Geräusch as Presentness: the Critique by Stockhausen and Eisenman

Francisco Palmeira de Lucena

Department of History, Pontifical Catholic University of Rio de Janeiro, Rio de Janeiro, Brazil

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frpalmeira@gmail.com

ABSTRACT

This paper proposes an idea of noise [Geräusch] as presentness in order to think about the critical works of Karlheinz Stockhausen (1928-2007) and Peter Eisenman (1932-). This idea implies that there is a connection between these both aspects: Geräusch [noise] in relation to Stockhausen's work, and presentness, linked to the displacement of what Eisenman called the metaphysical presence of architecture. In a strict sense, we must show how noises are draw out in Stockhausen's music and how Eisenman deals with the metaphysical presence of architecture – articulating them beyond the limits of both areas, i.e., noise with architecture and presentness with music. In general terms, when we articulate theses concepts beyond the limits of music and architecture, paradoxically, we are focusing on the critique of their internal autonomy. Thus, when we are approaching Eisenman's and Stockhausen's works in terms of the subjects noise and presentness, we are talking about the relationship between music and architecture.

KEYWORDS

Noise; Presentness; Eisenman; Stockhausen.

1 | INTRODUCTION

The relationship between music and architecture is not itself a novelty, as it can be traced from the Vitruvian texts or even from Pythagoras' works – as a musician and geometer. In a context closer to our argument, Iannis Xenakis (1922-2001) seems to be the first to try both practice and theory at the boundaries between music and architecture. Generally speaking, Xenakis was seeking, with his Polytopes, a visualization of a sound structure, the space as a fully integrated art [1].

In 1970 at Word Expo Fair in Osaka, Japan, Stockhausen executed his former idea from 1956, performing daily five and a half hours of music over one hundred eighty-three days, reaching a total audience around a million people. Performed in a spherical structure – designed by German architect Fritz Bornemann for the German pavilion – the musician's performance did not intend to visualize the musical structure, but sought, in a non-visual form, a sound spatialization by incorporating a dynamic sound system in an auditorium.

> *The moment we have the means to move sound with any given speed in a given*

auditorium, or even in a given space outdoors, there is no longer any reason for a fixed spatial perspective for music. (Stockhausen, 1991, pp. 102-103)

On the one hand, Xenakis' Polytopes – as spatial integration works – enhanced music as an art of space and highlighted architecture as an art of time. On the other, Stockhausen sought, in his specific relationship with architecture, the realization of an architectural space equipped with sound devices that allowed a different spatial perception of hearing music. This is not a retinal perception – that is, what you feel or 'see' with your mind is not actually there to be visualized through the retina.

This idea is related to Stockhausen's third criteria of electronic music: the multi-layer spatial composition.

Whether a sound appears 'as if' far away or very close, depends on a combination of intensity and degree of distortion. The purer sound, the closer it is, and in an absolute sense the louder it is (Stockhausen, 1991, p. 107).

Stockhausen's notion of the multi-layer spatial composition is linked to a non-retinal aspect of space. In this sense, we can say that Stockhausen's work, in someway, touches on architectural features.

Before we better define the concept of Geräusch in Stockhausen, we have to, in a wide view of this intermediate moorland between music and architecture, observe that the few architects who have tried this connection tend to establish a functional relationship between the two areas – in the sense of something suggested by the title of the Elizabeth Martin's book Architecture as a Translation of Music (Martin, 1994). That is, a set of one-way essays toward a transliteration of music into space.

The purpose of this work is not to set itself against to functional and technological relation, between music and architecture, initiated by Xenakis and so well applied today by computational systems that generate, trigger, and link image and sound, with increasingly complexity and accuracy – this is a development of scientific nature, necessary to the artistic field.

However, our work goes in another direction. We are giving the notion of noise, articulated with the idea of presentness – two distinct immaterial structures, with different historical times, but, liable to converge themselves as processes of critical, historical and theoretical debate. After all, we precisely suspect that this functional relationship between architectural space and sound could reduce their historical and cultural specificities in a formal homogenization.

In this sense, the concept of Stockhausen's Geräusch appears as a feature of resistance towards a structural singularity.

