### Research on the Design of Museum Cultural and Creative Products under the background of new cultural and Creative culture

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**Abstract:** This paper discusses the design of museum cultural and creative products under the background of new cultural and creative culture. Through the interpretation of related concepts of new cultural and creative products, from the aspects of its content and products combined with the current development of museum cultural and creative products, summed up the design principles of museum cultural and creative products. While interpreting the relevant design principles, this paper designs cultural and creative products by combining the cultural relics collected by several museums in Hubei Province, and provides feasible and constructive ideas and methods for the design of cultural and creative products in museums by combining theory with practice.

# 1. Museum cultural and creative products in the context of new cultural and creative products

#### 1.1 Related Concepts

#### 1.1.1 New cultural and creative concepts

Centering on IP construction, New cultural creation hopes to create more cultural symbols with unique Chinese characteristics by strengthening the organic combination of artistic value and product significance [1]. It includes three levels of consideration: first, the content itself; Second, the mode of production; Third, product thinking. The core idea is "cultural production mode with IP construction as the core". The cultural production mode takes the positive integration of cultural value and commercial value as the development direction, and tells Chinese stories well and builds Chinese image as the ultimate goal (Figure 1). As a new cultural dimension of strategic thinking, its innovation can be through cultural synergy, technology enabling, emotional appreciation.

This paper mainly analyzes the design of cultural and creative products in museums from the aspects of content and products.

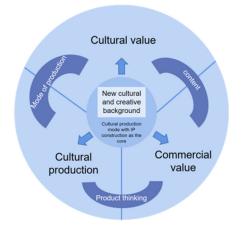


Figure 1. Concept analysis of new cultural and creative products

#### 1.1.2 Cultural Innovation in Museums

Cultural and creative products of museums can be understood in the broad sense and the narrow sense [2]. In the narrow sense, cultural and creative products usually refer to the integration of cultural relics or other collection elements into products, such as refrigerator magnets, tea set patterns, blankets, silk scarves, etc. In the broad sense, cultural and creative products also cover some intangible travel souvenirs. Such as museums' own apps, handmade ceramics, various entertainment programs, and colorful exhibitions. They all have a common purpose: to help spread museum culture. This article focuses on the tangible products of museum collections as creative elements.

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## **1.2** Current situation of cultural and creative development in museums

With the passage of time, cultural and creative products of museums have gone through three different stages: tourist souvenirs, cultural creativity and cultural and creative integration [3].

In the 1980s and 1990s, the coexistence of low-end and high-end and the distinct differentiation of tourist souvenir products marked the era of tourist souvenir [4]. In the early 21st century, museum culture and innovation entered the era of cultural creativity. The importance of creative additional attributes of cultural and creative products is more prominent. Cultural and creative products not only need to go through conventional steps such as market positioning and product design, but also need the support of creativity and innovation, so as to enhance the added value of products. With the development of Internet technology in 2018, the cultural and creative industry has changed from the traditional chain mode to the network structure [5], and the museum has entered a new era of cultural and creative integration (Figure 2).

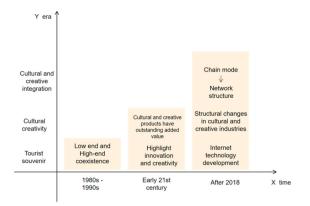


Figure 2. Development stage of cultural and Creative industries in museums

However, the design status of cultural and creative products in most museums is not satisfactory. Although each collection has unique cultural connotation and different regional differences, the diversity and richness of cultural and creative products are worrying, and serious homogenization makes many cultural and creative products only stick to the surface form attached to common carriers, lacking innovation awareness and originality [6]. Secondly, the design of cultural and creative products excavates the cultural roots and does not integrate deeply enough with cultural elements, emphasizes material aesthetics over cultural deposits, and ignores the deeper cultural experience needs of the audience through the rigid reproduction of graphics and patterns. As a result, many people only pay attention to the appearance and lack internal values, or even regard them as a simple craft. Among the various cultural characteristics of products, consumers attribute the highest degree of importance to "materials utilized" and the lowest degree of importance to "special processes". When it comes to cultural characteristics at the intrinsic "intangible" level, consumers often possess limited understanding and familiarity with the cultural heritage and history associated with the product. Consequently, many individuals tend to solely focus on its appearance while disregarding its inner values, perceiving it merely as a simple craft[7].Therefore, when making literary and creative works, attention should be paid to preserving their original style and giving full play to their unique charm.

