

# Unearthing Cultural Identity: Identifying Representative Cultural Elements in the Design of Sanxingdui Museum Creative Products

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**Abstract:** *This study aims to identify and classify representative cultural elements from Sanxingdui artifacts and explore their application in the design of museum creative products. Sanxingdui, one of China's most significant Bronze Age archaeological sites, holds a wealth of symbolic, artistic, and ritualistic material culture that reflects unique expressions of cultural identity. By analyzing these elements, the study seeks to bridge cultural heritage and contemporary design practices in a meaningful and respectful manner. A qualitative, descriptive, and interpretive methodology was employed, involving thematic analysis of artifacts based on visual documentation, excavation reports, and museum collections. Data were categorized into six major cultural themes: human figures, animal figures, artifact shapes, decorative patterns, cultural colors, and materials with craftsmanship. Open coding and thematic mapping were used to extract design-relevant subthemes and implications. The findings reveal that Sanxingdui artifacts are rich in symbolic content, with deep ties to mythology, nature, and ritual life. These themes provide a robust foundation for culturally authentic design, offering diverse creative possibilities for museum product development. This study contributes a structured cultural element framework for the Sanxingdui Museum and offers strategic insights for the cultural and creative industries. It advances the integration of heritage preservation with innovative, ethically grounded product design.*

**Keywords:** Sanxingdui, Cultural Heritage, Museum Product Design, Symbolic Motifs, Creative Industries

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## 1. Introduction

The Sanxingdui archaeological site, discovered in Sichuan Province, China, is widely considered one of the most significant Bronze Age discoveries of the 20th century, dating back over 3,000 years (Changping & Wu, 2024). Renowned for its enigmatic and distinctive bronze masks, statues, and jade objects, Sanxingdui is one of the world's most mysterious and distinctive civilizations that co-existed with the better-known Shang Dynasty but had a characteristically different art and cultural style (Chen, 2025). These objects not only represent the technical progress and aesthetic refinement of the period but also express deep statements of cultural identity, systems of beliefs, and worldview through abstract iconography and ritual symbolism (Duan, 2024). Today, museums are not only custodians of such historical heritage but also sites of cultural dissemination through creative interpretation. Museum creative

products souvenirs to education merchandise constitute an essential means through which cultural stories are conveyed and the public, particularly young people, become engaged with heritage in its most tactile and accessible sense (Cheng et al., 2023). Hence, Sanxingdui Museum's product design is at the crossroads of archaeological conservation and cultural ingenuity, bearing great promise for conveying the spirit of a lost ancient civilization through contemporary design sensibility (Guo et al., 2023).

Despite the international fame of Sanxingdui and the rarity of its artifacts, a void can be discerned in the systematic study of how certain cultural aspects from these relics are translated into museum creative product design. Most of the available product development is fragmented or even commercialized, without scholarly insights in combining cultural meaning (Liu & Zhang, 2025). This disconnection depletes the museum's educational and cultural-passing role, reducing museum products to aesthetic items instead of tools of cultural significance (Burkut et al., 2025). Without an accurate model that connects archaeological symbolism with design strategy, the museum threatens to undercapitalize its cultural resource. In addition, there is an increasing need to reconcile cultural authenticity and modern appeal in heritage product design (Lin & Ryu, 2023). Whereas market dynamics and modernization tend to shape product aesthetics, the cultural meaning behind should not be eroded (Shen & Li, 2024). The task is to design products that are both pleasing to the eye and rooted in culture. Museum curators and designers need frameworks and taxonomies through which they can directly borrow from artifacts' symbolic semantics, converting ancient motifs into culturally relevant, innovative, and contextually respectful designs (Chen & Liu, 2023). This conflict between authenticity and innovation is still unanswered in today's museum merchandising discourse. Finally, without a methodical categorization of cultural components in Sanxingdui artifacts, the design process continues to be intuitive as opposed to research-based. The absence of a scientifically established methodology inhibits the production of coherent and culturally true products, shortening their longevity as teaching tools and cultural ambassadors (Li & Wang, 2024b). With Sanxingdui being placed in the international limelight, the stakes are higher to represent its cultural identity in responsive, well-designed creative products. This research fills the immediate gap in the imperative to make explicit a connection between product design strategy and cultural heritage in the museum setting (Lu et al., 2023).

The main aim of this study is to categorize and identify representative cultural features existing in the Sanxingdui civilization's artifacts and investigate the ways in which they can be applied to meaningful creative product design and development in the Sanxingdui Museum. By developing a systematic awareness of the visual language and symbolic imagery utilized in Sanxingdui relics, the study seeks to contribute to culturally attuned, aesthetically appealing, and educationally enriching design practices that interlink ancient heritage and modern cultural consumption.

- What aspects of culture are depicted in Sanxingdui artifacts?
- How are these components to be systematically categorized for design application?
- How can these symbols of culture guide the design of creative products for museums?

This study contributes to the field of cultural heritage communication by providing a design-oriented framework for classifying and applying Sanxingdui's cultural elements in creative products. It offers practical guidance for museum professionals, designers, and educators who aim to bridge the gap between ancient symbolism and modern design aesthetics. The study also strengthens the museum function of culture preservation and promotion, particularly through mundane objects that are cultural ambassadors outside exhibition spaces. By basing product development on archaeological authenticity, this research improves the interpretation of

ancient art forms and highlights their applicability in the current cultural and creative industries (Chen & Yan, 2020).

## 2. Literature Review

### Cultural Heritage and Representation of Identity

Cultural heritage consists of tangible and intangible aspects of a society's past, beliefs, values, and practices. Researchers have for long underlined that cultural heritage remains an effective tool for the construction and sustenance of cultural identity, especially with the backdrop of globalization and speedy modernization (Fu & Luo, 2023). Tangible heritage consists of monuments, sites, artifacts, and works of art, and intangible heritage consists of traditions, oral traditions, rituals, and knowledge systems (Ma & Mohame, 2023). Cultural heritage is dynamic; it is continuously being reinterpreted and redefined by communities, frequently expressing changing conceptions of identity and belonging (J. Zhang et al., 2024). In this case, the material culture of artifacts such as those discovered on the Sanxingdui site materializes in a concrete way the rituals, beliefs, and aesthetic sensibilities of an ancient people (Yang et al., 2024). Through their craftsmanship, motifs, and symbolic attributes, artifacts are capable of expressing deeply rooted cultural stories that will speak to historical as well as contemporary audiences alike (Ran et al., 2025).

Preserving such cultural meanings, however, is not merely maintaining physical objects; it is also about maintaining the intangible cultural messages they transmit (Zhao et al., 2024). Material culture's symbolic language is easily eroded when objects are taken out of their initial context or commodified without appropriate interpretation (Manley et al., 2023). To this end, scholars promote a sophisticated approach to preserving heritage one that centers on meaning-making, narrative preservation, and cultural sensitivity (Z. Zhang et al., 2024). In the case of Sanxingdui, this is especially salient since the civilization's mysterious and less-documented nature poses a challenge to authentically linking past and present (Liu & Zhang, 2025). Through identifying and deciphering the intangible cultural identity within its artworks, researchers and designers have the ability to bridge past and present (Ma & Guo, 2024). Symbolizing cultural identity by way of product design, thus, requires an equally thoughtful balance of aesthetic innovation and cultural authenticity to ensure that heritage is conveyed and not commercialized.

