



Aesthetic Study of the Body from the Perspective of Martial Arts and Dance Integration ---Based on the Dance Drama "Yong Chun"

Jun Zhu

College of Education Science, Quanzhou Normal University, Quanzhou, Fujian 362000, China

Email: 624864665@qq.com

Abstract. This paper takes the dance drama "Yong Chun" as an example to discuss the connotation and expression of body aesthetics from the perspective of the fusion of martial arts and dance. The aim is to reveal the aesthetic value and innovative significance of the fusion of martial arts and dance. Through systematic combing and analysis of Richard Shusterman's body aesthetics theory, combined with the historical origins and current status of the fusion of martial arts and dance, this paper constructs a model of body aesthetics analysis from the perspective of martial arts and dance fusion in three dimensions: the connotation and form of fusion, the impact on body perception and practice, and the display of body aesthetics and expression. Using this model to analyze the dance drama "Yong Chun", the study finds that the integration of martial arts and dance can not only enrich artistic expression but also enhance body perception and practice, thereby forming a unique body aesthetic and expression.

Keywords: Martial Arts, Dance, Body Aesthetics, Fusion of Martial Arts and Dance

1 Introduction

Martial arts and dance are significant representations of Chinese culture, with deep historical roots and close ties. The richness and diversity of Chinese culture provide continuous motivation and support for the development of martial arts and dance^[1]. Both express emotions, thoughts, and aesthetics through body movements. In ancient times, the words for martial arts and dance were interchangeable, with "martial" meaning "dance". Although they seem opposite, their external form and inner meaning have a high degree of consistency. Body aesthetics is an aesthetic theory and method that focuses on body perception and practice. It draws from various intellectual resources to form a multi-layered, multi-dimensional, and diverse body aesthetic perspective. In this view, the body is not a fixed material entity but a dynamic creative process that can present different forms, meanings, and values in different cultural, historical, and environmental contexts. One could argue that body beauty is the pinnacle of natural beauty, the embodiment of social beauty, and the core of artistic beauty. Especially in plastic

© The Author(s) 2023

E. Marino et al. (eds.), *Proceedings of the 2023 5th International Conference on Literature, Art and Human Development (ICLAHD 2023)*, Advances in Social Science, Education and Humanities Research 806,

https://doi.org/10.2991/978-2-38476-170-8_67

arts and performing arts, body beauty has an irreplaceable importance and influence^[2]. Labor created human dance and martial arts, and the combination of martial arts and dance gave birth to the art form of martial dance^[3]. The fusion of martial arts and dance allows for diverse, varied, and multi-dimensional artistic creations. It integrates Eastern and Western elements, ancient and modern, and traditional and innovative techniques in music, costumes, lighting, and stage. In terms of movements, rhythms, and styles, it combines classical and modern, national and global, traditional and innovative exchanges and dialogues. In terms of stories, themes, and emotions, it provides a rich and profound development. This integration not only enriches the content and form of artistic expression but also expands the perspective and dimensions of artistic appreciation and understanding. To delve deeper into this issue, this paper selects a representative and influential work of martial arts and dance fusion - the dance drama "Yong Chun", aiming to reveal the characteristics and patterns of body aesthetics from the perspective of martial arts and dance fusion through an in-depth analysis of the drama.

2 Application of Body Aesthetics in the Fusion of Martial Arts and Dance

2.1 Richard Shusterman's Body Aesthetic Theory

Body aesthetics is an emerging branch of philosophy that focuses on the crucial role the human body plays in perceiving, creating, and evaluating beauty. Body aesthetics (Somaesthetics) is an interdisciplinary research field that focuses on body perception, practice, and expression, founded by the American new pragmatic philosopher and aesthetician, Richard Shusterman. This field has garnered widespread academic attention and discussion^[4]. In many of his works, he systematically elaborates on his body aesthetics theory, which provides valuable references for analyzing the aesthetic expression of the body in the integration of martial arts and dance.

Definition and Characteristics of Body Aesthetics.

Shusterman defines body aesthetics as a critical and improving study of human bodily experience and function – a critical and ameliorative study of one's body as a locus of sensory-aesthetic appreciation (aisthesis) and creative self-fashioning^[5]. Its characteristics include sensory-aesthetics, emphasizing the body as a medium for enjoying the world; self-fashioning, considering the body as a project that can be changed, enhanced, and perfected in various ways; and critical-improvement, improving the physical condition through critical thinking and practical action. He believes that the human body is not a passive, fixed, objective material entity, but an active, changing, subjective living phenomenon that can perceive, express, and change oneself and the world in various ways. Therefore, body aesthetics advocates improving bodily experience and function by cultivating and enhancing body awareness, thereby elevating the quality and value of life.

