The Burden of Research in Architecture: Why do researchers not have an equitable share in the glory of being called architects?

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Abstract

Architecture can be called a domain of infinite intangible equations. Advancement and innovative technologies in architecture are owed to the researchers who work behind the scenes and bring about these impactful changes. Nevertheless, there seems to be a significant disparity between research practitioners and practitioners in architecture, even with these notable advancements.

Architectural researchers follow a meticulous process that includes understanding the background of field visits and documentation. These steps form a creative journey and involve skills similar to design in terms of generating visuals. Researchers in architecture face the added difficulty of the age-old research methodology clash: quantitative or qualitative? Overcoming these barriers and succeeding as a researcher who contributes to society while maintaining one's individual researcher characteristics is a considerable task.

However, the question arises of why, despite these struggles, researchers in architecture do not have the same recognition that practitioners have and are often classified as second-class citizens in the architectural fraternity. The hypothesis framed in this reflection hopes to show that the field of architecture needs researchers. Especially with the advancement of artificial intelligence, their role becomes primary in contributing to the data pool.

Therefore, the way forward is to give due diligence to architecture researchers and provide ample opportunities and funding while also holistically respecting their role in their community and society.

Keywords: architecture research; research bias; architecture research in India

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Introduction

Architects who are researchers, who are they? They are precisely what they are: architects. Quite often, the research fraternity within the architecture profession is robbed of the consistent credibility that an architect in practice or industry gets. This rejection causes ambiguity about whether a researcher can or should receive the same glory as a practitioner. But why? Aren't they the same? Isn't the same rigorous training undertaken by both? What defines an 'architect' is their ability to be creative, critical, and produce the best possible outcome for a given problem in the built environment.

In a professional career like architecture, with a stark distinction between practice and academia, a researcher in the discipline is often placed in the latter category. There is a conflict of interest since the practitioner often criticizes the academician for not understanding the practicalities in the field, while the academician complains that the practitioner lacks vision of the larger picture. An architectural researcher is often situated at the epicentre of these beliefs and, therefore, brings about architectural vocabulary like alternative practice. Consequently, architectural researchers are most often not accepted in either of these prominent groups that are eager to build or to educate. Architecture is synonymous with research as there is study and exhibition involved (**Roberts, 2007**). While architectural practices cater to the individual or a community, research practices cater to the larger pool of architects.

Architectural education is closely related to technology, and hence, most architectural schools are extensions of engineering institutions. The research in technological sciences arrives at a prototype or a product that requires quantifiable data. Architectural research is closely associated with the arts and humanities, although it operates out of a technological institution.

Advancements and innovative technologies in architecture are owed to the researchers who work behind the scenes and bring about these impactful changes. However, in recent years, the act of research has become more widely exploited in academic institutions. Accreditation bodies believe that research must be pursued in institutions and by academics who might have the funding and necessary networking. Institutions have been interested in securing accreditation from national bodies rather than ensuring the quality of knowledge that has been produced through research. It is interesting to note how, especially in developing and underdeveloped countries, the lines between academia and research are blurred, and one is required for the other, particularly for the mundane yet necessary objective of career advancement and growth.

In 2002, the Bartlett School of Architecture at UCL went down one rank, and when the reasons were investigated, it was found that it was because most of the academics were researchers and not as many were 'practicing' architects (**Hodges, 2002**). These intertwining interests of influential bodies ensure that research-only academics constantly pursue research papers and fellowships. It's widely agreed that new knowledge needs to be produced, but the question is how the knowledge is produced. The conjecture is whether the research is more academic or more practical. Forced research loses its integrity immediately among the scholarly circle. India is one of the countries holding a large number of PhDs; however, the citations are poor due to the lack of research integrity (**Ministry of Education, 2021**). Honesty, accountability, and good stewardship in research are compromised due to a lack of efficient management by the universities. This has been historically recorded in India (**Shahare & Roberts, 2020**), causing an aversion in academia towards research, making it a burden. On the other hand, in a professional setting, the researcher is often considered a misplaced academic who is too philosophically inclined and lacking in practice and experience.

