

A Study on "Visuality" of Henry Dutilleux's Orchestra "Métaboles"

Juan Wu

Ordos Institute of Technology, Ordos, 017000, China

Abstract: The French composer Henry Dutilleux was influenced by contemporary literary and painting, he has integrated into rational ideas in composition at the same time, and more of a combination of the perceptual music expression. "Métaboles" is a representative work by his mature period of composition. This paper based on analysis Angle in visual perception of the title, soundscape and texture to explain the composer's multivariate composition way, deeply influenced by all kinds of art forms and its unique music character.

Keywords: Visuality; Title; Soundscape; Texture

1. Introduction

Henry Dutilleux is one of the most prominent French composer in the twentieth century. French symbolism literature and impressionist painting as well as the strong artistic atmosphere of his family, has a great influence on his music composition [1]. He is interested in the visual arts, especially painting. The visual arts in his composition is similar to Debussy who is the impressionism represent composer. The visuality in Dutilleux's music came from his extensive reading experience and the stimulation of the visual arts. Dutilleux is favor of contemporary painting artists such as Sergio de Castro, Maria Helena, Vieira da Silva, Jean Bazaine, Nicolas de Stael. The intricate layering and mystical quality of his music, may have been influenced by Vieira da Silva's work [2].

Visual art is reflected in two different ways in Dutilleux's mature works. Firstly, a painting is a source of inspiration for composers. For example, his orchestral work "Timbre, Espace, Mouvement"(1976-1978)was inspired by Van Gogh's "Starry Night "(1889). Secondly, there are not inspired writing in many his works. Through the powerful visual stimulation of paintings, he designed a certain form or shape in the painting in advance as the texture form of a certain part of music score to achieve visual

attraction. It can be seen that visual art is not only the source of inspiration for his composition, but also a non-inspiration. If we simply look at his music, we can find that there are many texture shapes similar to a certain figure, such as wedge, triangle, trapezoid and so on. which may be the reflection of a certain artistic work on his visual stimulation. This way of composition can give audience a visual imagination of music, which greatly deepens the mysticism of Dutilleux's music."Métaboles" written in 1964, is a five-movement symphony. The composer adds the title for each movement, which reflects the title like music characteristics that are not found in his previous works, especially in symphonic works. In this work, Dutilleux draws on the art form of painting. Whose visuality is mainly reflected in the visual sense of title, soundscape and texture.

2. Soundscape Construction

"Métaboles" is the French word for metabolism, which is used by composers to represent the processes of metabolism and transformation of natural creatures. In order to perfectly match the theme, Dutilleux entitled for five movements, and they together represent a "metamorphosis" from chrysalis to butterfly.

Table 1. Structure and material characteristics of five movements

	Measure	Form	Material	Soundscape
Incantatoire	1-55	Rondo	Melody(bB—E) Pivot chord(Symmetric)	Spell cells are born
Linéaire	56-87	Ternary	3-3[0,1,4]	Lateral growth, linear
Obsessionnel	88-230	Passacaglia variation	Twelve-tone sequence	Restricted growth
Torpide	231-257	Binary	Rhythmic motivation Pivot chord	A limited extension
Flamboyant	258-432	Sequenced	Synthesis	Gorgeous metamorphosis

2.1. Incantatoire

In the first movement, Dutilleux presents the image of "incantatoire" in many ways. He uses various carefully designed techniques to express the twists and turns of the

incantation's haunting sound. First of all, the theme material of the music is similar to the theme of the spell, which is constantly repeated, and the pivot note E and

tritones (bB-E) are repeatedly emphasized. These melodic features show the charm image full of mystery.



Figure 1. "Incantatoire" theme

Secondly, the first movement is a rondo form, and the theme of the spell, as a overlapping part, appears three times before and after, and it is also scattered and permeated in the insertion part, which is extremely rich in mysticism. Incantation theme is repeatedly emphasized like cell, throughout the movement, constantly deepen the impression of the incantation theme. Furthermore, the "incantation" is expressed in the accented percussion form played by strings and colored percussion instruments. For example, from the first to the fifth bars, the strike type of fast thirty-second note in strings, percussion and harp are combined with the incantation theme of the woodwind to deepen the incantation's mysterious atmosphere. This type also appears in the intersections.

