



JOURNAL OF CREATIVE INDUSTRY AND SUSTAINABLE CULTURE

<https://e-journal.uum.edu.my/index.php/jcisc>

How to cite this article:

Luo. Y., Abu Bakar. J. A. & Yusoff. M., F. (2025). The Importance and Evolution of Character Design in Chinese Animation. *Journal of Creative Industry and Sustainable Culture*, 4(3), 32-41. <https://doi.org/10.32890/jcisc2025.4.3>

THE IMPORTANCE AND EVOLUTION OF CHARACTER DESIGN IN CHINESE ANIMATION

¹ Luo Yuye, ² Dr. Juliana Aida binti Abu Bakar & ³ Dr. Mohd Fitri Bin Yusoff

School of Creative Industry Management and Performing Arts-College of Arts and Sciences,
Universiti Utara Malaysia, Kedah Darul Aman, Malaysia

²Corresponding author: liana@uum.edu.my

Received: 3/6/2025

Revised: 24/6/2025

Accepted: 30/7/2025

Published: 31/10/2025

ABSTRACT

In animation creation, animation character design occupies an extremely important position. To impress the audience, an animated film can't rely entirely on a good story, but also on molding excellent animated characters. Its designers can use a variety of artistic expressions to shape the characteristics of animation character design, such as the character's expression, clothing, hand design, and so on. So that it has a distinctive personality, unique appearance, and unique action characteristics, to leave a deep impression on the audience. Through literature analysis and theoretical integration, the importance and evolution of character design in Chinese 3D animation are explored, and how traditional culture is integrated into modern animation character design is analysed. The results show that integrating traditional cultural elements with animation design with ingenious creative conception and novel and unique expression methods can enhance the cultural value and market competitiveness of Chinese animation, show a strong originality charm while inheriting the classics, and open a distinctive and full of potential innovative development road for China's animation industry.

Keywords: Animation characters, Chinese animation, Character design, Evolution, Innovative development.

INTRODUCTION

This paper first provides an overview of the whole research. Thereafter, the problem statement of the research is explained. Based on the problem statement, research objectives, questions, and hypotheses are formulated. Following, the significance and scope of the research are described. The organization of the thesis is also explained, and the chapter ends with a summary of the whole paper.

The animation industry has experienced rapid global development. The main markets of the global animation industry can be divided into Asian markets and European and American markets. Asian markets

are regionally strong, while European and American markets are quite stable. The global animation industry, with Europe, the United States, Japan, and South Korea as the main countries, among which the United States and Japan are the leaders of the global animation industry, and the importance of the animation industry is growing. In 2007, in the overall ranking of American films, the top three are cartoons. Japan has a very structured animation industry chain, as well as a mature operating mechanism. Both the United States and Japan are the main exporters of the global animation industry. South Korea's animation output has become the sixth-largest pillar of the national economy. Overall, North America accounts for about 50% of the global market, but this market is approaching saturation. Asia and Europe are more potential markets. Asia, Europe, and other countries total about 50% in terms of production. China is already the largest animation country in the world (Yuan, 2018). In 2011, China produced 260000 minutes of TV cartoons, far higher than Japan's 90, 000 minutes (Xinhua Daily newspaper, 2012). In 2015, Chinese animation broke out again with the return of *Journey to the West*. After popular animation works such as "Big Fish and Begonia" and "White Snake: Origin", "The Birth of the Devil Child of Nezhu" set a new box office record of more than 5 billion yuan at the Chinese box office in 2019. As of 2022, China had 2.45 million animation-related enterprises, indicating the rapid growth of the industry. This development stems from both a deep cultural heritage and technological advancements, yet there remains a significant gap between China's animation creative industry and that of the United States, Japan, and South Korea.