Nevertheless, there seems to be a significant disparity between research practitioners and practitioners in architecture, even with these notable advancements. This is surprising since studies have shown architectural research outputs submitted to the RAE are of higher quality in academic creative design research and theory and history than practice-based outputs (**Colins, 2014**). The canvas in Figure 1, created by the authors, showcases the architect in a built environment and describes the process of an architect along with the large skill set architects are trained with through their education.

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Figure 1: 'The process of an architect' (Source: Author)
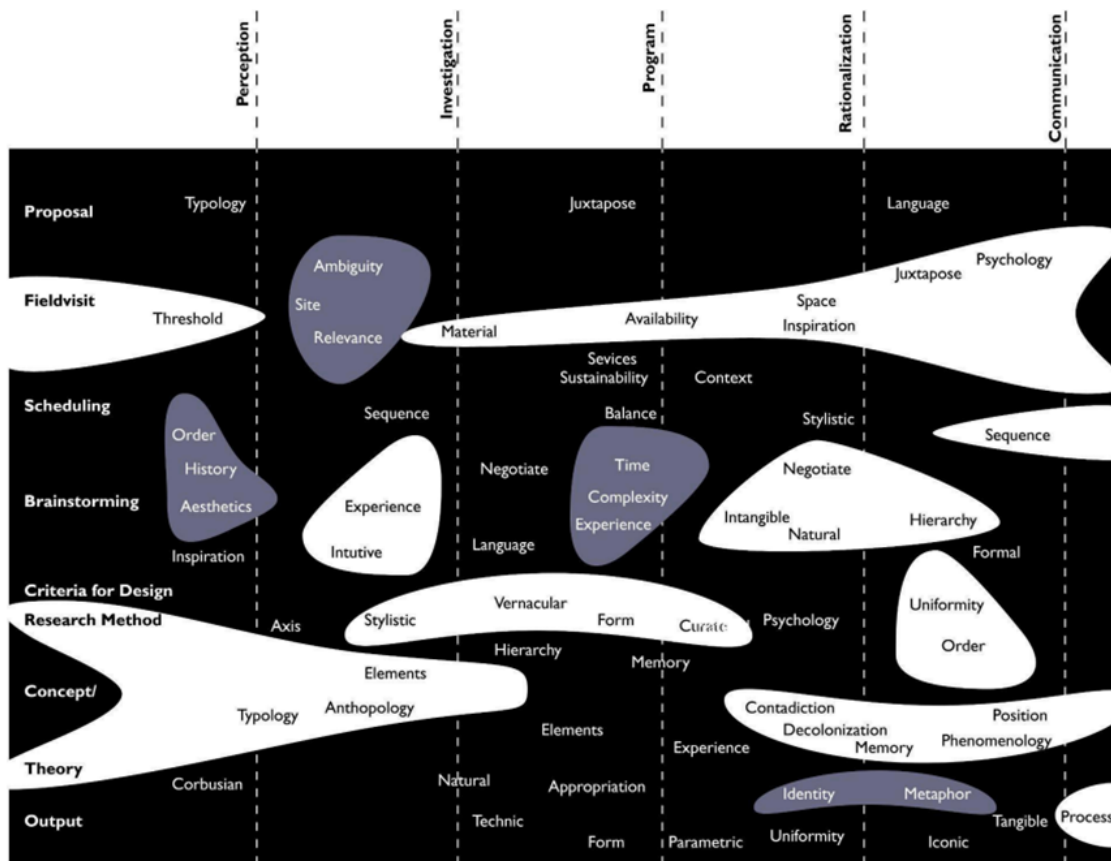
The visual is inspired by Charles Jencks' Tree of Evolution (**Jencks, 1971**). Here, the canvas represents the architect in a built environment. The terms on the Y-axis describe the process of an architect, and the terms on the X-axis refer to the large skill set architects are trained with. The other terms on the canvas are the vocabulary of architects, irrespective of the nature of the work they perform in the fraternity. The words in the black-and-white spaces refer to the practitioners and researchers, respectively, while the grey region shows the intersection of these terms among design practitioners and research practitioners.

