



Digital Regeneration of Classical Chinese Mythological Stories: An Example of the IP Design of "HOU" from the Classic of Mountains and Seas

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Abstract. The Classic of Mountains and Seas is an important ancient Chinese text that contains rich mythological themes, archetypal imagery, and early cosmological views. However, in contemporary society, its deep cultural connotations are gradually fading from public view, and the cognitive disconnect and cooling of acceptance of its mythological system are becoming increasingly severe. Therefore, it is urgent to use systematic digital means to reconstruct and revitalize it. The objective of this study is to take the "HOU" image from the Classic of Mountains and Seas as a representative example. Through a systematic analysis of the stylistic features and cultural connotations of the "HOU" image, this study explores its regenerative pathways in digital media and attempts to apply its reconstructed design outcomes to contemporary visual design practices. The aim is to achieve a contemporary expression of traditional mythological imagery and cultural revitalization. The research methodology combines qualitative and quantitative approaches to comprehensively review the cultural context of "HOU" and its relevance in modern design practice. Additionally, through design practice, the "HOU" image is reinterpreted and applied to modern design. The research findings indicate that through modern design techniques, the "HOU" mythological image can not only achieve the visual revitalization of cultural imagery, but also effectively transform into contemporary design elements with unique cultural distinctiveness. It demonstrates promising application prospects in brand image and derivative product design, showcasing the cultural regeneration potential and market competitiveness of traditional mythological resources within the modern design context. This study, from a design perspective, proposes new pathways for understanding the contemporary expression of mythological systems represented by the "Classic of Mountains and Seas", providing a research paradigm with a reference value for the innovative application of traditional cultural symbols in modern design practices, particularly in IP development and cultural and creative transformations.

Keywords: The Classic of Mountains and Seas; Modern design; "HOU"; IP design.

1 Introduction

1.1 Research Context and Challenges

The Shanhaijing, an ancient mythological and geographical text, has unique value in various fields of study, particularly in the specific representation of mythological imagery such as the "HOU" image. including literature, art, aesthetics, history, geography, medicine, biology, and mythology. It serves as a profound and enduring historical and cultural treasure of the Chinese nation. Not only does it record the mythological imagination and social folklore of the ancient ancestors, but its graphic art also depicts a variety of weird and wonderful mythological images, providing inexhaustible inspirational materials for the recreation of literature and art in later generations, and stimulating many thoughts about art and explorations of art forms and aesthetic connotations [1]. With the advancement of digital technology, especially the application of digital technology, artificial intelligence, and 3D modeling technology, the digital regeneration of traditional cultural elements not only ensures the accurate preservation of culture, but also allows it to be reinterpreted in various forms in modern society. In the digital era, it is also an important task to find out how to efficiently digitize imagery like "HOU" from the Shanhaijing and disseminate it through modern media platforms so that it can gain more people's attention [2].

1.2 Purpose and Significance of the Study

This study is dedicated to exploring the new expressions of the "HOU" image from the 'Shanhaijing' in modern design, especially in the application of IP design, this study is not only an in-depth excavation of the cultural connotation of "Shanhaijing", but also a concrete practice of the innovative application of the traditional cultural elements in modern design. This study reveals the unique value of "HOU" in ancient Chinese culture through in-depth research on the image of "HOU" in the "Classic of Mountains and Seas" and the cultural symbolism it implies. Through a systematic analysis of the stylistic features and cultural connotations of the "HOU" image, this study explores its regenerative pathways in digital media and attempts to apply its reconstructed design outcomes to contemporary visual design practices, including detailed examples such as 3D modeling of IP characters, animated emoticons, and derivative product designs, demonstrating their practical applications and market effectiveness. Additionally, through design practice, the "HOU" image is reinterpreted and applied to modern design, with comparative analysis to other cultural regeneration projects such as the IP designs of "Bing Dwen Dwen" for Beijing 2022 Winter Olympics and the "Xue Xue" IP from Harbin Ice and Snow World. This comparison highlights the unique features, cultural resonance, and practical effectiveness of the proposed "HOU" IP design approach. The study findings indicate that through modern design techniques, the "HOU" mythological image can not only achieve visual revitalization of cultural imagery but also effectively transform into contemporary design elements with unique cultural distinctiveness, evidenced by successful user engagement and increased visibility in social

media platforms. Specific metrics such as interaction rates, shares, and market acceptance in derivative products further substantiate the effectiveness of these methods.

