

SOUND LEVEL COLLECTION : RESEARCH ON THE CREATION TECHNIQUES OF MA JIANPING ORCHESTRAL WORK BAI GUANG*

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Abstract

This research objective explores Ma Jianping's creative techniques in his orchestral work "White Light," focusing on sound level collection a key concept in music theory for organizing scales and intervals. The study provides an in-depth analysis of how this technique shapes the structural integrity of the piece, while also revealing the unique musical characteristics and connotations of "White Light." By integrating traditional composition methods with modern music ideas, this research offers new insights into music theory, aiming to benefit future composers and educators. The study also highlights Ma Jianping's innovative influence on contemporary orchestral music in China, demonstrating the significance of sound level collection in modern composition.

Keywords : Ma Jianping, Sound Level Collection, Orchestral Music, Creative Techniques

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Introduction

Since modern times, China's modern music has undergone significant breakthroughs, exploration, and innovation. Chinese composers have played a pivotal role in this development by utilizing their deep cultural heritage and an unwavering spirit of exploration. Despite the progress made, the innovation and diversity of modern music creation remain central to the objectives of contemporary Chinese composers, highlighting an ongoing commitment to these themes (Zhou, 2015; Li, 2018).

Among these composers, Ma Jianping stands out for his contributions, characterized by the high quality and diverse themes of his work. His compositions range from celebrating major historical events and heroic figures to exploring themes of home and tradition. These works have garnered significant social attention and academic research (Wang, 2020). However, while much of the existing research on modernist music in China has focused on piano compositions, there is a noticeable lack of analysis on purely orchestral works, particularly those utilizing string ensembles. Ma Jianping's "White Light," an orchestral work that uniquely applies the concept of sound level collection, stands out as an exceptional example of this rare creative technique (Chen, 2019).

Given the scarcity of studies on purely orchestral works that incorporate modernist techniques in China, this research addresses a significant gap by providing a comprehensive and systematic analysis of Ma Jianping's "White Light." This study aims to elucidate how the composer effectively integrates elements of inheritance, reference, and innovation, thus offering valuable insights into practical composition methods for future works (Liu, 2021).

Research objective

Sound level collection is an important concept in music theory that focuses on how scales and intervals are organized and how they together form the overall structure of a musical work. For the composer Ma Jianping's orchestral work Bai Guang, the collection of sound level is a core element of his creative techniques. Therefore, the main objectives of studying the creation techniques of the sound level collection in the Ma Jianping orchestral work, White Light, include the following points:

1. Make an in-depth analysis of the specific application of the sound level collection in White Light, and understand how the composer constructs the overall structure of the musical works through the sound level collection.
2. By studying the use of sound level collection in the work, the musical characteristics of White Light are revealed, so as to understand the musical style and connotation of this work more comprehensively.
3. Through the study of the creation techniques of sound level collection in Ma Jianping's orchestral work White Light, it provides reference and application for the creation of other composers in the future, and also provides a new perspective and thinking for the study of music theory.

Literature Review

Ma Jianping's orchestral works have high artistic value and social value, which often cause scholars to analyze and study in multiple dimensions. In the study of the Symphony Works Concert of Ma Jianping, a Young Teacher in Beijing (Li, 1991), Li Ming believed that Ma Jianping's Fantasia No.1 was a work based on his hometown Guizhou. It vividly describes the mysterious mountains and rivers of Guizhou, praises the industrious virtues and optimism of the people of Guizhou, and shows the care of young composers for their hometown. Known as the "avant-garde" works, "Structure" and "White Light"



have both the movement of time, the tone of color, the mixed background and the clear tone of tragedy and the pulse of the bold and creative attempt in modern acoustics. The content of the No.2 Symphony gives people the feeling and impression of confusion and confusion, but it has the joy and sadness of love and love, profound implication, which is amazing and endless aftertaste (Li Ming, 1991).

Yang Shanpu's late, but also gratified — young composer Ma Jianping symphonic works after concert research (Yang, 1991) that Ma Jianping's orchestral works did not find the impressive, especially the national musical convergence and the writer's artistic ideal, as the evidence of work style, etc., as the work of personality; therefore, there is reason to doubt his musical personality. However, the process of seeking the individuality of creation in the music itself is also a subtle answer. In terms of the basis of personality, because there is no strong contrast, people often ignore the fact that has emerged. Therefore, I still feel the real Ma Jianping creation is lovely, not only because he is not affected by fashion, also not the technology and concept as the only pursuit, but in his work is not clearly visible a tendency of development, namely in the pure music creation sense constructive, I think this with the purpose of the creative reflection in recent years should be consistent (Yang Shanpu, 1991).

