

DOI: 10.2478/auseur-2018-0010

## Architectural Theory and Analytic Philosophy in the Interwar Period<sup>1</sup>

## Borbála JÁSZ

Hungarian Academy of Sciences Institute of Philosophy, H-1094 Budapest, Tóth Kálmán u. 4. e-mail: jasz.borbala@btk.mta.hu

**Abstract.** The basis of the connection between analytic philosophy and architecture theory was developed in the interwar period. The results of analytic philosophy — especially the neo-positivism of Vienna Circle — and modern, functionalist architecture theory were utilized in an interdisciplinary approach. The comparison was based on language puzzles, science-based building processes, the method of justification and verification, and designing an artificial language in order to express the theoretical (philosophical) and the practical (architectural) approach as well. The functionality was based on the modern way of architectural thinking that relied on the results of Carnapian neo-positivism. Interpreting modern architecture is possible by referring to the keywords of logical positivism: empiricism, logic, verification, unity of language, and science.

In my paper, I first list the bases of the comparison between the philosophy of the Vienna Circle and the architecture theory of the interwar period – the Bauhaus and Le Corbusier. In the 2<sup>nd</sup> and 3<sup>rd</sup> sections, I show the dialectical succession between form and function. After that, I discuss the aesthetic verification of the turn of the century and the scientific justification of the interwar period. I focus on the interwar period with the positivist approach and the theory of the 'new architecture'. I emphasize the importance of the language of science and the machine paradigm – in contrast to historicism.

**Keywords:** analytic philosophy, facadism, Le Corbusier, modern architecture, Vienna Circle

This research was supported by the ÚNKP-17-3-III-BME-284 New National Excellence Program of the Ministry of Human Capacities. The paper was supported by the Hungarian–Lithuanian joint project 'Conception of Creative City within Central Europe: Historical Images and Empirical Indices' carried out within the framework of a bilateral agreement between the Hungarian and Lithuanian Academies of Sciences.

# 1. Introduction: Analytic Philosophy and Modern Architecture

After WWI, in the 1920s, a common intellectual, scientific worldview developed that influenced thinking as a whole in Europe. Due to these common roots, similarity may appear at several points between architecture and philosophy. The manifesto or proclamation was the characteristic medium of the era. Among the manifestos, we can find Le Corbusier's 'Toward an Architecture' (*TA*, in French: *Vers une architecture*, original edition in 1923) and Rudolf Carnap's 'The Scientific Conception of the World: The Vienna Circle' (in German: *Wissenschaftliche Weltauffassung: Der Wiener Kreis*, original edition in 1929), both of which reacted to the problems of society with the intention of developing solutions.

Considering questions of ethics in modern architecture, we can see the problems of methodology and verification and the interpretation of the concepts of good and bad. The issue of lies gains special importance in this context as a consequence of the moral dimension. Thinking about lies in architecture requires a common framework, and it reinforces the need for verification that is based on the method of natural sciences and laboratory tests. The issue of lies is articulated as a metaphysical question in philosophy and as styles in architecture. The solution in both philosophy and architecture is to be developed with the help of a unified language together with a clarification of the concept of language. Compliance with the criteria of verification is also necessary for accounting for lies in language and architecture.

In modern architecture, we can distinguish several understandings of science based on the method of verification. One approach is that of Le Corbusier's. In his *TA*, he unveils his thoughts about lies, verification, and language in addition to the five points of modern architecture. In Le Corbusier's writings on the aesthetics of the machine, the house, and the revolution, there are also those points in which the connections between architecture and science appear.

In the plans and the theoretic works of Le Corbusier and the Bauhaus, a common science-based architectural approach may be observed. This so-called classical modern style of the interwar period would be a dominant reference point for generations of architects. In my paper, I argue that analysing the philosophy of logical positivism in the 1920s is necessary for understanding the architectural tendencies after WWI and WWII. After the modernist era, the forms of ancient architecture appeared again for the second time in Central and Eastern Europe; first, in historicism and second in socialist realism in the 1950s. After socialist realism, the historical form language that is strongly associated with the Marxian worldview, a new way of architectural thinking emerged in the 1960s with a characteristic social responsibility which includes a fight against individualism. Anti-individualistic thinking was based on a scientific method of planning mega-

structures. We need to analyse the grounds for science-based planning and also the implementation of the model of house factories and house blocks.

