

# Research on the design strategy and application of cultural IP in museums

-- The example of Henan Provincial Museum

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**Abstract:** Research into the development of cultural and creative products for museums will not only help to pass on the best of Chinese culture, but will also enable more people to trace their roots. With the development of time and technology, museums are eager to increase their visibility among the public and receive public subsidies as one of their sources of income. Increasingly, museums are striving to develop cultural and creative IP products. Despite the wide variety of cultural IP products, few products reflect the characteristics of museums, mainly due to excessive profit-driven and lack of standardised design management, making museum cultural and creative products outdated and homogenised. Taking the Henan Museum as an example, this paper analyses the excellent cultural creative products and their current problems, and proposes innovative methods on cultural IP design to encourage the further development of cultural creative products in museums.

**Keywords:** Cultural IP; Cultural and Creative Products; Henan Museum; Cultural heritage.

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## 1. Analysis of the current situation and problems of museum cultural IP development

### 1.1. Cultural IP concept and characteristics

#### 1.1.1. Cultural IP concept

IP refers to products created by the intellect, including inventions, literature, art, design, symbols, names and images. In the new media era, the rapid development of information technology and the rise of new media have brought our cultural products closer together. Cultural and entertainment products such as novels, TV series, films, animation and games are integrated and interpenetrated, together forming today's entertainment industry ecology and IP economic system. Today, the term IP has become increasingly familiar, and the original term has become so broad that it cannot precisely define the cultural phenomenon of the moment. "Cultural IP" is a concept first introduced in the 2018 China Cultural IP Industry Development Report, on the basis of which IP has been redefined. It also refers to the intermingling of cultural products with high recognition, strong flow, strong penetration and a long implementation cycle.

From the consumer's point of view, a cultural IP is a specific culture or cultural phenomenon that can be converted into a consumer behaviour that can satisfy people's consumption needs. From the perspective of economic managers, cultural IP is a special brand that can be converted into a commodity and create economic value. In today's cultural IP economy, cultural IP is no longer limited to cultural works such as novels, TV series, films and animations, but also includes cultural artefacts such as museums, cultural relics, internet phrases and emojis. Generally speaking, cultural IPs become cultural IPs by maintaining the original cultural content, incorporating high-quality original content, and attracting and growing a fan base through derivative products.

#### 1.1.2. Cultural IP features

Cultural IP has become the new ecology of the domestic cultural economy. With the rise of a new generation of post-90s and post-00s young people, the value characteristics of cultural IP have moved away from the circle of subculture and gradually influenced the mainstream cultural form. Looking at the prominent high-value cultural IPs at home and abroad, such as Disney and Journey to the West, the characteristics of high-value cultural IPs can be summarised in three areas:

(1) High recognition is the external carrier of a cultural IP. High-value cultural IP has a unique external expression, its logo, image, language and storyline are immediately recognisable to the public and attract their attention, impressing them from the surface alone, which is the most intuitive level of public perception. For example, Mickey Mouse, the famous Disney character, is recognisable and familiar to the public in today's design language because it is reduced to just three circles.

(2) Uniqueness is a reflection of the content of cultural IPs. Outstanding cultural IPs are characterised by their novel and interesting narrative content, as well as their distinctive and unique personality traits. With the popularity of entertainment and the public's thirst for cultural content, cultural IPs with distinctive character traits can effectively meet the public's intellectual and cultural needs and enhance the public's cultural preferences. For example, the various IP heroes of American Marvel Comics each have prominent and unique storylines, and through the continuous refinement of their characterisation, each character also has different and unique personality traits.

(3) The emphasis on value is the ideology of cultural IP. Cultural IPs attract attention to their works through value output, not only for visual enjoyment and narrative satisfaction, but also for short-term pleasure through transient consumption. Emphasis on value can have a lasting impact on audiences on a cultural and spiritual level, creating a strong sense of identity among different consumers through the breadth and depth of communication, and drawing on cultural connotations to generate popular resonance and reflection and

shape cultural phenomena.