Furthermore, in the theme of insertion, the surround decorative sound type played by woodwind appears in various forms and fragments. The prototype, transposition and inexactitude inversion form Canon in the four parts, highlighting the theme of "incantation". Besides, in flute and clarinet of score [6], there is the combination of Canon imitation and synchronous inversion. This type of fragments appears in succession, as if it were a round about repetition of the "spell". The composer also chose various colored harmonies, combining dots and long patterns of texture, as well as changing instrumental timbre group, to show the theme of the movement "incantatoire".

2.2. "Linéaire"

In the second movement "Linéaire", Dutilleux conceived the work from the starting point of horizontal melody advancement. The whole movement is long line with pure string band, the strings is divided into many parts, and the sound is thick. The lines with different lengths form a multi-layer counterpoint and even a longitudinal harmony. The whole movement is like a web of threads, creating a linear musical image. Composers attach great importance to the selection and application of pitch materials when writing transverse melodies. Firstly, section A of the second movement adopts the complete recapitulation of the supplement after section A1 of the first movement. The first four bars of paragraph A are the complete recapitulation of the supplement in the first movement, while the rest section are derived from the change of the material at the end of the supplement,

which is different from time to time and has the characteristic of progressive development of the theme. Section B takes 3-3[0,1,4] material as the basic set to organize the transverse pitch, which is cascading and progressive in each voice part, and carries out linear counterpoint. The section A1 is comprehensive recapitulation, and it is composed of the materials of A and B. The material of section A is added #G note sounded on the original basis, While material B is the same as the beginning part of section B, and then gradually changes and slightly expands. The composer still uses 3-3[0,1,4] as the basic set to organize the horizontal pitch. Finally, the music develops to a high range, leading directly to the third movement of the whole piece.

2.3. "Obsessionnel"

The soundscape of the "Obsessionnel" is mainly expressed in two aspects. First, the composer adopts the writing form of "Passacaglia". Dutilleux uses the strict twelve-tone sequence to conceive the ostinato theme, and the theme is strictly composed of four forms of the sequence: P,I,R,RI. It can be seen that the use of a variety of large intervals in sequence: tritone, the seventh, the ninth, its four forms are directly linked together to form the theme of Passacaglia, simple but inflexible. Second, "Obsessionnel" is reflected in the four variations of the theme. Dutilleux makes a series of variations on the theme by strictly using three harmony modes: 1)"Vertical and horizontal method": each tone in the sequence appears in turn at different points in time, connecting vertically and horizontally to form a twelve-tone sequence; 2)"Segmentation method": the sequence is segmented and divided into different parts to form harmonic materials; 3)"Overlapping method": the same sequence is assigned to different parts of the voice and stated in different textures, and sequence overlap is generated at the same time. Moreover, Dutilleux uses material strictly in this movement. The theme and variation are based on the ostinato theme composed of the prototype, inversion, retrograde and retrograde inversion of the twelve-tone sequence. Moreover, the final part also adopts the material of the sequence prototype, which makes the music less developed, thus highlighting the limited feature in the theme material. The composer develops and changes

other materials, including pitch materials, on the basis of a fixed rhythmic type to explain the subtlety restriction. In Variation IV beginning part, fixed rhythm type in percussion continuous repeatedly in this variation, and the pitch of other parts changed. This fixed rhythm type is not controlled by bar line, it takes every eight beats as a cycle and forms the compound characteristic of strings, woodwind and brass parts in 3/4 beats. It may be said to be the principle of seeking change in invariability," responding to changes with invariability".

2.4. "Torpide"

In the fourth movement, Dutilleux chooses simple materials to organize his music in order to build soundscape:

"spacey". Firstly, the structure of piece is relatively small and mainly composed of percussion instruments. Therefore, rhythm becomes a prominent feature of this movement. The rhythmic motive at the beginning of this movement is the crucial material of the whole piece, and the space for its development is not large. Percussion part of the first phrase, is composed of two kinds of motivation, motivation I is a material at the core of the whole percussion group, motivation II on the basis of in motivation I, have two change resting and increase the rhythm type, the rhythm is similar to Messiaen's additional value of the usage of rhythm, this mode can be thought of as "progressive growth" in rhythm.