Le Corbusier worked out the basic unit of these huge structures: the Domino structural plan. Dom-ino primarily refers to domino games but also to the Wittgensteinian language game (the dual nature of language. The duality of linguistic signs suggests that interpretable words are composed of meaningless sounds and letters.). Le Corbusier's approach can also be understood in terms of the analytic philosophy of the Vienne Circle (VC): (1) the planning method of the house blocks is based on science, and (2) these new house blocks need to form a calculable, perspicuous, and transparent system as well. Le Corbusier's Ville Radieuse was the prototype of the mechanic (or machinized) city, which operates in a regular order for inhabitants and provides a built environment for them. This is called the first machine age, and we can observe lots of similarities between the machinized city of the interwar period and the late modern house block systems after WW2. The programmatic example of the ideal block house was planned by Le Corbusier: the *Unité d'habitation*. This work opened the door for the style of new brutalism that resulted in the functional and objective socialist house blocks. The scientific calculations of rooms in a house were based on the methods of usage.

# 2. Aesthetical Verification in Architecture at the Turn of the 19<sup>th</sup>-20<sup>th</sup> Centuries

One of the focal points of architecture in the 1920s is the issue of the house. The way of understanding the concept of lifestyle in the age of historicism is an important antecedent in the analysis of the problems arising in connection to that. In the 19<sup>th</sup> century, the layout of a bourgeois house and the flats in it were formed on the basis of the basic principles of representation. In such houses, the spaces of economic (practical) importance were given less or no emphasis at all. The external appearance of these buildings evoked the images of Renaissance and Baroque palaces. At the end of the 19<sup>th</sup> century, a change took place in the form of the architecture. From this point on, secession replaced the historical style of historicism. The traditions of historicism survived in an architectural framework of completely renewed motifs but with practically unaltered house layouts and functions.

The styles at the turn of the century (from the Belgian-French *Art Nouveau*, the German *Jugendstil*, or the Austrian *Secession* to the Hungarian *Turn of the Century*) preferred a dynamic, ornament-based shaping as a form of criticism of the academic style of historicism. However, they only changed the ornamentation of the building, while the layout remained unchanged. The historical perception was questioned as

early as in the 1890s. Adolf Loos, Otto Wagner, and Hermann Muthesius were the three most influential architectural ideologists of the era. Against the total work of art (Gesamtkunstwerk) of secession at the turn of the century, Loos laid down his critical remarks in his parabola entitled 'The Poor Little Rich Man' in 1900. In his 'Ornament and Crime' (Ornament und Verbrechen, originally published in 1913) in 1908, he turned against the aesthetic principles of the Vienna Secession. Loos's most important argument against the use of ornamentation was prodigality, the uselessness of the labour force and the material, leading to the craftsmen's slavery, which he explicitly called a crime. He criticized the use of ornaments on both ethical and aesthetic levels (Loos 1997). Loos pointed out the mendacity of the architecture of historicism in 'Potemkin Village' (in Russian: Потёмкинские деревни, originally published in 1898): 'Whenever I stroll along the Ring, I always feel as if a Potemkin had wanted to make somebody believe he had been transported into a city of aristocrats' (Loos 1898: 153–154).

It is about a change which indicated dissociation from the forefront architecture of historicism and secession, and introduced an artistic-architectural style the main regulating forces of which were spaces and functions. It is important to see that Loos criticized both historicism and secession. In 'Potemkin Village', he presented his objections against the representative architecture of historicism. Thus, Loos presents the criticism of the criticism of individualism and arbitrariness of secession that turned against historicism (Frampton 1985: 119–121).

Loos also regards culture as a continuity where the creation of a model is an important aspect. In contrast with the *Gesamtkunstwerk*, he preferred anonymous designing. The notion of the anonymous designer complements the criticism of historicism, given that Loos, Peter Behrens, the master of *Art Nouveau*, Henry van de Velde, and Le Corbusier themselves were autodidact architects. This background may be important if we want to consider the criticism against traditional architecture by these architects.

Loos' architectural and theoretical work is a significant reflection on the problems of the culture (described by Friedrich Nietzsche at the end of the 19<sup>th</sup> century), and he also offered an attempt to solve them. It is interesting, however, that this kind of architectural and theoretical activity was not an isolated phenomenon, but it took place almost simultaneously everywhere in Europe.