2 Literature Review

The *Shanhaijing* is an ancient Chinese book that combines geography, mythology, and square objects, and its unique cultural value has attracted the attention of many scholars both at home and abroad [3]. The English translation of the '*Shanhaijing*' has become a focal point in foreign research. Scholars have re-examined the function of transliteration from a semiotic perspective, and notable progress has been made in interdisciplinary research, for example, the image of the beasts used in virtual reality and interaction design. Interaction Design. Domestic research on *Shanhaijing* is also in-depth, with scholars exploring various fields such as cultural heritage and innovation, literary research, archaeology and history, etc. In recent years, digital technologies such as virtual reality, augmented reality, and high-precision three-dimensional modeling technology have been widely used to open up new paths for the study of *Shanhaijing* and its mythological elements, and the researchers have been able to reproduce the image of the ancient myths more intuitively and accurately by digital means and make them available in the modern digital media using,utilizing, employing, through interactive technologies. Technology to bring it to life in modern digital media. In the *Shanhaijing*, an ancient book full of fantasy colors, the mysterious creature "HOU" is not described in much detail, but its prototypes or similar images are scattered in many records of beasts, which reflects the rich imagination and desire for exploration of the ancients, as pointed out by Lu Mengya and Xun Pengxing (2024). Lu and Xun (2024) pointed out that the descriptions of beasts in the *Shanhaijing* blended regional characteristics with mythological imaginations, providing rich cultural materials for later generations, and that the image of "HOU" might have found traces in it [3], and Wang Xin (2021) pointed out that Guanyin's mount, the golden-haired HOU, might be related to the beasts in the *Shanhaijing*, which further confirmed the profound influence of the *Shanhaijing* on the cultural creation of later generations. This further proves the profound influence of the *Shanhaijing* on the creation of later cultures, and we can feel the source and inspiration of the image of "HOU" from the *Shanhaijing* [4]. In the *Shanhaijing*, a cultural treasure trove, the image of "HOU" is not depicted in detail, but its cultural symbolism is very far-reaching. Ren Lianxue pointed out in 2010 that, as a mythical beast, the roar of "HOU" symbolizes power and majesty, and embodies the law of nature and irresistible force [5]. Luo Jun and Li HOU reported on the return of the "WangtianHOU" relics in 2007, reflecting the importance of "HOU" in folk beliefs, not only as a symbol of guardianship and protection, but also as a symbol of people's reverence for and yearning for supernatural power [6]. "WangtianHOU" was returned to "Jin" - China Knowledge, n.d.). In 1994, Wei Zhixiang revealed its other symbolic significance, that of observing good and evil in the world and upholding justice and order [7]. Although this interpretation is not directly derived from the *Shanhaijing*, it reflects the moral judgment and social responsibility function of "HOU" in later cultures. The image of "HOU" in the

Shanhaijing not only represents power, majesty, and guardianship, but also implies reverence for the laws of nature, the pursuit of supernatural power, and the maintenance of justice and order, which has profoundly influenced the culture and beliefs of later generations.



Fig. 1. IP design cases presented through 3D modeling and digital means.
(<https://www.duitang.com/blog/?id=1385609071>)
(https://www.zhengjiwk.com/2024/logo_1223/23726.html)

In recent years, the digital transformation of traditional cultural elements and the application of 3D modeling has become an important trend in the cultural and creative industries. With the help of modern digital technology, traditional culture has been revitalised at the visual and interactive levels, which has attracted extensive attention. The mascot of the 2022 Beijing Winter Olympics, "Ice Dundun Dundun", combines the traditional panda elements with the modern sense of science and technology, and has become a highly recognizable IP image. Through 3D modeling technology combined with ice and snow elements and the five Olympic rings, it successfully combines traditional Chinese culture with modern design language, and becomes a highly recognizable IP image. This case demonstrates the innovative application of traditional cultural elements in modern design, and provides a useful reference for the digital regeneration of the image of "HOU", as shown in Fig.1 (left), which is also shown in Fig.1(right). In addition, the IP images "Bing Bing" and "Xue Xue" launched by Harbin Ice and Snow World adopt a Q version design style combined with ice and snow elements to embody the characteristics of ice and snow culture in Northeast China, and these images are widely used in the fields of scenic area publicity and souvenir design by 3D modeling and digital means, which enhances cultural communication. These images are widely used in scenic area publicity souvenir design and other fields, which enhances the fun and interactivity of cultural communication. This case provides practical experience for the application of cultural elements in modern digital media, as shown in Fig.1 (right), the above case shows that traditional cultural elements are digitally transformed and

three-dimensional modeling is applied in modern design, which provides useful references for the digital regeneration of the image of "HOU", which can be better applied to the "Shanghai Mountain and Sea" and "Xuexue". These cases show the digital transformation of traditional cultural elements and the application of 3D modeling in modern design, which provide a useful reference for the digital regeneration of the image of "HOU".