## 1.2. Museum Creative Product Concept

According to the definition of UNESCO, cultural creative industries include three major categories: cultural products, cultural services and cultural property rights. The cultural creative industry of museums is based on cultural creativity, regrouping it, processing and integrating it creatively according to its own characteristics, so as to form a new kind of museum cultural creative products and bring them to the market. At present, with the development of market economy, the prosperity of culture and the emphasis on cultural soft power, the development of museum cultural and creative industries is an inevitable trend, and at the same time, the social and cultural characteristics of museums also create favourable conditions for their development.

From the perspective of cultural and creative industries, cultural and creative products refer to products of modern significance that are recreated and redesigned from tangible or intangible materials. Some scholars divide the term cultural and creative products into a narrow sense and a broad sense. In a narrow sense, "cultural and creative products" refers to materialised products with market value generated by cultural themes and transformed by creativity, while in a broader sense, "cultural and creative products" refers to commodities with market value generated by cultural themes with specific market value and transformed by creativity. In a broader sense, "cultural and creative products" refer to goods with market value that have been transformed from creativity into a specific cultural theme with market value. In other words, "cultural and creative production" in a narrow sense refers to "physical" products, which are redesigned and have market value, while "cultural and creative" in a broad sense refers to "physical" and "creative" products. 'physical' and 'intangible' services, which are redesigned and have market value. In a broader sense, cultural and creative products include all 'material' and 'non-material' products that have been transformed to have market value. The cultural and creative products studied in this paper refer to a range of products derived from the cultural and creative industries, i.e. cultural and creative products in the broadest sense.

## 1.3. The current state of museum cultural and creative products

Western museums have been practising cultural IP development for a long time. For example, the British Museum has selected important artefacts and collections with strong cultural characteristics and unique exoticism to be developed and designed as IP resources for the museum. The well-known British Museum Rosetta Stone inscription cultural and creative series incorporates the words on the Rosetta Stone into the shape of the product and uses it as a cultural IP icon. The cultural significance of the Rosetta Stone is that it allows for a very precise way of combining Egyptian symbols and signs so that they can be translated into Chinese characters.

China's cultural and creative industry started late and is not comparable to large museums abroad in terms of the actual cultural and creative industry, but the development of new media IP is no worse than that of foreign countries. In the leapfrog development of "culture and technology", the cultural and creative industry has made remarkable achievements by applying new technologies such as mobile internet, big data, internet of things and artificial intelligence

to the design and innovation of cultural and creative products. For example, the Forbidden City has launched the Forbidden City Cat software "Da Nei Mi Tan", which allows users to experience a variety of visual, auditory and tactile sensory experiences such as a map of the Forbidden City, a pet guide, visual, auditory and tactile senses, and to gain a deeper understanding of the Forbidden City using the "Forbidden City Cat".

## 1.4. Common Problems with Museum Cultural and Creative Products

### 1.4.1. Market Research Limitations

Before any company develops a new product, it must do sufficient market research and understand the market situation to ensure that the product is competitive in the market. However, many museums do not pay enough attention to marketing, focusing only on the appearance and quantity of their products, and do not carry out detailed analysis of other aspects. In terms of cultural creativity, firstly, it is important to have certain characteristics, so museums need to do their market research.

Secondly, it has to fit in with the aesthetics of the audience. At present, many museums merely copy an exhibit or a cultural relic without conducting in-depth research on the current aesthetic interests of the audience, resulting in the homogeneity of the form and content of the work. As a result, cultural creative products show a trend of homogenisation in form, and their connotation gradually loses its deeper meaning.

At the same time, the market value of cultural and creative products is also great. A commodity that does not have a specific market value can only stay on the market for a short time. The two main factors that influence market value are whether the company's product will appeal to the general public and whether its distribution channels are adequate. Museums must analyse these indicators effectively in order to ensure that the cultural and creative works they design can reach a certain market price, thereby improving the economic performance of the museum and alleviating the shortage of funds.

Finally, the lack of a market society has created a major problem. This has led to a backlog of these goods in the market, which not only fails to promote the development of the museum, but also puts pressure on the museum's economy, thus affecting its development. Therefore, it is essential to carry out market research on museum creativity to attract its attention.