### 3. Scientific Justification in the Architecture of the 1920s

After WWI, the development of scientific technology indicates such a complexity that it appears in both arts and architecture and also transforms the notion of crime to the issue of lies. In the architectural schools operating at the time, including the Bauhaus, the response to the fundamental changes was to initiate

a revolutionary movement with the intention to improve society. Lie as such became a problem to be solved because it hid the real issues of the era. Tension, as a result of the emptiness of the old values, demanded reforms; the new needs could not unfold as there was no appropriate constructed environment. The demand for reforms manifested in the attempt to remedy the determinism in the environment by its transformation, and by transforming the environment changes appeared in lifestyle, too. The new materials (iron, glass, and later on steel), the structures, and the desire to fulfil the demands came to the forefront, and a modern, unified material culture and style of an era began to develop, the most important features of which were cosmopolitism and scientific objectivity.

In the architecture of the 1920s, there were several approaches, depending on the scientific procedure they followed. There is a major difference between the architectural worldview of Le Corbusier and that of the functionalist Bauhaus. In the Bauhaus school led by Hannes Meyer, Carnap's direct influence dominated by virtue of bringing scientific criteria to the fore while denying the reason for the existence (*raison d'etre*) of the aesthetic aspect at the base of architecture (Galison 1990).

In the architecture of Le Corbusier, a similar scientific-technological view appears in a way that automatism and operationalism influence the architect as well. Scientific criteria determine the engineer's view dominated by mass production and industry. This requires the development of scientific criteria with the help of which current answers of general validity can be provided. Thus, the activity of an architect becomes similar to that of a scientist, working in a technological laboratory in a way that the method of verification originates from the quantitative methods of natural sciences (Le Corbusier 1927: 17).

At the beginning of the book entitled *TA*, Le Corbusier contrasts architecture with the engineer's aesthetics; the latter one is to hold the truth by virtue of its analysing method. The architect creates a world, relying on the laws of nature (Moos 2009: 59). His task is to find the line of force and the directional vectors of a form on the basis of pure geometry. It is the engineer who is creating the means of our era in the spirit of thrift, sanity, sturdiness, usefulness, morality, and harmony (Mallgrave 2005: 256). Therefore, the artistic products, the satisfaction of visual desires, and the questions of emotional phenomena do no longer constitute the standard. It becomes increasingly necessary to arrange primary forms originating from cubism, the dominant contemporary genre of painting, and to apply simple mass production and town planning based on it (Le Corbusier 1927: 33).

The major difference between Le Corbusier and the Bauhaus is that while Meyer, the 2<sup>nd</sup> leader of the Bauhaus School, rejects all forms of aesthetics, Le Corbusier attempts to unite engineering and artistic approaches since, in his opinion, an architect is pursuing artistic activities. All this resulted in a sharp disagreement with Meyer, under whose leadership the demand for scientific

approach became increasingly strong in the Bauhaus. In his answer to Meyer's criticism, Le Corbusier writes as follows:

Today amongst the avant garde of the Neue Sachlichkeit, one killed two words: Baukunst (Architecture) and Kunst (Art). One has replaced them by Bauen (to built) and Leben (to live) <...>. Today, where mechanization brings us a gigantic production, architecture is above all in the battleship, as in the conduct of war or in the shape of the pen, or in a telephone. Architecture is a phenomenon of creation, according to an arrangement. Whoever determines the arrangement, determines the composition. (Frampton 1985: 210–211)

From Le Corbusier's reaction, we can see that in his opinion science-based architecture is present in all spheres of life, and, at the same time, it carries an aesthetic value as well. Mass production made it possible to create an order, and later from this order a composition bearing features of graphic art.

# 4. Language of Science and Architecture of the First Machine Age

Le Corbusier's *TA*, a selection of essays edited jointly with Paul Dermeé and published in *L'Esprit Nouveau*, has to be interpreted in its scientific-social context (Mallgrave 2005: 255). The structure of the book is rather problematic due to the way it was compiled. The two most significant interpretations are attributed to Christine Boyer and Reyner Banham. Let us turn to their ideas now.