#### 1.3 Research significance

From the perspective of the industrialization of cultural creativity, museum cultural and creative products, as a typical representative of the industrialization of cultural creativity [8], play a crucial role in the development of the entire cultural and creative industry. Their creativity and design can help the products gain higher market competitiveness and have sustainable development potential in the future market. From the perspective of new cultural and creative background, the dissemination and development of new media and new technology is an important motivation to promote the development and promotion of museum cultural and creative products, and is also an important field for the development of museum cultural and creative industry in the future[9].In addition, cultural and creative products of museums should give full consideration to cultural publicity. Well-created products can enhance the audience's cultural connotation and artistic taste, let consumers have a deeper understanding and appreciation of cultural and creative products, and contribute to the spread of museum culture.

# 2. Design features of cultural and creative products in museums

#### 2.1 Direct Quotation

Through careful selection, research and planning, the cultural connotation of cultural relics can be integrated into cultural and creative products, so as to make the cultural and creative products more vivid and wonderful. At the same time, the unique charm of cultural relics can be displayed through comprehensive text introduction, picture display, visual impact, etc., so as to provide a more comprehensive and in-depth cultural cognition for the public. Li Wenjin and Zhao Tao dug deeply into the cultural elements of the bronzes of the Shang Dynasty collected by Jiangxi Provincial Museum [10], including their appearance, color, conception, texture, production technology, practical function, historical background, etc., thus revealing their unique cultural value, and integrating them into the design of contemporary cultural and creative products. So as to meet people's actual needs (Figure 3).

#### 2.2 Symbol Conversion

Through the innovative transformation of collections with unique historical background, social cognition and actual cultural meaning, and the use of modern design thinking, artistic creation method and scientific technological process, cultural and creative products are a carrier conveying rich cultural thoughts. Through a comprehensive analysis of the symbolic significance and artistic forms of Sanxingdui culture, Jiaxin Wang employs cultural symbols as the foundation, seamlessly integrating aesthetic elements such as symbols, patterns, and colors. By employing innovative design techniques, she establishes a connection between the narrative of Sanxingdui culture and contemporary society, resulting in the creation of distinctive and thought-provoking products[11]. Wang Qian uses network +, virtual reality, 3D interactive interface and 3D printing technology to create a Qinhuai lamp color product that can meet the needs of customers, and can be customized according to the needs of customers [12].

#### 2.3 Convey meaning by form

By applying modern industrial design concepts, product semantics and design semiotics, we can integrate the cultural connotation of museums into the products through the design of functions, geometric shapes, surface textures, colors, materials, structures, modes of use and other elements of cultural and creative products. And make it a medium with rich cultural connotations that can reflect the daily lifestyle of the public [13]. Yang Musheng et al. studied how to integrate more cultural elements into products to enhance their cultural value and visual effects [14]. Guo Jinyu et al. used analytic hierarchy process (AHP) to study the Han, Buddhist, ceramic and other cultural elements collected in Jiangxi Provincial museum, and integrated these elements into cultural and creative products to realize the integration of diverse cultures [15].

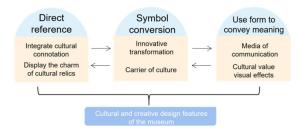


Figure 3. Design characteristics of cultural and creative products in museums

#### 3. Design Practice of cultural and creative products in museums under the background of New cultural and creative products -- A case study of several museums in Hubei Province

# 3.1 Design principles under the background of New Cultural and Creative Culture

The collections of museums are precious evidences of the development of material civilization and spiritual civilization of nature and human society collected by museums. They are of great value in preserving and inheriting history and culture, promoting scientific research and art appreciation, and are valuable historical and cultural wealth of the country [16]. The construction of museums relies on rich historical deposits, while the development of museums relies on the continuous innovation of The Times and technology, and the extensive integration of tradition and modernity, so that traditional cultural resources can produce new design principles of museum cultural and creative products in the current context. Generally speaking, it is based on culture, with creativity as the core, and the coexistence of artistry and practicality (Figure 4).

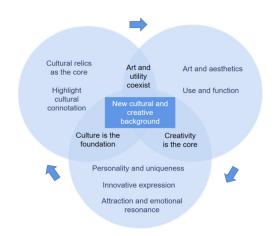


Figure 4. Design principles in the context of new culture and creativity

# **3.2** Culture is the basis of the design of cultural and creative products in museums

The proposal of the concept of "new cultural and creative" reflects the development trend of the cultural and creative industry and even the whole market in the future: to transform cultural and creative products from the past single orientation of pure entertainment first to deeper cultural content products, with culture as its essence and core [17]. The design of cultural and creative products in museums should highlight the cultural connotation and pay attention to cultural inheritance and promotion. In the design, the essence should be extracted from the cultural elements to create a design with profound cultural connotation.

#### 3.2.1 Cultural relics as the core

One of the important features of the design of cultural and creative products in museums is that cultural relics are the core elements, and the historical, cultural and artistic values of cultural relics are presented in innovative ways.

