

EXPLORING DESIGN TRENDS IN CULTURAL AND CREATIVE PRODUCTS INSPIRED BY HUASHAN ROCK ART IN GUANGXI

Jie Fan¹, Miyoung Seo², Kriangsak Khiaomang³

E-mail: 83986038@qq.com, seo@buu.ac.th, Kraingsak_k@yahoo.com

¹ Doctorate Student of Faculty of Fine and Applied Arts, Burapha University; Thailand

² Dr., Lecturer in the Department of Visual Art and Design, Faculty of Fine and Applied Arts, Burapha University; Thailand

³ Assoc. Prof. Dr., Lecturer in the Department of Visual Art and Design, Faculty of Fine and Applied Arts, Burapha University; Thailand

Received: September 7, 2023 Revised: October 26, 2023 Accepted: October 27, 2023

บทคัดย่อ

ท่ามกลางการพื้นตัวของเศรษฐกิจการท่องเที่ยวในประเทศไทยแสดงให้เห็นถึงความต้องการและความนิยมต่อผลิตภัณฑ์วัฒนธรรมสร้างสรรค์รังใหม่ งานวิจัยฉบับนี้ศึกษาองค์ประกอบภาพของภาพดบหน้าผ้าอัวชาบวิถีเดิมที่มีอยู่ในจังหวัดเชียงใหม่ มนต์ลอกว่างซี สำรวจแนวโน้มการออกแบบและพัฒนาผลิตภัณฑ์วัฒนธรรมสร้างสรรค์จากภาพดบหน้าผ้าอัวชา ใช้วิธีการวิจัยแบบผสมผสานการวิจัยเชิงปริมาณและเชิงคุณภาพ การวิจัยเชิงปริมาณใช้แบบสอบถามเป็นเครื่องมือในการรวบรวมข้อมูลเพื่อทำความเข้าใจความต้องการและความชื่นชอบของผู้บริโภคที่มีต่อผลิตภัณฑ์วัฒนธรรมสร้างสรรค์จากภาพดบหน้าผ้าอัวชา การวิจัยเชิงคุณภาพดำเนินการโดยการสัมภาษณ์ผู้เชี่ยวชาญหัวคนในสาขาวิชาการออกแบบ การวิจัยภาพดบหน้าผ้าอัวชาและการออกแบบทางวัฒนธรรมและความคิดสร้างสรรค์เพื่อสำรวจทิศทางของการออกแบบผลิตภัณฑ์วัฒนธรรมสร้างสรรค์จากภาพดบหน้าผ้าอัวชา ในขณะเดียวกันใช้วิธีการวิจัยเอกสารอ้างอิง วิธีการสำรวจภาคสนาม วิธีการวิเคราะห์กรณีศึกษาและวิธีการวิจัยแบบสหวิทยาการเพื่อเรียนรู้ข้อมูลจากการสำรวจและการสัมภาษณ์เพื่อจำแนกและสรุปภาพมนุษย์ เครื่องใช้และสัตว์ของภาพดบหน้าผ้าอัวชา จากนั้นทำการพัฒนาแนวคิดที่เกี่ยวข้องกับสิ่งจำเป็นในชีวิตประจำวัน การออกแบบผลิตภัณฑ์วัฒนธรรมสร้างสรรค์ เช่น เครื่องใช้ในสำนักงาน มีจุดมุ่งหมายเพื่อออกแบบผลิตภัณฑ์วัฒนธรรมสร้างสรรค์ที่ใช้องค์ประกอบภาพของภาพดบหน้าผ้าอัวชาเป็นเนื้อหาและสอดคล้องกับอัตลักษณ์เฉพาะของท้องถิ่นที่มีความสร้างสรรค์ แปลกใหม่และเป็นที่นิยมอย่างสูง หวังว่าจะสามารถนำเสนอผลิตภัณฑ์วัฒนธรรมสร้างสรรค์จากภาพดบหน้าผ้าอัวชาแก่ผู้บริโภคได้ เพื่อตอบสนองความต้องการของผู้คนสำหรับผลิตภัณฑ์วัฒนธรรมสร้างสรรค์จากภาพดบหน้าผ้าอัวชา ไม่เพียงแต่ทำให้ผู้คนเข้าใจภาพดบหน้าผ้าอัวชาและวัฒนธรรมอัวชาได้ดียิ่งขึ้นเท่านั้น แต่ยังส่งเสริมพัฒนาระบบการซื้อของผู้บริโภค ส่งเสริมเศรษฐกิจการท่องเที่ยวในท้องถิ่น เพิ่มความนิยมและอิทธิพลของภาพดบหน้าผ้าอัวชาตลอดจนผลิตภัณฑ์วัฒนธรรมสร้างสรรค์

