Symbol deduction: Chinese Traditional Musical Instruments' Creative representation on Streaming Media

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Abstract

Due to the development of economy and the Internet, traditional Chinese musical instruments have gradually broken away from the limitations of elegant performance venues like concerts, and have entered the lives of more ordinary people through streaming media works such as animation, games, and online museums as a traditional Chinese cultural symbol. In animation, ekphrasis has enriched the meaning of musical instrument symbols through tangibility, reflecting the influence of traditional Chinese musical instruments; in games, traditional musical instruments have broken through the simple value as a kind of tool and expanded the value of consumer symbol as a social currency; and the online museums have developed due to the digital migration of traditional musical instruments, promoting the traditional musical instruments among the general public.

Keywords: traditional Chinese musical instruments; streaming media; creative representation; semiotics

Status of Development and Dissemination of Traditional Chinese Musical Instruments

5,000 years of culture in China has given birth to a long and colorful history of Chinese folk music. Music had the function of complementing rituals in ancient China,

and even in many dynasties, elegant music was a treatment only accessible to the-governing-class. With the development of the city economy, music became accessible to the common people along with the prosperity of street culture, and marketplace such as Yuefang also increased in this context, and musicians were gradually recognized and respected as a profession. It can be seen that the development of traditional Chinese music has been accompanied by the change of dynasties and cultural development, and musical instruments, as the tools of music production, have also been partially preserved with time goes by. Traditional Chinese musical instruments mainly include the bone flute, guqin, cer, konghou, fangzhong, and bayin, etc. The performance of traditional music used to be centred on the court, but since modern times, the previous pattern of instrumental performance has collapsed along with the changes in society. Traditional instruments have been impacted by modern Western instruments such as the guitar, bass, and piano, building a new performance pattern centred around folk orchestras and large-scale formal venues such as concert halls (Luo J.Q and Tang heng, 2013).

In the days before 4G and 5G, apart from elegant halls like concert halls, which were almost exclusively open to wealthy intellectuals and artists, places to enjoy music were clustered in old streets and alleys, tea houses where people gathered, and other places where people lived, and on the whole, knowledge of musical instruments was limited to those who were exposed to these performances. At the same time, domestic and international communication research has paid far less attention to "musical instruments" than to Chinese music and folk music, and in the

long run, traditional Chinese musical instruments have been treated as mere musical instruments, placed in professional pavilions, and it is generally believed that only those who have undergone professional study and rigorous training are qualified to play traditional music. Although this reverence shows the importance of traditional Chinese musical instruments in the hearts of the public, it somehow actively distances traditional musical instruments from modern life. As a result, the spread of traditional musical instruments is not as popular as traditional festivals, nor is it like traditional handicrafts, which are highly commercial and can be integrated into a variety of commercial products, such as pendants and clothing, but rather, it is highly isolated from the people due to its "purity".

Thanks to the development of network technology, new viable paths for the cross-media representation of musical instrument symbols emerge. From a musical instrument to an important social symbol in online games, and then presented in online museums, the traditional musical instruments are presented in different forms in different streams on online, illustrating the new pattern of heterogeneous dissemination of musical instrument symbols and providing us with lessons for promoting the inheritance of traditional musical instruments. Nowadays, streaming media breaks the limitations of geography and time, and to a certain extent also breaks down the barriers between classes, providing an open channel for a wider range of Internet users to come into contact with a variety of ethnic musical instruments, which are presented in different types of streaming media works in the form of a more explicit symbol.

Taking animation, games and online museums as examples, this paper will explore how streaming media displays traditional Chinese musical instruments with their unique presentations, and illustrate the new representation of traditional musical instruments based on the innovations of their symbolic meanings.

