

The Innovative Application of Dunhuang Murals Patterns in Cultural Creation Design

--Taking the "Tiger" Element as an Example

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Abstract. Dunhuang murals are abundant in art. Tiger is a vital animal element. It is well represented in the design of cultural and creative products. Tiger elements on the murals not only possess the nature of the tiger totem in Chinese traditional culture but also have a profound religious connotation and convey unique artistic characteristics. The paper takes the tiger elements in part of the murals in Dunhuang as the starting point, focuses on the cultural connotation of tiger elements in Dunhuang murals. Data collection was conducted to grasp the sales of cultural and creative products. Moreover, a questionnaire survey was made to grasp the deficiencies of cultural and creative products and consumers' opinions. Finally, suggestions for the design, marketing, and cultural re-creation of Dunhuang tiger elements were proposed as a research result. The result has contributed to enriching the research contents in the field of Dunhuang cultural creation and providing new ideas and methods for designing Dunhuang cultural creation products.

Keywords: Dunhuang; Cultural and creative products; Design; Tiger; Animal.

1. Introduction

Tiger in Dunhuang's murals is both a religious storyteller and a decorative motif, as well as a mascot of Chinese folk culture. While tigers are undoubtedly a popular image in all kinds of cultural and creative products, Dunhuang cultural and creative products currently have limited utilization of tiger images. They are deficient in the diversity of images and product types. The cultural value of product design is also relatively low. Given the current deficiencies, this paper intends to provide related practitioners and researchers with more detailed perspectives and design ideas through analysis, and comparison of data to provide a more innovative approach to activating the contemporary appeal of Dunhuang art.

As the most artistically and commercially museum in China, Dunhuang Museum is rich in research and analysis of its cultural and creative content and sales methods. Xian Wang (2021) has proposed a methodology and suggestions for digital communication practices for Dunhuang [1]. Meiqi Liu and Yantong Jiang (2020) showed the poor originality of Dunhuang cultural and creative design [2]. However, there have been fewer previous studies on individual elements of Dunhuang murals, so it is essential to sort out and analyze these individual elements. This study will help the practitioners to understand individual mural elements in a multi-dimensional way and to design and promote products better.

In terms of research methodology, this paper uses iconology analysis, historical document analysis, market data analysis, and case analysis. Based on consumers' perspectives, a questionnaire survey on the purchase preference of Dunhuang cultural and creative products was set up to investigate the product design and sales of Dunhuang cultural and creative products. One hundred fifty-one questionnaires were returned. Female respondents accounted for 62% of the respondents and mainly were 18-30 years old, accounting for 72%. Respondents were from 25 provinces and municipalities in China. A statistical table of cultural and creative products with tiger elements, whose data is from

the Dunhuang Cultural Creation flagship store, was also made to analyze with more detailed images and data.

This paper has four chapters. The first chapter is the introduction, which introduces the significance, research status, and research methods of the Dunhuang tiger. The second chapter introduces the background of the cultural and creative market, describes the rise of the cultural and creative market in recent years and the possibility of Dunhuang tiger element re-creation; The third chapter introduces the ancient and modern cultural background of Dunhuang tiger murals, discusses the cultural meaning of the tiger element and its artistic image in Dunhuang murals, and emphasizes the contemporary significance; The fourth chapter introduces the current situation and suggestions for the cultural and creative market of the tiger element in Dunhuang murals, analyzes the questionnaire and survey results, obtains the market's current situation and related deficiencies, and gives solutions.

2. Upsurge in cultural creativity and Tiger elements in Dunhuang mural paintings

2.1 The Rise of Dunhuang Cultural Creation Under the Background of "Chinese fashion trend"

Since 2018, the "Chinese fashion trend" or "Guochao" to meet the needs of young people for a better life has been on the rise, from classic brands in the consumer sector to cultural and creative products such as archaeological blind boxes and historical and cultural programs. In the consumption field, some researchers define it as a brand created by domestic and local designers in line with the fashion pursuit of young people. It is also believed that "Guochao" is a generated trend based on a specific brand, aiming to express young consumers' personality and fashion pursuit, and committed to the return and resurgence of traditional culture[3].

