ARCHITECTURE AND DESIGN RESEARCH: REFLECTIONS IN RELATION TO THE DESIGN PROCESS

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Abstract
Research endeavors in architectural design date back to the foundations of building construction itself. Remarkably, the true limitations of design procedures stem from the confined boundaries preset in the mind of mankind. Even the perceptions an architect holds throughout the complex process of designing an architectural wonder, contributes to a fundamental impact on the performed procedures commonly applied. Research methodologies in architecture and design, tend to primarily focus on architectural visions, trends or the actual design features of a construction, and not on the person behind it all. Following efforts directed towards a trajectory that encircles the architect and his or her perception regarding architecture and design research, this work aims to highlight the views of many prominent architects whose architectural wonders have served as crucial milestones in history and influenced generations of people. A weave between an architect and her or his surroundings cannot be treated as an isolated event. Puzzle pieces of gender roles, performatives, social influences, and insight regarding architectural research methods contribute to a larger architectural image and evolution. In order to establish the actual relations between architectural perspectives and words that support these, a chosen approach is to quote architects on issues considering architectural research endeavors. Similarly, underlying key points are elucidated with quotes that would communicate noteworthy aspects of adjacent theories.

Keywords
Architectural research; performatives; gender roles; social influences.

Authority and Persuasion
This article aims to convey critical reflections on the design process in architecture. While, one might argue that architectural design research is the focal point of this study, it is equally essential to recognize that a complete image of the key issues influencing the mentioned research cannot be fully embraced, unless the underlying key points are treated. One of these relations concerns the authorial link between architects and buildings, shown in Figure 1. In an exemplary case that connects Alberti's views about persuasion to Scully's words, that read (Scully, 1969): “Architecture is a continuing dialogue between generations which creates an environment across time”.

Communication falls natural, in view of an Albertian outlook and conveys the intention of an architect both in terms of authorship and persuasion, as the Albertian architect is highly influenced by master builders and the
commissioning patrons. In the mentioned context, rhetoric is the architect's instrument to approach her or his representation of buildings as closely as possible. The architectural building progress is certainly susceptible to influences of other people than the architect him/herself, and can in short be explained by Kurokawa words: "Architecture (is) a theatre stage setting where the leading actors are the people, and to dramatically direct the dialogue between these people and space is the technique of designing" (Lake, 2009).

**Gender Roles, Performatives and Social Influences**

Dialogue calls for additional dimensions from which gender roles are brought under light. Butler's comprehensive discussion about this topic reveals a much needed discussion and recognition of further complexities in architectural communication.

"It seemed to me, and continues to seem, that feminism ought to be careful not to idealize certain expression of gender than in turn, produce new form of hierarchy and exclusion" (Butler, 1999).

One interesting point that arises from this setting is to underline the impact gender does entail for an architect's progress. A struggle between the outer indication and inner truth seems to be part of the general gender image even in modern societies. Even though, an accurate position of gender role is not only confined to the architectural profession, and in fact relates to gender roles throughout the history of mankind, it is equally noteworthy to acknowledge Butler's words in order to reveal the diversity of gender in a broader aspect: "Although social scientists refer to gender as ‘factor’ or a ‘dimension’ of an analysis, it is also applied to embodied persons as a ‘mark’ of biological, linguistic, and/or cultural difference" (Butler, 1999).

Discussions about detailed gender functions are beyond the scope of this paper, yet it is important to instill one of the common gender problems associated with preconceived standpoints regarding female architects. This problem is well recognized within the architectural community.
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and was also investigated by University of the West of England and Royal Institute of British Architects, under the topic: Why do women leave architecture? (De Graft-Johnson et al., 2003) Conclusive findings from this research study, identified amongst others: low/unequal pay, macho culture, sexism, sidelining and glass ceiling as combined answers to the posed question. Without further insight, it can readily be established that many of the mentioned issues apply to women in particular and are unlikely to come into effect for male architects.