คำสำคัญ: ภาพดบหน้าผ้าอัวชา, ผลิตภัณฑ์เชิงวัฒนธรรม, ความคิดสร้างสรรค์, แนวโน้มของการออกแบบ

Abstract

Against the backdrop of China's tourism industry resurgence, cultural and creative products have gained renewed prominence. This study delved into the graphic elements of Huashan Rock Art in Guangxi, investigating the trends in designing cultural and creative products based on these elements. Utilizing a mixed-method research approach, quantitative data were collected through surveys to comprehend consumer preferences and demands concerning Huashan cultural and creative products. Qualitative research involved interviews with five experts in design, rock art research, and cultural and creative product design. Additionally, methods such as literature review, field research, case analysis, and interdisciplinary studies were employed. From survey data and expert interviews, the categorization and summary of human, object, and animal figures from Huashan Rock Art were derived. These findings were utilized to develop cultural and creative product designs, spanning categories like daily necessities and office supplies. The objective was to create innovative, original, and highly identifiable products infused with the unique local characteristics of Huashan Rock Art graphic elements. These designs aimed to introduce Huashan Rock Art to consumers through cultural and creative products, meeting consumer demands for Huashan cultural and creative products. By enhancing public understanding of Huashan Rock Art and Huashan culture, these products not only drove consumer purchasing behavior but also bolstered the local tourism economy. Consequently, they contributed to elevating the prominence and influence of Huashan Rock Art and its associated cultural and creative products.

Keywords: Huashan rock art, Cultural products, Creative, Design trends

Introduction

1. Background of Rock Art Research

The Huashan Rock Art is located in the Zuojiang River Basin and Mingjiang River Basin along the Left River in Chongzuo City, Guangxi Province.

Together with the surrounding mountains, rivers, and plateaus, it constitutes the “Huashan Rock Art Cultural Landscape” that was officially inscribed as a UNESCO World Heritage Site in 2016. This marked a significant milestone as the first World Heritage site in Guangxi Province and China’s 49th World Heritage site overall. It was also the country’s first rock art site on the World Heritage list.

2. Importance of Designing Huashan Rock Art Cultural and Creative Products

Since its establishment as a heritage site, there has been limited availability of authentic Huashan cultural and creative products in the Huashan Rock Art Scenic Area. Many existing products are either generic image reproductions or incorporate cultural elements unrelated to Huashan. This proliferation of mismatched products has obscured consumers’ understanding of Huashan culture. Moreover, the narrow focus on tourist souvenirs fails to meet diverse consumer demands, resulting in many visitors being unable to obtain meaningful Huashan Rock Art cultural products.

Research Objectives

1. To examine the historical context of Guangxi’s Huashan Rock Art and analyze the characteristics and symbolism of the rock art imagery.
2. To study design methods and mediums for cultural and creative products, transforming Huashan Rock Art motifs into practical and engaging items.
3. To design innovative cultural products inspired by Huashan Rock Art to raise its visibility and contribute to local tourism development and economy. This can also aid in preserving Huashan’s natural resources.

Research Methods

1. Literature Review: An extensive review of resources such as libraries, websites, books, and journals to gather insights into Huashan Rock Art imagery

and cultural product design forms and mediums.

2. Field Research: Site visits to the Mingjiang River Basin in Ningming County, Guangxi to gain firsthand experience of the historical context and cultural traditions of local villages.

3. Case Studies: Thorough analysis of exemplary cultural products from outstanding museums and heritage sites to understand their content, design expression, and materials.

4. Surveys: Questionnaires and interviews with general consumers and experts to gain a comprehensive perspective on perceptions, preferences, and recommendations regarding both successful and authentic Huashan-inspired cultural products.

Research Scope and Focus

1. Dating of Rock Art: Utilizing the radiocarbon dating method (Carbon-14) to determine the ages of rock art figures, wooden stakes, and samples of Huashan stalagmites. Collaborating with experts in archaeology, ethnology, and related fields, the inferred ages of the Huashan Rock Art range from the Warring States period to the Eastern Han dynasty.

2. Pigments: The colors employed in rock art predominantly feature a reddish-brown hue, which has been determined through professional qualitative analysis conducted by the Guangxi Institute of Chemical Industry to be hematite. Hematite, an iron oxide mineral, was locally abundant in the Zuojiang region. The Luoyue people used this material, mixed with animal skin and blood, to create pigments for painting.