Based on this background, the Mogao Caves in Dunhuang also join the ranks of cultural and creative products to spread their own culture, adding a new case to "Guochao". As a world-famous cultural heritage, Dunhuang Mogao Caves carries thousands of years of Chinese history and culture and is a treasure house of the cultural and artistic spirit of the Chinese nation. It also derives a series of cultural and creative products with Dunhuang cultural characteristics in the form of cultural creativity, which combines traditional culture with modern products and better spreads Dunhuang culture. At present, the flagship store of the Dunhuang Academy on Taobao titles its products with different themes, such as "Nine-colored Deer," "Flying Apsaras," "Caisson," "Bouncing Pipa," "Heart Sutra," and "Diamond Sutra," which are favored by consumers. In addition, Dunhuang has actively created co-branded products, such as Dunhuang X Li-Ning, Dunhuang X Chabai Dao, and Dunhuang X Beauty Makeup, to promote cultural and creative products in a way closer to young people. These forms help more young people understand the traditional culture of Dunhuang and allow more people to go to Dunhuang[4]. Dunhuang has become another major traditional cultural "IP" after the Palace Museum.

2.2 Reconstruction of Dunhuang Tiger Image under the Background of "Guochao"

Influenced by the "Chinese fashion trend", Dunhuang pattern elements are widely used in the design of cultural and creative products, forming a unique phenomenon in design. As a classic animal element in Dunhuang murals, "TIGER" mostly shows the image characteristics of awe-inspiring, vigorous and energetic, and contains the cultural implication of receiving good luck and preventing bad luck. Now, the Dunhuang tiger element is more in line with the modern aesthetic after the transformation of modern design. It is colorfully painted, its shape simple and naive, with an expression of being exaggerated and cute. It has been used in bookmarks, key rings, cups, T-shirts, and other products, highlighting the modern aesthetic personality of traditional elements.

Moreover, the tiger is one of the twelve zodiac signs, ranking third, called Yin. In Chinese culture, the tiger has not only become a symbol of strength, courage, and warding off evil spirits, but also the totem worship and cultural legends about it have become one of the most distinctive, long-lasting, and influential cultural phenomena in the Chinese nation. In recent years, with the emergence of "Guochao", the cultural industry has turned its attention to the "IP" of the twelve zodiac animals and launched cultural and creative products of different zodiac animals every year to show the traditional cultural connotation with new artistic expression techniques and realize the effective promotion of traditional culture [5]. As the Year of the Tiger approaches, the Dunhuang Museum has contributed a series of cultural creative products to the market, including skateboards, floor pads, makeup, bottle openers, and on-board fire extinguishers, to illustrate the latest "New Year flavor" with the concept of "tiger elements + national fashion trend". It has become a successful example of the combination of traditional culture and contemporary cultural creative products.

3. Analysis of the characteristics of tiger elements in Dunhuang murals

3.1 Cultural significance and artistic features of tiger elements in Dunhuang murals

The Dunhuang tiger element is an important part of the rich and complex traditional Chinese culture. This chapter divides it into two groups: religion and folklore. In the Mogao Grottoes, there are many paintings that feature tigers. These paintings can be roughly put into three groups: Jataka paintings, scripture paintings, and decorative paintings. This chapter looks at the tiger parts in the four Grottoes that best represent the art style.

3.1.1 The traditional cultural significance and modern cultural and creative significance of tiger elements

The traditional Chinese culture attributes a great deal of symbolic depth to tigers, attributing to them both traditional folk features and religious implications.

The tiger is seen as a symbol of good fortune in traditional Chinese folk culture. To begin, the ancient peoples honored the tiger in their culture through the practice of totem worship. In addition to being a symbol of masculinity, bravery, and the title of king of the beasts, the tiger also has the title of king of beasts. Second, the tiger is another animal that has been elevated to a divine status. Not only is it the guardian of the zodiac in the "Twelve Chinese Zodiac", but it is also the Western guardian of the ancient constellation "Sixiang", also known as the "White Tiger God".

Ancient Buddhist texts and works of art often feature tigers in a variety of contexts. Ancient texts such as "Buddha through the past dynasties" and "Zen Forest News", as well as paintings and other works of art such as "Fuhu Arhat" from Five Dynasties and Ten Kingdoms and "Two Ancestors Adjusting the Mind" by Shike from the Southern Song Dynasty are examples of such works. According to the scholarly opinion of Chen Huaiyu, "the image of the ferocious tiger is inseparable from the image of the monk. The apparition of the tiger in the monk's history was added by the creator before he began to shape the image of the monk, and the eminent monk was portrayed as a so-called eminent monk while he was in the process of dealing with the tiger. This can also be interpreted as the process of the prominent monks developing their own unique identities[6]". In this article, the meaning of the tiger in Chinese Buddhist culture is broken down into three categories. The article's primary objective is to promote Buddhism by creating an image of a monk or the teachings of the Buddha.

