

TOWARDS UNDERSTANDING ARCHITECTURAL THEORY: A REVIEW ON 'READING' ARCHITECTURE

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ABSTRACT

This paper focuses on understanding the meaning behind architecture. It reviews and examines a collation of ideas as to what happens at the crucial point of design conceptualization or form generation in architecture which is theory. In other to understand theory, there is a need to first extrapolate it from the built form which is referred to in this context as reading. This review also focuses on the concept of reading and examines attempts over the years to develop a universal language first based on rules during the renaissance and more recently based on the science of signs and codes as seen through semiotics. However, not everyone reads architecture the same way and as such the study reviews the reasons for arbitrariness in the reading of architectural built forms and discusses three possible factors, namely; positionality, perception and legibility. It concludes that the language of architecture is not constant through time and may exist for certain periods in history. It also infers that while the use of rules and codes in reading architecture may still be valid, factors such as positionality, perception and legibility contribute to subjectivity in reading based on diversity in human experiences. As such, this ultimately affects understanding meaning or theory in architecture.

Keywords: Reading architecture; Architectural theory; Semiotics; Meaning, Codes and Rules.

INTRODUCTION

Architecture like art is communicative in that it expresses the generative concepts and underlying intentions of the designer. Theory exists in this context as a force or set of forces that influence design actions or output. It is a system of thought behind design conceptualisation or form generation in architecture. Ozkan (2006) defines the theory of architecture as “a collection of disparate contributions that combine the ideas, missions, assertions and approaches of many individuals. In the end, the theory is actually the literature that expresses and externalises findings, convictions and manifestoes in literary form”. Also apt to this discourse is the definition culled from Peter Collins (1965) that an architect thinks of forms intuitively, and then tries to justify them rationally; a dialectical process governed by what we may call his theory of architecture, which can only be studied in philosophical and ethical terms. However, Heath (1991) in seeking to clearly distinguish theory from other related spheres describes theory by what it is and what it does. He states that “theory seeks to discover by critical inquiry what actually happens, to show how things work”. Another idea similar to this is that of Tzonis who defines the theory of design as reasons that explain, dictate or prove a design decision, such as the adoption or the creation of a shape in architectural work” (1972:16).

Psarra (2009) describes architectural theory as the study of the evolution and recurrence of thought systems not just the evolution of forms. Architectural theory deals with the point from which architecture commences in the mindset of what some scholars refer to as the 'architectural author' or 'form-giver'. In the philosophy of architecture, terminologies such as language, comprehension, perception and reading are often used when discussing architectural theory and these terms that are all synonymous with communication, whether spoken or not. It is therefore the popular notion that architecture ought to communicate in all ramifications to afford its audience 'readability', that is, the architecture ought to speak by revealing its underlying meanings in gestures legible enough to be easily read. In the 18th century 'Architecture Parlante' or speaking architecture depicted the belief in how public monuments ought to be clearly expressive of the meanings they held. It was more or less seen as a pedagogical duty for these buildings to speak by conveying the philosophical and ideological meanings contained in their forms and ornamentations.

However, Picon (2013) on the other hand argues that architecture does not necessarily 'speak' rather it possesses an expressive character. In that it intentionally conveys meaning from its author and affects the emotions and thoughts of its users. But Perez-Gomez (1994) suggests that the work of architecture is not just a bearer of meaning, for rather than simply meaning something, architecture allows meaning to present itself by which it can be deduced or read. Perez-Gomez further suggests that to read architecture, there is a need to differentiate between architecture and building, to help articulate its specific status as embodying wisdom and meaning. This is because the building is what is seen out of which one is expected to experience the architecture either visually or by habitation and from which meaning can be deduced. Pallasmaa (1994) also concurs through the observation that a building is not an end to itself rather it frames, articulates, gives significance, relates, facilitates and prohibits architecture amongst other things. As such, for architecture to be experienced a building must be encountered in relation to verbs i.e. approached, confronted, utilized etc. This agrees with Perez-Gomez's opinion that architecture can never be grasped through a mere 'visit' as an aesthetic object or a tourist attraction, rather the architectural experience requires focus that while using these buildings as instruments we can experience the slow flow of time and tradition and reflect on the ideas and images of life. This idea cannot be better reflected than in this statement:

