

# **Application of traditional architectural design in animation**

## **Introduction**

As a crucial element, architectural design is extensively utilized in animation creation to construct a montage world that transcends reality. The traditional Chinese architecture of the Tang and Song dynasties, the intricate and elaborate Baroque style, and various other traditional buildings are undoubtedly highlights in architectural design. These elements explain historical and cultural background of the animation plot, encouraging the spread and exchange of traditional culture. This report will explore the color design and modeling design of traditional buildings in animation, and discuss the positive effects of traditional architectural elements in animation scenes.

## **Key words**

Architecture, Animation, Design, Traditional Culture, Aesthetics

## **Literature Review**

With the development of modern times, animation has become an indispensable part of mainstream media. Whether as a film with rich content, an educational tool, or an advertisement with commercial value, animation has demonstrated its excellent functionality(Shaohui, 2014). Exploring the impact of functional animation on people is crucial. For example, Hayao Miyazaki's animated films advocate the harmonious coexistence of humanity and nature, as well as emphasizing the consciousness of life and inspiring environmental awareness(Wang and Zhao, 2017). Additionally, animation serves as an effective educational tool in fields such as cell biology, providing students with intuitive visuals that are otherwise beyond the reach of the naked eye, thereby facilitating a better understanding of textbook materials(Stith, 2004).

The aesthetics of animation are extremely important, with design elements such as scene design, sound design, and plot design being particularly prominent for the audience(O'Reilly, 2009). Architectural design elements, in particular, are critical in animation. Architectural models create rich and diverse spaces, which help the audience understand the plot and culture that the animation seeks to convey, providing immersive experiences(Yoon and Uddin, 2006). For instance, the movie \*Shrek\* (2001) features many medieval European buildings, with beautiful and magnificent palaces that enrich the plot and transport the audience to a distant era. In the movie \*Robots\* (2005), the surreal, technologically advanced future city allows the audience to immerse themselves in a modern future world, providing a unique viewing experience(Köymen, 2023).

Traditional architectural modeling art is continually developing and evolving in response to societal changes, becoming a symbol of national culture. In traditional Japanese architecture, wood is the primary material. Its widespread use, due to abundant forestry and earthquake resistance, has shaped the minimalist and comfortable Japanese aesthetic style(Satoshi, 2006). Churches and castles are typical representatives of Baroque architecture, a style adopted by many 17<sup>th</sup>-century Roman buildings. The intricate and opulent Baroque elements convey the long history of ancient Rome(Hartoonian, 2015). Similarly, Chinese traditional architecture narrates a long history and rich culture. The courtyard houses in Beijing symbolize the Chinese concept of the round sky and square earth, while the traditional palace complex of the Palace Museum is like a history book presented to modern people. The Temple of Heaven and the Temple of Earth symbolize the ancient Chinese reverence for heaven and earth(Zhang, 2019).

Traditional architectural elements play a very positive role in animation scenes. They not only explain the story's background and help plot development but also promote the associated traditional culture. For example, in the Chinese animation \*Havoc in Heaven\*, traditional Chinese arc-shaped buildings are prominently featured. The

animation vividly depicts white marble patterns and Han Dynasty brick reliefs on the building's walls, making these traditional elements a highlight of the film and an indispensable form of expression in animation presentation(Shang, 2016). However, this fact should also be viewed critically. Future research should explore and analyze the audience's perception of traditional culture and whether viewers can gain a deeper understanding and appreciation of traditional culture through animation films(Liang and Abdul Ghani, 2024).

## **Chapter1-Analysis of the Posture and Characteristics of Traditional Architectural Modeling**

This chapter will analyze the traditional architectural styles and characteristics by examining the Forbidden City in Beijing and Edinburgh Castle.

From 1420 to 1911, the Forbidden City served as the residence of Chinese emperors and the political center of China. Twenty-four Chinese emperors resided in the Forbidden City during the Ming and Qing dynasties. It is one of the largest and most well-preserved ancient wooden structures in the world. The architectural design aimed to be magnificent, with bright and open courtyards symbolizing the supremacy of the feudal regime. Two auspicious beasts with swords on their backs, known as Chiwen, one of the nine sons of the dragon, are located at both ends of the horizontal ridges of all corridors in the Forbidden City. Additionally, the lower end of all vertical ridges features a dragon head called Chaofeng, another of the dragon's sons(Barmé, 2008). Notably, the traditional Chinese wooden frame buildings are assembled without adhesives or nails, using ingenious mortise and tenon structures(Bracken, 2019). The unique architectural form of the Forbidden City is a precious treasure of Chinese traditional culture.

Edinburgh Castle symbolizes the spirit of Edinburgh and Scotland. Situated atop a dormant volcano, it overlooks the bustling city of Edinburgh and exudes a solemn and

majestic atmosphere(Law). Due to historical conflicts, the layout of medieval castles was private and fortified. As peace settled in Scotland, nobles invested in construction, decorating the castle interiors with elaborate elements such as colorful tapestries and paintings. The castle also features many royal patterns, symbolizing the power and faith of its owner(MacDonald and Harris, 2007). Europe is home to many medieval castles, each with unique shapes that reflect the continent's cultural heritage and changing dynasties.