3 Research Methodology and Research Tools

3.1 Literature Analysis Method

This study first conducted a systematic literature analysis, comprehensively reviewing the cultural background, mythological context, and symbolic implications of the "HOU" mythical beast in the Classic of Mountains and Seas. The literature sources include classical texts such as the Classic of Mountains and Seas and the Huainanzi, as well as recent scholarly works on topics such as "mythological regeneration" and "visualization of traditional culture."

3.2 Data Analysis Method

To enhance the study's relevance to current issues and improve trend forecasting, this research incorporates data analysis, focusing on the development trends and changes in social attention regarding traditional culture digitization research in recent years. Using the China National Knowledge Infrastructure (CNKI) data platform, the annual publication volume of keywords such as "traditional culture digitization," "digital preservation," "cultural IP design," and "digital dissemination" was statistically analyzed and trended. To clarify the current level of attention from the academic and design communities toward the topic of traditional culture regeneration. Data analysis results indicate that the number of related studies has increased annually since 2020, with a significant surge observed from 2023 to 2024. This phenomenon not only reflects that the reactivation of traditional culture in the new media context has become a research hotspot but also provides empirical evidence and trend support for the digital regeneration of the "HOU" image, as shown in Figure 2 below.

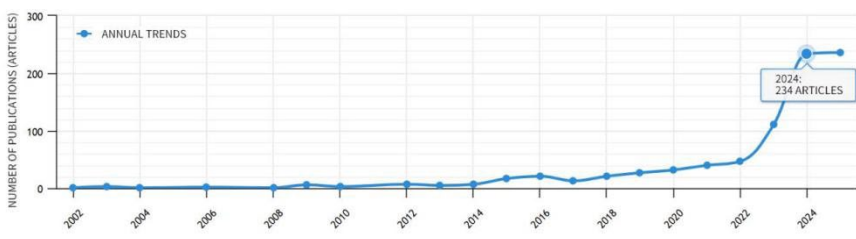


Fig. 2. Number of Publications (Articles) (Source: CNKI)

3.3 Design Practice Method

As a core research method in visual communication design, this study conducts systematic design practices using the "HOU" image as a medium.

3.3.1 Image Reconstruction Phase.

Based on an analysis of the cultural connotations and structural characteristics of the "HOU" *image*, a concrete visual reconstruction is conducted, involving aspects such as character design, color systems, and stylistic symbols.

3.3.2 Digital Media Interpretation Phase.

Building on the foundation of graphic design, the project extends to dynamic and interactive expressions, attempting to present the "HOU" image in three-dimensional form and integrate it into interactive design scenarios.

3.3.3 Design Application Validation Phase.

Centered on the "HOU" image as the core element, a comprehensive IP application system is designed, encompassing brand logos, derivative product designs, and more, to test its expressive effectiveness and user acceptance within the contemporary visual communication context.

4 Research Results

4.1 Modern Visual Style

In the design of the image of "HOU" focus on the modern expression of its color and image is the key to the design, "HOU" is an ancient beast of the image of the fusion of a variety of records and legends, in the design process to optimize these features and to innovate to make it In the design process, these features were optimized and innovated to make it meet contemporary aesthetics, and the color scheme was based on the traditional color scheme, with red as the main color of the palace wall and green as the embellishment, red symbolizes passion and power as well as good luck, while green represents the hope for peace and a sense of mystery, which enhances the overall visual impact and makes the image of the HOU more vivid and rich in cultural connotations, and at the same time renders a strong atmosphere of the national trend to make the HOU easier to be used by the public. HOU" is more easily accepted by the modern audience, in the image design with the help of computer modeling software rendering technology to further optimize the color performance and lighting effects, so that the "HOU" image on the screen can show a higher visual impact, combined with the fine two-dimensional graphic design and three-dimensional modeling so that The image of "HOU" is presented in a three-dimensional and vivid way, and details such as "long pointed ears" and "tail like a fan" are shown in a detailed way, which not only retains the traditional characteristics, but also has a sense of fashion and modernity, which corresponds to the image in Figure 3 below. Figure 3 below, the three-dimensional design enhances the

visual effect and makes the "HOU" image have strong adaptability and expressiveness in different application scenarios.