The authenticity of the architectural experience is grounded in the tectonic language of the building and the comprehensibility of the act of construction to the senses. We behold, touch, listen and measure the world with our entire bodily existence (1994:18)

It is possible therefore that meaning can be perceived through the senses as one engages an architectural built form. As such, architectural theory of built forms can be captured if we can equate these underlying intentions or theories to meanings. Jones (2006) believes that sociology could be a viable tool in being able to see architecture as a carrier of such meanings. This review focuses on the reading of such meanings in architecture and also examines the factors that affect reading architecture as a whole.

LITERATURE REVIEW – READING ARCHITECTURE

The concept of reading could not be more extensively addressed as has been done in Kunze's (1988) treatise on architecture as reading. He expanded the concept beyond alphabetic and phonetic consumption to encapsulate all human attempts at apprehension of nature. He also uses this everyday activity to create an analogy of the architectural equivalent of the process.

In succinct terms, reading involves the consumption of two-dimensional text to create 3-dimensional virtual reality, while architectural reading involves a consumption of 3 or 4-dimensional reality to create boundless virtuality of the un-present. What can be perceived, can serve as a clue to understanding the original intentions that influenced the built form. Ballantyne (2005) describes buildings as ‘symptoms of large and smaller forces’ and the experiences they exude as ‘gestures that buildings make’. Kunze (1988) also considers gesture as one of the domains where virtuality - the presence of what is not present, ultimately thrives. He sees gesture as “a silent language that places us between the pure conventionality of known forms and the mute unintelligibility of objects” (pg 29). The terms *symptoms* and *gesture* suggests some sort of diagnosis made from evidence and non-verbal expression respectively. He is also of the opinion that “gesture and other forms of silent speech constitute a form of universal language” (pg 29). Rousseau (1968) states in his *Essai sur l’origine des langues*, that “the most energetic language is that whose sign has said everything before one speaks” (pg 31). But this is based upon presumptions that there is a ‘general non-verbal grammar’ commonly understood by all humans. Using his example of the gesture of being silent, indeed, the putting of the fore-finger to one’s lips is a gesture for someone to refrain from speaking, which may be universally understood by people cross-culturally.

However, can this illustration find a parallel in an architectural gesture or silent language that can be read and understood by all it may concern? Ballantyne uses certain definitive terms in the following expression; “If we use *traditional architectural languages* then we reiterate tired or dead metaphors that have the virtues of familiarity and immediate *comprehensibility*”. The words I have italicized from the quote suggests the existence of certain architectural languages that when used are readily comprehensible. However, there is an uncertainty about the word *languages* in the context in which it was used in that phrase, as it could also be an alternative for architectural terms. But this quote from Tafuri (1976:228)

The language of architecture is formed, defined and left behind in history, together with the very idea of architecture. In this sense the establishment of a ‘general grammar’ of architecture is utopia. What one can do is recognise and describe syntaxes and ‘codes’ that are historically defined, useful as ideals in historical analysis.

Shows some relation to Ballantyne’s earlier statement which suggests that if there is a general language of architecture, it is not constant through time and may exist in periods and for certain periods in history. In analysing the concept of style by using the formal structure of theory, one can infer that style and formal language are synonymous. But since style is periodic or like fashion itself, is introduced, reaches its peak and then is forgotten, formal architectural language may also follow that path. Psarra (2009) in an analogy between architectural style and language compares style to tongue, which possesses its own distinctive vocabulary and syntax. It is this distinguishing factor that makes each architectural style unique and something to be learned. Karatani (1995) also discussed extensively the issue of language when examining architecture through metaphorical lenses. The understanding of the role Language plays is a precursor to developing the art of reading and ultimately understanding architectural theory, especially undocumented theory in historical and vernacular settings.