2 | STOCKHAUSEN: GERÄUSCH AND TONGEMISCHE

Obviously, the traditional notion of noise is linked to the field of sound and acoustics and – since the 1950s, with Stockhausen, the Cologne radio, and the French school of musique concrète – also to the field of music.

The integration of noises of all kinds has only come about since the middle of this century, and I must say, mainly through the discovery of new methods of composing the continuum between tones and noises. (Stockhausen, 1991, p. 109)

In a historical perspective, the idea that the concept of noise applied to the music emerges in the mid-twentieth century is controversial. Luigi Russolo (1885-1947), in his Futurist Manifesto of the early century XX (1913) The Art of Noise, appointed an exhaustion of the pure tones of the instruments in the contemporary orchestra, having himself created the Intonarumori – an instrument capable of creating and controlling the dynamics and height of various types of noise.

We must break at all cost from this restrictive circle of pure sounds and conquer the infinite variety of noise-sounds (Russolo, 1967, p. 6).

The difference between the notions of noise pointed to by both Stockhausen and Russolo has strictly to do with the means of production of noise. The Intonarumori of Russolo creates a noise that is a natural sound – "an acoustic product of a physical action of one material upon another" (Maconie, 2005, p. 125). In Stockhausen, the noise is artificial, produced by electronic devices, and this is what

justifies his chronological mark, in the middle of the twenty-century, for the introduction of noise in music.

Theoretically, in Stockhausen the concept of noise is given by the possibility of continuous transition from periodic to more or less aperiodic waveforms (Stockhausen, 1991, p. 108). However, this conception was to become possible only through the manner in which he worked out the sine-tone material by employing an acceleration technique.

Around 1956, Stockhausen "recorded individual pulses from an impulse generator and spliced them together in a particular rhythm" (Stockhausen, 1991, p. 91). Then, he made a tape loop of this rhythm and then he speeded it up and so on.

In speeding up more the same rhythm Stockhausen heard a low tone rising in pitch. What the musician realized back then was that this pulse, when speeded up, presented melodic features, i.e., "you can build melodies by changing the basic periodicity" (Stockhausen, 1991, p. 92). This notion has to do with the continuum achieved between tone and noise - his fourth criteria of electronic music.

Thus, the concept of noise is any sound in whole audible frequencies created artificially by a generator of sine waves that cannot be determined by the diatonic or dodecaphonic subdivision of music.

> The continuum between sound of fixed pitch and noise is nothing more than that between a more and a less stable periodicity: the noisiest noise being the most aperiodic (Stockhausen, 1991, p. 93).

However, the noise on his music is not an accidental single frequency.

To deduce how Stockhausen controlled noises, we have to understand what he called Tongemische [mixture tones]. Briefly, we can say that those complex sounds are created by a sequence of five smalls groups of tones, each one with five degrees of intervals; the assemblage of this sequence with others alike conforms a larger group, a group of tone mixtures, the Tongemische.

Thus, Stockhausen wasn't just creating an electronic sound or a simple sine-tone – which can already be different from a diatonic or dodecaphonic note. On his

music, noise also has to be linked to a structure controlled by a composer.

In this sense, Tongemische and Geräusch produce an atypical dislocation from the previous structures to an aperiodic one. As Stockhausen tell us above: the noisiest noise being the most aperiodic, i.e., if you have more noise on the musical structure, more aperiodic structure you'll get.

This very notion of aperiodicity is crucial to our understanding of both music and architecture as arts of continued time [2]. This notion is quite different from the mere idea of architecture as art of time. Xenakis provides us with a translated vision of a structure of time, that is, a periodic one – since his Polytopes had a fixed place in time as a condition to be happening, in which sound's structures must appear visually in a specific space in form of light. Differently from Xenaxis, in Osaka, Stockhausen worked the sound in non-retinal layers and movement what implied that he detached the form of music from the form of the building. That is, in Xenakis, spacing and distance between sounds could be marked in real space in a fixed relationship among space and time, and in Stockhausen, spacing happening into the mind, in a non-retinal perception. Although both Xenakis and Stockhausen were working with sound and space, it was the second that brought to us a decontextualized space to music. This was important to point out the autonomy of the musical structure. However, it was his concept of aperiodicity that showed us the possibility of dislocation of such a structure:

> If the degree of aperiodicity of any given sound can be controlled, and controlled in a particular way, then any constant sound can be transformed into a noise. (Stockhausen, 1991, p. 108)

However, how can we control what is not periodic, what is not predictable? In music, this is given by the displacement and alteration, not only of a sound signal, previously recognizable, to a noise, but also of its relationship with other signals in the structure that conforms it, i.e., the decomposition of the previous structure and the process of developing a unique structure, a noisy structure.