In light of these circumstances, a heads-on collision into these problems could be portrayed by the following citation from Architect Sally Levine: “Too often, during an interview, women are told, ‘Okay, now I’m going to ask you a some illegal questions,’ which generally deals with her age, marital status, whether she has young children, how she deals with day care, etc. Your choices then become standing up and walking out of the room (but you really need a job), suing somebody (but there are only two people present so it becomes your word against his), or sitting there and taking it (and getting a job where no one respects you)....So each woman sits there and has to make her own decisions. Again, that’s a no-win situation because none of those are reasonable options” (Anthony, 2001).

If communication is chosen as a common thread between gender roles, performative and social insight, it becomes imperative to close this loop with different choices of words. Questioning the offensive use of the performatives could give birth to an effect of authority in lack of prior authorization, and does in essence confer performative actions based on the established settings made of bodies encompassing: institutions, practices, rituals, spaces, witnesses and prior settings. Butler’s claim regarding the dual traits of performative acts in terms of linguistics and theatrical performances carry weight in authority status through repetition and effect status through action.

A distinct paradigm of the mentioned procedure to question performative is revealed through the following: “If one argues that language itself can only act to the extent that is ‘backed’ by existing social power, then one needs to supply a theory of how it is the social power ‘backs’ language in this way. If language only represents the larger, institutional conditions that give it its force, then what is the relationship of ‘representation’ that accounts for institutions being represented in language?” (Butler, 1997)

Further analysis of the Actor-Network Theory (ANT) shed light on the exploration of five major groups of uncertainty that in studies by Latour could be portrayed and considered from a relativistic point of view. This approach would enable a navigation process through the data, rather than a sense of misplacement incurred by the dataset according to Latour. “Similarly, ANT claims that it is possible to trace more sturdy relations and discover more revealing patterns by trying to keep one frame stable” (Latour, 2005).

Social aspects could also be investigated in more detail, prior to a shift of focus to the design research phase in architecture. Latour’s interesting discussion about a door and how it can be opened and closed through delegation to humans and non-humans involves social roles and their gateways to communication.
The author’s initial choice of portraying himself as a technologist, only to reveal that he in fact is a sociologist, fuels the communication debate for architects along the lines of linguistic applications with respect to anthropomorphism and figurative and non-figurative characters. Even if Latour’s intentions of gaping technological and social viewpoints in many ways simply personifies a technological thinking both from a machine mind setting with presumed human interaction or response, and at the extremes can merely be interpreted as a clever novelist revealing his writing techniques, the raised issues could be called a manipulation process of communication. This process could actively be chosen and mirror a social role that does not necessarily represent the actual traits of an actor. “Even if it is now obvious that the missing masses of our society are to be found among the non-human mechanisms, it is not clear how they get there and why they are lost from most accounts. This is where the comparison between texts and artifacts that I used so far becomes misleading. There is a crucial distinction between stories and machines that explain why machines are so hard to retrieve in our common language. In story-telling, one calls shifting out any displacement of a character either to another space, or to another time, or to another character” (Latour, 1992).

Latour’s thought process of timing, spacing and acting is certainly valuable as it depicts possible measures actors take within a network. This method does also depict differences, between for instance, theologians and epistemologists and does also divulge the qualities of the network itself. “The fusing together of psychology, history, life, logic, mathematics and pedagogy, creates a confined space in which this extraordinary trial can take place: the slowing down of history, the slow replacement of virtualities by potentialities, the transformation of process into the actualization of constants, one of the most daring scientific enterprises of this century, already rich in such endeavors, to make sure that -how could I put this as politely as possible?-to make sure that nothing unanticipated or untoward happens” (Latour, 1997).

Distinct colors of a rainbow, representing different facets of gender roles, performatives and social influences are exhibited through a very limited viewpoint induced by the mentioned topics. The rather multifarious nature of these subjects and their combined interaction weighs in the architectural design process and will be discussed in the following paragraphs.

