and value of the building, and the implication of these values relative to specific goals, objectives, and needs; these then are important influences in the way designers should approach design problems.

Literature in the field of programming point out that society and human experience should be rigorously taken into consideration in the programming and pre-design processes. Henry Sanoff argues that professionalism lies in expertise that is based on skill, method, and knowledge. While design in architecture is an established profession, much of what designers do has been, and will continue to be, done by lay people, since experience and knowledge reside with lay people as much as with experts. He explains: "*Professionals are not known by what they do, but by the way they do it*" (Sanoff, 1992:2). Social values are an important determinant in the architectural program and the architect's own values are part of the program but not the entire program. This necessitates that contemporary architects learn how to listen to people who use and are affected by the built environment within specific socio-cultural contexts.

Post-Occupancy Evaluation—POE and Building Performance Evaluation—BPE

Post-occupancy evaluation has been discussed in the literature as an aspect of architectural research that can be incorporated directly into architectural practice; this may open up a new avenue for architects to be ethically responsive. It provides guidance on how analytical and systematic evaluation of buildings or the built environment can better enable architects to take advantage of lessons learned from both successful and unsuccessful building performance. It also emphasises that those who learn from their own history are not as likely to repeat the mistakes of the past and are certainly in a better position to make sounder judgments in the future. The results of building evaluation principles have been used for centuries, particularly after the emergence of a major incident. Three basic elements, pertaining to the performance of the built environment can be used as criteria for evaluation. First there are technical elements, which are concerned with health, safety, and security aspects; the second is the functional elements, which are concerned with the ability of occupants to operate efficiently. Third, are the behavioural elements that are concerned with psychological and social aspects of user satisfaction. A considerable number of benefits that can be gained from post-occupancy evaluation; these benefits, classified into three categories (Preiser et al, 1988), are outlined as follows:

Short-term benefits:
- Identification of problems and solutions in the built environment.
- Improved space utilisation and space reallocation when remodelling or renovating

existing buildings.
- Improved attitudes of building occupants through involvement in the evaluation process.
- Better understanding of the consequences of design decisions.

Mid-term benefits:
- Capability for adaptation to organisational change and growth over time.
- Cost efficiency in the building process, and throughout the building life cycle.
- Consideration of building performance by the architect and the client.

Long-term benefits:
- Long term improvements in building performance.
- Improvement in design databases, standards, and guidance literature.
- Understanding of tools and measurements for building performance.

In light of the arguments for and the results of many POE-BPE studies, one can assert that architects are responsible for guiding society by their control over the evolution and design of buildings that shape contemporary culture. Nonetheless, there is no tradition in the practice of architecture in which architects are expected to explicitly evaluate their own work or that of others (Preiser and Nasar, 2008 and Salama, 2014). Architects still know very little about the performance of the built environment, particularly from the users' point of view. The implications of post-occupancy evaluation and building performance evaluation in practice is evident only when each and every building is evaluated through a study directed towards noting whether the use, functions, and activities of the users are successfully supported.

Community design and user participation

It is often argued that although our built environments are designed by a few, in reality they affect many; in addition, the public rarely have the opportunity to significantly influence, or even modify the form in which they live. Contemporary literature affirms the importance of involving people in the process of decision-making about the environment in which they will live, work, learn, or socialise. Community design is commonly used as an overarching term that embraces social architecture, community development, and community planning among other terms utilised as mechanisms or approaches to architectural and planning practices. It is generally regarded as a democratic movement in architecture and allied design and built environment professions; this premise grew out of the recognition that the mismanagement of the built environment is a major determinant of the social and economic problems in cities. Some advocates of user participation define it as a vehicle for user decision-making power (Habraken, 1986 and 2007) wherein the layperson is asked to voice his/her opinion, be heard and ultimately be taken seriously. It has also been defined as the face-to-face interaction of individuals who share a number of values important and relevant to all. Interest in the field of user participation or community involvement is not new; it is not rooted in romanticism about human involvement or human rights but in the recognition that users have a particular expertise different from, but equally important to, that of architects. This expertise needs to be integrated into a process that concerns itself with providing an appropriate built environment.