### 1.4.2. Indicates a low level of interpretation

An instruction manual is important in a cultural product, as it enables customers to better understand how the product works, how to use it and its cultural connotations. Therefore, it is a good way to promote the museum's cultural products by sticking an instruction booklet in them to explain the cultural background behind them.

Through the instruction booklet, readers can get a closer look at the history and culture of the artefacts in question and get a better sense of their history and culture. The instruction manual for cultural and creative products is usually valuable and it is important to retain as much of it as possible. However, when developing cultural and creative products, many museums often neglect to include an instruction booklet, and many museums do not even have an instruction booklet for their cultural and creative products, which greatly limits its promotional role. Therefore, it is important to strengthen the

introduction of cultural and creative products in the design process so that they can be integrated into people's daily lives and so that they can appreciate the profundity and charm of culture.

### 1.4.3. Hollow cultural content

Cultural and creative products require high quality design and creativity, but at the same time they must respect cultural authenticity and have the primary objective of spreading cultural knowledge. However, most museums develop cultural and creative products without considering the cultural connotations behind the products, so that consumers can relate to the museum culture and thus effectively communicate and preserve it. Many museums use 'culture' as a gimmick for consumers, which only temporarily creates the illusion of 'internet fame'. Many consumers who buy cultural products are unaware of their original form or the history behind them, but only of their appearance, resulting in a large number of cultural products being forgotten over time and rapidly becoming obsolete.

At the same time, in the current museum cultural economy, there is little communication between museums and creative designers, and designers unilaterally distil museum culture without the help of professionals, leading to a cultural disconnect, an accumulation of mere design models, with elements of culture missing as a whole. Only by extracting the core culture in the design and development process and expressing it through creative design is the first step towards the successful development of creative museum culture. In addition, the lack of cultural content is also reflected in the poor dissemination of creative products. Although some museums in China have produced many unique and well-designed cultural and creative products, they have remained unnoticed.

## 2. Analysis of cultural and creative products in Henan museums

### 2.1. Overview of the Henan Provincial Museum

The Yellow River is the birthplace of Chinese civilisation, and Chinese culture is a microcosm of the culture of the Central Plains. From the Xia to the Northern Song dynasties, more than 20 dynasties have established or moved their capitals in Henan, leaving behind a wealth of precious artefacts, including the Henan Museum, which was founded in 1920 and is the earliest national museum in China, with over 170,000 artefacts to pass on the beauty of the Central Plains.

The Henan Provincial Museum's collection includes the oldest musical instruments of the Paleolithic and Neolithic periods, the Jiahu bone flute and bone needles, as well as oracle bone inscriptions, which bear witness to the wisdom and spiritual activities of early Chinese man. A large number of bronze wares have also been excavated, the decorations and engravings of which reflect the different eras of bronze culture and their characteristics. Also on display are coloured pottery, earthenware drainpipes, a red earthenware tripod with nipple pattern, a group of painted dancing tricks earthenware figurines, the famous Song Dynasty azure-glazed kiln bowl, azure-glazed goose-necked Ruyao vase, black-glazed Ding kiln vase, and Ming and Qing dynasty official kiln porcelain. These artefacts are an important part of China's cultural and artistic treasure trove, reflecting the development of Chinese

civilisation and showing the absorption and integration of foreign cultures. The museum's collection of numerous treasures of Chinese culture awaits to be utilised and updated for the development of cultural and creative products.

## 2.2. Henan Provincial Museum Outstanding Cultural IP Series

### 2.2.1. Archaeological blind boxes - "lost treasures"

The Lost Treasures, launched by the Henan Provincial Museum, is divided into three grades, namely Heritage, Epic and Legend, and has sold over 500,000 boxes within five days of its launch. The "Treasures" are also of different grades, namely the 12 animal head seals, the Great General's Tiger Talisman, the Wu Zetian Golden Brief and the Du Ling Square Tripod.