Figure 2. "Torpide" rhythmic motive

Then Dutilleux also develops motivation by changing the orchestrating way. It can be seen from the above that, in the musical development process of the fourth movement, the overall form and basic rhythmic characteristics of the prime motive are retained, and changes are achieved by increasing or decreasing the rest in the motive, repeating or changing some part of the motive and changing the orchestration. The evolution of rhythmic motivation rich in mystery is an important factor for the development of

"spacey" music. Taking rhythm type as motivation to organize and develop music requires the composer to have keen rhythm conception and rich experience so as to make music more brilliant and innovative. Secondly, the six-note pivot chord: C-D-E-[#]F-G-^bA, becomes the source of the whole melodic pitch material. This chord, when presented in conjunction with the theme, serves as the main harmonic material for each section. Dutilleux used two harmonic materials, complete

chord inversion and truncated chord inversion, as the harmonic beddings for each section of the movement. It can be seen that in the organization of the fourth movement, Dutilleux used two materials, simple rhythm and pitch, without too much change and development, showing the characteristics of "spacey" music. This piece from the music visual and auditory sense can also feel the music "Torpide" characteristics.

2.5. Flamboyant

As the last section of the whole piece, the fifth movement is a summary of the whole music in terms of materials and emotions. The composer used a variety of creative methods to present the "magnificent" theme: first, the synthesis of materials, the thematic materials of the first four movements in this movement are reviewed again, reflecting the influence of Proust's "concept of memory" in his musical creation.

Secondly, in terms of emotion, the tempo of this movement is changeable, which is used to show the "Incantatoire" elegant, "Lineaire" characteristics, "Obsessionnel" theme, "Torpide" image, and even push the music to the climax, completing a "Flamboyant" sublimation process. Thirdly, in terms of orchestration, composers adopt different instrument combinations and playing methods of instrument to pursue the rich sound of large orchestras and produce "gorgeous" grand sound effects. Some instruments use special methods of playing, such as the obstruct of the Horn, the sliding of strings and so on. In the aspect of timbre transferring, the composer distributes a musical material with different parts for common completion, including the joint performance of the same instrument or the same instrument group, as well as the combined performance of different instrument groups. Most importantly, the instrument combinations and timbre characteristics of the first four movements are reproduced in this movement. For example, the second movement is "linear", which not only reproduces the linear texture, but also adopts the orchestration mode played by strings, with woodwind as harmony bedding is the slightly difference. In addition, the application of various texture in this movement, such as wedges and dense multi-sound network technology, give people visual artistic effects in addition to music. The coda is the climax of the whole piece. It is the sound of the whole band, which can generate strong visual appeal from the music, reflecting the process of "Flamboyant" sublimation.

3. Texture Visuality

3.1. Visual of music score

Dutilleux admired composers who brought visual art to their music, such as Stravinsky and Debussy, who paid attention to the appearance of the work, some even drawing the figure of the score before writing it. As a relatively mature orchestral work of his, "Métaboles" is endowed with high artistic value by its mysterious title, various technical features, and the composer's unique music language [3]. Of course, visual art is reflected in the scores of various "graphics", which further enhance the aesthetic charm of this work.

The third movement "Obsessionnel", was one of the first examples of Dutilleux experiments with Ligeti's mercurial and dense technique. In the coda of the movement, each instrument in the string group has divisions, and each part enters one after another from the first violin to the double bass, forming a wedge in the score. The shape of the wedge texture is in many places in this work.

"Métaboles" also use multiple layers of interwoven reticular images, which are similar to clasping crossed hands in shape. In the string group, each instrument is division of the play, and the line of each part is matched with the other parts to form a reticular texture form. As follows figures.

