

Theorie der Neuen Musik

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Music as Text, Musical Movement and Spatio-Temporal Features of the Musical Work

I

What is «music as text»? Obviously, the answer depends on what is meant by «music» and what is meant by «text». By referring to a *verbal text* in music sung by human voices (*text₁*), one merely talks about music and text. However, when one refers to the *notational text* written down by the composer of an instrumental work in the Western-European classical tradition (*text₂*), one considers music as text. What is this notational text? For Nelson Goodman, pitch and rhythm are the only significant elements in the musical-notational system.¹ This is *text_{2a}*. For others, verbal and graphic elements of musical notation also participate in establishing the identity of the musical work: instrumentation, tempo and expressive markings², verbal text and purely visual aspects of notation.³ This is *text_{2b}*. In both cases, «music as text» has a fixed essence, comprised in the «Urtext» — the one and only, fundamental text of the musical work. Here, axiology, not just ontology is involved, for a work of music has to be worthy of becoming such a «sacred» text.

However, when the text is primarily *semantic* (when is it not?) one may envision music — even without verbal texts — as a carrier of meaning (*texts*). Music, analogous to literature, may then signify, denote and represent (*text_{3a}*); it may also possess a narrative structure without portraying anything in particular (*text_{3b}*). Finally, as every human artifact, it may simply «make sense», i.e. be meaningful in a general, vague way (*text_{3c}*).⁴

These distinctions, especially between the notational and semantic aspects of musical texts, are further confounded by the peculiar nature of the musical work, requiring for its existence both the notational schema of the score and its realization in performance.⁵ The score may be designed as a representation of sound or as an instruction for performers; in both cases it needs to be read. One obvious sense of the interpretation of musical texts emerges here: performers read the notational texts and interpret them in sound. Another type of interpretation is more evasive. While the listeners and scholars read the notational (and sonorous) texts of music, they reinterpret the music in ever-changing languages and contexts. For Dahlhaus, the work of music is not independent from the hermeneutic process through which its meaning may be grasped and revealed.⁶ Thus, «understanding» needs to be included in the work's ontological mode of being.⁷

A question arises as to the significance of spatio-temporal considerations (e.g. sound movement) for the notion of music as text. In theory, musical movement is usually equated with motion in time which is present in the relationship of succession and the teleological orientation between events of a fixed order. According to Eduard Hanslick, «the attribute of motion, of sequential development»⁸ is a basic characteristic of the musical phenomenon. Hanslick and other theorists often speak about «sounding form in motion», about melodic and

1 Nelson Goodman, *Languages of Art. An Approach to a Theory of Symbols*, Indianapolis 1976, pp. 179-191.

2 Roman Ingarden, *The Work of Music and the Problem of Its Identity*, transl. from the Polish by Adam Czerniawski, Berkeley 1986 [«Utwór muzyczny i Sprawa jego Tożsamości», in *Studia z Estetyki*, Warszawa: PWN, 1958, Vol. 2], pp. 83-86.

3 Carl Dahlhaus, «Musik als Text», in: *Dichtung und Musik. Kaleidoskop ihrer Beziehungen*, hrsg. von Günter Schnitzler, Stuttgart 1979, pp. 11-28.

4 Patrick Heelan, *Space Perception and the Philosophy of Science*, Berkeley 1983, p. 266-267; Jean-Jacques Nattiez, *Music and Discourse. Toward a Semiology of Music [Musicologie générale et sémiologie]*, Paris 1987], transl. from the French by Carolyn Abbate, Princeton 1990, pp. 8-10.

5 Ingarden, *The Work of Music and the Problem of Its Identity*, p. 150.

6 Dahlhaus, «Musik als Text», p. 27-28.

7 Carl Dahlhaus, «Das «Verstehen» von Musik und die Sprache der musikalischen Analyse», in: *Musik und Verstehen. Aufsätze zur semiotischen Theorie, Ästhetik und Soziologie der musikalischen Rezeption*, hrsg. von Peter Faltin und Hans-Peter Reinecke, Köln 1973, pp. 37-47.

8 Eduard Hanslick, *On the Musically Beautiful [Vom Musikalisch-Schönen]*, 1854], transl. by Gregory Payzant, Indianapolis 1986, p. 29.

harmonic motion, etc. In these cases, «motion» means «change in time and pitch» — not a change of position in space.

Yet, in many works of this and the previous century, musical movement occurs both in time and in space, and the spatial placement of sound is given compositional significance. In such compositions, several of which will be examined in this paper, the attention shifts to the various physical directions of the spatio-temporal movement of sound: from being far away to near, from right to left, around the audience from one sound source to another. Here, musical notation serves to evoke a complex spatio-temporal phenomenon, an aural image created by means of the spatial separation of the instruments, as well as by the dynamic shading and temporal succession of sounds. This paper will focus on the issue of whether these features place such «spatio-temporal» compositions beyond the conceptual boundaries of «music as text».