Different lands give birth to different cultures. Whether in the East or the West, the preserved traditional buildings bear witness to and promote historical culture as times change.

## **Chapter2-Analysis on the application of animation scene design in traditional architectural art**

This chapter analyzes the color and modeling design of traditional architecture in animated films, using "Spirited Away" and "Kung Fu Panda" as examples.

Hayao Miyazaki, a master in the Japanese animation industry, explores themes of love, life, nature, and human destiny in his works, presenting rich and positive perspectives. In "Spirited Away," many lifelike scenes are created through hand-painting with soft, warm colors, depicting the authentic beauty of things. These scenes incorporate elements of traditional architecture, such as the oil house, inspired by the Edo Tokyo Architecture Garden, reflecting Japan's long history of hot spring culture(Quirk, 2021). Such architectural designs immerse the audience in a warm atmosphere, enhancing their understanding of the plot and Japanese traditional culture.

"Kung Fu Panda," a Hollywood film featuring the beloved Chinese panda, is highly popular among audiences. Beyond the charming animated characters, the film showcases spectacular landscapes, notably the beautiful scenery of Qingcheng Mountain, which deeply impresses the viewers. The animation faithfully represents

the local culture of Qingcheng Mountain, with landscapes, lanterns, temples, and porcelain textures serving as classic elements of Chinese traditional culture(Wang, 2021). These architectural elements are simple and inviting, creating a warm and comfortable atmosphere. The color designs, influenced by ink painting styles, are simple and bright, effectively complementing the film's humorous tone. The scene of Qingcheng Mountain utilizes the international platform of the film and people's strong interest in leisure tourism to express Chinese traditional culture from an international perspective, achieving innovation and international expression of traditional architectural culture.

Through the analysis of the two animated films, it can be seen that the design of traditional architectural shapes can indeed well demonstrate the time and space relationship and cultural background information of the animated story.

### **Chapter3-Creation of traditional architectural aesthetics in animation scene design**

Exploring the creative methods of traditional architectural elements in animation scene design is conducive to enhancing the vitality of animation works and promoting the cultural dissemination of animation originality. Firstly, in script creation, traditional architectural elements should align with the historical characteristics of the depicted period. The script ought to faithfully follow and appropriately adapt the historical background, while respecting national characteristics, historical facts, and regional culture. Secondly, scene design must take into account factors such as space, form, and color. By studying relevant materials, traditional architectural models should meticulously control details to better integrate with animation works, ensuring mutual enhancement and achieving the most effective visual impact.

### **Chapter4-Conclusion**

Animation, with its inherent media attributes, serves as an excellent platform for cultural dissemination. Traditional architectural culture, characterized by its

development and accumulation over time, possesses rich connotations and enduring charm. Animation scene design involves the re-creation of traditional architecture, thereby enabling its splendid beauty to reach a broader audience and become more widely recognized. As viewers experience elements of traditional architecture through animation, they simultaneously contribute to the subtle promotion and preservation of traditional culture.

## **Bibliography**

- BARMÉ, G. 2008. *The Forbidden City*. Cambridge, Mass.: Harvard University Press.
- BRACKEN, G. 2019. *Forbidden City, The. The Wiley Blackwell Encyclopedia of Urban and Regional Studies*.
- HARTOONIAN, G. *Tectonic Modalities in Baroque Architecture: An Alternative Historiography*. 2015.
- KÖYMEN, E. 2023. *An Architectural-Based Study of The Animated film: "The Incredibles"*.
- LAW, R. C. *Edinburgh Castle*.
- LIANG, L. & ABDUL GHANI, D. B. 2024. Traditional and Modern: To Discuss the Traditional Visual Elements in Chinese Animated Films. *International Journal of Academic Research in Business and Social Sciences*, 14.
- MACDONALD, A. R. & HARRIS, B. 2007. *Scotland*, Edinburgh University Press.
- OREILLY, D. 2009. Basic animation aesthetics. *davidoreilly.com*.
- QUIRK, M. A. 2021. Stepping Into the Bathhouse: Physical Space and Shinto Revival in Miyazaki's Spirited Away. *Intermountain West Journal of Religious Studies*, 11, 19.
- SATOSHI, Y. 2006. The tradition of wooden architecture in Japan. *Agency for Cultural Affairs*.
- SHANG, L. 2016. *The Application of Chinese Traditional Culture in the Animation Scene Design*.
- SHAOHUI, L. 2014. *The Application of the Traditional Architectural Modeling Art to Animation Scene Design*.
- STITH, B. J. 2004. Use of animation in teaching cell biology. *Cell Biol Educ*, 3, 181-8.
- WANG, J. 2021. Portrayal of Chinese culture in Hollywood films: A case study of Mulan and Kung Fu Panda.
- WANG, Y. & ZHAO, R. 2017. *Green Feelings in Animated Movies Directed by Miyazaki Hayao*.
- YOON, S.-Y. & UDDIN, M. S. 2006. *ARCHITECTURAL ANIMATION AND CINEMATIC INTERPRETATION*.
- ZHANG, D. 2019. Cultural Symbols in Chinese Architecture. 1, 17 pages.