### Museum Creative Product Design

Museum creative products have become an important medium for the transmission of culture, making formerly passive experiences of viewing become interactive and haptic experiences with heritage (Shen & Li, 2024). Globally, top museums like the British Museum and the National Palace Museum in Taiwan have created high-end cultural and creative product lines that reinterpret classic artifacts into contemporary products (Lin & Ryu, 2023). These include replicas and fashion items, as well as stationery and home decor products, that are not only business generators but also cultural education tools (Xuemin et al., 2023). They offer visitors to museums with mobile experiences of history and culture, which serve to expand the role of museums beyond their locales (Lin & Ryu, 2023). Significantly, such product development entails a complex design process that calls for profound comprehension of the symbolic and cultural significance of objects (Wu et al., 2023). Best practices globally emphasize the need for interdisciplinarity between curators, historians, and designers to create end products that are respectful of the historical integrity of the artifact but still a reflection of the sensibilities of modernity (Huang et al., 2023).

At the heart of this practice is the assumption of authenticity, and this calls for museum products from genuine cultural expression instead of diluting it for the sake of commerce (Cheng et al., 2023). The specter of cultural appropriation also looms, particularly when elements of heritage are used without acknowledgement or comprehension ((Ding et al., 2024). Applied to local Chinese museums such as Sanxingdui, however, this cultural meaning and market relevance tension is particularly essential, as with the distinctiveness and mystery that lies in the case of the artifacts involved (Duan, 2024). Successful museum product design should be built upon a deeply researched cultural symbol, embedded in contemporary shape with legitimacy, and have their meaning clearly understood by the masses (Cheng et al., 2023). The best institutions will ultimately build in-house best practices or guidelines that guarantee consistency between design output and curatorial purpose (Shen & Li, 2024). For Sanxingdui Museum, there needs to be a culturally sensitive and organized product design strategy to guarantee that creative reinterpretations of its mythic objects meaningfully engage diverse audiences (Li & Wang, 2024a).

### Sanxingdui Civilization in Academic Research

Sanxingdui has intrigued archaeologists and historians since its initial discovery in the 1920s, with large-scale excavations unearthing a treasure trove of artifacts including gigantic bronze masks, ritual trees, and jade tools (Changping & Wu, 2024). These findings suggest that Sanxingdui civilization was an advanced, ritualized culture independent of the central Chinese plains and offers a counter-narrative to the Shang-centric traditional history of the Bronze Age (Chen, 2025). The most striking feature of Sanxingdui artifacts is their caricatured, surreal appearance e.g., huge eyes, elaborate headdresses, and mythological animals which has led many scholars to wonder about the religion of this civilization and cosmological ideologies (Liu & Zhang, 2025). Scholar interpretation of these artifacts has a tendency to emphasize their role as symbols in rituals, maybe images of gods, ancestors, or celestial powers, indicating the central place of religious life in the culture's identity (Qiu et al., 2023).

Despite the above results, the symbolic language of Sanxingdui is only partially decoded and requires interpretive scholarship, especially in art history and cultural studies (Duan, 2024). Recent studies have tried to start analyzing the semiotics of individual artifacts, such as the golden scepter or the bronze sacred tree (Chen, 2025). However, comprehensive frameworks for interpreting these symbols in a design context remain underdeveloped (Guo et al., 2023). The mystery and ambiguity of Sanxingdui's cultural iconography present both challenges and opportunities for cultural product development (Ran et al., 2025). On one hand, the lack of written records complicates efforts to accurately interpret the artifacts; on the other hand, the distinct visual style offers rich inspiration for creative reinterpretation (Xikuan & Jian, 2025). Thus, scholars and designers must step up to the challenge with academic diligence, drawing on archaeological records, museum documentation, and cross-cultural comparison with other cultures (Xu, 2025). It is not merely a case of conserving and displaying Sanxingdui culture but reimagining it for contemporary cultural consumption without betraying its enigmatic essence.

## 3. Methodology

### Research Design

This study employed a qualitative, descriptive, and interpretative research design to explore and classify representative cultural content embedded in the Sanxingdui civilization artifacts with the intention of employing them towards museum creative product development. Qualitative research was employed as it is good at capturing rich, contextual, and symbolic

meanings within visual and material culture (Cresswell, 2013). The analysis relied intensively on visual inspection and interpretive frameworks to evaluate the cultural significance of forms, motifs, and stylistic components of Sanxingdui artifacts. Open coding was used to record repeated features, while thematic categorization was used to form categories of visual and symbolic data that are meaningful. This analysis left space for flexible yet structured inspection to reveal deep cultural narratives embedded in art work. The descriptive component of the design offered detailed documentation of the findings, but the interpretative component enabled synthesis of understanding relevant to contemporary cultural product design.

### **Data Collection**

Data were collected from diversified primary and secondary sources. The primary source was the Sanxingdui Museum collections of artifacts, which included photographs, exhibition materials, and digital archives available through the official websites of the museum. Supplemental data were sourced from excavation reports published by the Sichuan Provincial Cultural Relics and Archaeology Research Institute, which provided contextual information and archaeological interpretation. High-resolution images of artifacts were used to perform close visual inspection and iconographic analysis. Curator and exhibition designer interviews, where possible, were considered in order to gain insight into curator's interpretation and prevailing design practice. The study utilized element diagrams to document and decompose the artifacts into their parts comprising cultural symbols, shapes, and materials. This visual data collection process was instrumental in capturing the complexity and diversity of Sanxingdui's visual language and enabling a systematic way of identifying repeating motifs and themes that are relevant to cultural identity.

### **Data Analysis Procedure**

The analysis procedure started with open coding of visual and descriptive data, where the observed cultural elements in artifacts were categorized based on their physical and symbolic features. Open codes were then grouped into six main thematic categories, based on both visual similarity and cultural meaning: (1) Human Figures, (2) Animal Figures, (3) Artifact Shapes, (4) Decorative Patterns, (5) Cultural Colors, and (6) Materials & Craftsmanship. Each theme acted as a conceptual set for condensing recurring sub-elements like hyperbolic eyes in human masks, spiral motifs in ornamentation, or particular bronze alloys in tools. This thematic basis supported the creation of a taxonomical system that could guide design choices in product generation within cultural contexts.

Sub-themes were derived from each of the major themes to capture the subtlety of variations and compounding meanings. For example, between deified individuals, warriors, and ritual performers within the Human Figures category, distinctions were drawn on the basis of their varying symbolic importance. The Cultural Colors theme saw repeated usage of bronze-green patina, gold leaf, and earth-tone pigments explained within a symbolic and aesthetic context. After grouping, the sub-themes were synthesized into interpretive stories that served to capture their design potential and cultural importance. These synthesized findings were then couched in the form of design references guiding principles and symbolic motifs that can be applied directly to the creative work of museum products to ensure cultural authenticity as well as aesthetic cohesion.

## 4. Results and Analysis

### 4.1 Theme 1: Human Figures

The most eminent and semantically dense category of Sanxingdui artifacts is the representation of human figures, which occur in various forms and roles. These representations are not realistic but abstracted and hypertrophied, conveying selective features to represent religious or cultural significance. Four dominant subthemes were found under this theme through the analysis.

HF1: Masks as Facial Representations are some of the most famous works from Sanxingdui, led by renowned Protruding-Eyed Mask. These masks tend to be cast in bronze with gold foil overlays, featuring gigantic almond-shaped eyes extending well away from the face, flared nostrils, protruding ears, and minimalist mouths. Scholars interpret these amplified features as symbolic more than realistic, perhaps indicative of spiritual insight, all-knowing deities, or ritual participants with supernatural vision ([Li & Wang, 2024a](#)). These masks would have been employed within ceremonial scenarios, donned by religious specialists or kept as representations of divine strength, further constructing their significance in the conveyance of cultural identity.

