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Grammar, Semantics and Dialects in Architecture

Abstract

Many aspects of architecture (style, ornaments, urban planning etc.) are symbolic in nature, resulting in similarity between the art of erecting structures and language understood as the relationship between *signifié* and *signifiant*. Hence, architecture has its own grammar, semantics and dialectic variants. The grammar is expressed in the context of articulation form and pattern language. The semantics can be found in the relatively more superficial aspects like metaphors likening this branch of art to books or the owners of specific buildings in their appearance or demeanour. Such an approach is shared across centuries and can be found for example in ancient and Victorian texts. Additionally, the message conveyed by buildings and structures might serve as a form of propaganda while many elements like styles, ornaments and locations depend on the ideas expressed by the architects and the founders. This aspect is common to various ideas, beliefs and societies, whether consciously or subconsciously. Moreover, the realisation of different styles of architecture varies depending on the times and the specific needs of the community in which a particular building is erected in the same way language may vary depending on similar factors. Thus, architecture presents the same qualities that are expressed by various dialects.

Keywords: architecture, propaganda, semantics, grammar, dialects, language, metaphor, pattern language, form language, Gothic style, Nazi Germany, Jesuits

Even though the relationship between language and architecture has been explored, the context of actual linguistic theories is often ignored. Yet, many aspects of architecture—including ornaments, styles and urban planning—are symbolic in nature. The meaning incited by specific decorations, styles or locations is arbitrary and can be understood in a given context which means the relationship between such features is similar to the relation between *signifié* and *signifiant*. Hence, different messages can be deciphered from the buildings and their meaning depends on the ability to read their contexts, forms an iconography. This means that architecture has its own grammar and semantics and, what is more, different realisations of a particular style found within various communities may be perceived as a form of dialects.

Grammar in architecture may be understood in several ways. Each and every building consists of specific elements including walls, roofs, windows, entries, ornaments, articulation or floors. The more complex a building is, the more elements it requires—similarly to phrases and sentences within a particular

language. It is then possible to create a metaphor combining these two domains. A building consists of specific materials like stones, bricks, wood, steel concrete, etc. in a similar way to sentences consisting of various morphemes. Then there are whole elements creating an actual structure like walls, ceilings, roofs, windows, entrances and other fixtures which can be likened to lexemes. The way these elements are put together and the choice of ornamentation determine the architectural style of a building. Different types of such elements, different kinds of ornamentation and the general locations of such elements influence the architectural style of a building whereas different words, terms and phrases might change the language style. Yet in both domains such variants require certain rules in order to ensure a proper structure, clarity and stability.

There are two complimentary sets of rules and solutions used as guides in architectural design which are referred to as languages: a form language and a pattern language. Salingaros and Mehaffy ([2006] 2008: 220–239) wrote that a form language in the context of architecture refers to putting materials according to geometrical rules while building a structure. This aspect is visual and arises from materials which are available within a specific environment. The materials themselves may indicate in what climate a specific structure was erected. A building constructed of wattle and daub suggests an environment with specific types of plants with twigs that could be intertwined with each other and an igloo suggests that it was made in a cold environment with a large quantity of snow. A form language also depends on a particular architectural tradition or a style to which it corresponds.

According to Christopher Alexander (1977: X–XII), a pattern language is a method of describing good design practices or patterns of useful organization within a field of expertise. Alexander (1977: X–XII) noted that pattern language is a type of language which the author distilled from his experience in building and planning and it is suggested that such language may be used by everyone. The language is divided into entities known as patterns and each of these describes a specific recurring problem in a specific environment. These entities also include the solution to the mentioned problem so that one may use it each and every time the problem occurs. Each and every pattern consists of:

- a picture of an archetypical example of the pattern;
- an introductory paragraph with a specific context of the said pattern and an explanation how it is supposed to help with the completion of larger patterns;
- a headline emphasizing the essence of the said problems (in a sentence or two);
- the body of the said problem with the empirical background of a pattern while showing why it is valid, and the range of manifestation of the described pattern;
- the solution (understood as the heart of the described pattern) describing the area of social and physical relationships which are a requirement for solving the described problem;
- a diagram;
- a paragraph which shows the relationship between the pattern with all smaller patterns required to complete the said pattern.

This specific order helps with maintaining clarity while showing the connections between the used patterns and presenting them as a whole.

in short, no pattern is an isolated entity. Each pattern can exist in the world, only to the extent that is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it and the smaller patterns which are embedded in it (Alexander [1977: XIII]).

