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# Educational Impact on Architecture

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*Received: 12 December 2019 Accepted: 5 January 2020 Published: 15 January 2020*

## Abstract

It is a legitimate assertion that most major figures who have shaped the course of architecture can be described as ?theoreticians who build.? What distinguishes these architects from their architect colleagues of lesser status is the philosophical apparatus they have apprehended and made subject to their disposition. Aldo Rossi, Robert Venturi, Peter Eisenman, Jacques Herzog  Pierre De Meuron, Rem Koolhass, to name an incomplete list of important architects of the last forty years have been weaving philosophical and architectural thought with their built work. Curricula in most architecture schools establish the architectural studio as the largely unquestioned pillar in which architecture is coalesced by the student. There is a belief at work that suggests that the individual student design work is guided by inspiration as soon as s/he enters architecture school: The students sits at his or her desk and is waiting for a supernatural force to move their hands in such a manner that the sketch they produce will contain the germs of the next masterpiece. This approach to architectural education is subject to the assumption that the students are geniuses. Architecture education should not be based on inspiration only but on a rational discourse with the major concepts that make architecture. This paper therefore advocates that Architecture students have to encounter a discourse with the major concepts of architecture not in their graduate studies but in the beginning year of their architectural education. This is because without that basic knowledge of architectural philosophy, appreciation and understanding of architecture may be delayed and the supposed architect might be beclouded in professional practice.

***Index terms***— academic architecture, concepts, design, education, philosophy students theory.

## 1 Introduction

lberti directly and explicitly criticized Vitruvius's broad educational scheme and developed a radically and self-consciously delimited professionalized field of study for architectural education. These differences are reflected in their theories on architecture. For Vitruvius, architecture was a process of signification consisting of taxis (order), diathesis (arrangement), and oeconomia (eurythmy, symmetry, propriety and economy). He distinguished between the actual work (practice) and the theory of it.

There were three departments of architecture: building (public and private), dialing and mechanics. These were set within the triad of firmness, commodity and beauty. For Alberti, architecture or the art of building beautifully consisted of lineaments (design) and structure a (construction). Alberti allowed for both an independent and dependent relationship between these two ideas, thereby forming a duality of mind and body in the building. The building itself divides into six elements: locality, area, compartition, wall, roof and opening. The idea of ornament plays a significant role for Alberti. Ornament was not simply the application of decoration onto a form. A building in its entirety was understood to be an ornament of the city, with duration and beauty.

Therefore in rejecting theory we may have given away aspirations towards the universal, and thus diminished the possibility of establishing a telos for architectural education. Heidegger. (1987) posit that the modern

understanding of ”theory is a constructive assumption for the purpose of integrating a fact into a larger context without contradiction”. He adds that theory in the ancient sense is ”an essential determination of nature”.

# 2 II.

# 3 Aim of the Study

The aim is to erect intellectual scaffolding for knowledge in architecture and have available apparatus to respond to what architecture is from the outset of the student's architectural studies.

# 4 III.

Objective of the Study 1. The objective is to reveal the three basic fields of architectural education: basic design, theory and architectural design studio. 2. To reevaluate architecture education by suggesting new input into architecture in view of the global challenges in the built environment by theoretical reflections, writings, and manifestos, treatises in the disciplines of philosophy, art, and architecture.

IV.

# 5 Scope of the Study

The scope covers the basic philosophical rudiments of architectural design involving the historical to the modern pedagogy and its overall impact on education through the copious use of library research apparatus.

V.

# 6 Statement of Research Problem

Much effort has not been made for the student to explore work of theoretical reflections, writings, and manifestos, treatises in the disciplines of philosophy, art, and architecture which ought to be necessary tools to equip the student ahead of changing global challenges.

# 7 VI.

# 8 Research Question

Can architectural design have a function that emphasizes philosophical origin, values and differences' aid holistic architecture-theoretical understanding? VII.

# 9 Justification for the Study

Very few schools in the English-speaking world produce scholarly works on the scale that would be considered normal for other university-based disciplines. Bedford and Groák determined that less than half of British architectural academics were involved in research, and the proportion is probably about the same for the United States. Much more study of the built environment is done outside the schools than inside, in government research centres and private industry. The research that is conducted in the schools is fragmented and takes place more within particular sub-disciplines (environment-behaviour studies as a branch of the social sciences, lighting research as a branch of physics, engineering or physiology) than the architectural milieu-so much so that some have wondered aloud whether there is such a thing as architectural research. open warfare that exists between the supernumerary scientific (or scientistic) researchers and those who are getting on with the job of teaching future architects. The only area which is unequivocally a legitimate subject for architectural cerebration is history, theory and criticism VIII.

# 10 Research Focus

The essentiality of philosophy and theory as the academic tool for the expansion of architectural frontier.