HF2: Head Representations like the Bronze Heads with Gold Masks only show the upper part of the human body but are depicted in great detail. The heads are usually adorned with big, symmetrical eyes, broad jaws, and elaborate headdresses or facial ornaments. The use of gold for some of the heads is thought to indicate increased status, godliness, or spiritual enlightenment ([Chen, 2025](#)). These heads could have served as symbolic effigies of politicians-religious leaders, gods, or ancestors. Their solitary existence (without bodies) indicates that the head was a focal point of identity, ritual power, and authority.

HF3: Full Human Figures are made up of objects such as the Large Standing Figure a bronze figure almost 2.6 meters tall holding a ceremonial object and several Kneeling Figures, mostly shown in offering or submissive positions. These body-length representations are of a ritualistic and hierarchical culture in which some individuals, potentially shamans or the leaders of the tribes, held mediator positions between humankind and the divine. The elaborately patterned robe, wide stance, and authoritative bearing of the standing figure point towards a key position within ceremonial or spiritual leadership ([Liu & Zhang, 2025](#)). These sculptures speak of political power, religious authority, and social order in Sanxingdui cosmology.







HF4: Human Components in Composite Beings describe images in which human anatomical parts are combined with animal or fantastical bodies, like the Rider-on-Beast or the Bird-Footed God. Such composite creatures indicate a permeable border between the human and supernatural planes and are an expression of mythological belief according to which divine creatures were able to adopt various forms. In most instances, these images have human torsos and faces but feature bird talons, animal legs, or fantasy ornamentation, which further emphasizes their liminal, otherworldly character. These artifacts suggest a cosmology full of transformation, metamorphosis, and symbolic hybridity.

### Design Implications

These human figure representations are brimming with inspiration for modern museum product design. The mask motif, in particular, lend themselves to wearable art objects, fashion jewelry, and collectibles. The oversized eyes and geometric characteristics can be reworked into abstracted, reduced expressions without distension of cultural authenticity suitable for modern

design. Complete figures can develop figurines, interior design, and museum interactive products evoking authority and ritual importance. Figurines. Hybrid entities create innovative avenues in fantasy-driven product categories wherein myth and identity intersect. Surprisingly enough, such anthropomorphic entities enable retranslation of cultural tropes like spirituality, respect, and transformation into contemporary visual lexicons. A thematic coding of human figure representations in Sanxingdui artifacts is presented in Table 1, with four open codes of crucial importance: facial masks, head representations, full human figures, and human parts in composite figures. The variety of forms—spanning from overstated masks to ritualistic stances—symbolizes the civilization's emphasis on spiritual power, ritual selfhood, and mythic symbolism. These visual signs contain fertile potential for design inspiration in culturally embedded creative product development.

**Table 1: Thematic Coding of Human Figure Elements in Sanxingdui Artifacts**

Open Code	Original concept	Element diagram	Interviewers
HF1(Masks as Facial Representations)	(Bronze Vertical-eyed Mask)		Curator A, Designer B
	(Large Bronze Mask)		Cultural Anthropologist C
	(Protruding-eyed Bronze Mask)		Museum Guide D, Designer E
	(Gold Mask)		Conservator F, Designer B
HF2(Head Representations)	(Various Bronze Human Heads)		Curator A, Art Historian G
	(Bronze Human Heads with Gold Masks)		Designer E, Cultural Heritage Expert H
			
HF3(Full Human Figures)	(Large Bronze Standing Figure)		Curator A, Designer I

(Bronze Standing Figure with Skirt)



Museum Educator J

(Bronze Figure Holding a Bird, Bronze Figure Holding a Dragon)



Designer B, Historian G

(Small Bronze Standing Figure with Pointed Hat)



Cultural Scholar K, Conservator F

(Bronze Kneeling Figure with Turned Head)



Designer E, Archaeologist L

(Various Bronze Kneeling Figures - holding vessels, jade objects, etc.)



Museum Guide D, Art Historian G

(Bronze Human Figure with Beast-head Crown)



Curator A, Cultural Heritage Expert H

HF4(Human Components in Composite Figures)

(Human Element in Bronze Figure Riding Beast)



Designer B, Cultural Scholar K

(Human Element in  
 Bird-footed Divine  
 Figure)



Museum Educator J, Archaeologist L

(Human Figure  
 Components on  
 Bronze Altar)



Curator A, Designer I

## 4.2 Theme 2: Animal Figures

Animal depictions in Sanxingdui relics expose a dynamic, symbolic treatment of nature, mythology, and cosmology. They are not mere representations of fauna but stylized, abstracted, and hybridized, reflecting their totemic, spiritual nature. The coding process under this theme brought forward five main subthemes.

AF1: Avian Forms are ubiquitous in the guise of Bronze Phoenix Finials or Bird-Topped Columns. These birds are abstract rather than naturalistic, with over-exaggerated crests, long flowing tails, and swirling patterned feathers. In Chinese ancient belief systems, birds tend to represent transcendence, heaven-earth connection, and spiritual liberty. The phoenix, especially, represents rebirth, prosperity, and divine presence (Xu, 2025). In the Sanxingdui case, avian designs probably had ritual or protective functions in temples and altars, as intermediaries between the divine or spiritual realms or as messages from heaven.

AF2: Mammals and Mythical Beasts consist of strong representations like Bronze Tigers, Beast Faces, and fierce animal masks. These animals usually have exaggerated fangs, pointed horns, and stylized manes or fur designs. Their warlike stance and energetic depiction imply their function as guards, protectors, or emblems of power and savagery. Although some show actual animals such as tigers or boars, others look quite mythical, suggesting that they were significant as religious symbols in ritual contexts. Their position on ritual containers or altars substantiates their sacred meaning.

AF3: Dragon and Serpent Forms become manifested in objects such as the Pig-Nosed Dragon, which juxtaposes serpent-like bodies with unorthodox facial morphology in the forms of pig snouts or coiled horns. These manifestations allude to local mythologies and spiritual beliefs independent of the later-evolving mainstream Chinese dragon symbolism. Sanxingdui dragons are less structured and more monstrous, representing chaos, change, or concealed cosmic forces. Their flexible bodies and hybrid character render them powerful symbols of metamorphosis and mystery.

AF4: Piscine Forms, like the Gold Foil Fish Ornament, provide a more restrained manifestation of nature symbolism. Though diminutive in size, these artifacts are highly detailed, commonly with thin fins and reflective surfaces. Fish in Chinese symbolism connote abundance, fertility, and prosperity. Their presence at Sanxingdui indicates parallel connotations and mirrors the culture's encounter with rivers, water deities, or with agricultural cycles.






AF5: Composite Mythical Beings are probably the most creative and spiritually charged type. The Bird-Footed Beast Deity is an example that draws upon various species bird legs, animal












heads, horns, wings, and human features. Such creatures are not just imaginary; they also carry cosmological orders, moral opposites, and mythic protection. Their richness calls for multiple layers of interpretation and presents enormous creative latitude for story-based design.




### Design Implications

The animal designs of Sanxingdui are adaptable to various design uses based on totemic symbolism and mythic abstraction. Bird and fish shapes can be transformed into curved, nature-based motifs for textiles, ceramics, or jewelry. Strong, mammalian silhouettes and figural animals are popularly used in decorative collectible statues, defense talismans, or participatory toys. They have maximum visual excellence and cultural relevance due to their strong status as status symbols. The hybrid animals can be employed to foster creativity through narrative storytelling in children's consumer goods, animated theme shows, or simulated real-world interactions, challenging the educational status quo of the museum. Across product categories, abstracted animal forms provide a link between prehistoric cosmologies and contemporary sensibilities. Table 2 categorizes the various animal figure components in Sanxingdui artifacts into five categories based on a dense symbolic fauna of birds, beasts, dragons, fish, and mythological hybrids. The figures not only signify nature but also convey religious and mythical themes that are part of the Sanxingdui belief system. Their abstract nature and composite structure make a stable basis for totemic or emblematic product design based on cultural symbolism.

