STUDIES

Article received on March 18th 2026
Article accepted on June 1st 2026

Original scientific paper

UDC 7.01
7.036/.038

DOI: 10.5937/newso2667011B

Mina Božanić*
Ph.D. Candidate
University of Arts in Belgrade
Faculty of Music, Department of Musicology

THE SPATIO-TEMPORAL ORGANIZATION OF MODERNISM, OR COULD MUSIC AS ART IN THE TWENTIETH CENTURY BE DEFINED AS A MODERNIST EXPERIENCE OF (MUSICAL) SPACE-TIME?

Abstract: In the article, the thesis of a specific spatio-temporal organization of modernism and its relation to the phenomenon of space-time in the arts is being questioned. Following the conclusions of authors from different fields of study (history and theory of literature, sociology, history, cultural studies, philosophy, and urban geography), the aim of the article is to illustrate the key or paradigmatical points in assumed continuity of modernist tendencies in European culture and society in the aforementioned period. Those tendencies can be related to the specific spatio-temporal organization of modernism as phenomenon. The organization of space-time dom-

* The author's contact details: minabozanic88@gmail.com

inating modernism will be studied in arts from the *fin-de-siècle* to the 1960s. The emphasis of this argument shall be on the elements of remarkable change of artistic perception of the phenomenon of space-time, for which it is assumed that it appears as a result of and thanks to the change in the experience of space-time in modernism.
Keywords: space-time, modernism, modernity, perception of space-time, art

Contemporary literature based on the research of the phenomenon of modernism as a movement that, in an essential way, shapes the identity of Western art and culture emphasizes the tendency to interpret modernism as "multiple, polycentric, and recurrent instances of transformational rupture and rapid change across the full spectrum of political, economic, cultural, technological, demographic, and military areas of interlocking societies and civilizations".[1] According to literary theorist Susan Stanford Friedman, modernism as "planetary phenomenon" projects "hightened, often extreme and accelarating change that spreads through the various domains of society", which results in modernism itself being perceived as a rupture, "a paradigm shift, a geohistorical transformation on a large scale".[2]

The view that modernism is not coherent nor homogeneous in its appearance, therefore in interpretation and understandings as well, is also promoted by musicologist David Metzer. His standpoint is that the frequently shared notion of modernism being equated with the new, as "innovation, leaving the conventional", is only one of the possible roles modernism itself can have.[3] It can therefore appear, as the author concludes, that the history of modernism stands for a history of a single and homogeneous continuity of the notion, which is not the case. The history of modernism, according to Metzer, is "a history marked by both continuity, and disruption", which implies the complexity and multilayered nature of modernism as phenomenon.[4]

The dialectical nature of modernism, as Peter Bürger's study indicates, has far more deeper roots that can only be seen when modernism is taken as a general social and cultural phenomenon. In his analysis of how art came to achieve its autonomy (which is an important event for the arts and modern-

[1] Susan Stanford Friedman, *Planetary Modernism. Provocations on Modernity Across Time*, New York, Columbia University Press, 2015, ix.
[2] Ibid., 4.
[3] David Metzer, *Musical Modernism at the Turn of the Twenty-First Century*, Cambridge, CUP, 2009, 4ff.
[4] Ibid., 8.

ism alike), Bürger claims that is it not a "unilinear process of emancipation […] but a highly contradictory process characterized not only by the acquisition of new potentials but also by the loss of others".[5] The aesthetics of autonomy formed as a result of the process of autonomy of art – that manifests itself through the aesthetics of genius, especially in the nineteenth century – cuts both ways, claims Bürger. Not only does the artist get the chance to rise to an independent position within the newly-formed capitalist market, offering his ideas or works in exchange for value, but he also experiences rejection by the same order and society, forcing him to turn away and alienate himself from society altogether.[6] Therefore, the art that rises in the bourgeois society from the mid-eighteenth century to, roughly, the mid-twentieth century rests upon the "tension between institution and individual work".[7]

Inconsistencies related to the notion of modernism have their repercussions on the interpretation of the phenomenon of modernism in music. In regards to modernism in music and the meanings of the term modernism in this context, composer Vlastimir Trajković notes that the notion of modernism by now has not been defined in a satisfactory manner, especially from an aesthetic standpoint. Instead of establishing solid aesthetic and artistic criteria for defining the term modernism, there has been an unwritten agreement on what is considered modern and what is not. Therefore, the author indicates that "'modern' would be any movement or climate of ideas […] that supports change, the retirement of the old or traditional, and the forward march of the avant-garde".[8] From an aesthetic standpoint, Trajković notes that "the notion of modernism is universally attributed to adherence to the ideas and ideals of the Enlightenment, whereas modernistic art forms and the modernistic ideology reached their full momentum *only from around the 1880s*".[9] One of the symbols of modernism in music is tonality. Therefore Trajković claims that in several works composed in the second half of the nineteenth century (especially the opera *Tristan und Isolde* by Richard Wagner) one can trace not only the crisis of tonality – that, in his view, is being

---

[5] Peter Bürger, *The Decline of Modernism*, translated by Nicholas Walker, reprinted edition, Cambridge, UK & Malden, MA, Polity Press, 2005, 6.

[6] Ibid., 11.

[7] Ibid., 18.

[8] Vlastimir Trajković, "Thinking the Rethinking (of the notion) of Modernity (in Music)", in: Dejan Despić & Melita Milin (Eds), *Rethinking Musical Modernism*, Belgrade, Institute of Musicology of SASA, 2008, 27.

[9] Ibid., 28.

historically resolved around the 1900s – but also the ways of transforming modernism as aesthetic paradigm.[10]

Modernism and its Terminology

In order to understand how modernism can be interpreted as a mode of organizing space-time, it is necessary to make a terminological dissection of the very notion of modernism. As the previously mentioned authors outlined, the notion "modernism" still represents an insufficiently clear term. Even though it has a prominent role in discourses of various disciplines and despite the vast literature that, in most diverse perspectives and in many languages, analyze and interpret this complex and multifaceted phenomenon, the lack of a precise interpretation of the notion of modernism in the specific areas where it is used, as well as establishing clear criteria, whether economic, philosophical, linguistic, aesthetic etc., that will serve as a point of reference for defining modernism as a term and notion, is evident. In that regard, it is noticeable as well that a clear distinction between modernism and related terms, such as modern age, modernization, modern, modernity and avant-garde, is also missing, which raises additional uncertainty about interpreting events that can be described as related to modernism. That remark is especially evident in regards to modernism in the twentieth century.

In the context of this article, the term modernism is used to signify the adherence of events, ideas, and values influenced or initiated by the interconnectedness of economic (the rise of capitalism, especially from the mid-nineteenth century), religious (the diminishing of Christian and related world views) and social (the establishment of the bourgeoisie) factors that are operating in Western Europe from the mid-eighteenth to the end of the twentieth century. In a broader sense, the interpretation of modernism aligns more closely with the interpretation put forth by the theoretician Miško Šuvaković.[11]

In the lexicon of modernism, which is referring to the group of terms related to and circulating around the primary term modernism, often used in parallel, the term modern age stands for the chronological and historical period from the beginning of the Renaissance or Columbus' discovery of America in 1492 until the explosion of the first atomic bombs in Hiroshima and Nagasaki in 1945. In its essence, the modern age reflects the transition

[10] Ibid., 29.

[11] Miško Šuvaković, "Modernizam", *Pojmovnik suvremene umjetnosti*, Zagreb – Ghent, Horetzky – Vlees & Beton, 2005, 380.

from "the Christian feudal system by establishing the bourgeois society and class",[12] referring to different ideas and modes of expression of modern tendencies in a rather dynamic view of the aforementioned historical period.

For urban geographer David Harvey the fundamental aspect of the term modernization is modernism's connection to the idea of Enlightenment, specifically the idea of endless progress.[13] The philosopher Jürgen Habermas sees this idea in "efforts [of the Enlightenment, M.B.] to develop objective science, universal moral and law, and autonomous art", based on the idea of rationality as "inner logic" of Enlighthenment.[14] For Habermas, this idea never reaches its completion, therefore he interprets modernism as an unfinished project. However, this interpretation where the notion of modernization equates with the notion of progress or development in terms of meaning is, according to literary critic and professor of comparative literature Matei Calinescu, common for the discourse of social science.