Dimensions and Aspects of Body Aesthetics.

Shusterman proposed three types of body aesthetics: analytical body aesthetics, which is a philosophical study of body perception and practice as fundamental elements for understanding and constructing reality^{[5]360}; practical body aesthetics, focusing on how to cultivate, practice, improve, and enjoy our sensory-aesthetic abilities. He argues that bodily practice, as a concrete action, should be explicitly regarded as an indispensable practical dimension of body aesthetics, constituting a comprehensive philosophical field involving self-recognition and self-care^{[5]365}; pragmatic body aesthetics studies how to express, convey, and enhance our understanding of our own and others' bodily experiences and functions through artistic forms. He suggested that "since the art of living must be a practical art, the pragmatist's emphasis on practice seems particularly appropriate"^[6]. These three types of body aesthetics, each with its emphasis and function, are interconnected and supportive of each other. They not only provide us with a body-centered epistemology and ontology but also offer a body-mediated art of life and cultural exchange. This opens a new path to understanding and improving our bodily condition, enhancing our quality of life and happiness, and showcasing our individual style and emotional attitude.

Practice and Aesthetics of Body Aesthetics.

Shusterman believes that "life itself is an aesthetic experience, and we should treat life as an art to create, enjoy, and perfect"^[7]. This view emphasizes that we should actively create and enjoy life. Life is not just something to passively accept; it requires our proactive creation and enjoyment. We should improve our body perception and practice abilities through various methods, such as artistic creation and body training, to better create and enjoy life. He advocates enhancing our sensory-aesthetic abilities towards ourselves and others through various forms of body training. He also explored his participation in performance art as a philosopher, showing his thoughts on the relationship between the concepts and practices of body aesthetics. The so-called practice refers to human sensuous activities or the basic mode of human existence in the world^[8]. Art can not only reflect life's reality but also transcend it, offering new perspectives, possibilities, and values. Art can also influence our way of life, paying more attention to bodily sensations, emphasizing individual expression, and pursuing happiness and freedom. Thus, life aesthetics advocates integrating art into daily life, making life more abundant, colorful, and meaningful.

2.2 Model Construction Based on Shusterman's Theory

Based on Shusterman's theory of body aesthetics, this paper constructs a model for analysing body aesthetics under the perspective of the integration of martial arts and dance, as shown in Figure 1, which contains three levels:

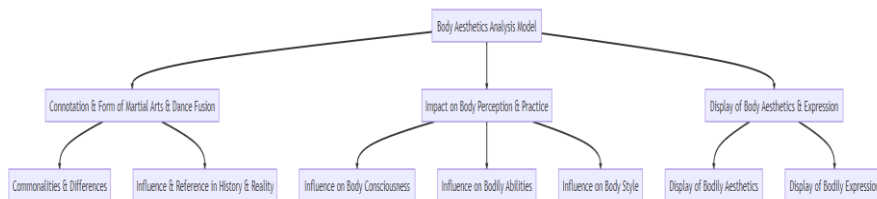


Fig. 1. Models for the analysis of body aesthetics

The connotation and form of the fusion of martial arts and dance

i.e., the commonalities and differences between martial arts and dance, and their mutual influence and reference throughout history and in reality. This level corresponds to the analytical body aesthetics in Shusterman's theory, focusing on the basic attributes of body perception and practice and their impact on understanding and shaping reality, including in-depth studies of ontology, epistemology, and sociopolitics^[4].

Commonalities and Differences. Chinese martial arts, like Chinese dance, are both forms of art that pursue beauty^[9]. Both martial arts and dance are artistic forms that use the human body as the primary medium of expression. They both have certain standards and techniques, aesthetic functions and values, and historical-cultural backgrounds and inheritances. While they share commonalities, they also have essential differences. Martial arts, as a representation of Chinese culture, are essentially characterized by offensive and defensive techniques. Their primary functions are fitness, self-defense, self-cultivation, and spiritual nourishment, all of which are expressed through bodily movements^[10]. Martial arts emphasize the practicality, effectiveness, and lethality of movements, as well as the coordination between movements, willpower, breath, and strength. Dance, on the other hand, is an artistic refinement and emotional expression of people's production and life. It is the beautification and optimization of body movements. The body first appears in a material form, then through spiritual activities, delves deep into human practical life, and finally enters the realm of aesthetics in the practice of bodily subjectivity^[11]. Dance emphasizes the fluidity, elegance, and expressiveness of movements, as well as the coordination between movements, music, space, and emotions.