**Table 2: Thematic Coding of Animal Figure Elements in Sanxingdui Artifacts**

Open Code	Original concept	Element diagram	Interviewers
AF1(Avian Forms)	(Large Bronze Bird Head)		Curator A, Designer B
	(Bronze Phoenix Column Head)		Cultural Anthropologist C
	(Bronze Birds - various standalone forms)		Museum Guide D, Designer E
	(Bronze Chicken)		Conservator F, Designer B
	(Gold Bird-shaped Ornament)		Curator A, Cultural Heritage Expert H

AF2(Mammalian & Mythical Beasts)	(Bronze Beast Face - 3D form, not flat pattern)		Curator A, Art Historian G
	(Bronze Tiger)		Designer E, Archaeologist L
	(Tiger-shaped Beast)		Museum Educator J
	(Gold Foil Tiger-shaped Ornament)		Cultural Scholar K, Conservator F
AF3(Dragon & Serpent Forms)	(Pottery Pig - culturally sensitive in certain regions)		Museum Guide D, Cultural Heritage Expert H
	(Bronze Serpent)		Designer B, Curator A
	(Bronze Dragon Column)		Art Historian G, Archaeologist L
	(Pig-nosed Dragon-shaped Object)		Museum Educator J, Cultural Scholar K
	(Dragon Body in Bronze Tiger-headed Dragon Figure)		Curator A, Designer I
AF4(Piscine Forms)	(Dragon on Dragon-shaped Vessel Cover)		Conservator F, Art Historian G
	(Gold Foil Fish-shaped Ornament)		Designer E, Cultural Heritage Expert H
AF5(Composite & Mythical Beasts)	(Bronze Mythical Beast)		Curator A, Museum Guide D
	(Large Bronze Standing Divine Beast)		Designer B, Cultural Scholar K

(Beast Element in Bronze Figure Riding Beast)	Repeat as before	Museum Educator J, Archaeologist L
		
(Bird Feet and Beast Torso in Bird-footed Divine Figure)	Repeat as before	Curator A, Designer I
		
(Beast Figure Components on Bronze Altar)		Cultural Heritage Expert H, Conservator F
		

### 4.3 Theme 3: Artifact Shapes / Forms

The form and shape of the Sanxingdui artifacts provide important information regarding their symbolic, ritual, and functional applications in the civilization. Instead of being utilitarian in nature, the shape of many objects indicates sacred cosmological beliefs and ceremonial significance. This theme constitutes three important subthemes derived from the formal elements of the artifacts.

AS1: Sacred & Symbolic Shapes are represented by objects like the Divine Tree, Sun Wheel, and Altar Bases. The Divine Tree, which is made of bronze with intricate branching shapes and ornate bird figures, is thought to represent the cosmic tree or axis mundi a connection between heaven, earth, and underworld (Chen, 2025). The Sun Wheel has radiating spokes or circular shapes that can be interpreted as solar worship or cyclical time. Altars tend to have stepped platforms and symmetrical composition, reiterating spatial hierarchies employed in rituals. These sacred forms mirror the civilization's cosmology and spiritual order understanding, implying that form itself was deeply symbolic.








AS2: Ritual Objects comprise weapons, vessels, and ceremonial objects like the Jade Zhang (a ritual sword) and the Bronze Zun (a ritual wine vessel). The Jade Zhang, with its polished surfaces and sharp tip, was probably a symbol of power rather than employed in battle. Bronze Zun vessels, often found inscribed with zoomorphic ornamentation, were utilized in rituals of libation, showing that form was deeply intertwined with ritual use. They tend to display symmetry, balance, and stylization, which are signs of conscious craftsmanship informed by religious and ceremonial importance (Ran et al., 2025).

AS3: Ornaments & Tools consist of smaller, more ornamented pieces like Gold Foil Four-Pronged Objects, Jade Pendants, and Decorative Tools. These pieces imply double uses functional and ornamented and express personal ornamentation, social standing, or ritual importance. The distinctive shapes of these artifacts, frequently with sharp angles, radial symmetry, or abstract designs, offer a rich visual vocabulary for reinterpretation in contemporary times.

## Design Implications

Sanxingdui artifacts' symbolic and distinctive forms are a rich source of form-based inspiration for contemporary design. Geometric and religious forms can be adapted into home decorative items nowadays, such as incense burners, lamps, or furniture based on sculpture, referencing cosmological order or religion. Forms like the Zun vessel for ritualistic items can inspire containers, vases, or kitchenware, blending heritage style with functionality. Jewelry designers can take cues from the contours of jade pendants or gold trappings to create fashion accessories that recall ancient symbolism in wearable form. Such designs have cultural meanings without strict limitations for reinterpretation among product lines. Table 3 lists significant artifact shapes categorized into sacred symbols, ritual forms, and ornamentation, illustrating Sanxingdui civilization's deep spiritual texture and ceremonial sophistication. Typical forms such as the Divine Tree, Sun Wheel, and Dragon-Tiger Zun both support cosmology, power, and sacred function themes and directly generate containers, jewelry, and decorative pieces in museum-based creative products.

**Table 3: Thematic Coding of Artifact Shape Elements in Sanxingdui Artifacts**

Open Code	Original concept	Element diagram	Interviewers
AS1(Sacred & Symbolic Shapes)	(No.1 Large Bronze Divine Tree)		Curator A, Designer B
	(Bronze Sun Wheel - sun-shaped object)		Art Historian G, Cultural Scholar K
	(Bronze Eye-shaped Object)		Museum Guide D, Designer E
	(Bronze Altar - overall structure of reconstruction)	 The altar appeared 3 times in different shapes	Archaeologist L, Conservator F
AS2(Ritual Object Shapes)	(Gold Scepter)		Cultural Heritage Expert H, Designer I
	(Bronze Vessels): (Bronze Zun Vessels, e.g., Dragon-Tiger Zun)	 Bronze Zun Vessels	Curator A, Museum Educator J
			

Bronze Dragon-Tiger Zun

(Bronze Lei Vessel)



Designer B, Art Historian G

(Jade Ritual Objects):  
 (Jade Zhang - Sacrificial Mountain Jade Zhang, Tooth-shaped Zhang)



Cultural Scholar K, Conservator F

Jade zhang of the Mountain Sacrifice



Tooth-shaped Zhang

(Jade Bi Discs - including Three-holed Bi's ring shape with holes)



Curator A, Designer B

(Jade Cong - including Divine Tree patterned Cong's cylinder with square exterior and round interior)



Art Historian G, Cultural Scholar K

(Jade Ge Dagger-axe - unique dagger-axe shape)



Museum Guide D, Designer E

(Pottery Ritual Objects):  
 (High-stemmed Dou Vessel - pottery with distinctive base and bowl combination)



Archaeologist L, Conservator F

(Pottery Tripod Cooking Vessel - three-legged container form)












Cultural Heritage Expert H, Designer I

AS3  
 (Ornaments &

(Bronze Circular Pendants)



Curator A, Museum Educator J

Other Small Objects)	(Bronze Plaque Ornaments)		Designer B, Art Historian G
	(Gold Foil Four-pronged Object)		Cultural Scholar K, Conservator F
	(Gold Foil Zhang-shaped Ornament)		Curator A, Designer B
	(Gold Belt Ornaments)		Art Historian G, Cultural Scholar K
	(Jade Axes, Adzes, Chisels, and Knives - tools or ritualized tools with specific shapes)	not important 	Museum Guide D, Designer E
	Jade tube beads, jade beads	jade spear  	Archaeologist L, Conservator F
	(Beast-face and Phoenix-patterned Jade Square Base - square structure as object base)		Cultural Heritage Expert H, Designer I
	(Pottery Bird-head Ladle Handle – distinctive shape as object component)		Curator A, Museum Educator J

#### 4.4 Theme 4: Decorative Patterns

One of the most visually striking features of Sanxingdui artifacts is their employment of elaborate decorative patterns. These were not simply surface level aesthetic flourishes but encoded with layers of cultural symbolism, which tended to relate to mythology, cosmology, and ritual practice. Through thematic analysis, seven different subthemes of decorative motifs were determined.