The first is the belief that monks have the ability to tame wild tigers. It is not only a beast that monks confront in the real world and needs to be tamed on the way to practice, but it is also the desire and troubles that monks need to control while they practice Buddhism. When people practice Buddhism, need to tame this beast. For instance, the thangka used in Vajrayana Buddhism is frequently painted with a scene depicting a person riding a tiger while wearing tiger skin. This image is meant to symbolize how God triumphs over both rage and greed. These illustrate the bravery, power, and compassion of Buddhist Mahasiddhas; secondly, tigers are traditionally considered to be the

companions of monks. Tigers will serve as Dharma companions for the monks as they travel from one practice to the next as Dharma disciples. Thirdly, tigers are the objects of monks preaching the Dharma. The primary objective of this practice is to draw attention to the profound Dharma and the wisdom of practitioners. In front of the tiger, it not only teaches the Dharma but also reflects the compassionate heart of the Buddha via the tiger's ferocity. The most well-known recounts how Prince Satan sacrificed his life in order to provide food for the beast.

Although the tiger element of the Dunhuang murals is primarily based on Buddhism, the development of modern cultural and creative industries is primarily based on traditional folk customs, and it is intended to reduce obscure religious implications. The purpose is to express the bravery, liveliness and auspiciousness of Dunhuang tigers with their shapes and colors.

3.1.2 Application scenarios and shape characteristics of tiger elements



Fig. 1 Sattva Bengsheng, Cave 245, Northern Wei



Fig. 2 Sattva Hongsheng (partial), Cave 428, Northern Zhou

Figure 1 and Figure 2 draw a lot of attention because of the tigers appearing in the story of Sattva's past life in Cave 254 and Cave 428. The Buddha had a past existence as Prince Sattva, and in that life, he came upon a dying tiger mother and her cubs while out in the wilderness. He went into the tiger's den with compassion in his heart, giving the tiger his flesh and blood. In the end, the king gathered the creature's remains and constructed a pagoda to house him.

Cave 254 depicts the entirety of the story in a single massive mural, whereas cave 428 tells it in the manner of a sequential comic strip. Both of these writings express, in their entirety, the Buddha's reincarnation experience here on earth. In the narrative, the tiger symbolizes the anguish of physical hunger as well as the ferocity of animals. This creates a striking contrast with the compassionate heart

of Prince Sattva, which effectively communicates the Buddha's theory that all living beings are equal and uses tigers to promote Buddhism.

In terms of shape characteristics, the shape of the tiger in Cave 254 is quite general, mainly based on basic geometric shapes and curves. The color of tigers is generally brown, with a color transition. The tiger shape in Cave 428 outlines the shape of the tiger with thick and thick lines, a more simple and naive expression shown in Figure 3.



Fig. 3 Overing the City at Midnight (partial), Cave 329, early Tang dynasty



Fig. 4 Sumati woman inviting Buddha (partial), Cave 257, Northern Wei



Fig. 5 Four tigers with lotus flowers, Cave 428, Northern Zhou dynasty

Cave 329 "Overing the City at Midnight" depicts the scene in which Prince Gautama Siddhartha was suffering from human suffering and wished to practice and save all sentient beings, so he climbed the clouds and drove over the city of Kapilavastu. Cave 257 in Figure 4 depicts the scene where the Sumati woman and her family invited the Buddha to a banquet, in which the scene of the Buddha and

his disciples is magnificent and gorgeous. In both works, tigers are depicted as mounts. The former is a fairy riding a tiger to fly up the road, and the latter is a monk who descends on five hundred tigers.

The tiger that may be found in Cave 329 is tall and lean, with its head proudly above the clouds surrounding it. The designs found on the tiger's limbs are natural and suitable, and the colors are succinct and clear. Cave 257 displays five tigers, each with a lean and well-proportioned body, their bodies moving in an exquisite and graceful falling motion, their front paws stretched out, their mouths slightly open, and their eyes looking dignified. The colors are simple and clear.

