Scelsi's Approach to the "Third Dimension" of Sound

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Introduction

In this article, a detailed analysis of Scelsi's notion of the so-called "third dimension" will be presented. By the "third dimension," I mean the analytic aspects of music other than pitch and duration. Thus, the goal will be to perform an interpretative analysis describing how the idea of the third dimension is applied.

Scelsi's idea of the third dimension is not particularly new; other composers/theorists before him, although they named it differently, were also interested in focusing on various musical parameters in their respective compositional oeuvres. Since Scelsi's first pieces were influenced by serialism, the idea of *Klangfarbenmelodie* and his thinking about other musical elements besides pitch are evidence of stylistic influence. Various examples from Arnold Schoenberg's *Theory of Harmony* and Dane Rudhyar's *The Magic of Tone and the Art of Music* will be considered in relation to Scelsi's mature compositional aesthetics.

Regarding Scelsi's approach in the third dimension, the cellist Frances Marie Uitti, a performer who worked closely with Scelsi, explains: "You have to give yourself the liberty to almost forget the score. It has to feel that free."[1] Searching for further understanding of Scelsi's music, pianist Marianne Schroeder explains:

> Even though Scelsi's scores are perfect, something's missing. There's a big difference. Scelsi's music is revealed only when it is played. I was never able to study one of his scores, while with the scores of other composers they can be studied without even playing them, but with Scelsi this would never work. . . I was having a lot of difficulty with interpretation.[2]

An essential characteristic of Scelsi's mature style is the simplification of the melodic line until it becomes a single note, continually developing through a gradual concentration of microtonal fluctuations. Talking about Scelsi's new musical aesthetics, Robin Freeman noted:

> The simpler the better, Scelsi always said, and the more honest. His quest for the hidden aspects of sound lay as it were with the naked ear, …his laboratory equipped only with the mechanism of the single piano key he kept playing, and the air around him which caused it to resonate.[3]

Perhaps one of the most important pieces that resulted from Scelsi's relationship with the singer Michiko Hirayama, whose voice served as a model for a number of his vocal pieces, was a series of songs called *Canti del Capricorno,* written in 1962. Talking

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[1]William Colangelo, "The Composer-Performer Paradigm in Giacinto Scelsi's Solo Works," Ph.D. dissertation, New York University, 1996, p. 81.

[2]Ibid., p. 158.

[3]Robin Freeman, "Tanmatras: The Life and Work of Giacinto Scelsi," in *Tempo* (No. 176, 1991), p. 10.

about the creation of *Canti del Capricorno* in terms of Hirayama's relationship with the composer, she noted:

> I change always, and naturally in agreement with him. We worked together–I wish to sing this note this way, or I wish to sing this note changing to that note–and always he would say if you feel it inside, it's OK. Always he would give me the OK.[4]

Theoretical foundation of the Third Dimension

Although Scelsi was rooted in the intellectual and aesthetic tradition of the West, he later drew from the traditions of the East. The idea of timbral possibilities is crucial to Scelsi's compositional aesthetics not only in *Quattro Pezzi,* from 1959, but also in a number of other pieces. The emphasis on timbre relates to Schoenberg's concept of *Klangfarbenmelodie* and especially Scelsi's explanation of the relationship between tone color and pitch.[5] In his *Theory of Harmony,* Schoenberg wrote:

> The distinction between tone color and pitch, as it is usually expressed, I cannot accept without reservations. I think the tone becomes perceptible by virtue of tone color, of which one dimension is pitch. Tone color is, thus, the main topic, pitch subdivision. Now, if it is possible to create patterns we call "melodies," progressions whose coherence evokes an effect analogous to thought processes, then it must also be possible to make such progressions out of the tone colors of the other dimensions, out of that which we call simply "tone color" [timbre], progressions whose relations with one another work with a kind of logic entirely equivalent to that logic which satisfies us in the melody of pitches. That has the appearance of futuristic fantasy and is probably just that. But it is one which, I firmly believe, will be realized.[6]

Schoenberg's quotation speculates on the possibility of composing tone-color melodies in which timbre plays a role analogous to that normally assigned to pitch. Implying the independence of the sound object from its location, Schoenberg further notices:

