

Exploration of Visual Aesthetics in Aerobics Sports

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ABSTRACT

[Background] With the development of society and the improvement of people's living standards, aerobics, which has both fitness and aesthetic characteristics, has become popular among the masses. The research on aerobics is gradually increasing, but the exploration of visual aesthetics in aerobics is still insufficient.

[Objective] This study aims to deeply analyze the visual aesthetic characteristics of aerobics, explore its forms of expression in different styles, and how to enhance the artistic expression and ornamental value of aerobics by optimizing visual elements.

[Method] In this study, we explored the visual aesthetic characteristics of aerobic exercise through theoretical and comparative studies. The purpose of comprehensively applying these methods is to construct a comprehensive analytical framework for the visual aesthetics of aerobics.

[Results] The visual aesthetics of aerobics not only enhance the viewing value of the exercise itself, but also promote aesthetic communication between participants and audiences, which has important cultural value and social significance.

[Conclusion] The study of visual aesthetics in aerobics should pay more attention to interdisciplinary integration and innovation to adapt to changing aesthetic demands and cultural contexts.

Keywords: Aerobics; Esthetics; Sports aesthetics; Visual Culture

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1. Introduction

1.1 Research Background

Aerobics, as a form of aerobic exercise that combines gymnastics, dance, and music, can be traced back to the early 20th century. In 1968, Dr. Kenneth Cooper of the United States first proposed the concept of "aerobic exercise", laying the theoretical foundation for the birth of aerobics (Cooper, 2018). At the beginning of its origin, aerobics mainly aimed to improve cardiovascular function, enhance muscle strength and flexibility, but over time it gradually evolved into an art form that emphasizes visual aesthetics and stage performance. In the 1970s, fitness pioneers such as Jack LaLanne and Jane Fonda brought aerobics into the public eye through television programs and fitness books. In the 1980s, with Jack Rowlands' "Jazz Aerobics" becoming popular worldwide, aerobics began to incorporate more dance elements, and the choreography focused more on rhythm and visual appeal, thus attracting and infecting audiences.

The status of aerobics in the fields of fitness and art continues to rise, from simple repetitive movements to advanced courses that integrate modern dance elements and complex choreography. Aerobics constantly absorbs and integrates new elements, demonstrating its diversity and innovation. Due to the characteristics of easy participation and strong applicability of the venue in aerobics, more people can participate and enjoy the health benefits and aesthetic experience brought by this sport.

1.2 Research Objective

This study analyzes the visual aesthetics of aerobics and considers how to enhance the artistic and ornamental value of the sport through innovative visual elements, conveying deeper cultural values and aesthetic educational significance. The research results can not only enrich the theoretical system of aerobics, but also provide practical guidance and suggestions for aerobics athletes, coaches, stage designers, and related practitioners, helping them better understand and apply visual aesthetic principles, thereby improving the artistic level of aerobics and the aesthetic experience of the audience, promoting the sustainable development and innovation of aerobics.

2. Aesthetic Basis of Aerobics Sports

2.1 Aesthetics and Sports Aesthetics

Aesthetics deeply explores the essence, forms, value, and significance of beauty, and is a philosophical branch dedicated to exploring and studying beauty, covering multiple aspects such as natural beauty, social beauty, and life beauty. Through philosophical contemplation of beauty, aesthetics provides a unique perspective for people to better understand and appreciate the world around them, enriching human spiritual life (Figure 1: London Olympics poster Figure). Sports aesthetics is a branch of aesthetics that involves athletes' physical form, movement aesthetics, sports aesthetic phenomena, aesthetic values, sports mental states, emotional expression, etc. The origin of the concept of sports aesthetics can be traced back to ancient Greece (Figure 2: Athens Games binocular neck bottle), when people already recognized the intrinsic connection between physical exercise and the pursuit of beauty (Edgar, 2013). Plato once said, "The beauty of the body is a reflection of the soul." In aerobics, the embodiment of sports aesthetics is particularly evident because the sport itself is a form of artistic expression that requires athletes to convey feelings of beauty while demonstrating strength and skills. Understanding sports

aesthetics is crucial for a deeper analysis of the aesthetic foundation of aerobics (Lacerda&Mumford, 2010).