Convey history and culture. Cultural relics, as witnesses of history and culture, can be conveyed to the audience through the design of cultural and creative products through their historical background, the stories behind their creation and the cultural connotations they represent. By presenting cultural relics in innovative ways, such as cultural and creative product design, audiences can have a deeper understanding and feeling of the historical and cultural values carried by cultural relics. To promote artistic value, cultural relics often have unique artistic value and represent the artistic style and skill level of the time. The design of cultural and creative products in museums can integrate the artistic elements of cultural relics into the product design in an innovative way to create works with aesthetic value and artistic sense. Such designs can not only display the artistic charm of cultural relics, but also inspire the audience's aesthetic feelings and art appreciation ability.

Take the inscriptions mirror of the Book of Songs of the Eastern Han Dynasty in Wuhan Museum as an example (Figure 5). The bronze mirror is not only a daily appliance for grooming in ancient times, but also an exquisite work of art. The bronze mirror is closely related to people's life. As a toiletry product in ancient times, the design follows the design principle of taking cultural relics as the core, combining cultural relics with cosmetic categories, and designing the foundation box of the East Han Dynasty Book of Songs inscriptions mirror. On the one hand, it retains the shape and pattern of the mirror itself, on the other hand, it respects its dressing function.



Figure 5. The design of the inscription mirror of the Eastern Han Dynasty Book of Songs in Wuhan Museum

Cultural inheritance and educational function. As an important carrier of cultural inheritance, museums can pass the value and significance of cultural relics to a new generation of audiences through cultural and creative product design. Through the design of innovative and educational cultural and creative works, they can stimulate the audience's interest and love for culture, and promote the inheritance and protection of culture. In addition, the design of cultural and creative products can also provide audiences with more interesting and participatory learning experiences through multimedia and interactive means.

#### 3.2.2 Highlight cultural connotations

The design of cultural and creative products of museums should highlight the cultural connotation, and the design of cultural and creative products of museums should extract the essence from culture and highlight the connotation and spiritual characteristics of culture. This includes an in-depth study and understanding of the culture's history, values, artistic expression and traditional handicrafts. The core concept and essence of culture can be integrated into the design through the selection of cultural elements, innovative expression methods and artistic techniques, so that cultural and creative products have distinct cultural characteristics and unique aesthetic style.

At the same time, the design of cultural and creative products in museums should undertake the mission of cultural inheritance, and pass on and protect the traditional knowledge and skills of culture through cultural and creative works. This can be achieved through the excavation and display of traditional art forms, craft technologies and historical stories. Combine traditional culture with contemporary design to create design works rich in traditional features and modern aesthetics.

The jade seals in Jingzhou Museum contain rich cultural connotations. The deer on the jade seals symbolize the "benevolent animal" of "faithfulness to gain" and the "benevolent animal" of "sincerity to the middle", and the birds represent lofty ambitions. Ancient people often attached morality to jade and forged a friendship between jade and gentleman. The jade seal of thousands of years ago is transformed into a floating night lamp by design, and the ancient integrity, morality, ideals and other cultural virtues are transmitted through the alternating changes of the lamp shadow (Figure 6).



Figure 6. Creative design of jade seal collection in Jingzhou Museum

The design of cultural and creative products in museums should not only inherit culture, but also promote culture, so as to pass on the charm and value of culture to a wider audience. Through design innovation and expression, culture can be combined with modern society, technology and popular elements to create attractive and influential cultural and creative works. Such design works can attract more people to pay attention to and understand culture, enhance the influence and communication effect of culture, promote the diversified development and crossborder integration of culture, and display the unique value and charm of culture through innovative ways.

# 3.3 Creativity is the core of cultural and creative product design in museums

Innovation is the essential feature of cultural products, and the design of cultural and creative products should highlight creativity [18]. Creativity is the soul and core competitiveness of cultural and creative product design, which can give design works unique personality, innovative expression and attraction.

To highlight individuality and uniqueness, creativity is the key to stand out in cultural and creative product design. The unique features of cultural elements and cultural relics should be explored and presented in a creative way through unique observation, in-depth thinking and creative thinking. Through unique design concept, unique formal language and unique visual effects, design works can have unique personality and recognition among many cultural and creative products.

Creativity also refers to innovative ways of expression, which is reflected in the design of cultural and creative products as the breakthrough and innovation of traditional ways. For example, new materials, new technologies and new ways of expression can be used to show the historical, cultural and artistic value of cultural relics in a new form. This includes the use of digital technology, interactive devices, virtual reality and other innovative means to create a more immersive and participatory exhibition experience, so that the audience can get a new perception and experience in the interaction with the design works.