3. Associated Ethnic Group: Based on historical records and the distribution of ethnic groups, it is concluded that the rock art was created by the Luoyue ethnic group.

4. Cultural Significance of Rock Art: Analyzing the content, age, ethnic affiliation, and available literary sources, archaeologists and ethnology experts generally believe that the Huashan Rock Art was created by the early Luoyue

people as depictions related to rituals and prayers for divine blessings. These paintings were created on the rock surfaces to seek favorable weather, prosperity, and a bountiful harvest, which led to the emergence of various interpretations such as the “witchcraft”, “war”, “ritual”, “fertility”, and “sports and entertainment” theories.

5. Classification and Characteristics of Rock Art Figures: The existing rock art figures can be categorized into various types, primarily comprising human figures (3315 in total), followed by objects (704 in total) and animals (114 in total). These figures can be classified into four distinct chronological periods. They share common features as outlined below:

- Heads with or without headgear, hair ornaments, or bare.
- Bent arms raised to shoulder height, with open/closed hands or missing fingers.
- Upright stance forming an inverted triangle shape.
- Squatting legs bent at 90° angles or splayed apart as if frog-like.
- Toes spread or not depicted, resembling a frog leg posture.
- Some figures wearing swords or knives at the waist, indicating status.
- A few holding objects in hands.

The figures from different periods show distinct features as follows:

- First period figures have round heads, slim necks, and similar chest and waist widths (inverted triangle), with predominantly straight lines.
- Second period figures show connected head and neck, with comparable chest and waist widths (inverted triangle), and more curved lines.
- Third period figures display linked head and neck, longer bodies, leaner than the second period, with curved lines, sometimes more abstract.
- Fourth period figures exhibit higher simplification, elongated, and attached heads, hands, feet, and waists.

Table 1 The quantity, characteristics, and visual representation of the Huashan Rock Art figures (with sample images)

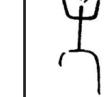
Category	Quantity	View	Quantity	Characteristics and Graphics			
				First period	Second period	Third period	Fourth period
Figures Graphics	3315	Frontal View	1152				
		Side View	2163	Characteristics: The figures are depicted facing either the left or right side, with their heads adorned with headgear, hair accessories, or left bare based on their identity. They have bent elbows with raised hands and slightly inclined heads. The body is connected in a single line with the head, and there is a pronounced curvature at the waist and abdomen. Longer hair signifies females, while a raised and curved genital area indicates males.			
							
Artifacts Graphics	704	Bronze Drums	368	Characteristics: The early Luoyue people depicted bronze drums on the rock surfaces of Huashan in various forms, including single-ring, double-ring, triple-ring, solid, and hollow drums with radiating lines. These depictions feature a central motif known as the "sun pattern," which is consistent with the design of bronze drums.			
							
		Ring Pommel Sword	50	Circular and hollow hilts with varying sizes of rings, typically worn at the waist of upright hu-man figures or held in their hands.			
							

Table 1 (continued)

Category	Quantity		Quantity	Characteristics and Graphics
		Long Sword	247	<p>Characteristics: Divided into "with hilt and no blade," "with blade and no hilt," and "neither hilt nor blade."</p> 
		Short Sword	5	<p>Characteristics: Suspended on the body, these objects take on a slightly elongated inverted triangular shape and</p> 
		Ram-Head Knob Bell	11	<p>Characteristics: These objects, resembling a pair of goat horns at the top, are known as "Goat Horn Knob Bells." They are suspended either on a wooden frame shaped like the Chinese character "干" or displayed individually. These bells are used as musical instruments</p> 
		Thin Knob Bell	5	<p>Artifacts without goat horns are referred to as "Thin Knob Bells." They are hung on a wooden frame shaped like the Chinese character "干" or displayed individually. These bells are used as musical instruments.</p> 

Table 1 (continued)

Category	Quantity		Quantity	Characteristics and Graphics
Animals Graphics		Ferry Boat		Features: These are boat-shaped figures with raised ends and a curved middle section. The boats carry multiple profile human figures with head adornments shaped like an inverted figure-eight. 
		Dog	113	Characteristics: These depictions showcase a more compact and slender body form, upright ears, elongated beaks, slender legs, front legs resembling arrows, hind legs resembling bows. The back structure resembles that of a shrimp, and the tails are upward-curved. 
	114	Birds	1	Characteristics: These figures exhibit long beaks, long tails, extended necks, and are adorned with feather crests on their heads. Their wings are depicted in a flying posture. 