Conclusion: Ma Jianping's orchestral works often show the subversion and reconstruction of traditional music language, and this attempt makes his works have a strong modern sense. The excavation and application of folk music make his works have strong ethnic customs, and enable the audience to better understand and accept his works; he excavates the connotation of traditional music, combines traditional melody, rhythm and other elements with modern composition skills, making his works have both traditional charm and innovative elements. This inheritance and innovation of tradition makes his works of high artistic value.

Methodology

1. Literature research method

First, in-depth study and understand the basic principles and application of sound level set theory. Through consulting relevant music theory books, journal articles and network resources, a comprehensive understanding of the definition and characteristics of sound level collection and application examples in music creation. At the same time, we collected Mr.Ma Jianping's life data, creation ideas and related literature of Bai Guang, so as to provide theoretical basis and background information for in-depth research.

2. Work analysis method

Conduct a detailed score analysis of the work "White Light", identify the sound level collection elements in the work, and understand its specific application and performance in the work. This includes the analysis of the melody movement and linear extension of the work, so as to reveal the practical application and effect of the sound level set theory in the work.

3. Data Analysis

The data analysis process focuses on dissecting the internal structure of "White Light" to understand how Ma Jianping integrates traditional composition techniques with contemporary music theory. By analyzing the score, the study reveals the practical applications and effects of sound level collection, providing a systematic understanding of the composer's creative approach.

Results

1. The research result is the analysis of sound level collection in Ma Jianping's orchestral work Bai Guang, which is helpful for the research and practical application of sound level collection creation techniques.

2. Compared with other works of the creation techniques of the sound level collection involved in this study, it is helpful to reveal and summarize the

development and characteristics of the sound level collection in modern music creation.

3. The creative use of the sound level collection involved in this study is helpful to define the professional level and influence on the creative techniques of Ma Jianping orchestral music.

The study results demonstrate the significant role that sound level collection plays in Ma Jianping's orchestral work "White Light," highlighting its importance in the research and practical application of modern composition techniques. The research also compares the use of sound level collection in "White Light" with other contemporary works, revealing the development and unique characteristics of this technique in modern music creation. Finally, the study underscores Ma Jianping's professional influence and the innovative nature of his compositional techniques, contributing to a deeper understanding of his impact on contemporary orchestral music.

Discussion

1. Shift movement of sound-level sets in White Light

In atonal music works, the set of shift is the composer common development technique, here, Mr Ma Jianping also without exception adopted this technique, the difference is that in the white light, Ma Jianping using in situ displacement movement, also has gradually increasing shift movement technique.

In-situ displacement motion:

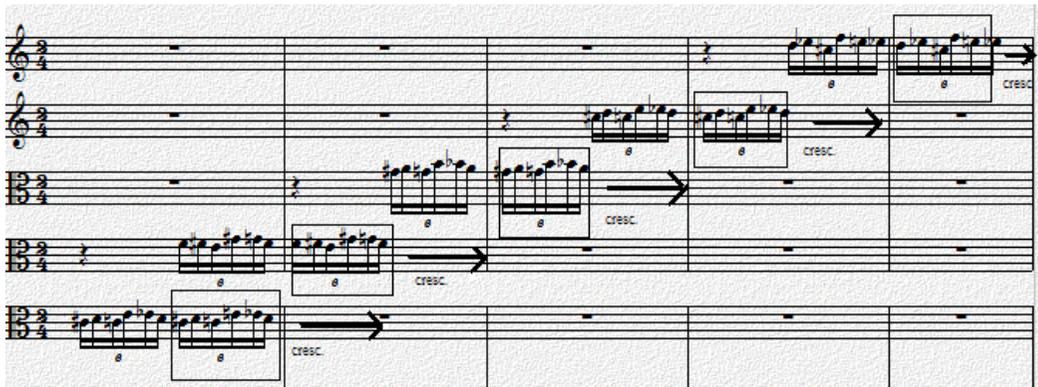
Example (1) A (1,9,10,11)

B (6,7,8,10)



Increasing shift motion:

Example (2) A (0,1,2,3,3,4) B (4,5,6,7,8) C (7,8,9,10,11) D (0,1,2,3,4) E (1,2,3,4,5).....