Fig. 3. Waving motion of "HOU" 3D image design. (Source: LinaZhang)

4.2 Re-Interpretation of Cultural Symbols and Generalization of Classic Patterns

In the whole design process, it is extremely important to reinterpret the cultural symbols of "HOU". As a divine beast representing fire, "HOU" symbolizes light, evil, and holiness in Buddhist culture [4], and the flame pattern is widely used in the design to express its attributes and to convey the symbolism of the millennium. The flame pattern not only reflects the sanctity and majesty of "HOU", but also enhances the visual impact and cultural depth. The decorations of "HOU" have unique cultural significance, and its bracelet is not only a decoration, but also a golden bell, which can repel evil spirits. The design of the bracelet and the golden bell is delicate and symbolic, echoing the overall color of "HOU", and with the help of modern visual style and re-interpretation of classic cultural symbols to give "HOU" a new life.

4.3 "Harvest" 3D Image Display, High-Precision 3D Modeling

In modern IP design, 3D image display is an important means to show the details of the character and enhance the visual impact [8], the use of open source software Blender to carry out high-precision 3D modeling of the image of "HOU", corresponding to Figure 4 below, the purpose is to present the image of the traditional beast "HOU" vividly to the audience through the fine design and realistic effects. Blender has a wealth of

modeling tools and powerful rendering features that allow me to continuously optimize and perfect the image of "HOU". After many iterations and fine sculpting, I have successfully created a lovely and rounded image with a head-to-body ratio of 1:1. "I have modernized and made the image of "HOU" more adorable during the design process to make it more appealing to contemporary audiences, and the rounded shape increases the affinity of "HOU" as well as its aesthetics. The rounded shape not only increases the affinity of "HOU" but also enhances its potential application in animation games and peripheral products. 3D image display, as a key link in IP design, not only enhances the attractiveness and dissemination of "HOU" in the modern society, but also provides more possibilities in the field of brand image animation characters and derivatives products. Using high-precision 3D modeling tools, we have optimized the image through fine sculpting and multiple renderings, so that the image not only meets modern aesthetics, but also retains the traditional cultural connotations of "HOU" and gives it a new visual expressiveness and modern significance. High-precision 3D modeling can make traditional culture more widely disseminated, and at the same time can attract the attention and love of the younger generation to promote the protection of the cultural heritage of the Classic of Mountains and Seas, and this modern way of displaying the cultural elements of the Classic of Mountains and Seas to provide new application scenarios, which in turn promotes its development and innovative application in modern cultural and creative industries, and with the help of innovative visual language and symbols to make the ancient sacred beast of "HOU" in the modern cultural and creative industries. With the help of innovative visual language and symbols, "HOU", an ancient sacred animal, is given a new vitality in modern design.



Fig. 4. Four views of "HOU". (Source: LinaZhang)

4.4 Emoticon Design

In the environment of modern digital culture, emoticons have become an important tool for daily communication. By designing unique "HOU" emoticons, we can combine traditional culture with trendy culture, and around the diversity of "HOU's" background and rich cultural connotations, I have created four types of emoticons, which are Buddhist, happy, doubtful, and angry. I used digital design software Photoshop and Illustrator to create four kinds of emoticons corresponding to Figure 5 below, which are

Buddhist, happy, doubtful, and angry, in line with the emotional needs of young people. After the production was completed, the emoticons were released to social platforms such as WeChat QQ and Instagram, aiming to attract young people to participate in the dissemination and promotion of cultural digitization.



Fig. 5. Emoji of "HOU". (Source: LinaZhang)

Buddhist emoji convey a peaceful and undisputed state of mind, catering to the psychological needs of young people in pursuit of inner peace; happy emoji shows a pleasant and lively side, bringing positive energy and a pleasant feeling; doubtful emoji is suitable for expressing puzzled thinking emotions, increasing the fun of communication; angry emoji expresses anger and dissatisfaction, enhancing the strength of expression and contagiousness; these emoji designs not only retain the lovely image of "HOU", but also give it new life and modern meaning through innovative visual language symbols. These emoticon designs not only retain the lovely image of "HOU", but also give it new vitality and modern significance through innovative visual language symbols. These emoticon designs combine the image of "HOU" with modern trendy culture to make it more attractive and spreadable in social media and daily communication, with the help of this modern communication tool, emoticons, traditional culture can be used as a tool for communication. With the help of emoticons, a modern communication tool, traditional culture can be more widely disseminated to attract the attention and love of the younger generation, promoting the cultural heritage and protection of the "Classic of Mountains and Seas".