DP1: Geometric Patterns, i.e., Spiral, Grid, and Cloud-and-Thunder Motifs, are prevalent in bronze and jade ornaments. Spirals can symbolize natural cycles or energy currents, and grid patterns imply order and equilibrium. The cloud-and-thunder motif, quite common in Chinese bronzeware, can be interpreted as symbols of divine forces or heavenly power (Wu et al., 2023).

These geometric motifs comprise rhythmic and symmetric patterns reflecting the advanced aesthetic sensitivity and symbolic system of the Sanxingdui civilization.

DP2: Eye Motifs are especially dominant in masks and head figurines, where large almond-shaped or circular eyes take center stage. They could represent knowledge beyond human knowledge, bridging the divine or spiritual awareness. They are also a common visual motif throughout more than one group of artifacts, reinforcing the emphasis on vision and knowledge in Sanxingdui ritual culture.

DP3: Human-Face Patterns occur not just as complete sculptural representations but also as inscribed or raised motifs in sequential duplication. The patterns can be depictions of ancestors, spiritual protectors, or ritual devotees, and they can provide identity and narrative by way of stylized facial expressions.

DP4: Animal Motifs, such as Taotie Dragons and Phoenix Feathers, are found in both single ornaments and composed together. The taotie, a mythical creature face with balanced horns and staring eyes, was widely employed to summon defensive power or serve as a gateway between worlds. Phoenix feather motifs imply rebirth, nobility, and heavenly order.

DP5: Nature Motifs e.g., Mountain, Divine Tree, and Fire Patterns symbolize the civilization's close relationship with natural and cosmic forces. These motifs are stylized in abstraction but refer unequivocally to natural landscapes and phenomena. Mountains, for instance, can stand for stability and spiritual climb, and fire implies transformation and ritual cleansing.



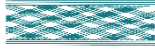












DP6: Composite Patterns, such as the Mountain Sacrifice Scene, take various symbolic elements and layer them into multilayered narrative compositions. These intricate scenes feature humans, gods, animals, and nature motifs all engaged within an ordered visual narrative. They probably stand for religious myths or ritual reenactments, curating cultural wisdom in visual form.














DP7: Special Patterns, including Wave and Rice-Grain Motifs, are small-scale but very detailed ornamentation that occurs on borders, rims, or apparel. These introduce texture, rhythm, and movement to the overall composition, implying attention to detail and symbolic layering even in lesser details.

### **Design Implications**

The luxuriant diversity of ornamental patterns in Sanxingdui artifacts offers rich design material for textile prints, packaging design, engravings, and digital graphics. Geometric and eye motifs can also be transformed into repeating patterns suitable for application in fashion fabric, wallpaper, or branding materials, providing visual interest and cultural depth. Animal and nature motifs may enrich ceramic tableware, book covers, and luxury collectibles. Composite narrative patterns can be discovered in interactive media, educational resources, or themed interior spaces, providing experiential cultural storytelling. By interpreting these old motifs anew as understandable visual elements, designers can develop goods that are at once beautiful to see and meaningful culturally. Table 4 categorizes ornamental patterns into seven groups, from geometric and animal imagery to human, nature-inspired, and composite scenes. These patterns, usually engraved or embossed, respond to rich symbolic meanings linking them with identity, mythology, and ritual practice. Their variability and multiplicity facilitate direct transfer into surface designs, textiles, packaging, and branding for culturally derived product innovation.

**Table 4: Thematic Coding of Decorative Patterns in Sanxingdui Artifacts**

Open Code	Original concept	Element diagram	Interviewers
DP1(Geometric Patterns)	(Cloud-and-thunder Pattern)		Curator A, Designer B
	(Grid Pattern)		Cultural Anthropologist C
	(Diamond Pattern)		Museum Guide D, Designer E
	(Circle Pattern)		Conservator F, Designer B
	(Linked Pearl Pattern)		Curator A, Cultural Heritage Expert H
	(Raised Ridge Pattern)		Designer E, Archaeologist L
	(Solar Halo Pattern)		Museum Educator J
	(Cord Pattern)		Curator A, Designer I
	(Square Grid Pattern)		Cultural Scholar K, Conservator F
	(Parallel Line Pattern)		Museum Guide D, Art Historian G
	(Fine Line Pattern)		Designer B, Cultural Heritage Expert H
	(Dotted Pattern)		Curator A, Designer E
	(Diagonal Line Pattern)		Archaeologist L, Museum Educator J
	(Spiral Pattern)		Curator A, Designer B
DP2(Eye Patterns)			Cultural Anthropologist C, Designer I
DP3(Human-face Patterns)	(Human Face Pattern - decorative human face motif)		Museum Guide D, Conservator F
	(Human Head/Shaman Pattern on Gold Scepter)		Curator A, Cultural Heritage Expert H
	DP4(Animal Patterns)	(Beast Face Pattern - flat decorative motif)	
(Taotie Dragon Pattern)			Curator A, Designer B
(Dragon Pattern)			Museum Educator J, Cultural Scholar K
(Bird Pattern)			Conservator F, Museum Guide D

	(Fish Pattern)		Designer E, Art Historian G
	(Feather/Wing Pattern)		Curator A, Designer I
	(Cicada Pattern)		Cultural Anthropologist C
	(Divergent Feather Pattern)		Museum Guide D, Designer B
DP5 (Plant & Nature Patterns)	Divine Tree Pattern - flat decorative motif)		Curator A, Cultural Heritage Expert H
	(Ivory Pattern)		Conservator F, Archaeologist L
	(Sacred Mountain Pattern)		Designer E, Museum Educator J
	(Flame Pattern)		Cultural Scholar K, Designer B
DP6 (Thematic Composite Patterns)	(Composite Pattern of Fish, Bird, Arrow, and Human Head/Shaman on Gold Scepter)		Curator A, Designer I
	(Mountain Sacrifice Scene on Jade Zhang - "Sacred Mountain and Ritual" pattern)		Cultural Anthropologist C, Museum Guide D
	(Beast-face and Phoenix Pattern)		Designer E, Conservator F
DP7(Special Patterns)	(Wavy Curved Pattern)		Curator A, Designer B
	(Appliqué Pattern)		Cultural Heritage Expert H, Museum Educator J
	(Rice-grain Pattern on pottery)		Archaeologist L, Designer E

#### 4.5 Theme 5: Cultural Colors

Color has a basic function to convey cultural meaning, to call up emotional resonance, and to represent values in visual culture. Colors in Sanxingdui artifacts are not just visual attributes but symbolic markers of status, spiritual purpose, and material being. Five significant subthemes of cultural colors were consistently found among the various artifact categories.