The main issue is how an architect should shape a house so that it can be like any other machine, like the ones designed for transport, such as an automobile, a plane, and an ocean liner. Boyer emphasizes Loos's exemplary role, since we know that Le Corbusier read two of Loos's significant essays entitled 'Ornament and Crime' and 'On Architecture' (in French: *Ornement et crime, Sur l'architecture*, originally published in 1908), which had a great impact on him (Banham 1960: 347). In his theory of the machine age, Le Corbusier further improved the criticism of Loos against modernism, according to which modern ornamentation no longer included ornaments but pure forms and structure, and thus we can speak of the aesthetics of the engineer based on scientific criteria. Furthermore, there are various interpretations of the architectural revolution; Boyer points out that Le Corbusier's interpretation of the revolution is taking place on three levels: industrial, social, and moral (Boyer 2011: 535). Boyer enriched the research with a new aspect since he also analysed what writing meant for Le Corbusier. By writing, as a way of thinking, the work of an architect may be compared to that of

a scientist working in a laboratory. A scientist who carries out research, justifies her methodology, and finally fits the findings into their system of thinking.

The other important commentator is the English architectural historian, Banham. He divides Le Corbusier's *TA* into academic and mechanistic units in his book entitled 'Theory and Design in the First Machine Age' (original edition in 1960). The academic part focuses on the elementary geometrical forms, whereas in the second, mechanistic part he lays the foundations for Le Corbusier's problem of moral attitude. This is the part where he discusses the aesthetics of the engineer, the automobile and the plane as well as architecture and revolution. I will also discuss this part since this is where the issue of lie and truth may be best understood.

The focal point of the work is the aesthetic and moral demand by which one can restore social order by relying on the means of architecture (Banham 1960: 223). Le Corbusier regarded architecture as an artistic activity, but the basis for this idea needs to be revealed and described. Most interpretations ignore that architecture is an art form with its own traditions, and not merely a science (Watkin 2001: 12). According to Le Corbusier, the engineer and the artist need to work together, and this argument is explained in his *TA* (1927: 17). Looking for the bases is carried out in two directions. One major aspect is that an architect has to be able to satisfy social and mass demands. The other aspect is that the appropriate formal bases have to be in his possession. It was the role of fine arts to provide these bases, as we know that Le Corbusier himself painted in the genre of cubism; painting played a constant role in his architecture. The pure geometric forms, the structure behind the visible will be the means with which Le Corbusier reveals the timelessness of the relationship between contemporary architecture and antiquity – thus, we arrive at the analysis of the role of language.

In order to define the task of architecture, we need another important component: the clarification of the language of architecture. In Le Corbusier's opinion, it is the American engineers (not the American architects) who can develop a pure, geometry-based architecture: 'Architecture has nothing to do with styles" (Le Corbusier 1923: 37). The form of expression in architecture, i.e. the language of architecture, can be found with the help of volume and surface, which are determined by a plan. These elementary forms are the most beautiful forms since they enjoy social consensus – everybody agrees that they are clear and free from contradictions. In TA, they are symbolized with the designs of grain elevators and barns. Going further, however, we can once again arrive at the apotheosis of anonymous architecture (Vigato 2013: 35).

The ideas of getting rid of ornamentation and returning to geometry originate in fine art. In painting, a similar trend may be witnessed; the effort to show structure behind the perceptible. It may also be due to Le Corbusier's painting practice that he considers the process that takes place in painting, resulting in

the appearance of the style of Cubism (the reduction to basic geometric forms), as the task of architecture (Le Corbusier 1927: 41). Here we can witness the working of purist machine aesthetics; the priority of the architect is the fulfilment of the empirically defined functionalist demands and the use of abstract elements that affect the senses and nourish the mind (Banham 1960: 229–230).

Regarding the language issue, similarities can be observed between the philosophical methods of Le Corbusier and the VC. For Le Corbusier, the language problem appears in the definition of the engineer's aesthetics and in the task and method of architecture. The clarification or reduction of the language means a kind of demand for universality, which the architect satisfies with the introduction of a military language as an artificial language. Its most important task is to clearly identify the concepts it uses. A similar process can be observed from the philosophical perspective. Le Corbusier connected science and language, indicating that it is primarily the role of the language and then that of the science to create the constructions (e.g. flat, house, city, etc.) of our concepts. Truth can never be achieved. It merely remains a belief, just as the purpose of our words is ungraspable by language. The philosophers of the VC, especially Carnap (2003) and Schlick, demanded that the truth of a statement needed to comply with certain linguistics and the conditions of verifiability together with being well-formed in linguistic-logical terms. All this can be achieved by reducing the linguistic phrases to empirical phrases. Since the concept of language is ambivalent, the traps of natural languages can be avoided by expressing the statement of sciences in an artificial language of logic (Richardson 1988: 199-201). Therefore, in the case of both architecture and philosophy, an artificial language is needed by which the truth of our statements can be revealed in an objective way.

