SPECIFICITY OF ARTISTIC CHRONOTOPE IN CZECH CUBISTS ARCHITECTURE

SPECYFIKA CZASOPRZESTRZENI ARTYSTYCZNEJ W ARCHITEKTURZE CZESKIEGO KUBIZMU

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ABSTRACT
Starting from 1910 during two decades phenomena of Cubism was observed in Czech architecture. Irrespective of being so succinct, it was of great importance for the whole process of modernists architecture incipience. Questions from the architectural theory realm are considered in this article, devoted to phenomena of Cubism in Czech architecture in the context of artistic chronotope disquisition.

Key words: architectural chronotope, artistic time, Czech Cubism, Janak P., Modernism, time pattern.

STRESZCZENIE
Zjawisko kubizmu w czeskiej architekturze obserwowano w ciągu dwóch dekad, począwszy od 1910 roku. Będąc tak nietrwałym, jednak miało wielkie znaczenie dla ogólnego procesu rozwoju architektury modernistycznej. W artykule są poddane dyskusji pytania z dziedziny teorii architektury, poświęcone eksploracji fenomenu architektury kubizmu czeskiego w kontekście badań artystycznej czasoprzestrzeni.

Słowa kluczowe: czas artystyczny, czasoprzestrzeń architektoniczna, czasowe modele, czeski kubizm, Janak P., modernizm.
1. INTRODUCTION

The architecture of Czech Cubism, chosen as the object of study, is investigated by applying general scientific methods as analysis, comparison, systematic approach, etc.

The paper aims to:
1) describe characteristic of Czech Cubists architecture, investigating both material (examples of buildings, projects) and conceptual (philosophical ideas, which affected the style) aspects;

2) identify specific features of Czech Cubists ideology, based on exploration of P.Janak's theoretical heritage and evaluate the role of conjunction between temporal and morphogenetic factors in architectural practice.

3) distinguish specific temporal modality of Czech Cubism, generated by its artistic method and investigate relationships between philosophical paradigms of early XX century and their appropriate artistic interpretation; explore influences of innovative scientific paradigms on artistic conceptions formation.

Space and time reconsiderations, that proceeded in sciences and art in the first decade of the 20th century were reflected in theoretical works of P. Janak; projects, created by J.Gochar and J.Chokol. However, present studies on Czech Cubism in the majority are devoted to the history of the style development, its formal aspect and means of artistic expression exploration, while questions of conceptual basics remain poorly investigated. The notion of artistic time as a component of the morphogenetic process is absent in analysis of Czech Cubists architecture, that is why connections between artistic practices and philosophical, scientific ideas of the 20th century beginning should be rethought and investigated. Not only architecture but fine art, furniture design and sculpture were influenced by Cubists tendency - a resonance was evoked by its manifestation in artistic spheres. Pure, expressive and recognizable forms of Czech Cubism still remain actual, astonishing tourists of Prague and becoming an object of profound scientific researches. However, a specific formal aspect of Cubists architecture should be explained, first of all, by understanding its conceptual essentials.

Nowadays, examination of formal aspect of Czech Cubists architecture examples is not enough for understanding it implicit conceptual essentials, so as they belong to primary actant of architectural structure incipience, that includes the sequential number of time concepts reflections in history and culture. All acts of external "world time" are transformed into semiotic range and embodied materially in architectural forms [4, p. 87]. That explains a necessity of temporal category application: understanding of the metaphysical sense of time gives an opportunity to rethink the value of various cultural phenomena – and architecture among them, whereas architecture in its semiotic equivalent is one of the most sustainable and long-living structures, that reflects the outlook of different epochs. So, comprehensive investigation of Czech Cubism phenomena should include analysis of artistic chronotope item and methods of its incarnation in architecture – sphere, that was believed to be entirely "spatial" (but not "temporal") discipline for many centuries [12, p.66].