Influence and Reference in History and Reality. While martial arts and dance differ, they also influence and borrow from each other. Throughout their evolution over thousands of years, they have borrowed, absorbed, and evolved from each other, displaying cultural characteristics of martial-dance fusion^[12]. In ancient China, martial arts and dance had a common origin, both emerging and developing from societal activities such as rituals, entertainment, and education. They also share similarities in form, such as the ritualistic martial art referred to as "elephant dance" in the "Book of Songs" and the ritualistic dance known as "elephant martial" in the "Book of Rites." In modern times, due to social reforms and cultural exchanges, martial arts and dance have undergone new changes and innovations. On the one hand, martial arts have gradually shifted from military and combat functions to fitness and performance functions, leading to the formation of various performance routines and styles. They have been introduced into media such as movies, television, and games, becoming internationally influential cultural

symbols. On the other hand, dance has evolved from traditional folk and classical dance to diversified forms like modern dance and ballet. Among them, there are works that borrow and absorb elements of martial arts, such as "Yong Chun", "Tai Chi", and "Kung Fu". These works not only demonstrate the aesthetic fusion of martial arts and dance in terms of technique but also reflect on traditional Chinese culture and contemporary society.

Impact of Martial Arts and Dance Fusion on Body Perception and Practice.

This pertains to how martial arts and dance, through different training methods and goals, shape various body consciousness, abilities, and styles. This level corresponds to the pragmatic body aesthetics in Shusterman's theory, emphasizing methods of bodily improvement and their comparative evaluation, encompassing various body training, therapies, and artistic forms.

Influence on Body Consciousness. Shusterman believes that body consciousness, "is not merely the mind's consciousness of the body as an object, but also includes 'embodied consciousness': the active body directly contacts and experiences itself in the world"^[13]. It refers to people's cognition, feelings, and evaluations of their bodies, as well as their understanding and grasp of the relationship between their bodies and the external environment. The fusion of martial arts and dance requires performers to coordinate their breathing, rhythm, intensity, speed, and other factors in harmony with music, space, and emotions, based on mastering martial arts and dance techniques. This fusion can cultivate performers' body consciousness, enabling them to better recognize, feel, evaluate, and control their bodies.

Influence on Bodily Abilities. Bodily ability refers to various qualities and skills exhibited through body movement, including strength, speed, endurance, flexibility, and coordination. The fusion of martial arts and dance requires performers to showcase their bodily charm and temperament, as well as the culture and spirit carried by their bodies, while displaying their body skills and capabilities. This fusion can enhance performers' bodily abilities, enabling them to better utilize their bodies, express their emotions, and showcase their charm.

Influence on Body Style. Body style is not merely confined to external manifestations; it also encompasses intrinsic elements. It can be said that body style simultaneously bears the dual attributes of form and content^[4]. It refers to the personalized characteristics displayed through body movement, including movement features, temperament features, and aesthetic features. The fusion of martial arts and dance requires performers to continually optimize their body states and adapt to external environments, to enhance their performance in terms of movement skills, performance intensity, and innovation^[14]. This fusion can shape performers' body styles, enabling them to better showcase their personalities, convey their thoughts, and pursue their aesthetics.

Display of Body Aesthetics and Expression in the Fusion of Martial Arts and Dance.

This pertains to how martial arts and dance, through different movements, postures, rhythms, temperaments, and other elements, express various emotions, thoughts, and

aesthetics under different circumstances, situations, and conditions. This level corresponds to the practical body aesthetics in Shusterman's theory. It is the "concrete activity of bodily practice," advancing pragmatic body aesthetics, and combining methods and thoughts of Eastern or other traditional body practices^[15].

Display of Bodily Aesthetics. The body is both the subject and object of aesthetics and is the source and motivation for creating beauty^[16]. Bodily aesthetics refers to people's aesthetic evaluations and appreciations of their own or others' bodies, including formal beauty, functional beauty, and meaningful beauty. The fusion of martial arts and dance requires performers to display the charm and temperament of their bodies, as well as the culture and spirit they carry, while showcasing their body techniques and capabilities. This fusion can enhance performers' bodily aesthetics, allowing them to better appreciate their own or others' bodies, as well as the art and culture manifested by the body.