Salingaros and Mehaffy ([2006] 2008: 220–239) also mentioned that not each and every form language may be adapted to human sensibilities and in such situations it will not be able to connect with a pattern language. The lack of connection between pattern and form language results in an environment considered as alien.

Another aspect shared by both language and architecture is articulation. In language articulation is the manner in which words and phrases are articulated and sounds are produced whereas in architecture articulation revolves around distinguishing spaces in order to emphasise different functions of particular parts. Articulation may refer to the distinction (or lack of thereof) of rooms within a building—whether said rooms are clearly defined and separated from each other—or to walls and the ways they are divided through their architectural elements. In other words, all the rules that have to be implemented in order to erect a building are similar in function to those required by languages—hence architecture indeed is guided by architectural grammar.

Architecture can be also studied in the context of semantics since it has been used to express ideas, attitudes and values of founders and benefactors throughout centuries. Different styles, ornaments, compositions have been attributed to different phenomena and ideas since the antiquity—for example Marcus Vitruvius Pollio ([30–15 BC] 1874: 11) in his work *The Architecture in Ten Books (De architectura)* elaborated on the architectural orders in the context of temples. Hence, temples of the Doric order are built for Mars, Minerva and Hercules because they denote valour and are associated with masculinity. Hence they lack delicate ornaments. The Corinthian order is then intended for Proserpine, Venus, Flora, and Nymphs of Fountains because they are more slender, elegant and rich in their decoration. Vitruvius ([30–15 BC] 1874: 11) noted that the leaves constituting to their decorations are analogous to the dispositions of the deities. The Ionic order is a medium between these two and used in temples built for Diana, Juno, Bacchus and similar gods and goddesses. The decoration is less rough and more slender and delicate than the one in the Doric order but does not match the richness of ornamentation of the Corinthian order. In the presented example certain ornaments then are associated with femininity and masculinity—hence they are believed to carry a specific meaning and therefore should be used in a suitable context, similarly to gendered nouns in certain languages.

Yet some researchers claim that buildings might be able to carry deeper meaning. According to Kaufmann (1987: 30–38), Victorian theoreticians believed that buildings were able to convey a meaning directly and precisely, similarly to books, paintings or even orators. Such meanings referred to elements beyond a building itself and architecture was recognised as a representative form of art. In the Victorian period the concept of Truth was also important which was often mentioned in the debates on the medieval churches or the designs of railway stations. Such notions could be found in Ruskin's "Lamp of Truth" or Pugin's "True Principles". Kaufman (1987: 30–38) claimed that the concept of Truth reverberated throughout the whole period with obsessive intensity. Yet it could also be a manifestation of a deeper concern of architectural meanings which could differ from each other, depending on the society, time, architect, dwellers, materials, or the building's function. Kaufman (1987: 30–38) also noted that according to the theoreticians and architects from the Victorian period a metaphor was one of the best ways to convey a meaning and the most common metaphor used in such context was the one suggested by Victor Hugo—a building as a book. G.R. Lewis (1842: 1), who was an advocate of extreme forms of ecclesiastical symbolism, claimed that in the times when Christianity did not have any form of press assisting its promotion, there was a need to convey the Word of God quickly through a language created

for this specific purpose. Therefore churches were designed with intelligence, as books in which the community could read the Law and the Gospel. Lewis (1842: 1) assumed that if architects would follow his advice, the churches of England would become the tools for communication with God, as they were intended to be.

It is also believed by some researchers that a building might reflect its owner. Ruskin (1903: 79) extensively elaborated on different types of ornaments. In his book he noted on three different windows with different frameworks and mentioned that they suggested what kind of person may dwell in a building which contains a particular kind of windows. Thus, according to Ruskin (1903: 79), the first window indicated that the building was a habitation of the man of imagination, the second one the man of intellect and the third one the man of feeling. However, the author suggested that there is a set principle that would help evoke a specific association since everything depends on imagination and perception of a specific person. Ruskin (1903: 79) also wrote that a villa in the Elizabethan era is a humoristic, odd, distorted, independent entity with a large quantity of mixed, obstinate and sometimes absurd originality which presented the satirical capture of the English national traits. However, Kaufman (1987: 30–38) noted that such similarity is not mimetic but it is in fact a specific abstraction based on stereotypes. Such phenomenon might be observed in the context of the analogy to the theory of physiognomy—one's nature can be reflected on their facial features (a known motif typical for Victorian novels). If a human face is then replaced by a facade of a building, then the metaphor can be also understood as the beginning of an architecture theory. In this case Ruskin's facade of a villa represents its owner in the same way he or she is represented by his or her face—not mimetically but according to an established lexicon of such equivalents. Kaufman (1987: 30–38) also mentioned that Ruskin often emphasised the value of representation within buildings also in relation to their structure. For example, a pillar needs a base since otherwise its structure would not look safe even though in fact the pillar would not need a base. Ruskin claimed that it is important for a building to appear as safe since safety is one of the most crucial parts of good architecture.