General studies on modernists architecture are based on books, devoted to the overall history of twenties century architecture - e.g. "Modern Architecture", written by A. Colquhoun [3], "Modern Architecture: A Critical History" of K.Frampton [7] and special sources, dedicated directly to Czech Cubism investigation. The sources of the theories underlying Czech Cubist architecture before World War have been only sketchily studied to date [18, p.2]. In 1979 the first investigation of Czech Cubism legacy was published - it was a monograph of I.Margolius under the title "Cubism in Architecture and Applied Arts: Bohemia and France 1910-1914", where connections between Cubism artistic conception and ideas of A. Einstein (who was teaching in German Technical University in Prague at that time) were superficially mentioned [14, p.27]. There was an attempt to deal in more detail with the influences and sources of the theory of Czech Cubism in researches, held by...
M. Lamarova, F. Burckhardt and O. Herbenová [18, p.11]. It was Czech art historian M. Lamác, who published a major recent monograph on the Czech Cubist groups: "The Group of Eight" and "The Group of Plastic Artists". In 1990 was published the work of I. Zantovska-Murray, based on an investigation of the diary, written in 1911 - 1914 by P. Janak - the progenitor of Cubists theory in Czech architecture.

Important for the research notion of "artistic chronotope" (in M. Bakhtin's definition) has been expanded from the realm of literature to spheres of sociological and humanitarian sciences; in our days it is widely used in researches of architectural and art critics. It should be noted, that there are no capital researches on chronotope issues of architecture: temporal aspects of architecture were analyzed in books of Z. Gideon [8] and A. Ikonnikov, the artistic value of some features, innate to time category, have been fragmentary considered in works of XIX-XX century art historians and architects as A. Hildebrandt, A. Loos [13], A. Riegl, O. Wagner, H. Wolfflin, W. Worringer. Philosophical context base of the paper constitutes works of H. Bergson [1], N. Goodman, A. Grunbaum, F. Jullien [11], H. Reichenbach and so on.

2. CZECH CUBISTS ARCHITECTURE IDEOLOGY

Artistic program of Czech Cubism, released in 1910 for the first time, contained theoretical principles of P. Janak, who formulated his own vision of modern architecture. Some aspects of this manifestation were implemented in projects of J. Gochar, J. Chokol, V. Hofman, that have no counterparts in the world [10]. The period of so-called Rondocubism began after 1920. It lasted for several years and from approximately 1925, Cubism was manifested only in separated decorative architectural details [6]. It should be noted, that stylistic language of Czech Cubism was formed in conditions of public awareness awakening, accompanied with searches of "national style", that could not be satisfied by previous, historical architectural tendencies - Eclecticism and Modern among them [18, p.7].

The principles of Czech Cubists architecture demonstrate externally resemblance to conceptions of French Cubists in the fine art realm, however, theoretical works investigation denotes on some considerable differences in artistic interpretation of Cubists methods. Furthermore, French Cubists or the fact of concordance with P. Picasso ideas have been never mentioned in diaries of P. Janak - therefore is suggested that Janak developed his own architectural method in an autonomous way [15, p.59]. Characteristic features of architect's creative searches were antinomies between declared and real directions of his activity: in spite of working with rationalistic methods, P. Janak was inclined to romanticize, expressive manner. Paradoxically, but dreaming about fantastic castles in the air, he designed clear and highly constructive architecture [18, p.5].

Because of it Janak was accused in both idealism and primitive naturalism and pure materialism by his contemporaries since he attempted to replace richness of humans creative potential by mechanistic laws of physics [18, p.6]. Obviously, that P. Janak elaborated his specific creative method, distinctive from conventional way of architectural design. Frequenty repeated in the theoretical researches, the notion of a drapery has become favorite Janak's metaphor: in contradiction to reliefs (results of gradual embossment), the drapery illustrates advantages of instantaneous modeling aesthetic. The drapery is more than simple fabric - was mentioned in Janak's diaries - it is an excellent example of material, visually transformed by movement, with the potential of every process integration [18, p.34]. As to architect's words, the whole area of material belongs to the drapery, but only important parts are visible - folds and wrinkles, that represent every action [18, p.35]. So, parts, saturated by life and properties of motion expression may be demonstrated by the drapery.

