Exploration of Bird Totems in Contemporary Jewellery Design: Research on Bird Totem Jewellery Based on the Three-Level Function of Emotional Design

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Abstract

This research explores the reinterpretation of bird totems in contemporary jewellery through the lens of emotional design. As significant symbols in ancient China, bird totems embody cultural identity and spiritual meaning. However, they are rarely used in contemporary jewellery, and their emotional and cultural values are often overlooked. To address this gap, the study applies Donald Norman's Three Levels of Emotional Design—visceral, behavioural, and reflective—to examine how jewellery design can create emotional connections with bird totem imagery. Grounded in symbolic constructivism and guided by practice-based methodology, the research integrates theoretical analysis with design experimentation. It investigates how visceral aesthetics stimulate behavioural interaction and ultimately foster reflective cultural resonance. The findings suggest that emotional design enhances sensory and interactive experiences while revitalizing the symbolic and spiritual significance of bird totems. This approach reveals their regenerative potential in contemporary jewellery and offers a new pathway for reinterpreting and transmitting traditional cultural symbols within a modern design context.

Keywords

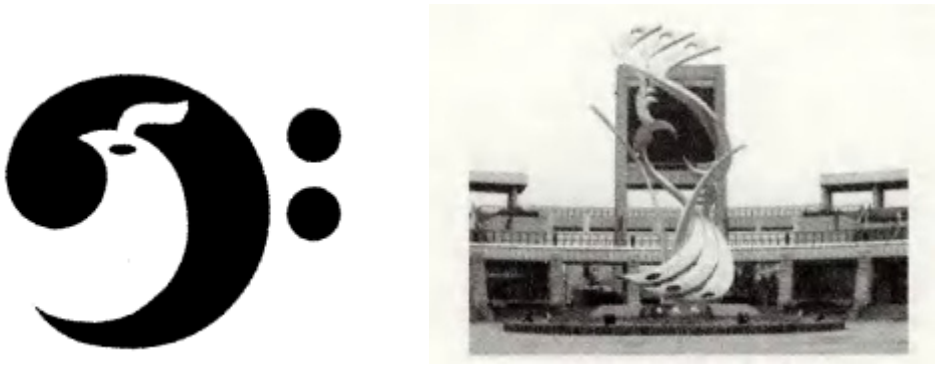
Bird Totems; Jewellery Design; Symbolic Constructivism.

1. Research Background

Totem originated from the Ojibwa word "ototeman", meaning "one's brothers, sisters, and relatives" (Haekel, 2022). It is regarded as a spiritual existence, a sacred object, or a symbol of a group of people (Wikipedia. 2025). Further, the special relationship between a tribe and its totem—where members call themselves by the totem's name and believe they descend from it—is known as Totemism (Frazer, 1887). With the development of society, this expression of "blood relationship" gradually evolved into "cultural relationship", so the totems mentioned in later generations are often associated with people's identity expressions, and their essence reflects a sense of identity, cultural belonging, and emotional connection (Wang, 2023).

Among them, the bird totem is one of the main totems of the primitive people in ancient China. In the ancient southeastern coastal areas, the lower reaches of the Yangtze River, and the Shandong region, there was a widespread custom of giving special worship to birds. For example, the early people in Shang Dynasty highly revered birds, with the saying "The divine bird brought the Shang Dynasty to be born", symbolizing divine will and the legitimacy of the clan. The bird worship custom, as a cultural expression, constitutes an important part of the ancient historical, cultural, and spiritual life in the coastal areas of China (Shi, 1994). It can be seen that the bird totem is not only a symbol of natural worship, but also constantly recreated in religious images and ritual culture, becoming an important medium to maintain the connection between humans and transcendent forces (Yan & Zhang, 2025).

In the context of the current global trend of design and the vigorous development of the cultural creativity industry, traditional mythical totem like the bird totem have become treasures of national culture. Their innovative interpretations in the field of design have become a focus of attention for designers (Wang, 2024). For instance, the logo (Fig 1.a) designed by Mr. Bingnan Yu for the light music concert utilized the positive and negative shape expression to depict the relationship between music and the wind bird totem. Through the symbolic meaning of the shape symbols, it conveyed the core cultural connotation of auspiciousness, joyfulness, and proficiency in singing and dancing. (Liu, 2013). Furthermore, bird totem also be used in sculpture of the city landmark. The "Golden Phoenix" sculpture (Fig 1.b), located in Dong Guan city, Guang Dong Province, designed by Mr. Bingnan Liu, using the soaring posture of the phoenix depicted in the phoenix totem, the aim is to highlight the vitality and vigour of this city. Moreover, in the design, it adheres to the principles of formal beauty and integrates with the urban spatial environment (Liu, 2013). Although bird totem elements have become an important source of inspiration in contemporary design and have continued to evolve, the potential of its work in jewellery design has not yet been fully researched and explored.



(a) **(b)**

Fig 1. The Application of Bird Totems in Modern Design: (a) Bingnan Yu, "Phoenix" Logo; (b) Bingnan Liu, The "Golden Phoenix" sculpture.

