

Contingent Presences in Architecture: Vitruvian Theory as a Beginning

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Abstract—This paper claims that architecture is a contingent discipline, despite the fact that its contingency has long been denied through a retreat to Vitruvian writing. It is evident that contingency is rejected not only by architecture but also by modernity as a whole. Vitruvius attempted to cover the entire field of architecture in a systematic form in order to bring the whole body of this great discipline to a complete order. The legacy of his theory hitherto lasted not only that it is the only major work on the architecture of Classical Antiquity to have survived, but also that its conformity with the project of modernity. In the scope of the paper, it will be argued that contingency should be taken into account rather than avoided as a potential threat.

Keywords—Architecture, contingency, modernity, Vitruvius.

I. INTRODUCTION

THE focus of my argument, ‘contingency’ is defined by William Rasch as, quite simply, the fact that things could be otherwise that they are [1]. All human actions in any given field are dependent on others; no one is fully isolated from outer forces. Yet architecture is peculiarly exposed to these external dependencies. In Kojin Karatani’s terms ‘because architecture is an event, it is always contingent’. The belief that architecture is an autonomous and self-referential discipline is a deluded one. Standard texts of architectural history remain within the tramlines of a self-referential architectural world, ignoring the other circumstances that frame architectural production. However architecture is a way of being and it is dependent on others at every stage of its journey from initial sketch to inhabitation.

Jeremy Till remarks that while contemporary architectural theory is littered with references to philosophical texts, there is hardly a nod to social theory [2]. For him, architects and architectural theorists are assimilated into the architectural world, thus they ignore reality for the sake of their ideals.

They believe that the idea of architecture as an autonomous discipline would be treated in the realm of reality. Vitruvius, in the same manner aimed to prove that architecture is an exalted art rooted in nature and integrated with human mind, rather than a craft. He attempted to elevate the profession of architecture above its status as craft. To explicate this point he writes:

Consequently, since this study is so vast in extent, embellished and enriched as it is with many different kinds of learning, I think that men have no right to profess themselves

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architects hastily, without having climbed from boyhood the steps of these studies and thus, nursed by the knowledge of many arts and sciences, having reached the heights of the holy ground of architecture [3].

As Till refers, within this ‘black box’ of architecture, there is an obsession with overriding themes of one kind or another. This obsession characterizes much of the history of architectural ideas, from Vitruvian triad of ‘firmness’, ‘commodity’ and ‘delight’. Particularly in Vitruvian writing, there is an assumption that architecture has a specific essence, the understanding of which is essential both to the theory and practice of the field. However, there is no such thing as an essence of architecture. As Charles Jencks brilliantly puts it ‘...architecture is irreducibly plural, an unstable hybrid based partly on codes external to itself, making use of other practices such as engineering and sociology, etc., in unique combinations [4].

Vitruvius’s treatise on architecture, as an act of imposing order, of taking the unruly and making it coherent, perfectly coincides with the will to order that Bauman identifies as the central feature of modernity. Unified and systematic theory of Vitruvius reduces architecture to a mere series of programs and requirements to fulfill. It leaves no room for identification and takes the meaning from architecture. However, when we come to define the true and deeper functions of architecture, we will not be simply describing the production of a certain type of artifact, as Vitruvius suggests. Substantially, architecture shapes the contemporary life and is shaped by it. This reciprocal relationship puts contingency in the very heart of our discussion. Architecture cannot be thought without the complexity of life, neither in an idealized nor in a systematic form. With all of this in mind, the argument of this paper is that architecture is not an autonomous discipline which relies on immutable rules.

II. A DEVOTED LIFE

To argue Vitruvian theory further, it will be illuminating to focus on his personality, the period he wrote his treatise, and more importantly why he wrote it. Few biographical details are known about the ancient Roman author. For the facts of his life, we are dependent almost exclusively on the internal evidence of his treatise, *De architectura*. His travels and how much he knows of the buildings he mentions in his treatise are not known. Vitruvius’s writings belong to the last period of his life (Book 2, preface). We know that he served in the Roman army under Julius Caesar, building in siege machines and perhaps bridges. After Caesar’s death he was involved in the construction of the Roman water supply under Octavian. Later

on he retired and came under the patronage of Augustus's sister (Book 1, preface).

It emerges from several of Vitruvius's own statements that he was not a successful architect. He mentions only one building of his own, the basilica in the provincial town Fano. He enjoyed no recognition as a creative architect. His treatise was intended not only to increase awareness of the importance of architecture but also to constitute a lasting memorial to himself (Book 2 and Book 6, prefaces).