**Design Research in Architecture**

Frayling’s dialogue on the topic of research and art design emphasizes further, three research paths (Frayling, 1993): Research into art and design, research through art and design, and research for art and design, as depicted in Figure 2.

Given an Albertian view, the connecting lines between architects and their works of architecture are substantially influenced by the environment of the architectural action.

Groat and Wang point out the historical relevance for architectural research. Development of structural forms based on building materials, modifications of archeological reconstructions, structural analysis and maintenance requirements over the years, displays one trail towards
architectural research. Another trail follows a completely different direction and has concentrated its research endeavors outside building projects and in particular on: structural and climate studies, energy conservation and different aspects of sustainability. "Our argument for the essential importance of research is that an ever-increasing proportion of architectural practice involves unfamiliar circumstances beyond the expertise of individual practitioners and beyond the unconventional wisdom of the profession as a whole.\" (Groat and Wang, 2002).

Architectural research is a rather controversial subject, since a common view that favors a specific need for research in architecture is not commonly shared by all the actors of the architectural domain. This may partially be correlated to the general perception about research in architecture itself. Incidentally, Dorrain and Hawker have been able to disclose an interesting of the relationship between teaching/research/practice, in architecture.

Teaching architecture design, in a nutshell, is a combination of experience, guesswork and anticipation, according to them. Dorrain and Hawker also share the view that architectural design impacts on different aesthetic, cultural, economic, environmental, political, and
social levels, which in fact resonates with the multifaceted nature of a society. The dilemma associated with architectural research could be explained by the following quotation: “The result of an architectural project is the Project itself, and this is never, in a straightforward way, identical to any set of statements that might be made about it” (Dorrain and Hawker, 2003).

Indistinctness between architecture research and theory, constantly contribute to specific settings that cannot respond to the overall traditional definition of research in which research itself holds a responsibility to generate new knowledge. Conversely, it has been argued that although theories and narratives could complete the overall research process, in many instances they end up secondary positions. Arthur Erickson was one of those architects that did not believe in emerging architecture from theory. Likewise, he also provided a generic view about architectural research, by stating: “Besides the inflexibility of industry, we are stymied by regulations, limited choice and the threat of litigation. Neither professional consultants nor industry itself provide the research which encourage those innovative techniques which takes architecture forward“ (Erickson, 2000).

Communicating architectural visions have already been established as a challenging task. Despite arguments that promote communications of art and design, through self-explanatory channels, it is certainly beneficial to scan the gray area between conventional research methods, using reference materials or trends in combination with aesthetic/perceptual research in addition to other theoretical research perspectives on art and design. Grillner et al., remarkably suggest implementing linguistics as design materials in the communication process of an experimental research by design project (Grillner et al., 2005). Frank Lloyd and Rattenbury’s (2000) statement regarding the use of linguistics adds additional value to the mentioned context: “Five lines where three are enough is always stupidity. Nine pounds where three are sufficient is obesity. But to eliminate expressive words in speaking or writing, words that intensify or vivify meaning is not simplicity. Nor is similar elimination in Architecture simplicity; it may be, and usually is, stupidity.”

Notwithstanding, the major role architecture holds in any society, it has been argued that this topic is often treated as a separate subject. Once again, the essential injection of effective communication seems to serve as an access point to other disciplines and as a representative portrait of architecture in a multidimensional society. In anticipation of the future, Rogers (2002) claims that: “The only way forward, if we are going to improve the quality of the environment, is to get everybody involved. I believe very strongly, and have fought since many years ago - at least over 30 years ago - to get architecture not just within schools, but architecture talked about under history, geography, science, technology, art. I mean, they all overlap with architecture, and therefore it becomes part of our everyday life, but at the moment architecture is seen as a separate element.”