The drapery was claimed to be a mean of simultaneous realization of the morphogenetic and dynamic potential of the initially motionless material. No fabric can be actuated by
itself, but hundreds of folds are created owing to the lightest external motions. The action may be recognized from the tracks, caused by folding or unrolling the drapery. Every sign, caused by some motion is to be decoded from appropriate form creation: the drapery, negligently thrown on the floor noticeably differs from the drapery, outlines some object, which is wrapped in it. In fact, the drapery is simultaneously included in the proximate process of movement - and it is the material of movement representation, possessing dynamical potential, in contradiction to motionless marble or clay.

P. Janak experimented with creative potential of the fold in his numerous sketches and concluded, that treatment of a plane as a piece of fabric enable a new artistic and architectural approach to dynamical structures understanding, as it reveals features of latent motion, in contradiction of all previous spatial apprehension, which was deprived of dynamic [18, p.37]. The author was fascinated by the fact of connection between material's quantitative immutability and its qualitative transformations under the pressure of environmental circumstances. Besides, facility of movements imprints fixation was highly appreciated by Janak: properties of the fold are often criticized by modern sculpture because of three-dimensional attributes poor understanding. The new sculpture, as a relief, presents inclusion of different view points in one perceptive moment [18, p.38]. Thanks to such a superposition, inner sense of an object is revealing as the eternal artistic phenomena, therefore understanding of semantic connotations - both architectural and artistic - gains a meaning of structural process, based on complementary aspects, without the gap between functional and aesthetic features. In Janack's comprehension, facades should be treated as a kind of planning projection - and vice versa, the plan of the building was considered as a production of facade concept [15, p.61].

Unlike many others avant-garde directions, Czech Cubism avoided straight denials of previous centuries architecture value, however, it was not aimed to copy forms or to replicate precedent methods. Cubism advocated its own way of image creation, based on the combination of various time durations - each element might be conditionally "read out" without the extraction from its general context [6]. Such an access was positioned as a quite natural occurrence in Czech surrounding of the early 20th century, when specific of different artistic schools, nationalities, and divers temporal layers were combined. The principle of tolerance in historical styles treatment was implemented in the reconstruction project of Baroque residential building "Fahra House" on the central square of Peligrimov city, performed by P. Janak in 1911 [17] (Fig.1).

Czech architects of the early 20th century frequently referred to the visions from the past, discovering tendencies, concordant to their own progressive ideas. Application of the drapery allusion and references to the Janak's conception of "spatial life recording" illustrated the morphogenesis process as covering the building with a piece of fabric [18, p. 39].
In the case of "Fahra house", a stratum of the reconstructed building might be regarded as an autonomous structure or in synthesis with the previous layers - as a part of the general composition. Dynamical elements of original Baroque forms (e.g. tension, embodied in curvilinear ornaments, volutes) were transmitted into broken Cubistic planes (Fig. 2). Thus, an analogous visual effect was reached: the character of the old building was nimbly noted (Fig. 3) and presented in a new way without any direct connotations, denote details, innate to Baroque architecture (Fig. 4).

![Fig.3. "Fahra House" facade analysis": resistant structures 1) scale and basic dimensions of the building; 2) proportions, situation of window and doors openings; 3) general silhouette of the building. Source: drawing by author](image1)

![Fig.4. "Fahra House" facade analysis": interpreted elements 1) curvilinear structure replaced by polylines 2) dynamical cubistic planes instead of strained Baroque ornaments 3) asymmetric compositional element Source: drawing by author](image2)

### 3. FUNCTIONAL METHOD AS IMPLEMENTATION OF TEMPORAL MODALITY

The dichotomy of utilitarian and decorative in arts has been a point of interest, starting from the times of ancient philosophers and to our days. E.g., value of physical world's phenomena due to its ability to serve specific purposes was considered by Socrates. He concluded, that the better object accomplishes its function - the higher denomination it possesses; so, notion of beauty is frequently subordinated with the concept of assignment conformity [16]. Vitruvius emphasized on notorious triad "Durability, Unity, Beauty", where advisability was positioned as universal criteria of evaluation and it still remains actually due to modern thinkers and architectural critics [2, p. 16, 28].

