

The Norms of Human Living Space

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Abstract: This paper revisits Vitruvius's norms of good architecture in order to adapt them to the new conditions of human living space, as determined through considerations of human psycho-geography of place. It addresses the contemporary meaning of the triad "utilitas, firmitas, venustas" and identifies new notions attributable to these norms, based on the present problems we face in creating sustainable human living spaces. The paper draws from the call to revisit Vitruvius in the contemporary context; scholars today still agree that through achieving a proper balance of these norms, architecture meets the needs of people in terms of everyday life, as well the connection with other constituent domains of human life. When discussing utilitas (utility) we raise the question of the user of the space claiming that there is an extend of anonymity in its conception which needs reconsideration. With firmitas (firmness) we suggest a better understanding of sustainability of life in-between buildings, and with venustas (beauty) we raise the questions of aesthetics of space. The paper argues that architecture need to accommodate above all one's inner fulfilment, and one way is through adjusting the well-embodied and comprehended traditional norms of architecture, into norms of a more humane living space.

Key words: vitruvius, utilitas, firmitas, venustas, human living space, anonymous user, good design

1. Introduction

Architecture is the domain of creation in which works, expression, fulfillment of needs and technology are combined. The purpose of architecture is to create spaces where people feel more humane and more fulfilled in life. Fundamental norms of good architecture, which have been traditionally utilized by architects as means towards fulfilment of the aforementioned purpose are Vitruvius's utilitas, firmitas and venustas. According to Moore [1], only if we achieve a proper balance of these three requirements, our architectural work manages to fulfill the following two aspects: firstly, the architectural work meets needs of people in terms of everyday life, work, entertainment, embodiment, and death; secondly, the architectural work which must take into account the updated technological references, achieves connection and the practicality of other constituent domains of human life

and of buildings in which life happens. In order to follow with Moore's aspects, the question that arises is: what makes an architectural work fulfill the three fundamental requirements of architecture, and whether Vitruvius requires revisions to suite to the changing circumstances today, given that the Vitruvian method in many senses still has lessons for us today [2].

Vitruvius is one of the first ancient authors to write the treatise "The Ten Books on Architecture" (De architectura book decem), considered to be the most important work on the architecture of Classical Antiquity to date. Vitruvius was not the first to write about architecture, but was the first — as he proudly puts it in the foreword to Book IV — who systematically covered the whole body of architecture. In the second chapter of Book I, Vitruvius defines the basic aesthetic principles of architecture. Here, theoretically, lies the spirit of his treatises. The fundamental concepts of this chapter underline the

discussions on the theory of architecture until the nineteenth century, therefore, these principles should be considered in detail. The subject of this issue constitutes the whole horizon of “rationatio” — the intellectual understanding of architecture. Therefore, revisiting Vitruvius is often discussed as a way to reaffirm the need for certain norms of good architecture and a generally human living space. A departing point in this paper is thus the often repeated triad of “firmitas”, “utilitas” and “venustas” laid out by Vitruvius in Chapter Three of his treaty.

According to Moore, Vitruvius’s goal was “unity in the face of difference”, which implies achieving unity in different situations or finding similarity as a manual [1]. Discussing Vitruvius’s statement: “Architecture is influenced by Order, Composition, Rhythm, Symmetry, Proportionality and Economy”, Moore states that these influence on architecture has long been recognized [1]. Çinar states that the Vitruvian theory still comes into question in modernity basically because it renders architecture as an orderly entity justifying thus the fact that ordering of society requires ordering of space. According to her: “Vitruvian writing should be taken as a beginning, rather than an end, a dogma.” [3]

Drawing from the abovementioned, this paper revisits Vitruvius’s norms of good architecture thus as a beginning, in an attempt to adapt them to the changing circumstances today, with a human and its living space in mind. The aim is to interpret contemporary meaning of the triad “utilitas, firmitas, venustas” and identify new notions attributable to these norms, in order to reflect contemporary concerns that we face in creating sustainable human living spaces.

Among factors acknowledged in discussing the body of architecture today, also taken in consideration in this paper, is the time factor. The comparison between earlier texts on architecture and rules based on them, and their implementation in contemporary times, differ exactly based in what they implied in times when written. Concurrently, through embracing the notion of time and space system, architects have overcome the

situation in which the idea of space is isolated from the idea of time [4]. Time is therefore crucial in order for the architectural work to become more sensitive towards human factor and of that what is perceived as appropriate for the psychical, physical, intellectual, and social aspects. Through considering timely transformations in shaping new spaces, architecture can impact in giving Life to these spaces. The metaphor of “The Beauty and the Beast” from Jeanne Beaumont’s famous novel may be used to illustrate the need for revisiting the Vitruvius and his principles. The novel speaks of a beast that turned to a prince. To put it the context of architecture, beauty is the soul of a certain time and the beast is transforming itself. The analogue of the Beauty and the Beast is the timely transformation and reinterpretation of architecture by various locations.