A qualified architect and research practitioner pursuing alternative practice does not indulge in the glory of being called an architect. One is forced to accept that one left architectural practice to pursue research for the 'greater good' of society, which is ironic because even such a 'noble pursuit' is not given its due diligence.

These are all the border issues that make it challenging for the fraternity to understand the researcher. The objective here is to explore the process of the architectural fraternity as a whole, to illustrate their commonality. This reflection also positions that whether a designer or researcher, they are primarily architects who acquired similar training in their formative years. They are not independent of each other, and this can be seen in the

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process they respectively adopt for their professions. The reflection aims to shift the perspective of professionals in the field to focus on the interdependencies rather than their differences in opinion or biases framed due to the nature of the practice.

The work of researchers becomes vital in situating the work of architects and the production of knowledge in the field. However, researchers do not gain their due respect among the fraternity. The issue addressed here is more complex than it seems. There are several perceptions of this issue depending on the region, gender, age, and institution (**Morales, 2020**). Nevertheless, this reflection simply puts the activities performed by design practitioners and research practitioners to vouch for their interdependency, by identifying their similarities through their differences. The researcher's integrity needs to be understood and addressed from multiple vantage points, and this reflection just scratches the surface of the same. The bias against sharing the glory of being called architects can be addressed when there are more open conversations among researchers and practitioners and awareness about research in the foundational course of architecture.

Another burden is funding for research in fields of the humanities, which lack a tangible output. All funding bodies and institutions prioritize proposals for developing new products, which shifts the focus from producing any theoretical treatise. The output from theoretical research is often considered subjective and non-rewarding to the funding bodies. The criticism offered in theoretical research is often viewed as a personal opinion due to the intangibles in the outcome. In architecture, which deals mostly with tangible materials, products, etc., the underlying factors become unpopular and considered useless.

The age-old issue of trying to fit architectural research into a qualitative or quantitative method becomes a burden for the researcher. The tangible and intangible aspects of the built environment are inseparable. Every tangible product addresses an intangible cause or effect.

Process of an Architect

Architectural researchers use the built environment and user perspectives as evidence in their research. The fundamental education acquired by the designer, educator, or researcher is similar and, therefore, the approach is common. In fact, in a country like India, there is a regulating body called the Council of Architecture that controls and modulates the education given to every architecture student in the country through their schools and universities (**Ministry of Education, 2022**). One goes through a meticulous process of understanding the site, reading its context, analyzing future development, geographical and topographical study, and

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finally the output. The only difference in the process is just the output, which is knowledge production and not tangible.

Researchers follow a meticulous process that includes understanding the background of field visits and documentation. These steps involve a creative journey and skills similar to design in terms of generating visuals. However, the question arises of why, despite these struggles, researchers in architecture do not have the same recognition that practitioners have and are often classified as second-class citizens in the architectural fraternity.

In the built environment business, the result is a tangible product that is highly functional on many occasions. Even among research, those that gain interest are ones involving new technologies or materials that benefit the construction industry. However, when it comes to architecture, several intangible factors define the success or failure of the structure, such as design, user experience, sense of belonging, aesthetics, culture, heritage, and sentiments. While these are beneficial factors, they are often not used for branding over cost-effectiveness or sustainable design. When a researcher keeps these intangible factors as key in their justification, this proves unpopular among designers and users who care less for these aspects.

An architectural researcher does not receive the same recognition in a conversation. Any practitioner is immediately assumed to have a practical approach towards an issue relating to the built environment. In fact, architectural schools in India have mandated that a practicing architect be present on the panel of reviewers for all design studios. Sometimes, even documentation studios involve practitioners' views over a historian or theoretician.