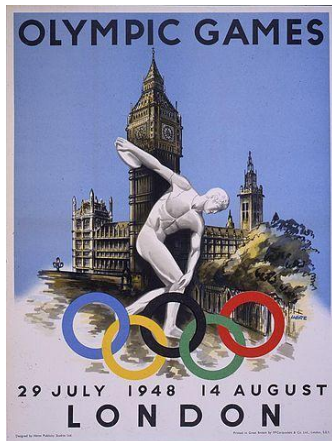


Figure 1:London Olympics poster

Image source: <https://olympics.com/zh/olympic-games>



Figure 2:Athens Games binaural neck bottle

Image source: Metropolitan Museum of Art, New York, USA

2.2 Aerobics and Visual Aesthetics

Bodybuilding exercises are a form of exercise that combines gymnastics, dance, and music, and their visual aesthetic features largely define the attractiveness and artistic value of this sport. The aesthetic foundation of aerobics is not only reflected in the athlete's body lines, smoothness of movements, and sense of rhythm, but also in its emotional impact on the audience and visual enjoyment (Ma, 2019). Elegance is one of the essential aesthetic features in aerobics, reflected in the smooth movements and graceful postures of athletes. For example, the International Aerobics Federation (FIG) places special emphasis on the elegance of athletes in performing movements in its scoring criteria, which is usually reflected through the stretching of body lines, symmetry and balance of movements. The display of strength is demonstrated through the explosive power and control of athletes when completing difficult movements, such as the power rolling in men's aerobics and the jumping movement in women's aerobics. These movements not only require athletes to have good physical fitness, but also require them to demonstrate the perfect combination of strength and beauty (Wright, 2003).

2.3 Aesthetic Experience

Bodybuilding exercises are a form of exercise that combines strength and elegance, not only cultivating a challenge and transcendence of physical limits among athletes, but also providing a unique aesthetic experience for the audience. When watching aerobics performances, the audience is often attracted by the athletes' smooth movements, precise rhythms, and harmonious music, forming a dynamic visual rhythm that not only guides the audience's emotions but also stimulates their imagination. Aerobics, through its unique visual and auditory elements, successfully transforms athletes' emotions into audience's emotional experiences, thereby establishing an emotional bridge between the two and generating strong emotional resonance (Elcombe, 2012). This experience not only enhances people's understanding of sports aesthetics, but also strengthens their recognition of the artistic value of aerobics.

The experience of athletes in aerobics is equally profound. Through long-term training, complex movements are internalized as physical memory, and every perfect execution of a movement is accompanied by an increase in self achievement. This sense of achievement not only comes from the advancement of technology,

but also from the applause and recognition of the audience (Da Costa,&Lacerda, 2016). In the field of psychology, Maslow's hierarchy of needs theory states that self actualization is the highest level of human needs, and the performance of aerobics athletes on stage is a manifestation of this self actualization. Expressing oneself through sports and engaging in emotional communication with the audience through artistic movements, in order to achieve a sense of spiritual satisfaction and pleasure.

3. Visual Element Analysis of Aerobics

3.1 Action Styling

The lines and postures of movements in aerobics are at the core of visual aesthetics, presenting a geometric beauty. For example, the comparison between straight lines and curves can not only showcase an athlete's strength and flexibility, but also create a strong visual impact. The aesthetic value of posture cannot be ignored. In aerobics, controlling and changing posture is an important means of expressing artistic expression. Athletes can demonstrate a perfect combination of elegance and strength through precise posture control. For example, a standard "Straddle split" not only requires great flexibility in the leg muscles, but also stability and balance in other parts of the body. This posture visually gives people a sense of aesthetic enjoyment, and the speed of posture changes and the coherence of movements are also key factors in evaluating the aesthetic value of aerobics. In terms of analyzing models, we can draw on the "golden ratio" theory in the field of art to explain the aesthetic value of aerobics movement modeling. The golden ratio is considered the most harmonious ratio between nature and art, and its application in the design of aerobics movements can make them appear more natural and beautiful.