The term modernity is interpreted by David Harvey as "a never-ending process of internal ruptures and fragmentations within itself".[15] This immanent fragmentation has been noted as one of modernism's distinguishing qualities by other authors as well (Stanford Friedman, Metzer). It can be concluded that modernity shapes the notion of modernism as fragmented and unstable, revealing itself as the essence of modernism. Modernism is thus defined as the embodiment of modernity as such. Modernity is also manifested as the aesthetic component of modernism, which leads to interpretations of modernism as "aesthetic paradigm".[16] On the other hand, Calinescu understands modernity as "a temporal/historical concept by which we refer

---

[12] Ibid.

[13] David Harvey, *The Condition of Postmodernity*, Cambridge and Oxford, Blackwell, 1989, 99.

[14] Jirgen Habermas, "Modernost – jedan necelovit projekat", prevela Zdenka Petković-Prošić, in: Milan Damnjanović, Emina Kulenović-Grujić (Eds), *Umetnost i progres*, Belgrade, Estetičko društvo Srbije – MRO Književne novine, 1988, 33.

[15] D. Harvey, *The Condition…*, op. cit., 12.

[16] Harvey points out the fact that there is a difference in understanding the modernism of, for example, the period after 1848 and modernism after the end of the First World War. This speaks to the interpretations that the twentieth century is responsible for establishing a new meaning for the term modernism. However, it seems that instead of different perspectives on the meaning of the term that are, according to Harvey, indicated by the position of the interpreter, we can speak of holding focus on a specific aspect of the term modernism in certain interpretations that consequently then produce the impression that the term itself is changing. Cf. ibid., 25.

to our understanding of *the present in its unique historical presentness*". That specific awareness of the present moment and, more importantly, the character of the present moment, the values and ideas that make the present modern, form the relationship between the present, the past, and the future.[17] The author also notes that modernity manifests itself through the constant interplay of the rational and irrational,[18] leading to fragmentation as one of its traits, also noted by Harvey in relation to modernity.

The term modern reflects one of the quintessential aspects of modernism, which is the new. Presenting itself as and through the new, modernism makes a radical break with the past, from the old and tradition, which some authors see as a break with the classical. However, interpreting modernism exclusively as the manifestation of the new is slippery terrain, precisely because of the nature of the new that is achieved only in a short instant, or until the current new is replaced with the other, upcoming new. On the other hand, the new is inherent to artistic creation from its beginnings, so it cannot be interpreted solely or predominantly as a modernist trait. Following that logic, every manifestation of the new would mean the manifestation of the modern, which is not always the case. Therefore, modern is here understood in the way that poet Charles Baudelaire interprets it. Being one of the crucial figures to establish and promote the new phenomenon in the arts and aesthetics, Baudelaire coined the term "*modernité*". According to him, modern is related to the unique perception of reality and, especially, the present moment, capturing a feeling of experiencing something that cannot and will not be repeated, or learned from the past, or simply imitated.[19] In this regard, the modern is predicated on an understanding of modernity, as interpreted by M. Calinescu from the standpoint of Baudelaire's essay.

Finally, one of the central aspects of studies of modernism in music and the arts is the relation between the notions of modern and avant-garde, understood as products of the primary discursive and semantic interplay between the terms modernism and avant-garde. In that regard, musicologist Mirjana Veselinović-Hofman, who bases her interpretation of the term *avant-garde* on Peter Bürger's theory of the avant-garde, views both *avant-garde* and the related term *avant-garde new* as semantically-narrower than

[17] Matei Calinescu, "Modernity, Modernism, Modernization: Variations on Modern Themes", *symplokē*, 1, 1, 1993, 8–9, jstor.org/stable/40550352.

[18] Ibid., 6.

[19] Ibid., 2–3.

new, a concept also central to modernism.[20] According to her standpoint, the terms modernity and modern represent an important issue of the arts of the twentieth century, reflecting the "continuity in development of a certain field", which is not the case with the avant-garde.[21] The avant-garde appears as "the novelty in a very specific socio-economical and aesthetical complex, on a precisely defined level of the artistic practice".[22] Having that in mind, it can be concluded that the avant-garde represents a unique and rather radical mode of expression of novelty, or modernity in a broader sense of the term. Simultaneously, the avant-garde novelty has precisely defined goals which, in accordance with the original meaning of the term avant-garde, it strives to accomplish in an extreme and often destructive way. In that sense, the avant-garde cannot be taken as a synonym for modernism in the arts of the twentieth century, as both Veselinović-Hofman and Šuvaković consider.[23] In this context, the avant-garde is understood closer to the interpretation of David Harvey, who sees the avant-garde as a node of modernism in the twentieth century and its most intriguing (but not only) aspect.[24]

The Notion of Space-Time

The notion of space-time underwent significant changes in the era spanning from the mid-eighteenth to the mid-twentieth century. This period marks the rise of modernism, which became the prevailing philosophical, cultural, aesthetic, and artistic paradigm.[25]

The conception of space-time as a philosophical and scientific category has existed since antiquity.[26] Initially, the notion of space-time was examined

[20] Mirjana Veselinović, *Stvaralačka prisutnost evropske avangarde u nas*, Belgrade, Univerzitet umetnosti, 1983, 7.

[21] Ibid., 8.

[22] Ibid., 7.

[23] M. Šuvaković, "Modernizam", op. cit, 380; Mirjana Veselinović-Hofman, *Fragmenti o muzičkoj postmoderni*, Novi Sad, Matica srpska, 1997, 16.

[24] D. Harvey, *The Condition…*, op. cit., 12.

[25] Daniel Bell, *The Cultural Contradictions of Capitalism*, New York, Basic Book, Inc., 1978, xxi–xxii.

[26] In his book, physicist Max Jammer finds that pre-historical man had a certain idea about space-time that was primarily grounded in the experience, where space-time appeared as an unorganized group of points and directions that drew analogy with man's emotional experience of the world. Max Jammer, *Concepts of Space*, third enlarged edition, New York, Dover, 1993, 7–8.

within metaphysics, a branch of philosophy that focuses on the external world, the complex questions regarding the very existence of man, nature, and the universe as such. Over time, this concept gradually evolved into a subject of discussion in natural sciences, particularly physics and mathematics. Subsequently, it found its application in the social sciences and humanities. Therefore, it can be said that the discourse on space-time developed in a non-linear manner, despite the persistent interest in this notion. As a philosophical concept, the notion of space-time seemed to transition to the domain of metaphysics, cosmology and epistemology first. From there, the discussion about this notion continued in parallel with specialized areas of knowledge including astronomy, mathematics, geometry, and physics. After that, the concept of space-time has been employed within the social sciences and humanities, especially in history, geography, sociology, cognitive linguistics, cultural and art studies, aesthetics, phenomenology, ontology, and the theory of arts.

The fundamental concepts for interpreting the notion of space-time within the discourse of art, particularly in regard to modernism, are Immanuel Kant's understanding of space and time as *a priori* forms of human knowledge and the model of the space-time continuum as a four-dimensional manifold,[27] to which Albert Einstein contributed, among others. In his search for the origin of human knowledge, Kant sought to establish the relationship between thought concepts and human experience. Through this endeavor, he developed the concepts of space and time as *a priori* forms of intuition, which serve as fundamental frameworks for human experience and influence the perception of space and time.[28] Kant's concepts of space and time are "the *precondition* to all knowledge", or – as philosopher Vladimir Tasić points out – these elements serve as the molds that shape our experience and enable the formation of conceptual frameworks by the mind. In return, the concepts of space and time serve to explain our experience of the world.[29] Contrary to this perspective, Einstein's approach assumed that space and time do not inherently condition our experience, at least not in the manner postulated by Kant. As demonstrated by the philosopher Jelena Dimitri-

[27] In mathematics and geometry, manifold represents an abstract topological space, where Euclidean space is recognized in every point. On the global scale manifold appears as complex, closed or curved.

[28] Vladimir Tasić, *Mathematics and Roots of Postmodern Thought*, Oxford, OUP, 2001, 11.