2. Anonymous User (Utilitas)

To illustrate the distance created between life and death in space through time, we will analyze the “anonymous user”. We constantly face the “anonymous user”, this being a group of people for whom it is designed in large-scale but it is not specified for whom exactly is being designed [1]. Consequently, the fulfilment of Vitruvius’s norms of good architecture also address anonymous and non-specific needs. As Moore notes, we cannot identify specific people of whom we can ask pertinent questions and with whom we can develop sets of requirements. The anonymity of a group of people “in the neighborhood” or with “those characteristics” makes it easy for designers and planners to ignore certain unique needs [1]. It is understandable that the anonymous user understanding simplifies the work of urbanists and architects in the sense that it is planned by “solving” problems, often with disregard to peculiar situations of different spaces. Such approach makes planning and its impact on individual lives of secondary importance. For example, how can we affect the aging population in the sense that we prevent rather than solve problems, in order for this persona (and not the anonymous user) to self-sustain

during the aging process. In other words, are the clinical centers and homes the only place for the elderly to live, or should a welcoming environment be created for all periods of the life cycle. On the other side of the arrow is the youngest generation who develops in three aspects: physical, social, and intellectual. Similar to the abovementioned, the question arises for the youngest too: why most of designed spaces intended for the needs of young ages in general are mainly focused in elements that stimulate their physical development and disregard the other two, and how can architecture respond harmoniously to the three aspects of childhood development, and also to the aging process, in order for them to stand independently. In general, architecture is offered to meet the needs for the people considered as capable to work, which most of their time spend in closed environments. This may be due to economic gains and development, which is consequently supported by architecture. On the basis of this exposition, it appears that the two other age groups are seen as to be less profitable when it comes to architecture.

Architecture is influenced by many forces, but the importance of the user — in physical, social, and cultural aspects embodied in architectural and urban design — is emphasized in terms of the role of influences on people's behaviour [5]. One other side of the discussion inserts many reasons and likewise many solutions to the phenomenon of people breaking apart from each other, but one of the suggestions is the coming together through architecture and urban design, as a tool for integrating all human groups in space.

3. Life in-Between Buildings: Firmitas

Firmitas can be understood as firmness but its general meaning today may be sustainability in terms of both social and physical. To discuss sustainability in architecture considering different aspects of it but mainly focusing on aspects that impact human, we will discuss city at eye level, that is, the street fronts. One of the human-building relationships that directly affects

human is our perception of buildings along the pedestrian paths. When buildings' ground floors are social and have interactive elements such as coffee, shops, kiosks, etc., the passer-by walks do not just pass, but opportunities of socialization are also created. In this kind of spaces, the feeling of security is greater. In addition to economic benefits, well-exploited ground-floors also bring benefits in the social sense. On the other hand, when buildings are of administrative purposes and their ground-floor is just a structural façade, it does not invite, hence the passer-by walks faster and the feeling of security is reduced. The dull facilities along the pedestrian path are mainly large corporations, administrations, businesses, etc. — buildings that are built for massive use and production. According to Gehl, these buildings create “non-eternity” or dead space, in terms of humanly wilfulness of their usage. He further argues that outdoor activities are influenced by different factors, among which pertains the physical environment, being the factor that affects our daily activities [5].

There is the element of window which also makes difference when discussing architecture's impact on human lives. Studies have shown that in a hospital room with views in the nature the healing process is accelerated, while rooms facing dull landscapes, slow down the healing process as compared to the first room. In the book “Places of the Heart: The Psychogeography of Everyday Life” neuroscientist Colin Ellar developed an experiment analysing the emotional response of a group of people through a small area with restaurants on a long street, with clear administrative facades and supermarkets. The group has answered few questions at the relevant points and has kept along the way a skin gauge linked to an emotions sensor. Along the monolithic buildings, the group experienced monotony, mostly answering by describing it as: lack of passion, gap, and monotone. On the other hand, in the street block with small, open-door restaurants, the sensor has measured enthusiasm and responses were: life, socialization, engagement. According to Ellar, the

golden key in urban design is to create a story or have different frequencies from time to time; otherwise, he states, we do not get involved in space [11]. Hence, the social sustainability of architecture is compromised.

According to Jan Gehl, outdoor activities in public spaces are divided into three categories, each having different forms of physical environment utilization: necessary activities, optional activities and social activities [6]. Author explains that “the necessary activities” are defined as going to work, walking to school, shopping, waiting for a bus etc., in other words, those activities that involve to a greater or lesser extent parts of human activity. Because these activities are necessary, their performance is slightly affected by the physical environment. Optional activities on the other hand as Gehl argues are those that one chooses to do, such as taking a walk in the fresh air, staying in open air or simply sit around. These kinds of activities take place when the physical environment is right. And thirdly, he qualifies social activities to be those closely related to the presence of other activities in public spaces, likewise qualifying them as the resulting activities, given that in almost every case they are the result of another activity.