4.5 Derivative Image Design

In the design of the "HOU" IP image, to retain its traditional cultural symbolism, but also combine with modern design concepts for innovative expression, because "HOU" has avoid evil, block the evil spirits, drive away the group of bad luck, pull out the ominous, gathering wealth, guarding wealth, ZhenZhou and many other functions, so it is considered to be extremely important totem sacred beast, also because it has this sacred function, "HOUZhou" can be in Tiananmen Square Huabiao on the upper end of the tower, and the gods and goddesses of heaven and earth, ancestors together to enjoy the people's worship, based on "HOUZhou Based on these functions of "HOU", I designed four derivative images to reinterpret the different meanings of "HOU" with modern design language, namely "HOU", "Bodhi", "God of Wealth", "HOU They are

detective "HOU", bodhi "HOU", god of wealth "HOU" and door god "HOU". The "Detective" represents wisdom and insight, implying the ability to see clearly and discover hidden truths and details. In the design process, the detective "HOU" is endowed with sharp eyes and delicate decorations to highlight its wisdom and acumen, using magnifying glasses, and other detective elements to make its image more vivid and close to the image of modern detectives, and the color scheme is based on cool tones to emphasize calmness and rationality. Bodhi "HOU" symbolizes tranquillity and peace, implying a worldly attitude, in the design, Bodhi "HOU" is given a calm expression and Buddhist elements such as the lotus flower and Bodhi leaf, as a symbol of wisdom and compassion, using soft colors such as light green and beige to create tranquillity and peace. The use of soft colors such as light green and beige creates an atmosphere of tranquillity and serenity, conveying inner peace and spiritual transcendence. The God of Fortune, "HOU", represents wealth and prosperity, implying that good fortune and wealth can be brought about by the accumulation of resources. In the design, the God of Wealth "HOU" is given rich decorative elements, such as a golden treasure bag with gold details to highlight its function of attracting wealth and prosperity, and the overall colour scheme mainly uses gold and red to symbolize wealth and good fortune. The door god "HOU" has a symbol of protection and security, representing the guardianship of the house against evil and ominous things, the design of the door god "HOU" is given a dignified expression and strong armor, symbolizing a strong defensive ability, and the use of the red and green color scheme to enhance the deterrent and mysterious sense of these derivative images, through the design of these derivative images. Through these derivative image designs, the traditional cultural connotation of "HOU" is preserved in modern design, while its new vitality and modern meaning are given through innovative visual language, These IP designs not only convey rich cultural connotations but also highlight unique charm and commercial value in brand image creation, animated characters, and derivative products.

5 Discussion

5.1 Contribution to Theory

The important contribution of this study is the systematic exploration of the combination of digital design technology and traditional culture. Most existing studies focus on the preservation and protection of traditional culture, while this study transforms traditional cultural elements into modern IP images by means of innovative design methods to promote the practical application of traditional culture in the modern creative industry, specifically, this study provides a new perspective for cultural inheritance and innovation, and also proves the feasibility and importance of digital transformation in the cultural and creative industries. The study also provides specific design practices for the modern interpretation of cultural symbols, and proposes that the use of digital communication means such as three-dimensional modeling and emoticons can effectively enhance the attractiveness and dissemination of cultural symbols, and thus promote the modern inheritance process of traditional culture.

5.2 Impact of Theory Construction (Impact of Theory Construction)

This study provides a new case for the digital design field and also promotes the theoretical construction of the transformation of traditional cultural symbols in the digital era. In the cultural and creative industries, the IP of traditional cultural elements has become a hot topic nowadays, and through the digital transformation of the image of "HOU", the theoretical framework of traditional cultural elements adapting to modern society has been further improved, especially in brand design, animation, derivative products, and social media communication. By digitally transforming the image of "HOU", the theoretical framework of adapting traditional cultural elements to modern society is further improved, especially in the application of brand design, animation, derivatives, and social media communication, which is similar to Xiao Fangping's research, who emphasizes the need to pay attention to the traditional culture, activate the revitalization mode, discover the connotations and essences of the traditional culture, and innovate the unique IPs of China's oriental aesthetics [9]. The study highlights the dual role of digital technology in cultural innovation, on the one hand, digital means are conducive to the preservation of traditional culture, on the other hand, it allows traditional culture to gain new vitality in modern design and dissemination with the help of creative transformation, and this theoretical framework not only has reference value for academic researchers, but also provides practitioners with concrete design and implementation methods.

