The Music Space

CARMEN CHELARU
The Faculty of Music Performance
University of Arts “George Enescu” Iasi
ROMANIA
carmen.chelaru@gmail.com secretary@filarmonicais.ro http://www.arteiasi.ro/

Abstract: Music is traditionally considered as a temporal art. At the same time, a musical work supposes organisation, unity, continuity. These are attributes of spatiality. By consequence, we are talking in music about a special kind of space – not surfaces or volumes, but a metaphorical one, which we call here the virtual musical space. It is important not only to admit its presence among the musical language elements, but especially to comprehend its structure, and its influence in the modern forms of art.

Key-Words: music space, virtual space, psychological space, acoustics, temporal-spatial.

1 What is Music?
“Succession of musical moving forms” (Eduard Hanslick) [1]. It is important that the right music should be performed into the right space. The music effect upon the listeners grows if this condition is accomplished.

Why humankind did create a special space for the music?
Why the antiques joined arithmetic to music?
Actually, why the music has a form?
Why the main groups of instruments in the orchestra are situated to be better heard rather than looked?
… These are only a few questions to which we try to find here an answer.

The same as all human productions, Music supposes organizing, unity as well as continuity. All these features are related to the spatiality of music. We therefore agree that music supposes time, virtual moving as well as space. There are three ‘partners’ in the art of sounds:
- The composer
- The performer
- The listener

To these, we add:
- Time – controlled and determined, and
- Space – consisting in: the acoustic, the virtual and the psychological forms. [2]

Although the humankind did not perceive the music space right from the beginning, it was all the time there, enclosed in the artistic phenomenon.

1.1 The Acoustic Space
Along the history, people tried to adapt music to special environments; and all the same, they created proper places to serve music. Such was the relationship between the religious music and the cathedral or church; such used to be the relationship between the ancient Greek tragedy and the amphitheatre.

1.2 The Virtual Space in Music
We consider the virtual space to be the largest as well as the richest sphere of the musical space. We could define it as the composer’s artistic imagination, his entire subjective musical world.

The virtual space in music includes the technical part – the main specific language of each composer; –, and the aesthetic part – his own sensibility. Only a part of this sensibility is going to be perceived by the listener. The sonata form, the tonal functional system, the pentatonic scales are parts of the technical virtual space; the same are the specific approaches of Bartók, Skriabin, Messiaen etc.

The further atmosphere of, let’s say, Bartók’s Music for strings, percussion and celesta assigns a singular, unmistakable virtual space. Or, the ethos in the 4th movement of the Symphony No. 4 by Brahms – the musical ‘cathedral’, synthesis of passacaglia, classical variations and sonata form. The same is the Quartet op. 133 Grosse Fuge by Beethoven.

1.3 The Psychological Space in Music
We consider this one to be the sphere of both the performer and the listener. Both the performer and the listener are not able to find out and comprehend all detail of the composer’s mind; at the same time, the composer could not discover the entire sphere of emotions that his music is able to create. There are distinct spaces, connected, but not identical. In other words, it’s the difference between the intention and the effect. See the figure below.

In the mean time, the acoustical space – the church or the cathedral i.e. – has an indisputable effect upon the
human spirit. A mass, for instance, will be more impressive if we are listening to it in a specific religious establishment rather than no matter where.

The musical phenomenon supposes a partnership between the composer, the performer and the listener. Each of them has his own imagination, sensibility, comprehending. In the mean time, between the two of them there is a familiar sphere of understanding and communication. Finally, there is also a smaller zone where the three of them are communicating to each other without difficulties.

2 The Virtual Space in Music

Considering the circumstances of the present essay, we are choosing to expose a few more details regarding the virtual sphere of the music space. The principal reason is that this form of space is the largest as well as the oldest in the history of music, even it wasn’t all the time consciously realised by the composers, the performers and listeners.

When we listen to music, or when we perform it, consciously or not, we have not the pure time feeling; we feel some kind of spatial time. We mean by that a metaphoric succession of moving acoustical objects, related to each other, and also to the entire work. Therefore, the listener, as well as the performer has to remember all the time each previous moment of the musical work in order to comprehend the present, the next one and the whole work. We are talking here about succession and simultaneity at the same time – both of them results of the musician’s imagination.