Creative Representation of Chinese Traditional Musical Instrument Symbol

Invisible to Visible: The cross-media representation

"'Different representations, similar images' is a common phenomenon in cross-media symbolic rhetoric" (Hu Y.R, 2013, p.58). "Different representations" refers to the differences in media and channels for describing a symbol, while "similar images" is the evocation of a common "mental image". "As human senses, hearing and vision receive different forms of symbols, but they can be integrated into human cognitive behaviour. For example, there is "synaesthesia" in literary rhetoric, which means that the symbols of things conform to the idiomatic language used in everyday life to express them".错误!未找到引用源。 And it is the transition from the invisible to the visible based on synaesthesia that makes Chinese traditional musical instruments become the core of the scene more explicitly. For example, Legend of Exorcism is a web animation produced by Bilibili. It tells the story that in Tang Dynasty, five teenagers, Li Jinglong, Kong Hongjun, Ah Tai, Mo Rigen, and Qiu Yongsi, meet in Changan and fight to protect the people and sake the justice in the world. As a mythological animation set in Tang Dynasty, Legend of Exorcism takes advantage of this era to better integrate traditional musical instruments harmoniously into the traditional story it tells. The animation setting is in harmony with the historical reality

in the scene where the audience watches the animation, which builds up the basic space for the representation of Chinese traditional musical instruments.

This animation depicts the fight between Li Guinian, who uses the guqin as a weapon, and Xuan Yin, who uses the pipa as a weapon. Both the guqin and pipa have transcended their role as instruments for playing music and have become weapons to be central to the fight scenes. The sound emitted by the instruments is not only sound, which originally existed in the form of insubstantial waves, but also become tangible "swords" that kill. This transformation from invisible to visible alienates the hearing function of musical instruments into the visual presentation of the images, so that the audience can feel the power of the instruments directly from the visual, realizing the visual representation of the symbols of musical instruments. And for the audience in front of the screen, the work unifies their hearing and visual, portraying the sense of tension and the intensity of the battle, and highlighting the excitement of the plot.

The characteristics of traditional Chinese musical instruments are the basic conditions for cross-media representation. The music expressed by traditional Chinese musical instruments was originally in the physical sense. Music, as an intangible art that thrives on auditory sensations, has been recognized around the world since ancient times. Scientifically, the continuous notes played by musical instruments travel through the air to the human ear, where they are picked up by the hearing system and produce a range of stimuli. A psychological experiment on music based on EEG and self-report methods quantified the effects of music and light color on mood, which proved that music does affect human physiological data (Lu Wei, et al.,

2018). And this is connected with weapons, taking advantage of this feature of traditional Chinese musical instruments, in many animation or literary works, traditional Chinese musical instruments have been given the meaning of weapons. For example, in The Legend of the Condor Heroes, Huang Yaoshi carries a jade flute with him and makes Zhou Botong lose his mind. Music, because of its power, can be associated with "damage" in the human senses. Music and damage are supposed to come from different medias, but they are united in the same symbol: the traditional musical instrument. The tangibility of music expands the scope of the instrument as a tool, and as a kind of weapon, it takes on a meaning of the media that it did not have before. At this point, the media audience expands their knowledge of Chinese traditional musical instruments along with the work. Chinese traditional musical instruments are detached from their underlying meaning of entertainment, and the two symbolic meanings of musical tools and weapon are evoked within the musical instruments, completing the scene depiction and storytelling, and vividly demonstrating the charm and power of Chinese traditional musical instruments.

Musical tool to Social tool: Symbol consumption

Chinese Traditional musical instruments were originally for playing music in physical form, but the development of the Internet and animation technology has enabled them to take on a new form in multimedia scenarios, from instruments made from real materials into media symbols that can be accessed and used in games. Traditional musical instruments have also transcended the use value as a classical symbol, and the symbolic value and symbolic meaning have been produced and

exchanged online. People's needs shift from the pursuit of music and the functionality of musical instruments to the consumption of added symbolic value of musical instruments (Li Xin, 2008). For example, Sky: Children of Light is an open-world mobile game which has gained high popularity in recent years. In this game, the game scenario introduces various types of musical instruments, including Chinese traditional musical instruments and Western instruments. This paper will analyze that in addition to fully displaying the performance characteristics of the instruments, and playing the powerful social role that hardly be achieved by traditional musical instruments in real life, it also expands the symbolic value of Chinese traditional musical instruments by attaching the function of social currency to them, which promotes the player's understanding of the musical instruments' symbols.