With the intention of clearing up the murky waters of inconsistencies that may seem to neglect the true contributions of an architect and in her/his work, both in terms of arts and visions, the adjacent domains for communication may
follow the following line of thought: “Architects today tend to depreciate themselves, to regard themselves as no more than just ordinary citizens without the power to reform the future... feel, however, that we architects have a special duty and mission... (to contribute) to the socio-cultural development of architecture and urban planning” (Kenzo, 1987).

The overall assessment one could make about the impact of architecture is that it holds a nature that could include major contributions to so many other disciplines than standalone art, practice, teaching and design process. Evidently, this view would only become reality under the condition that architects within an architectural domain reach out to other actors such as city planners, builders, patrons etc., with critical and effective instruments of communication that seek to glance at the impact of ideas from a variety of different perspectives.

Recently, hybrid forms of writing have been proposed in practice-based research writing. Hughes’ (2006) timely discussion regarding the choice of research presentation does also question how design theory and practice is integrated. For the practice-based settings, critical designers are usually presumed absent. Yet, the shift of judgment to professional critics or other actors does indeed disclose a basis for the validation of judgment.

Bridging the arguments Hughes make, to Latour’s earlier debate on the use of language, the hybrid genre is seemingly introduced as a novelty scheme in a constant love and hate relationship with the language itself. Hughes’ (2003) own words regarding the envisaged relationship follow as: “What I am trying to outline is a hybrid genre, a monstrous fusion of creative and critical strategies, a form perhaps of poetic research, but, if so, one in which the poetic operates dynamically, at the level of inquiry, and not merely as a way of rendering its subsequent representation decorative or aesthetically palatable. Such a hybrid genre will exhibit a simultaneous love for and distrust of language, seeking not to embellish what can be said more simply, but to find the most direct, straightforward way of saying something complex. If this requires that sentences occasionally sing and dance, then this is the price of keeping language usable and audible for an often-jaded readership. Similarly, if we lose our capacity to be surprised, to be taken aback, to be astonished (with all the reversals of expectations this implies), we have no means of escaping the monotonous repetition of our disciplinary and discursive heritage. If it is curiosity that drives our investigations, it is surely our capacity for astonishment that brings about change in the dawning of an aspect.”

Conclusive reflections about architectural design and research, has hitherto exposed the reader to different complexities involved with architectural research, teaching and practice. Trivial definitions of research in its classical meaning does not imply a universal sense as perceived in engineering or sciences due to disputing elements that distrust the definition of true research endeavors in arts. This architectural journey has further, chosen to isolate one of the principal challenges of architecture in which gender roles along with performatives and social influences, bear the likelihood of contribution in terms of unfavorable positions for female architects.
In recognition of the mentioned matter as an unfortunate sociological phenomenon, a few factors that weight in this complex equation have been highlighted. Challenges with persuasion, authority and the actor network interaction embroidered with the endless methods to use the language as an instrument of communication have also declared the state of the art condition of architectural research.

Walking firmly towards research based architectural projects in educational settings, one must bear in mind that there is goldmine of knowledge to be learnt from the past, but also the acknowledgment of new roles, modern architects need to accept in order to bring their envisioned art and design or a combination of these into perfection. This task stretches far beyond the profession itself, and falls into the hearts of fellow citizens in societies where architectural buildings with innovative space/material/construction practices most certainly will dictate the modernized civilization of mankind on planet Earth and beyond.

Architectural design and research is thus not a straight path to perfection, but a convolution of elements that through measured efforts, pursuits, approaches, achievements and the delicacy, ingenuity in arts and literature hold one the largest impacts on human lives. The journey towards that direction start in the minds of all architects, but in particular in the minds of those who mentors architectural students under the banners of teaching and research. Praising efforts to enable critical and effective communication in the architectural training is not only essential, but vital to the future architects that are likely to face even more challenging tasks with regards to the growth of population, imposed legislations and stringent calls for sustainable architectural settings.

References


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