# 11 IX.

Literature Review ( It would be too much of a generalization to claim that the best architects of each generation -those few architects of every generation who are able to capture the world by means of buildings in such a distinct and powerful manner that the spaces and shapes of these buildings cause repercussions in the souls of men and women of that generation-also happen to be the best educated architects. Architecture and architects cannot make such a claim because it is obvious that intellectual capacity and encyclopedic knowledge cannot conveniently be multiplied for the making of an architect who subsequently can stir the imagination of people.

Having issued this disclaimer, the argument of this presentation points to the problem that this disclaimer just stated above, namely that there exists a hardly describable spectrum of ”ingredients” that make for a good architect, has unduly ”muddied the waters” in the sense that there now exists a deep distrust towards the necessary intellectual capacity of an architect. Voices in architectural education are shouting of an ”intellectualization” of the architect's education. On one hand this distrust against an ”intellectualization” in architectural education

can be supported. There exists a swathe of approaches towards architecture through extra-architectural means. For example, studying the architectural theories of the past forty years demonstrate a proclivity to argue models of approach to architecture in close proximity to linguistic formulations. Its key characteristic is the translation of one form of expression into another one, and the one major criterion for a renewal of any kind of meaning is the ability to express it in explicit linguistic terms. Architecture, though, is in its essence a syntactic totality of forms and spaces.

# 12 a) The Painters Reflection

In "Eye and Mind," Merleau-Ponty (1993) criticizes traditional western philosophy's idea of art as representation or index, a linguistic icon that calls to mind an idea of the represented thing This formulation of art ascribes creative power only to the mind. He proposes instead an idea of painting as carnal echo, a formulation that locates this generative power in the active relationship between human beings and the surrounding world. In this formulation, a painter opens himself or herself up to the world through vision. Through the channel of vision, the world enters the painter, inhabits the painter's interior, and mixes with the painter's carnality -his or her embodied consciousness. In mixing with the painter until it is no longer clear which is the painter and which is the world, the things of the world achieve a sort of doubling, existing simultaneously in the world and "at the heart of vision." The resultant mixture of painter and world is then expressed, literally pushed out, back into the world as a physical artifact, a painting. This is supported by the theory of Empiricism which is a theory of knowledge that asserts that knowledge comes only or primarily from sensory experience. One of several views of epistemology is the study of human knowledge, along with rationalism, The architect's way of experiencing the world reveals connections or likenesses between things not readily apprehended by a mere observer, as when an abrupt turn in a stair recalls or suggests the qualities of a mountain path or a circuitous alley.

# 13 b) Architectural Education: An Overview of Past and Present

Architecture is one of the oldest professions: it dates back to the third millennium BC. The education of architects has for many centuries taken the form of apprenticeship, but in the last century it evolved into a 'studio-based tutorial environment' (Glasser, 2000). This change in professional training is mostly explained by the centralization of education and the development of modern methods and media. For example, the emergence of photography, video and the internet has made travel less essential in the education of a young architect (Lawson, 2001). Education has turned passive: learning is mostly theoretical such as history land survey building construction and in-studio.

"The basic assumption of passive professional education is that language can express reality adequately enough to motivate and guide practice" (Hoberman and Mailick, 1994).This statement is valid for current professional education in general: education that is disconnected from the profession. This type of education may work better in some disciplines than in others. In the case of architecture, language and even visual media are not enough to convey to students the concepts of space that are indispensable to developing the ability to design environments. It is fair to say, therefore, that "architecture as a purely musical composition of shapes and colors in light is an elusive ideal" (Baljon, 2002). Architecture has always relied on knowledge of precedents in building types and arrangement of spaces within the environment. In the information age, however, this knowledge has become omnipresent, yet anonymous. Today, students rarely have first-hand experience of these precedents; rather, their experience is disseminated through images in magazines, journals, books, the internet and television (Lawson, 2001). One of the key objectives of an architectural education is to expose students to a "veritable barrage" of experience that they can draw upon when they design (Lawson, 2001 **??** Downing 2000). In current education, such a "barrage" is visually biased. In the era of information technology and virtual realitywith the dominance of visual representation as the end product of architecture -what we actually do (often unintentionally) is limit ourselves to image-to-image transformation. If architectural education could have one clear goal it should be to educate and sustain the next generation of talent to have a sympathetic awareness of its origins.

# 14 X.

# 15 The Critique of Architectural Education

Neither American nor British practitioners have ever been reticent about criticising the schools, the fundamental, nor are continuing failure of which, from their point of view, their sheer and seemingly perverse inability to prepare students for the real world of practice. The studio system of education is, they say, a fantasy world in which incompetent professors who are the centre of petty personality cults encourage bizarrely unrealistic expectations in students, while avoiding the teaching of anything actually to do with the hard realities of life. Students learn nothing of the other members of the construction industry. They cannot draw and they know nothing of construction. The suggested remedies are usually along the lines of introducing more 'pragmatic' subjects such as management and technical courses or, significantly, a partial return to apprenticeship in some form.