Kruft (1994) was of the opinion that ‘it was possible to check architectural theory by reference to actual buildings’. Though taken slightly out of context this statement appears

valid in its own right. He began his introduction by presenting the worst possible case scenarios, one of which was where documented theories once existed but has been lost. In such a case he states that "...one has to ask to what extent a theory can be extrapolated from the surviving architecture" (1994:13). But the art of extrapolating theory from existing architecture involves reading. For example, Miller (2004) used 'reading' as the primary means of highlighting the previously obsfuscated design philosophies of the Jinci temple. Earlier historic and geographic texts offered a confusing perspective solely based on views the elites subscribed to, on the types and patterns of worship in the Jinci temple. Miller relied on the messages the buildings and site itself conveyed, to understand the importance of the veneration of water spirits to the conception and actual architectural realisation of the Jinci. This is an example of how theory can be extrapolated from architecture by reading, but the extent to which reading architecture can unveil its underlying theory is dependent on a number of factors.

DISCUSSION - POSITIONALITY, PERCEPTION, LEGIBILITY AND SEMIOTICS

Pallasmaa (1994) argues that architecture impinges on all our senses, ranging from vision to touch, creating different auditory, visual, tactile and even olfactory experiences. Although all humans in effect can experience architecture through our five senses, we cannot all read architecture the same way even if there was some universal language or code from which meaning can be deduced. As such the idea of reading architecture depends largely on a number of factors and these include; Positionality of the reader, Perception and Legibility.

Positionality

If a language of architecture does exist, who then is able to read it? Is it reserved only for the trained eyes of the professional architect or can all who desire to know, equally interpret it? Kunze was of the opinion that "even when architecture is writ large, not everyone reads"...if architects conceived of reading as a means of encoding arcane meanings within designs, only "specialists and critics" would understand, and it will be of no importance to the populace. Similarly, the design of the Jewish museum in Berlin sparked such discussions on who is deemed qualified to present an authoritative reading of the architecture. Jones (2006) infers that even if the architect believes the built form conveys the underlying intentions of the designer, through the 'visible language' it speaks, "this complex language is directly understood to very few, and resultantly is in need of the architect's own translation" (pg 555). These issues bring to mind the statements of Grosz (2001) that describe her positionality when philosophizing architecture.

I am an outsider to the field of architecture. My access to this field was facilitated in a most indirect and unexpected way....My thanks to Peter Eisenman, Bernard Tschumi, and Anthony Vidler for their benevolence and welcoming tolerance of the outsider that philosophers tend to be, especially to the architectural practice and writing. (pg vii, viii)

This insider-outsider categories created as a result of the author's positionality was however explained in detail, in the preceding statement;

Exploring architecture "from the outside" is not the literal analysis of the facades or the exterior of buildings! Instead, the outside here reflects both the position of the author – an interested outsider, not trained in architecture, who is concerned about the

inside from the point of view of the outside, who doesn't work within the discipline but outside it (pg xv)

She also expanded the outsider positionality to accommodate what she terms as the "alien or the stranger" - an inassimilable being without the where withal to comprehend the formal doxology of architectural language or I might add, a non-member of a community with no form of connection, knowledge or even an inkling of the culture in question. Klein and Sutherland in discussing this issue of positionality, compared how an artist views and perceives a painting in contrast to how an observer who is not an artist would view and perceive the same painting. Pallasmaa (1994) uses this analogy to discuss how an architect reads a building as opposed to a non-architect. He states that where an architect would unconsciously internalize and read a building based on balance, distance, scale and anthropometrics, an outsider may not read it in the same way.

Perhaps, the positionality of the readers can also reflect on the scales, using vocabulary as an indicator. Architects, philosophers, critics and or trained "outsiders" engage the act of reading the language of architecture with vocabularies that suggest complexity and depth of comprehension as opposed to possibly simpler suggestions from those regarded for the purpose of the study as the untrained "outsiders". However, depth of language and vocabulary does not necessarily suggest that whatever reading given on this basis is justified.