### 5. House Machine as the Principle of To-Morrow's City

Le Corbusier used the automobile to indicate the creation of the aesthetics of the machine age in the most descriptive way. With the cessation of decorum, a new idea will control contemporary architecture and system of thought: it is called machinism (Le Corbusier 1927: 117–119). The problem of a house should be approached as that of an automobile, which bears the norm of standardization (Mallgrave 2005: 258).

The automobile is the top achievement of the engineer's aesthetics, the direct Le Corbusier-type analogy of which is the *Maison Citrohan*, in whose name it refers to the car brand: Citroen. In Le Corbusier's opinion, the plan of *Maison Citrohan* accurately defines the criteria of a modern house. The name hides a language puzzle. Using a car brand name, he indicates that the house needs to be as standardized as an automobile. The house that is regarded as a tool has to fight

against the old house concept because the old concept of house used space in an inappropriate way. An automobile or a ship cabin should be the template for a house in both the planning and the building process. Thus, this type of house is made up of units of floor-space, the so-called *objet-tableau*. They have to rely on the means of technical and industrial development, by virtue of which outdated ways of thinking can also be changed. According to Le Corbusier, it is no longer the ornamentation but the proportions that carry the beauty, which is present in all parts of the building that is shaped by modules (Le Corbusier 1927: 219).

The formation of the norms later had great importance in Le Corbusier's theory since they are the ones that architecture can actually affect and that are created by means of logic and analysis. However, there are two other components of norms, as well: the economic and social necessity (Le Corbusier 1927: 135–138). Social architecture itself is not yet the means by which changes in social classes may be achieved. The architect has to pay attention to the fact that although social representation is no longer an objective, the institution of servitude has not disappeared, and thus it must be taken into account in the planning. The architect is especially proud of the solutions where the economical arrangement of space 'is accompanied with the hygienic aspects and the placing of the personnel (service quarters) does not violate their human dignity' (Le Corbusier 1927: 117–119).

Rejecting ornamentation becomes a symbol of a pure mind. This is embodied in Le Corbusier's machine paradigm, which expresses an era when the foundations of the ideal of an ornamentation-free architecture had to be laid down (Frampton 1985: 123–126). The house, or, more precisely, the villa, is the basic unit in the Le Corbusier-type modern architecture. The direction of development proceeds from smaller to greater, from interior to exterior, thus starting from the house and its furniture, fixtures, and fittings.

The cell-like construction plays an important role in Le Corbusier's town planning as well, which attempts to solve the most pressing issue, the housing problem. Otto Neurath's work also belongs here, who – as a member of the VC – gave lectures in the Bauhaus as well (Dahms 2004). The common issue is to solve the problem of urbanism and to construct the city built from flats as the smallest units. Neurath wanted to present solutions for people with poor housing conditions by analysing the social aspects of town planning (Vossoughian 2011).

A more detailed explanation of the machine paradigm can be found in the 3<sup>rd</sup> chapter of Le Corbusier's 'The City of To-morrow and Its Planning' (original edition in 1929). The spread of machines in great numbers induces moral changes. Ships, automobiles, and planes do not only change the aesthetics, but they also change the rhythm of life. The industrial development and the mass influx of materials replace manual production methods (Le Corbusier 1987: 31).

To summarize, Le Corbusier's reaction to the development of scientific

techniques in architecture is analogous to the scientific concept of the VC. The machine-induced changes in the science of construction are of revolutionary significance since Le Corbusier's famous 'five points of architecture' (regarded as the basic principles of contemporary architecture) are based on them (Le Corbusier, Jeanneret 1926).

### 6. Against Historicism

In order to reveal the relationship between architecture and revolution, we have to examine the moral level of interpretation, mentioned by Boyer as well. Le Corbusier's *TA* begins as follows: 'A question of morality. Lying is intolerable. We perish by lying' (Le Corbusier 1927: 13).

This statement can be understood in two ways: 1) as the radical criticism of the style of historicism, demonstrating that Le Corbusier regards styles as morally wrong, in terms of being lies; 2) the second reading in a figurative sense refers to the house and its reforms. The house as the most fundamental means for human life needs to be a replaceable item of personal use. The architect discovers an ethical momentum in the act of disposing the old item and replacing it with a new one (Le Corbusier 1927: 18).