The figure above is a simple illustration of the texture form of the coda of the second movement "Linéaire". From the music score, we can see the intricate texture form of this piece, with which the composer expresses his preference for painting and his enjoyment of visual art in music. In addition, there are cone, wave, trapezoid and other texture forms in this work, including symmetrical texture forms and so on. These symbols are attractive, they have no practical meaning in music, but as part of Dutilleux's music, between the "order" and the "disorder", the "rationality" and the "sensitivity" of his compose way, it can be seen as a kind of static harmony, producing a distinctive sound effect.

3.2. Visual of texture

His interest in other categories of art, reflecting his preference of visual art and literature. This greatly enriched his composition and provided more sources of inspiration for his creation. Dutilleux liked beautiful scores, many of his musical inspirations were clearly visual, and his manuscripts were praised as beautiful works of calligraphy. In "Métaboles", his favour for visual art makes us seem to see abstract and interesting pictures. Various figures and combinations of figures on music score are full of mystery in visual sense, which makes people can't help to imagine the sound, sound quality and image of music. This not only helps the composer to express his ideas more directly, but also helps the audience better understand the aesthetic charm of music.

The image displays a musical score for the Coda of "Linéaire". The score is arranged in a standard orchestral format with the following parts from top to bottom: I. Div. (First Violin), VI. (Violin), 8 Pup. (8 Violins), 6 Pup. (6 Violas), Vcl. (Violoncelle), and Cb. Div. (Double Bass). The score is marked with measure numbers 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The score includes various musical notations such as dynamics (pp, p, mp, f, loco), articulation (V, V), and performance instructions (crescendo, decrescendo, Div. en 2, cantabile). The score is annotated with several colored boxes: red boxes highlight specific melodic lines in the Violin and Viola parts; green boxes highlight specific rhythmic patterns in the Violin, Viola, and Double Bass parts; and blue boxes highlight specific rhythmic patterns in the Violoncelle and Double Bass parts. The score is divided into two systems, with the first system ending at measure 50 and the second system starting at measure 51.

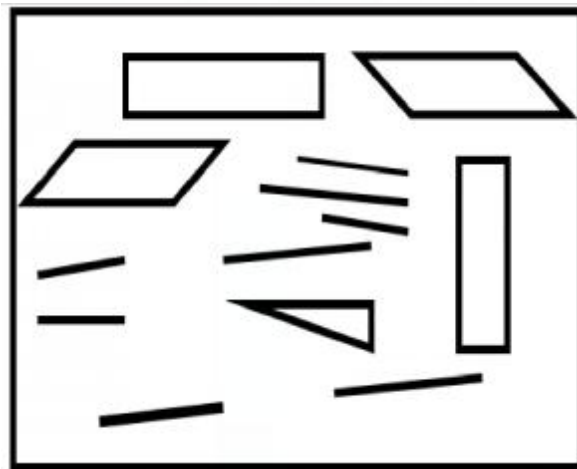


Figure 3. Coda of "Linéaire"

4. Conclusion

Consequently, the five movements of "Métaboles" not only interpret their respective themes in terms of structure, soundscape building and texture morphology, but also complete a transformation journey from cocoon to butterfly. The music experienced the birth of "Incantatoire" cell, the "Lineaire" development, the "Obsessionnel" growth, the "Torpide" changes, and finally the "Flamboyant" synthesis and recupitulation. Dutilleux vividly interprets a soundscape of biological metabolism, which gives the audience a dramatic feeling. At the same time, he uses the visual means in painting art, combines the texture form of each movement with the picture of art works, gives audience a new experience from reading the music vision and can associate deeper sound effects. The five movements of the whole piece do not exist inde-

pendently. They are inextricably linked in title meaning, theme music material, instrument combination and other aspects. "Incantatoire"- "Linéaire"- "Obsessionnel"- "Torpide"- "Flamboyant", jointly completed the process of a cycle, change, repetition, development, sublimation "metabolism".

References

- [1] Wagstaff J. The new grove dictionary of music and musicians. Notes. 2009, 66(1), 129-131.
- [2] Caroline Potter. Henri Dutilleux: His life and works. Published by Ashgate Publishing Limited Company, 1997.
- [3] Henri Dutilleux: Music-Mystery and Memory. Conversations with Claude Glayman. Translated by Roger Nichols. Ashgate Publishing Limited. 2002.