Devlin (1990) undertook a study that examined architectural meaning by comparing the difference between architects and non-architects interpretation of two Chicago office buildings using content analysis of literature and unstructured interviews. The study confirmed this issue of positionality as it showed that the range of interpretive categories and categorization schemes for architects and non-architects were different. However, all non-architects cannot be grouped together as outsiders, with the belief that their positionalities are all similar as opposed to how architects read architecture, based on Pallasmaa's unconscious internalization concept. Within the idea of positionality, users whether architects or non-architects may read or perceive architecture experientially, hence differ in that context of positionality. But where positionality involves different disciplines and how they read architecture, variations in how they read are bound to occur. For instance, Whyte (2006) argues that as historians architecture can be studied not for its meaning but for its meanings. He draws on the work of Mikhail Bakhtin to suggest that architecture and its interpretation comprises a series of transpositions as a building goes through various stages from building to habitation, its meaning changes. As such, he suggests that the historians' positionality is not reading the architectural message but exploring its multiple transpositions.

Perception

Holl (1994) suggests that perception as it relates to architecture is deliberate or intentional. It is born of a need to understand the motivations behind a structure or built form. Holl further suggests that without intent, the mental energy required to produce perception of a built work is deficient. He believes that more than any other art form architecture engages the immediacy of our sensory perceptions by awakening all our senses since architecture speaks through the silence of perceptual phenomena. Perception is built on objectivity and subjectivity but more on subjectivity which is based on individual bias engendered by senses, memories, values and worldviews. As we differ in recollections, memories and views, our perception of architecture becomes based on the arbitrariness of our experiences.

Johnson (1994) in linking theory to what can be perceived or assimilated of architecture by society, poses certain questions such as; “What is it that is comprehended in the architecture? What do people perceive in architecture that reflects the constancies or differences in societies, and how is this perception achieved?” Schulz (1963) in explaining the concept of ‘phenomena’ emphasizes the unreliability of perception in judging phenomena. This he attributes to possible misrepresentations liable to occur due to our own limitations, apparent superficiality, difference in perceived experiences and attitude to things. In effect he opposes the use of perception as a sole deducible tool, due to the inevitable differences in our various judgemental calls. However, he asserts that theoretical scientific investigation is the required complimentary tool that makes up for the shortcomings of perception, to achieve comprehensive totality. He states that “theory can help us attain a more ‘correct’ and profound experience of architecture” (1963:85) but theory itself is not sufficient as it must be established through a build-up of perceptual schemata, not disregarding what the ‘psychology of perception tells us’.

We can also understand perception of buildings from an interpretivist perspective in that buildings can mean different things to different people based on their own interpretations. For instance, Millie (2012) examined how different members of the public perceive different meanings exuded by the architecture of police stations in the United Kingdom. This is based on the different experiences people have had in a police station and it builds up to form a perception of police stations as interpreted by each individual. Pallasmaa argues that as architecture interacts with the body of the observer, the experience the observer gets mirrors the intentions of the maker or designer. But even if this is true, bodily sensations differ between observers based on their memories, experiences in life and general schemata. As such, what the space, place and ultimately the architecture means to each observer is perceived with the arbitrariness of these experiences. This suggests that most people tend to readily understand the underlying ideologies that are symptomized through buildings based on culture-specific memes or schemata. Although this framework was tailored for the macro scale of the city, I believe this can be examined to see the extent it covers the production of architectural meanings as well, since architectural forms make up the most prominent part of the cityscape or built environment. In essence, everyone is bound to first interpret what is seen based on their own repertoire of schemata which may inevitably differ from that of others. Perception and understanding drawn from what is read is thus subjective, as no precise rule of thumb for reading architecture has been derived and standardized.

Legibility

The legibility of architecture is also another potential challenge to reading. Legibility has been described as the degree or level to which a building allows its users to find their way easily within it and to also create a mental or cognitive map of spatial arrangement and connectivity (Weisman 1981; O’Neill 1991; Nenci et al 2003). But this terminology that describes the concept is derived from demonstrating the level of clarity of a given text that can allow for reading or deciphering. As such, based on that understanding legibility can also relate to how easily the designed features of the built form can allow people to perceive, comprehend and/or decode the underlying intentions of the built form. Building on Kunze’s earlier drawn parallel between text and architecture, we can correlate that if illegibility of text makes reading difficult; the illegibility of virtual or concealed architectural meaning makes reading an arduous task. Jones (2006) was also of the opinion that “reading architecture in a textual way gives problems of interpretation common to any text” (pg 557). As such, when attempts are made to theoretically deconstruct such built forms, the given interpretations to

these illegible gestures become forced, incoherent and sometimes utterly meaningless. However, it can still be argued that discovering incoherence, inconsistencies and meaninglessness through architectural gestures, constitutes an act of reading in itself.