Figure Sources: Drawn by the author and Hu, B., Wan, F., & Li, T. (2018).
Zuojiang Huashan Rock Art. Guangxi Science and Technology Press.

Through the collection of data and research, an in-depth understanding of the symbolism and color origins of Huashan Rock Paintings has been achieved.

This insight has provided insight into the legends and ethos embedded within the patterns of these rock paintings. These collected materials offer a comprehensive portrayal of the forms, meanings, colors, and historical context of the rock art, thereby offering a solid foundation of scientific and professional support for the creation of culturally inspired designs.

6. Cultural and creative products, also known as cultural and creative goods, are high-value-added products created, designed, and enhanced through the application of human creativity, skills, and analysis of cultural resources to meet the needs of modern lifestyles. These products are developed and utilized through intellectual property, incorporating innovative ideas and expressions.

Research Findings

1. Survey and Analysis of General Public

A total of 400 questionnaires were administered near the Huashan Rock Art Scenic Area and Chongzuo Zhuang Nationality Museum. In terms of basic demographic data, the survey participants were primarily females aged 18 to 35, with incomes mainly ranging between 3000 to 10000 yuan. The surveyed individuals had various occupations, including workers, company employees, and freelancers (such as writers, artists, entrepreneurs), and most had a higher education level, with a majority having education beyond a college degree. They showed significant interest in the cultural content of Huashan Rock Art, demonstrating both interest and economic capacity to purchase cultural and creative products inspired by Huashan Rock Art.

In the second part of the survey, regarding the preferences for purchasing cultural and creative products, the majority of respondents were familiar with these products. When making purchases, they were more inclined towards souvenirs, practical items, or gifts. Therefore, the buyers often sought advice from peers or guides before making a choice. Most participants wished to purchase cultural and creative products that had collectible and practical value, with a preference for products featuring the human figure element of the Huashan Rock

Art. However, there was a general sentiment that the current quality of the existing Huashan cultural and creative products lacked uniqueness.

The third part of the survey focused on respondents' expectations for cultural and creative products. Most respondents expressed a preference for Huashan Rock Art cultural and creative products to be priced within the range of 10 to 49 yuan. This preference was influenced by reduced incomes during the pandemic and the relatively moderate consumer spending environment in Chongzuo. Respondents' psychological price range fell within this scope of 10 to 49 yuan. They hoped for enhanced practicality in cultural and creative products, designed in a style that combines cartoon aesthetics and faithful reproduction of the rock art imagery. The participants held high expectations for Huashan cultural and creative products, aspiring for them to enhance the dissemination of Huashan's cultural essence, unearth tourism and creative resources, and thereby contribute to the promotion of tourism and related brands, elevating the urban tourism image of Chongzuo.

2. Survey and Analysis of Experts

A survey was conducted among five experts, including academic researchers, design professors, and cultural and creative product company leaders. The analysis and conclusions drawn from this survey are as follows:

In response to Question 1) "Which graphic elements best represent Huashan Rock Art and is it necessary to innovate the original form in the design process?" The experts recommended that cultural and creative products related to the Huashan Rock Art should primarily focus on human figures, with animals and objects as complementary elements. This recommendation stems from the fact that the quantity of human figure representations in the Huashan Rock Art far exceeds that of animals and objects. In terms of design styles, two approaches were suggested. One approach involves respecting the original graphical forms and elements of the Huashan Rock Art, allowing tourists and consumers to grasp the visual essence of these elements. Another approach targets younger consumer groups, suggesting a stylistic innovation that infuses a cartoonish flair into the rock art forms, making them both recognizable as Huashan Rock Art elements

and appearing more youthful.

Regarding Question 2) “Choice of colors for Huashan Rock Art cultural and creative products?” The experts suggested that the color of the rock art figures was originally derived from the abundant hematite resources in the Luoyue region of the Huashan area, mixed with animal skin and blood to create a reddish-brown hue. However, due to the effects of weathering over time, the colors of the rock art figures on different walls vary due to differences in geographical location and exposure to sunlight. Based on historical Chinese color preferences for graphical patterns and considering the initial color tones of the Huashan Rock Art figures, the experts recommended that designers opt for shades of red that closely resemble the original reddish-brown color.

In response to Question 3) “Which type of cultural and creative product is better suited for expressing Huashan Rock Art and appealing to consumers?” The experts believed that cultural category products should take precedence. This category encompasses products such as office supplies, daily necessities, wearable items, and electronic products. These types of cultural and creative products are closely linked to daily life, offering practicality, and are more likely to attract consumer purchases.