This criticism may also be observed in the philosophy of positivism of the era. The connection between ethics and truth appears similarly in Moritz Schlick's work (1939). It is exactly this ethical momentum of cognition that leads us to the issue raised by Le Corbusier at the end of his book *TA*, in the chapter 'Architecture or Revolution' (in French: *Architecture et revolution*, original edition in 1922). The revolution takes place on two levels: ethical and architectural.

Therefore, the main question of the modern era is both an ethical and a formal question. The problem of using historical forms has to be solved, and the choice between styles is yet to be decided (*In welchem Style sollen wir bauen?* (In what style must we build?)), together with some related new issues (Hübsch 1828). Le Corbusier developed a technical-social reference system, the starting point of which was an anonymous or industrial architecture with social and ethical characteristics. Scientific rationality, with which Le Corbusier's architecture can be defined, means the transfer of technology into architecture and urbanism (Düchs 2013).

In the chapter called 'Architecture or Revolution', Le Corbusier speaks about the family module and the mechanism of a family. The family may be considered as the unit of society, whereas the flat is that of architecture. According to Le Corbusier, our 'old machine', in which we live, needs to be replaced with the new machine because the role of the house is to comply with the needs of its inhabitants, and it has to be the scene where the individual reproduces themselves. Therefore, we need a house where all this is guaranteed, and it may

become possible with the help of architectural means. Houses have to be seen as machines as they produce and reproduce; their task is to fulfil the needs of individuals and the society. Revolution thus means no chaos; it symbolizes the solution to a crisis (Le Corbusier 1927: 254–255).

I think that we may discover similarities between the criterion of compliance with the needs in architecture and the criterion of verification of the VC. Le Corbusier attains universal statements through the artificial language that he creates, and it can be understood as the parallel of the definition of the truth of verificationists. This can be observed in the reduction process used in both cases. The essence of the reduction is recirculation to basic units – without any decorations and stylistic elements, which do not show the structure. Le Corbusier declares that hiding the structure is equal to a lie. Thus, from the lies that styles imply – through reduction –, a language of elementary forms is born, and its truth can be examined.

Architecture is in disarray, according to Le Corbusier, but there are substantive laws available from classical geometry. The process of mechanization that he favoured does not follow these laws directly but redefines them and creates harmony between classical laws and mechanization. Therefore, 'toward an architecture' means that we should rediscover again what is old in the new (Le Corbusier 1927).

The scientific doctrine of the era that influenced philosophy and architecture helps us understand aesthetics and find answers to the question what creates beauty in the machine paradigm. Therefore, our means is the clarified language, applying raw elements (e.g. cube, sphere, cone, etc.) and the basic laws of nature. Architecture has two missions: one is social and the other moral. With the application of a standard that is free from ornamentation and based on geometrical shapes, Le Corbusier attempted to comply with the modern demand of thriftiness. So far, our question about rationality and scientific criteria has been concerned with aesthetical and ethical aspects, but now it is extended to new social-economic aspects. Another characteristic feature of this kind of architecture is the inspiration by graphic arts. This is because plasticity – a characteristic of cubism as a visual phenomenon – is accompanied by new technical processes in architecture. Modern architecture is not ornamented; therefore, it is neither crime nor lie but the carrier of rationality by means of linguistic reduction, through correctness and justification.

After the Khrushchevian architectural turn (1954), new trends arose inevitably in city planning as well, and the  $2^{nd}$  machine age starts with the return and copy of modern elements of Le Corbusier's architecture theory and practice. The new 'from the helicopter' style of planning method fulfils the dream of Le Corbusier. Scientifically planned house blocks, prefabricated settlements were built, which were based on the same positivist approach that influenced architecture in the interwar period.

#### 7. Conclusions

In this paper, I analysed the similarities between analytic philosophy and architecture theory in the interwar period. The basis of this comparison was that the theoretical tools of analytic philosophy – especially the neo-positivism of Vienna Circle – and architecture theory were utilized in an interdisciplinary approach. Relevant elements of the comparison were as follows: science-based building method both in the case of architecture and philosophical theories, language puzzles that show the dual nature of language, the need for justification and verification, designing an artificial language to describe the new professional tasks, and fighting against historicism both in architecture and scientific thinking. In addition to this, I examined the form language as the central concern of architecture philosophy.