2. Theoretical Basis

This study adopts the theories of symbolic constructivism and emotional design to conduct the study and carry out jewellery design.

Symbolic constructivism states that reality is constructed through the meanings that people attribute to symbols in social interactions. In this context, jewellery designed based on bird totem act as carriers of these symbols. Through design, they can trigger users' cultural identity and emotional connection.

The "emotional design theory" proposed by Donad, A. Norman is a design theory that covers three levels: "visceral", "behaviour", and "reflective" (Ding et al, 2010). The specific theoretical guidance is as follows: The "visceral" level refers to the representation design part of jewellery products (Li et al, 2022), jewellery products need to trigger an initial instinctive pleasure in users as soon as they are seen by them (Lu & Huang, 2023), by using attractive colours, shapes, materials, etc. to attract users' attention; The "behaviour" level refers to the human perception part of jewellery products, emphasizing their functionality, ease of understanding, experience, and usage scenarios (Li et al, 2022); The "reflective" level refers to the inner feelings and thoughts brought by jewellery products to users, and it is necessary to pay attention to the cultural connotations of the products (Li et al, 2022), emotional

correspondence, and the deeper and more complex emotional expansion generated in users' hearts (Norman, 2007).

3. Design Process

In the process of extracting and transforming visual symbols, this research focused on selecting two symbols from birds - claws and feathers - as the main design elements. In the design concept for claws, this research used the method of copying and drawing to discover their characteristics. Different photos of bird claws were cropped and pasted onto a sketchbook, and their details were carefully described, such as hardened skin with layered structure (Fig 2. a), slender and smooth nails (Fig 2. b), etc. In the research on feathers, this research based on the theory in emotional design that soft materials can bring psychological relaxation to people and collected cases around keywords such as "multi-material feathers" (Fig 3. a) and "tribal style feather jewellery"(Fig 3. b).



(a) **(b)**

Fig 2. Research on claws and skin:
(a) sketches for skin of bird; (b)sketches for claws of bird.



(a) **(b)**

Fig 3. Different manifestations of feathers:
(a) feathers made by fabric; (b) tribal style feather jewellery.

This study adopted the autobiographical design (Neustaedter & Sengers, 2012) as the main design and production method. Autobiographical design refers to a method where the designer uses their own personal experiences as the primary source of data to inspire, develop and evaluate the design outcomes. Through a cycle of self-observation, production, and reflection, it generates design knowledge with subjective depth and emotional insight. This method emphasizes embodiment and reflection, enabling researchers to transform personal experiences into an understanding of broader cultural and psychological phenomena in the design process

In this study, the researchers started from their own physical reactions and spiritual comfort needs during an anxious state and explored how to make totemic imagery in contemporary jewellery design transcend the decorative function at the “visceral” level and transform into an interactive medium that connects the sensory, “behavioural” and “reflective” levels. Through self-experience and reflection, the research focused on the following questions: How can emotional design, through the tactile, form and symbolic imagery in jewellery, trigger the emotional regulation, spiritual connection and cultural identification of the wearer?

There are two sets of jewellery works which are "Bird Claws", and "Feather Necklace" were designed during this research. The production and wearing process of each set of works were accompanied by self-observation, sensory experiments and theoretical reflection, forming a research path from "personal experience" to "cultural significance".

In the design of the first set of works, "Bird's Claws", the researchers focused on the unconscious tactile responses in anxious situations. Based on the studies of Ekman & Friesen (1969) and Grunwald (2008), people often exhibit "self-touching behaviours" such as rubbing their hands and scratching their skin when they are nervous. These actions are not only manifestations of anxiety but also a subconscious form of self-soothing (Dreisörner et al., 2021). Similar mechanisms have long existed in practices of different cultures, such as the Greek komboloi bead strings, where people obtain calmness and concentration by repeatedly turning and touching them (Parade Health, Dharma-Beads.net). The researcher transformed this behaviour into the “visceral” interaction mechanism of jewellery to explore how jewellery can undertake the function of "emotional regulation" during daily wear.