Many consumers say that "buying an archaeological blind box is a treat, and opening it is a second treat". "With a small shovel and a small brush, you can start digging for artefacts in the comfort of your own home." The consumer opens the blind box, removes the clay containing the 'treasure' and carefully 'digs'. The moment the 'treasure' is found is a moment of surprise and achievement, just like winning the lottery. The "treasure" is not a real ancient artefact, but a handmade replica or a cultural product with historical or cultural significance. In order to recreate the archaeological excavation process, the "clods" that encase the "treasure" are mixed with soil from the ancient city of Luoyang on Beimen Mountain, which is associated with a mysterious ancient burial site, and a "Luoyang shovel", an archaeological excavation tool, is included in the blind box. ", an archaeological excavation tool. The unboxing ceremony was ground-breaking and innovative, with still images and exquisite modelling, bringing the treasures of the collection and information about the collection's heritage to the public in a more striking image.

### 2.2.2. Restoration of a blind box - "A masterful hand restores the blue"

Many of the artefacts on display in the museum have been carefully restored by their conservators. Under the concept of 'Archaeological Blind Boxes', the Henan Provincial Museum has launched a set of 'Scattered National Treasures' blind boxes as a tribute to A tribute to the "patron saint of history". The Master's 'Replicas' series, which can be combined to form a 'painted earthenware double jug', a 'figurine of a lady' and a 'gooseneck vase of Ruyuan porcelain', is a collection of objects from different eras. "The Master's 'Replicas' series can be combined to form the 'Painted Pottery Double-linked Pot', the 'Figurine of a Lady' and the 'Gooseneck Vase of Ru Porcelain', all of which are from different eras.

"Gathering together to restore the five famous kilns is like having a corner of a museum at home." "Restoring cultural heritage at home" is a new experience, so this makes the public have high expectations for the blind box of cultural heritage restoration.

By introducing the process of restoring different types of artefacts and materials and teaching the concept and process of heritage conservation, consumers can experience the difficulties and techniques of cultural heritage conservation and restoration from the perspective of the art of restoration, and see for themselves how artefacts can be 'brought back to life'. Nowadays, creative products can bring more "new ways" to restore heritage, and everyone can be the "guardian of history" and contribute to the preservation of cultural heritage.

The "Wonderful hand to restore the blue" is the first time

the Henan Provincial Museum launched the painting and calligraphy method blind box. Meng Yuling said that designing the calligraphy in the blind box was more difficult than for other collections. As paper documents are not easily wrapped in clay, this 'blind box' will save time in excavation. After consideration, the blind box was chosen for the restoration of the Luyan Tongjing Screen, which depicts a flock of geese playing among the reeds and is very close to human life.

### **2.3. Existing problems with cultural IP in Henan museums**

This article takes the cultural and creative products of the Henan Museum and other museums as an example and compares and analyses their sales. The results show that there are significant differences between the "Blind Box" series and ordinary everyday cultural and creative products. Like other museums, the daily cultural and creative products of the Henan Museum have a single design form and creative area, as well as a large number of sticker illustrations, leading to visual aesthetic fatigue. Some of the product samples and packaging designs are unattractive and unclear in style, and the variety is mainly concentrated on bookmarks, books, paper bands and key chains. The museum continues to develop and create an industrial chain for young people in the form of 'blind boxes + cultural creation', which attracts consumers based on curiosity and excitement, highlights the relationship between archaeology and restoration, and highly miniaturises and replicates cultural relics from the Henan Museum's collection. The mystery and uncertainty of a small box wrapped in clay is a source of excitement for consumers. However, as the 'blind box' became a sales model and a product, the number of appearances in the museum's cultural heritage increased, resulting in long-term consumer resentment and psychological fatigue, diminishing its appeal and, over time, other drawbacks.