As shown in Figure 5, the tiger elements in Cave 428 are all Pinqi paintings that decorate the top of the cave. The cave's designs are beautiful and intricate; they feature features such as floating skies, vegetation, and geometric patterns as decorative components. On the upper and lower sides are two yellow and white tigers, and the back is matched with dark stripes that are presented in a symmetrical style, making the design plain and succinct.

The characteristics of the tiger caves in the Dunhuang murals are different, but they all reflect the aesthetics and artistic achievements of the ancients and are still very inspiring for today's artistic and creative design.

3.2 Modern Interpretation of Dunhuang Tiger Element in Cultural and Creative Design

3.2.1 Modern aesthetic tendency

3.2.1.1 Patterning

The shape of "tigers" in Dunhuang murals is vivid and interesting, with a certain degree of abstraction, which can be easily extracted and applied in various product designs, poster designs, and graphic designs. People pattern the shape of the TIGER, namely, cutting a few heavy and complicated decorative designs, making its image livelier and more relaxed, concise, gentle, and dexterous in visual effect. The lines are planarized, colored, and flattened by using hand drawing and vector drawing to retain the most recognizable part of the element [7].

3.2.1.2 Cartoonization

Cartoonization is a particular design method that combines cartoon style and caricature with whimsy, which promotes a fun lifestyle and integrates people's attitudes towards enjoying life into the product style [8]. The cultural and creative products with cartoon tiger elements gain more human touch because of their cute appearance and sweet color scheme. In form, these products are small in size, with an overall feeling of cute, round, and easy to approach. In terms of color, they are mostly bright and lively, with high brightness and purity colors, as well as soft and warm, with a dreamy feeling of color, and often appeared in the form of a variety of color combinations.

3.2.2 Modern cultural implications

In traditional Chinese culture, people worshipped the tiger god at first, regarded it as a god in the mountain, and turned it into a totem, presenting people with a mysterious and ferocious face. After the "tiger" culture spread into the folk, the image of the "tiger" gradually began to get close to the people, symbolizing auspiciousness and protection against evil [9].

Nowadays, in the design of cultural and creative products, the original connotation of the tiger, like domineering and being fierce, is hidden, and its cultural implication of blessing and symbolizing good luck is highlighted. The tiger's image also becomes innocent, approachable, and thus popular with the masses of young consumers. Besides, Dunhuang cultural creation combined with the Internet buzzwords in recent years endows the brands with the meanings of being "rebellious", "cool" and "unruly"[10]. Therefore, a combination of cute and perverse styles is derived from cultural and creative products related to Dunhuang tiger elements, reflecting the characteristics of the young generation. This style coincides with "Guochao" and is then widely used in the cultural creation of Guochao, forming a unique cultural representation.

4. Market Situation and Deficiencies of Dunhuang Cultural and Creative Product with Tiger Elements

In recent years, China's culture and art industry has been booming. The cultural and creative industry is also developing rapidly. Dunhuang is very popular in the cultural and creative market. Although there are many themes and types of cultural and creative products with Dunhuang elements, the market status of different cultural and creative themes is different.

4.1 Market Situation of Dunhuang Cultural and Creative Products with Tiger Elements Sales

Table 1. Monthly sales of Dunhuang cultural and creative products with tiger elements on Taobao from July 1 to July 31, 2022

Number	Source	Product name	Type	Price(yuan)	Monthly sale
1	Taobao-the flagship store of Dunhuang Museum	Year of the Tiger blessing car carry-on sachets	Sachet	29.8	About 200 or more
2	Taobao-the flagship store of Dunhuang Museum	Year of the Tiger red socks	Socks	16.5	66
3	Taobao-the flagship store of Dunhuang Museum	Year of the Tiger apple phone case	Mobile phone shell	54	33
4	Taobao-the flagship store of Dunhuang Museum	Year of the Tiger car key pendant	Hang decoration	59.9	18
5	Taobao-the flagship store of Dunhuang Museum	Adult disposable dust mask 10/box	Mask	19.8	17
6	Taobao-the official store of Dunhuang Academy	Handmade three-dimensional sachet	Sachet	85	About 7
7	Taobao-the flagship store of Dunhuang Museum	The Tiger element car is padded with carpet	Carpet	69.9	5
8	Taobao-the flagship store of Dunhuang Museum	Tigress Unlimited game Bluetooth in-ear headphones	Headphones	219	4
9	Taobao-the official store of Dunhuang Academy	Loveliness tiger fill wing sculpture ornaments	Cinnabar	139	0
10	Taobao-the official store of Dunhuang Academy	Tiger hat	Hat	178	0

Currently, sales of cultural and creative products with Dunhuang elements are mainly concentrated in Dunhuang night fair cultural and creative stores [11]. In recent years, the number of online stores is gradually increasing with the rapid development of the Internet. Most products sold in offline or online stores are handicrafts, daily necessities, clothing, and accessories.

Thus, in Table 1, the author conducted a questionnaire survey on the sales situation of Dunhuang cultural and creative products with tiger elements on Taobao and found a large gap in monthly sales of cultural and creative products with tiger elements. Among them, Sachets had the largest monthly sales among the surveyed products, with more than 200 items sold in July, but some products sold 0. At the same time, the survey found that sales volume and price also have certain relations according to Figure 20, 63.58% of the respondents received 80 yuan for the following product, while only 15.89% of respondents accepted 200 yuan for the above product, to reflect that the price of products with higher monthly sales in Table 1 is acceptable to most people, and is more practical and cost-effective in daily life, while the opposite is true for some products with lower sales.

4.2 Inadequacies of Cultural and Creative Design of Tiger Elements in Dunhuang Murals

The main reason for the poor sales of Dunhuang mural tiger cultural and creative products is the lack of image design. On the one hand, the image is single, and on the other hand, the image is too old.

4.2.1 Monotonousness of tiger image

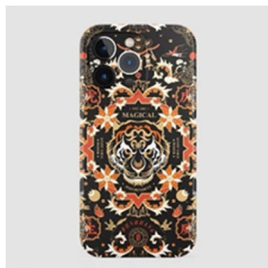


Fig. 6 Year of the Tiger Apple phone case(source: Taobao-the flagship store of Dunhuang Museum)



Fig. 7 Adult disposable dust mask(source:Taobao-the flagship store of Dunhuang Museum)



Fig. 8 Wine bottle opener (source: Taobao-the flagship store of Dunhuang)

In Taobao's "the flagship store of Dunhuang Museum", several cultural and creative products with tiger elements (as shown in Figures 6, 7, and 8) have a good sense of design and sale quantity. In July 2022, the sales volume was 33 and 17 and 7 pieces. However, the disadvantage is that the image of the tiger is relatively simple, the fierce image accounts for the majority, so there will be less choice for consumers with different preferences.

4.2.2 The image of the tiger is outdated and the style is outdated



Fig. 9 Tiger hat (source:Taobao-the flagship store of Dunhuang Academy)



Fig. 10 handmade three-dimensional sachet (source: Taobao-the flagship store of Dunhuang Academy)



Fig. 11 loveliness tiger fill wing sculpture ornaments (source: Taobao-the flagship store of Dunhuang Academy)

Figures 9, 10, and 11, these tiger-themed cultural and creative products are sold in the flagship store of Dunhuang Museum and the flagship store of Dunhuang Academy; however, sales of some items have not been very successful. With the exception of the three-dimensional sachet, which sold 7 pieces throughout the entirety of the month of July 2022 (Figure 7), neither of the other two varieties sold a single unit.

The primary reason for this is antiquated image design. The design aesthetic of these three models is heavily influenced by traditional folk workmanship; yet, unlike conventional auspicious dolls, they lack the delicate sensibility that gives traditional dolls their distinctive character, which contributes to a diminished visual sense. The design of the shape is too thin and simplistic, and it lacks a feeling of modern design. Additionally, the facial characteristics and expressions of the tiger are not vivid enough, which does not emphasize the cuteness and fun, nor does it emphasize the vitality and bravery of the character. It will be tough to attract most customers with this approach, particularly younger people.

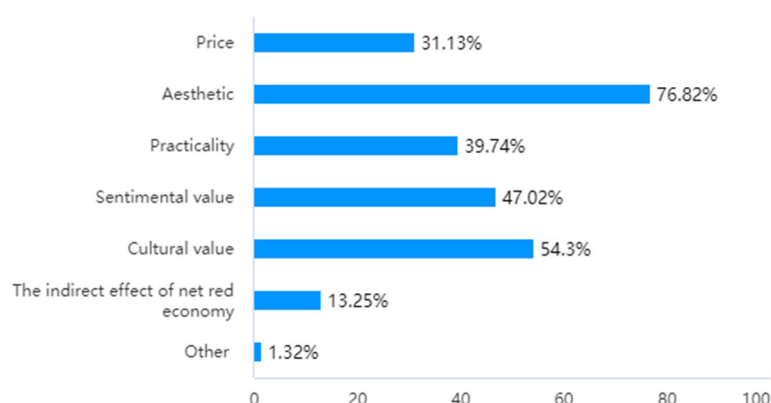


Fig. 12 Reasons why people are attracted to buying cultural and creative products

Another reason is that cultural and creative works do not provide relevance to Dunhuang culture, which fundamentally has nothing to do with the element of the Dunhuang tiger. This goes against the primary reasons given in the study (Figure 12) for purchasing cultural and creative objects, which were "cultural value" and "Sentimental relevance."

4.2.3 Analysis of best-selling image



Fig. 13 Fat Tiger (source: Taobao - 52TOYS flagship store)



Fig. 14 Tiger Orange (source: Taobao - Quality goods store of designer Toys)



Fig. 15 Blind Box Toy of Palace Baby (source: Taobao - Palace baby flagship store)

First of all, Figure 16 shows the proportion of popular design styles of cultural and creative products. In addition to the highest "traditional" option, which accounts for 64.67%, "cartoon" and "cute" styles account for 46.67% and 38.67%, respectively, and the proportion of other options is similar. Secondly, as shown in the statistical charts in Figures 13, 14, 15, and Table 2, these three tiger ornaments are hot on Taobao, especially the "Fat Tiger," which sells more than 400 pieces a month, which shows that the cute tiger shape is very attractive to the public and that the design image is one of the determinants of whether cultural and creative products sell well.

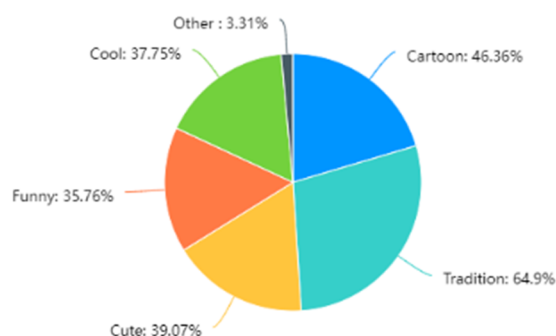


Fig. 16 Which cultural and creative design style do you prefer?

Table 2. Sales Statistics of Three Tiger Toys on Taobao Platform in July 2022

Number	Source	Product name	Materials	Price(yuan)	Monthly sale
1	Taobao-52 TOYS flagship store	Fat Tiger	PVC	29.8	About 400 or more
2	Taobao-palace baby flagship store	Blind box Toy of Palace Baby	PVC	54	About 100 or more
3	Taobao-Quality goods store of designer Toys	Tiger orange	PVC	16.5	82

4.3 Deficiencies of Dunhuang Cultural and Creative Products with Tiger Elements in Terms of Sales

4.3.1 Limited means of publicity

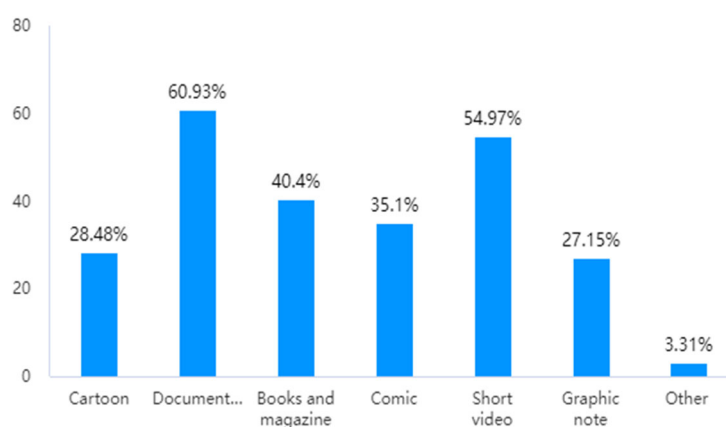


Fig. 17 What channels would you like to learn about Dunhuang culture?

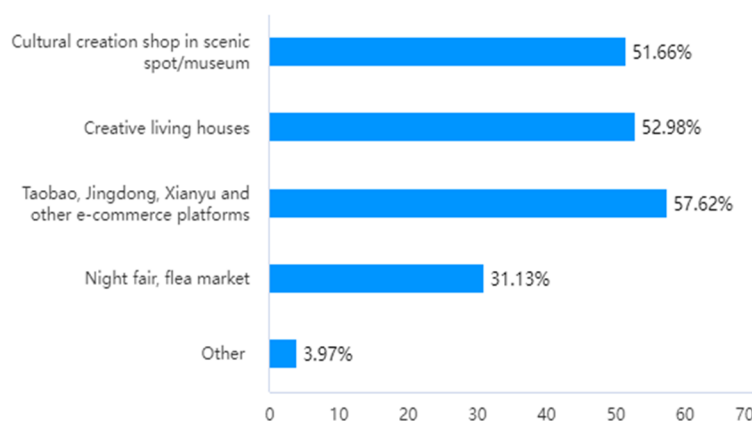
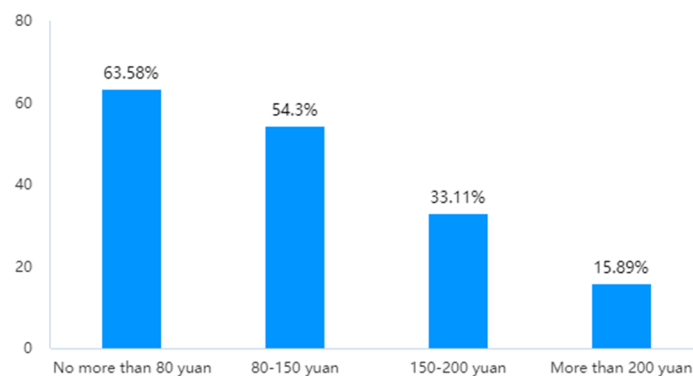


Fig. 18 Where do you prefer to buy cultural and creative products?

The popularity of cultural and creative products cannot be improved without culture's popularity. The number of Dunhuang murals is amazing, and there are different stories with different meanings. In the market, there are limited means to promote Dunhuang culture. As shown in Figure 17, 60.93% and 54.97% of respondents learned about Dunhuang Grottoes through documentaries and short videos; 40.4%, 35.1%, 28.48%, and 27.15% of respondents learned about Dunhuang Grottoes through books and magazines, comics, cartoons, and graphic notes; only 3.31% of respondents learned about Dunhuang grottoes through other channels. As shown in Figure 18, 53.33% and 52% of people prefer to buy cultural and creative products in cultural and creative product stores and creative living houses, respectively, which is not different from the 57.33% on e-commerce platforms. It can be seen that offline publicity and online and offline joint publicity need to be strengthened, and reasonable distribution of publicity channels needs to be implemented urgently.



For the design of a cute style of cultural and creative products, the color needs high saturation and soft tone collocation to reflect a lovely and lively style better.

5.2 Suggestions on sales of Cultural Creative Products with Tiger Elements

5.2.1 Strategic adjustments in price setting

According to the questionnaire, the products priced between RMB 0 yuan and 150 yuan are acceptable to the market at present, so it is crucial to lay out the product design around the primary price range and formulate a reasonable pricing strategy, and overall control the product category and quantity of each price segment to match the market acceptance. This way, the balance between supply and demand can be achieved, and blindly pricing can be avoided.

In addition to adjusting the price of cultural and creative products through the preferential period of e-commerce platforms, special in-store discounts can also be launched offline during the periods such as International Museum Day, Museum Open Day, and local festivals in Dunhuang. Furthermore, people can also actively use WeChat stores, social media, promotion media, and other platforms to carry out preferential activities, like coupon issuance, lottery, point redemption, and so on. It would be wise to use big data to analyze consumption, adjust market prices in time, and assess the apparent changes in sales under different incentives.

5.2.2 Rational arrangement of promotion channels

Different promotion channels should be flexibly combined to promote Dunhuang culture jointly.

Among the above-the-line promotion channels, e-commerce and short video platforms are indispensable. The trend of the short video era should be followed. Some measures, including interfacing KOLs to shoot short videos such as travel VLOGs in Dunhuang and Dunhuang frescoes appreciation, will help achieve cultural diffusion and then are conducive to sales of cultural and creative products. It is also feasible to focus on the products themselves. Advertising cultural and creative products can also be achieved when KOLs share videos about product unboxing and product reviews or live streaming.

The below-the-line promotion can focus on consumer experience. For instance, programs such as Art Festivals, Fashion Weeks, Tourism Festivals, etc., can be conducted. These programs will be coupled with the cultural and creative product stores and Creative Living Houses, making it possible for consumers to purchase cultural and creative products while experiencing the charm of Dunhuang culture in an immersive way.

Furthermore, it is equally important to integrate the above-the-line and below-the-line resources. Vouchers for airline tickets, hotels, museum tickets, Etc., can be handed out during the live streaming to motivate fans to visit Dunhuang and unleash the consumption potential in the cultural industry.

5.3 Exploration of New IP for Dunhuang Culture

5.3.1 Digitization of Dunhuang IP

With the application of digital technology, an increasing number of cultural relic resources realize convenient storage and application. It provides new ideas for the development of cultural and creative products. Digital cultural creations and collections of digital art (NFT) are excellent approaches to achieving the digitalization of Dunhuang IP. In developing digital cultural creations, experiences from the Palace Museum are of reference significance to Dunhuang. The Palace Museum has been committed to the use of new technologies since 2015. An APP called The Palace: Pocket Craftsmen can take as an example. In this WAP Games, players will be disguised as craftsmen and experience the process of constructing the Hall of Mental Cultivation and the Palace of Earthly Tranquility. This practice not only transcends the limits of time and space but enhances interest as well.

5.3.2 The creation of more innovative co-branding forms

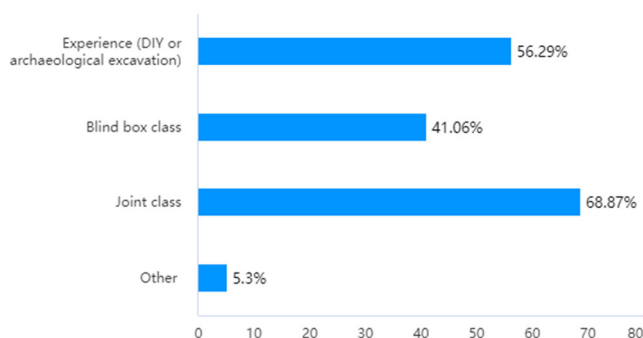


Fig. 21 Which form of cultural creative products do you like?

Co-branded cultural creation is welcomed by consumers most, according to Figure 21. It will be advantageous if Dunhuang IP develops more innovative co-branding based on existing co-branding forms, not just on the level of cultural diffusion and product promotion. Coupling with a variety of shows and resources from the cultural industry is good practice. A variety show, *Upped New, Old Palace*, which the Palace Museum authorizes, is regarded as an example. Centered around the history and culture of the Palace, it has transitioned from pure cultural diffusion level to industrial thinking level. Specific clues will be given to explore the stories of historical figures in every episode. The show's guests are asked to find some cultural elements related to the stories in preparation for collaborating with brands such as WULIANGYE, McDonald's, MI, Pechoin, Etc. Eleven kinds of cultural and creative products involving nine categories have been developed jointly, including beauty products, pajamas, aromatherapy products, wireless headphones, Etc., with prices ranging from a few dozen yuan to hundreds of thousands of yuan. It demonstrates that the development team gradually creates an IP by utilizing the connection between the Internet and consumers.

6. Conclusion

This article examines the Dunhuang tiger elements from the viewpoints of religious culture, cultural and creative design, and market application. At the same time, it emphasizes the significance of the tiger element and discusses the design root of cultural and creative design from the perspective of an understanding of multi-dimensional culture. After that, it analyzes the deficiencies present in contemporary cultural and creative design and offers various reference techniques.

In conclusion, this research offers some new perspectives. First, designers of cultural and creative goods should not only pay attention to the market's requirements but also to how cultural traditions are expressed. It is required to design the most cutting-edge, functional, and aesthetically pleasing cultural and creative products, and it is also necessary to use historical and cultural accumulation as the basis for product design. Both of these requirements must be met simultaneously. Second, a better output of cultural and creative products can not be reached through the superficial appropriation of visuals or elements; instead, this output must be accomplished by redesigning and re-creating traditional elements as the beginning point. Third, in addition to tourism's role, the art and culture of the Mogao Grottoes in Dunhuang should work to build new channels for their transmission. A more effective and multifaceted distribution and change of culture are needed.

Concerning this article's limitations, the research presented is predominately based on examining the sales made through the Dunhuang Cultural and Creative product online platform. It does not include the data of sales made through other retailers of cultural and creative goods. Second, a restricted number of people are participating in the questionnaire's sample, and the market analysis is not exhaustive. In light of the constraints discussed above, future research could conduct additional investigations, gather market samples, analyze the link between different elements, and examine potential solutions in greater depth.

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