[29] Ibid., 11–12.

jević, Einstein's theory posits that "the image of time [and space, M.B.] is formed through the perception", thereby indicating that alterations in theoretical models affect the comprehension of time. In this regard, space and time are dependent on each other and not isotropic, meaning they do not reflect the same properties in all directions and are not absolute, therefore not immutable.[30]

The notions of space and time in Kant's *Kritik der reiner Vernunft* (1781) are predicated on Euclidean flat space and the conception of linear time as the sole means of apprehending reality.[31] On the other hand, the model of a space-time continuum is predicated on an alternative understanding of the relationship and roles of both space and time within the continuum. According to the philosopher Miloš Arsenijević, Einstein conceptualized time as a one-dimensional infinite *branched* continuum. The temporal dimension does not gather all the events in a uniform way. Instead, they become "locally, or inseparably connected to the *place* of the event happening".[32] This encapsulates the essence of the explanation of the space-time continuum, which in physics is understood as "the set of all places-at-a-time or all actual and possible events".[33]

The fundamental dichotomy between Kant's conception of space and time and the conception of a space-time continuum is in the fact that, for Kant, space and time are completely independent of each other; events in space do not influence the perception of time and *vice versa.* It unveils the inherent homogeneity of space and time, underscoring the notion that, irrespective of external or internal influences, the fundamental traits of the absolute space and absolute time remain constant for all entities. On the contrary, the space-time continuum is predicated on the recognition of non-Euclidean geometrical models of space, which were developed from the nineteenth century onward.[34] These models introduced divergent perceptions of

---

[30] Jelena Dimitrijević, "Kantovo i Ajnštajnovo shvatanje vremena", *Theoria 1*, 69, 2026, 123–124.

[31] V. Tasić, *Mathetmatics…*, op. cit.; J. Dimitrijević, "Kantovo…", op. cit., 124.

[32] Miloš Arsenijević, *Vreme i vremena*, Belgrade, Dereta, 2003, 70–71. The author states that by the second half of the nineteenth century the dominant theory of the continuum was Aristotle's, by which time could be infinitely divided, but only into parts that are not considered actual. See: ibid., 23–28.

[33] Michael Friedman, *Foundations of Space-Time Theories*, Princeton, Princeton University Press, 1983, 32.

[34] V. Tasić, *Mathetmatics…*, op. cit., 21ff.

reality and called into question the notion of one-dimensional time as "immutable subjective form of perception".[35] In this theoretical framework space and time are intertwined, such that the speed of objects in special relativity influences time retardation and space contractions. Conversely, the mass of objects in general relativity influences the curvature of space-time, which, in return, exerts a causal influence on the movement of the mass. In summary, "there are no differences between the temporal coordinate and the spatial coordinates", and comprehension of the space-time continuum is contingent upon the vantage point of the observer.[36]

Kant's and Einstein's concepts of space-time both reveal the ontology of space and time to some extent, which is fundamental to the arts. It relates to the question of the reality of the time flow, which belongs to the ontological status of time, i.e. its existence. In that regard, Arsenijević encompasses two types of temporal relations: the relations before-after, or *earlier-later*, and relations past-present-future. According to him, "to understand the flow of time […] we need *different times*", that shall encompass, first, the distinction between past, present, and future, while avoiding the reduction of complexity to the mere difference between earlier, simultaneous, and later. Before that, it is imperative to establish a clear distinction between earlier and later, where "one of the states of the world is *present*, which all other states determine as *past* or *future*, depending if they are earlier or later from the one being the *present*".[37] In this manner, the two types of relationships are interconnected and contingent, rendering them inseparable. The essence of this relationship can be articulated as "the contemporaneity of non-contemporary", a concept that, in the discourse of art, emerges through the examination of the interplay between historical and calendar time. This notion is particularly salient in the context of discussions on style.[38]

However, the comprehension of space-time in the arts does not invariably entail a rigid and meticulous acceptance of geometric or physical attri-

[35] J. Dimitrijević, "Kantovo…", op. cit., 123.

[36] Ibid., 124. The author refers to the remarks of physicist Steven Hawking.

[37] M. Arsenijević, *Vreme…*, op. cit., 151–152.

[38] Reinhart Koselleck, *Futures Past. On Semantics of Historical Time*, translated by Keith Tribe, New York, Columbia University Press, 2004, 95, 238; Nemanja Sovtić, "Da li je stilska epoha *istorijsko vreme* u umetnosti? Misao Dragutina Gostuškog u svetlu jednog odsudnog pojma", in: Katarina Tomašević and Bojana Radovanović (Eds.), *Iskošeni ugao Dragutina Gostuškog: tematski zbornik*, Belgrade, Muzikološki institut SANU, 2024, 65–84.

butes of space-time, nor does it necessitate the acknowledgment of the reciprocal interdependence of spatial and temporal dimensions of the space-time continuum. In the research conducted by visual artists Alistair Burleigh and Robert Pepperell in collaboration with the psychologist Nicole Ruta, it was determined that the artistic understanding of perspective in visual arts is frequently not founded on precise mathematical calculations, due to the fact that the human eye and experience of reality, in conjunction with spatio-temporal relations as perceived through the artistic eye, are not exact in the mathematical sense.[39] Therefore, the phenomenon of space-time in the arts is more akin to the philosophical notion of the ideal, or, better still, imaginary space and the phenomenological notion of lived time.

On the other side, the unfeasibility of a comprehensive transference of the notion of space-time – that is, the space-time continuum or four-dimensional differentiable manifold – to the interpretation of space-time in the arts warrants consideration, both at the level of the analysis of the work of art as object of aesthetic research and at the perceptual and experiential levels of the work of art. In both cases, the human consciousness plays an important role; however, because of its inability to grasp the continuum as it appears in reality, space-time in the arts is "separated" into the phenomenon of space and the phenomenon of time that dominate our perception in peculiar ways.

In this article, space-time is interpreted as Kant's notion of "things-for-us",[40] which is defined as a phenomenon that is inherent to the notion and appearance of the work of art in our perception. The notion of space-time, as a space-time continuum, has been introduced into the discourse on arts, theory of arts, and aesthetics as a cognitive metaphor for analysis, interpretation, and understanding the relations that are formed on the macro- and micro-levels of a single work of art and in the interplay between different artistic-expressive components and their elements on a thematic, compositional, or tonal and structural plane.

A central question in the study of the phenomenon of space-time in the arts is how are, in fact, spatio-temporal components such as dimensions of height, breadth and depth, as well as temporal dimensions of past, present, and future and relations before-after, translated through artistic media and

[39] Alistair Burleigh, Robert Pepperell, and Nicole Ruta, "Art and the Geometry of Visual Space", in: Tamar Flash and Alain Berthoz (Eds), *Space-Time Geometries for Motion and Perception in the Brain and the Arts*, Springer, 2021, 130–133.

[40] J. Dimitrijević, "Kantovo…", op. cit., 122.

artistic language via the reception of the work of art by the observer, viewer, reader, or listener. In their perception and experience of the work of art, they assign diverse meanings to these components. Therefore, the interpretation of space-time in the arts is primarily situated within the domain of phenomenology and/or ontology of art, bearing in mind that the notion itself has significant, profound, and extensive historical roots, which originate from the discourse of philosophy and science.

Modernism and Space-Time: The Coordinates

The research on the phenomena of modernism and space-time reveals the different ways they intersect and, especially, the relations thereby formed. At the hermeneutical level, there is a tendency for certain traits of modernism – such as fragmentation, non/linearity of time flow, the acceleration of the flow of time, contractions or expansions of space, and the like – to be replaced with the physical traits of the notion of space-time in a rather allusive manner. The topics often regard the temporality of modernism, the geographies of modernism, and the spaces of utopia that are connected to the modernist worldview in a more or less metaphorical sense, at the level of the general conceptual framework that serves to interpret specific tendencies within modernism as a movement in European philosophy, culture, and the arts. A commonality observed across the social sciences and humanities is the tendency to approach the concept of space-time through a division of these elements, which often results in the analysis of only one component, while the others are either disregarded or excluded.

At the phenomenological level, modernism is presented as *Zeitgeist*, the cultural climate, or social atmosphere that characterizes modern, civil, bourgeois society and modern life in the city – more specifically, the metropolis. From a cultural perspective, the values of modernism are rooted in the concept of "novelty", which often serves as a synonym for "modern", that, in its broadest sense, signifies the "contemporary" or "of this time". Despite the fact that novelty has to eventually grow old and turn into the classical, modernism exhibits a persistent resistance to this inherent temporal progression. In this sense, it can be interpreted as a rebellion against the established traditions, a challenge to the status quo, as destabilizing identity and growing subjectivity, as the impossibility to define universals in the philosophical sense. The revocation of the tradition signifies an act of non-acceptance of continuity as such, thereby engendering the perception of modernity as a rupture or turning point, as annihilation of the logic of the temporal sequence past-

present-future and relations before-after. It appears that modernism, through its denial of continuity, also challenges the perception of a unified space-time continuum that further reinforces the existing tensions within modernism and leads to more radical manifestations of modernism in the arts.