User participation is the only way of taking the needs and values of those who use an environment into consideration. Early and contemporary literature on advocacy planning and design points out that participation reduces the users' feeling of anonymity, and communicates to them a greater degree of concern on the part of management and administration (Davidoff, 1965 and Sanoff, 2003). In this sense, one can assert that user participation can have a positive

impact on the building, its users, and the socio-cultural and environmental contexts in which buildings are created. Two major aspects, however should be underscored, first, people need to be involved in the decision-making process so that their trust and confidence in the organisation are increased, and secondly, people need a voice in the design and decision-making processes in order to improve plans, decisions, and the service delivery system of the profession.

The implementation of these three integrationist and democratic approaches continues to reshape the role of the architect. Furthermore, future architects will need to adopt and integrate such responsive approaches into their design practices in order to be able to respond to social and ethical questions about the profession. In fairness to current endeavours, these approaches are actually starting to shape and reshape many architectural practices worldwide. Programming can help articulate the criteria and goals to which the architect should respond to in design, post-occupancy evaluation offers the architect a type of control over the evolution and design of buildings by systematic learning from precedents, and user participation helps improve and scaffold design decisions, since people's experiences will be integrated into the designer's values and incorporated into a collaborative design process. These three key ethical approaches should be regarded as integral components of future architecture both in practice and in education.

The way forward: Knowledge production and Transdisciplinarity—TD

The preceding three social and ethical approaches have also been elaborated upon within the recent discourse; this emphasises the fact that research and collaboration already coexist within professional practice and should continue to coexist among different built environment professionals and the users and inhabitants of future environments (Dunnin-Woyseth, 2002 and Dunnin-Woyseth and Nielsen, 2004). Two major concepts derived from such a discourse can be highlighted; these are 'knowledge-making professions' and 'transdisciplinary practice and research.' The concept pertains to producing knowledge based on practice; in this sense, 'making professions' relates to architecture, urban design and planning and other allied design fields. The concept of 'making knowledge' is primarily based on the distinction between 'knowing how' and 'knowing that.' 'Knowing how' is a discipline in itself with its own specific knowledge base: the 'knowing how' concept was introduced through the science of design paradigm (Simon, 1976) and acts as a prelude for a disciplinary construction of knowledge that pertains to the 'making professions' (Rowe, 2002). One could also add 'knowing why' as an integral part of 'making knowledge.'

These insights underpin the fact that four types of knowledge exist to form the backbone of 'making knowledge:' these include scientific expert knowledge, folk knowledge, practical knowledge, and tacit knowledge, all of which constitute a type of knowledge resulting from transdisciplinary practice. Programming, post occupancy evaluation, and community participation in design aim to capture and integrate these types of knowledge into design, wherein programming represents 'knowing that,' evaluation exemplifies 'knowing why,' and participation characterises 'knowing how.' However, one should note that a continuous challenge does exist even when attempts are made to integrate and transform these types of knowledge into a mode that may acquire the status of a scientific discipline on its own. The second concept is transdisciplinarity - TD, a notion that can be described as a new form of learning and problem-solving involving co-operation among different parts of society, professionals, and academia in order to meet complex challenges of society. Transdisciplinary research and practice starts from tangible, real-world problems. Solutions are devised in collaboration with multiple stakeholders, including professionals from different disciplinary