RELATED WORKS

It has been exactly 100 years since the birth of Shu Zhendong Chinese typewriter, the first Chinese animation work in China. Animators who lived a century ago may not have thought that the Chinese animation industry can now produce boutiques such as the birth of the Devil Boy of Nezha, which has grossed billions at the box office. This development is not only rooted in Chinese traditional culture but also provides nutrients for the industry through the efforts of generations of animation talents and breakthroughs in production technology. So the first Chinese animation work, Shu Zhendong Chinese typewriter, was created by Wan Erming and Wan Guchan, two important figures in the history of Chinese animation, and they also represent the Shanghai Art Film Studio.

With the vigorous rise of the animation creative industry around the world, more and more countries and people in the industry have paid close attention to it and created many well-known animation works, which led to the rapid development of related industries. won huge business opportunities and social wealth. It is certain that, as a sunrise industry in the 21st century, it will become an indispensable part of mass cultural life, and it will also bring huge economic benefits to the future development of the national economy. Unfortunately, there is still a certain gap between China's animation creative industry and the United States, Japan and South Korea, and other countries, and there is still a long way to go.

Therefore, emphasizing the uniqueness and innovation of animation characters has become the top priority of revitalizing China's animation creative industry. If we want to solve this problem, we must make great efforts to the character's creativity and find a breakthrough. Pay attention to the traditional culture of the Chinese nation find the best starting point from it, and study the works of Shanghai Art Film Studio. With its complete storyline, vivid characterization, plump characters, delicate emotional color, and other elements, it provides infinite possibility and broad space for the study of Chinese animation character design.

With the demand of diversified content in the international market, how the classic Chinese story is accepted by the audience all over the world in the form of animation and how to better shape the animation character design with Chinese characteristics has become the top priority of this research.

In the past decade, the audience rating and influence of Chinese animation works have not been greatly improved, which is in sharp contrast to animation works in other countries or regions. Therefore, the current research aims to address this theoretical gap.

In addition, many researchers suggest combining Chinese traditional patterns in ink animation, Paper cutting animation, craft animation, stop-motion animation, and other research and design, in order to better study the character design of Chinese animation. (Xie, 2022; Tang, 2022; Liu, 2022; Wan, 2020) through the combination of traditional culture and animation art, shows the artistic style of animation with Chinese characteristics and embodies the inheritance and development of traditional culture and national spirit.

China has a rich variety of myths and legends resources, mythological characters, and the national spirit of the Chinese nation, which provide countless inspirations for modern animation character design. Research on animation character design with mythological characters in animated films (Yang, 2021); through the animation design of Chinese mythology and legends, taking the situation of its combination with traditional painting elements as the core and the comparison of similar animation design in the world (Hao, 2013); from the unique and distinct mythological themes and traditional cultural imprints. This paper studies the application of Chinese traditional mythological characters in animation character design by integrating traditional mythological characters into animation character design and puts forward how to further innovate and shape traditional mythological characters in animation characters (Zhang, 2022).

To sum up, some researchers deepen the integration of mythological and legendary characters into animation character design (Hao, 2013; Yang, 2021; Zhang, 2022).

In addition, some researchers take the character shaping of animation characters as the research point, and put forward the necessity and determination of character expression to animation character design (Chen, 2014; Yang, 2016; Yu, 2020; Wan, 2022) the character shaping in feminist animation as the research subject, from the point of view of character design, action design, and color design, sort out and sum up the elements and mean that influence the character shaping of feminist animation characters (Yu, 2020) In animation creation, design, color, and action design can be used to set off the emotional and psychological changes of the character, and directly express the personality characteristics of the character. To grasp the emotional expression of design, color and action design is an important means to shape the psychology of animation characters (Chen, 2014).

To analyse the character traits of Chinese style anime characters by summarising the combination of 40 character traits. The five-factor model openness, rigour, extroversion, goodness and neuroticism. The five-factor model of 200 Chinese style animation characters was categorised into 40 trait types, and a quantitative approach was used to conclude that the traits with the highest frequency of occurrence in Chinese style animation characters were high openness, high goodness, low neuroticism, and high rigour. High Openness, High Goodness, Low Neuroticism, and High Criticality. The most frequent combinations of traits are high openness, high goodness, high goodness, low neuroticism, high openness, low neuroticism, high rigour, low neuroticism, and high rigour, high goodness. As well as Chinese-style animated characters, the types of high-frequency trait combinations for each archetype. These conclusions about the characterisation of Chinese-style animation, combined with the detailed explanations of the forty personality trait combinations, provide some reference value for the characterisation of Chinese-style animation (Yang, 2016).