Fig. 1 shows the relationship between the quality of space and the user, as well as the effect that such quality has in giving life to a space or otherwise is deemed to be perceived as a dead space. The implication of Ellar’s and Gehl’s researches to architecture has to be understood as interpretations about the viability of urban space. Therefore, when asked what makes a place alive, we argue that it can be achieved by providing a space which allows passer-by to become part of the space and to belong to it: a durable and all-embracing space, and its optimal utilization, is the sole opposite solution to the dead spaces.

3. Good Design: Venustas

The notion of venustas or beauty has changed with

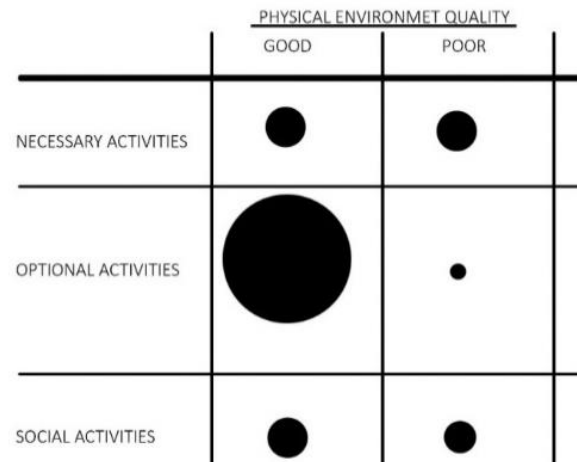


Fig. 1 Physical environment quality — based on Jan Gehl, Life between buildings.

time, in the way how aesthetics is understood and produced, but also in the way it is perceived. Aesthetic perception is one of the immaterial attributes that must be fulfilled as it plays a crucial role in how acceptable and how inviting it is in urban or architectural space contexts. So what is an aesthetically good space, or what is an aesthetic space and what is a good space? Are they the same?

When discussing aesthetics in architecture one cannot bypass the role of style in the perception of beauty in architecture. According to Hamlin [6], style is quality, and historical styles are stages of development resulting from intellectual, moral, social, religious and even political circumstances in given time and spaces. He further argues that each style is built on the basis of some fundamental principles, and based on keeping with those principles, or introducing new ones, the style reaches its perfection, or is exhausted and replaced by new elements [6]. The fact that the style has defined the quality of the space development, we may conclude that the aesthetics of space was in previous epochs fundamentally linked to the aesthetics of architecture.

Referring to the aforementioned, we argue that today we should clarify whether in contemporary times the aesthetics counts when discussing the urban scale. For example, the urban environment can be judged in aesthetic terms from the bird eye perspective, but also

from eye level perspective. Karssenbergh & Laven in their book “*City at Eye Level*” suggest that the second perspective is more important. According to them, ground-floors are important because they show the city at eye level: a building can be ugly but a vibrant ground-floor makes the experience positive. The opposite can apply: the building can be beautiful, but if the ground-floor is a blank wall, the experience cannot be as good at eye level [7]. This suggests that when engaged in designing in big scale, the effects of the good space can be reached through considering the eye level perspective impact. A good space, rather than an aesthetic space, or better to say an aesthetically good space in the contemporary contexts, relies more on vibrant rather than on beautiful ground-floors.

The trend of reinventing ground-floors has become a tool that is used by local governments to define the atmosphere and to plan the flow of an area, but also to shape the city in aesthetic terms. One example is the refurbishment of Rotterdam’s ground-floors in 2000 through optimizing the original setup of the

Vissenkomen Pendrecht. The open ground-floors, which were originally design as entrances to porches, became rather vacant, thus insecure, due to the diminishing of households with children that used to use this space as their playground. Introduction of the glazing in the ground-floor level enabled to make a clear distinction between public and private, thus contributing to the safety through good design [8].

Another moment of human influence on architecture is expressed through what we know as human proportions — an essential norm in architectural creation. The Vitruvian figure brought by Da Vinci as an interpretation of the description given in the Vitruvius’ treaty “10 Books on Architecture” in this step sets the anthropomorphic foundation of architecture. Even today, according to Zöllner [9], many people would better understand the size of a building if they would be explained through numerical figures, i.e., X palm high, X feet wide, X head or X steps long.