backgrounds (Figure 1). Thus, TD is about transcending the boundaries of the various disciplines.
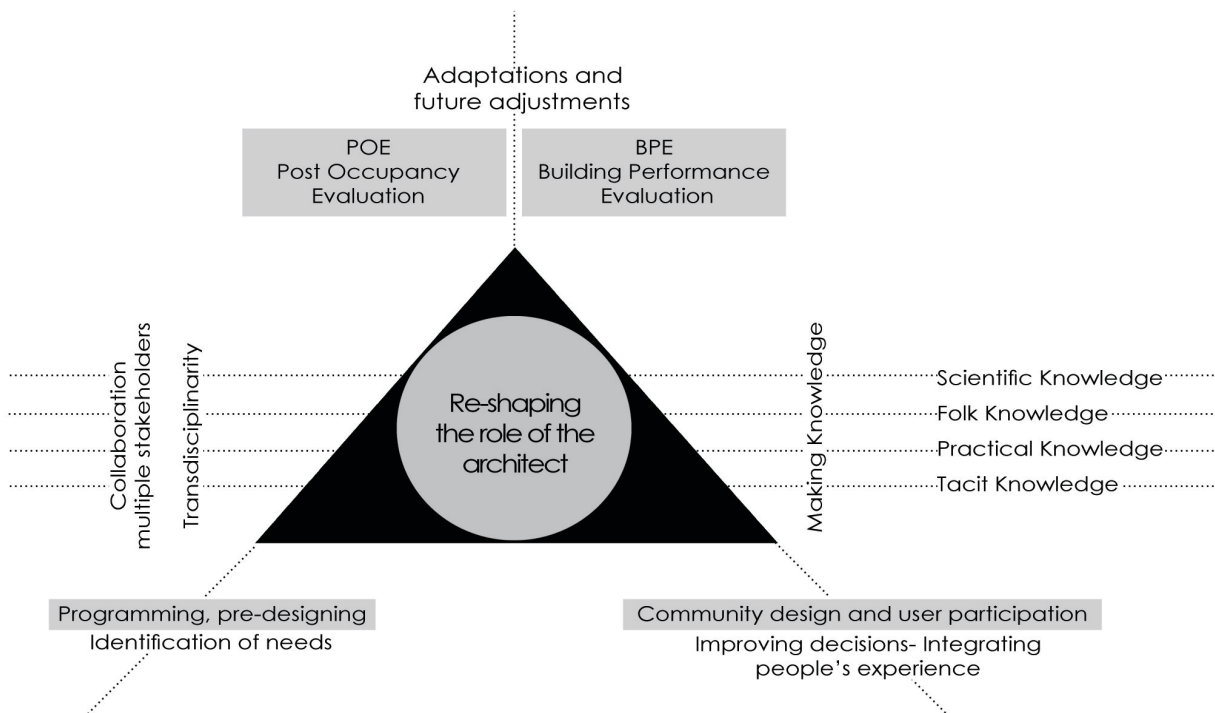

Figure 1: Reshaping the role of the architect through social and ethical approaches and the types of knowledge involved.

Recent writings support these notions and identify three major components of knowledge production relevant to TD; these are: a) the integration of discipline and profession which means the integration of theory and practice, b) the ethical dimension, and c) the experimental dimension (Doucet and Janssens, 2011). The first and second components are evident in the definition of TD "*Transdisciplinary research is needed when knowledge about a socially relevant problem field is uncertain, when the concrete nature of problems is disputed, and when there is a great deal at stake for those concerned by problems and involved in dealing with them*" (Pohl and Hirsch, 2008). The experimental dimension is evident in other writings, which assert that architectural design is a particular mode of practice-led research, wherein differentiation between research 'for or into' and 'through' design can be made (Rendell, 2004). Research 'through' design refers to the research and development that take place as part of practice, typically oriented to a design application while research 'for' or 'into' design is centred on questions relevant to the role professional practice can play in the building of theory. This differentiation builds on earlier works of Nigel Cross's assertion (2001) that there is a specific way of knowledge building in architectural design; he names it 'designerly ways of knowing' (Cross, 2001). In essence, TD provides a basis for understanding design and built environment professionals who share skills, values, and approaches that are more amenable to collaboration rather than competition; at the same time it offers a principal field for integrating social and ethical approaches into knowledge construction, production, and professional practice in architecture.

References

Cherry, E. (2003). *Programming for design: From theory to practice*. 2nd edition. New York: NY: John Wiley and Sons.

Cross, N. (2001). Designerly ways of knowing: Design discipline versus design science. *Design Issues, 17* (3): 49-55.

Davidoff, P. (1965). Advocacy and pluralism in planning. *Journal of the American Institute of Planning, 31* (4): 331-338.

Doucet, I. and Janssens, N. (2011). Transdisciplinarity, hybridization of knowledge production and space related research. In I. Doucet and N. Janssens (eds.), *Transdisciplinary knowledge production in architecture and urbanism* (1-14). Heidelberg, Germany: Springer.

Dunnin-Woyseth, H. (2002). Making-based knowledge: Between identity and change. In A. M. Salama, W. O'Reilly, and K. Noschis (eds.), *Architectural education today: Cross cultural perspectives* (17-24). Lausanne, Switzerland: Comportements.