The examples mentioned rely more on metaphors and relatively superficial associations. Yet the concept of Truth leads to another layer of semantic interpretations of architecture, relating to subtle forms of propaganda. According to Watkin (1979: 154–178) Pugin (1843: 6) in his publications claimed that the Gothic style was in fact not a style but a principle and the Gothic architecture was one of the invariable truths of the Catholic church. The architect also debated on the possibility of architecture being true or false, morally good or evil and the need to show its structure and function and use natural materials. Such doctrine had a great influence on other architects like Carpenter, Street or Butterfield—as well as a larger part of the Anglican Church—and was used in the restoration of the Gothic style with the specific, intellectual force in the 19th century. At the same time Pevsner (1976: 385) wrote that Pugin (1843: 6) changed the equation between the Gothic style and Christianity into an architectural theory and practice and wanted to create an ideal Christian society. For him erecting structures in the medieval forms was a moral obligation. Since a medieval architect was a reliable worker and a faithful Christian and the medieval architecture is good architecture, one has to be a reliable worker and a faithful Christian in order to be a good architect. Another metaphor typically used in the context of architecture was recognising the surface of a wall as the elementary basis of architecture just like canvas is a basis for a painting. According to Lewis (1842: 1), a building should be both intelligent and truthful. At the same time he assumed that

architects should focus mainly on including truth in their designs instead of the absurdity which has been distorting churches and chapels throughout the last centuries.

An interesting example of religious propaganda might be found in Wrocław—the University Church of the Holy Name of Jesus (built between 1689–1698) which accompanied the edifice of the University of Wrocław. The style of the building itself is telling when it comes to semantic value of the building since it is a typical Baroque church—and the Baroque style is known for its Counter-Reformative message. Lec (1995: 21) wrote that during the times both buildings were erected the city remained under the German occupation and the city dwellers were mostly Protestant. Hence there was no Catholic church within the centre of the city until the Jesuits were allowed to erect their buildings. Apart from the architectural style and the historical context its location itself carries a message as well. According to Dziurla (1997: 32–33), it is an expression of the Jesuit *commoditas* revolving around their missionary activity. The main entrance of the temple is located in the south-western corner which closes the main route. Consequently, the church is clearly visible from the centre of the city and serves as an invitation.

One of the most popular examples propaganda deeply rooted within the very design of buildings and structures is the Nazi Germany architecture which derived its forms and meanings from Ancient Rome. The Nazi buildings were supposed to convey the sense of strength and permanence throughout their monumentality and the connotations with the Roman Empire which used to spread throughout the whole continent in its peak. Robert R. Taylor (1974: 1) wrote that the idea of German or National Socialist architecture emerged decades before the Second World War. After the unification of Germany in 1871 the right-wing radical nationalists wanted to strip German culture and society from either modern or foreign aspects. Such concepts became more prevalent during the times of the Weimar Republic. The nationalistic views influenced architects and writers like Paul Schultze-Naumburg, hence instead of applying modern designs they focused on the more traditional and German building types. Later, they decided that the stark and geometrical styles were the most suitable for the beginning of the twentieth century. Heavy decoration and neoclassicism were dismissed by Walter Gropius and the Bauhaus school since they assumed that such styles only imitated structures from the past while completely ignoring new materials developed during the later centuries. Even though later in the century the avant-garde architecture was more accepted, it was disliked by some nationalists and seen as ugly, impractical, cold and inhuman. What is more, according to them this architectural style had connotations of revolution which was found threatening for Germany as a whole. Some nationalists assumed that blank facades and stark lines were much more German than the style proposed by Bauhaus. Alfred Rosenberg promised then that the return to German standards of female behaviour and lack of foreign influence in the field of art would result in developing a German style. The architects leaned strongly towards the traditional styles and often accepted commissions from the newly established Nazi government, especially in the face of massive unemployment being a result from economic failures of the Weimar period. The Nazi buildings were monumental and were supposed to impress the masses. The new buildings were supposed to show the society that the thousand-year Reich just begun and the styles that were associated with other ideologies were denounced as undesirable. The most typical aspects of the Nazi architecture—despite its eclectic nature—were “neoclassical colonnades, enormous porticoes, horizontal lines and rectilinear appearance emphasised with heavy cornices and rows of thickly framed windows” (Taylor [1974: 12]). Apart from the monumental and stark structures a specific symbolism was also present in the form of eagles with wreathed swastikas, free-standing sculptures and heroic friezes, along with quotations from *Mein Kampf*.