Regarding Question 4) “How should Huashan Rock Art cultural and creative products be positioned and priced?” The experts propose that pricing cultural and creative products within the ranges of 10-39 yuan and 40-49 yuan would be more acceptable to consumers. This recommendation factors in Chongzuo's relatively low population and moderate consumption level. Visitors and consumers tend to evaluate consumption patterns and establish psychological price ranges based on the city's economic context. Thus, maintaining a mid-to-low price range primarily within 10-39 yuan and 40-49 yuan, targeting the consumer group aged 18 to 35, while also offering some higher-priced high-quality products, could cater to consumers with higher demands and an interest in heritage culture-related cultural and creative products.

In response to Question 5) “How can cultural essence or stories of Huashan Rock Art be incorporated into cultural and creative product design?” The

experts recommended that, before embarking on the design process, designers should first delve into the graphical forms, meanings, and legendary stories of the Huashan Rock Art. Subsequently, they should identify the common and connecting points between these forms, meanings, and stories and the product carriers. Only by establishing these connections can Huashan Rock Art cultural and creative products be imbued with greater depth and truly reflect the essence of Huashan culture.

3. Summary

The majority of respondents favored prices of 10 to 49 yuan, while also emphasizing the importance of practicality. A significant number of them also indicated a wish for cultural and creative products to feature adorable cartoon aesthetics while remaining faithful to the graphical style of Huashan Rock Art. People hope that Huashan cultural and creative products can reflect the cultural significance and legendary stories of Huashan, contribute to the dissemination of Huashan's cultural heritage, tap into tourism cultural and creative resources, promote tourism and related branding, and enhance the urban tourism image of the Chongzuo area. Based on the insights garnered from the surveys and interviews, a design direction has been summarized, as shown in the table.

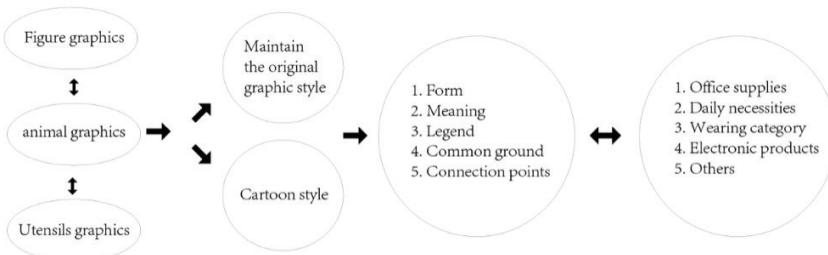


Figure 1 Conceptual framework

Design Concept

1. Design Approach and Final Designs

This research was grounded in preliminary survey data indicating that

a majority of consumers favor purchasing items related to daily life and office needs. Understanding consumer buying patterns, the sales trends of cultural and creative products, the distinctive cultural elements of Huashan Rock Art, and an analysis of cultural and creative product categories were crucial. Expert consultations informed decisions regarding sales regions, target demographics, consumer behavior, and the current developmental stage. Consequently, three primary design categories were selected: characters, objects, and animals.

Table 2 Three primary design categories by characters, objects, and animals

Type	Shapes	Meanings	Purpose	Price
Clock	Character shapes (mainly), object shapes	Character shapes: representative of Huashan Rock Art figures from diverse historical periods. Object shapes: understanding sword and ring knife shapes among object symbols.	Personal use	¥80 each
Music Box	Object shapes (mainly), character shapes	Object shapes: understanding the bronze drum symbol among objects. Character shapes: depicting the relationship between people and bronze drums.	Gift-giving, personal use, collection	¥90 each

Table 2 (continued)

Type	Shapes	Meanings	Purpose	Price
Bookmark	Animal shapes (mainly), character shapes	Animal shapes: understanding the dog symbol among animals. Character shapes: reflecting the relationship between people and dogs.	Gift-giving, personal use, collection	¥10 each

1.1 Cultural and Creative Products - Lifestyle Category:

Clock: The figures in Huashan Rock Art can be classified into four periods. The challenge lies in conveying the evolving features of these figure depictions over time to consumers while imparting the concept of "passing time." In this context, combining Huashan figure depictions with a clock design can communicate that the rock art's imagery is not static but changes with different eras, much like how things transform over time.

Table 3 Huashan Rock Painting Cultural and Creative Products - Clock Creation

Creative Source	Sketch	Design Variations
1. Human Graphics in Huashan Rock Art 2. Ring Pommel Sword 3. Long sword		
Meaning of the Clock	Symbolizing the passage of time, the emergence, or disappearance of all things.	Shared Essence: In the future, things vanish or reemerge in a different form.
Human Graphics Meaning	Representing humans from different periods.	
Object Graphics Meaning	Signifying directions, pointing, and the future.	