The strong social function of traditional musical instruments has been explored online, and Sky: Children of Light makes use of the tool value of musical instruments to actively promote the interaction of players in the game's open world. Marx mentioned in his theory of commodities that "the use-value of commodities is its objective functionality, and the objective functionality of a commodity is the usefulness of its natural properties to people, and similar to the objective utility of commodities in Western economics, which is the material basis for creating demand"(Ma S.J and Ji S.B, 2011, P.6). At the beginning of the economic rebirth, concerts, theaters and playhouses were bustling because of people's pursuit of spiritual fulfillment beyond material satisfaction, yet many audiences were turned away due to high ticket prices and other difficulties. Sky: Children of Light takes

advantage of the openness of the Internet and superior animation technology to show the traditional Chinese musical instruments as authentic as possible, and reduces the playing difficulty and simplifies the playing process, thus promoting the disappearance of the threshold of appreciating them. The game retains the appearance of Chinese traditional musical instruments but changes the way of expressing notes. For example, in real life, you can only play the flute and pipa after a lot of training, and this kind of training not only involves reading music, but also requires repeated and constant practice pf blowing or plucking to form a body memory, which is a long time and difficult to learn. However, the designers have converted the tone holes or chords of the instruments into keyboards with notes in the game, which are easy to remember and play, reducing the difficulty of playing music for ordinary players, and making large number of non-professional players feel the charm of playing Chinese traditional musical instruments, thus enhancing their interest. In addition, the game also vividly reproduces the unique movements according to different instruments, and the portrayal of the real player's movements riches the player's embodied experience, making the players feel as if they were in the same scene as the character in the game, so that the traditional Chinese musical instruments can still play their musical characteristics without losing their aesthetics (Tan X.F, 2019). By purchasing a variety of traditional Chinese musical instruments such as flutes, Xiao, bells, and small bells, the game player can play in the game's public areas, and the performance can be watched by other online players, laying the foundation for further communication. This implies that the game makes full use of the functional characteristics of Chinese

traditional musical instruments themselves, and unleashes their social value.

However, Chinese traditional musical instruments do not only bring opportunities for social interaction, but also the pursuit of symbolic value of commodities mentioned by Jean Baudrillard is also fully realized, which is similar to the subjective utility of commodities in Western economics. Sky: Children of Light is positioned as a globally exclusive social adventure game, with "bond" as the core word. In the game, game players can meet strangers in the "Encounter" (the game's homepage), and before lighting each other up with "candles" (the game's common currency), the strangers are only presented in the form of small black men, and only need to be lit up when the player wants to send a message to the other player, which reduces the social burden to a large extent. What's more, a certain amount of candles and hearts (in-game currency) can be exchanged for costumes and other objects (including musical instruments, masks, etc). These objects are important symbols for players to establish social relationships, and "musical instruments", as objects that play both decorative and performance roles in the game, have become a common symbol of social communication (Zou Y.F, 2021). Furthermore, in addition to the regular instruments, many instruments are available for a limited time, such as the pipa, which is only available in the Season of Friendship event. And the prices of instruments are different, which means that only some veteran players who have been playing the game for a long time can save up enough candles to buy. What's more, in the open space, you can infer other players' familiarity with games from the difficulty and proficiency of the music they play, and even infer their game level by the type of

instrument they have. Overall, because of the multiple functions, musical instruments in the game are also added with the meanings of "wealth" and "skill", and become a symbol that distinguishes the veteran players from the newbie.

The function of meeting the subjective needs is reflected in the pursuit of symbolic value of commodities, which is specifically expressed as "the link between object and symbol", Jean Baudrillard once pointed out that regarding today's symbolic consumption, people are no longer only pursuing the practical functions of commodities, but more in pursuit of the subjective needs contained in the symbolic value (Yang Qing and Li F.Y, 2021). For example, people buy fashionable clothes, not just to satisfy the need to wear clothes, but more for the pursue of fashion. In the game mentioned above, Chinese traditional musical instruments are detached from the physical social environment and become one of the objects of symbolic consumption, helping players to judge other online players, so as to decide whether or not to communicate and the way to communicate, becoming a kind of status symbol.