Dunnin-Woyseth, H., and Nielsen, M. (2004). *Discussing transdisciplinarity: Making professions and the new mode of knowledge production*. Oslo, Norway: The Nordic Reader, Oslo School of Architecture.

Habraken, J. (1986). Towards a new professional role. *Design Studies, 7* (3): 139-143.

Habraken, J. (2007). To tend a garden: Thoughts on the strengths and limits of studio pedagogy. In A. M. Salama and W. Wilkinson (eds.), *Design studio pedagogy: Horizons for the future* (11-20). Gateshead, UK: Urban International Press.

Hershberger, R. (1999). *Architectural programming and pre-design manager*. New York, NY: McGraw Hill.

Pohl, C. and Hirsch Hadorn, G. (2008). Core terms in transdisciplinary research. In G. Hirsch Hadorn et al. (eds.), *Handbook of trandsiciplinary research* (427-432). Heidelberg, Germany: Springer.

Preiser, W. F. E. (ed.) (1985). *Programming the built environment*. New York, NY: Van Nostrand Reinhold.

Preiser, W. F. E. and Nasar, J. L. (2008). Building performance evaluation (BPE): Its evolution from post occupancy evaluation (POE). *Archnet-IJAR: International Journal of Architectural Research*, *2* (1): 84-99.

Preiser, W. F. E., Rabinowitz, H. and White, E. T. (1988). *Post occupancy evaluation*. New York, NY: Van Nostrand Reinhold.

Rendell, J. (2004). Architectural research and disciplinarity. *Architectural Research Quarterly*, *8* (2): 141-147.

Rowe, P. (2002). Professional design education and practice. In A. M. Salama, W. O'Reilly, and K. Noschis (eds.), *Architectural education today: Cross cultural perspectives* (25-31). Lausanne, Switzerland: Comportements.

Salama, A. M. (2014). Media coverage and users' reactions: Al Azhar Park in Cairo re-examined. In W. Preiser, A. Davis, A. M. Salama, & A. Hardy (eds.), *Architecture beyond criticism: Expert judgment and performance evaluation* (91-103). London: Routledge.

Salama, A. M. (2015). Spatial design education: New directions for pedagogy in architecture and beyond. London: Routledge.

Sanoff, H. (1992). *Integrating programming, evaluation, and participation in design*. Aldershot, UK: Avebury.

Sanoff, H. (2003). *Three decades of design and community*. Raleigh, NC: College of Design, North Carolina State University.

Simon, H. (1976). *The sciences of the artificial*. Cambridge, MA: MIT Press.

Ashraf M. Salama

Professor and Head

Department of Architecture

University of Strathclyde, Glasgow, United Kingdom

Emails: ashraf.salama@strath.ac.uk and asalama@gmail.com

Ashraf M. Salama is full professor of architecture and Chair of the Department of Architecture, University of Strathclyde Glasgow, United Kingdom. He was the founding Chair of the Department of Architecture and Urban Planning at Qatar University, Doha, Qatar and was a Reader in Architecture at Queen's University Belfast. He is a fellow of the Higher Education Academy-FHEA and the Royal Society of the Arts-FRSA. He holds B.Arch, M.Arch, and Ph.D. from the Al Azhar University in Egypt and North Carolina State University, USA (1987, 1991, 1996). He has held permanent, tenured, and visiting positions in Egypt, Italy, and Saudi Arabia. With varied experience in academic research, teaching, design and research based consultancy, Professor Salama bridges theory and design and pedagogy and practice in his professional activities. He was the Director of Consulting at Adams Group Architects in Charlotte, North Carolina (2001-2004). Professor Salama is the recipient of the UIA 2017 Jean Tschumi Prize for excellence in architectural education and criticism. His latest books include: Demystifying Doha: On Architecture and Urbanism in an Emerging City (Ashgate 2013/Routledge 2016), Architecture Beyond Criticism: Expert Judgment and Performance Evaluation (Routledge 2014), and Spatial Design Education: New Directions for Pedagogy in Architecture and Beyond (Ashgate 2015/Routledge 2016). Professor Salama is the chief editor of the International Journal of Architectural Research, associate editor of Open House International-OHI, and serves on the editorial boards of numerous internationally refereed journals and on the scientific and review boards of several international organizations.