II

Contrasts of distance — from being far away to near — are explored by Gustav Mahler, for example in the Finale of *Symphony No. 2* (1893-1894), where sounds from «a far distance» (off-stage trumpets, horns, and timpani) are juxtaposed with those of the orchestra (drum, flute, and piccolo). Although the score does not include a placement scheme for the instrumentalists, a note for the conductor indicates that «the four trumpets must sound from different directions» (m. 448). In addition to being contrasted in direction, with two of the trumpets placed at the right and two at the left, the sounds of the trumpets are mobile. Their successive entries are gradually nearer and louder, especially in the four-measure fanfare (mm. 455-458).

According to a draft program of this *Symphony*, the distant, approaching brass sounds have a definite meaning. Here, «the «great summons» is heard; the trumpets from the Apocalypse call».⁹ Thus, Mahler's use of spatial movement is both dramatic and symbolic. It is also quite sophisticated, with superimposed contrasting and changing acoustic plans, varied depths and directions. Sound movement in this work is interesting as such, not only as a carrier of meaning — which is, nevertheless, its primary function. The *Symphony No. 2* is meant to be read, with layers of sense associated with its text, with the progressive tonality, with the whole program portraying the Death and Resurrection of the Hero. Spatial distance and movement are important elements in this complex network of meanings. The notational text includes spatio-temporal features of sound (*text_{2b}*); moreover, these features are essential for the establishment of the semantic text, with elements of a definite representational character (*text_{3a}*) and of a narrative (*text_{3b}*). In Mahler's *Symphony No. 2* and in other works with a symbolic content, the listeners are expected to do more than simply listen to the music, they are invited to decipher the music's elaborate symbolism.

III

Spatial sound movement may be *discrete*, that is, it may proceed stepwise — if a musical phrase is presented successively in one ensemble of performers after another. This technique has been known since the Venetian school of polychorality in the late renaissance.¹⁰ Sound movement in space may also assume a *continuous* form — realized with moving performers or marching bands. Such continuous motion may be imitated by means of dynamics in music played by stationary performers (in Mahler's *Symphony* the continuity of motion is implied by the successive entries of the trumpets, each sounding louder and, therefore, nearer).

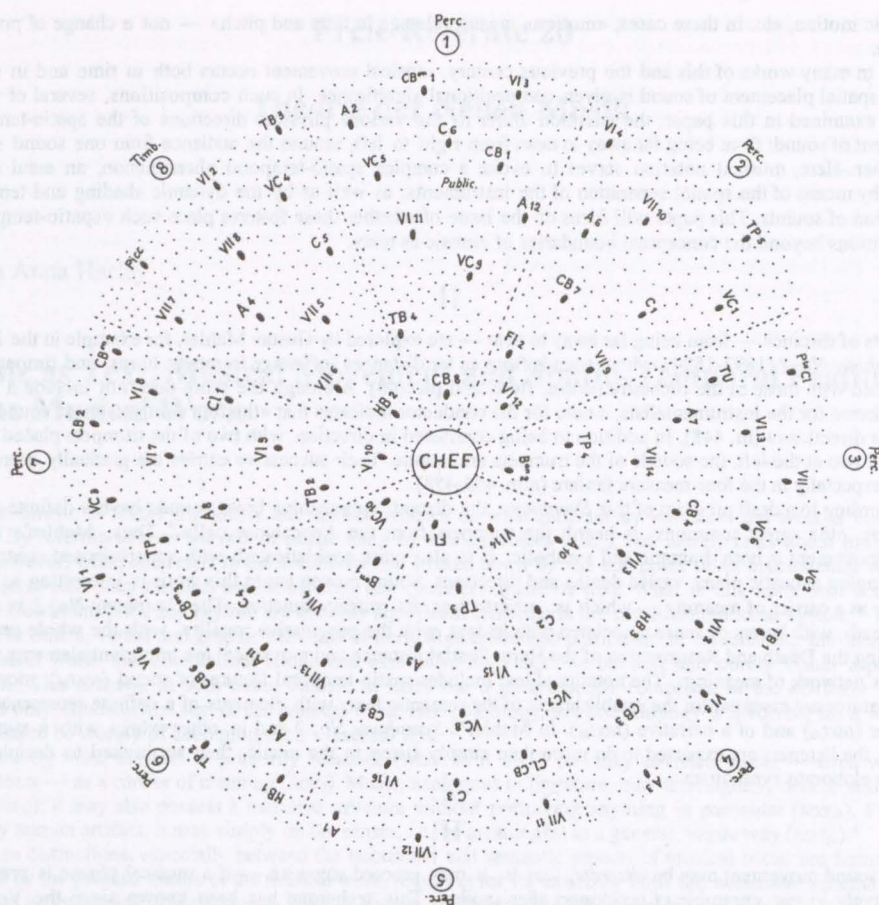
A different method of evoking the movement of sound in space involves ensemble dispersion, dynamic shading and temporal overlapping of sounds: stationary instrumental groups are placed around the audience and successively play sounds of the same pitch and timbre with similar dynamic envelopes (crescendo-decrescendo). The sonority seems to rotate in space, gradually shifting from one instrumental ensemble to another. The perception of this effect is very fragile; it depends upon the position of the listener and the quality of performance, that is, the placement of the groups, the exact matching of pitch, timbre, dynamics and so forth.¹¹ This effect, first used in Karlheinz Stockhausen's *Gruppen für drei Orchester* (1955-57), appears in many compositions, e.g. in Iannis Xenakis's *Terretektorh* (1965-66) and his *Nomos Gamma* (1967-1968), two works for a large orchestra dispersed in the audience.