Offline to Online Museum: Digital Migration

Under the influence of the 2019-nCoV, everything has become available online, with students attending online classes, people going to work online, even universities holding their graduation ceremonies in the cloud. Cloud communication is becoming more and more important, and "cloud" exhibition is also flourishing in this period. For example, in 2020, The COVID-19 Art Museum, the world's first art museum to be born in the period of the 2019-nCoV opens the era of "cloud exhibition". Online exhibition isn't possible without a precise and successful "digital

migration". Digital migration is often mentioned together with meta-human and digital twin related to meta-verse. Digital twin refers to a kind of technology that takes a physical model as a reference, thus turning the multivariate heterogeneous data set of the reference into a multi-disciplinary, multi-physical and multi-scale twin model, so as to accurately representing the physical model in Cyberspace and effectively promote real-time interaction (Bao Y.F, 2022). The digital twin is the foundation of meta-human and digital migration is a technology developed from it. For the meta-human, digital migration refers to the holistic migration of "human essence" such as spirit, mind, consciousness, psychology, belief, morality and memory to the digital double in cyberspace. And for objects, digital migration refers to the technology of VR, 3D printing, Model Building and other technologies to represent real objects in cyberspace, forming an equal-scale online displaying space. In recent years, as the epidemic has isolated the connection between people and people, people and space, the cutting of the physical connection leads to the lack of people's socializing. As a result, the demand and call for social contact promotes the development of online exhibition. However, the foundation of online exhibition is still the thoughtful arrangement of the exhibition site in the real venue. Instead of uploading photos of real objects directly onto a web page, the offline venues need to be carefully designed and displayed in VR to convey the historical heritage online. A typical example is the exhibition of traditional musical instruments in the series of exhibitions of "Chinese Treasures - China's Intangible Cultural Heritage and Arts and Crafts Exhibition" in February 2022.

Before the opening of the Beijing Winter Olympic Games on 5 February 2022, China's Intangible Cultural Heritage Museum was firstly opened. In this series of exhibitions, it covered various aspects such as the guqin art, traditional musical instruments, traditional operas and stone seal carvings, etc, and the exhibition of traditional Chinese musical instruments with the title of "Ten Thousand Parties of Music（万方乐奏)" was the most eye-catching. Many of the items in the exhibition are displayed for the first time for the public, and a large part of them have only been recorded in books. Workers selected more than 300 pieces from more than 2,000 pieces of musical instruments and put them on display in different categories, and in the previous exhibitions, the workers have been persevering the concept of displaying the items according to the era with the sequence of the times, additional book scores, pictures and audio recordings, aiming at letting visitors understand the development and achievements of Chinese music culture. In addition to retaining the two main subjects of musical genres and theoretical literature based on the previous exhibition concept, this exhibition also incorporates the concept of musical instrument classification (Rao xi, 2022).The exhibition combines pictures, audio-visual materials, excavated artifacts, murals and the project application film of national intangible cultural heritage projects in the music category with different instruments, thus becoming a visual feast of the cultural scene with a dynamic display of songs, dances and instrumental music in folk rituals (China National Art & Crafts Museum, 2022). The exhibition "Ten Thousand Parties of Music" received great praise, and although it was not developed into an online exhibition and further displayed in the form of a

virtual exhibition, it embodied the concept of online exhibition which has laid the foundation for Chinese traditional musical instruments from offline to online.