## **3. Cultural IP design and development strategy for Henan museums**

### **3.1. Visual development - extraction of formal elements**

The appearance, colour and pattern of a cultural product have a direct impact on the user's senses, so when extracting elements from a collection, the designer must select and develop the most appropriate elements. Different collections, from which different forms are extracted, differ in structure, decoration and material. For example, the shape and colour of the bronze ban on clouds, the rough, rugged lines in the painting of the four gods and clouds, and the shape of the double-linked body of the painted pottery. For example, the 'Silk Scarf' created by the Dunhuang Research Institute draws inspiration from the Mogao Caves murals, using classic images and scenes from the murals as design elements. The "Three Hares Flying in the Sky with Algae Scarf" was inspired by the Three Hares Flying in the Sky with Algae Scarf from Cave 305 of the Sui Dynasty, and the "Nine-tailed Deer" silk scarf was inspired by the painting of the King of Deer in Cave 257 of the Northern Wei Dynasty in the Mogao Caves. Using classic scenes and images from the Mogao Caves murals as design elements, the elegant and innovative design allows users to incorporate the connotations of the artefacts into the accessories that accompany them in their daily lives. Museum designers must therefore adapt their

designs to the specificity of the collection and the needs of consumers in order to create innovative products that people enjoy.

### **3.2. Content Innovation - Deconstructing Cultural Content**

"Content is king" is the core concept of every industry. The Chinese people have lived through 5,000 years of hardship, and each pavilion has its own cultural and historical characteristics. In order to 'revive' heritage that is not modern to us, it is necessary to understand the history of the heritage, deconstruct the cultural resources, find ways to connect the heritage to modern life and introduce narratives that incorporate modern elements in a more logical way.

On New Year's Eve 2020, the dance programme 'Night Banquet at the Tang Palace' at the Spring Festival Gala in Henan became a popular topic on the internet. The dancers looked lovely and elegant in their Tang Dynasty costumes and makeup, and the show was based on a painted ceramic statue of a seated musician in the Henan Provincial Museum. Through real-life interpretation, the movements and actions of the artefacts are brought 'to life', the artefacts are personified, filled with contemporary emotion and embedded in a story that the audience can immediately understand and relate to. For example, the Shaanxi History Museum has developed a set of Terracotta Warriors and Soldiers figures, which gives the traditional terracotta warriors the stance and weapons of modern soldiers, giving them the image and spirit of defending their homeland on the battlefield and making those cold, distant relics come to life at once. Another example is the creation of a horse-headed qin neck pillow based on the female horse-headed qin of the Tang dynasty as depicted in the Tang court music. It blends function, culture and fun with modern life, creating a joyful and fun interaction between the item and the consumer, thus promoting the culture of hair accessories of the Tang Dynasty.

### **3.3. Technology Empowerment - Product Interaction Experience**

Now that Zhengzhou has become a national comprehensive experimental zone for artificial intelligence, the Henan Museum is uniquely positioned geographically and technologically. The integration of artificial intelligence with the cultural and creative industries will enable museums to improve their development in terms of cultural creativity. Through the use of new technologies, such as digital artificial intelligence, cultural consumer products that meet the needs of the public will be developed, thus promoting the inheritance of traditional culture and enriching people's perception, creativity and development. For example, the British Museum has established a 3D printing service, which on the one hand satisfies customers' needs for repeated touching, viewing and studying of artworks at home, and on the other hand provides a kind of 'cultural guidance' for certain special groups.

The Forbidden City Museum has recently launched "The Great Inner Mimi AR Picture Book", which uses the latest technology to bring cartoon cats from the Forbidden City Museum to life, giving children a deeper understanding of the history and culture of the Forbidden City through a lively and interesting teaching method. The company has also developed a creative calendar with interactive features, the Forbidden City Calendar (Parent-Child version), with the aim of enhancing people's quality of life through technology and

further enhancing cultural creativity.

## 4. Summary

Museums are an important part of the history and culture of a city or even a country, preserving the natural and human cultural heritage in physical form and fulfilling a social mission of appreciation and education for the public. Good creative product development by museums can support their daily work in the long term and bring the public to understand museum culture.

In recent years, the state has provided increasing support for advanced cultural and creative products, giving China's cultural and creative industries a wide scope for development. Museums should always be alert and reflective, and while building on the museum's distinctive culture, construct a diversified industrial chain, fully explore Chinese culture and the museum's cultural connotations, improve its cultural added value, and provide the community with cultural and creative products with deep cultural heritage, so as to maximise economic and social benefits.

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