Table 3 (continued)

Key Features	<ol style="list-style-type: none"> 1. The figure depictions have a relatively realistic style, making it easy to recognize them as Huashan Rock Art imagery. 2. The combination of figures and objects aligns with the understanding that figures hold greater significance than objects in Huashan Rock Art. 3. Emphasizes practicality.
Product Information	<p>Specifications: 14 inches</p> <p>Material: Plastic, Quartz Movement</p> <p>Price: 80 RMB (per piece)</p>
Innovative Aspects	<ol style="list-style-type: none"> 1. Aligns with the “Fertility” theory; the “figures” on the clock might thrive or decline as time flies. 2. Design Impact: The vibrant colors of the clock attract attention. The design conveys the figures from different periods of Huashan Rock Art, adding a layer of meaning not present in existing cultural and creative designs. 3. Market: Currently, there are no clock-based Huashan cultural and creative products or designs. This product aligns with the surveyed preferences, demographic audience, and anticipated cultural and creative types, as reflected in questionnaires and interviews.

Figure Source: Drawn by the author

1.2 Electronic Product Category - Music Box:

Electronic Music Box: Among the object depictions in Huashan Rock Art, the majority are representations of bronze drums. Guangxi is home to many bronze drums. They were initially used as drinking vessels, later evolving into musical instruments, and eventually becoming ceremonial objects representing power and status within the community. These drums were used for rituals, warfare, and other purposes and have a history of over 2,700 years.

Table 4 Huashan Rock Painting Cultural and Creative Products - Music Box Creation

Creative Source	Sketch	Design Variations
1. Bronze Drum 2. Mountains and Silk Cotton Trees 3. Huashan Rock Art Human Graphics		
Meaning of the Music Box	Music boxes carry the essence of melodies.	As the sound of the bronze drum resonates, the Luoyue people dance in rhythm, evoking the connection between humans, nature, and the reverence and affection for the bronze drum. This also aligns with the "bronze drum ritual" interpretation within the "ritual" theory.
Meaning of Bronze Drum Images	Originally used as drinking vessels, bronze drums evolved into musical instruments and later served as ceremonial items representing power, status, and were used for rituals, warfare, and more. In some regions, people celebrate festivals by striking bronze drums.	
Meaning of Human Graphics	Depicts Luoyue people in motion, dancing to the rhythm of the bronze drum.	
Meaning of Mountain Images	Depicts the mountains that grace the Left River's landscape.	
Meaning of Silk Cotton Trees Images	Trees native to the Chongzuo region.	
Key Features	1. The image is presented in a cartoon-like style, making it easy to recognize as Huashan Rock Art figures and object depictions. 2. The combination of figures and objects reflects the relationship between humans and bronze drums present in Huashan Rock Art. 3. Suitable as a gift.	
Product Information	Specifications: 11*11*15 CM Material: Wood Price: 90 RMB (per piece)	

Table 4 (continued)

Innovative Aspects	<ol style="list-style-type: none"> 1. Theoretical Aspect: Aligns with the “ritual” theory, conveying the relationship between humans, objects, and nature. 2. Design Impact: Features an elegant color palette and innovative design. 3. Market: Currently, there are no Huashan Rock Art music boxes available in the market, nor are there any cultural products depicting the connection between Huashan Rock Art and nature. This product aligns with the price range, target audience, and expected cultural aspects highlighted in the survey and interviews.
--------------------	--

Figure Source: Drawn by the author

1.3 IP-Derived Cultural Products—Office Supplies Category:

Bookmark: The animals depicted in Huashan Rock Art aided human activities. The ancient Luoyue people sought prosperity for their community, wishing for population growth and protection of their territory. To safeguard their homeland, they chose the Guangxi native hunting dog, known for its strong hunting abilities and territorial consciousness. Thus, combining human and dog motifs expresses the enduring human-animal bond and emphasizes safeguarding shared environments. This narrative also aligns with the theory of “fertility”, reflecting the aspirations of the community.