Taking the character design design of the animated movie "The Devil Child of Nezha" as an example, this paper analyzes the character characteristics and technical expression of character design design. This paper analyzes the research on the character shaping of different characters in animated films from the aspects of character shaping and technique expression (Wan, 2022).

All in all, this study is aimed at Chinese animation character design, which investigates traditional cultural patterns, myths and legends, and character shaping of animation characters. It also tries to better study the Chinese animation character design through the research of Chinese kung fu, Chinese opera, and Chinese school, so as to better shape the animation character design with Chinese characteristics.

This research chiefly attempted to analyze and study Chinese animation through the works of Shanghai Art Film Studio as an example, mainly taking the global animation industry as the scope, analyzing and comparing China's animation industry with the United States, Japan, and other countries. This paper focuses on the market and cultural output brought by excellent works in the history of Chinese animation development, and excellent works inevitably need vivid animation character design to interpret them. Therefore, the most important thing is to study the character design of Chinese animation.

There are many kinds of animation, according to the media, then can be divided into cinema animation, television animation, advertising animation, and scientific and educational animation see Figure 1. According to the media type of Chinese animation, some researchers divide it into TV animation, cinema animation, and network media animation see Figure 2 (Ma, 2021).

Figure 1

Classification of Animation Media Angle

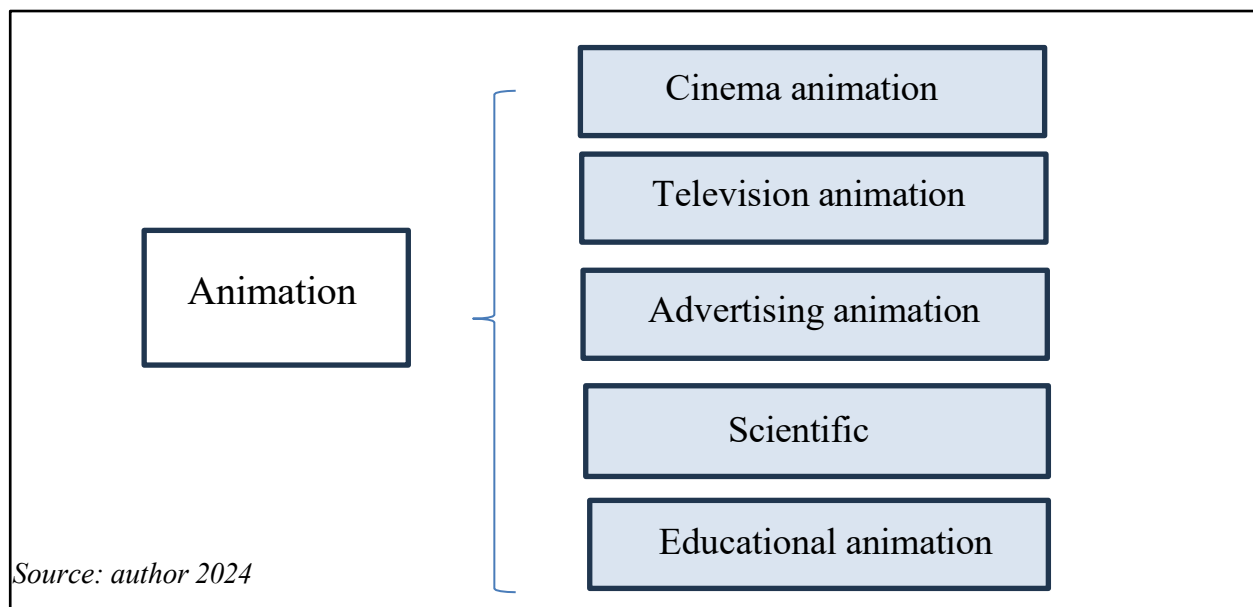
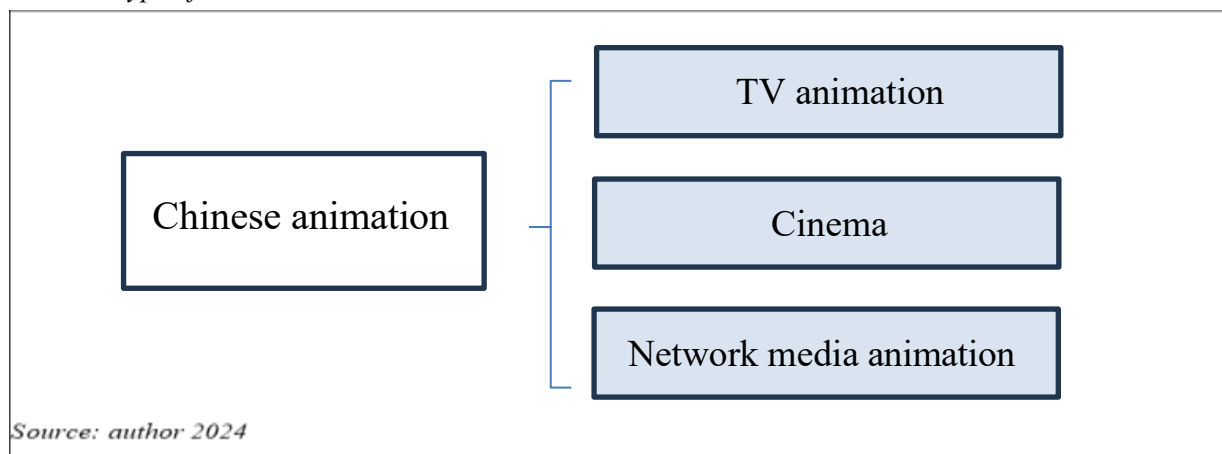