Analysing these elements is especially useful for understanding the architectural developments in the interwar period, the so-called 'classical modernism', and also for interpreting the theoretical works of Le Corbusier, the Bauhaus, and their followers. Their method was based on the idea that planning and building need to be reduced to the basic unit, which would be the main element of the new architectural form language. Only a limited number of architectural rules need to be added to these elements – such as in the case of language in logical positivism. After the brief Socialist Realist Gap due to the Khrushchevian architectural turn in 1954, the building of settlements continued by the same method as during the interwar period in Central and Eastern Europe.

### References

- BANHAM, Reyner. 1960. *Theory and Design in the First Machine Age*. London: The Architectural Press.
- BOYER, M. Christine. 2011. *Le Corbusier, Homme de Lettres*. New York: Princeton Architectural Press.
- CARNAP, Rudolf. 2003. *The Logical Structure of the World and Pseudoproblems in Philosophy*. Chicago and La Salle, IL: Open Court.
- DAHMS, Hans-Joachim. 2004. Neue Sachlichkeit in the Architecture and Philosophy of the 1920s. In: AWODEY, Steve–KLEIN, Carsten (eds), Carnap Brought Home: The View from Jena. Series: Full Circle: Publications of the Archive of Scientific Philosophy Hillman Library, University of Pittsburgh. Chicago and La Salle, IL: Open Court. 357–376.
- DÜCHS, Martin. 2013. Truth or Revolution: Scrutinizing the Interaction between Morality and Architecture with the Eyes of a Moral Philosopher. In: Duyan, E.-Öztürken, C. (eds), Interactions in the History of Architecture: Proceedings

- of the International Conference on History of Architecture (ARCHHIST'12). May 2012, Istanbul, Turkey. 275–284.
- FRAMPTON, Kenneth. 1985. *Modern Architecture: A Critical History*. London: Thames and Hudson.
- GALISON, Peter. 1990. Aufbau/Bauhaus: Logical Positivism and Architectural Modernism, *Critical Inquiry* 16(4): 709–752.
- HÜBSCH, Hermann. 1828. *In welchem Style sollen wir Bauen?* Karlsruhe: Müller [online], [cited on: 30 January 2018]. Available from: http://www.cloud-cuckoo.net/openarchive/Autoren/Huebsch/Huebsch1828.htm.
- JOSEPHSON, Paul R. 2010. Would Trotzky Wear a Bluetooth? Technological Utopianism under Socialism, 1917–1989. Baltimore: The Johns Hopkins University Press.
- LE CORBUSIER. 1987. *The City of To-Morrow and Its Planning*. New York: Dover Publications, Inc.
  - 1927. Towards a New Architecture. London: The Architectural Press.
- LE CORBUSIER/JEANNERET, Pierre. 1926. Five Points towards a New Architecture. Art Humanities Primary Source Reading 52 [online] [cited on: 28 February 2018]. Available from: http://www.learn.columbia.edu/courses/arch20/pdf/art\_hum\_reading\_52.pdf.
- LOOS, Adolf. 1997. Ornament and Crime: Selected Essays. Riverside, CA: Ariadne Press.
  - 1898. Die Potemkinsche Stadt, Ver Sacrum 7: 153-156.
- MALLGRAVE, Harry Francis. 2005. *Modern Architectural Theory: A Historical Survey, 1673–1968.* Cambridge: Cambridge University Press.
- MOOS, Stanislaus von. 2009. *Le Corbusier: Elements of a Synthesis*. Rotterdam: 010 Publishers.
- RICHARDSON, Alan W. 1988. Carnap's Construction of the World: The Aufbau and the Emergence of Logical Empiricism. Cambridge: Cambridge University Press.
- SCHLICK, Moritz. 1939. *Problems of Ethics*. New York: Prentice Hall, Incorporated. VIGATO, Jean Claude. 2013. Between Progress and Tradition. The Regionalist Debate in France. In: Meganck, Leen–Van Santvoort, Linda–De Maeyer, Jan (eds), *Regionalism and Modernity: Architecture in Western Europe*, 1914–1940. Leuven: Leuven University Press, 15–38.
- VOSSOUGHIAN, Nader. 2011. Otto Neurath: The Language of the Global Polis. Rotterdam: NAi Publishers.
- WATKIN, David. 2001. Morality & Architecture Revisited. Chicago: The University of Chicago Press.