We therefore consider the virtual space in music as a small part of the infinite sphere of the human spirit. It’s that particular form of space which makes us to consider the melody as a winding line; to explain the musical syntaxes (polyphony, homophony, heterophony etc.) as vertical forms of organizing the music; to talk about higher or lower sounds, and so on.

Pure acoustical time means one or several sounds accidentally uttered. At the moment when two or more sounds are intentionally produced, a musical relationship occurs. In this case each sound is related to the precedent and to the next. This phenomenon creates the virtual space. As the aesthetician Rudolf Arnheim used to say, “the time pure an simple is creating succession, not order.” [3]

Order, unity, continuity are spatial attributes. They are not related to the notion of time. By consequence, when we are talking about: tonality, modal and serial systems, musical theme (including leit-motif) generating the musical form and genre, all kind of musical syntaxes (including symphony), we refer to the musical virtual space. The same are the general aesthetic and mathematic aspects and methods like: symmetry-asymmetry, unity-diversity relations, variation forms, all sorts of structural proportions, the climax in music etc.

According to the composer Anatol Vieru, “Man cannot perceive the time or the space as an outsider; it is very difficult even to separate time by space: everything which exists in time, requests spatiality, and all space demands temporal existence.” [4].

Let’s take, for instance, three important elements of the musical language: the form, the genre and the symphony [5]. The three of them could be comprehensible as spatial parts of the music.

The musical form and genre are aesthetical categories whose elements could acquire sense only related to the whole. By consequence, it’s necessary to hear the entire musical work in order to have a complete image of the creation – structure, content, sense, expression – and be able to make your own considerations towards them. Sonata form is one of the best examples of spatial representation in music. The relative symmetry between the Exposition and the Recapitulation could be perceived by the elementary memory of the listener. In their turn, the composer and the performer have in mind a literal or/and diagram representation of the sonata form like:

A B A or

The term of symphony is very often used, but rarely explained. “The symphony in music could be compared to the dramaturgy in theatre” – sais Alexandru Leahu. [6]. By attaching the symphony to the dramaturgy, the author reveals the spatiality of the
first one.

The musical virtual space is a dynamic one, as Gisèle Brelet specifies:

“The virtual space is not given by simultaneity, but by a succession of moments in a multitude of directions. Let’s consider the hearing plunging into obscurity, independently by the sight: what remains of the space is just the multitude of directions our sense of hearing is made for, where the space cannot be detached by the time.” [7]

3 Possible effects of the Music Space

Let’s take, for instance the polytopes of Iannis Xenakis, or Jean Michel Jarre’s multimedia shows.

In 1972, Iannis Xenakis was commissioned to produce a multimedia “polytope” – as he termed his work – placed in an ancient site, in the heart of Paris. The Baths of Cluny, near Sorbonne, were built by the Romans, and the palace above them has become a prime example of medieval architecture. The idea of installing lights and sounds right in the vaults of the baths was designed to help Parisians connect with their past. This project succeeded beyond the organizers wildest dreams. Polytope de Cluny opened in October 1972 as part of the year’s Festival d’Automne. The “spectacle” consisted of a 24-minute eight-channel tape containing electro acoustic music, several hundred flashbulbs placed on scaffolding throughout the underground chambers and able to be individually triggered to create vivid patterns of light, and three lasers of different colours that could be projected throughout the vault by means of a network of adjustable mirrors. [8]

On 3rd June this year, Jean Michel Jarre is going to perform in Bucharest a new-called spectacle “all-in-one-show”. He is another multimedia representative author, considered to be one of the pioneers especially in using multimedia effects. Some of his well-known creations are: Oxygen, Paris-Ville-en-concert, Aero etc. In his shows, the synthesizers meet the digital technology, design, choreography, traditional instruments and voices and so on.[9]

We know already that the crowd can be manipulated by all sorts of ways and means. Art is one of them. The question is what sort of effect can we obtain – a good or a bad one? There are more and more frequent situations when the psychological pressure in association with acoustic and visual aggression can produce disastrous effects, going till general hysteria.

The musical space, by its three forms – acoustic, virtual and psychological – could be considered as a part of the specific language in the art of sounds. Is it important to study this special and specific “territory”?

If it is so, why should we do it? Even they are not yet confirmed values, the new forms of art include the three types of the musical space. Among them, there are:

- Surround audition, which represents one of the results nowadays.
- 3D movies can now be seen in thousands of new generation 3D theatres all around the world. It supposes, of course, an important acoustical part.
- The Second Life program, Internet’s largest 3D virtual world community, supposes all sorts of sound simulations as well.
- Multimedia continues to be one of the most spectacular forms of artistic syncretism, including text, audio, still images, animation, video, and interactivity content forms.