Figure 2*The media type of Chinese animation*

According to the playing time, it can be divided into animated feature films and animated short films. Some researchers believe that animated short films have diversified narrative styles, which are different from traditional animated feature films (Liu, 2022). Animated feature film usually refers to more than an hour of animation, its advantage is that the high commercial value can reflect the strength of the producer and distributor. Representative animated feature films include "Lotus Lantern", "The Lion King", "Liang Zhu" and other excellent works. Animated short films refer to animations that are shown for less than an hour or less. Because of the length of screening time and low production cost, it is easier to achieve results with a short production cycle and low risk. For example, the length of time such as "Three Monks" and "Little Tadpoles" is about 20 minutes; animation can be divided into single cartoons and series cartoons according to the genre. Some researchers also give examples to analyze the series of cartoons produced by various TV stations in China (Fang, 2021). Among them, a single animation is generally one episode or two episodes to form a story relative to the series of animations. The famous single animations in China include "Nine-colored Deer", "The Magic Brush" and so on. The series of animation generally refers to TV animated dramas, and the number of episodes varies from tens to hundreds. The Chinese cartoon series include "Calabash Brothers" and "Afanti". The Japanese animation series include "Slam Dunk", "Crayon Shin-chan" and "Detective Conan", while the American Disney series includes "Tom and Jerry". According to the form of artistic expression, it can be divided into clay animation, oil painting animation, film animation, Paper cutting animation, wool animation, watercolor animation, sand animation, and so on. Some researchers also classify animation as in art form (Jiang, 2023). In fact, according to the production methods and tools of animation, its large range can be divided into three categories, namely: two-dimensional animation, three-dimensional animation, and stop-motion animation.