3.2 Rhythm and Rhythm

Rhythm and rhythm are key elements in building fluency and visual impact. The rhythmicity of movements is not only reflected in the rhythm of music, but also in the speed, strength, and pauses of athletes' body movements (Yang, Wang,&Zhang, 2023). In aerobics competitions, athletes must maintain consistency with the rhythm of the music, expressing the rhythm of the music through the speed and strength of their movements. This precise mastery of rhythm not only requires athletes to have a good sense of music, but also to be able to transform the rhythm of music into the rhythm of body movements. Harmony is not only reflected in the coordination of movements and music, but also in the cooperation between athletes. For example, in team events, athletes' movements must achieve a high degree of synchronization and coordination to create a visual sense of harmony. The clever use of rhythm can make movements rich and varied, thereby creating a sense of rhythm visually. The audience can feel a sense of coherence and fluency visually, thereby enhancing the overall aesthetic experience.

3.3 Performance Space

The utilization of performance space in the visual aesthetics of aerobics is an important element that cannot be ignored. The positioning and movement extension of aerobics athletes on the field not only showcase their personal skills and strength, but also play a key role in creating visual impact and beauty. In international

aerobics competitions, athletes often utilize the entire field space to create a dynamic visual art through precise positioning and smooth movements. The full utilization of this space allows the audience to appreciate every movement of the athletes from different perspectives, thereby obtaining a more comprehensive aesthetic experience.

When analyzing the spatial aesthetics of aerobics, one can draw on spatial theories in architecture, such as the "Space Syntax Theory," to understand how athletes control and guide the audience's visual focus through body language and motion layout. By cleverly utilizing diagonal and curved movements in performances, athletes are able to create a dynamic spatial flow that not only increases the visual appeal of the performance, but also makes the entire performance more vivid and expressive (Kobiela, 2016). In addition, the utilization of space in aerobics is also reflected in the full utilization of the venue. In professional aerobics competitions, athletes need to complete a series of movements within a designated venue, which requires them to have good spatial perception and movement planning abilities. Excellent aerobics athletes need to be able to showcase infinite creativity and beauty through precise jumping and rotating movements within a limited space. This ultimate utilization of space not only showcases the superb skills of athletes, but also reflects the aesthetic pursuit of aerobics.

3.4 Clothing and Colors

Appropriate clothing not only highlights the athlete's body shape and movements, but also enhances the overall visual effect. The use of color can affect the emotional response and aesthetic experience of the audience. Bright colors can attract the audience's attention, while soft tones can create a harmonious and peaceful atmosphere. In the process of designing clothing for aerobics, it is necessary to consider the coordination between color and movement, as well as the visual impact of color on space. The style and color matching of clothing should match the theme and style of aerobics to achieve the best visual effect. Well designed and appropriately matched clothing can make athletes stand out among numerous competitors, leaving a deep impression on judges and audiences. Innovation in clothing and color is an important factor in promoting the development of visual aesthetics in aerobics. In practical applications, the combination of clothing and color needs to consider various factors, such as the background color of the competition venue, lighting effects, and the skin color of athletes. By scientifically and reasonably combining, athletes' performance and stage effects can be maximized. For example, under the backdrop of lighting effects, certain colors will appear more vivid and lively, thereby enhancing the visual impact of the entire performance. At the same time, the material selection of clothing can also affect the presentation effect of colors. High quality fabrics can make colors brighter and more durable.

Clothing and color are indispensable elements in the visual aesthetics of aerobics. They not only enhance the external image of athletes, but also enrich the connotation of performances and enhance the aesthetic experience of the audience. With the changing fashion trends, the design of aerobics costumes is constantly being updated to adapt to new aesthetic trends. The use of colors is also bolder and more diverse, adding more possibilities to the visual expression of aerobics.