There certainly is no problem in finding evidence that architecture is failing to perform like other academic disciplines, whose function is invariably taken to be knowledge-production. If architecture were as research-

oriented as the average university discipline it would graduate almost ten times as many doctoral students each year as it actually does. Even home economics, not usually regarded as the most intellectual of areas, produces more. Over the entire period 1920 to 1974 American universities graduated only 56 people with a doctorate in architecture, a minuscule figure. Perhaps one quarter of American academics in architecture schools hold a PhD, a degree which in other fields is mandatory for even the lowest ranks. Architectural academics do little research; neither they nor the profession find it relevant. Indeed, there is often a positive hostility to the very idea of this most intellectual and academic of activities, for, of course, designing buildings, not publishing papers; increments the architectural academic's symbolic capital.

# 16 XI.

# 17 Research Methodology

The method adopted in this research work is based on Several existing text books, periodicals, journals, internet search engine i.e. e -libraries, were consulted for this study.

# 18 XII.

# 19 Conceptual Frame Work a) Teaching the Basic Philosophy at the beginning Year of Architectural Education

Architecture education should attempt to balance of how it weighs inspiration and how it weighs knowledge that is subject to a rational discourse with the major concepts that make architecture. Architecture students ought to encounter a discourse with the major concepts of architecture not only -if at all-in their graduate studies but in the beginning year of their architectural education because without that basic knowledge of architectural concepts any more thorough understanding of architecture is not possible. Why would one wait to learn the intellectual basis of architecture until graduate school as the curricula of many architecture schools prescribes? One example that quite convincingly demonstrates the necessity to be familiar with a conceptual architectural framework is the Goetz Gallery built by Jacques Herzog & Pierre de Meuron in Munich in 1992. Other examples could display the same point that is intent to be demonstrated with this example, namely, the specificity of architectural concepts and how they are used in architecture. This example is not only depicting the necessity to understand concepts but it also focuses on the shifting nature of these concepts over time.

# 20 b) Inquiry into the Function of Education in this Context

Given that the function of the design process is to provide a service to human beings, it must be defined as a type of social activity. The education and design process should make the professionals and prospective professionals aware of and sensitive to this fact. In other words, the education of architects should ensure that the prospective architects acquire a basic professional philosophy.

As different education programmes have many branches, defined by different knowledge fields, there cannot be a simple formula for incorporating them into the curriculum. However, one strategy for structuring education may take the form of co-ordinating disciplines that form the 'backbone' of architectural education, its fundamental tenets. The need for such planning is sorely felt in the contemporary education system. characteristics, the education may be perceived as a kind of intersection of society, and may be planned: i. As an instrument of communication between the profession and society, ii. As a means of sustaining cultural values, iii. To make the user an active participant in designing and changing the environment, iv. To further advance the integration between different disciplines and scientific fields. With such an approach, the practice, education and theoretical scope of architecture would gain new dimensions and content.

c) The Changing Architect Design is a complex activity, as it encompasses a wide field of knowledge, a wide range of disciplines, and the interaction between these disciplines. Even though different design objects have different characteristics and priorities, architectural/urban design is a field in which technique intertwines with social dimensions. This is due to the fact that while the object of design is space, its subject is the human being. In such a setting, the following questions come to the fore: i. How can the environmental sensitivity of the prospective architect be developed using Information technologies?

ii. How can the architect act together with society in the face of the erosion of cultural and aesthetic values? iii. What is the role of the architect in a world driven towards uniformity, and how can the Architect use information technologies to foster cultural plurality?

# 21 d) Proposed methods in architectural education

i. Basic Design The basic design education, which is planned as an important studio training/discipline in order to trigger creativity in architectural education, has a great importance in developing the students' mindsets.

Basic design teaches not only the representation of a project purely in terms of its geometric features and/or drawings, but also its cultural, historical, theoretical and sociological background. This is Structuralism which is a theoretical paradigm that emphasizes that elements of culture must be understood in terms of their relationship.

Therefore, it should be perceived not only as a foundational discipline taught in the formative years of tuition at professional training institutions, but also as a method of education designed to develop sensitivity to visual and relational elements. In essence, the theory of basic design aims to develop individuals who are sensitive to the environment and capable of designing and transforming the world on the basis of this sensitivity.

## 22 ii. Theory

In the existing education programmes, theoretical teaching is generally linked with form. However, as touched upon above, architecture is also a field of social planning. Social knowledge is an inseparable part of the transformational process of architectural design. Therefore, in education, it is vital to assign an important role to the measures developed by the theories of social sciences for processes of spatial transformation.