> … every musical movement has to be comprehended primarily as a mutual relation of sounds, of oscillatory vibrations, appearing at different places and times. To the imaginative and creative faculty, relations in the material sphere are as independent from directions or planes as material objects are, in their sphere, to our perceptive faculties.[7]

Schoenberg noticeably envisions the idea of *Klangfarbenmelodie* as the progression of tone colors independent of pitch or harmony. In continuation of his writing, he ends his *Theory of Harmony* with the following passage:

> Tone-color Melodies! How acute the senses that would be able to perceive them! How high the development of spirit that could find pleasure in such subtle things!

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[4]William Colangelo, "The Composer–Performer Paradigm in Giacinto Scelsi's Solo Works," Ph.D. dissertation, New York University, 1996, p. 68.

[5]Gregory Nathan Reish, "The Transformation of Giacinto Scelsi's Musical Style and Aesthetic, 1929-1959," Ph.D. dissertation, University of Georgia, p. 239.

[6]Arnold Schoenberg, *Theory of Harmony* (Berkeley: University of California Press, 1978), pp. 421-422.

[7]Ibid., p. 411.

> In such domain, who dares ask for theory![8]

Following Schoenberg's idea that "it must also be possible to make such progressions out of the tone colors of the other dimensions…," Scelsi recognized that a sound phenomenon is much more than a simple note played by various instruments. It seems that Scelsi approached each musical element individually first and then joined them in various combinations so the actual sonorous phenomenon would be intensified.

In the case of Schoenberg, simultaneous sounds create a single timbre; but to Scelsi, the occurrence of simultaneous sounds creates a number of multidimensional sonic layers in which timbre and texture are treated equally with any other musical elements.[9] In a sense, Scelsi applied Schoenberg's *Klangfarbenmelodie* idea to all non-pitch musical elements, suggesting that one pay equal attention to every musical element in the piece. This idea seems to be essential for Scelsi. Schoenberg's principle, although approached differently, had been incorporated into the compositional aesthetics of many composers after him. Some of them, such as Boulez and Stockhausen, applied a similar approach to parameters such as duration (rhythm), loudness, and timbre (orchestration).

Scelsi took a different route, though. His goal was not to apply specific treatments to the musical elements using a particular system, but rather to create various mixtures of different musical elements almost intuitively. This is another example of how similar ideas lead to different practice. While Schoenberg rigorously applied his idea to timbre, Scelsi applied the same idea to a number of musical elements in a much more liberal fashion.

Another composer/theorist who had influenced Scelsi was Dane Rudhyar, who possibly played a crucial role in Scelsi's stylistic transformation. A "renaissance man,"[10] as he was known at the time, Rudhyar is well known for his interest in cosmology, of which, he claimed, music was just one aspect. This way of thinking is strongly connected to a concepts of Eastern mysticism. Following and supporting avant-garde movements in a number of artistic disciplines throughout the first half of the twentieth century, Rudhyar, in his advanced manner of thinking, reminds us of the fifteenth century scientist, inventor, and artist Leonardo da Vinci (that is, as long as one leaves Rudhyar's mysticism out of the picture).

Following an avant-garde orientation, Rudhyar frequently criticized the development of Western European music and European musicians who in his opinion mistakenly paid too much attention to structure instead of the inner power of tones. Rudhyar noted:

> European music is an architectonic of sound, a by-product of architecture. Its notes have no individual power of life. They do not grow into a fuller life, nor multiply themselves into secondary sounds. They are cut and dried figures, rocks. The melody does not flow between those rocks, but jumps mechanistically from the one to the other, fearful lest it should fall into the dark abyss of "wrong notes."[11]

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[8]Ibid., p. 422.

[9]Donna Buchanan, personal communication, 16 May 2006.

[10]Dane Rudhyar, *The Rebirth of Hindu Music* (New York: S. Weiser, 1979), p. 4.

[11]Ibid., p. 17.

