

# ONTOLOGY OF SPACE AND TIME IN ART AND CULTURE: STUDY OF SPACE IN MUSIC

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## ABSTRACT

**Background.** Many explorers in various fields of knowledge interpret historical evolution as a change of the analytical (temporal) and synthetic (spatial) epochs expressing different types of assimilation of information. The end of the 20<sup>th</sup> and the beginning of the 21st centuries belongs to the synthetic epoch. In this connection the actualization of concepts of space and time as a generalizing philosophical category is objective.

**Aims.** The purpose of the given research is to reveal differences in ontological characteristics of space in various culture types, national schools, epochs, and also to interpret the manifestation of space in art from standpoints of idea, type of development, form, and meanings of elements of the text.

**Main Contribution.** In the history of the development of culture and art, a number of epochs conterminous with dominance of the spatial factor were detected: Medieval culture of Japan, the beginning of baroque in the Western-European culture and Impressionism in the beginning of the 20th century. There exist parallels between the first and the last historical periods. Each type of culture (Egyptian, Greek, Arabian, Indian, Asian, Western-European, etc.) has its prime spatial symbol, which is defined by beliefs. Each ethnic type is the bearer of qualities of space, namely of environment, geographic landscape and region that is mirrored in behaviour, culture and art. This is confirmed by the latest research in the field of musical psychology. Principal ideas concerning studies of space in music are based here on the creativity of Claude Debussy, one of the first composers who used the expressive capabilities of music to create spatial images.

**Implications.** This paper suggests a new approach to studies of the ontology of space in works of art from geographic, ethnic, philosophical, conceptual, axiological, hermeneutic, structural, and other standpoints.

## 1. BACKGROUND

This study discusses specificity of space and time (or chronotop) manifestation in art and culture and discrepancy in the perceptions of people. The term “chronotop” was introduced by well-known Russian literary scholar M. Bakhtin to define the manifestation of space and time in artistic creativity. “Chrono” is time, “topos” is space. Combining these two concepts by one term, the scientist implied inseparable unity of their action in the content and structure of a work of art (Bakhtin, 1986). In this research greater attention is given to the spatial component and to its specific evidence in music and culture. The principal ideas concerning studies of space in music are based on the creativity of Claude Debussy, one of the first composers who used the expressive capabilities of music to create spatial images.

## 2. DISCUSSION

### 2.1. Ontology of Space and Time in Art: Structural Functions

Many explorers of physical space mark the special sensitivity of a person to a phenomenon of space and time as bounding the physical frameworks of the person. In artistic creativity, space and time appear as the factors organising the work of art and defining the individuality of its structure and content.

In architecture, the structural quality of chronotop, in A.V. Gabrichevsky’s view (1989) is displayed in the relationship of mass and form. “The major dimensions and the stereometric forms ... invoke in the spectator the peculiar experience ... of the dynamics of space. The enormous vertical masses, smooth and unbroken awake a specific sense of awe, close to the unconscious experience of a dynamic void and to agoraphobia (fear of space). The building with the stereometric smooth forms, clearly defined edges, ... states mass in negative value...Components such as doors, windows, the outside segmentation of a wall...make the building relate to the person, negating thereby independence of substance. In this connection any components of the structure become artistically valuable” (Gabrichevsky 1989).

In literature, the structure of space often represents itself as the tongue for expression of other nonspatial relationships. Thus, for example, the spatial oppositions “high - low”, “right-hand - left-hand”, “close - far”, “closed - open”, “discrete - continuous” etc, embody the meanings “good - bad”, “own - alien”, “accessible - inaccessible”, “mortal - immortal” (Lotman, 1998, p.212-221). Hence it is possible to draw a conclusion that the concept of space in literature by means of semantic inversions is the bearer of ethical, aesthetic and axiological meanings.

Structural qualities of space in music are defined and depend on the immanent peculiarities of the musical fabric. According to V.S. Tsenova’s classification, the structural composition depends on: -

- a type of sound material of the sonorous type, which can be conventionally tempered to exhibit specific music (or sounds of actual medium) or technological modifications;
- the intonational properties of the material of the tonal - subject, modal, serial or other types;
- the regularities of development which produce continual, discrete, closed or open structure;

- a type of disposition of the material, the development of which can proceed in horizontal direction, in vertical direction or in both horizontal and vertical directions; and
- a type of stability of the musical text, namely with consolidated interconnections of musical elements in musical composition, with mobility or improvisation.