In terms of legibility, Picon (2013) observed that architectural ornamentation is related to the pursuit of communication and knowledge. This is based on the ideal that a building ought to easily offer accessible lessons to the public through its tectonic organisation and decoration. In essence, ornamentation which was a major element in 18th century architecture was supposed to possess a pedagogical value directly linked to its meaning. This suggests that whatever ornamentations were depicted in relief, murals, frescos, round sculpture or architectural elements, were expected to portray a political or philosophical meaning. As readability and decipherability are the synonyms for legibility, it meant that these meanings were meant to be easily readable. Anna Maria Nenci et al (2003) examines the various conceptualizations of social and architectural legibility of the city. In that paper she referred to a later research by Ramadier and Moser in which they framed legibility within a social psychological perspective. Within that framework, social legibility corresponds to the facility in which individuals use the socio-physical characteristics of their surroundings to produce or internalise environmental meanings. In essence, these meanings could not be read if the social and physical characteristics of these surroundings are not legible enough.

If legibility of written text has to do with clarity, something that is plainly discernable and easy to decipher, it begs to know to what extent architecture can be said to be clear, plainly discernable and easy to decipher.

Semiotics and the Reading of Architecture

If reading is to be taken as the fundamental human behaviour in perceiving architecture, as suggested by Kunze, it infers that reading architecture is an act capable of being carried out by all humans, at least on a generic level. But even as the level of perception varies from one individual to another, ranging from the downright shallow to the exceptionally deep, reading is in itself a spectrum of levels of comprehension and interpretation of architectural gestures. In effect, it spans between perceiving the very simple or even simplistic meanings to the highly complex ones, from what is readily obvious on the built forms to that which is concealed; from what has been revealed to the intentionally obfuscated details of the built forms.

Another question that this issue of reading raises and from which stems a wide array of possibilities is, "how could and should architecture be read?" Should a method, an approach or a set of formulae or codes be issued, wherein the process is reduced to a logical sequence of steps or symbols to be decoded, be the most appropriate tool for reading architecture? The fact is that we cannot discuss about meaning in architecture or the reading of architecture without making reference to semiotics.

Semiotics is the science of the recognized system of signs and this encompasses all cultural phenomena which are seen as means of communication. The question about whether all architecture communicates may be debateable but the fact that architecture is culture is established. Culture being a way of life is based on ideologies, values and beliefs which all have meaning. Eco (1986) one of the foremost proponents of semiotics suggests that architecture strongly communicates as presented in this quote;

Significative forms, codes worked out on the strength of inferences from usages and proposed as structural models of given communicative relations, denotative and connotative meanings attached to the sign vehicles on the basis of the codes – this is the semiotic universe in which a reading of architecture as communication becomes viable, a universe in which verification through observable physical behaviour and actual objects (whether denotata or referents) would be simply irrelevant and in which the only concrete objects of any relevance are the architectural objects as significance forms. Within these bounds one can begin to see the communicative possibilities of architecture” (Eco 1986:61)

Eco argues that architectural signs (morphemes) communicate possible functions through a system of conventions or codes and this can be employed in the analysis of all aspects of the architectural work, from envelope to content, to make a corresponding reading of the signification of the built form. Early scholars such as Gandelsonas (1972) finds in semiotics a way of reading architecture as a field of knowledge production. Barthes (1973) examined where linguistics is embraced by post-modern architects as a way of codifying architectural meaning. Since then semiotics has been used in the analysis of Industrial and Architectural Product Design (Krampen 1989, Hjelm 2002); Systems Analysis (Sonov 2001); Theatre and Performance (Eco 1977, Calson 1993, Thornberg 1990), Aesthetics and ornamentation (Munro 1987, Picon 2013); Gender studies (Bondi 1992); Religious Architecture (Lukken and Searle 1993, Grabbar 1980); Space Analysis (Lagopoulos 1993, Juodynte-Kuznetsova 2011); Landscape Architecture (Assche et al 2012) amongst others.