Scelsi, in a similar vein to Rudhyar, formulated critiques of Western classical music in his interviews and writings. Scelsi's musical philosophy suggests a similarity with the following statement by Rudhyar, concerning not only Western classical music, but also the law of *sonal energy,* found in a series of his essays written in 1930:

> Western classical music has given practically all of its attention to the framework of music, what it calls musical form. It has forgotten to study the laws of *sonal energy*, to intuit music in terms of actual sound-entities, in terms of energy, which is life. It has thus evolved mostly splendid abstract frames in which no painting is to be seen.
> Therefore the Oriental musicians often say that our music is a music of holes. Our notes are edges of intervals, of empty abysses. The melodies jump from edge to edge. Neither flies nor glides. It has hardly any contact with the living earth. It is a music of mummies, of preserved and stuffed animals which look alive enough perhaps, yet are dead, and motionless. The inner space is empty.[12]

The idea of *sonorous energy* was a constant subject of interest throughout Rudhyar's life. In Rudhyar's article from 1930 "*The New Sense of Space,*" he described the whole range of sonic possibilities as the "infinite sea of Cosmic Energy which fills space."[13] Instead of concentrating on music and intervals in which the space between the notes becomes an *empty abyss* in Western classical music, Rudhyar offers the possibility of examining each note as a living organism that has a unique potential, power, and energy that composers might fail to fully exploit.

The notion of empty inner space relates to this concept of the third dimension. If Rudhyar and Scelsi perceive notes as the outer edges of intervals, then the empty inner space is all of that which lies between these fixed outer edges. Thus, the edges are a kind of frame inside which one finds other dimensions that make up a complete sound. Rudhyar suggests that Western musicians have focused on the outer edges rather than on what lies in between. This statement can also be understood as an anti-serialist or anti-formalist position, because, it could be argued, serialists focus on ordering notes or other discrete musical elements without paying any attention to what is in between these elements.

Rudhyar had a growing fascination throughout his life toward defining the power of sound by trying to clearly identify the difference between the meaning of *tone* and the meaning of *note*. This is especially clear in his writings *The Magic of Tone* and *The Transforming Power of Tone.* In *The Magic of Tone*, Rudhyar noted:

> There is a fundamental difference between a *tone* (in the dynamic, vital, magical, and/or sacred sense of the word) and a musical *note* as part of a scale (thus in relation to other notes). Unfortunately musicians use the words *tone* and *note* interchangeably, because they are not aware of the difference between them, and traditional Western composers, music schools, and universities have given only minimal attention to it.[14]

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[12]Dane Rudhyar, "The New Sense of Space: A Reorientation of the Creative Faculty of Man," in *Art as Release of Power: A Series of Seven Essays on the Philosophy of Art* (Carmel, CA: Hamsa Publications, 1930), pp. 26–27.
[13]Ibid., p. 5.
[14]Dane Rudhyar, *The Magic of Tone and the Art of Music* (Boulder, CO: Shambhala Publications, 1982), p. 13.

According to Rudhyar, the relationship established between vibrations and tones is very important. For him, music is based on this relationship. For instance, a chord is a relationship between a number of simultaneous tones. Rudhyar suggests that music is actually a system of relationships either between the "*notes*" or between the "*tones*". In addition, he points out that there is a great difference between a *music of notes* and a *music of tones*. In order to explain these differences, Rudhyar compares Western music and Oriental music.[15]

Rudhyar observes that the Western musical tradition is basically the music of *notes*. In explaining this point, Rudhyar turns his attention to intervals, maintaining that the notes are actually the edges of existing intervals. They relate to each other within the various scales (major, minor) and the various modes. The final product of such a relationship is what he calls an *abstract entity*.[16] As a consequence, a number of Western composers end up writing pieces that are products of a systematized arrangement of notes according to well-known patterns and conventional regulations.