## 2.2. Ontology of Space and Time in Art: Informative Functions

In the figurative world of art the ontology of chronotop often has a philosophical orientation, which is expressed by the idea of infinite space and infinite time. Russian philosopher P. Florensky introduces the concepts “potential perpetuity” and “actual infinity” (Florensky 1988, p. 57). The first definition implies an unrestricted and immeasurable state. In music, its embodiment is frequently linked to an image of Space. The concept “actual infinity” is rendered by P. Florensky as God, nature and spirit. This concept finds expression in religious and pantheistic images and in creativity itself as a manifestation of the creative spirit.

In literature, space and time act not only on semantic and structural levels but also in all elements of the text, combining all levels of the content of the work. Within this ranging one can identify synchronic and diachronic functioning of chronotop components. We perceive under synchronic functioning a simultaneous action of both temporal and spatial components on different structural levels of the content. Diachronic functioning implies prevalence of characteristic features of either spatial or temporal components and their recurrence in the framework of content. The principles of synchronisation and asynchronisation in exhibiting diverse qualities of chronotop result in a strong informative quality of the text. In this case chronotop is a connecting strand between content existing abstractly and the empirical form and appears, thereby, in the communication quality. Thus, the ontology of space in art can be interpreted by various concepts, such as axiological, philosophical, communicative and hermeneutic (in terms of exhibiting space and time in elements of the text and in the structure of a work).

## 2.3. Ontology of Space and Time in Culture

Similarly to art, the culture has its own ontology of space and time. O. Shpengler (1998, p. 266) considers space as a spiritual phenomenon, the prime symbol of any culture. Study of ontological characteristics of space in the Greek, Arabian, Indian, Western-European, Egyptian, and Asian cultures has shown that the diversity of ontological characteristics of space in various culture types is founded on diversity of the forms of religious consciousness of the peoples. However, the culture is influenced not only by a form of beliefs, defining the way of life of a household, the customs and traditions of the people, but also by the unique geographic location. There are not many transactions interpreting the influence of the surrounding biological environment on a person and the means of its reflectance in art and culture. These studies are all in the field of ethnology. One of these works is a study conducted by Peter Soko. Analysis

of the physical and biological elements, namely the rumbling of thunder, noise of the surf, the howl of wild animals etc. has illustrated that the sounds of nature contain all known modes, rhythm and other musical components, means and structures. Thus, the study of nature opens to musical art new prospects for development. In this connection the influence of the environment or physical space on the creativity of the people, merits further research. Thus, the ontology of space and time in culture is based on the diversity of the forms of belief and biological environment of the region.

## 3. STUDY OF SPACE IN MUSIC

### 3.1. Intercoupling of Cultures of East and West. Aesthetic Views of C. Debussy

The important peculiarity of the ontology of chronotop in art is its developmental modification. The interplay of its components is manifested in synchronic and diachronic forms. In some epochs both spatial and temporal co-ordinates were counterbalanced or synchronised in works of art: whereas in other epochs in different countries only one component of chronotop was predominant. Thus, the spatial co-ordinate dominated in the art of Medieval Japan and Italian art of the second half of the 16<sup>th</sup> century, represented by the best samples of Tintoretto's painting and J. Gabrieli's music. It also was dominant in the West-European art of late 19<sup>th</sup> - early 20<sup>th</sup> centuries and in the style of Impressionism.

We shall discuss in more detail the interrelation between the art of Medieval Japan and Impressionism. Such an approach opens out new possibilities not only in research of exhibiting space in art but also in the analysis of an intercoupling of the cultures of East and West. We shall focus upon the creativity of C. Debussy as the founder of musical Impressionism and upon the art of Japan as representing the continental culture of the East. The Japanese culture is one of the most “open” Eastern cultures. Throughout its development it has assimilated elements of the cultures of China, India, Iran, Korea, and even East Turkestan and therefore can be regarded as the culture of the East in a broad sense (Esipova 2001).

The spirit of beauty, special delicacy and depth of emotional experience bring together two womanly cultures of Japan and France. The intrinsic qualities of the personality of C. Debussy have exhibited a surprising synthesis of eastern and western features of culture. He has offered to the West a different type of understanding the richest possibilities for development and creativity.

The characteristic feature of the creative method of C. Debussy is a spatial resolution in the most of his musical images. This is effected by the aesthetic views of the composer, considering the person, nature and music as a certain, continuous whole. Debussy was convinced that there is much for the composers to learn from nature. He thought that the merging of music and nature was one of the paths for the development of art. “Music ... is art moving in space... It seems to me that the dreams of the future generations could be laid in this thought”, wrote C. Debussy (1964, p.33).