The Nazi architecture was then supposed to be didactic and theatrical while the masses—the *Volk*—were supposed to be a unified part of the great theatre constructed by the government through the architects. One of the architectural aspects that aimed at teaching the idea of community were also half-timbered cottages which suggested the times that passed yet were considered as better than the present. Each and every building was erected in order to emphasise the importance of the German values and power.

It can be assumed that the architectural propaganda is still present within our times. Various cities and countries aim to present the best buildings designed by the best artists in order to show the prosperity. Burj Khalifa in Dubai serves as an example—it is known as the tallest building in the world and therefore it suggests vast richness of the city and the country in which it was built and the wealth of its dwellers.

Architecture may be understood as a form of dialect as well. Even though certain styles tend to be universally spread throughout countries and even whole continents, the architects from particular areas tend to incorporate their own ideas or transform the existing ones in order to adjust them to the needs and values of their communities. Hence, genuine, individual subcategories of particular styles had emerged. Gothic architecture, a style developed during the High and Late Middle Ages serves as an example. It emerged in France and was spread in Europe thanks to the Cistercians. Typically, the Gothic architecture was very vertical in nature—the buildings were slender, lean and soaring. Yet the English version of the style put more emphasis on the horizontal aspect of the buildings faces of which were screen-like in comparison. Crazy vaults are the other notable example of a feature distinguishing the English Gothic buildings from their continental counterparts. Usually, the European building used cross-ribbed vaulting and its other variants but the English architects usually introduced construction supports known as crazy vaults. The style had been adapted so well that according to some researchers its influences can be traced throughout centuries after the end of Middle Ages. According to Toman ([1988] 2000: 118), the wars with France influenced England in the way that the rivalry could be also seen in the Gothic architecture. Since the very introduction of the style the English chose to be independent and knowing the value of tradition they were trying to maintain their Anglo-Norman methods of building which were developed from the Anglo-Saxon architecture in the 10th and 11th century, and the Norman architecture since the year 1066. The only elements taken from the French architecture were the ones which could be adapted to the Anglo-Norman rules. The French Gothic had never been accepted as a whole as it happened for example in Germany in the case of the cathedral in Koln. Hence the English variant of the style had developed. In Toman ([1988] 2000: 121) it was also mentioned that almost all new chancels built in England featured right angles. Another typical features are: a thicker wall and smaller buildings in comparison to the French counterparts, lesser amount of flying buttresses (or lack of thereof), longer structures, more detail-oriented (Toman [1988] 2000: 134). The English architects were trying to create the greatest architecture with as many spans as possible. It is also rare for the English churches to have a western facade with a pair of towers (which is typical for French buildings). More typical are simple transverse facades with wide frontons also known as screen facades. Towers are then usually placed on its sides or beside a facade. Western portals are rare in the English variant since in England the main entrances are usually placed on the usually northern side of a church Pevsner (1978: 48) noted that not many things are as prominently English as the large English churches erected during the Middle Ages, under the rule of Henry V, Henry VI and Henry VII. The ones which were either built from scratch or almost from scratch are recognisable for their broad naves and aisles, high proportions, narrow vein-like and soaring pillars, large clerestory and side windows with beautiful grooves, long angle roofs (instead of vaults), long angular transepts and chancels

as well as wide windows in transepts and chancels and the Western part. The churches from this period can be considered as glasshouses. They are clean, bright, vast and mysterious. The impression they created was supposed to be always the same. At the same time the author added that this description is correct but one-sided since the vastness and clarity are not the defining features of the Perpendicular style with its interior. The ornaments were very repetitive but it created a contrast with the angularity of the later Gothic period, claimed to be the most English of the all Gothic variants. It was conservative; chancels were clearly separated from the main body of the churches and flat-ended. The separation of particular parts of a building was typical for English architecture as well. The differences in styles may be also noted between buildings created in different centuries since it is common for architectural styles to develop further. For example, the high Gothic buildings (the perpendicular style in England and the flamboyant style in France) are typically much more decorative and sophisticated with their refined tracery than the buildings from the early Gothic period. Thus the differences mentioned reflect the needs and mindsets of more local communities in the same way dialects reflect such phenomena.

In other words, there is no doubt that architecture has its own grammar, semantics and dialectal variants. It consists of pattern and form languages, includes articulation, carries several layers of meaning and displays different style variants in different cultural contexts making it akin to dialects. This phenomenon exists in various locations, cultures and time periods.

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