Crisis in art, notices in the end of 19th - in the beginning of 20th century, was induced by a realization of the dissolution between the real life and means of artistic expression in the way of its depicting, available at that time. It was prominent German art historian Z.Gideon, who characterized this situation: only by the appearance of Cubism, efforts, directed to surmounting that gap became effective and brought visible results. In such a way, apprehension of spatial and temporal correlations, formulated by Cubists and embodied in their numerous artistic and sculptural experiments, reflected a modern approach to the world understanding [8, p. 254]. Both French and Czech artists attempted to expand borders of existing optical vision and space perception by adding the temporal dimension to three-dimensional reality [8, p. 254]. In the first third of the 20th century positions of the progressive architects were influenced by ideas of A.Loos and O.Wagner, who, anyhow, advocated architectural form rationalization and creation of abstract, clear forms without precise historical connotations. Although, critics of Cubism even today perceive nothing, but subjective rhythm of shapes and queerish, but misleading aesthetical formula in its dynamical expression [18, p.10].

In the article of A.Loos, titled "Ornament and Crime", decorative aspect of architecture was doubted - in return, utilitarian conception was declared to be necessary and the only reasonable base [13]. In general, A.Loos emphasized on demand of new form generation.
methods - just methods, but not new forms [13]. Those new progressive approaches should be applied in architecture, because the most actual task of those days was formulation of contemporary means of artistic expression for general practice in architectural design [7, p.136-137]. Similar thoughts were manifested by Le Corbusier: no one can deny the new aesthetical value of modern industrial products. Proportional, pure boulders of material, connected to perfect construction or machine by the power of engineering mind should be treated as the work of art [9, p.251]. General assignment of modernists architecture was not a proclamation of "Less is More" principle (with obligate simplification of all the forms); modernism became a starting point for predicted alteration of all the creativity thinking method. Innovative ideas were accepted as the way of proceeding, but not as the main styles target. H.P.Berlage, G.Mutesius, V.Gropius, P.Behrens, L. Mies van der Rohe - all of them appealed to functional approach in architectural practice and prospected the beauty in exclusively simple forms: the Modern Movement is both an act of resistance to social modernity and an enthusiastic acceptance of an open technological future [3, p.11].

Most of the architectural critics of that time were not aware of techniques, based on form creation directly in the process of work since all the experience of previous centuries had been founded on an algorithm of developing an idea with certain sense - and further selection appropriate forms among some typical solutions. Combinations of forms with corresponding semantic meaning, already used in architectural practice, were anyhow employed. So, the form, endowed with an ability to develop itself in the process of designing, was treated by the wide public as some strange innovation - or as total nonsense [5, p.76, 193]. Theoretical studies on form and function in architecture, conducted by O.Wagner, became a point of Janak's interest, as well as analysis of abstract art methods, interpreted as the mean of transformation, applied for turning material substances into pure ideas, concentrated in "spiritual repository", that may be compared with neo-platonic opinions [6].

P.Janak discovered verification of his concepts in the book of A.Gildebrandt - "The Problem of Form", where questions of artistic form were represented in the context of visual and kinesthetic perception [18, p. 4]. Janak borrowed some ideas of A.Riegl as well: in particular, the apprehension of "will to art". Furthermore, in the beginning of the 20th century, theories of "sensual perception" and empathy were authoritative in progressive art circles. Those theories connected "spirituality" of any object with its form dynamic, that emphasized attendance of life in the object [18, p.5]. Thus, dynamism was proclaimed as one of the most important features of modern architecture; so, the notion of "spatial life recording" became an important phase of Janak architectural ideas development [18, p.30]. Exploring perceptual aspects of different spatial constructions in a context of artistic abstraction comprehension, architect detected, that the process includes superposition of several "semantic layers" - various concepts of the artwork, which might be compared with separated film cadres, forming continuous video during a demonstration [15, p.60]. Functionalistic method of dynamical created form was partially implemented in project of the house on Neklanova street in Prague, designed in 1913-1914 by J.Chokol and in the building, named "House of the Black Madonna", projected in 1911-1912 by J.Gochar, where applied forms of facade were vested with semblance of growing crystals and even in planning solutions triangles were used [10].
4. SPECIFICITY OF THE TEMPORAL MODEL OF CZECH CUBISTS ARCHITECTURE