> No more repetition, no variation, no development, no contrast, all of which

assumes Gestalten: themes, motives, objects, to be repeated, varied, developed, contrasted … No going back: no Neo…! So what then? … Never the same thing twice, but always the sense of an unchanging and absolute underlying unity, expressed in related proportions: a structure. Not the same Gestalten in different lights. Rather: different Gestalten in the same light, that penetrates everything. (Stockhausen, quoted in Maconie, 2005, p.104)

In this condition, an aperiodic Gestalt will reveal traces of other presences, other structures. Such traces are fragmented elements of a whole tone [3], of previous Gestalts, a superposition of different temporalities that comes to compose the strangeness of an audible noise.

This can be perceived in Stockhausen's composition KONTAKTE (1958-60). In this process the musician wanted "to deal with the whole scales of timbres between aleatoric and periodic" (Stockhausen, 1991, p. 110) i.e., to deal with sounds related to traditional notation but adding a range of noises. This was a condition for a different Gestalt because there was a singular relation between its parts. Although he was pursuing a balance between randomness [noises] and periodic timbres [traditional notations], he couldn't use as many noise tones as he wanted, "because noises tend to cover tones, being so to speak more primitive" (Stockhausen, 1991, p. 110).

The will to control a singular aperiodic structure seems to be a point related to the German composer and the American architect. However, the way they process such a will, it's the distinct point between them.

3 | EISENMAN'S NOISY PRESENCE

Eisenman's architectural singularity deals critically with what he calls the architectural interiority. Such interiority has to do with specific signs in architecture: classical orders, types, styles and elements that go beyond the mere language of form, such as theories and criticism of architecture. Also called insideness, it is into this interiority that occurs a structure of absences, the arbitrary creation.

What is being 'written' is not the object itself – its mass and volume – but the act of massing. This idea gives a metaphoric body to the act of architecture. It then signals its reading through an other system of signs, called traces. (Eisenman, 2004, p. 163)

The trace is a partial sign of reading, fragmented, it is not the object; rather, it is a dissimulation of its older reality. The point of this process is the breakdown of the hierarchy between present, past and future, recording an action in a continuous, ever being a temporal object pre or post-determined, i.e., periodic. In this Derridean sense, a structure of traces would be a singular structure.

To preserve the singularity of objects we must cut them off from their previous modes of legitimation. (Eisenman, 2007, p. 97)

What Eisenman is talking about is related to a critical resistance to the system of representation, in the sense that the pursuit of a singularity is able to promote an internal critique of architectural signs, questioning its original and natural meaning.

Thus, for architecture reaches a singularity it is necessary to propose something that overcomes the field of presence. According to the architect, the detachment of the historical link between form and function, it's an important move to displace previous articulations of form, i.e., previous physical and metaphysical presences.

Eisenman uses the term called presentness to show a subversive quality of architectural presence without having to deny it. Presentness means a state of presence. According to him, presentness is close to two terms: presence and present.

The importance of the term presentness for the presence and present in architecture relies on the conquest of ontological shift and of a autonomous singularity of architecture, a place where the metaphysical presence gets a differential dynamic and enrolls in a place that is no place. About that Eisenman says:

In architecture, there is another condition, which I call presentness, that is neither absence nor presence, form nor function, neither the particular use of a sign nor the

crude existence of reality, but rather an excessive condition between sign and the Heideggerian notion of being: the formation and ordering of the discursive event that is architecture. As long as there is a strong bond between form and function, sign and being, the excess that contains the possibility of presentness will be repressed. (Eisenman, 2007, p. 14)

In the project to the Wexner Center – the Visual Arts Center at the Ohio State University – we can see this presentness released, no longer suppressed.