On the other hand, according to Rudhyar, Oriental music is essentially the music of *tones*. A tone in Oriental music, especially in India and China, is a living entity, which he symbolically relates to the *body of a god*.[17] Tones and their respective groups are used in relation to the time of the day and the year; on this basis there are no wrong notes. Anything may happen between the tones because they are living entities and they are usually linked to each other by glissandos. It seems that one of the significant differences between *tones* and *notes* is the idea that each tone is a living organism and as such it has its own identity and uniqueness, whereas a note is just the "edge" of an interval. When the *tones* are performed, each exists in a number of various sonorities such that there is no right or wrong way of playing them. On the other hand, in the European tradition, notes are not characterized as living organisms, but they rather exist as a part of the specific intervals and chords, and as such, their individual quality and uniqueness are not recognized.

In a situation in which Rudhyar introduces all tones as free elements, as living cells, and as independent entities, he summarizes the concept of living tones and metaphorically describes the multidimensional sounds that are part of the single tone in *The Rebirth of Hindu Music*:

> A tone is a living cell. It is composed of organic matter. It has the power of assimilation, of reproduction, of making exchanges, of growing. It is a microcosmos reflecting faithfully the macrocosmos, its laws, its cycles, its centre…A tone is a solar system. It is composed, as we will see later, of a central sun, of planets, and of a magnetic substance, which circulates rhythmically within the limits of the system and relates itself to the magnetic substance of some vaster system. Because of this, a tone is not a mere mathematical point without dimensions or density, but it is a living reality, a sound. It is defined by various sets of characteristics, pitch and quality being only the outer one.[18]

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[15]Dane Rudhyar, "The Transforming Power of Tone," in *Rudhyar Archival Project* [web page] (http://rudhyar.com/poweroftone.html, 1972), accessed 15 October 2008.

[16]Ibid.

[17]Ibid.

[18]Dane Rudhyar, *The Rebirth of Hindu Music*, p. 18.

I believe that this statement by Rudhyar reflects this concept of the third dimension. The key element in this quotation is the word *cell* that has membranes that are the outer edges of the particular cells. In the same way the notes are the outer edges of what encloses the third dimension. In addition to Rudhyar's writings about the difference between *notes* and *tones*, he focuses on *timbre*, an emphasis in which Scelsi also shared. Scelsi's interest in timbre began with his second compositional phase around 1950.

Incorporating elements of Rudhyar's conceptual world, such as the concept of single tones as "living cells" or tiny "solar systems," Scelsi continued to explore their "inner space" through a variety of timbral manipulations and microtonal fluctuations. These ideas provided a whole new compositional approach, which served almost as a motto for Scelsi's stylistic approach during the 1950s. Scelsi was driven to explore Hindu sonic philosophy and shared as well as Rudhyar's criticism of Western philosophy. He became aware that any type of melodic motion or harmonic progression becomes not only artificial but also the music of "empty abysses," as Rudhyar pointed out.[19] As a consequence, Scelsi tried to avoid the use of melody and harmony, rejecting traditional methods of combining different notes into any particular system. Instead, he searched to find a way to musically express the intensification of various tones by making them the essence of his pieces.

Scelsi continued where Rudhyar stopped by trying not only to find a compositional approach rooted in Rudyar's philosophy, but also to explain the meaning of *sound* as multidimensional. Everything that was previously mentioned about Schoenberg and Rudhyar is summarized in the following quote by Scelsi from *Sound and Music*. This quote is the essence of Scelsi's thinking and may be used to explain his compositional approach:

> Additionally, sound is spherical, but while listening to it, it seems to us to possess only two dimensions: pitch and duration; the third, depth–we know that it exists, but in a certain sense it escapes us. The superior harmonics and less-audible sub-harmonics sometimes give us the impression of a vast and complex sound with properties other than that of pitch or duration, but it is difficult for us to perceive this complexity. Moreover, one would not know how to notate it musically. In painting, perspective was discovered, which gives the impression of depth, but so far in music, despite all the advances in stereophonic technology and all the subsequent experiments, we have not managed to escape from the two dimensions of pitch and duration, and to create a sense of the real spherical dimension of sound.[20]

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[19]Dane Rudhyar, "The New Sense of Space: A Reorientation of the Creative Faculty of Man," in *Art as Release of Power: A Series of Seven Essays on the Philosophy of Art,* pp. 26–27.