In fact, in the introductory section of *De architectura*, Vitruvius made it clear that his purpose in writing had been to contribute to the growing program of public works initiated by Augustus, for whom his text was dedicated. Vitruvius stated that he had been known to Julius Caesar and that he enjoyed the preferment of Augustus's sister Octavia. He also noted that he received a pension which ensured him a care-free old age. Hence, it can be stated that *De architectura* was intended not to obtain monetary gain for its author, but to advance his reputation and to lobby for improved standards in Roman building. For the latter, one did not need to write a technical manual, one needed a polemical document, a document in such a form as to be meaningful to an intended audience and contributing to the authority of the imperium.

It can be argued that architects and architectural theorists have viewed *De architectura* as a timeless source of valuable metaphors. In order to examine the work's meaning and significance in its own time, IndraKagis McEwen points out the significance of the tumultuous period Vitruvius writes [5]. Her argument is that the imperial project of world dominion shaped Vitruvius's purpose in writing what he calls 'the whole body of architecture'. It was the beginning of the reign of Octavian and transition from republic to empire. A single all-powerful man substituted a set of magistrates changing yearly. There was also a building boom and Rome was transformed from brick to marble. Additionally there was an objective such as fashioning the scattered lands ruled by Rome into the body of empire.

McEwen convincingly shows that the specifically architectural body that Vitruvius wrote provides a framework for understanding the body the Roman world would become during the reign of the autocrat for whom it was written. Furthermore she claims that the notion of *service* should be taken into specific account as key in understanding the intent of *De architectura* [6]. In Vitruvius's own words:

Hence I thought I shall compose with utmost care a comprehensive work on the art of building and its methods in the belief that the future will not be ungrateful for this service to the world [7].

As indicated, the birth of *De architectura* as a clearly defined discipline appears to be codependent with the Roman project of world dominion. Crucially, Vitruvius's intention was to show how architecture would record Roman greatness. And he aimed to do this not locally or piecemeal but comprehensively and worldwide. For McEwen, vindicating its part in that project was Vitruvius's principal aim [8]. In the preface of the first book, he writes to the Emperor Augustus:

When I saw that you were giving your attention not only to the welfare of society in general and to the establishment of public order, but also to the providing of public buildings intended for utilitarian purposes, so that not only should the State have been enriched with provinces by your means, but that the greatness of its power might likewise be attended with distinguished authority in its public buildings, I thought that I ought to take the first opportunity to lay before you my writings on this theme.

Thus, it was not only architecture initially attached Vitruvian work to Emperor Caesar's might. *De architectura* addresses Augustus's concern for the regulation of life in common in a restored republic and his concern for the fitness of public buildings. The passage above evidently shows pretensions of Vitruvius to tie his architectural approach into the imperial program of expansion and authority. If we recall Bauman, he describes the modern age as one that has a vision of an orderly universe...the vision was of a hierarchical harmony reflected, as in a mirror, in the uncontested and incontestable pronouncements of reason [9]. In his impressive metaphor, he depicts modern state as a gardening state, bringing the unruly, chaotic and the fearful (as represented by nature) under the rule of order, regularity of control (as represented by garden) [10]. Architects have always been firmly situated in the real conditions of life. They are mere pawns in an overwhelming regime of power and control, or else architects are active agents in the execution of this power and control.¹ Specifically, Vitruvius was to present his discipline as the means for making the emperor's body congruent with the imagined body of the world he would rule. Indeed, he was the first to emphasize architecture's relationship with state and power by showing how architecture would increase commonwealth and essentially how architecture would record Roman supremacy. In fact, Vitruvius sees the aim of his treatise on several levels. Following the dedication in the preface of Book 1, a definition of the treatise is addressed to Augustus:

Owing to this favour I need have no fear of want to the end of my life, and being thus laid under obligation I began to write this work for you, because I saw that you have built and are now building extensively, and that in future also you will take care that our public and private buildings shall be worthy to go down to posterity by the side of your other splendid achievements. I have drawn up definite rules to enable you, by observing them, to have personal knowledge of the quality both of existing buildings and of those which are yet to be constructed. For in the following books I have disclosed all the principles of the art [11].

III. DE ARCHITECTURA

The renowned treatise *De architectura* is divided into ten books, each of which has a preface that is loosely related to the book in question, as well as giving a summary of the previous book. It can be said that the prefaces forms a whole, containing fundamental statements about the aim of the

¹ First approach is that of Michel Foucault, the second is that of Henri Lefebvre.

treatise and Vitruvius's image of himself. In prefaces various issues are discussed such as Vitruvius as a person, the function of his treatise and the problems of architecture in general. For the latter, Vitruvius succeeds in bringing his conception of architecture into line with the contemporary ideology of the state.