CC1: Bronze Green is arguably the most ubiquitous color to be identified with Sanxingdui. This green patination, usually the product of centuries of oxidation, appears on masks, vessels, and sculptures. The color varies from pale green to deep turquoise, lending the artifacts a weathered, sacred quality. The color is highly linked with antiquity and eternity, inspiring respect for heritage and enigma. Culturally, it might have represented vitality, nature, or divine power, especially in ritual situations ([Xu, 2025](#)).

CC2: Burnished/True Gold can be seen in items overlaid with gold foil or made of solid gold, like the Gold Mask or Gold Scepter Fragment. These items still shine even after millennia, which are indicative of prosperity, prestige, and divinity. Gold was both for decoration and symbolic purposes and must have been meant for upper-class usage or deity representation. Its shining characteristic also gives the object light, possibly representing enlightenment or heavenly favor.

CC3: Archaic Black/Brown colors can be seen on pottery sherds, carbonized wood artifacts, and bronze objects covered in residue. These dark colors are matte and earthy and typically represent age, stability, and ritual fire. Black and brown might have been applied with purpose to create somberness or sacred presence in ritual objects, consistent with ancient Chinese color symbolism in which black is associated with the north and the unknown ([Duan, 2024](#)).

CC4: The natural white and pale green through deep moss or translucent ice colors of jade are found in many carved pendants, tools, and ritual blades. Jade was thought of as a sacred stone by the ancient Chinese, for its purity, beauty, and spiritual protection. The natural color of jade is subdued yet refined, and each color variation could have had some particular ritual or cosmological significance, representing moral excellence, harmony, or ancestor bond.






CC5: Natural Pottery Colors The natural colors of reddish-brown, gray, and buff hues emerge in ceramic sherds and ritual urns. These hues capture the unworked substance of the earth and the hand-molded, unglazed quality of much pottery. The subdued coloration reinforces an anecdote of frugality, everyday life, and earthy rituals over gold and bronze objects.

#### Design Implications

These color hues provide a rich, authentic coloring book for modern product design, particularly in fields like fashion, interior design, packaging, and online branding. Bronze green and archaic black shades can produce aged or sacred results in ceramic glazes, textile dyes, or product finishes. Gold shades convey luxury and status in high-end product lines like jewelry or upscale packaging. Jade-inspired colors can be used to design sophisticated, nature-attuned visuals for health products, paper products, or domestic accessories. Employing these period color schemes not only enriches the aesthetic value of museum creative products but also sends a message of authenticity, durability, and cultural richness, enabling contemporary consumers to find an emotional connection with the ancient Sanxingdui heritage. Table 5 presents a thematic classification of Sanxingdui's cultural color palette, highlighting five color groups derived from material composition and aging processes. From the oxidized green of bronze to the natural hues of jade and pottery, these colors reflect authenticity, antiquity, and sacredness.

This palette can guide visual branding and aesthetic choices in the development of Sanxingdui-themed creative products.

**Table 5: Thematic Coding of Cultural Color Elements in Sanxingdui Artifacts**

Open Code	Original concept	Element diagram	Interviewers
CC1(Bronze Green)	(Rich layered green and blue-green tones formed by oxidation of bronze artifacts)		Curator A, Conservator F
CC2(Burnished/True Gold)	(Brilliant, substantial, warm golden tones of gold artifacts)		Designer B, Cultural Heritage Expert H
CC3 (Archaic Black/Brown)	(Deep tones present in certain objects (such as pottery or specially treated bronze), or patinas formed due to burial environment)		Art Historian G, Museum Educator J
CC4 (Natural Jade Colors)	(Natural varied colors of jade (such as green, white, yellow, etc.))		Curator A, Designer E
CC5 (Natural Pottery Colors)	(Earth-toned colors of fired pottery (such as red pottery, gray pottery))		Archaeologist L, Cultural Scholar K

#### 4.6 Theme 6: Materials and Craftsmanship

Material content and production methods of Sanxingdui artifacts demonstrate an exquisitely advanced and symbolically sophisticated artisan culture. The mastery of metalwork, carving, and material shaping by the civilization was not merely technical but also intimately connected with spiritual and social meaning. The next set of subthemes outlines the main material fields and related craftsmanship practices.

MC1: Bronze Casting is among the distinctive features of Sanxingdui civilization. Objects like the Protruding-Eyed Mask and Standing Figures were made through the use of segmental casting methods, whereby molds were pieced together in sections to enable more spacious and complex shapes. Most objects also contain intricate relief motifs, including spirals and cloud patterns, demanding high levels of accuracy and artistic foresight. This quality of workmanship testifies to technological ingenuity as well as to cultural respect for metalwork for religious and political symbolism ([Xikuan & Jian, 2025](#)).

MC2: Gold Working made use of methods like foil application, stamping, and repoussé, observed in objects like the Gold Mask and ornamented plaques. Gold foil was hammered and molded carefully to hold onto underlying shapes, adding to their sacred and luxurious look.

The refinement of the work indicates that goldsmiths were elite artisanal positions, with direct contribution to objects used in ritual and elite ceremonies.

MC3: Carving of jade evinces a high level of precision, including abrasive polishing, incising, and motif engraving. The artifact such as the Jade Zhang blade or pendants exhibit fine lines, immaculate symmetry, and symbolic cuts. The hardness of jade necessitated sophisticated tools and painstaking craftsmanship, further emphasizing the artifact status as sacred and long-lasting material. Jade carving would have been reserved for ceremonial or mortuary use, signifying moral excellence, purity, and immortality.


MC4: Pottery Techniques reflect a mix of hand-molding, coil-building, and surface texturing. Many ceramic pieces feature cord-marked surfaces or low-fired finishes, preserving the natural tone and texture of the clay. While seemingly modest compared to bronze or jade artifacts, pottery played a vital role in daily rituals, food offerings, and ancestor worship. Its handmade nature adds a tactile, human dimension to Sanxingdui’s cultural materiality.




MC5: Ivory Use was identified in raw and worked forms, suggesting its function in tool-making, ornamentation, or ritual use. Ivory’s smooth texture and ivory-white tone made it a symbol of elegance and refinement. Its association with exotic trade also hints at Sanxingdui’s interaction with other regions and cultures. The symbolic value of ivory likely involved purity, transformation, or spiritual clarity, especially when used in high-status ritual contexts.

### Design Implications


Knowledge of Sanxingdui materials and workmanship feeds into the manufacture aesthetics of contemporary cultural commodities. Although the original materials such as jade or ivory might be unaffordable or ethically questionable, their textures and visual properties can be imitated in contemporary manufacture resin jade, gold-plating details, or patinated bronze effects, for example. Product ranges may be designed to have handmade or artisanal looks, reinforcing spiritual richness, cultural tradition, and eternity of beauty. By acknowledging traditional processes in product descriptions as well, their educational and emotional worth is increased, enabling users to not just value the aesthetic as well as the qualities of ancient craftsmanship but also the ritual, labor, and meaning involved. Table 6 summarizes technological and artistic skill in Sanxingdui materials, such as bronze casting, goldwork, jade carving, pottery production, and ivory utilization. Every material indicates not just craftsmanship but also cultural value associated with ritual, prestige, and symbolic purpose. Awareness of these practices guides designers on how to replicate or pay homage to old process in new manufacturing while maintaining cultural integrity.