Display of Bodily Expression. The "natural-cultural" isomorphism of the body constitutes the "double wings" of the body, representing the two ways of body expression: one is natural expression, and the other is cultural expression^[17]. Bodily expression refers to the information and emotions conveyed by people through their own or others' body movements, including verbal and non-verbal expressions. The fusion of martial arts and dance requires performers to control the information and emotions conveyed by their body movements, as well as the feedback and interactions triggered by their bodies. This fusion can enhance performers' bodily expression, enabling them to better use their own or others' bodies for communication and exchange, as well as for creating and enjoying art.

3 Aesthetic Analysis of the Dance Drama "Yong Chun"

The dance drama "Yong Chun" is an innovative work by the Shenzhen Opera and Dance Theatre, written by Feng Shuangbai and co-directed by Han Zhen and Zhou Liya. Inspired by the movie "Yong Chun", this drama creatively integrates elements of martial arts and dance. In this production, five major martial arts schools - Wing Chun, Praying Mantis Fist, Bagua Palm, Bajiquan, and Tai Chi - have their martial techniques combined with the characteristics of classical and modern dance, forming a distinctive dance style. This fusion not only showcases the charm of traditional Chinese martial arts but also reflects the innovative spirit of dance art^[18]. However, the allure of the dance drama "Yong Chun" lies not only in its innovative artistic form and profound cultural connotations but also in its unique body aesthetics. This body aesthetics originates from the fusion of martial arts and dance, representing a perfect blend of the strength and rhythm of traditional Chinese martial arts with the fluidity and expressiveness of modern dance. This body language is reflected not only in the masculine energy of the combat dance sections but also in the romantic aesthetics of the duet dances and the soft elegance of the "scented cloud yarn". These diverse forms of bodily expression together constitute the body aesthetics of "Yong Chun".

3.1 Analysis of the Form of Martial Arts and Dance Fusion in "Yong Chun"

Through the fusion of martial arts and dance, "Yong Chun" showcases the uniqueness of the artistic form and the inheritance of national culture, as well as the respect and admiration for traditional Chinese martial arts culture. It also embodies the spirit of respecting martial arts and upholding virtue. Using various body postures, lighting effects, musical rhythms, and other means, the drama unveils the connotations and extensions of the spirit of traditional Chinese martial arts.

Movement Vocabulary.

In "Yong Chun", the movement vocabulary of martial arts and dance permeates each other, forming a unique artistic expression. On one hand, the movement vocabulary of martial arts enriches the expressiveness of dance, imparting a strong national character and cultural connotation to it. For instance, the drama showcases the characteristics and applications of the five major martial arts schools, such as the sticking techniques of Wing Chun, the fierceness of Praying Mantis Fist, the circular movements of Bagua Palm, the opening and closing movements of Bajiquan, and the gentleness of Tai Chi. These martial arts movements not only display the skills and power of martial arts but also showcase their aesthetic rhythm. On the other hand, the movement vocabulary of dance also provides more expressive forms and possibilities for martial arts, enhancing the artistic and aesthetic aspects of martial arts.

Rhythmic Patterns.

Rhythmic patterns refer to the expression of speed, intensity, and beats through body movements. In "Yong Chun", the rhythmic patterns of martial arts and dance are coordinated, contrasted, and highlighted. They are synchronized or contrasted with various music styles and sound effects, such as ethnic music, rock music, electronic music, and the sounds of percussion, breathing, and commands. These rhythms showcase not only the relationships of cooperation or opposition between different schools or roles but also the differences or commonalities of personalities between or within schools or roles.

Spatial Composition.

Spatial composition refers to the expression of position, angle, and direction through body movements. In "Yong Chun", the spatial composition of martial arts and dance is supplementary, transformative, and creative. It is adapted or changed based on scenes and props to achieve different visual effects. For example, various body postures and lighting effects are used, such as standing, kneeling, hanging upside down, and lights in colors like red, green, and white. These postures and lighting effects provide different spatial meanings and feelings for martial arts and dance.

3.2 Analysis of the Impact of Martial Arts and Dance Fusion on Body Perception and Practice in "Yong Chun"

Analysis of the Role of Body Perception in the Fusion of Martial Arts and Dance.