Sociologist Daniel Bell notes that the culture of modernism undergoes a gradual loss of coherence, leading to the specific polyvalency of cultural tendencies and reinforces the perception of modernism as fragmentary.[41] According to his interpretation, the essential trouble of modernity that acts as a fundamental component of modernism was *a spiritual crisis*. Separating the religious and the cultural, along with the weakening of religion as the structural point thus far, influenced the modernist subject to search for new spiritual foundations. The trial to find "excitement and meaning in literature and arts" led to the foundation of modernism as a cultural model.[42] In modernism, the individual and his worldview became a crucial criterion to determine cultural values. The domination of the imaginary and fantasy from the mid-nineteenth century emerges due to a lack of a stable, objective criterion of value, leading to everyone's perspective being promoted as the absolute perspective.

In such an environment, the individual gets disoriented in time and space. According to the musicologist Tijana Popović Mladjenović, the fantasy principle brings liberation from the geometrical order of space and the strict sequence of time, bringing to the fore the subject's decentredness as the primary quality of its unconscious.[43] Since the boundary between the Self and the world becomes translucent, more so in the period from the *fin-de-siècle* until the first decades of the twentieth century, the inner experience of the world and space-time is transposed into the outside, replacing thereby the objective reality. That is how modernism, according to Bell, "insists on the meaninglessness of appearance and seeks to uncover the substructure of the imagination", which initiates the need to stylistically *eclipse* distance, whether a physical, social or aesthetic one. As a result, the eclipsing of distance engenders the experience of *absolute presentness*, which manifests itself through simultaneity and immediacy of experience, more specifically through the experience of the present as a formative quality of modernist experience of

41 D. Bell, *The Cultural…*, op. cit., 86ff.

42 Ibid., 28–29.

43 Tijana Popović Mladjenović, *Procesi panstilističkog muzičkog mišljenja*, Belgrade, Fakultet muzičke umetnosti, 2009, 347–349.

space-time. In a thematic sense, the focus is now on the individual, or the Self, that appears as a creature capable of suspending the boundaries between itself, in search of what is outside of the Self and the world.[44]

According to David Harvey, until the 1970s there was an ongoing crisis of representation of space-time, initiated due to the acceptance of accelerated modernization, strengthening the relations between money, time and space in the new capitalist order, and technological progress. Harvey mentions that the modernist multiple perspectivism and relativism in the interpretation are, more precisely, the epistemological need to understand the world as "a unified, though complex, underlying reality".[45] Since reality was marked by the overall growth, progress and acceleration in the domain of the economic, political and social life, modernism in Harvey's view represents "a troubled and fluctuating aesthetic response to conditions of modernity produced by a particular process of modernization".[46]

The tension between various social structures reflected in the modernist *unity of disunity* a paradoxical unity based on insecurity, uncertainty and fragmentation, where the continually changing meanings of space and time seemed to "contradict the rational experience of yesterday". Instead of reason, the philosophical, political, as well as aesthetic category *par excellence*, an overwhelming aestheticization was brought to the surface as the unifying principle for all philosophical, social and artistic tendencies, spreading from the arts to everyday and public life, most notably seen in the activity of the avant-garde movements at the beginning of the twentieth century.[47] Therefore, the domain of aesthetics, which emerged in parallel with the advent of modernism in the mid-eighteenth century, appears to be potentially an essential element for understanding modernism and space-time as they are discussed within the framework of the theory of art.

By representing the world, both outer and inner, modernism strives to create a world for itself, a *world in-between* (die Zwischenwelt), a *world near-by* (die Nebenwelt), as the philosopher Jean-François Lyotard writes, referring to the painter Paul Klee.[48] In creating such a world, modernity gives

[44] D. Bell, *The Cultural…*, op. cit., 47.
[45] D. Harvey, *The Condition of…*, op. cit., 30.
[46] Ibid., 99.
[47] Ibid., 11–12, 18.
[48] Jean-François Lyotard, *Inhuman*, translated by Geoffrey Bennington and Rachel Bowlby, Polity Press, 1991, 97.

birth to a new feeling, sublime, for Lyotard "the only mode of artistic sensibility to characterize the modern".[49] In researching the rise of modernity within the arts, the author discovers a specific relation between modernity and space-time. For modernism and modernist aesthetics, space and time are "necessary forms of *aesthetics*".[50] Therefore the author concludes that the question of space and time in arts is crucial for modernism.

In light of the crisis of the scientific understanding of space-time, especially the transition from Newtonian concepts of absolute space and absolute time to relativistic interpretations of space-time in modern physics, the end of the nineteenth century marks the process of a paradigm shift in sciences that are closely related to the interpretation of time (arithmetics), space (geometry), and movement (mechanics).[51] Lyotard names this the *crisis of foundations*,[52] which has far more important implications on understanding the arts and, through them, the phenomenon of space-time. In that context, questioning the status of the arts begins, implicitly highlighting the topic of space and time in the arts.[53]

Even though the question of space and time in the arts is, first and foremost, the question of modes of representation, in the twentieth century a tendency can be traced in which space and time are interpreted and analyzed through artistic mediums, the language of art, technique and means of expression. In other words, the question of the medium of art, the language of art, and – as Lyotard himself emphasizes – the status of art is deeply intertwined with the question of the nature of space-time. Despite the fact that Lyotard does not expand upon these insights, it appears that the question of the representation of space-time through the arts is merely one in a series of inquiries that emerge when modernism, as the prevailing paradigm, is considered in conjunction with space-time and the arts. The implications of this discussion underscore the limitations inherent in the direct transposition of space-time as reality, or "world-as-it-is", into the interpretation of artistic experience. This experience is predominantly influenced by either time or space. This creates the impression of irreconcilability between the two entities of the space-time continuum. It is likely the reason for establishing the

[49] Ibid., 93.
[50] Ibid., 110.
[51] Ibid., 116.
[52] Ibid., 173.
[53] Ibid., 113.

classifications of spatial or temporal arts that inevitably shape the discourse on the phenomenon of space-time in the arts.

The modernist experience of time is founded on the ongoing tension between the subjective, inner experience of time and the metaphysical or historical conception of time. Therefore, the existence of multiple temporal modes or temporal layers (Zeitschichten), as described by the historian Reinhart Koselleck, indicates the simultaneity of linear and continual, cyclical and/or discontinual and fragmented time, but in an unique temporal asynchrony.

The modernist experience of space can be understood as a heterotopia, as defined by the philosopher Michel Foucault. In writing *of other spaces* (des espaces autres), more specifically about those spaces that are formed outside of the subject, and in a broader social context, the author finds that heterotopias consist of real places that are usually rooted in the culture, so their places can be simultaneously represented and even inverted. Despite being "outside of all places", Foucault states that heterotopias, unlike utopias, are strongly based in reality.[54]

If the modernist experience of time and space were to be combined into a modernist experience of space-time, it would encompass the perception of multilayered time within imaginary or idealized space. The idealization of space, whether through Foucault's heterotopia or pure utopia, is based on the idea of a better future, in other words on the tendency that the present (and past) moment has to be completely overcome, given its inevitable obsolescence. While in the present, the modernist subject finds itself conflicted between the yearning for what is coming and the sense of disillusionment, even hostility, towards the past. As such, the modernist experience of space-time is characterized by its extreme subjectivity, shaped by individual consciousness. Despite efforts to establish a uniform meaning, the variability, openness, and polycentricity inherent in the modernist experience of space-time cannot be disregarded, resulting in an allusive interpretation of the underlying concept of space-time in artistic discourse.

[54] Mišel Fuko, "Druga mesta", transl. by Pavle Milenković, in: Pavle Milenković and Dušan Marinković (Eds), *Mišel Fuko 1926–1984–2004 hrestomatija*, Novi Sad, Vojvođanska sociološka asocijacija, 2005, 31ff. It is interesting to note the translator's choice when it comes to the French word "l'espace". Even though the French word clearly signifies "space", the translator's choice of the word "place" seems rather unusual, considering the fact that "place" and "space" are not synonyms, neither in the philosophical or scientific sense.

Spatio-Temporal Organization of Modernism and the Phenomenon of Space-Time in the Arts of the Twentieth Century

Without a doubt, there are several unique properties that can be marked off in the context of a discussion about the connection between modernism and space-time as phenomena and, indirectly, the interpretation of the modernist experience of the world through the phenomenon of space-time in the arts. Those properties include the acceleration of space-time, the compression of time-space,[55] fragmentation, discontinuity, non-linearity, spatialization of time, etc. Even though they do not always occur simultaneously, their flows often overlap. Having their own unique beginnings and different flows, it is interesting to notice that the intensity of these properties significantly increased from the mid-nineteenth century. In the context of this article, the relationship between modernism and space-time, through the lens of the modernist experience of space-time in the arts, is demonstrated through the acceleration of stylistic periods.