A noticeable trend while architecture academics have a conversation is that they would choose practice over research any day just because of the credibility practice gives them as architects. It pushes architects to the point of having to agree to disagree on the point of 'the glory of being called an architect'. Then there is the issue of finding impactful journals as architects and the lack of mentorship we face because there aren't as many architects involved in research as we would like. This reinforces our discourse on the bias against research architects.

Potential Solutions

According to Jill M. Franz, architectural research processes can be of three kinds: 'technically oriented research', 'conceptually oriented research', and 'philosophically oriented research' (**Franz, 1994**). Therefore, architectural research can be broadly classified as material-based or idea-based. Architects follow a physical process and an intellectual process in

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any work they produce. All ideas turn into designs that can be turned into a reality. To understand the properties of a material in a research project aiming to develop its performance, the researcher runs a series of tests. Depending on the material, respective craftsmen carry out experiments and innovations. 'Science, art, technology, and crafts were closely interrelated and connected with the use of the materials – stones, wood, clay, metal, and glass' (**Hauberg, 2011**). The primary difference between architectural research and research in other humanities is the use of materials and experimentation with products. The method of analysis involves sketching, model-making, simulation, mapping, and sometimes completing architectural elements. Therefore, the process followed by the researcher is quite similar to that of an architect who sketches to think, makes models to convey, simulates to project, and constructs the final product. Similarly, the intellectual process involves thinking, traditional understanding, contextual interpretation, knowledge of the required skills and workmanship, and fundamental knowledge of building technology. Both architectural research and design are shaped by similar dimensions and conditions.

The architect addresses the issues and conditions posed by the context and provides a complex solution—built-form. To arrive at this solution, one sketches, makes models, and simulates the weather conditions, etc. This is a process where the problem and the solution are constantly interacting (**Thomsen & Tamke, 2009**). Along with these tools, the designer applies their knowledge about the context, its culture, understanding of the materials against the weather, and also aesthetic aspects. However, the primary difference between the researcher and the practitioner is the use of words, as opposed to drawing. The focus of the researcher is knowledge production, while that of the practitioner is form-giving. While both are cognitive processes, visuals are more active and act as a dialectic tool, but writing involves another layer of understanding and needs to be intentional. Furthermore, while representing a space in both design and research, the legends and the tools used to produce visuals are similar. Sand is represented with grain, concrete is represented by solids, and brick is represented with two slanting lines, and so on. Also, digital design tools hold knowledge of the approach used for representation, thereby bringing unity to the research and building process.

Conclusion

The researcher starts with a research question, following a predetermined methodology, and then projects a potential solution through design. The designer takes the opposite direction by starting with a proposal and experiments on the way up with rational questions. In a way, research and design are imbibed in the process of an architect; one can only be complete with the other.

Mentorship and peer relationships affect the quality of research as it directly influences the perception of the subject by the research community. This reflection makes the case that a healthy circle of researchers is essential in the architectural fraternity. Any work in the built environment is a collaborative effort—a building project requires an electrical expert, plumbing expert, structural engineer, architect, etc. It requires a complete understanding of the ecosystem that enhances the quality of human life.

In this time and era where visualization is key to expressing ideas and knowledge, there are many ways of representing research other than just words, such as the way Charles Jenks (**Jencks, 1971**) or Anuradha Mathur visualizes and renders data (**Mathur, 2011**). Architectural research looks at issues with contemplation and for the larger group of users through generalization, while the designer caters to the needs of a specific family within a micro context. Art practice qualifies as research when the process involves original investigation by addressing questions raised by the context and by solving the issues through applied knowledge (**Borgdoroff, 2009**).

In society, as well as in architecture, there are constant shifts taking place affected by immediate environmental issues or by the birth of new technology. Therefore, research contributes to the need for a holistic approach by the fraternity, whether in academia or practice. Researchers are just as much architects as practitioners through their training, process, and understanding of the built environment and hence need the right kind of monetary benefits and societal incentives that any practitioner would get. Research must quintessentially have a social purpose and affect policymaking. Ultimately, researchers in architecture deserve the glory of being called an architect rather than it being a burden that is barely acknowledged or, at best, humoured.

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