The traditions adopted by Eisenman were both internal and external to architecture as a discipline: the local architectural and urban historic site of the city of Columbus and three-dimensional structures of American art of the 1960s. The complex structure of the Wexner Center emerges as a singular Gestalt from the superposition of the deconstructed tower with the LeWittian frame. Its excess, its presentness, exudes a strong aporetic presence – its not a transcendental presence neither just a visual one. This condition is an atopic presentness, a somewhere between, a place able to produce a displaced presence, as controversial as the noise in music.

Nevertheless, the superposed temporalities on Eisenman's project bear conditions that are distinct from Stockhausen's strategies: the environmental and external cultural contexts – the historical site, the minimal art, and so on. Even deconstructed, the contexts appear as externals condition to be considered.

4 | CONCLUSION

Thus, Geräusch [noise] as presentness can be understood as a displacement of internal structures of music and architecture. In this sense, noise is the overcoming and subversion of a fundamental and historic structure. Both, Eisenman and Stockhausen, each one on its own way, elaborate such displacements through the use of superimposed layers of the discontinued metaphysical and internal presences as a noisy vibrant presence – such presences also bear fragments of external features in the case of Eisenman's architecture.

Usually, when we try to create a building or a piece of music, we think retrospectively, i.e., music or building, they are already there, in theirs internal structures. However, the singular does not arise only from the internal historical thinking, but also from the critical response to the context [4]. So, think critically is also being attentive to external features – which are open to the unreleased connections.

These unusual structures carry the contingency and potential to be noises and as such can resound as a particular aesthetic of strangeness, through abstraction, phenomenon and memory – as presentness.

ENDNOTES

[1] In: Sterken, S. Towards a Space - Time Art: Iannis Xenakis's Polytopes. Polytopes is the collective name for a series of multimedia installations, including sound, light and architecture, conceived by Iannis Xenakis during the 1960s and 1970s. The word polytope comes from the Greeks; in this context it has to be interpreted literally: poly means "a lot, several" while topos means "place."

[2] We are talking about a time that unfolds internally without beginning and end, with no past, present and future defined. Not the Hegelian historical time, successive, progressive, which "remains" in progress, suffering the death and the end of an era giving way to another in a direct relationship between space/time. The space into Stockhausen and Eisenman conceptions conform your own time event.

[3] A basic interval in classical Western music, e.g. the first and second notes of an ordinary scale (such as C and D). New Oxford American Dictionary.

[4] On music, the North American composer John Cage, in contrast to the German musician, has as a concept of noise sounds that cannot be controlled by a composer – noises; according to Cage, are external sounds.

REFERENCES

Eisenman, P. (2004). Inside out. New Haven: Yale University Press.

Eisenman, P. (2007). Written Into the void. New Haven: Yale University Press.

Maconie, R. (2005). Other planet: The music of Stockhausen. Oxford: Scarecrow Press.

Martin. E. (Ed.) . (1994). Architecture as a translation of music. Princeton Architectural Press and Pamphlet Architecture 16.

Menezes, F. (2009). Música eletroacústica: Histórias e estéticas. [Electroacoustic music: Histories and aesthetics]. São Paulo: EDUSP.

Russolo, L. (1967). Art of noises. New York: A Great Bear Pamphlet.

Sterken, S. (2001). Towards a space - Time art: Iannis Xenakis's polytopes. Seattle: Perspectives of New Music, Vol. 39, No. 2.

Stockhausen, K. (1991). On music. London: Marion Boyars Publishers.

Stubbs, D. (2009). Fear of music: Why people get Rothko but don't get Stockhausen. Winchester: Zero Books.

BIOGRAPHICAL INFORMATION

Architect and Historian | Research of line in History Arts and Contemporary Architecture. Graduate: Architecture and Urbanism at FAUPE – PE, 1998. Postgraduate: Sustainable Architecture at Gama Filho University | UGF – RJ, 2006. Postgraduate: History of Art and Architecture at PUC-Rio – RJ, 2007. Master in History at PUC-Rio – RJ, 2010. Doctoral Candidate in History at PUC-Rio, Class of 2014.