Creative design is attractive and emotionally resonant, and can attract the attention and interest of the audience. The design of cultural and creative products of museums needs to be based on the culture of museum collection resources and the audience's emotional demands, and after refining it, carry out innovative reorganization and creative transformation, and finally design cultural and creative products of museums [19]. Through creative design elements, emotional expression and fascinating stories, the design works can resonate with the audience emotionally and stimulate their curiosity and imagination. This kind of emotional resonance can enhance the audience's connection and engagement with the design works of cultural and creative products, and enable them to have a deeper understanding and appreciation of culture. Creativity can also bring new possibilities through crossborder integration and innovative thinking. Draw inspiration from other fields and incorporate different art forms, cultural elements and creative ideas into the design of cultural and creative products. Taking the Zhongshan Warship exhibition in Zhongshan Warship Museum as the inspiration source, it simulates the traveling state of Zhongshan Warship to show the continuous progress on the road of the great rejuvenation of the Chinese nation (Figure 7). With the help of the restoration of Zhongshan Warship, it expresses the firm determination of China on the road of the great rejuvenation of the Chinese nation and the spiritual core of staying true to the original intention and pushing forward. The products are creative, but also contain the historical value and cultural connotation of Zhongshan Warship cultural relics themselves.



Figure 7. Cultural and Creative design of Zhongshan Warship

Such cross-border integration and innovative thinking can break traditional boundaries, create more creative and forward-looking design works, and promote the development and innovation of cultural and creative product design in museums.

#### 3.4 Combine artistry and practicality

The design of cultural and creative products in museums should be both artistic and practical. This means that design works should not only have beauty and expression, but also meet the actual needs and use functions of the audience. Artistry is reflected in the design and craftsmanship of the product, while practicality is reflected in the function and use value of the product.

With the improvement of modern public aesthetic awareness, the aesthetic has gone out of the upper class boundary and integrated into the daily life of the public in a richer and simpler way, which is called "aestheticizing daily life", that is, any choice is regarded as the expression of a certain taste or a symbol of a certain lifestyle [20]. The design of cultural and creative products in museums, as a form of artistic creation, should pay attention to artistic expression. Through innovative aesthetic concept, unique modeling and exquisite craft, the design works have artistic aesthetic value. This includes the careful grasp of color, material, form and other aspects, as well as the artistic interpretation of cultural connotations and historical stories. Artistic expression can give a design work a unique personality and emotion, and enhance the audience's aesthetic experience and cultural resonance.

The Three Kingdoms Celadon Dock Fort, hidden in Wuhan Museum, is on a grand scale and epitomizes a feudal manor with military defense function. It is a typical artifact that can fully reflect the economic microcosm of the landlord manor at that time. The cultural and creative products are designed based on the inspiration of the design. The product form extracts a corner of Celadon Dock fort, combines the historical relics with the practical product night light in modern life, and integrates the modern design style, which is more in line with the aesthetic needs of contemporary mainstream consumers (Figure 8).



Figure 8. Cultural and creative design of Celadon Dock Fort of The Three Kingdoms

In addition to the pursuit of artistry, the design of cultural and creative products in museums should also be practical and functional. The design works should meet the actual needs of the audience and provide specific use functions and convenience. This means that the design needs to consider the audience's needs in terms of usage scenarios, ease of operation, practicality and durability. Taking the small night light cultural creation product of Celadon Dock Fort as an example, the cultural relic is designed into a practical daily use, and the practicability and functionality are demonstrated through the interactive devices and product materials of the design work (FIG. 8). The consideration of practicality and functionality can increase the audience's participation and satisfaction, so that the design work has a wider influence in practical application.



Figure 9. Cultural creation design of small night light in Celadon Dock Fort

The artistic and practical design of cultural and creative products in museums are not independent of each other, but need to be balanced and integrated in the design process (FIG. 9). It is necessary to find a balance between artistry and practicality, and combine them organically. This can be done by incorporating practical functions into an art form, or injecting artistic elements into a practical design. Balance and integration can make the design work not only have ornamental value and creativity, but also meet the actual needs and use experience of the audience.

#### 4. Conclusion

At the present stage, major museums are transforming and upgrading themselves, but there are still some problems unsolved, such as paying too much attention to brand publicity and neglecting cultural products themselves; There are too many similar cultural and creative products, which eventually lead to aesthetic fatigue of consumers and other problems. Therefore, under the new cultural and creative concept, it is necessary to open up innovative new modes of cultural market space, create personalized and unique design and promotion, and pay attention to life-oriented management [21].

The design of cultural and creative products in museums is a process that combines culture, creativity, artistry and practicability. By means of innovation, cultural relics can be revitalized and endowed with new vitality and value. Through the reconstruction, transformation or combination of cultural relics, new cultural and creative products can be created to highlight cultural connotation, pay attention to creativity and balance artistry and practicality. While taking into account both tradition and modernity, we respect traditional culture and pay attention to the sense of The Times and innovation. By combining traditional culture with modern elements, we can create new cultural and creative products, improve the cultural experience and participation of the audience, and promote the inheritance and development of culture.

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