5.3 Limitations and Future Research Directions (Limitations and Future Research Directions)

Although this study confirms the effectiveness of digital transformation of traditional cultural elements through concrete design practice, it still has some limitations. Firstly, this study mainly focuses on the transformation of the single image of "HOU", and future research can be expanded to include other mythological images in the Classic of Mountains and Seas to explore the digital transformation of more cultural symbols, secondly, although the study involves 3D modeling and emoticon design, it has not yet explored the application of more advanced technologies such as artificial intelligence in the design. Secondly, although the study involves 3D modeling emoticon design, and other related technologies, it has not yet explored the application of more advanced technologies such as Artificial Intelligence (AI) in design, and future research could further combine AI technology, Augmented Reality, and Virtual Reality, to explore a more immersive digital cultural experience.

6 Research Conclusion

This study combines digital design, 3D modeling, and digital display methods to revitalize the image of 'HOU HOU' in terms of visual aspects, and also disseminates it with the help of digital media platforms, helping traditional culture to regain attention and recognition globally. Digital technology has become a key tool for the transmission of

traditional culture, and has given traditional culture a new Digital technology has become a key tool for the inheritance of traditional culture, giving it a new vitality. Through such modern communication tools as emoticons and 3D image displays, traditional culture can be spread more widely, attracting the attention and love of the younger generation, and promoting the inheritance and protection of the culture of the Classic of Mountains and Seas. This modern transformation provides new application contexts for the cultural elements of the 'Shanhaijing', and promotes its development and innovation in modern cultural and creative industries. The study demonstrates the diversified expression of the image of "HOU" in modern design, and provides a valuable example of the integration of traditional culture and modern design, it is expected that this study will inspire more designers and researchers to pay attention to and make use of the "Shanhaijing". It is hoped that this study will inspire more designers and researchers to pay attention to and make use of the cultural resources of the Classic of Mountains and Seas, and inject new vitality into the inheritance and innovation of Chinese culture.

References

1. Rachel. (2023). An analysis of the pictorial art and aesthetics of the Classic of Mountains and Seas. *Journal of Culture*, (12), 248-251.
2. Joan Shaw. (2025). Application strategy of three-dimensional animation technology in digital art design. *Footwear Craft and Design*, 5(01), 63-65.
3. Lu, Meng-Ya & Xun, Peng-Xing. 2011 A new species of the genus *Lepidoptera* (*Lepidoptera*) from China. (2024). Early Chinese geographical writing and the extraterritorial acceptance of regional views: An examination of the interpretation of the French Sinology of the Classic of Mountains and Seas. *Folklore Studies*, (02), 60-69+158. doi:10.13370/j.cnki.fs.2024.02.003.
4. Wang, X. (2021). Examination and interpretation of Guanyin's Mount Golden Hair Harvest. *Studies in Ming and Qing Fiction*, (02), 251-265. doi:10.13674/j.cnki.32-1017/i.2021.02.017.
5. Ren Lianxue. (2010). "HOU" and "roar". *Extracurricular language*, (10), 40.
6. Luo, Jun & Li, HOU. (2007-07-20). The return of "WangtianHOU" to "Jin", *Tianjin Daily*, 005.
7. Wei, C.C. (1994). The eye of the harlequin and the goodness of the people. *China Chemical Industry*, (01), 64.
8. Dang, Mingyang. (2025). Application of 3D design software in product design practice and trend analysis. *Portrait Photography*, (02), 173-174.
9. Xiao, F. P. (2018). On the Innovation and Activation Mode of Chinese Traditional IP Image (Master's thesis, Jiangxi Normal University). Master's degree https://kns.cnki.net/kcms2/article/abstract?v=5hcLxvuG7Q5v3v-fmdw4JXtnhJCcZkpkIFCHxRwJXBF7BPvuIEZkSLCmDIshHt8KNgcRFcazzcs8aqrQ1XtmQqBHGvVPOsfux-oZGEqr6haBMF5PUFg8lnNwKFzR33SbjnAWcdthm7gy-RaS6Wupui22TTj26lfDKzYB8yU_MwmhWzTZ-UR5g0eodpdL3-BWycE9x8QYUek=&uniplatform=NZKPT&language=CHS

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