[20]Giacinto Scelsi, *Sound and Music*, ed. Luciano Martinis (Rome and Venice: Le parole gelate, 1981), p. 1 (285-286). "En plus, le son est sphérique, mais en l'écoutant, il nous semble posséder seulement deux dimensions: hauteur et durée–la troisiéme, la profondeur, nous savons qu'elle existe, mais dans un certain sens elle nous échappe. Les harmoniques supérieures et inférieures (qu'on entend moins) nous donnent parfois l'impression d'un son plus vaste et complexe autre que celui de la durée ou de la hauteur, mais il nous est difficile d'en percevoir la complexité. D'ailleurs, musicalement, on ne saurait comment la noter. En peinture, on a bien découvert la perspective qui donne l'impression de la profondeur, mais en musique, jusqu'à présent, malgré toutes les expériences stéréophoniques et les essays successifs de toutes sortes, on n'a pas réussi à échapper aux deux dimensions durée et hauteur et à donner l'impression de la réelle dimension sphérique du son." [Author's translation.]

Scelsi understands a single sound as a limitless sonic world that can stand by itself as independent from any other sound. Each sound is almost like a unique organism characterized by its inner life consisting of various organic materials. Furthermore, the sonic world contains infinite variety and potentials that Scelsi identifies by using harmonics that provide various sounds that comprise a single note. On the other hand, Scelsi still does not explicitly describe or suggest the idea of writing a piece based on a single note. One can only speculate about the actual effect of Rudhyar's writings on Scelsi on the basis of the many similarities in the passages quoted previously.

Besides the first two dimensions of sound, pitch and duration, a challenge is to understand the extra dimension, the third dimension, that Scelsi calls *depth.* How does Scelsi articulate musically a *depth* within his music?

Scelsi's focus on the third dimension tends to diminish the weight of the dimensions of pitch and duration. The other musical parameters such as dynamics, various articulations, and various orchestration possibilities become more distinguishable and more significant. I believe that Scelsi deliberately created this kind of environment in order to expose more of what he calls the third dimension. Based on what Scelsi maintained about the third dimension, "the third, depth, we know that it exists, but in a certain sense it escapes us," it seems clear that he decided to bring out the other musical parameters by putting them into an equal position with pitch and duration.

But what precisely is this third dimension? Scelsi recognizes two dimensions of the actual sound that he defines as pitch and duration. The third dimension, however, consists of the other musical parameters such as articulation (microtonal clusters, trills, tremolos, glissandos, wide vibrato, fluttertongue), instrumentation, dynamics, and texture, upon which Scelsi heavily relied in his music. It seems that the third dimension also defines particular aspects according to which each single tone is observed and perceived. These aspects identify a single tone, recognized as a substance with a complex configuration. These characteristics, together with the pitch and duration, give each tone a particular individuality and personality.[21] The parameters are constantly changing and varying within the long steady tones. Scelsi foregrounds the musical parameters that constitute a third dimension by increasing their salience and minimizing–through minimal change–the effects of pitch and duration. He thus constantly provides a sense of change and transformation within the texture. The third dimension therefore is an approach to foregrounding the musical parameters other than the pitch and duration by the constant sense of alteration achieved by continuous "third-dimensional" modification of the various pitches. This is what gives the third dimension a particular significance and importance in his music.

A number of issues lie open, such as the phenomenon of a single note, the difference between a note and a tone, the distinction between tone color and pitch, the influence of various Asian traditions, the idea of multidimensional sound, and how all these issues build and shape the idea of the third dimension. Closer investigation of these issues would undoubtedly be helpful for further understanding of Scelsi's music.

As previously mentioned, many of Scelsi's concerns regarding the third dimension and the projection of sound as *spherical* shape are based on his ability to envision

[21]I am aware that the first two dimensions, pitch and duration, are also able to provide a particular character to a single tone. The other musical parameters, however, amplify unique characteristics of a single tone even further.

possible modes of thinking toward these matters lying in the future. Such approaches are not defined precisely, and they are very likely not susceptible to close scientific investigation; perhaps Scelsi was not particularly interested in defining them. What is more important is that his philosophical approach to composition lends itself to artistic self-expression through the various possible interpretations of what the third dimension actually *is*.