In the above spectrum (1) and spectrum (2), There is an obvious difference between the two displacement movements: spectrum (1) belongs to "situ displacement movement", That is, the pitch and original sound levels of truncation A and cut B are different, The development movement of two sets where the standard sequence level, interval vector and set name are all the same; Example (2) belongs to the "increasing shifting motion", That is, while a set of sound levels is constantly moving forward, Its shifted set is constantly stacking motion in the same way, so, From a longitudinal view, The pitch of the collection is increases up and even the appearance of 12 notes, Thus, its original sound level, standard sequence level, interval vector and set name have all changed fundamentally. It is the composer of these two kinds of

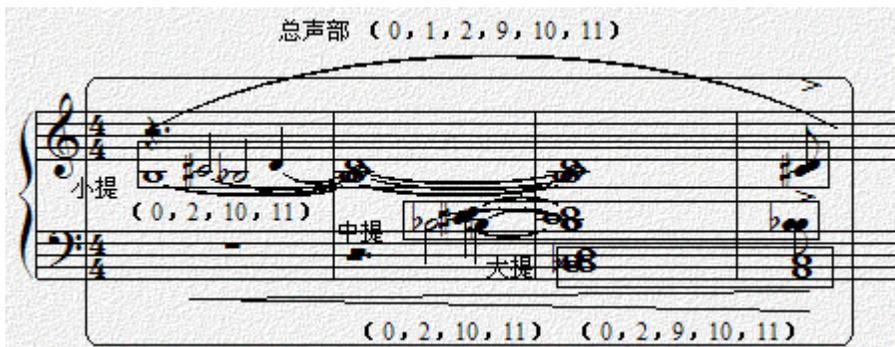
displacement movement to more appropriately show the movement of "white light", especially the "increasing displacement movement", which is continuously moved in the way of increasing strength, showing that the power of nature (white light) is endless. This displacement movement is more complex, unique, and more innovative than other works.

2. The linear extension of the sound level collection in White Light

Lineity is a linear segment based on the basic set and the overall sound level. In the works, in addition to the melodic lines formed by the sound level, there are often factors that restrict the timbre, performance, strength and rhythm inside the whole structure. While extending and moving, they form the structural principle that is compatible with the development of music, and produce great significance in the whole work.

White Light is a combination of 30 violins (16 violas, 14), 10 violas, 10 cellos and 8 double bass. The timbre lines of each instrument, the melody lines of each part, constitute a different set of sound levels. In a set of truncated levels, it is because of the presence of its timbre melody lines, which may form a "composite truncation set", or in a set of truncated levels may contain several sound levels.

Spectrum (3)



总声部 (0, 1, 2, 9, 10, 11)

小提琴 (0, 2, 10, 11)

中提 (0, 2, 10, 11)

大提 (0, 2, 9, 10, 11)

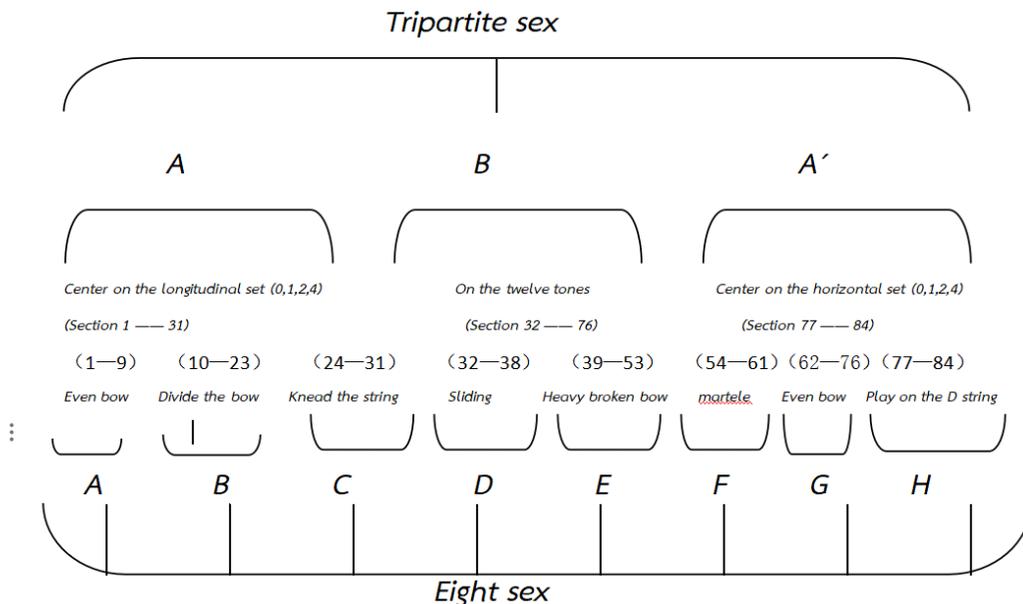
As can be seen from the above example (3), the melody line first appears in the timbre of the violin group, the tone set is (0,2,10,11), followed by the timbre of the viola set is (0,2,10,11), then the tone of the cello set is