Adopting such an understanding in the education programmes primarily requires including the social disciplines in the programme. Such an initiative may be seen as a preparatory grounding for prospective architects. These subjects should be taught in such a way that students are able to relate them to architecture and space. Experts in the social disciplines may be able to shed light on the relationship between their profession and spatial design, and open new paths of thought in order to support the formation of prospective architects.

## 23 iii. Architectural Design Studios

In architectural education, the place where the above-mentioned disciplines are transformed into a synthesis is the architectural design studio. Thus we may say that the architectural studios form the "backbone" of architectural education. When differentVolume XX Issue III Version I 20 ( G )

of the aims outlined above, the students can be given the opportunity to explore the different dimensions of the design process.

Here we may cite the process of preparing the city conservation plan for Bologna, Italy, in order to emphasise that spatial and environmental transformation is also a part of social and cultural planning. The method employed by the planner, Cervallati, to foster an understanding among the people of Bologna of their historical and cultural inheritance, may be seen as an example of social planning and development that goes beyond an architectural project. Cervelatti designed an exhibition in the historical town square that displayed the old city, and invited the people on a journey through the collective history and memory of the city. Because the main theme was the conservation and transformation of the city, the notion that historical and social values are an indivisible part of architectural space was stressed.

## 24 XIII. Recommendation for New Design Criteria

For architects, developing new criteria for the design process and examining the existing education system require a redefinition of certain concepts. These may be summarised as follow, in the context of the above-mentioned approaches:

i. New interpretation of creativity (what is creativity? How and in which fields could it be developed?). ii. New demarcations of the fields of knowledge (redefining the fields of knowledge in line with the changing circumstances of contemporary society. How could additions, subtractionsor changes be implemented?). iii. The concept of architecture integrated with social sciences (what are the methods for integrating architecture with social sciences?). iv. The richness of the theoretical base (integral approach to multidimensional environment). v. Knowledge of education in practice (methods for communicating). vi. Probing the cause-effect relationship in design (intellectuals' responsibility) The philosophical domain of the profession. All institutions and bodies associated with architecture, first and foremost educational institutions, could develop healthy relationships with other fields, work to create synergies, and develop common discussion and platforms using new technologies and media. At a time when international relations have become closer, discussion platforms could be formed through mutual dialogue and interaction; could expand with the input of architects and other professionals from different platforms (such as chambers of professionals, educational institutions, local authorities, non-governmental organisations, virtual platforms, etc.); and support a widespread educational policy. Some joint principles for such activities might be the following: i. Integral approach (accept interdisciplinary interaction and the approach of a multidimensional design process). ii. Sensitivity in design (an approach creating and developing sensitivity to social, environmental, economic, psychological and ethical concerns). iii. Social and historical consciousness in design (an approach to conservation15 that is aware of the natural, cultural and historical values of the built environment). iv. A sustainable approach (a system to develop 'sustainability' as a natural characteristic of the design process) It is hereby stated that most important aspect to be stressed is the dynamism of the process. All approaches that strive to adapt to social changes are bound to be 'changeable'. Therefore, the educational programmes should be reformed and updated in line with changing social circumstances.

XIV.

## 25 Conclusion

Among the philosophies that have influenced modern architects and their approach to building design are rationalism, empiricism, structuralism, post structuralism, and phenomenology. Architectural theory is the act of thinking, discussing, and writing about architecture. Architectural theory is taught in most architecture

schools but with little emphasis on practical translation and application by most students because every student of architecture is assumed to be creative prima facie. Although there are geniuses amongst them but it should not be a subject of generalisation. Some forms that architecture theory takes are the lecture or dialogue, the treatise or book, and the paper project or competition entry. Architectural theory is often didactic, and theorists tend to stay close to or work from within schools. It has existed in some form since antiquity, and as publishing became more common, architectural theory gained an increased richness.

The complex foundation of architectural education resides in the questions we have about both the considerations of architecture as logical knowledge and the truth of our Poetic imagination. The current challenge is to tailor architecture to meet global environmental and interdisciplinary tendency to further enrich it.

Prospective architects face the challenge of discovering ideas, and more importantly methods, in the architectural education, and adding them to the creative process that lies at the heart of the profession. In other words, the developing professional culture and philosophy of education should trigger a common attitude of the professional platform against the threat of In the late 20th century a new concept was added to those included in the compass of both structure and function, the consideration of sustainability. To satisfy the contemporary ethos a building should be constructed in a manner which is environmentally friendly in terms of the production of its materials, its impact upon the natural and built environment of its surrounding area and the demands that it makes upon non-sustainable power sources for heating, cooling, water and waste management and lighting.

Basic design cannot be conceived in isolation from the plastic arts, literature, music, social sciences or philosophy. Like all the other arts, the function of architecture is hidden inside its product. 'Space' becomes a work of 'architecture' with the idea it puts forward. [1]

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