4. Classification of Aesthetic Styles in Aerobics

4.1 Classic Style

Traditional bodybuilding techniques, as a form of sports and art, are deeply influenced by classical aesthetics, emphasizing the standardization, symmetry, and balance of movements. This style of aerobics emphasizes the display of strength and the shaping of body lines in its choreography. When athletes perform movements, the tension of each muscle and the balance of the body must be precisely controlled to reflect the combination of strength and beauty.

The gradually formed classic style of aerobics gives people a sense of stability and strength visually, not only reflected in the completion of individual movements, but also in the arrangement and performance of the entire set of movements. The accuracy of movements and the display of strength in professional aerobics competitions are important criteria for scoring. When athletes perform movements, they must demonstrate explosive strength and control. For example, in jumping and flipping movements, athletes need to maintain stability and graceful posture in the air, which not only tests their physical fitness but also demonstrates the aesthetic value of the harmonious unity of strength and beauty in the classic style of aerobics.

4.2 Modern Style

The vitality of modern aerobics is reflected in the energetic choreography and rhythm of athletes' movements, which often combine fast turns, jumps, and complex footwork to create a dynamic aesthetic. Flexibility is another major visual feature of modern aerobics, reflected through the smoothness of the athlete's body and the coherence of their movements. In modern aerobics, the body lines and movements of athletes are carefully designed to create a visual 'flowing beauty'. This design often utilizes modern orchestration techniques, such as 3D animation simulation and motion capture technology, to optimize the coherence and visual effects of actions. With the development of aesthetics in modern society, visual impact has become one of the key factors that attract the audience's attention in modern aerobics. This impact comes from brightly colored clothing, bold styling design, and clever use of stage lighting and visual effects, creating a visually stunning effect. This visual impact not only enhances the ornamental value of the performance, but also makes aerobics a cross-cultural art form that is loved by young people.

4.3 Fusion Style

With the development of the times, how to cross cultural boundaries and integrate aesthetic elements from different fields has become an important research direction in modern aerobics. Bodybuilding exercises are a dynamic art form, and their choreography often draws inspiration from various dance styles such as ballet, modern dance, and street dance, creating unique visual effects. The common ballet elements in aerobics, such as tiptoeing and spinning, not only enhance the elegance of the movement, but also elevate the overall aesthetic value. Incorporating dance elements into aerobics movements can enhance the aesthetic experience of the audience and enhance the viewing value of the exercise. Through cross-cultural integration, aerobics not only enriches its artistic expression, but also promotes communication and understanding between different cultures. As dancer Martha Graham once said, "Dance is a hidden language, a direct expression of the soul." Aerobics, through the fusion of dance elements, has given this "hidden language" a new interpretation in the field of sports.

5. Implementation and Optimization of Visual Aesthetics in Aerobics

5.1 Action Choreography Design

The clever use of choreography techniques can significantly enhance the visual appeal of aerobics, making it a form of artistic expression. Through carefully designed action sequences, choreographers can create smooth transitions, making the entire performance look like flowing clouds and seamlessly connected. This fluency not only requires athletes to possess superb skills and coordination, but also requires choreographers to have a profound understanding of the rhythm and spatial utilization of movements. Smooth choreography can significantly enhance the audience's aesthetic experience and strengthen their emotional investment in the performance. In the arrangement of movements, the arranger should also consider the synchronization between music and movements, so as to perfectly integrate the rhythm of music with the movements of athletes. The selection and editing of music are crucial for creating the atmosphere of a performance, as they can guide the audience's emotions and enhance the performance's infectious power. Choreographers should also pay attention to the innovation of movements, constantly exploring new combinations and forms of expression to maintain the vitality and sense of the times of aerobics. Through the comprehensive application of these choreography techniques, aerobics can not only showcase athletes' physical fitness and skills, but also convey deeper artistic and cultural values.