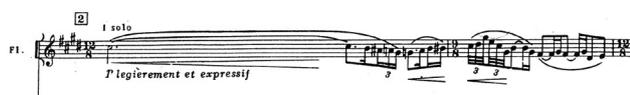
These views have much in common with Shintoism – the Medieval religion of Japan, afterwards assuming the form of an ethnic cult. Shintoism displayed and still displays a powerful sense of the presence of gods and spirits in nature. According to Shintoism, the gods, spirits, people, appearances and subjects of nature easily transform into each other, that is, all has deity, each appearance is valuable in itself. Thus, nature is considered an integral part of the life of the person. Style “mono-no-avare”, the sad charm of things, mirrors similar views. The artist sees in each thing, the concealed beauty, the sensation of the originality of each instant. The object mirrors an emotional state of the person. As in Impressionism the creator and the object of creation are syncretistic, since the artist fixes the effect produced by an object rather than an object.

### 3.2. Space of a Sound

A characteristic feature of the psyche of the French is the heightened sense of measure, which allows them to create surprising examples of nonconflicting combinations of contrasting elements. This quality has allowed C. Debussy, with his appreciation of nature, to quietly accept the peculiar Gothic of the Eiffel Tower and other symbols of a modern civilisation. This quality has allowed him to combine features intrinsic to western and eastern perception. Russian philosopher V. Soloviev remarked that individualism was a generic feature of western consciousness and community, of eastern. C. Debussy illustrates this in his work with a sound. The composer can vary the form of a sound in terms of time and space. In his creations we often interfere with the phenomenon of “the life of a sound”: its long duration and admiration by colourful overtone modulations of its spectrum. We can interpret as an example, in terms of time, the first sound of the motif of a flute which opens the symphonic *Prélude à L'après-midi d'un faune (Prelude on the Afternoon Rest of a Fawn)*. We observe the augmentation of the life of the sound throughout the entire prelude. Firstly, it is only two quarters long (Figure 1). In bar 21, digit 2, the duration of the first note of the initial motif is augmented (Figure 2). In the recapture, (bar 79, digit 8) the sound already has a duration of the whole note, ligated with the eighth note (Figure 3). In such interpretation of temporal life it is possible to say that the sound is treated by the composer as individuality. The same tendency of prolongation of a sound is observed in the beginning of the prelude from the Suite for the piano, in the piece *Jardins sous la pluie (Gardens under the Rain)* from the cycle *Estampes (Prints)* (bars 110-112), in *La Sérénade interrompue (The Interrupted Serenade)* (bar 25), in *Brouillards (Fog)* (bar 14), at the end of the prelude *Voiles (Sails)* and at the end of the piece *Jardins sous la pluie (Gardens under the Rain)*.



Figure 1.



Figur 2.

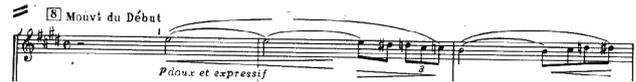


Figure 3.

The variation of a sound in terms of space is connected with the different forms of its extension and, in particular, its emphasis on colourful possibilities. In the piece *Et la lune descend sur le temple qui fut (And the Moon Descends on the Ruins of a Temple)* C. Debussy uses a grace-note, the analog of the note which is an octave lower (IMAGE 4.GIF). In the piece *Golden fish* from the same cycle *Images* the composer enlarges the sounding of the note with the help of a trill (IMAGE 5.GIF). For the same purpose C. Debussy uses vibrato in the piece *Snow Dances* from a cycle *Children's Corner*. In such a treatment the concept of a sound varies. From a sound – individuality, it turns to a sound – substance. Thus, we detect two magnitudes of space in music by means of these two concepts – a sound as individuality and a sound as a substance. Those are the microspace or space of a sound and the macrospace or space of sounding.

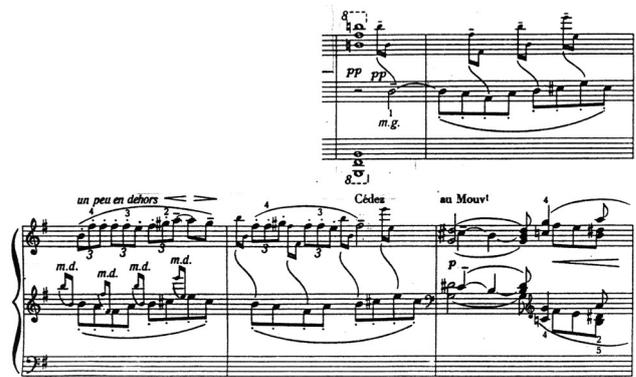


Figure 4.



Figure 5.