At first glance, in the continuous flow of art history from the Renaissance to the mid-twentieth century, there is a clear mismatch between music and other arts. The composer and musicologist Dragutin Gostuški sees music falling behind as a theoretical issue, arguing that the chronological point of the beginning of the Renaissance is, at the same time, the chronological point of the beginning of modernism in the arts overall.[56] According to his theory of style, the return to classical, therefore antique, norms represent "the simplest and safest criterion for defining the Renaissance", which lack in the case of music.[57]

On the other hand, Gostuški interprets the rhythm of "arrival or departure in relation to the ancient model" in European culture as a law that determines the directions of the historical flow of the arts. This rhythm appears as a regularity, where "departures progress gradually and last long – whereas the arrivals are relatively sudden".[58] However, since the mid-eighteenth cen-

[55] The term time-space or timespace can be found in the discourse of social sciences, particularly geography. Cf. Jon May and Nigel Thrift, "Introduction", in: Jon May and Nigel Thrift (Eds), *Timespace: geographies of temporality*, London – New York, Routledge, 2001, 1–47. In musicological discourse, the term "time-space" is used by musicologist Eric Christensen. Cf. Erik Christensen, *The Musical Timespace. A Theory of Music Listening*, Aalborg, Aalborg University Press, 1996.

[56] D. Gostuški, *Vreme…*, op. cit., 62.

[57] Ibid., 64.

[58] Ibid., 132.

tury (or, since the French Revolution), the acceleration of time flow is manifested through arts in the rhythmic sequence of different styles. Gostuški writes that "regular shifts of specific styles are not followed by regular duration", which "manifests itself in the form of the regular acceleration, or as a progressive shortening of relatively homogenous historical intervals".[59]

This contraction of stylistic periods led to the point in the second half of the nineteenth century where all the arts "meet", and then continue on their mutual path together. Besides the transformation of spatio-temporal relations in the context of the presumed linear flow of art history, which is manifested in the acceleration and contraction of styles, changes in regards to space-time in the arts can be noted in the perception of the work of art as well. In that sense, Gostuški sees space and time in the arts acting as forms of the same morphological base, rooted in reality. Furthermore, spatial traits can be used interchangeably with temporal ones and *vice versa* in this analysis, where the results remain the same, because "there is no antinomy between space and time".[60]

According to Gostuški, "Space and Time are two symmetrically placed forms in which the world can be seen completely independently", which opposes the understanding of the space-time continuum. The author's interpretation is closer to Kant's conception of notions of space and time, but unlike Kant, Gostuški sees space and time as "elastic forms" in the psychological sense.[61] This means that, through consciousness, the reality of space-time is adjusted to the nature of human consciousness, which corresponds to the artistic manner of treating the phenomenon of space-time. In that regard, space-time is elastic in such a way that "my *now* and my *here* can […] be extended from border time of the nervous mechanism to the entirety of life".[62] After all, neither time nor space are thinkable without matter, whether as a form or duration, more specifically movement, that is a "successive *change of form* of a given space" perceived in time, but never simultaneously, as in the space-time continuum.[63]

If the arts can be interpreted as a unity, with singular artistic tendencies from symbolism-impressionism of the 1860s, through the avant-gardes of

[59] Ibid., 134–135.
[60] Ibid., 158.
[61] Ibid., 158–159.
[62] Ibid., 159.
[63] Ibid., 166.

the early twentieth century, to the high modernism of the 1960s as manifestations of specific modernist ideas, can we assume that, in terms of a singular art, we can identify similar tendencies, expressed through the language specific for that art? In other words, how do the specific aspects of the modernist perception of space-time as imaginary or ideal space and multilayered time manifest through, or at least initiate, the specific experience of space-time in the arts?

Painting and Sculpture

The interest in the new meaning of time and space is a signature of Futurism. Artists like Umberto Boccioni, Carlo Carrà, and Giacomo Balla implemented various techniques of representing modern man in the modern environment, the city, then representing different dynamic scenes from everyday life, as well as representing the new vehicle, the plane. The manifest of Futurism, authored by Filippo Tommaso Marinetti, explicitly reveals that the artists became aware of the new age – the age of speed, progress, and constant innovation, the age of modernity that must rule the entire Italian culture and arts. Technology and machines are artists' friends, which lead Futurists to seek out the way to implement them in their artistic practice.

It can be noted that the Futurists started investigating aspects of space-time (especially speed and movement) in a deeper sense around 1912 and 1913. The quintessential works of particular artists are created, representing key works in their oeuvres and paradigmatic for the entire Futurist movement, confirming the Futurist aesthetics and theory of art. Those works include the sculpture *Unique forms of continuity in space* (Forme uniche della continuità nello spazio, 1913) by Umberto Boccioni[64] and the painting *Abstract speed + sound* (Velocità astratta + rumore, 1913–4) by Giacomo Balla. In these works, the tendency to express movement and gesture is evident, whether in the medium of sculpture, as in Boccioni, or whether in painting, as in Balla. Futurist works rarely depict the past, but almost exclusively the present, or, more so, the future. However, it is interesting that this perspective is still based on geometry and in favor of the observer.

Maintaining the traditional perspective is not the case in Cubism. Instead, the geometry becomes an essential part of the Cubist technique (faceting), allowing to show one object from multiple perspectives simultaneously.

[64] Boccioni is the author of the *The technical manifest of the futurist sculpture* (Manifesto tecnico della scultura futurista), published in 1912.

This procedure represents a radical break with the traditional ways of representation, because it allows the one thing that, in fact, was not even obtainable by then – representing the totality and its parts at the same time and on the same spot. In that sense, Cubist aesthetics bring fragmentation into focus as the central question of the experience of space-time, while it implicitly delves into the issue of the totality and the part. The possibility to experience totality through parts in the philosophical discourse of the same period appeared as a question of the experience of the phenomenon of space-time as a flow, where the totality is only implied, and only the singular moment, here-now, is being perceived.

The fluidity and pliancy of space-time is a central topic of research and among the accomplishments of the Surrealists. Bringing the subconscious, imaginary, fantasy and various other extremely individualized perceptions of reality into focus, Surrealism made it possible to experience the phenomenon of space-time in an unusual way. The most illuminating examples are removing the focus of the painting in Giorgio de Chirico's *The Red Tower* (Le tour rouge, 1913), or, ultimately, a relativistic distorsion of time and space in Salvador Dalí's painting *The Persistence of Memory* (*La persistència de la memòria,* 1931).

During the 1950s and the 1960s, geometry itself becomes a subject of intense interest, along with calculations and measurements that are then used in painting or sculpture or, more so, become the works of art *per se.* This tendency is not only evident in the center of European modernism, but also at the peripheries. In that sense, an interesting example is the Romanian art scene of the 1950s and the 1960s, dominated by two art groups, *Group 111* (1965–68) and *Sigma* (1969–1980). The founders of these groups were the visual artists Ştefan Bertalan and Constantin Flondor, whose works implement a geometrical image of space and time in a crucial manner.[65]

Architecture

Writing on the capitalist logic of postmodernism, literary critic and Marxist theorist Fredric Jameson concludes that, concerning architecture, "the modernist space offers itself as the *novum,* as the breakthrough onto new forms

[65] Exibition *Utopia and research. Timisoara experimental groups 111 and Sigma (1966–1981)*, curator Ileana Pintilie, The Nationa Art Museum of Timisoara, mnart.museum/en/project/utopia-and-research-timisoara-experimental-groups-111-and-sigma-1966-1981/. The exibition is on site since December 27th, 2024.

of life itself", as the first sign of the new age.[66] Being the movement that obsessively captured and emanated the new, modernism showed passion in studying the emergence of the new and of what comes of it. That modernist trait, according to Jameson, led to "the great modernist myth of producing a radically new Utopian space capable of transforming the world itself".[67]

It is precisely architecture that manifests the changes in the aesthetics of modernism in the most remarkable way.[68] Jameson names this aesthetic *cognitive mapping*, claiming it enables a representation of the individual subject to a broader, "unrepresentable totality which is the ensemble of society's structures as a whole".[69] Therefore, architecture represents aspects of urban modernity, one that strives for the (still unimaginable) future, and that will move the modern man out of the past and enable a slightly unreal present for him.