Traditional animation is two-dimensional animation. Two-dimensional animation refers to the animation made on the two-dimensional plane. In a broad sense, two-dimensional animation can be divided into traditional hand-drawn animation and computer-aided animation. The difference lies in the application of computer technology. Compared with three-dimensional animation, two-dimensional animation has unique expressive force, a short production cycle, and low cost. It is often used to make animated films, cartoons, advertisements, educational materials, games, and so on. Two-dimensional animation mainly gives a sensory impact to the audience through visual, sound, and dynamic effects. In addition, some researchers believe that traditional two-dimensional animation has strong narrative logic, and emphasis will be placed on the design of animation characters and scenes, as well as lens light (Wang, 2022). Some researchers think that compared with three-dimensional animation symbols, two-dimensional animation is more abstract and exaggerated. It can better represent the motion in space and the animation space

embodiment of motion space (Bu, 2022) "Snow White", "Spirited Away", "Your Name" and so on are all very classic two-dimensional animations.

This study mainly aims at Chinese animation character design, taking the production of Shanghai Art Film Studio as an example. Then the main category of works of Shanghai Art Film Studio is two-dimensional animation, which continues Chinese traditional culture in animation, and better shaping animation characters with Chinese characteristics has become the top priority of this study.

To put it simply, the character design of animation is the whole process of creating a complete character from scratch. Animation character design is an important part of animation modeling design. In the creation process of animation works, animation character design is not only an important link in the early work, but also the premise and foundation of the whole film and television animation design work (Shi&Jiang, 2022). Role design is a kind of conceptual design. The artist presents the abstract "concept" of a character in the form of an image vision. Character design is not just about drawing the character, it needs to accurately convey a lot of important information related to the character. This section will analyze and study the definition, importance, various artistic styles, and design elements of role design.

Animation character design is to use the artistic techniques of painting modeling to express the main body modeling and spatial modeling of the image. Because of the highly hypothetical characteristics of animation art, animation character modeling can not only make full use of exaggeration, likeness, and deformation to express the character characteristics of the character, but also with the help of fantasy, imagination, and symbol to express the creator's ideals and wishes. Therefore, animated characters can be more deeply rooted in people's hearts than ordinary film and television characters. In animation work, excellent animation character modeling is the key to the success of an animation. The purpose of animation character design is to give each animation character unique artistic appeal and vitality. The definition of animation character design and the importance of animation character design in the whole animation can not be ignored (Ning, 2014). Around us, there are many animated character images that we are familiar with. These animated character images have brought us a lot of happiness and relaxation, which can not be replaced by any other kind of art. This is also the most important and valuable feature of animation art images. In this sense, personas and action modeling play a vital role, which plays a guiding role in the accuracy of character shaping and the rationality of action description.

Animated characters play an important role in the production process, which can not only help the audience understand the story faster but also add emotional elements to the story and move the audience. In addition, animation character design can also show the artist's creative ideas and level, which can be said to be an important way to show the artist's personal charm. The animated character is a way to show the national cultural image, which not only highlights the national spiritual connotation but also represents the national value orientation. The study of traditional artistic elements makes the animated characters have more inherent cultural connotations and enhances the aesthetics and applicability of Chinese animated images (Li, 2021).

Animation character design plays an important role in the whole production process, which can not only create a warm and moving atmosphere, but also show the artist's own ability, and become an important part of a successful work. Its significance is that it can not only enrich the content of the film but also better bring the audience into the world of the film so that the audience can get more resonance in the appreciation. Animation character design is one of the important means to enhance story design by using the expressive force of visual art. Therefore, animation character design plays a vital role. It is not only an important element for the work to convey the film, television, or storyline, but also a window to feel the character and emotion of the character. The design of animated characters not only conveys the three-dimensional characteristics of space but also needs to focus on prominence and color unity so that the audience can impressively fix the animated characters in their minds. Some researchers think that applying

traditional culture to animation character design, that is, drawing lessons from Chinese traditional art modeling elements in animation character modeling design, can promote the further development and development of the Chinese animation industry and traditional culture (Zhang, 2021).