Despite the fact that Vitruvius offers 'the whole body of architecture' in his treatise and aims to encompass the whole field of architecture in a systematic form, in practice he was very selective. He achieved to make the first really comprehensive study on architecture, yet it can be argued that his approach was not an objective one. Both in his selection and handling of source material, it is clear that he was expressing a highly personal point of view.

In the first chapter of Book 2 Vitruvius notes his theory of the origins of architecture, for which he sees the primary motivation was the protection of man from the elements. The first houses, he writes, were imitations of natural formations (leaf huts, swallows' nests, caves), since 'men are by nature given to imitation and ready to learn' [12]. He asserts that architecture was the first of the arts or science to emerge; consequently it has a primacy among the arts [13].

Although he sets out some immutable rules for architecture, he hardly mentions the invention of rules of architecture. He simply explains as after evolving various types of house, men were led on 'by dint of observations made in their studies from vague and uncertain judgments to fixed rules of symmetry.' Despite the relativity of the rules of architecture he describes, in the first chapter of Book 9, Vitruvius endows them with claims to absolute validity in an account of the cosmos and the planets he describes the universe as an architectural design, in which the laws of the cosmos and of architecture are clearly regarded as identical [14].

In the second chapter of Book 1 Vitruvius sets out and defines the fundamental aesthetic principles of architecture. The essential concepts contained in this chapter underlay all discussion of architectural theory right up to the eighteenth century. The subject at issue is the whole scope of *ratiocinatio* (theory).

In this chapter, Vitruvius identifies the six principles composing architecture: 'order', 'arrangement', 'symmetry', 'eurythmy', 'propriety' and 'economy'. Harry Francis Malgrave clearly defines these principles and notes that only the last two of these principles are relatively straightforward in their meaning. He defines order (*taxis* in Greek) as the ordering of the parts alone and as a whole, and thus order implies the concepts of a module and symmetry. He writes arrangement (*diathesis* in Greek) is similar to order but also adds the idea of aptness of placement. Symmetry is a proper harmony of the parts to each other and to the whole, defining a kind of beauty. Eurythmy, which also translated as proportion, is not dissimilar to order and arrangement and it suggests the use of numerical ratios. Malgrave describes it also as a visible coherence of form [15]. In Vitruvian thinking, it is the responsibility of the architect to mediate between these fundamental concepts and reconcile what is actually correct, mathematically and abstractly, with what looks correct.

Regarding to Vitruvius, proportion is a prerequisite for order, eurythmy and symmetry. For him, proportion is purely a numerical relationship rather than an aesthetic concept. In his most significant statement on proportion, he argues the subject of temple building:

The design of a temple depends on symmetry, the principles of which must be most carefully observed by the architect. They are due to proportion, in Greek ἀναλογία. Proportion is a correspondence among the measures of the members of an entire work, and of the whole to a certain part selected as standard. From this result the principles of symmetry. Without symmetry and proportion there can be no principles in the design of any temple; that is, if there is no precise relation between its members, as in the case of those of a well-shaped man [16].

Furthermore, Vitruvius lays down fundamental rules of proportion for the human body. As it is noted before, Vitruvius sees architecture as an imitation of nature. As birds and bees built their nests, humans constructed housing from natural materials that gave them shelter against the elements. When perfecting this art of building, the Greeks invented the architectural orders: Doric, Ionic and Corinthian. It gave them a sense of proportion, culminating in understanding the proportions of the greatest work of art: the human body. Vitruvius describes the Doric column as follows:

Wishing to set up columns in that temple, but not having rules for their symmetry, and being in search of some way by which they could render them fit to bear a load and also of a satisfactory beauty of appearance, they measured the imprint of a man's foot and compared this with his height. On finding that, in a man, the foot was one sixth of the height, they applied the same principle to the column, and reared the shaft, including the capital, to a height six times its thickness at its base. Thus the Doric column, as used in buildings, began to exhibit the proportions, strength, and beauty of the body of a man [17].

This led Vitruvius in defining his Vitruvian Man, as drawn later by Leonardo da Vinci: the human body inscribed in the circle and the square. It can be argued that in Vitruvian writing proportions have empirical values derived from the human body. Hence in considering proportional relationships in private houses, he offers deviations from proportion:

There is nothing to which an architect should devote more thought than to the exact proportions of his building with reference to a certain part selected as the standard. After the standard of symmetry has been determined, and the proportionate dimensions adjusted by calculations, it is next the part of wisdom to consider the nature of the site, or questions of use or beauty, and modify the plan by diminutions or additions in such a manner that these diminutions or additions in the symmetrical relations may be seen to be made on correct principles, and without detracting at all from the effect [18].