On the other hand, historian Carl Schorske sees modernist architecture as "cultural criticism", naming Vienna's Ringstraße as one its prime examples. This enormous, almost homogenous space was filled with monumental historical buildings in classical style (museums, theaters, community buildings, etc.), which directly contradicted with the anti-historical attitude of modernists at the time. On another level, this architectural space raised the question of whether architecture is solely a craft (emphasizing functionality as its main quality) or an art like painting or sculpture.[70]

Interpreting the rise of modernism in the arts, along with its iterations as postmodernism and the second modernism, the historian of architecture Heinrich Klotz argues that "the request for the self-establishment of the modernism led […] to the radicalization of the innovation that rejected every historical paradigm".[71] As one example, Klotz sees the works of architect Mies van der Rohe as something that "reveals the true essence of the construction and uses the quality of the new materials, with the complete novelty of its skyscrapers made of steel frames and concrete skeletons, to simultaneously

---

66 Fredric Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism,* Durham, Duke University Press, 1991, 163.

67 Ibid., 104.

68 Ibid., 2.

69 Ibid., 51.

70 Carl Schorske, *Thinking with History*, Princeton, Princeton University Press, 1998, 157–171.

71 Hajnrih Kloc, *Umetnost XX veka. Moderna – postmoderna – druga moderna*, preveo Zlatko Krasni, Novi Sad, Svetovi, 1995, 17.

free itself from the historical stylistic models".[72] The modernist urge to create *ab ovo,* which Klotz names the aspect of unity of "all the styles and genres of modern and architecture",[73] directed the poetics of artists like Le Corbussier, Walter Gropius, and Jacobus Pieter Oud towards "simple and rational geometry", as the final confirmation of the modernity in their works.[74]

Literature

The narrative is the manifestation of the temporal order in the medium of literature, because it uses the succession of words in time as the primary way of temporal organization. However, this is only one aspect of the manifestations of the phenomenon of space-time in literature. According to literary critic Joseph Frank, "time and space were the two extremes defining the limits of literature and the plastic arts in their relation to sensuous perception", and the question of the organization of space-time in the arts is the question of the prevalence of one or the other extreme in a specific historical context.[75]

In regards to the literature of the twentieth century, the author notes that the significant part of then-leading writers in English – T. S. Eliot, Ezra Pound, James Joyce – and French literature (Marcel Proust) intentionally created a spatial form in their literary works, with the goal to frame the narrative for the reader not as a sequence of events (as a naturally temporal order), but as a moment of time, emphasizing thereby a spatial component of literature.[76] This tendency created "inner conflict" between the temporal logic of language and the spatial logic of form, implicit in literary and poetry. In connection to poetry, Frank writes that organizing verse form and poetic structure on spatial, rather than temporal logic, forces the reader to rethink his attitude towards language itself, which is explored by the poet Stéphane Mallarmé in a prominent way.[77]

Despite the efforts to establish the spatial form of the literary or poetic work – as in, for example, Mallarmé's *Un coup de dés jamais n'abolira le hasard*

[72] Ibid., 18–19.
[73] Ibid., 17.
[74] Ibid., 19–22.
[75] Joseph Frank, *The Idea of Spatial Form*, New Brunswick and London, Rutgers University Press, 1991, 7–10. Here the author refers to Lessing's classification of arts on spatial and temporal parameters, more precisely on the argument that it is possible to trace the development of artistic forms "by their oscillations between these two poles".
[76] Ibid., 10.
[77] Ibid., 14–15.

(1897), Joyce's *Ulysses* (1922) or *Finnegans Wake* (1924–39), Proust's seven-part saga *À la recherche du temps perdu* (1913–1927), etc. – Frank claims that it is almost impossible to perceive language as a non-temporal phenomenon, without permanent damage to the temporal sequence and logic of narrative. Therefore the gestures in breaking the temporality of literary and poetic work are revealed through the fragmentation of the narrative, structuring the narrative through several different characters, referencing and cross-referencing, even the discontinuity in representing characters.[78] In that regard, Joyce's method in creating *Ulysses* shows a remarkable gesture, where the relativization of time and, particularly, the dimension past-present-future expands into one extended now, simultaneously evoking intense contours of cyclical or mythological time, therefore communicating with the original myth of Odysseus, from Homer's *Odyssey*.

Cinema

The twentieth century welcomed a new art form: cinema. This peculiar medium represents various aspects of the phenomenon of space-time in a paradigmatic sense. The very idea of the moving image, supported by sound, was revolutionary at the time when it emerged, not only in the sense of the form, but also by the fact that, for the first time, movement was represented in an artistic medium.

In that sense, the phenomenon of space-time is essential for cinema, not only in terms of representation but also in relation to the cinematic medium, the cinema as an artistic medium, and the phenomenon of space-time. In contrast to other arts, the philosopher Gilles Deleuze recognizes the potential of cinema to transcend mere representation and manipulation of space-time, which is achieved through the artistic integration of cinematic techniques. In this interpretation, the cinema *thinks* space-time, continuously balancing between the real and the virtual, the truth and the illusion. In his two books on cinema, Deleuze differentiates the cinematic art until the Second World War, which was grounded in creating "movement-images", from the art of the cinema after the war, with its focus on "time-images". The distinction lies not solely in the composition of cinematic images and frames through montage, but particularly in the representation of space-time in the medium of cinema.

Prior to the Second World War, cinema operated with images that were immediate and "a succession, of a time which is mechanical, homogeneous,

[78] Ibid., 17, 26–27.

universal and copied from space, identical for all movements". The cinema acknowledges the presence of time and its role in the motion of images, but it is experienced indirectly, manifested in cinematic movement as "false movement" or the illusion of the movement.[79] Cinema's capacity to create a multifaceted experience, wherein multiple layers of narrative and visual elements are perceived simultaneously, and the manner in which the cinematic medium uses space and time creates the illusion of continuity.[80]

The cinematic image is comprised of two sides; according to Deleuze, one is actual, aligning with the objective reality, and the other is virtual, which reflects the artistic interpretation of the reality depicted. Prior to the war, space and time were intrinsically linked through action on film, prompting our awareness through the perception of movement based on the logic of perception-action-reaction. On the other hand, after the Second World War, this rationale was forsaken, resulting in the notion of time manifesting independently from action. Cinematic images, which are ostensibly moving, are situated within a completely new, cinematic world, wherein "recollection-images", "dream-images", and "world-images" are intrinsically interwoven, resulting in a genuinly novel approach to the recreation of the phenomenon of space-time continuum.[81]

The director Sergei Eisenstein (Сергей Михайлович Эйзенштейн) develops the idea of the fourth dimension of the cinema – time – that "emerges" in the process of montage, which Eisenstein understands as the dialectical confrontation of film frames. However, the temporal component of cinema is more than a linear sequence of time flow or duration. For Eisenstein, cinematic time manifests, similar to music, through rhythm and tempo, building an emotional intensity and enabling the viewer to have a peculiar experience of dynamism.[82]

It seems that the potential of montage was recognized and used by the Surrealists, who produced works such as René Clair's *Entr'acte* (1924, silent), with music composed by Erik Satie, and Louis Buñuel's *Un chien Andalou*

---

79 Gilles Deleuze, *Cinema 1: The Movement-Image*, transl. by Hugh Tomlinson and Barbara Habberjam, Minneapolis, University of Minnesota Press, 1986, 1.

80 Ibid., 5.

81 Gilles Deleuze, *Cinema 2: The Time-Image*, transl. by Hugh Tomlinson and Robet Galeta, Minneapolis, University of Minnesota Press, 1989, 68–69.

82 Sergei Eisenstein, "The Fourth Dimension in Cinema (1929)", transl. by Richard Taylor and William Powell, *The Eisenstein Reader*, Richard Taylor (Ed.), London, Palgrave Macmillan, 1998, 111–123.

(1929, silent) and *L'age d'or* (1930, sound), with scripts written by Buñuel and Salvador Dalí. The directors of these works use overlapping (cutting in) of frames, fast-moving sequences, and shifts between long-shots and close-ups to narrate a sequence of events to the viewer. Without a doubt, these gestures enable the viewer to experience space-time in its totality, even in contradictions that are not possible to experience in reality.

Could Music as Art in the Twentieth Century be Defined as a Modernist Experience of (Musical) Space-Time?