On 4 January 2022, the digital museum of the Oriental Musical Instrument Museum was officially launched. The column content covers 3D roaming, museum courses and periodicals, and in addition to watching the museum 3D IVR, clicking on the instrument you want to know more about and the page will show the detailed picture of the musical instrument, with details such as dimensions, age and synopsis (Chen R.Y, 2019). Different from ordinary web search and musical instrument encyclopedias, the 3D exhibition can break the spatial limitation to give the audience body presentation. By choosing different routes through the museum, the visitors can feel the difference between different themes and thematic content, and understand the classification of the musical instruments as well as the meaning of the arrangement, which is the realization of the exhibition concept pursued by the online exhibition mentioned above. The digital migration of Chinese traditional musical instruments lowers the threshold for audiences to visit the museum and evades inconvenience brought by traffic and distance, while the rich content in the online world provides an eternal and reliable space for digital museums. Even if the offline museums change as time goes by, as long as the online exhibitions have existed, it is possible to preserve the museums' appearance of the various changes as digital storage. In addition, digital migration highly represent the colour, grain and other details of traditional instruments, and can also be deposited as a digital asset applied to the protection of musical instruments, extending the lifespan of musical instruments to a large extent

and promoting the inheritance of them.

Conclusion

By analysing three different streaming media works, namely, animation, games and online museums, it can be seen that the innovation in the dissemination of Chinese traditional musical instruments is combined with the characteristics of different streaming media. Literary works such as animation are imaginative, linking the traditional musical instruments to mythic wuxia by cross-media representation. The animation deepens the players' understanding by enriching the mediated meaning of the instrument symbols and reifying their abstract understanding of the music, thus constructing a new scenario centred on Chinese traditional musical instruments. Games integrate the instruments symbol into online social networks, attributing it more social value beyond its practical-value, thus providing more stages for traditional musical instruments in daily life. As a "social symbol" in the game, the characteristics of Chinese traditional musical instruments are also preserved, laying the foundation for the increase of the added value of the symbol goods, and the social atmosphere and circle consensus formed in the game ultimately contribute to the consumption symbol's value. In addition, the development of the online museums meets the special needs of the times, but it is not only lowering the threshold of the visitors, but also providing feasible advice for the preservation and restoration of cultural relics.

However, no matter how the representation of Chinese traditional musical instruments changes, it cannot be separated from its nature as a musical instrument

and its value as one of the important representatives of Chinese traditional culture. But all three of these streaming media ignore the music pieces that are essential to Chinese traditional instruments, and it can be said to go hand in hand with traditional musical instruments. For example, Mountains and Flowing Water embodies the profound friendship between Yu Boya and Zhong Ziqi, and Three Variations is played to extol the noble sentiments of the true gentlemen. Every classical traditional Chinese piece reflects the wisdom and good morals of the Chinese people in the ancient times, and their deep passion for musical instruments and music, as well as their love for playing Chinese instruments to the fullest extent. When analyzing the innovation dissemination of Chinese traditional musical instruments, it would be incomplete to limit the research to the form of the traditional instrument as a symbol itself, and traditional musical pieces are indispensable to help researchers understand the essence of these instruments, as they embody the symbiotic relationship between instruments and the music brought to life.

In reality, Chinese traditional instruments have a relatively smaller audience compared to Western instruments like guitar and bass, especially in a music market dominated by popular songs. Only through fusion and adaptation, surpassing the conventional stylistic boundaries of traditional pieces, can Chinese traditional instruments break the stereotype of them in terms of the form of musical expression that transcends the traditional pieces, so that the audience can find the great potential of the instruments beyond the traditional pieces. And the great potential ultimately comes from the stage. In the three innovative communication scenarios mentioned

above, there is no classical stage presentation. While designing an online museum, it is possible to add the performance of classical repertoire of musical instruments, and further improve the accuracy and delicacy of the instrument's representation. In general, the importance of the dissemination of traditional musical instruments in streaming media is due to the incomparable national nature of the Internet, which has been introduced to millions of households in recent years. Especially among the younger generation, new media such as games and animations occupy a large proportion of the market, and the dissemination of traditional Chinese culture should be focused on the next generation of young people. In addition to the three streaming medias mentioned in this paper, the dissemination of Chinese traditional musical instruments can be further promoted referring to the representation of traditional musical instruments in short videos. In addition, it requires more research and practice to find how to further extend the value of Chinese traditional musical instruments in the field of business or art.

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