Animated character design should consider different types of characters, and consider every detail of them, in order to show their character and motivation, to assist animation to attract the hearts of the audience, so that they have a complete emotional experience, so as to understand and experience the story more deeply. When designing animated characters, we need to grasp the characteristics of different characters and make them perform their respective functions in the competition.

In addition, animation character design can also be used to convey artists' views on society, such as satirizing the economic situation or calling on people to pay attention to environmental protection and friendly coexistence. These messages conveyed through the design of animated characters will bring greater creative inspiration to creators, thus better conveying their intentions.

In conclusion, animation character design is a combination of visual expression and emotional experience. it not only has the role of visualization, but also can convey the thinking of the artist, make the work full of three-dimensional feelings, and attract the attention of the audience. so as to make the film and television works and storylines more styles vitality.

There are many artistic categories of animated character design, such as realistic style, cartoon style, decorative style, and other styles. When designing animation characters, it is necessary to consider the overall artistic style of animation works. Art categories with different styles are both compatible and exclusive, which requires more in-depth understanding and proper handling (Li, 2021). In the process of animation creation, realistic animation character modeling occupies a large part, which is mainly relative to anthropomorphic and cartoon characters. In the process of animation creation, in order to create more vivid and interesting animation characters, animation creators often pay attention to the expression of "spirit" and reduce the pursuit of "shape" with the help of exaggerated and deformed modeling language. thus it highlights the remarkable characteristics of the animation characters in a certain aspect. Exaggerated animation character modeling is mainly divided into two kinds: morphological exaggeration and modal exaggeration. Personification is one of the basic means of expression of animation character modeling design. Due to the use of personification, animals, plants and other inanimate things in animation are endowed with human appearance, personality or ideological and emotional characteristics.

Animation style exaggerates and distorts the natural image of the objective reality to a certain extent, so as to exaggerate some characteristics of the character and emphasize a certain character of the character. The character design mainly draws lessons from the characteristics of the cartoon, and the proportional relationship, shape, dynamics, and expression processing of the image are all very exaggerated, emphasizing the image effect of the plane, the color simply tends to symbolize the performance, generalization, and conciseness, with humorous and funny artistic characteristics, often more cordial and lovely than the real image. Some researchers believe that artistic style will not only affect animation character design but also affect the whole artistic style of animation works. Different film styles will lead to different styles of character design (Chang, 2017).

Finally, it is abstract, this kind of character image is characterized by simple, unrestrained, abstract modeling, symbolization, arbitrariness, non-mainstream animation or experimental animation films mostly use this kind of modeling style. Exaggerated cartoon style, realistic style, anthropomorphic style, as well as different national styles and schools, all form the style characteristics of today's prosperous animation character design.

METHODOLOGY

This study adopts a comparative approach to analyze the global animation industry's dynamics and examines how Chinese animation can leverage its cultural resources. Case studies, such as the works of the Shanghai Art Film Studio, provide insights into successful character design strategies. Qualitative analyses are conducted to evaluate the integration of traditional culture into animation character design.

CONCLUSION

Therefore, it is of key significance to emphasise the uniqueness and innovativeness of animation character design to revitalise China's animation creative industry. In order to solve this problem, it is necessary to start from the fundamentals of character creativity and make a clear breakthrough. First of all, animation practitioners should fully explore and integrate the traditional cultural resources of the Chinese nation, and integrate the elements of traditional myths, historical figures, arts and crafts, and cultural value systems into character design to form works with distinctive cultural identifiers. At the same time, combining the aesthetic needs and narrative expectations of modern audiences, they should balance the tension between tradition and modernity, regionality and internationality, in order to enhance the global attractiveness and cultural dissemination of character images.

Learning from the experience of Shanghai Fine Arts Film Studio's classic works can provide an important reference for animation practitioners. For example, the complete narrative structure, vivid characterization, layered visual design, and emotionally resonant expression of its works can provide valuable insights into the technical enhancement and cultural expression of character design at this stage. In actual creation, it is recommended that animation design teams cooperate with cultural scholars and art professionals to explore modern ways of presenting traditional cultural symbols, to promote in-depth innovation of character design in terms of form and connotation.