Since, according to Calinescu, the essence of the idea of modernism is *unrepeatable time*, which means that modernity cannot emerge in societies where causal logic of events, based on the temporal relations before-after, or where the mythological and cyclical organization of time are prevailing,[83] it can be said that the experience of space-time in arts during modernism is influenced by the experience of the unrepeatable, unique and new, more precisely, what appears and lasts only now. That is the position of being aware of the present moment and its strength to (re)shape its past, as well as its future, that are not contained by the Newtonian concept of space-time. When it comes to the arts, scientific models become subjected to the elements of flexibility, which arts inherently contain. It leads to the transformations of the models of space-time unknown to science, because the artistic treatment of this phenomenon is strongly rooted in the fantasy principle, that significantly transforms geometrical relations, relations between bodies and objects in and of space, directions, as well as the temporal relation before-after.

From its beginnings, the atmosphere of the twentieth century was one of uncertainty, questioning, growing anxiety, and insecurity. Despite the significant improvement in the domain of technology and industrialization, modern man responded dramatically to the shifting focus from, until then Newtonian and absolute, categories of space and time. This separation from the cosmos, according to Joseph Frank and Daniel Bell, had its effects on the arts as well, in the sense that art forms turn to linear-geometrical and non-organical (fragmentary, discontinual, non-linear) representation.[84]

---

[83] Matei Calinescu, *Five Faces of Modernity*, Durham, Duke University Press, 1987, 13. See: Karol Berger, "Time's Arrow and the Advent of Musical Modernity", in: Karol Berger & Anthony Newcomb (Eds), *Music and the Aesthetics of Modernity: Essays*, Cambridge, MA – London, Harvard University Press, 2005, 16. The author finds similar conclusions in *Myth of the Eternal Return* by philosopher Mircea Eliade.

[84] J. Frank, *The Idea…*, op. cit., 57; D. Bell, *The Cultural…*, op. cit., 86.

The tendencies of discontinuity, non-linearity, and fragmentation that dominate the arts in the period of the *fin-de-siècle* until the 1960s, influence not only the perception of the work of art as totality, but also the experience of the artist himself and his image of reality. If the meaning of the work of art rested on organic unity, on a unique, central idea that, despite inherent contrast, brings together all its parts into a meaningful sum, what does it mean when the work of art appears as fragmentary, without the possibility to be captured in one gaze, one reading, or one hearing? Is that a way to hide the real meaning under the broken surface, that would, seemingly, reflect the experience of the outer world (the world outside of the arts), or is it the insurgence of the artist himself, onto the world surrounding him, in which he feels increasingly alienated, excommunicated and, with the exception of the decade of heroic modernism of the 1930s – defeated?

A growing subjectivism penetrated the, until then, absolute, independent, and immutable categories of space and time, which made possible multiple interpretations and analyses of this phenomenon in the arts. In that regard, the phenomenon of space-time opens the window to imagination, fantasy, and, inevitably, Utopia, some other, better worlds, where the strict boundaries of geometrical order and proportion get erased, and time exists only as the present moment leaning into eternity. Therefore the observer has the crucial role in the new, relativistic conception of space-time, because his experience of space-time is dependent on his position.

In other arts, these changes are noticeable in a visually clear way, whereas the uniqueness of the medium of music or music as medium, with its predominantly temporal nature, seems more adequate for basing conclusions on the remarkable modernist transformation of the experience of space-time. It is precisely the fact that, at first glance, the nature of music as art and the traits of spatio-temporal phenomenon as continuum obscure the ways in which the phenomenon of space would be possible to experience in music. The changes that penetrated this art in the twentieth century speak to the complexity and intensity of the "modernist experience of space-time".

Besides the space in which music is performed, the existence of the imaginary or immanent musical space of the work, that includes the boundaries of the musical form, as well as the intrinsic thematic-tonal-structural organization of the form in meaningful totality, until the collapse of tonal musical thinking, was almost impossible to conceive. The narrative quality of tonality and temporality of the musical form emerging thereby obscured the spatiality of the piece of music, so the fact that the musical space reveals itself

only in the works in that tonality does not have a dominant role in regulating the musical flow seems only logical. Perhaps the most striking example is the oeuvre of Anton von Webern, especially from his dodecaphonic phase, which – following the interpretation of Mirjana Veselinović-Hofman – is understood as *pointilism*.[85]

The nature of the 12-tone technique, in Webern's compositional procedure, means higher consciousness on the pitch locations within the musical flow, while at the same time reducing the musical material to the minimum, especially in Webern's late works (such as, *Variations for piano op. 27* [1936] or *Variations for orchestra op. 30* [1940]). Focusing on the single pitch ostensibly puts the emphasis on the linear succession of the musical material, which is noticeable in exposing the row. However, the spatial aspect of Webern's compositional procedure is evident precisely in the moment of crossing the row with its different forms (primary, inversion, retrograde, and retrograde inversion) on the vertical axis of the musical writing, where some enable the reversibility of the temporal component of musical space-time.

The lack of functional harmonic relations, as a result of the abandonment of tonal musical thinking and relying on harmony as one of the primary elements in structuring the musical flow, allows the spatial dimension of the phenomenon of musical space-time to emerge. Alongside that, Webern more prominently than his predecessors, uses breaks as a means to structure the musical flow, additionally emphasizing the perception of spatiality in his works, like in *Fünf Orchesterstücke* op. 10 (1913). Webern's use of rhythm in shaping the musical flow of his works is also connected to the new understanding of temporality in music, which now enables a clearer perception of spatiality.

The liberation of spatiality in the perception and experience of the phenomenon of musical space-time is fully realized in the works composed in the 1950s and 1960s. As in other arts as well, the explicit interest of composers for mathematical and geometric organization of the musical flow, as in Xenakis, Stockhausen, and Boulez, is prominent; moreover, the explicit experimentation with various spatial layouts, whether in the form of physical space (the space of performance) or in the form of producing spatial shapes and forms in the score (leading to graphic notation). In that sense, the aleatory scores of several of Stockhausen's (*Klavrierstück XI* [1956] or *Zyklus* [1959]) and Boulez's works (*Third piano sonata* [1957]) are peculiar, since they reveal the totality of the phenomenon of musical space-time in one, until then, unusual way.

[85] M. Veselinović, *Stvaralačka prisutnost…*, op. cit., 156ff.

Besides these aspects of manifestation of the phenomenon of musical space-time in the music of the twentieth century, more intriguing are the works and tendencies where this phenomenon remains hidden behind a conventional score, revealing only in the compositional procedure and the manipulation of the musical components and their elements. In that sense, the totality of the piece of music as such represents a unique spatio-temporal organization. In the twentieth century, the rise of non-linearity not only fragments the thematic layer of the piece of music, but makes a significant influence on its temporal dimension. The result is a moment of vertical time, as explained by the composer Jonathan Kramer.[86]

Postponing the resolution in thematic units, as well as shifting boundaries of the musical flow, especially closures, significantly affects the perception of the beginning, the middle, and the end of the musical work and the perception of the phenomenon of musical space-time as a whole. On the other hand, the experience of a moment of vertical time, that Kramer marks as radical ways of manifesting musical time, can be achieved by the gesture used by Arnold Schoenberg, in the third piece "Colors (Summer morning on the lake)" (Farben [Sommermorgen am See]) from *Five Orchestral Pieces* (Fünf Orchesterstücke op. 16, 1909). The illusion of movement is achieved by using the same motifs (chords) in different instrumental parts, with minimal changes of pitch or the structure of the chords. In that way, the flow of time is suspended in the perception, leading to an extended now, which is one of the traits emanating through the perception of space-time in the arts of the twentieth century.

Works Cited

Arsenijević, Miloš: *Vreme i vremena* [Time and times]. Belgrade: Dereta, 2003.

Bell, Daniel: *The Cultural Contradictions of Capitalism.* New York: Basic Book, Inc., 1978.

Berger, Karol: "Time's Arrow and the Advent of Musical Modernity", in: Karol Berger & Anthony Newcomb (Eds), *Music and the Aesthetics of Modernity: Essays.* Cambridge, MA – London: Harvard University Press, 2005, 3–22.

Burleigh, Alistair; Robert Pepperell; Nicole Ruta: "Art and the Geometry of Visual Space", in: Tamar Flash and Alain Berthoz (Eds), *Space-Time Geometries for Motion and Perception in the Brain and the Arts*. Springer, 2021, 129–149.

Bürger, Peter: *The Decline of Modernism*. Transl. by Nicholas Walker, reprinted edition. Cambridge, UK & Malden, MA: Polity Press, 2005.