Temporal model of Cubism was based on a property of sense continuation (in its philosophical and cultural meaning), which was treated as a procreation of deployment processes in the temporal sphere - but not as a set of discrete phenomena. Thus, not separated forms, but the whole process was claimed to be presented as the matter of fact. And conversely, particular forms were interpreted as the embodiment of morphogenetic activity duration (mental and structural), as a projection of continuation in general life process. Such a model was based on H. Bergson's "philosophy of life", where notion of "duration" was positioned as a specific appellation, different from the concept of physical measured time - "duration as a sequence of moments" [1]. Those two "durations" were called complementary, but not identical since duration could not be reduced to the set of discrete moments - alike each point, separated from the general temporal flow was not able to reflect the whole continuation, due to possession of its own characteristic features [1, p.46].

As it was concluded by P. Janak, the modern architectural form was to be endowed with features of duration representation - in other words, it was able to self-creation activity directly in the process of morphogenesis [18, p.25-26]. The idea of the world as multidirectional and nonlinear structure and methods of its artistic interpretation were analyzed in Janak's works. The principle of crystalline formation, where every faced creates a new plane with a further connection in the united structure was the progressive one for that epoch. Moreover, all the structure apprehension was based on the dependence of chosen viewpoint: the structure might be decomposed and regrouped as an artistic abstraction - or represented in precise architectural forms. So, this artistic treatment had the profound philosophical base. As it was illustrated by H. Bergson: someone is moving along the plane facade, which is a symbol of different occasions as a sequence of moments in the area of humans consciousness. However, space - at least three-dimensional - is extended behind this facade [1, p.57]. Naturally, that the observer loses sight of the whole street and of the other facades, entering one of those "buildings" - the principle of choice, based on the realization of the only one potential opportunity (which automatically eliminates all the rest) works in this way.

Time, as the attribute of events deployment was believed to possess an option of "branching"(Fig.7) - as follows, it's direction could not be represented by spots on the imaginary line, outstretched from the beginning of the world to its end (Fig.8). In the beginning of the 20th century, time was claimed to be some complicated structure, that reveals new perspectives and panoramas [11, p. 26, 48]. Thereby, a method of clinging to fixed moments, fragmented representation and replication of debris from the past was claimed to
become senseless; following the process was chosen as the only way. General pattern has been given once for all, but limited humans mind is unable to comprehend the complexity of the world and being in the temporal dimension. [1, p. 58].

Fig. 7. Scheme of "branching" nonlinear time, based on the theory of relativity and philosophy of H.Bergson. Source: drawing by author

Fig. 8. Scheme of linear time depiction, based on principles of Newtonian physics. Source: drawing by author

Similar questions often become a point of interest in philosophical discussion: even centuries ago St. Augustine meditated on the problem of temporality: if the past has already gone, and the future has not come jet - present moment is an illusion; it should be attached to the past in order not to be dissolved in Eternity and receive precise bounds as a temporal notion. Time can realize its essence "to be" in the only way of "ceasing to be" - time exists exclusively because of its property of vanishing - consideration of temporal ideas as "process" or as "artifacts" created stable logical opposition [11, p. 27]. Category of the past may be estimated as less valuable, whereas it has been already "discovered", fixed in phenomena of humans memory and implemented in material and symbolic forms [2, p. 20, 38]. The antecedents were presented as something, that came over phases of incipience and gained precise expression in appropriate physical forms - namely, as a presentation of one actualized possibility from the endless number of potential ones. So, modernists artists believed, that there were no use manipulating empty semiotic casings, created yesterday or in Ancient Greece - sense might be discovered only in processes and principles of form generation, but not in stiffened canonical examples. Turning the temporal modality of the past into its spatial equivalent was claimed to be impossible without turning into spatial dimension temporal category on the whole. Thus, future was represented in this act as well, however, retaining concealed for humans consciousness. As to Bergson's words, phenomena, named passage of time was to be treated as lifting the veil, hiding granted being of the Universe [1, p. 57].