**Theme 6: (Materials and Craftsmanship)**

Open Code	Original concept	Element diagram	Interviewers
MC1 (Bronze Casting Technology)	<p><b>(Material Characteristics):</b>            (Mainly copper-tin-lead alloy, demonstrating advanced mold casting, section casting, welding, polishing, and other techniques)</p> <p><b>(Craft Manifestations):</b></p>		Curator A, Metal Conservator M

MC2 (Gold Working Technology)	<p>(Complete casting and assembly of large objects like the Divine Tree and Standing Figure)        (Uniformity of thin-walled objects)        (Achievement of complex forms such as masks and ritual vessels)        (Casting of fine surface decorations)  <b>(Material Characteristics):</b>        (Excellent malleability of gold)  <b>(Craft Manifestations):</b>        (Hammering and shaping of gold masks)        (Production and application of gold foil, such as on bronze heads with gold masks and gold-wrapped scepters)        (Molding, stamping, or cutting of gold foil ornaments like gold birds and tigers)</p>		Designer B, Cultural Heritage Expert H
MC3(Jade & Stone Carving Technology)	<p><b>(Material Characteristics):</b>        (High hardness and smooth texture of jade)  <b>(Craft Manifestations):</b>        (Precise cutting, drilling, grinding, and polishing techniques)        (Fine patterns carved on jade objects like Zhang and Cong (such as mountain sacrifice scenes and divine tree patterns))</p>		Art Historian G, Jade Specialist N
MC4(Pottery Making Technology)	<p><b>(Material Characteristics):</b>        (Plasticity of clay and durability after firing)  <b>(Craft Manifestations):</b>        (Coiling, wheel-throwing (possibly</p>		Archaeologist L, Museum Educator J

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<p>less common), and hand-modeling techniques) (Decorative techniques on pottery surfaces such as cord impressions, incised patterns, and appliqué decorations)</p> <p><b>(Material Characteristics):</b>        (Tough texture and warm color of ivory)</p> <p><b>(Craft Manifestations):</b>        (Mainly used as raw material, possibly for inlays or small objects)        (Complete large carvings are rare; more emphasis on possession and sacrificial use of this precious material)</p>		<p>Conservator F, Cultural Scholar K</p>
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## 5. Discussion

The results of this research indicate that Sanxingdui artifacts are richly infused with values imbued in the civilization's spiritual beliefs, social organization, and mythological worldviews. The anthropomorphic contractions in human images particularly masks with projecting eyes and ritualistic postures display a symbolic visual language highlighting supernatural power, spiritual authority, and ritual presence (Yang et al., 2024). These images are not just ornamented depictions but transmit the civilization's ideological constructs, in which divine vision, metamorphosis, and hybrid identity dominated. In the same vein, the frequent blending of human and animal forms, as evident in rider-on-beast images and bird-footed gods, depicts a blurred line between human and divine spheres, in tune with initial Chinese concepts of cosmic unity (Changping & Wu, 2024). Here, nature, animals, and ritual are not secondary themes but structural aspects of cultural identity as visually represented in material culture (Guo et al., 2023).

Artistic symbolism at Sanxingdui is also enhanced by the interaction between ritual function, religious cosmology, and natural imagery. Ornamental motifs like the spiral, mountain, or taotie dragon are similarly repeated across media and thus refer to their embedded status in visual narrative and religious communication (Li & Wang, 2024b). Both metaphysical and ornamental, these patterns symbolize order, transcendence, and ancestral connection. Similarly, the selection of materials like jade for cleanliness, gold for godliness, and bronze for ritual longevity speaks of a society in which visual beauty and spiritual significance were not separable (Chen, 2025). This cultural rationale is congruent with larger East Asian patterns, but regional specificity at Sanxingdui can be seen in the abstract, dreamlike, and composite structures. The inference is that heritage conservation should move beyond listing objects; it should decode the symbolic systems that rendered those objects culturally significant (Qiu et al., 2023).

Based on these findings, several strategic design principles are derived for creating Sanxingdui-themed creative products. Designers should start with iconic patterns such as the Protruding-Eyed Mask, Divine Tree, and half-human half-animal figures due to their instant recognizability and cultural richness (Chen, 2025). These motifs are visually striking and already symbolically charged, so they are well-suited as anchors for narrative storytelling through product design. The employment of culturally authentic colors bronze patina, archaic black, jade green, and burnished gold also adds to the authenticity and visual unity of the products (Lu et al., 2023). Ancient shapes, such as the zun vessel or jade zhang, can be reinterpreted as contemporary homeware or fashion accessories, keeping the form but changing their purpose. This conforms to the idea of "cultural continuity through innovation," in which heritage components are not trapped in the past but develop within new cultural frameworks (Manley et al., 2023).

However, commercialization of cultural heritage needs to be done with cultural sensitivity and ethical consciousness. Symbols potentially sacred or contextually meaningful in ancient society cannot be reduced in contemporary consumer products. The pig-nosed dragon, being part of Sanxingdui mythology, may be offensive in Islamic markets where pigs are deemed unclean (Yang et al., 2024). Designers should exercise cultural literacy by being aware of the religious, political, and social meaning of motifs prior to applying them commercially. In addition, sacred items like the Divine Tree or ritual masks must not be mass-produced in the absence of proper contextualization. Product developers and museums must practice a cultural stewardship framework where the spiritual origin of these items is respected while at the same time narrating their stories to wider audiences (Ran et al., 2025).

Museums play a critical role in integrating ancient heritage and modern cultural production. The concept of the museum as a "cultural entrepreneur" is increasingly relevant, especially in the context of Sanxingdui, where recent archaeological finds have generated renewed global interest (Guo et al., 2023). With collaborations with designers, artists, and communities, museums are able to drive co-creation of meaning such that the public can interact with heritage in living ways. Museum creative products become learning content, symbolic objects, and emotional bonds, extending museum life beyond museum boundaries. This transformation from passive curation to active interpretation is one line of development in larger trends toward participatory heritage practice (Huang et al., 2023). For Sanxingdui, such engagement can assist it in being listed in national and global stories of identity, innovation, and continuity.

Ultimately, this study makes the case that cultural product design is beyond copying and instead a process of cultural translation. In preserving Sanxingdui artifacts' symbolic, formal, and material essence, institutions and designers can then produce modern experiences that pay homage to original meaning. This creates evidence in favor of "intangible heritage embodiment" theory, which holds that cultural memory can persist through reformed forms and experiences. If responsibly designed, Sanxingdui-based products have the ability to create emotional associations, historical sensitization, as well as cross-cultural exchange. Design is thus a cultural conservation method that can render ancient historical objects relevant and things that have been forgotten, remembered.

## 6. Conclusion

This research procedurally analyzed the visual, material, and symbolic aspects of Sanxingdui artifacts and concluded six broad cultural themes human figures, animal figures, artifact shape, decoration patterns, cultural colors, and materials with craftsmanship that collectively express

a systematic narrative of identity, religion, and artistry in Sanxingdui civilization. The examination unveiled a richly developed visual language wherein form, color, material, and motif were not adjuncts but bearers of cosmological symbolism, ritual authority, and cultural memory. These findings have huge potential for creative reinterpretation in terms of museum product design. By building an integrated map of the cultural constituents and mapping out their design implications, this study is making an outstanding contribution to a reference model for the Sanxingdui Museum and similar cultural institutions that wish to translate ancient heritage into innovative and culturally responsive products. In addition, the research furnishes a methodological template for combining cultural authenticity with contemporary design practice to enable sustainable cultural industries that are economically sustainable and historically well-founded.

### **Recommendations**

Based on the findings of this study, it is argued that developed classification framework of Sanxingdui cultural elements needs to be actively executed by museum product development teams in order to guide the design process in a more systematic and culturally appropriate manner. By incorporating themes of anthropomorphic figures, mythological themes, and symbolic patterns into brainstorming, idea development, and prototyping, teams can ensure that products maintain both creative appropriateness and historical integrity. In addition to this, organizing training workshops and collaborative sessions for designers specifically those who have no experience with ancient Chinese visual culture will assist in fostering more appreciation and understanding of Sanxingdui's heritage. These workshops would go out of their way to cover key topics such as the metaphysical value of motifs, historic material usage, and symbolic colors so that designers can make more informed creative choices. Thus, product design associated with museums may be shifted from being a mere souvenir-focused activity to a means of cultural learning, heritage conservation, and aesthetic experience within context.