In all these, the aspect of semiotics that appears to have been researched in more depth is its relation to aesthetics and ornamentation. This is due to the dependence on visual codes and rules in reading or deciphering their meaning. Even at that this relates more to most forms of pre-modern and vernacular architecture. One of the major strengths of 19th century architecture is based on its linguistic interpretation of style and ornament, which was based largely on rules and codes. Picon (2013) suggests that one of the ways traditional ornamentation design aroused perception in viewers was through tradition, novelty, rules and exception. That is, 19th century ornamentation was connected to enduring visual codes that had singular interpretations. Architectural ornamentations in this era conveyed political, ideological and philosophical meanings mostly displaying the political power of Rome or the wealth of the church. The architect of that era was able to make expression through the modulation of rules or codes that was understood by not just the designer but the general populace.

However, Picon (2013) observes that with contemporary architectural ornamentation where they exist, meanings and symbols are much more subjective. This subjectivity does not seem initially obvious since most contemporary architectural ornaments are of an abstract nature. He suggests that today’s ornaments are based more on materiality and human senses than on codes and rules. Especially with contemporary architecture which emphasizes the austere, industrial and somewhat revolutionary look based on materiality and new age facadism. Colquhoun (1985) was of the opinion that abstract forms of modernism dissociate architecture from figures carrying meaning by cultural association. As a result, some scholars believe the idea of codes has been lost and rules remain uncertain in more modern forms of architecture.

CONCLUSION

This paper commenced by reviewing several postulates on what architectural theory is. It goes further to correlate theory to underlying intentions or meanings and suggests that these meanings of a built form can be revealed via the art of reading. However, for reading to take place there has to first be the existence of a language or style of architecture, generally accepted and understood by all concerned. But Ballantyne (2005) rightly suggests that if there is a general language of architecture, it is not constant through time and may exist in periods and for certain periods in history. But the question remains that in what form is this language? Since it is not formally taught or learnt. Eco (1972, 1976, and 1986) suggests that this language is evident in culture. He argues that all aspect of culture is communicative and as such architecture which is one of the largest forms of material culture, whether urban or vernacular communicates. He developed the concept of semiotics of architecture which looks at circumscribed spaces and objects as signs that communicate possible functions on the basis of systems of conventions known as codes. Picon (2013) observed that rules governing certain aspects of architecture such as ornamentation were easy to identify up until the end of the 18th century, following the Vitruvian tradition. He states that rules became increasingly less clear during the 19th century and architecture has not followed any set of rules since then.

The review has shown that even if there were universal rules and codes governing the reading of architecture, we cannot all read architecture the same way, extrapolate the same theories or garner the same experiences. The reason is that there are certain factors which may affect the reading of architecture that have been discussed in this review. These factors have been identified as positionality, perception and legibility. This is by no means exhaustive in terms of factors affecting architectural readability but they are core factors as far as the issue of reading goes. These factors highlight the aspect of subjectivity in the process of reading. Picon (2013) discussed the renaissance of ornamentation from a subjective dimension on the part of the architect/designer as well as the perceptions or responses of the viewer/user. For the architect/designer, subjectivity allows for the expression of styles.

Picon (2013) shares the view that we need less of architectural styles today and more of rules. Rules that may help us attribute meaning to our design actions and allow architecture connect to its own history. However Perez-Gomez (1994) believes that contemporary architecture has evolved and the reading of which can no longer be based on the rules of formal aesthetic, cosmology, or logic but rather a poetic discourse. Rules and codes may be relevant in previous eras but the question is should contemporary architecture be determined by historicism? Psarra (2009) stated that the cultural knowledge that produced one form of architecture is not always comparable to the systems of thought that led to the production of another. Although the argument for semiotics is valid in that architecture does communicate in its role as material culture and as such its meaning can be studied and understood. However, the subjectivity of the contemporary poetic architecture allows for the designer, viewer and user to experience and read the architecture through the arbitrariness of perception and the freedom of positionality, where the architecture is legible enough.

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