Table 5 Huashan Rock Painting Cultural and Creative Products - Bookmark Creation

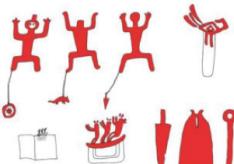
Creative Source	Sketch	Design Variations
1.Human Graphics in Huashan Rock Art 2.Animal Graphics (dogs) in Huashan Rock Art		

Table 5 (continued)

Meaning of Bookmarks	Bookmarks are typically used as auxiliary tools for reading books, serving an educational purpose.	Shared Essence: The interdependent relationship between humans and dogs emphasizes the importance of safeguarding and respecting animals, fostering harmonious coexistence. Humans should protect animals, preventing harm and destruction to them. This harmonious balance is crucial for safe-guarding our homes and fostering a well-rounded life. Only through such harmony can we achieve these. Just as bookmarks remind readers of important content, they also serve as reminders and educational tools.	
Meaning of Human Graphics	Luoyue people, the shamans who prayed for the safety of the community.		
Meaning of Animal Graphics	Dogs, the animals that guard the home.		
Key Features	<ol style="list-style-type: none"> 1. The image is presented in a cartoon-like style, making it easy to recognize as Huashan Rock Art human figures. 2. Combination of human and animal elements, aligning with the relationship between dogs and humans in Huashan Rock Art. 3. Emphasizes practicality. 		
Product Information	<p>Specifications: 80MM+70MM+20MM Material: Metal Price: 10 RMB (per piece)</p>		
Innovative Aspects	<ol style="list-style-type: none"> 1. Theoretical Aspect: Aligns with the "fertility" and "ritual" theories, conveying the relationship between humans and animals. 2. Design Influence: Vivid colors attract attention. This helps convey the connection between Huashan Rock Art's figures and animals to consumers. 3. Market: While paper and wooden bookmarks are available in the market, most directly copy and paste Huashan Rock Art figures without making necessary design choices. They fail to emphasize the relationship between humans and animals. This product aligns with the price range, target audience, and expected cultural aspects highlighted in the survey and interviews. 		

Figure Source: Drawn by the author

Research Findings and Discussion

1. Research Findings

The research methodology incorporated diverse approaches such as literature review, field investigations, and expert consultations. Resources from libraries, online platforms, books, and on-site visits to places like the Mingjiang Basin area in Ningming County and the Chongzuo Museum were extensively utilized. Engagements with folklore experts, design specialists, scenic area personnel, and museum staff facilitated an exploration of Huashan Rock Art's historical context, the cultural nuances of the village, and the meanings and characteristics of rock art elements comprising characters, animals, and objects. Surveys and interviews were conducted among regular visitors to the Huashan Rock Art scenic area, industry experts, and cultural product designers, aiming to understand consumer demands and the evolving trends in Huashan Rock Art cultural products. The study also involved a comprehensive analysis of case studies, examining exemplary cultural products from both domestic and international museums and scenic areas to grasp their content, design expressions, and the methods used for integration. An analysis of existing cultural product designs and future trends was conducted through case studies in cultural innovation. Employing an interdisciplinary approach, theories from consumer psychology and design aesthetics were utilized as guiding frameworks. This methodology aimed to provide a comprehensive understanding of experts' and consumers' perspectives regarding the positioning, pricing, and styles of cultural products. Additionally, it sought to uncover their insights and recommendations concerning Huashan Rock Art cultural products.

Regarding the design methodology, this study closely followed established practices seen in outstanding cultural and creative projects both nationally and internationally. Techniques such as collage, behavioral analysis, and intuitive interpretation were utilized, aligning with global standards. However, the distinctive aspect of this research was its meticulous exploration of Huashan Rock Art's cultural context and historical backdrop. Elements were not only categorized but

also sifted through and rigorously analyzed. The selection of theoretical frameworks such as “witchcraft,” “warfare,” “sacrifice,” “fertility,” and “sports and entertainment” provided the foundation for the design of cultural products. These concepts were seamlessly integrated into everyday items like clocks, music boxes, and bookmarks, ensuring each design element had a rich historical and cultural grounding. This approach set apart the Huashan Rock Art cultural products, infusing them with both aesthetic appeal and enduring cultural significance.

In terms of purpose, the study delved into the historical background of Huashan Rock Art and analyzed the characteristics and meanings of its pictorial elements. The research translated these rock art elements into various cultural products. This endeavor not only addressed the challenge of appreciating Huashan Rock Art solely visually but also enabled consumers to take a piece of this cultural heritage home. The designed cultural and creative products fulfill the expectations of researchers by incorporating cultural significance and practical value, while also appealing to consumer preferences and aligning with the local consumption level. They fulfilled both cultural and practical needs, enhancing the recognition of Huashan Rock Art while stimulating the local tourism economy. Critically, these products played a pivotal role in the conservation of Huashan Rock Art's natural resources.