Body perception refers to the sensations, emotions, and cognitions produced through body movements. Merleau-Ponty (1908-1961) pointed out in "Phenomenology of Perception" that all human emotions, experiences, associations, perceptions, phenomenological realms, and cognitions, including memories in the imagination, are closely related to the body's state, function, structure, and elements^[19]. In the dance drama "Yong Chun", body perception serves as the key to the artistic experience of both the actors and the audience and acts as a bridge between martial arts and dance. It enables performers to master techniques, adjust their breathing and rhythm, and harmonize movements with music, space, and emotions. For instance, performers must be attuned to their own bodies, mastering the techniques of Wing Chun and dance, and forming a movement style that is both compact and powerful yet graceful. Moreover, body perception helps performers create movement languages that align with their own style and characteristics, facilitating their understanding and expression of the artistic theme and content. For example, when expressing the love between Ye Wen and his wife in the drama, performers need to finely perceive their own and the other's body, creating a duet dance movement language that combines elements of martial arts and dance to portray the mutual support and admiration between the two. Finally, through body perception, performers can convey the emotional connotations of martial arts and dance, touching the audience by transmitting feelings of patriotism, heroism, familial warmth, and homesickness.

Analysis of Techniques in Body Practice in the Fusion of Martial Arts and Dance in "Yong Chun".

In "Yong Chun", the body practice showcases intricate techniques through the fusion of martial arts and dance. Firstly, it reflects the mutual learning between martial arts and dance. Performers organically combine elements of martial arts and dance, revealing an interplay between the two. For instance, in the scene where Ye Wen challenges the four major sects in a "Breakthrough", a continuous eighteen-minute combat sequence is performed by dance actors. The actors must not only perform hundreds of movements, using specific techniques for each sect, but also pay attention to the aesthetic and rhythmic sense of the movements. Secondly, the body practice emphasizes the integration of martial arts and dance. Performers combine aspects such as movement, rhythm, intensity, and emotion from both martial arts and dance to display a convergence of the two. For example, the performers blend the "Wooden Dummy" technique of Wing Chun with the "Improvisation" of modern dance. Lastly, the fusion promotes the cultural significance and spiritual connotations of the body. The drama not only demonstrates the technical features and cultural undertones of Wing Chun as a national intangible cultural heritage but also portrays the spirit of Ye Wen as the "Grandmaster", emphasizing martial virtue and national confidence.

Analysis of the Interaction of Body Perception and Practice in the Fusion of Martial Arts and Dance.

In "Yong Chun", the fusion of martial arts and dance stimulates and enhances the interaction between body perception and practice. On one hand, the integration strengthens the multi-dimensionality and multi-layered aspects of body perception. Both martial arts and dance require performers to have a heightened awareness of their bodies, space, time, rhythm, and strength. In the drama, performers must not only perceive their own bodily states and movement techniques but also the intentions and emotional shifts of others, as well as changes in the ambiance of the scene. On the other hand, the integration enriches the diversity and multiplicity of body practice. Both martial arts and dance express personal or collective thoughts, emotions, and values through body movements. Performers not only express their own or their character's inner world but also broader themes like Lingnan culture or national spirit.

3.3 Analysis of the Formation of Body Aesthetics in the Fusion of Martial Arts and Dance

The dance drama "Yong Chun" reveals the commonalities, differences, and complementarities of body aesthetics through the fusion of martial arts and dance, deepening the audience's understanding of the drama's themes and connotations. Firstly, performers refine and intensify elements common to both martial arts and dance, such as "lines" and "rhythms", forming a body aesthetic that transcends both culture and art. Secondly, performers contrast and accentuate different elements of martial arts and dance, creating a diverse and characteristic body aesthetic. Finally, by combining and coordinating complementary elements of martial arts and dance, a complete and harmonious body aesthetic is formed.