Policymakers should actively support the animation industry's re-creation of traditional cultural resources. Specifically, they can set up special funds to support character design projects themed on traditional culture or organise character design competitions and exhibitions to stimulate the industry's creative productivity. In addition, the copyright protection and intellectual property rights system related to the animation industry should be improved to ensure that cultural resources are legally and legally protected for use and innovation in the process of digitization and commercialisation. At the same time, policymakers can also enhance the global visibility and influence of Chinese animation characters and their cultural connotations by providing international promotion channels (e.g., cultural exhibitions and overseas marketing support).

In summary, this study provides systematic methodological guidance for animation practitioners, as well as a theoretical basis and practical reference for policymakers to formulate support strategies. It not only lays a foundation for improving the level of Chinese animation character design but also provides a new path for the sustainable development of Chinese culture in the animation industry.

ACKNOWLEDGEMENTS

First and foremost, I wish to express my deepest appreciation to my supervisors, Dr. Juliana Aida binti Abu Bakar, Dr. Adzira Binti Husain, Dr. Siti Salmi binti Jamali, and Dr. Mazura Binti Jamalai for their inspiration, guidance, support, and generosity. Many other scholars who have contributed directly or indirectly also deserve my thanks including Dr. Byabazaire Yusuf, Dr. Nur Rasyidah binti Mohd. Nordin. I am grateful for their academic guidance, comments, and constructive suggestions at various

points during the research. I am very greatly indebted to so many wonderful people for their contributions and spontaneous assistance in so many ways in completing this thesis.

AUTHOR CONTRIBUTIONS

All authors contributed to the study conception and design. Material preparation, data collection, and analysis were performed by all authors.

CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

Informed consent was obtained from all individual participants included in the study.

REFERENCES

- Bu, H. (2022). A study of mythical space reconstruction of Chinese myth-retelling animation film in recent years. *China Film Art Research Center*. <https://doi.org/10.32890/jcisc2025.4.3>
- Chang, Q. (2017). *Research on artistic expressions of audio-visual language in Monkey King: Hero is Back*. Xi'an Polytechnic University.
- Chen, C. (2014). *Study on the role of animation role of character*. Wuhan University of Technology. <https://doi.org/10.32890/jcisc2025.4.3>
- Chen, G. (2023). Analysis on the classified production and development trend of animation under new media art. *Shoes Technology and Design*, 3(04), 27–29. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Chen, S., & Sun, J. (2023). One hundred years of Chinese animation in Yao-Chinese Folktale. *ZHONG GUAN CUN*, 2023(02), 78–79. <https://bitly.com>
- Chen, Y., Jiang, F., & Hu, Z. (2021). Audio-visual presentation and effect analysis of occasional animation--Taking "Daughter" as an example. *Art & Design*, 2021(08), 108–109. <https://doi.org/10.16272/j.cnki.cn11-1392/j.2021.08.024>
- Fang, B. (2021). Analysis on the evolution of types and themes of Chinese animation from 1949 to 1990. *Movie Literature*, 2021(01), 39–43. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Hao, H. (2012). Research on traditional painting elements in character animation modeling of Chinese myths and legends. Northwest University. <https://doi.org/10.32890/jcisc2025.4.3>
- Jiang, R. (2023). *The new construction of the creative concept of contemporary domestic animation music from the historical perspective*. *Journal of Huangshan University*, 25(01), 119–123. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Jin, X. (2021). Analysis and research on the elements of classical animation character design. *Today's Mass Media*, 29(09), 123–126. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Li, Z. (2021). *Research on the application of Chinese traditional decoration elements in animation character design*. Harbin Normal University. <https://doi.org/10.32890/jcisc2025.4.3>
- Liu, G. (2022). Design method of visual dynamic elements in animated short film. *Drama and Film Journal*, 2022(05), 29–31. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Liu, J. (2022). *Research and application of traditional decorative patterns in paper cutting animation*. Chengdu