2. Discussion

Based on the information presented above, three cultural and creative products showcasing figurative representations of humans, objects, and animals in Huashan Rock Art have been designed. These products, namely the clock, music box, and bookmark, also align with the “fertility” and “ritual” theories. They successfully address the challenge of integrating Huashan Rock Art's figures, animals, and objects with product design, while meeting the researchers' expectations for cultural depth and practical effectiveness in Huashan Rock Art cultural and creative products.

To gain broader recognition, further contemplation on building the Huashan cultural brand is needed. Proposed future design directions include:

Firstly, Huashan Rock Art cultural and creative products must be designed

based on a return to the essence of Huashan culture. Many existing cultural and creative product designs in domestic tourist destinations suffer from homogeneity and a lack of regional distinctiveness. If a cultural and creative product cannot be identified with a particular region or ethnic group through its appearance, it lacks representativeness. In future Huashan cultural and creative design, the core focus should be on accurately conveying Huashan culture, allowing the product to authentically embody the essence of Huashan.

Secondly, the cultural significance of cultural and creative products should be closely related to their physical form. Many existing cultural and creative product designs simply copy and paste regional scenes or patterns onto product carriers, failing to establish a meaningful connection between cultural significance and the product itself. The fusion of elements requires designers to possess a deep understanding of cultural elements and their intricate interplay. Lastly, Huashan cultural and creative product designs should incorporate a broader range of materials and technologies. For instance, given the abundance of hematite in the Huashan region, integrating this material into the design can combine local natural resources with the cultural and creative products, enhancing their visual diversity. Additionally, integrating technological advancements such as light, sound, and electronics into Huashan cultural and creative product designs can offer unique and immersive experiences, providing a different perspective on Huashan Rock Art.

Huashan Rock Art belongs not only to Guangxi or China but also to the world, as its profound cultural influence extends beyond borders. Through my efforts in constructing Huashan Rock Art cultural and creative products, I aim to raise awareness of Huashan Rock Art in Guangxi and encourage wider participation in the design of cultural and creative products. I hope that my designs can act as a catalyst, inspiring more individuals to engage in the development of Huashan Rock Art cultural and creative products.

References

Bugarin, D., Veličković, S. K., & Tucović, M. (2021). Potentials of cultural-historical and tourism heritage for the development of tourism in the Timok Region. **Serbian Journal of Management**, 16(1), 201–212. <https://doi.org/10.5937/SJM16-32147>.

Chongzuo Zuojiang Huashan Rock Art Cultural Landscape Application for World Cultural Heritage Leading Group Office. (2015). **Zuojiang Huashan Rock Art cultural landscape: Chongzuo chapter**. Guangxi People's Publishing House.

Gladkey, A. (2021). Cultural tourism potential of Khmelnitsky Region of Ukraine as a basis for tourism product development. **Pskov Region Studies Journal**. <https://doi.org/10.37490/S221979310013503-6>.

Hu, B., Wan, F., & Li, T. (2018). **Zuojiang Huashan Rock Art**. Guangxi Science and Technology Press.

Li, P. (2018). Strategic thinking on building the world brand of Huashan culture from the perspective of the Belt and Road. **Journal of Guangxi Vocational and Technical College**, 03(11), 1–6+13.

Porr, M., & bell, H. R. (2012). 'Rock-Art', 'Animism' and two-way thinking: Towards a complementary epistemology in the understanding of material culture and 'Rock-Art' of hunting and gathering People. **Journal of Archaeological Method and Theory**, 1, 161–205.

Qin, S. (2009). **Luo Yue's painting soul: The mystery of Huashan cliff mural painting**. Guangxi People's Publishing House.

Qing, S., Feng, & Wen, F. Y. (2021). Interests-Based Local Experience Tourism: A New Tourism Product Design in China. **E3S Web of Conferences**, 4.

Song, Q. (2021). Research on the cultural transmission path of Zuojiang Huashan Rock Art in the IPEra. **Collection of Huashan Culture**, 185–188.

Sun, F. (2023). Design ideas and practices of tourism cultural and creative products. **Packaging Engineering**, 08(44), 339–342. <https://doi.org/10.19554/j.cnki.1001-3563.2023.08.036>.

Wang, Y., Fan, C. S., & Shi, M. (2020). Symbol condensation and design of cultural & creative products in regional cultural context. **E3S Web of Conferences**, 10.

Xu, J. (2020). Thoughts on the development of characteristic cultural tourism products of the republic of Vanuatu. **Landscape Research: English Version**, 001, 123–126.