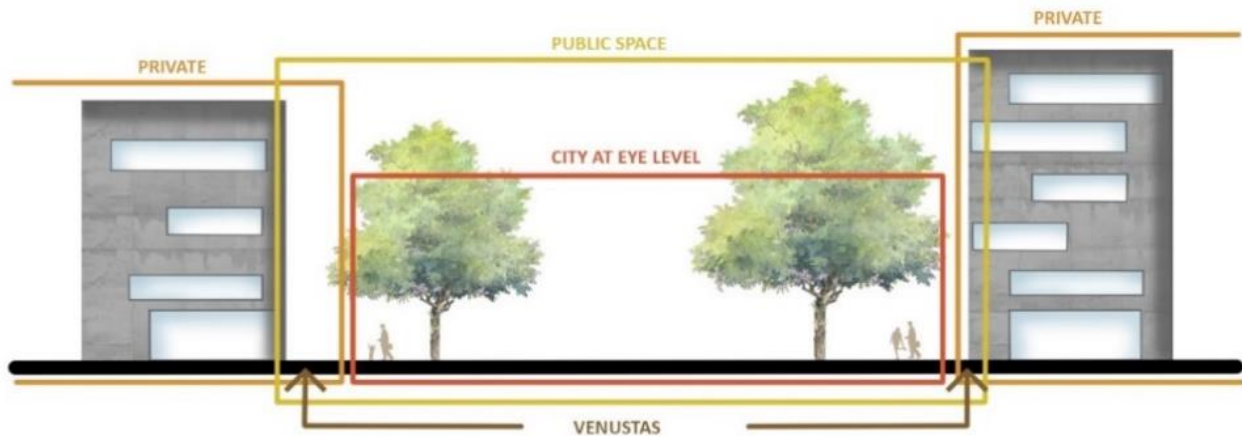


Fig. 2 Aesthetics of space — Based on “the city at eye level” (Glaser, Vant Hoff, Karssenbergh, Laven, Van Teeffelen).

According to him, these are the concepts of the measurement we are born with. However, the presentation of metric dimensions puts a limit on the way we describe the world [9]. Zöllner states that renunciation of man as the measure of all things was further reinforced by the introduction of the meter in the 19th century, he discusses that although the human body was still occasionally compared with the building

and its parts, the importance of architectural anthropomorphism was on the wane, even as a nonbinding metaphor [9]. Human proportion in architecture continued to be valid throughout the pre-modern period, e.g., Le Corbusier’s modulator. Even today great architects talk about small houses based solely on human proportions and return from open-concept offices to healthy offices for an individual

worker. By having a standardized concept of every humanly used space, it is made sure that these spaces will be used and that they represent life. However, the civilization of each place has always been influenced by the geographic conditions, the characteristics of the area where civilization develops and shapes peoples' intellectual and lifestyle culture [10]. To encapsulate, good design at eye level is what contributes to the aesthetics of the place, thus the city, together with the people and their anthropomorphic comprehension of mass, along with their social dimension expressed through daily activities. Aesthetically good space in this sense is what takes to accommodate one's inner fulfilment and the sense of belonging.

4. Conclusion

In this study, we argue that the changing context of the living space calls for the repositioning of certain norms that enable architectural creation to be meaningful. With Vitruvius being still discussed as a potent starting point in theorizing our living environment through the well-established norms that define good architecture, the paper has tried to define certain attributes of complex problems we face, rather than to redefine his classical norms. Three issues attributable to the Vitruvian triad in this paper are identified through the anonymous user and consequently the anonymous architecture and the anonymous city being the tendencies of our era; sustainability of the living environment alongside sustainability of architecture, for which the paper argues that should be viewed through the lenses of design improvement in spaces in-between buildings, and third, the aesthetic of the space that instils the sense of oneness.

Today, the increase in number of spaces designed for the anonymous user has brought human in secondary importance in design. For many urbanists and architects today, the production of space is a simplified response to certain problems that need to be solved driven by the need for uses (utilitas) while undermining

the complexity of needs including the non-use ones which makes the place not only accessible but also just to all. Primary concern of design in this respect is mainly focused in public spaces, while the extend of human living space is far more complex. The public space and its sustainability being the goal of a good design is recognized in both physical and social domains. Many researchers suggest that social sustainability is integrated when there are necessary, optional and social activities conducted, yet, not only in squares and other open public spaces, because the firmness (firmitas) of sustainable living space is achieved when considering equally precociously the space in-between buildings, neighborhoods, and other intimate places where human interact. The aesthetic of these spaces is the third norm that needs consideration given the fact that the aesthetic perception plays a crucial role in how acceptable and how inviting will they be. Based on Karssenberg & Laven, a good space, rather than an aesthetic space, or better to say an aesthetically good space in the contemporary contexts, relies on a good design and its impact in the eye level perspective. In other words, the norm should entail more vibrant rather than on beautiful ground-floors. The opposite of vibrant spaces tends on amnesia. According to Norberg-Schulz, there is the risk of losing the sense of belonging, therefore, architecture needs to accommodate above all one's inner fulfilment, and one way is through adjusting to the norms of a more humane living space.

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