It is obvious at this point, Vitruvius loses sight of fundamental concepts and aesthetic principles he wrote in the second chapter of Book 1, which he had claimed to be universally binding. Vitruvius did not feel the need to apply

his criteria to specific types of buildings. Thus unified and systematic architectural theory of Vitruvius is questionable. He aims to write architecture in a *well-ordered completeness*, yet the impossibility of the task is evident.

In the third chapter of his first book, Vitruvius demonstrates three distinct requirements that architecture must satisfy. Even more enchanting to later generations is his often repeated triad of 'firmitas', 'utilitas' and 'venustas'. With reference to public and private buildings he writes:

All these must be built with due reference to durability, convenience, and beauty. Durability will be assured when foundations are carried down to the solid ground and materials wisely and liberally selected; convenience, when the arrangement of the apartments is faultless and presents no hindrance to use, and when each class of building is assigned to its suitable and appropriate exposure; and beauty, when the appearance of the work is pleasing and in good taste, and when its members are in due proportion according to correct principles of symmetry [19].

Even if they have been updated to reflect contemporary concerns with use/function, technology/tectonics and aesthetics/beauty, the triad is arguably the most common reference to any definition of the discipline. Francis Malgrave notes that, in 1624, Henry Wotton translated these three terms as 'commodity, firmness and delight'. In Morris Hicky Morgan's translation of *De architectura*, 1914 edition which this article cites, *firmitas* translated as durability, *utilitas* as convenience and *venustas* as beauty. *Firmitas* covers the field of statics, construction and materials. *Utilitas* refers to the use of buildings and the successful functioning. *Venustas* includes all aesthetic requirements, that of proportion above all. While *venustas* calls for the elegance of effect and beauty, *firmitas* and *utilitas* call for authority and expertise. This conception of Vitruvius lacks any flexibility. There is no possibility of a diversity of manifestations of perfection in his theory.

IV. CONCLUSION

'It is not too much to say', states Karatani, 'that the work of architect was meant to fill in the margins of Vitruvian writing.' He adds that it was believed to offer a foundation for architectural thought [20]. In a striking metaphor, he describes it as a role similar to that played by Bible for religious thought. This paper criticizes this uncritical, unthinking acceptance of a baton being passed from century to century, rather than seeking to overturn the relevance of Vitruvian theory. Despite the claims of autonomy, order and control architecture is buffeted by uncertainty and contingency.

Vitruvius was claiming that no previous writer had tried systematically to encompass the whole field of architectural theory and practice (Book 4, pref). The significance of Vitruvius comes from not only being the first to write an architectural text but also tightly engaging his theory, and whole discipline of architecture, with Julius Caesar's will to control and order. As it is explained, Vitruvius saw the aim of his treatise on several levels, yet the quest of order, authority and control is the predominant of all. However the unified and

systematic theory of Vitruvius reduces architecture to a mere series of programs and requirements to fulfill.

It is this readiness to define perfection in quantitative terms and to lay down finite laws governing designing and perfection that constitutes the essence of Vitruvian method. This is not to say that buildings should not be usable, stand up and delightful, but these qualities are so self-evident that they should be background beginnings rather than the foreground ends that the Vitruvian dogma suggests. The history of architecture is to be regarded as that of an evolution based on a series of revelatory discoveries leading to certain definitive achievements (*finitiones*) was Vitruvius's task to expound. By imposing a system of strict numerical analysis, he contrived to reduce architecture to a series of rules based on the "correct" dimensions of each constituent element relative to a constant module.

It is significant how the principles of Vitruvian writing fit the more general pattern of will to order. Right from the beginning of *De architectura*, we get the identification of architecture as an act of imposing order, of taking the unruly and making it coherent. The denial of contingency is not simply an issue of aesthetics and visual order, but much wider one of social control and cultural cleansing. Orderly space, as Bauman argues, is rule-governed space and the rule is a rule in as far as it forbids and excludes [21]. When order and certainty close things down into fixed ways of doing things, contingency and uncertainty open up liberating possibilities for action. Transformative potential latent in uncertainty and freedom comes with it, should be seen as an opportunity rather than a potential threat.

To conclude, this paper wishes to highlight the deep engagement of Vitruvian theory and modernity. Bauman describes the typically modern practice as the effort to exterminate ambivalence, seeking for an orderly universe, bringing the unruly under the rule of order and control. Ordering of society thus requires ordering of space. Vitruvian theory, rendering architecture as a stable and secure entity, has constituted a reliable foundation for architectural theory. Then again, it is believed that this is the reason why the treatise still comes into question in modernity. Architecture must engage with the inescapable reality of the world, in that engagement is the potential. It must be noted that architecture is a contingent discipline par excellence, thus we need to deal with that contingency rather than denying it. More importantly, Vitruvian writing should be taken as a beginning, rather than an end, a dogma.

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