The construction of visual hierarchy is another key point in action choreography design. By combining movements of different heights and directions, choreographers can create a rich visual hierarchy, making the performance more three-dimensional and vivid. For example, combining ground movements with aerial movements, or creating visual focal points through the changing positions of different athletes in group performances, are effective methods for constructing visual hierarchy. In aerobics, the construction of visual hierarchy can not only highlight the individual performance of athletes, but also enhance the dynamic beauty of the overall performance. Choreographers can also refer to the audience's perspective and psychological expectations, and enhance visual impact and emotional resonance through techniques such as repetition, contrast, and progression of movements.

5.2 Light and Shadow Effects

Light not only shapes the sense of space and depth, but also enhances the rhythm and melody of movements, bringing a richer visual experience to the audience. The use of stage lighting needs to be synchronized with the rhythm of the music, highlighting every detail of the athlete's movements through changes in light, dark, and color. The artistic use of light can enhance the three-dimensional and spatial sense of movement. By adjusting the intensity, direction, and color of the light, different atmospheres and visual focal points can be created. Use spotlights to highlight the main movements, or use background light to create a dreamy stage effect to enhance visual impact.

The application of photography technology is equally crucial. By capturing from different angles and speeds, the dynamic beauty of aerobics can be frozen into static images, allowing the audience to feel the dynamic beauty in a static state. High speed photography technology can capture the moment when athletes flip in the air, while slow motion playback allows the audience to observe the precision and explosive power of each movement in detail. In addition, using time-lapse photography in modern photography technology, the long training process can be compressed into a few minutes of exciting clips, allowing the audience to experience the hard work of athletes and the beauty of aerobics in a short period of time, providing the audience with a more rich and in-depth visual experience.

6. The cultural Value of Visual Aesthetics in Aerobics

Bodybuilding exercises are a sport that combines strength, rhythm, and artistry, and have undeniable potential in the field of aesthetic education. Through the practice and appreciation of aerobics, people can not only enhance their physical fitness, but also cultivate their ability to perceive and appreciate beauty. By watching aerobics performances, the audience can experience the perfect combination of sports and art, thereby stimulating their aesthetic awareness and creativity. Through the dissemination of modern media technology, the visual impact of aerobics aesthetics not only attracts live audiences, but also influences a wider audience through media communication. The dynamic beauty of aerobics is often referenced in art and public art, becoming a symbol of popular culture. The visual aesthetics of aerobics are not only reflected in competitions and performances, but also permeate other fields of art and daily life, such as art works, public sculptures, fashion design, advertising, and personal fitness (Figure 3: Sports Sculpture at Dalian Xinghai Square). The dissemination of this aesthetic value not only enhances public awareness of aerobics, but also promotes the cross-border integration of sports and art, and drives the development of related industries (Yang, 2024).



Figure 3:Sports Sculpture at Dalian Xinghai Square

Image source:https://www.sohu.com/a/336083818_99955655

In the context of multiculturalism, the popularization and promotion of aerobics can help cultivate a global aesthetic perspective and promote harmonious coexistence between different cultures. Taking international aerobics competitions as an example, athletes from different countries showcase the unique charm of their respective cultures through carefully choreographed movements. Asian countries' aerobics teams often incorporate traditional martial arts elements, such as the softness and restraint of Tai Chi, while Latin American teams may incorporate passionate and unrestrained samba dance into aerobics, reflecting the vitality and enthusiasm of regional culture. While appreciating the athletes' exquisite skills, the audience also felt different interpretations of beauty in different cultural backgrounds. This visual enjoyment and emotional resonance make aerobics an international language that transcends language and borders.

Looking ahead to the future, with the continuous innovation of technology, such as the application of virtual reality and augmented reality technology, the visual aesthetics of aerobics will have more possibilities. These technologies can provide an immersive viewing experience for the audience, even allowing athletes to receive real-time feedback during training and performance, further enhancing the accuracy and expressiveness of their movements.

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