In *Nomos Gamma*, 90 orchestral musicians are scattered among the listeners, while 8 percussionists are placed at the outskirts of the circular performance area (Ex. 1). The piece concludes (mm. 445-559) with a series of 198 sound rotations subdivided into seven segments. Each rotation, constructed from overlapping tremolos in the tuned tom-toms and timpani (Ex. 2), lasts for just 0.8 seconds; the velocity of this circular sound movement is stable (at the tempo of $\downarrow = 150$ MM). To avoid monotony, the timbre changes, usually in a descending

9 Gustav Mahler 1901. Cited after Donald Mitchell, *Gustav Mahler: The Wunderhorn Years. Chronicles and Commentaries*, London 1975, p. 183.

10 Or even earlier. Cf. Anthony F. Carver, *Cori Spezzati*, Vol. I: *The Development of Sacred Polychoral Music to the time of Schütz*, Cambridge 1988, pp. 1-15.

11 Maria Anna Harley, «From point to sphere: spatial organization of sound in contemporary music (after 1950)», in: *Canadian University Music Review* 13 (1993), pp. 123-144.



Ex. 1: Placement of performers and listeners in *Nomos Gamma* by Iannis Xenakis. Paris: Editions Salabert, 1968. Used by permission

pattern; the beginning of each circle is marked by the sonority of the timpani in Group 8. According to Xenakis, «in the case of circular motion one can establish a uniform progression resembling the movement of the second hand on a clock: the same amount of time — the same distance».¹² The perception of this movement by the listeners is far from uniform, though, for each member of the audience hears a different «profile» of sound (term from Ingarden 1958/1986), depending on his or her position in space. Needless to say, the setting privileges the conductor's placement at the centre of the circle.

Nomos Gamma concludes with a repeated circular motion of stable velocity. Xenakis develops the idea of continuous sound movement in *Persephassa* (1969) for six percussionists surrounding the audience. At the climax of this work (mm. 352-455) seven superimposed cycles of rotations are performed simultaneously; a large-scale pattern of accelerating sound is built from many individual revolutions of increasing tempi. The recognition of the elaborate patterns of rotations in both works is a necessary condition for the music's appropriate interpretation in performance. Thus, the diagram of performer placement is an essential element in the work's notational text (*text_{2b}*). This music would not retain its identity without the spatio-temporal motion of sound. Yet, the dramatic climaxes in both pieces inspire interpretations of a different kind — considerations of the potential meaning of such motion of sounds whirling around the audience, drawing the listeners into immense, sonorous vortices. This reading of music as a semantic text is not, in any way, encouraged by the composer.¹³

12 Iannis Xenakis, *Music, space and spatialization: Iannis Xenakis in conversation with Maria Harley*, unpublished interview of 25 May 1992, Paris, transcript of sound recording, p. 7; French translation by Marc Hyland: «Musique, espace, et spatialisation: Entretien de Iannis Xenakis avec Maria Harley», in: *Circuit. Revue Nord-Américaine de Musique du XXe Siècle* 5 (1994) no. 2: «Espace Xenakis», pp. 9-20.

13 Xenakis, *Music, space and spatialization*, p. 10.

Ex. 2: Sound rotations in mm. 511-513 of *Nomos Gamma* by Iannis Xenakis. Paris: Editions Salabert, 1968. Used by permission

IV

Continuous spatial sound movement constitutes an essential element in the notational and semantic texts of R. Murray Schafer's *Third String Quartet* (1981). Schafer's predilection for distant sonorites equals that of

AT THIS POINT THE FIRST VIOLINIST SLOWLY RISES & MOVES OFFSTAGE, CONTINUING TO PLAY. HE(SHE) SHOULD MOVE TO A VERY DISTANT POINT SO THAT THE PLAYING CONTINUES TO BE HEARD FOR A LONG TIME EVEN THOUGH IT MAY BE UNHEARD. AT SOME POINT THE PLAYERS ON STAGE ADD THE LAST TWO CHORDS.