### 3.3. Space as a Phenomenon of Texture

The transmission of spatial sensations in the structure of a musical tongue is known to be in most cases a prerogative of the texture. In Kholopova's (1979) opinion, the constancy of functions and an unstable quantity of voices is common for C. Debussy's texture. Three functional voices (principal, side voices and bass) are strictly held out each in its register stage, that provides fixation of a pitch - register characteristic (Kholopova 1979, p. 77). Thus, a certain spatial constant is defined. However, at this stability C. Debussy always has a variable solution: the saturation of one of the functional voices varies, the voice can be cut off for some time. This results in a change of sound substance density and sound space.

A similar pattern of organisation is peculiar to the world perception of the Japanese. The structural forms of their tongue clearly demonstrate it. The writing by hieroglyphs in Japan transmits ancient views of the people about the structure of the world. The Japanese phrases are arranged in a vertical direction that mirrors the scale of ranks: the upper world, the mean and the inferior. This structure-forming principle (connection in vertical direction) works in their architecture, music, poetry, clothes, painting etc. Simultaneously there is another type of written culture in Japan, namely a syllabic alphabet. This type of writing points also to a habit of horizontal, linear vision (Grigorieva 1993, p. 37-39).

Some analogies are observed in C. Debussy's creativity. Many explorers mark wealth of the tune nature of the voices of the texture, naming it homophonic - polyphonic. According to E. Kurt, each tune appearance is a kinetic energy or committing motion. It is exhibited in all components of music, and to the greater extent, in sound symbolics (Kurt 1931, p. 51). Semantics of intonations in the music of C. Debussy rest on initial motives of motion, namely ascending, descending, and undulating. Such a treatment of tune linearity creates an idea of motion directed towards perpetuity. This is much in common with the peculiarities of the world perception of the Japanese who believe that all goes by the turn, and any obsession is excessiveness which forces down a natural rhythm of things. For this reason the Japanese cultivate the beauty of the ephemeral. Time in the perception of the Japanese is devoid of duration and exists as "the eternal now". Something similar can be observed in Impressionism: tending to mirror the instant, the artists express eternity.

### 3.4. Myth as a Form of Actualizing Spatial Component

The analogies between Impressionism and the culture of Medieval Japan demonstrate that there are common features of mythological intellection that combine these two intercontinental, non-simultaneous cultures. Mythological consciousness is one of the most ancient, which described the first views of the person about the world. One of the well-known Russian philosophers A.F. Losev (1991, p. 517) wrote: "The Myth is emotional, affective,

and vital". All these features define a sensual form of knowledge of life. The emotion and affection of the myth also implies such quality, with the appearance of the other myth inside. This, probably, has predetermined the asymmetrical discrete structure of works of both Impressionists and some appearances of the culture of Medieval Japan. The frequent use of mythological scenes by composers in the beginning of the 20<sup>th</sup> century testifies to the actualization of mythological features of intellection. About seventeen published compositions and unpublished designs confirm this creative tendency in C. Debussy's creations. Among them are *Prelude a l'apres-midi d'un faune*, *Chansons de Bilitis*, *Sirènes from Nocturnes* etc.

The mythological orientation of consciousness of a person in the beginning of the 20<sup>th</sup> century can be explained. The person is "psychologically depressed" by the swift development of civilisation and is attracted to artistic notions irrelevant with the unidirectional stages of development. Stephen Hill in his paper "New century - music made simply" remarks on the popularity in the 20th century of Pachelbel's compositions, Gregorian chorals of Medieval Europe and Japanese classic music. The main thing is that definiteness of a dialectic setting up does not work in all the enumerated compositions. Underlying them is a structure-forming type of "the myth in the myth", defining the discreteness of a construction. A principle of a similarity or crystalline space, rather than a temporal quality here becomes the dominating characteristic.

## 4. CONCLUSIONS

Thus, in music, space is an indisputable component of each element of the text and entire structure of the musical content. In these terms space is multi-functional and is displayed in three values: micro, mega and macro. The reflection of space and time in artistic creativity is multi-aspectual. In art, the chronotop can embody different meanings. In structural meaning it appears as a special form of idea presentation; in axiological, as a symbol of the inversion of spatial-temporal characteristics in ethical and aesthetic concepts; in philosophical, as turning to definite images; in hermeneutic, as a means of treatment of the text elements from a chronotop standpoint. The chronotop in culture can appear in geographic meaning as describing the continental type of culture or the manifestation of national schools; in ontological, as the reflection of the form of belief of the people; in historical, as a symbol of the world outlook of the epoch varying in accordance with the consciousness of the people. Such abundance of meanings of the chronotop in art and culture presupposes application of various methods of studying this category.

## 5. ACKNOWLEDGEMENTS

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