- University. <https://doi.org/10.32890/jcisc2025.4.3>
- Liu, X. (2022). Application of 3D Max software in film and television animation production. *Journal of Zhengzhou Railway Vocational and Technical College*, 34(04), 110–112. <https://doi.org/10.13920/j.cnki.zztzyjsxyxb.2022.04.016>
- Ma, Y. (2021). *A study of Chinese animation plays*. Nanjing University of the Arts.
- Ning, J. (2014). *Research on the application of New Year picture elements in animation character design*. Shenyang Normal University. <https://doi.org/10.32890/jcisc2025.4.3>
- Shi, X., & Jiang, S. (2022). Role design of film and television animation from the perspective of local culture. *YI HAI*, 2022(03), 71–74. <https://bitly.com>
- Tang, J. (2022). *Study on the design and application of auspicious patterns in ink painting animation Song Dynasty*. Chengdu University.
- Wan, S. (2020). *An analysis of the application of Chinese folk patterns in stop motion animation: Based on the stop motion animation short film "Made Umbrella" design as an example*. Nanchang Hangkong University.
- Wan, W. (2022). *Research on character building and technique expression of animation character modeling design: Taking Ne Zha as an example*. Nanchang University. <https://doi.org/10.32890/jcisc2025.4.3>
- Wang, Y. (2022). *Research and application of dynamic display design of logo*. Shanghai Normal University.
- Wei, Y. (2021). *A study of Masaaki Yuasa's animation character design from the perspective of ugliness*. Jiangnan University. <https://doi.org/10.32890/jcisc2025.4.3>
- Xinhua Daily newspaper(Ed.) (2011). *China's annual animation output of 260,000 minutes in 2011 was criticised for high quantity and poor quality*. Xinhua Daily newspaper. <https://www.chinanews.com/cul/2012/05-04/3864263.shtml> <https://doi.org/10.32890/jcisc2025.4.3>
- Xie, Y., & Li, M. (2022). Innovative application of three-dimensional animation in digital media art design. *Shoes Technology and Design*, 2022(19), 105–107. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Xue, H., & Guo, Y. (2021). A case study of online educational animation under the background of digital culture. *Culture Industry*, 2021(31), 67–69. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Yang, X. (2016). *The research of Chinese style animation characters*. Fuzhou University. <https://doi.org/10.32890/jcisc2025.4.3>
- Yuan, X. (2018). *Six months of exports of \$ 90 million, Korean animation how to do overseas*. Sandwiches. <https://www.jiemian.com/article/2249902.html> <https://doi.org/10.32890/jcisc2025.4.3>
- Yang, Y. (2021). *A study of character reinvention in Chinese mythology-themed animated film*. Chengdu University. <https://doi.org/10.32890/jcisc2025.4.3>
- Yang, Y., & Deng, M. (2022). The value and application of digital media art in film and television animation. *Media Forum*, 2022(16), 64–66. <https://bitly.com>
- Yu, W. (2020). Research on character characterization in feminist animation. *Hubei Institute of Fine Arts*.
- Yu, Y. (2023). Research on the audience demand and development strategy of animated film. *Movie Literature*, 2023(03), 82–86. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Zhang, L. (2021). Analysis on the practical application of Chinese traditional art modeling elements in animation character design. *Art and Design*, 2021(09), 108–110. <https://doi.org/10.16824/j.cnki.issn10082832.2021.09.028>
- Zhang, W., & Wei, W. (2019). A probe into the application of animation audio-visual design elements in Japanese animation works. *Industrial Design*, 2019(02), 74–76. <https://bitly.com> <https://doi.org/10.32890/jcisc2025.4.3>
- Zhang, X. (2022). *Research on the image creation of Chinese traditional mythological characters in animated characters*. Chengdu University.