(0,2,9,10,11), and the total set of the whole string tone is (0,1,2,9,10,11). Therefore, it is obvious that with the importance of timbre lines in White Light, it can independently form its own set of timbre levels, or it can form a composite set of truncated timbre levels with other timbre lines. Compared with other works, this linear extension is more smooth, natural and has a unique sense of rhythm.

3. The chain pattern of the sound level set in White Light

The structural link of the chain curve is a series of unrelated sound level collection fragments, the most typical is the timbre sound. In "white light", the composer with skill complex, give full play to the string of various instruments playing techniques, such as the use of pan, bow, etc., is the most noteworthy, the use of many "modern string techniques", such as on the string plate rather than refers to the plate played, with fingers or fingers tapping body, with a bow pressure over a overtone node, and so on. The composer arranged such set performance lines are very clear and regular, can be divided into eight parts (indicated on the general score): the first part to the bow (Legato), heavy broken bow (Martellato) playing free extended sound, short sound; The second part is the bow (Legato) and arch (Detache); the third part is the performance skills of kneading (), Bowed Tremolo (bow) and plucked (Snap Pizzicato); the fourth part is the four strings of (), plucked (Pizzicato) and slide (Glissando) after playing the The fifth part to the bow (Legato), bow (Staccato), heavy broken bow (Martellato) performance skills; The sixth part is the natural overtone (Natural Harmonics), a string () after playing the horse, the lower overtone (Subharmonics), left and right hand rotation (Left, Right-Hand Pizzicato) playing skills; The seventh part is based on the bow (Legato) as the performance technique; The eighth part focuses on the heavy broken bow (Martellato), even bow (Legato), and playing skills on the D string (SulD). (As shown in the following structure diagram.)



In the above structure diagram, it is not hard to find, to the sound level set to divide type structure can be divided into three parts (ABA', from the pitch organization is a little close to the traditional type structure), from the perspective of the movement of playing line can be divided into eight parts (A, B, C, D, E, F, G, H, has completely from the traditional structure), or also can say the old reproduction in the tripartite structure hidden, derived new eight part structure. In a word, in "White Light", the performance line of the collection is extremely important, and its extension and movement are varied and rich in regularity. In this law, it not only inherits the traditional reproduction of the three parts, but also generates a new eight-part structure in accordance with common sense. Compared to other works, this chain curve is more compact, rigorous and innovative.

Conclusion/Recommendations

Conclusion

As an orchestral masterpiece of Ma Jianping, the use of sound level collection in its creative techniques fully demonstrates the charm and value of sound level collection theory. Through the displacement movement, linear extension and the innovative application of chain style, the composer has successfully created a musical work with both profound connotation and full of artistic appeal. This work not only provides us with valuable experience in music creation, but also provides new ideas and inspiration for the future of music creation.

Recommendations

1. General Recommendations

Nowadays, modern music works create various techniques and analysis methods. For creators, their works should not only reflect the diversity of modern society, but also inject new vitality and creativity into them. For researchers, they should broaden their research horizons and have a deep understanding of the specific application of various creative techniques in different works.

2. Recommendation for future research

First, deepen the study of the set theory of sound level. Through in-depth study of the composition, characteristics and movement rules of the sound level collection, the organization of pitch and musical structure in music works can be better understood, and the means and expression of music creation can be further enriched and expanded. Secondly, broaden the research horizon and combine the sound level set theory with other music theories. Through an interdisciplinary research approach, we can have a more comprehensive understanding of the complexity and diversity of musical works. Finally, we should pay attention to practical application and transform the

research results into practical guidance of creation and teaching. To help students to better understand and master the internal structure and performance characteristics of musical works, and improve their musical literacy and creative ability.

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