[86] Jonathan Kramer, *The Time of Music,* New York, Schrimer Books, 1988, 50ff.

Calinescu, Matei: *Five Faces of Modernity*. Durham: Duke University Press, 1987.

Calinescu, Matei. "Modernity, Modernism, Modernization: Variations on Modern Themes", *symplokē*, 1, 1, 1993, 1–20, jstor.org/stable/40550352.

Christensen, Erik: *Musical Timespace. A Theory of Musical Listening*. Aalborg: Aalborg University Press, 1996.

Deleuze, Gilles: *Cinema 1: The Movement-Image*. Transl. by Hugh Tomlinson and Barbara Habberjam. Minneapolis: University of Minnesota Press, 1986.

Deleuze, Gilles: *Cinema 2: The Time-Image*. Transl. by Hugh Tomlinson and Robert Galeta. Minneapolis: University of Minnesota Press, 1989.

Dimitrijević, Jelena: "Kantovo i Ajnštajnovo shvatanje vremena" [Kant's and Einstein's concept of time], *Theoria 1*, 69, 2026, 121–129.

Eisenstein, Sergei: "The Fourth Dimension in Cinema (1929)", transl. by Richard Taylor and William Powell, in: Richard Taylor (Ed.), *The Eisenstein Reader*. London: Palgrave Macmillan, 1998, 111–123.

Frank, Joseph: *The Idea of Spatial Form*. New Brunswick and London: Rutgers University Press, 1991.

Friedman, Michael: *Foundations of Space-Time Theories*. Princeton: Princeton University Press, 1983.

Fuko, Mišel: "Druga mesta" [Of other spaces], transl. by Pavle Milenković, in: Pavle Milenković and Dušan Marinković (Eds), *Mišel Fuko 1926–1984–2004 hrestomatija* [Michel Foucault 1926–1984–2004 reader]. Novi Sad: Vojvođanska sociološka asocijacija, 2005, 29–36.

Gostuški, Dragutin: *Vreme umetnosti* [The Time of Art]. Belgrade: Prosveta, 1968.

Habermas, Jirgen: "Modernost – jedan necelovit projekat" [Modernity – an unfinished project], transl. by Zdenka Petković-Prošić, in: Milan Damnjanović and Emina Kulenović-Grujić (Eds), *Umetnost i progres* [Art and Progress]. Belgrade: Estetičko društvo Srbije – MRO Književne novine, 1988, 28–37.

Harvey, David: *The Condition of Postmodernity*. Cambridge and Oxford: Blackwell, 1989.

Jameson, Fredric: *Postmodernism, or, the Cultural Logic of Late Capitalism*. Durham: Duke University Press, 1991.

Jammer, Max: *Concepts of Space*, third enlarged edition. New York: Dover, 1993.

Kloc, Hajnrih: *Umetnost XX veka. Moderna – postmoderna – druga moderna* [The Art of the 20th-century. Modernism – postmodernism – second modernism]. Transl. by Zlatko Krasni. Novi Sad: Svetovi, 1995.

Koselleck, Reinhart: *Futures Past. On Semantics of Historical Time*. Transl. by Keith Tribe. New York: Columbia University Press, 2004.

Kramer, Jonathan: *The Time of Music*. New York: Schrimer Books, 1988.

Lyotard, Jean-François: *Inhuman*. Transl. by Geoffrey Bennington and Rachel Bowlby. Polity Press, 1991.

May, Jon and Nigel Thrift: "Introduction", in: Jon May and Nigel Thrift (Eds), *Timespace: geographies of temporality*. London – New York: Routledge, 2001, 1–46.

Metzer, David: *Musical Modernism at the Turn of the Twenty-First Century*. Cambridge: CUP, 2009.

Popović Mladjenović, Tijana: *Procesi panstilističkog muzičkog mišljenja* [The Processes of Panstylistical Musical Thinking]. Belgrade: Fakultet muzičke umetnosti, 2009.

Schorske, Carl: *Thinking with History*. Princeton: Princeton University Press, 1998.

Sovtić, Nemanja: "Da li je stilska epoha *istorijsko vreme* u umetnosti? Misao Dragutina Gostuškog u svetlu jednog odsudnog pojma" [Is a Stylistic Epoch a Historical Time of Art? Dragutin Gostuški's Thought in the Light of One Missing Concept], in: Katarina Tomašević and Bojana Radovanović (Eds), *Iskošeni ugao Dragutina Gostuškog: tematski zbornik* [Dragutin Gostuški's Unconventional Wisdom: Thematic Collection]. Belgrade: Muzikološki institut SANU, 2024, 65–84.

Stanford Friedman, Susan: *Planetary Modernism*. New York: Columbia University Press, 2015.

Šuvaković, Miško: "Modernizam", in: *Pojmovnik suvremene umjetnosti* [The Lexicon of Contemporary Art]. Zagreb – Ghent: Horetzky – Vlees & Beton, 2005, 380–382.

Šuvaković, Miško: *Diskurzivna analiza* [Discoursive Analysis]. Belgrade: Orion Art, Katedra za muzikologiju Fakulteta muzičke umetnosti, 2010.

Tasić, Vladimir: *Mathematics and Roots of Postmodern Thought*. Oxford: OUP, 2001.

Trajković, Vlastimir: "Thinking the Rethinking (of the notion) of Modernity (in Music)", in: Dejan Despić and Melita Milin (Eds), *Rethinking Musical Modernism*. Belgrade: Institute of Musicology of SASA, 2008, 27–40.

Veselinović, Mirjana: *Stvaralačka prisutnost evropske avangarde u nas* [The Creative Presence of the European Avant-Garde in Serbian Music]. Belgrade: Univerzitet umetnosti, 1983.

Veselinović-Hofman, Mirjana: *Fragmenti o muzičkoj postmoderni* [Fragments on Musical Postmodernism]. Novi Sad: Matica srpska, 1997.

Other sources

Exibition *Utopia and research. Timisoara experimental groups 111 and Sigma (1966–1981),* curator Ileana Pintilie, The Nationa Art Museum of Timisoara. mnart.museum/en/project/utopia-and-research-timisoara-experimental-groups-111-and-sigma-1966-1981/

Summary

The central claim of the paper relates to the question of whether the artistic experience of space-time in the period from the *fin-de-siècle* to the 1960s can be interpreted in regards to the experience of space-time inherent to modernism.

Starting with the interpretations of modernism as a phenomenon in contemporary literature, the inconsistency and unclear separation in the meaning of the term

modernism is noticeable. Therefore, the terminology of modernism and related terms, that altogether form a lexicon of modernism, according to art theoretician Miško Šuvaković, is conducted (modern age, modernity, modern, modernization, and avant-garde). For discourses of the arts, the terms modernity, as the understanding of the present moment, and modern, based on that understanding, are recognized as relevant. From the awareness of belonging to the present and the character of that moment, the values and ideas that the present make modern emerge from the relation to the past and the future, which can be best understood through the manifestation of modernism in the arts.

The notion of space-time is discussed through two essential concepts for the studies of art: Kant's understanding of space and time as *a priori* forms of intuition, and the model of the space-time continuum, established in Einstein's theories of relativity. Whereas for Kant it is impossible to think and perceive the world without the categories of space and time, which are mutually independent, in Einstein's theory of relativity space and time appear as mutually dependent, where one category is not thinkable without the presence of the other. However, in the domain of the arts the use of the notion of space-time is not applied in an exact manner, as in physics and mathematics. Moreover, its meaning is modified, which is conditioned by the fact that space-time in the arts, in the perception of the work of art, is understood separately.

Based on the insights on the connections between modernism and space-time coming from sociology, urban geography, philosophy, and history, these two notions are taken as phenomena that influence one another, where modernist traits like fragmentation, discontinuity, heterogeneity and others, are connected to the traits of space-time in an allusive manner. In other words, the changes that are noted in the period from the mid-eighteenth to the mid-twentieth century are interpreted in relation to the transformations in the experience of space-time. Furthermore, this provides the foundation to explain the modernist experience of space-time, which is defined as the perception of multilayered time in correlation to imaginary or ideal space.

Due to the specific nature of its medium, music as art is unique in relation to the other arts in the way the phenomenon of space-time is perceived. In that regard, the phenomenon of space-time is analyzed in relation to aspects of fragmentation, non-linearity, and discontinuity, which in the experience of listening to a piece of music emerge as immediate, even shocking for the listener, leaving him no room to intellectualize the change in the perception of space-time, as is possible in other arts.