4 Conclusion

The dance drama "Yong Chun" is an artistic work that organically integrates martial arts and dance, showcasing a unique body aesthetic. This fusion offers a new perspective for understanding and appreciating body aesthetics, a perspective that focuses on both the external form and movements of the body and delves deeply into its inner spirit and emotions. Through this lens, we can gain a deeper understanding and appreciation of the artistic value of "Yong Chun", sensing the body aesthetics and expressiveness created by the fusion of martial arts and dance. In terms of artistic expression, the power of martial arts and the elegance of dance collide in "Yong Chun", creating a unique artistic language, making the performance more diverse. Simultaneously, this fusion also enhances body perception and practice. Through the harmonious combination of martial arts' strength and dance's grace, performers can better perceive their bodies, deeply explore their body's possibilities, and thus form a unique body aesthetic and expression. This aesthetic and expression offer new possibilities for dance creation and performance. Not only does this possibility enrich the expressive form of dance, making

it more innovative and distinctive, but it also increases the artistic and societal value of dance.

Reference

1. LI Ang. Practical Exploration of Artistic Creation about the Combination of Martial Art and Dance [J]. Capital University of Physical Education and Sports, 2017, 29(06): 520-524+528. DOI: 10.14036/j.cnki.cn11-4513.2017.06.011.
2. Peng Fuchun. Introduction to Philosophical Aesthetics [M]. Beijing: People's Publishing House, 2005: 135-136
3. LI Xin, WAN Xia. Historical Evolution and Development of Chinese Martial Arts Dance in the New Era [J]. School of Martial Arts and Dance, Shenyang Sport University; Social Sports School, Shenyang Sport University, 2020, 39(06): 137-144.
4. Zhu Liyuan, Li Linlin. A Review of Shusterman's Body Aesthetics [J]. Sichuan Drama, 2015, No. 174(02): 11-19.
5. Richard Shusterman. Pragmatist Aesthetics [M]. Translated by Peng Feng. Beijing: The Commercial Press, 2016: 268; 360; 365-366.
6. Richard Shusterman. Philosophical Practice [M]. Translated by Peng Feng. Beijing: Peking University Press, 2002.
7. Shusterman, R. (2008). Body Consciousness: A Philosophy of Mindfulness and Somaesthetics. Cambridge University Press. p.18.
8. Zhu Liyuan. History of Western Aesthetic Categories (Volume I) [M]. Shanxi: Shanxi Education Publishing House, 2005: 218.
9. Wang Guo-zhi, Wang Ting-xin. Two Kinds of Typical Body Culture—Chinese Wushu and Chinese Dancing [J]. Journal of Chengdu Sport University, 2010, 36(09): 35-39. DOI: 10.15942/j.jcsu.2010.09.010.
10. Qiu Pixiang. Chinese martial arts culture [M]. Shanghai: Shanghai People's Publishing House, 2007. 11: 14
11. GUO Yiou. The Generating Logic, Expression Schema and Beauty Shaping of Dance Body [J]. Journal of Jishou University (Social Sciences), 2022, 43(03): 151-160. DOI: 10.13438/j.cnki.jdx.2022.03.017.
12. Yao Yuan, Li Ang, Feng Aiyun. Fusion of Dance and Martial Arts: The Creative Design Concept of the Dance Work "Plum-Tongxiang" [J]. Sichuan Theater, 2020, No. 237(05): 144-146.
13. Richard Shusterman. Body Consciousness and Body Aesthetics [M]. Translated by Cheng Xiangzhan. Beijing: The Commercial Press, 2011: 1.
14. Xiang Yuhuan. The Dissemination of Female Somaesthetics in Magazine Print Advertisements in the Thirty Years of Reform and Opening-up—Focusing on Women of China (1980-2010) [D]. Chinese Master's Theses Full-text Database, 2021. DOI: 10.27312/d.cnki.gshsu.2021.000112.
15. Feng Xueqin. Genealogy and Body Aesthetics: Nietzsche, Foucault, Deleuze [J]. Theoretical Studies in Literature and Art, 2009, No. 163(02): 97-102.
16. ZHANG Zhicang. On Body Beauty [J]. Journal of Sports and Science, 2012, 33(04): 45-48+30. DOI: 10.13598/j.issn1004-4590.2012.04.015.
17. PENG Zhaorong. Born in the body: Body expression in art [J]. Ethnic Art, 2017, No. 136(03): 46-52. DOI: 10.16564/j.cnki.1003-2568.2017.03.023.
18. Li Ping, Lu Yunhong. The Beauty of Dancing Martial Arts and the Song of Wing Chun [N]. Shenzhen Special Zone News, 2023-04-10(A03). DOI: 10.28776/n.cnki.nszqtq.2023.01697.

19. Merleau-Ponty. Phenomenology of Perception [M]. Beijing: Commercial Press. 2001: 261.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