All these and a lot of other traditional artistic forms include music by its peculiar part – the music space.

We are living now in the era of information technology, which is involved in almost entire our existence. In this respect, the art of sounds does not make an exception; and the musical space became a main ‘character’ in this huge human ‘story’. Many new activity fields did appear during the last fifty years or so. Among them, the sound engineer, the acoustician architect, record producer, professional audio application coordinator, audio restoration engineer etc. etc. For all these professions there are necessary acknowledges of electronics, physics, architecture, building structure, engineering, and above all, music and specially music space.

Unfortunately, the Romanian artistic education – especially on the university level – does not include this sort of specialities yet. Around the world, the sound engineers for instance, are professional graduated from more and more specialised institutes, universities, schools. In Romania this part of the cultural activity, even in media domain, is covered by (sometimes) talented and passionate people, but not completely trained for that. We are building all sort of public halls – large and small, for all sorts of destinations, including music performances of all kind – without professional preoccupation regarding the acoustics. Even the new built churches do not have – some of them – the best acoustic qualities, required by their destination.

4 Professional Education Forms

As we mentioned above, there is nowadays a large preoccupation towards the sound technology all over the world. An example consists in the SAE Institutes – Practical Creative Media Education, with many residences in Europe, USA, Asia, Australia, Middle East, Africa. SAE (School of Audio Engineering) is a large worldwide private college for audio engineering
and digital film training, with practical training courses and academic degree programmes. In Europe, there are SAE Institutes in Austria, Belgium, Germany, Greece, Italy, Netherlands, Slovenia, Spain, Sweden, Switzerland, UK – impressive aria, but far from the Eastern Europe! [10]

In France there are preoccupations towards the educational forms in the sound technology as well. École nationale supérieure Louis-Lumière – the National Film, Photography & Sound Engineering School – dedicated to providing pre-professional training for the audio-visual industries. ENS Louis Lumière offers theoretical, practical as well as technical and artistic education and training for those wishing to go into the various branches of the audio-visual industry. Run under the auspices of the Ministry of Education, it offers a state-funded course at postgraduate level leading to a nationally-recognised diploma equivalent to an M. Phil. [11]

Conservatoire National Supérieur de Musique et de Danse de Paris includes the department named Formation supérieure aux métiers du son / High Training in Sound Technology. [12]

The Audio Engineering Society is a professional society dedicated to audio technology. Founded in the United States in 1948, the AES has grown to become an international organization that unites audio engineers, creative artists, scientists and students worldwide by promoting advances in audio and disseminating new knowledge and research. [13]

And so on…

The international preoccupations of the kind are interested to train the youth for professional manipulating the most sophisticated audio-video techniques. By tradition, the Eastern Europe seems to be not so interested in this activity, although here the newest technologies are running as well as abroad. Could be helpful at least organizing master courses on this theme, or/and scholarship at the international institutes for young musicians interested. Training professional people in these directions and founding specialized forms of education seems to be an important and urgent target in Romania at least.

5 Conclusion

As final argument, we are convinced that nowadays, the specific cultural activities force us to consider the musical space as an important part of the art of sounds; more than that, we need to use it in the professional education, in order to limit, to reduce the dilettantism, the kitsch, and all sorts of errors of the kind.

The professional forms of education towards the sound technology – including the musical space with all its aspects – should reduce, for instance, the real danger caused by the DJ ‘species’ to the minds, sensibilities, even physical health of the young people.

Nowadays, more and more complex audio-video performances are organized in the most diverse locations: ancient amphitheatres, archaeological sites, public parks or squares, stadiums etc. An important part of the large teams who are making everything working is represented by the professionals in sound technology. Manipulating the sound in a very large location, destined to be heard by thousand and thousand people is not an easy activity; more than that: it could become dangerous if, for instance, the frequencies and intensities become out of control.

According to all the above arguments, a malicious mind could remark: So, the Music is a spatial art?!

Well, if we consider the space to be a visual expression of surfaces or volumes – no, Music is not a spatial art, like picture, sculpture or architecture! But if we agree that the notion of space supposes a concrete as well as an abstract meaning – yes, Music is a temporal-spatial art!

References: