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Research on the Design and Application of Henan Museum Jade Carving Cultural and Creative Products Based on Big Data Analysis in the Artificial Intelligence Environment



Abstract: - In the enduring tapestry of China's rich and ancient civilization, the jade culture has unfolded hand in hand with the progression of Chinese society, with the art of jade carving representing its very essence. Through millennia of refinement, jade carving has reached a pinnacle of artistic expression. In today's era characterized by the rapid advancement of artificial intelligence, the strategic utilization of AI technology and comprehensive data analysis has become pivotal in creating jade sculptures that resonate more deeply with contemporary tastes. In the present age, excessively traditional jade carving designs no longer fully meet the aesthetic demands of contemporary individuals, thus hampering the advancement of the jade carving industry. In order to effectively disseminate Chinese jade culture on a broader scale and foster the growth of the jade industry, it necessitates designers harnessing artificial intelligence technology and utilizing methodologies of big data analysis to create products infused with innovative cultural symbols and contemporary imprints. Jade carving products embody distinctive traditional cultural attributes of China, where the key to modern jade carving creative design lies in seamlessly blending traditional cultural artistry with contemporary aesthetic values. Artificial intelligence technology offers excellent facilitative conditions for the innovation and advancement of jade carving. Only by striving for breakthroughs to meet the psychological consumption demands of the new era can we more effectively foster development. This paper, within the realm of artificial intelligence and based on the perspective of big data analysis, conducts a thorough examination and analysis of the existing cultural and creative products developed by the Henan Museum, utilizing elements from its collection of cultural relics. It summarizes the current status and challenges present in the design of cultural and creative jade carving products at the Henan Museum. Finally, it puts forth relevant opinions and recommendations addressing these issues. Furthermore, it aims to provide insights for the development and innovation of cultural and creative products in other museums, offering valuable experiences in this regard.

Keywords: Artificial Intelligence, Big Data, Henan Museum, Jade Carving, Cultural and Creative Product Design.

I. INTRODUCTION

Jade artifacts, created through the processing and crafting of natural jade stones, hold a significant place in ancient civilizations. In Chinese culture, jade has been revered as a unique and precious material since ancient times. From prehistoric eras, jade artifacts have symbolized the highest level of ceremonial objects and adornments. Throughout the long course of history, the ancestors of the Chinese nation ingeniously created countless exquisite jade artifacts, which have become an integral part of Chinese culture. The art of jade carving represents the essence of jade culture and was even recognized as a national intangible cultural heritage in 2008 [1]. From an artistic perspective, jade artifacts embody the harmonious fusion of nature's creations and human civilization, representing a perfect blend of nature and art [2].

To excel in the design of jade carving cultural and creative products, or to excel in the design of cultural and creative products for museums, it is crucial to first understand the historical, social, and cultural values that Chinese jade culture embodies. It is essential to grasp its humanistic attributes. Additionally, fostering a progressive mindset towards innovation is necessary to enable the modern development of jade carving to break new ground through the integration of cultural and creative design. This integration, in turn, will promote the production, design, sales, and cultural promotion of jade carving. It is a new design method and concept to use artificial intelligence technology and big data analysis to carry out product design related work. [3] The application of this technology will provide a driving force for the traditional jade carving industry to a broader development space.

In the present day, with the continuous rise of China's cultural industry and the emphasis on becoming a cultural power and fostering cultural confidence, an increasing number of museums in China have been developing cultural and creative derivatives. Among them, many incorporate jade carving elements into their designs.

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In today's society with the rapid development of artificial intelligence, this paper uses artificial intelligence technology to sort out and analyze the big data of the cultural and creative products developed by Henan Museum in China based on the relevant elements of cultural relics. It summarizes the current situation and issues in the design of jade carving cultural and creative products at the Henan Museum, and subsequently provides relevant opinions and suggestions.

A. *Historical and Cultural Significance of Jade Carving*

Through the analysis of artificial intelligence technology and big data, we understand that jade has an important position in Chinese traditional culture and social life that cannot be ignored. Throughout the history of jade carving in China, different dynasties and eras have had a profound impact on the development and progress of jade carving in various aspects such as the system of rites and regulations, social life, religious beliefs, and customary practices.

1) *History of jade carving in China*

The *Book of Rites* states, "Jade, if not polished, can't be made into a useful object". [4] This clearly indicates that ancient people regarded exquisite jade as a symbol of humanistic spirit, endowing it with esteemed and beautiful attributes. From the discovery of jade, its utilization, to the profound love for it, jade culture has exerted significant influence on people's lives in China.

The Hemudu cultural site in Yuyao, Zhejiang Province, has a history of over seven thousand years. Numerous jade artifacts, including jade rings and jade beads, have been unearthed from this site. For a long time, it was believed to represent the oldest jade culture in human history [5]. However, as archaeological work continues to unfold, the history of jade culture is constantly being rewritten. Three Xiuyan jade cutting tools unearthed from Xiaogushan, Anshan, Liaoning Province, have been proven to have a history of over 12,000 years. This undeniable evidence directly proves that the history of Chinese jade artifacts spans more than ten thousand years.

During ancient times, jade carvings primarily took on an abstract style, with jade artifacts progressing from simple knives and swords to exquisite jade ornaments. In the medieval period, elements of painting were incorporated into jade carvings, bringing forth a more concrete representation in jade carving art. In the early years of the Republic of China, due to the turmoil and upheavals, the development of traditional Chinese handicrafts, including jade carving craftsmanship, faced obstacles. However, after the founding of the People's Republic of China, the government placed great emphasis and policy support on the preservation of traditional handicrafts. As a result, jade carving art has witnessed significant progress and development [6]. Today, jade carvings are no longer confined to luxury items, as a variety of jade artworks have entered the everyday lives of ordinary people, adding a touch of fascination to their cultural experiences. With the continuous improvement of people's living standards, there has been an upgrade in the consumption of traditional jade artifacts. This necessitates constant enrichment and refinement in terms of content and themes for jade artworks, in order to meet the diverse market demands of consumers.

2) *Schools of jade carving in China*

China is home to a wide variety of jade stones, including traditional varieties such as jadeite, Hetian jade, Dushan jade, and Xiuyan jade. In recent years, other types of jade, such as Alxa agate and Xinjiang gold-threaded jade, have also gained popularity. The abundance of different types of jade, coupled with regional uniqueness, political and historical factors, has given rise to various schools of jade carving across different regions of China.

Traditionally, jade carving has been classified into two main schools: the Southern School and the Northern School. The Southern School emphasizes intricate craftsmanship and delicacy, placing great importance on carving techniques and utilizing fine materials to create exquisite masterpieces. It represents a more contemporary style that has dominated the market for a considerable period. On the other hand, the Northern School favors a bold and vigorous style, emphasizing minimal use of cutting tools and conserving jade materials. Its aesthetic leans towards a classical and elegant appeal [7].

In contemporary times, jade carving techniques have spread widely across many provinces, cities, and regions in China. Representative areas known for their jade carving heritage include Beijing, Shanghai, Yangzhou, Suzhou, and Nanyang. These regions have given rise to the four major schools of jade carving in China, namely the Shanghai School, Yangzhou School, Beijing School, and Nanyang School. These four schools are modern classifications that originated from the historical division between the Southern and Northern Schools. Although each school has its distinct style, they share a common pursuit of excellence [8].

II. CHARACTERISTICS OF JADE CARVING ART

Through the analysis of artificial intelligence technology and big data, we learned that jade carving art is a unique art form in China, and it is also an important part of building rich Chinese culture and art. Symbolic and meaningful, jade art stands out as a distinctive artistic category. By embellishing ordinary stones with elegant shapes and exquisite patterns, along with its intricate and refined craftsmanship, jade carving art captivates people with the enchanting charm of Chinese art. It is a distinctive art form in China, representing an integral part of the flourishing ancient Chinese culture and art [9]. With its fluid and graceful forms, intricate and delicate patterns, meticulous and diverse craftsmanship, and profound cultural representations, jade art stands out as a singular presence in the history of world art.

A. *Varieties of Forms*

During its early stages of development, the primary function of jade objects was decoration. In that primitive era, the hazy sense of beauty led to the emergence of jade as ornamental pieces. The beauty of jade is reflected in its orderly and harmonious unity, the perfect blend of realism and vividness. Its exterior is exquisite, delicate, natural, and flowing, with lively and diverse forms that are rich and unique. The evolution of jade forms has spanned over seven thousand years, experiencing different periods such as prehistoric times, the Xia, Shang, Zhou, and Spring and Autumn periods, the Han dynasty, the Sui, Tang, and Five Dynasties periods, as well as the Song, Yuan, Ming, and Qing dynasties. The varieties of forms are abundant, encompassing practical tools like jade chisels, jade axes, jade bowls, jade cups, jade washbasins, jade boxes, and jade inkstones, as well as decorative objects like jade earrings, jade necklaces, jade armlets, jade pendants, jade belt hooks, and jade ornaments. Additionally, jade artifacts used for sacrificial ceremonies include jade bi (discs), jade cong (tubes), jade huang (rings), jade qi (battle-axe), and jade ge (halberds) [10].

B. *Ornamental Themes*

Various ornamental motifs are intricately carved on jade objects, and as time progresses, the motifs on jade have become increasingly diverse. During the Shang and Zhou dynasties, jade ornaments showcased motifs such as taotie (a mythical beast), kuilong (a dragon-like creature), panchi (a coiled dragon), nipple-nailed motif, cloud and thunder motif, and beast face motif. In the Spring and Autumn and Warring States periods, jade artifacts were adorned with motifs like comma-shaped pattern and grain motif. During the Han dynasty, hook-cloud motifs and other patterns became more prevalent. The Sui and Tang dynasties embraced a wide range of natural floral motifs. Jade ornaments are categorized into themes of divine creatures, plants and landscapes, and human figures. Animal motifs dominate jade artistry, featuring birds, cicadas, fish, frogs, sheep, pigs, owls, eagles, and even surreal mythical creatures such as pig dragons, hooked dragons, and beast faces. Plant motifs on jade include plum blossoms, orchids, bamboo, chrysanthemums, pine trees, gourds, lotus flowers, peonies, leaves, pomegranates, Chinese cabbage, melons, and fruits. A distinct theme in jade artistry portrays a glimpse of daily life, presenting a secular inclination, often incorporating local natural environments and distinctive cultural characteristics. From practical utensils to ritual implements enriched with feudal cultural connotations, jade artistry is intimately connected to the natural world and human existence, encapsulating people's aspirations for beauty and harmony.

C. *Artistic Craftsmanship*

Jade is transformed into exquisite pieces through intricate craftsmanship, which has evolved significantly with the advancement of human productivity and aesthetic sensibilities. In the early primitive era, humans possessed basic techniques of drilling and polishing. During the Shang and Zhou dynasties, techniques such as Yin-Yang line carving, shallow relief carving, round carving, coarse single-line carving, and fine-line engraving began to emerge.

During the Qin and Han dynasties, as the craftsmanship of jade continued to develop, techniques like high relief carving and hollowing were further refined. In the subsequent Tang and Song dynasties, artisans drew inspiration from foreign cultures and art, resulting in even more refined and flawless jade craftsmanship. The Ming and Qing periods witnessed the pinnacle of jade crafting, introducing advanced techniques like three-layer transparent carving. The lines on jade pieces were smooth and lustrous, while relief carvings appeared intricate and translucent.

D. *Cultural Significance*

Throughout history, the Chinese people's love for jade has remained constant. This is because jade not only possesses rich and beautiful forms, but also intricate and varied patterns, which have often been endowed with multiple virtues. In the process of carving jade into practical objects and decorative items, it has acquired special meanings and become a symbol. Ancient sayings such as "a modest gentleman, as gentle and warm as jade" and

“a true gentleman never parts with jade for no reason” reflect the comparisons between virtuous individuals and jade. Jade objects symbolize morality and possess a profound and extensive cultural significance [11]. In modern times, people also use jade to metaphorically describe noble individuals or beautiful things. Jade artifacts have become synonymous with beauty, wealth, nobility, and integrity.

III. CURRENT SITUATION AND ISSUES WITH JADE CARVING CULTURAL AND CREATIVE PRODUCTS DESIGN AT HENAN MUSEUM

Through the analysis of artificial intelligence technology and big data, we learned that Henan Museum took the lead among many museums in China by introducing archaeology blind box as a cultural and creative product, which caused a sensation in the industry and became a popular hit. However, at a deeper level, the archaeology blind box mainly caters to the inner gambling mentality of more people, serving as not only a cultural and creative product but also a successful marketing operation. Currently, Henan Museum has many innovative designs for creative products that are highly popular in the market. For instance, the “Court Cat – Women’s Orchestra” series and the jade pendant fruit-shaped handmade candy from the lollipop series are among the most sought-after products, enjoying great popularity among consumers. These products meet the psychological needs of consumers, especially the children’s consumer group. This also indicates that the creative product design at Henan Museum is unique, and the jade carving series is particularly representative.

A. The Application of Jade Carving Design in Cultural and Creative Products

The design of jade carving in cultural and creative products at the Henan Museum includes several important product series, such as the cinnabar carving jewelry series, the Hetian jade carving jewelry series, and the lollipop food series.

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Table 1: Statistics on the Name, Type and Product Design of Cultural Relics

Serial number	Name of cultural relic	Types of cultural relics	Product name
1	“Xi” Bronze Tripod	Bronze ware	Cinnabar accessories
2	Duling Square Ding	Bronze ware	Cinnabar accessories
3	Lotus-Crane Square Pot	Bronze ware	Hetian jade carved ornaments
4	Fuhao Owl-shaped Bronze Zun	Bronze ware	
5	Sapphire ornament in the shape of a human head and snake body	Bronze ware	Hetian jade carved ornaments
6	White jade dancer-shaped pei-pendant	Jade carving	Lollipop
6	White jade dancer-shaped pei-pendant	Jade carving	Lollipop









1) Cinnabar carving jewelry series

The cinnabar carving jewelry series takes the decorative patterns of the Xi Ding and the Duling Square Ding, which are cultural relics in the collection of the Henan Museum, as creative elements. It combines selected materials such as cinnabar and brass, and utilizes the skillful art of jade carving to develop products such as Taotie Key Pendant for Good Fortune, Taotie Brass Bell Keychain for Good Fortune, Taotie Bag Charm for Good Fortune, Taotie Necklace for Good Fortune, Taotie Keychain for Good Fortune, Chanlian Necklace for Good Fortune. Please refer to Table 2 for more details on the products

The Hetian Jade carved jewelry series draws inspiration from the decorative patterns of the Lotus-Crane Square Pot, Fuhao Owl-shaped Bronze Zun, and Duling Square Ding, which are cultural relics housed in the Henan Museum. Hetian jade, specifically light green jade, is carefully selected as the medium for creation. Through the art of jade carving, exquisite pieces such as pendants of Hetian Jade Lotus-Crane Square Pot and Fuhao Owl-shaped Bronze Zun have been developed, as shown in Table 3.

Introduction to cultural relics and creative inspiration.

Table 2: Cinnabar Jewelry Series

Introduction to the Cultural Relics and Creative Inspiration	
	
<p>Name: “Xi” Bronze Tripod Period: Late Shang Dynasty (1300-1046 BC) Measurements: Height - 20.1 cm, Diameter - 16.2 cm Unearthed in 1980 Provenance: Unearthed at Mangzhang Village, Luoshan, Xinyang, Henan The “Xi” bronze tripod is adorned with three sets of taotie motifs on its body, while the sides are embellished with pairs of kui motifs. The entire surface is adorned with delicate cloud and thunder motifs, highlighted with black lacquer filling. Inside the belly, a character “xi” is cast, hence the name “Xi” tripod.</p>	<p>Name: Duling Square Ding Period: Early Shang Dynasty Measurements: Height - 87 cm, Length and Width of the Mouth - 61 cm, Height of the Ears - 17 cm, Height of the Feet - 25.5 cm, Weight - approximately 64.25 kg Unearthed in 1974 Provenance: Excavated from a hoard, Zhangzhainan Road, Zhengzhou, Henan The Duling Square Ding is a bronze vessel from the early Shang Dynasty in China. This vessel’s body has been produced in a square shape. Atop the vessel are two arched handles; it has a deep body, with straight walls sloping inwards towards a flat base, supported by four hollow pillar legs. The upper part of the body is adorned with animal face motifs, while the sides and lower part feature decorative nipple patterns. Its simple and solemn form represents one of the “Nine Treasures” of the Henan Museum.</p>
Design of Cultural and Creative Products	
	
<p>Taotie Bag Charm for Good Fortune</p>	<p>Taotie Brass Bell Keychain for Good Fortune</p>
	
<p>Taotie Necklace for Good Fortune</p>	<p>Taotie Key Pendant for Good Fortune</p>
	
<p>Taotie Keychain for Good Fortune</p>	<p>Chanlian Necklace for Good Fortune</p>
Design Concept	
<p>Incorporating the intricate Taotie patterns from the artifact as the foundational graphic element, these products preserve the cultural customs and aesthetic characteristics of the people of the Central Plains during the Shang Dynasty. This enhances the decorative appeal of the products.</p>	<p>Drawing inspiration from the intricate Chanlian patterns on the artifact, the keychain, key pendant, and necklace incorporate the symbolism of good fortune. This enhances the decorative appeal of the products.</p>





2) Hetian jade carved jewelry series

Table 3: Hetian Jade Carved Jewelry Series

Introduction to the Cultural Relics and Creative Inspiration	
	
<p>Name: Lotus-Crane Square Pot Period: Spring and Autumn Period Measurements: 117 cm in height, 30.5 cm in length (mouth), 24.9 cm in width (mouth) Unearthed in 1923 Provenance: Unearthed from Zheng Gong Cemetery, Lijialou, Xinzheng, Henan Province</p>	<p>Name: Fuhao Owl-shaped Bronze Zun Period: Late Shang Dynasty Measurements: 46.3 cm in height, 16.4 cm in length (mouth), 13.2 cm in height (foot), 13.4 cm in height (lid), weighs 16 kilograms Unearthed in 1976 Provenance: Unearthed from Southwest of Fuhao Tomb, Xiaotun Palace Temple Site, Anyang, Henan Province</p>
Design of Cultural and Creative Products	
	
The pendant of the Lotus-Crane Square Pot - front view	The pendant of the Fuhao Owl-shaped Bronze Zun - front view
	
The pendant of the Lotus-Crane Square Pot - back view	The pendant of the Fuhao Owl-shaped Bronze Zun - back view
Design Concept	
<p>The decorative composition of the Lotus-Crane Square Pot pendant is extraordinarily intricate, showcasing a remarkably ingenious design. The pendant is crafted in the form of a flat square body, inspired by the original artifact. The main focal point of the pendant is the intricately carved pot lid, adorned with a magnificent depiction of a soaring celestial crane standing amidst a bed of lotus flowers on the front. On the back, the inscription “Lotus-Crane” is delicately carved. The overall portrayal captures the graceful posture of the crane, as if it is eagerly gazing into the distant horizon, exuding a sense of ethereal charm and vitality. Moreover, it symbolizes the noble spirit of our era, aspiring to soar even higher, embracing the dawn of a new day.</p>	<p>The Fuhao Owl-shaped Bronze Zun features an inscription of “Fuhao” on its body and exhibits a vivid and lifelike design. The overall shape of the zun resembles a standing owl, with its two feet and downward tail forming three stable support points, displaying an ingenious concept. The lid of the zun is cast in the form of a majestic standing bird, showcasing a splendid and ornate pattern. Using the silhouette of the Fuhao Owl-shaped Bronze Zun as a basis, the jade carving product is adorned with simple and graceful lines, creating an exquisite portrayal.</p>

3) *The series of handcrafted fruit-flavored lollipops with the design of jade pendants*

Table 4: The Series of Handcrafted Fruit-flavored Lollipops with the Design of Jade Pendants

Introduction to the Cultural Relics and Creative Inspiration	
	
<p>Name: Sapphire ornament in the shape of a human head and snake body Period: Spring and Autumn Period (770-476 BC) Measurements: Outer diameter of 3.8 cm, thickness of 0.2 cm Unearthed in 1983 Provenance: Unearthed from the joint burial tomb of Huang Junmeng and his wife at Baoxiang Temple, Guanshan, Xinyang, Henan</p>	<p>Name: White jade dancer-shaped pei-pendant Period: Western Han Dynasty Measurements: Length of 4.6 cm, width of 2.5 cm Unearthed in 1986 Provenance: Unearthed from the Han tomb at Xishan, Xishan Town, Mangshan, Yongcheng, Henan</p>
Design of Cultural and Creative Products	
	
Snake Body Jade Pendant with Human Head - front view	Long-sleeved Dancing Jade Pendant - front view
Design Concept	
<p>The inspiration behind the creation: The jade ornament takes the form of a flat oval ring, crafted into a sideways human figure with slight variations in the decorative patterns on both sides. Its exquisite and translucent design showcases the remarkable jade carving craftsmanship of the Spring and Autumn Period. The unique representation of a human head and snake body in jade ornaments is seen for the first time among the unearthed jade artifacts, suggesting a possible connection to the legendary ancient progenitors, Fuxi and Nyuwa.</p>	<p>The inspiration behind the creation: Carved from a piece of white jade, the pendant showcases intricate and translucent designs on both sides. Depicting a graceful dancer, her sleeves elegantly raised and waist gracefully bent, adorned in a long robe fastened with a cross-collar tie, every intricate detail is meticulously engraved using shadow lines. With a hole at the top and bottom for suspension, this pendant embodies the epitome of jade pendants during the Han Dynasty, characterized by its simplistic yet realistic patterns.</p>

The series of handcrafted fruit-flavored lollipops with the design of jade pendants, inspired by the Henan Museum’s collection of a sapphire ornament in the shape of human head and snake body as well as a white jade dancer-shaped pei-pendant, are developed in collaboration with candy manufacturers. These lollipops are shaped like the jade pendants, as shown in Table 4. The introduction of lollipop cultural and creative products breaks away from the traditional concept of focusing primarily on practical items in cultural and creative products. Instead, it ventures into the realm of food, particularly with the lollipop form. It is evident that these cultural and creative lollipops specifically target the younger generation, allowing them to consume while gaining knowledge about cultural relics, as well as culture and history.

B. *The Issues with the Application of Jade Carving Designs in Cultural and Creative Products*

1) *Excessive focus on materials*

Analyzing the existing practical jade carving cultural and creative products in the Henan Museum, there are mainly two series: the cinnabar carved jewelry series and the Hetian jade carved jewelry series. These products

all prioritize the materials and craftsmanship, achieving certain effects. The use of cinnabar as the carving material can be seen as a design centered around and emphasizing the material itself. Cinnabar is a sulfide mineral of the cinnabar group, mainly containing mercury sulfide. It is used in traditional Chinese medicine and is believed to have the effects of purifying the heart, calming the mind, and improving eyesight. Since ancient times, there has been a folk belief in wearing cinnabar for warding off evil, making cinnabar jewelry highly marketable. The Hetian jade carved jewelry series uses the most representative variety of traditional Chinese jade, Hetian jade (light green jade). Hetian jade is one of the four famous jades in China. During the reign of First Emperor of the Qin Dynasty, Hetian jade was known as the “jade of Kunlun Mountains” because it was produced in the Kunlun Mountains. The most famous treasure in Hetian jade is the “Imperial Seal of the Empress” stored in the Shaanxi History Museum. Its texture is Xinjiang Hetian mutton fat white jade, which is the only jade seal of an empress from the Han Dynasty and one of the first batch of cultural relics prohibited from being exhibited abroad in China. Both culturally and historically, Hetian jade is considered a top-notch variety of jade. Choosing Hetian jade as the raw material for cultural and creative jade jewelry also showcases the emphasis on the inherent value of the material itself.

2) *Insufficient innovation in jade carving design*

Although the jade jewelry series in the Henan Museum are designed based on the elements of the museum’s collections, their designs appear monotonous and heavily influenced by traditional jade carving techniques. Although the preservation of traditional jade carving craftsmanship is important, the main issue lies in the lack of uniqueness and innovation due to the adherence to old ways of inheritance. The fusion of different styles has become a crucial factor for the development of jade carving art. To integrate artistic creativity with jade carving techniques, it is necessary to boldly explore new forms that deviate from traditional jade carving aesthetics. This will pave the way for the artistic design of innovative cultural and creative products.

IV. RECOMMENDATIONS FOR CULTURAL AND CREATIVE JADE CARVING DESIGN AT THE HENAN MUSEUM

A. *Discovering Local Jade Materials in Henan*

When developing cultural and creative jade carving products, it is important not only to focus on highly influential jade materials but also to broaden the selection to reflect local circumstances. Jade is the cornerstone of jade carving art, and there is a diverse range of jade types that should be considered beyond simply choosing the most expensive ones. As the provincial-level museum of Henan, the Henan Museum should pay more attention to local jade materials, such as the renowned Nanyang “Dushan Jade” and the distinctive “Mi Jade” from Xinmi, Zhengzhou. Cultural and creative products made from Dushan Jade and Mi Jade possess significant artistic and cultural value. By selecting these materials for the jade carving cultural and creative products of the Henan Museum, it will not only create exquisite and unparalleled jade artworks but also contribute actively to promoting local culture and facilitating the development of the local jade industry.

B. *Revitalizing the Design Concept of Jade Carving Cultural and Creative Products*

In the process of jade carving design and production, it is evident that only through innovative design can the unique artistic charm of jade materials be fully showcased. Therefore, it is essential to continuously update the design concept of jade carving to ensure the excellence of jade carving products. Undoubtedly, the combination of jade carving art and museum cultural and creative products provides an excellent source of inspiration for jade carving product design. With its vast collection of precious artifacts, a museum serves as a treasure trove of materials that can be derived from its cultural relics to inspire the design of jade carving products. However, it is crucial for the Henan Museum, in the process of designing cultural and creative products, not to confine itself to the superficial forms of the exhibited cultural relics. Instead, an in-depth exploration of the cultural and historical significance behind the artifacts should be undertaken. By doing so, the cultural and creative jade carving products of the museum will possess a deeper level of cultural connotation, enriching the artistic experience for consumers.

V. CONCLUSIONS

To showcase Chinese civilization through cultural and creative products, jade carving is an ideal medium to narrate Chinese history. Jade carving art is an important symbol of China’s ancient culture and serves as an artistic vessel to convey the spirit of the Chinese nation. The emergence of various cultural and creative products allows audiences to understand cultural relics, history, and civilization from a different perspective, bridging the gap between visitors and museums. The active development of cultural and creative product design has become a new trend in the modern cultural and museum industry. Jade carving products, being well-received and popular among

consumers, can undoubtedly become explosive best-selling items within the realm of cultural and creative products. The museum's collection of cultural relics serves as an inspiration for designers and brings forth numerous creative ideas for jade carving cultural and creative products. However, the current design of jade carving cultural and creative products at the Henan Museum is still at a surface level. It is important to explore how to combine elements of the museum's collection with jade carving and modern design, integrating jade culture more effectively into the design of museum cultural and creative products. This is a crucial issue in cultural and creative design. In the face of rapid advancements in modern science and technology, it is imperative to deeply study the direction of inheriting and developing jade carving art. It is crucial to actively explore the significance of combining traditional artistic works with modern design in order to make jade carving cultural and creative product designs more contemporary. By doing so, we can meet the psychological needs of emerging consumer groups and bring about vibrant vitality to the realm of cultural and creative products.

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