R Murray Schafer
Monteagle Valley, June 1981

Ex. 3: Conclusion of the *Third String Quartet* by R. Murray Schafer. Bancroft, Ontario, Canada: Arcana Editions, 1983. Used by permission

Mahler; however, the Canadian composer makes sounds disappear in the distance not only through their dynamic fading-away, but also through their literally being carried-away by moving musicians. At the conclusion of the *Quartet* the composer includes the following note (cf. Ex. 3):

At this point the first violinist slowly rises and moves off-stage, continuing to play. He (she) should move to a very distant point so that the playing continues to be heard for a long time even though it may be unheard.

This remark is ostensibly directed to the performers, so one could say that it just accompanies the notational text of music as a commentary. However, this status is not so certain after the «musical» notation has been examined: the graphic image of the lines of the stave converging to one point can be properly understood only when one knows that this image implies the disappearance of the music into the distant silence.

Here, the violinist carries the music outside the concert hall; yet the composer asks for the violin to be heard, or imagined to be heard, in «the mind's ear» for a long time after the physical sound has become silent. Thus, while moving very far, the music moves inward, into the mental space of the listener's imagination. This movement outside/inside acquires a fuller significance in the context of the spatially-articulated form of the *Quartet*. In the first movement, the musicians, placed at various points in space and performing unrelated material, gradually converge on the stage, carrying contrasting layers of the music from different spatial locations. In the second movement, the physical effort of becoming one entity, a «quartet» playing together, results in the performers' intense vocalizations which accompany each instrumental gesture. The third movement celebrates a complete unity «not only with the notes played, but also with all physical gestures (bowing, body swaying, etc.).»¹⁴ When a brief motive is carried away at the end of the *Quartet*, it becomes a token of this unity, taken far beyond ... and reverberating in the memory.

There is a problem with the movement of performers in the concert hall: the importance of the musicians' actions may overshadow that of the sonorous results of these actions. In this case, music becomes theatre. Nonetheless, performer movement may serve different, strictly musical purposes, such as, for instance, articulating the work's form. It does so in *Domaines* by Pierre Boulez (1961-1968) in which the solo clarinet approaches each one of the six, spatially separated instrumental groups when performing «their» music; the soloist moves from one position to another through the course of the work. The movement of performers may also aim at introducing timbral variations not attainable otherwise, as in Iannis Xenakis's *Eonta* for brass and piano (1963-1964). In this work, the axial rotations of the brass players serve to continuously modulate the timbre of their instruments. In both compositions, performer movement, far from being purely theatrical, indicates the existence of a «spatio-temporal» layer of musical significance.

V

Let us return to the original question: how do the spatio-temporal features of music relate to the notion of «music as text»? Does music while moving in space transgress the conceptual boundaries of the «musical work» — a basic notion of the Western-European classical music tradition?

One of the main characteristics of this «work» is captured in the phenomenological language of Roman Ingarden as «intentionality».¹⁵ Jean-Jacques Nattiez explains: «The work's physical mode of existence is [...] divided between score and performance. The work's ontological mode of existence is situated in the realm of pure intentionality, beyond the score yet guaranteed, rendered possible by the score.»¹⁶ The score (*text*_{2b}) records schematically a fixed *quasi-temporal structure* of the work (term from Ingarden¹⁷); a structure which is «quasi» and not fully temporal because temporal relationships are differently approximated in each performance. In the compositions discussed here, the score also records a fixed *quasi-spatial structure* of the work. This structure is indicated by the instrumentation and the placement plan of the performers (a diagram or verbal instructions). It is also revealed by these performers' musical interactions, leading, for instance, to the juxtaposition of layers of music sounding from various points in space, or moving from one location to another. It is not the physically spatial and temporal features of sound that are preserved from one performance to the next, but their schematic outlines fixed in the musical text.

In conclusion, spatial sound movement, encoded in musical notation, may constitute one of the significant features of the work as revealed through the process of interpretation, the dual process of performance and exegesis. The notion of «music as text», allowing for the inclusion of such spatio-temporal considerations, differs from its literary or theatrical counterparts. If music is a «text» it is a text of time and space, of sound and motion. A text to be read and experienced.

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¹⁴ Murray R. Schafer, *Third String Quartet*, Bancroft/Ontario 1983 (composed in 1981).

¹⁵ Ingarden, *The Work of Music and the Problem of Its Identity*, pp. 117-120; 150.

¹⁶ Nattiez, *Music and Discourse*, pp. 69-70.

¹⁷ Ingarden, *The Work of Music and the Problem of Its Identity*, pp. 76-79.