### **Suggestions for Future Research**

Subsequent studies would investigate the reception and popularity of creative works that incorporate Sanxingdui motifs through empirical tests on public reception, cultural participation, and emotional resonance. Surveys, focus groups, and user testing could be used to determine how modern audiences perceive and appreciate products based on vintage inspirations, thus confirming the commercial and cultural feasibility of such designs. In addition, comparative analysis with other influential Bronze Age cultures like the Shang and Liangzhu cultures may provide more profound understanding of the regional diversity and common symbolic apparatus within early Chinese civilization. Comparative analysis can also sharpen the classification system established in this research, providing more precise knowledge of how cultural identity was visually inscribed throughout ancient societies. These fields would not only widen the scholarly focus of cultural design research but also optimize applied strategies for innovation through heritage in diverse historical and cultural contexts.

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### **Conflict of Interest Statement**

The authors declare that there is no conflict of interest regarding the publication of this study.

## References

- Burkut, E. B., Tekin, S., & Dal, M. (2025). Art and Museums in the Digital Age: An Overview of the Concepts and Spatial Design. *Online Journal of Art & Design*, 13(1).
- Changping, Z., & Wu, G. (2024). Sanxingdui and Ancient Chinese Civilization: In Conversation with Zhang Changping. In *The Civilization of China and the Civilizations of the World* (pp. 233-259). Springer.
- Chen, C. (2025). Symbolic Study of the Bronze Trees from Sanxingdui. In *Theory and Perspective* (pp. 467-478). Springer.
- Chen, Q., & Liu, Y. (2023). Discussion on the application of virtual technology in museum display design. Proceedings of the 2nd International Conference on Culture, Design and Social Development (CDS2022).
- Cheng, H., Liu, B., Luo, S., Xie, J., & Xia, L. (2023). Exploring the Chinese Design Concepts That Shape China's Cultural and Creative Products for Museums. In *Design Studies and Intelligence Engineering* (pp. 1-12). IOS Press.
- Cresswell, J. (2013). Qualitative inquiry & research design: Choosing among five approaches. In.
- Ding, B. Y., Sen, L. H., & Yi, W. S. (2024). Design demand of souvenirs to improve the brand value of museums. *Museum management and curatorship*, 39(2), 252-271.
- Duan, Y. (2024). How Did the Sanxingdui Become a Petal of the Ancient Chinese Civilization Flower? *Journal of Humanities, Arts and Social Science*, 8(9).
- Fu, Y., & Luo, J. M. (2023). An empirical study on cultural identity measurement and its influence mechanism among heritage tourists. *Frontiers in psychology*, 13, 1032672.
- Guo, Y., Xiang, F., Ran, H., Xie, Z., Yang, Q., Huang, H., & Ding, L. (2023). The sacrificial record in burial pits of the late Shang Dynasty: evidences from the chroma and magnetic properties of the Sanxingdui site, Sichuan, China. *Heritage Science*, 11(1), 258.
- Huang, H., Chen, H., & Zhan, Y. (2023). A Study on consumers' perceptions of museum cultural and creative products through online textual reviews: an example from palace museum's cultural and creative flagship store. *Behavioral Sciences*, 13(4), 318.
- Li, S., & Wang, H. (2024a). Interpretation and Analysis of the Witch Culture in Sanxingdui of the Ancient Shu Civilization. *Frontiers in Art Research*, 6(6).
- Li, S., & Wang, H. (2024b). Visual Worship and Elemental Analysis of Sacrificial Objects in Sanxingdui of the Ancient Shu Civilization. *Frontiers in Art Research*, 6(2), 78-92.
- Lin, F., & Ryu, K. (2023). How product design affects repurchase intention, eWOM, and museum visit intention: Museum mystery boxes in China. *Journal of Travel & Tourism Marketing*, 40(5), 434-451.
- Liu, X., & Zhang, Q. (2025). Sanxingdui Pattern Symbols in China: Visualisation Analysis with VOSviewer and CiteSpace.
- Lu, H., Fu, W., Xu, S., Chai, J., Ran, H., Lei, Y., & Zhao, H. (2023). Characterizing ancient jade by on-site analysis in Sanxingdui, China. *Heritage Science*, 11(1), 121.
- Ma, S. N. Z., & Mohame, B. B. (2023). Heritage tourism and cultural identity in China: challenges and opportunities for development. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 8(7), 47.
- Ma, Z., & Guo, Y. (2024). Leveraging intangible cultural heritage resources for advancing China's knowledge-based economy. *Journal of the knowledge economy*, 15(3), 12946-12978.
- Manley, A., Silk, M., Chung, C., Wang, Y.-W., & Bailey, R. (2023). Chinese perceptions of overseas cultural heritage: Emotive existential authenticity, exoticism and experiential tourism. *Leisure Sciences*, 45(3), 240-261.

- Qiu, S., Zhang, P., Li, S., & Hu, B. (2023). Extraction and analysis algorithms for Sanxingdui cultural relics based on hyperspectral imaging. *Computers and Electrical Engineering*, *111*, 108982.
- Ran, H., Xu, S., Xu, D., Wang, C., Xu, F., Li, H., Zhao, H., Xie, Z., & Lei, Y. (2025). Newly discovered sacrificial pits at the Sanxingdui site: Insights into Bronze Age ritual remains in Southwest China. *Archaeological Research in Asia*, *42*, 100621.
- Shen, H., & Li, Z. (2024). Design Method of Museum Cultural and Creative Products Based on Multi sensory Experience. *Advances in Economics and Management Research*, *11*(1), 32-32.
- Wu, J., Luo, W., Chen, J., Lin, R., & Lyu, Y. (2023). Design ritual into modern product: a case study of Chinese bronze ware. *Sustainability*, *15*(17), 12747.
- Xikuan, Z., & Jian, Z. (2025). A Study on the Sports Elements of Ancient Shu Civilization at Sanxingdui. *China Sport Science*, *45*(3), 3-10, 77.
- Xu, L. (2025). Aesthetic Research on Sanxingdui Bronze Artifacts. *Journal of Humanities, Arts and Social Science*, *9*(2).
- Xuemin, Y., Legino, R., & Xiao, P. (2023). Innovation on Cultural and Creative Product—Designing Traditional Chinese Poetry into Product. *Environment-Behaviour Proceedings Journal*, *8*(SI16), 129-137.
- Yang, Y., Li, H., Lu, Y., Xia, R., James, N., Chen, H., & Zhao, Y. (2024). The Agricultural Economy of the Sanxingdui Culture (3700–3100 BP): Archaeological and Historical Evidence from the Chengdu Plain. *Land*, *13*(6), 787.
- Zhang, J., Wang, X., Jiang, L., Chen, Z., Xu, S., & Aoki, N. (2024). Analysis of the evolution pattern and regional conservation of cultural heritage from the perspective of urban sustainable transformation: The case of Xiamen, China. *Buildings*, *14*(3), 565.
- Zhang, Z., Cui, Z., Fan, T., Ruan, S., & Wu, J. (2024). Spatial distribution of intangible cultural heritage resources in China and its influencing factors. *Scientific Reports*, *14*(1), 4960.
- Zhao, X., Elahi, E., Wang, F., Xing, H., & Khalid, Z. (2024). Sustainable tourism development for traditional Chinese drama's intangible cultural heritage. *Heliyon*, *10*(3).