Functionalistic methods, applied by Czech Cubism was typical "procedural-oriented" modernists direction, whereas the other tendencies were focused on elaboration of their own systems, specific symbols, and means of artistic expression. In contradiction to "formal" approaches, functional method operated universal logical principle, that arranged incoming data and cultivated unique solutions for each situation without using ready-made compositional templates. Mental process and method of choice were illustrated by Bergson's "flow", separated decisions and its physical incarnation - by points of discrete moments; all the process of creativity was believed to be based on addressing to procedural cycle each time a new, but not on replicating sets of isolated forms. Philosophical notion of simultaneity became the conceptual basis of Cubists functional method: synthesis of plane and facade into complete architectural form or "spatial recorded" dynamism of separated elements designing was impossible without the idea of synchronism. This concept was implemented by H.Bergson in the beginning of the 20th century in his book "Duration and Simultaneity", however, there is no reliable information if P.Janak has ever studied this source.
Due to Bergson, *simultaneity should be treated as the form of reality perception* [1, p.48]. Phenomena of being were described by the author as processes, lasting on different levels - *incessant flows, each with appropriate rhythm and its own time of development* [1, p.48]. Imposition of two flows in humans perception (e.g. perception of two kinds of information - acoustical and visual) was named *possible only thanks to individuals consciousness, that synchronized external temporal flow with inner, reflexive dimension* [5, p.50]. Thus, specific, united duration of diverse phenomena was created: realistic (reflecting fragments of entity) and abstract (because of its subjectivity) at the same time. The analogical method was used by P. Janak in his experiments of *miscellaneous layers juxtaposition for architectural abstraction creation* [18, p.32].

Eclecticism in 19th-century architecture used methods of time inversion, fragmentation or superposition of different meaning layers, so the artistic image was composed of *elements with appropriate time connotations, belonged to the past* [12, p. 74]. In that case applied forms were detached from their original context with the further organization in a new structure with its own artistic value and semantic characters. Due to this method, elements were excluded from their previous time flow of the historical duration. Thus, the connection of previous and further durations was interpreted as the prerogative of observers perception. Durations of every form might be decoded as the history of transformation: evolution of artistic means in the past and even in the future perspective by the mean of allusions and system of complicated associations. However, this process was quite subjective and provided endless variations. That caused a demand for a new - more simple - way of bringing together different durations in single artistic image with its simultaneous demonstration - that was done by *Cubists techniques, which had a considerable impact on all the history of modern art and architecture* [10].

5. CONCLUSIONS

In early 20th century new level of abstract interpretation was achieved by art and architecture – so, some of their previous functions of proximate world reflection were abandoned. Modernists architecture in general – and Cubism in particular – reflected considerable changes, that occurred in science, society, culture; and illustrated principal new approaches to morphogenetic processes. Phenomena of Czech cubism was developed under the circumstances of a new style creation, distinctive from ideas of Modern or Eclecticism. Cubism was influenced by contradictory ideologies: rationalization on the one hand and expressive shape researchers on the other hand. The architecture of Czech Cubism was not closely related to the same tendencies in French fine art, therefore, it created its own specific artistic system, that included such notions as "the form, endowed with the potential of self-development", imitating natural processes of crystallization.

Cubists theory never excluded possibility of historical and modern styles synthesis: both dynamical-oriented principles of modern architecture and historical context preservation were included in a unique artistic image creation, which was believed to be a universal repository of diverse durations, represented by the mean of compositional elements. Cubism, based on a functional approach to form generation, proposed its own way of creativity, founded on a combination of spatial and temporal structure transformations.

Cubism operated concepts of "spatial life recording" - a reflection of dynamic processes in the primary static material by the imposition of different sense layers - so, elements were conferred by their own duration in time for architectural abstraction creation. Owing to those methods, architects strived to embody their understanding of the new space and temporal paradigm, based on Einstein's relativity theory and its further philosophical interpretation in "Duration and Simultaneity", written by H. Bergson.
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