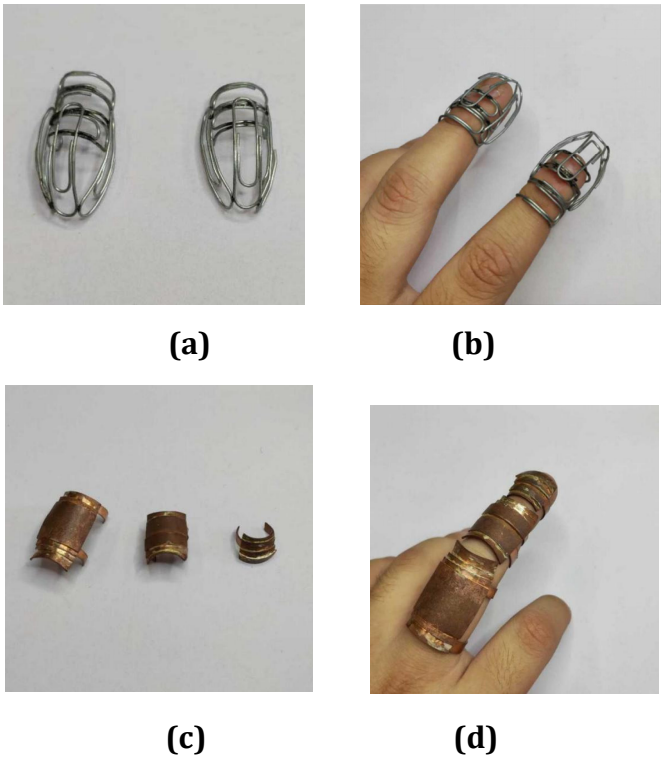
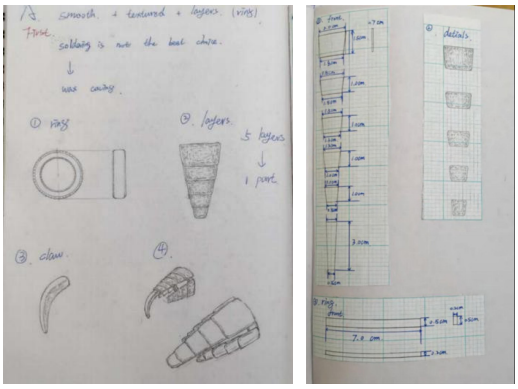


Fig 4. Models for the claws and skin:
(a) models of claw; (b) The wearing method of the claw model;
(c) Bird skin model; (d) The wearing method of the bird skin model.

The work uses the "claws" and "skin layers" in the bird totem as the visual base, symbolizing protection and power. The design employs a contrast of smooth and rough textures to trigger

tactile experience of “visceral” level (Norman, 2007). In the initial model-making process, the researcher started from experiments of bending and welding paper clips (Fig 4. a; Fig 4.b), using them to imitate the slender nails of birds, and at the same time, the researcher combined research on the hardened layered skin of birds to create a ring model with the same effect (Fig. 4.c; Fig 4, d). During the production process, copper was mainly used as the material and welding was adopted to meet the requirements of tactile interaction.

Therefore, by integrating the theory of emotional design, as well as the previous research and model construction on bird totems, the researchers finished the design drawing which using the ring as the carrier. (Fig 5.a; Fig 5, b).



(a) (b)

Fig 5. Design drawing for "Bird Claws":
(a) design sketches for the ring; (b) specific value in design sketches.



(a) (b)



(c)

Fig 6. The making process of “bird claws”:
(a) copper layers; (b) wax carving ring; (c) silver ring.

During the actual production process, the researcher first used the method of copper sheet welding to create the layered effect and then used chiselling to remove the texture (Fig 6. a). However, it was later discovered that the welding accuracy was difficult to control in this layered structure, and the covering effect of the welding material on the texture was also problematic. Therefore, this method was abandoned, and a wax carving casting method was adopted instead. During the specific execution process, red wax sheets were used to create the layered effect, and then they were bonded to the surface of the ring-shaped wax ring using super glue to form a three-layered enclosure shape (Fig 6.b), providing the best effect for the tactile action at the “behavioural” level. Then, a carving claw tip that gradually increases in thickness was pasted and cast with silver (Fig 6.c). Since polished silver was too shiny visually, the final ring effect was presented using the oxidation method (Fig.7). When wearing it, the researchers would unconsciously touch the surface of the ring while in an anxious state. This behaviour not only brought psychological relaxation but also enabled the "guardian" totemic image to be embodied through touch.

Through reflective practice, the researcher identified the uncontrollability of the process and the roughness of materials as metaphors for anxiety. The final work, “Bird’s Claw,” visually conveys strength and defence through design. At the behavioural level, the contrast between layered structural mechanisms and smooth tactile surfaces addresses users’ needs for touch during anxious states. From a symbolic constructivism perspective, the bird totem operates as a cultural symbol through which users construct meaning, gradually fostering subconscious emotional resonance and cultural identification across visceral, behavioural, and reflective levels.



Fig 7. "Bird's Claw" ring.

In the design of the piece “Feather Necklace”, the researcher integrated personal memories with cultural symbols, and attempted to explore the relationship between spiritual protection and cultural continuity through the medium of jewellery, which is a tangible medium. The "Feather Necklace" emphasizes the concept of "connection" - that is, how individuals can re-establish a relationship with culture, nature, and inner emotions through materialized design actions.

The researcher recalled the emotional impressions of "birds" during their growth process - they symbolize freedom and transcendence, while also carrying the spiritual imagery of protection and extension. This duality became the core thread of the design thinking. The researcher first processed the bird's head in a graphic design manner. The initial model was made by welding copper (Fig 8.a; Fig8.b). Through a continuous process of experimentation, the shape and materials were determined.

(a) graphic design of bird head model 1; (b) graphic design of bird head model 2.

When drawing the design sketches, the researcher adopted the method of printing, pasting and painting. They copied the model's shape onto paper using a copier and obtained multiple

copies. Then, they pasted these copies together on a sketchbook to finally achieve the desired effect (Fig9.a; Fig9.b).



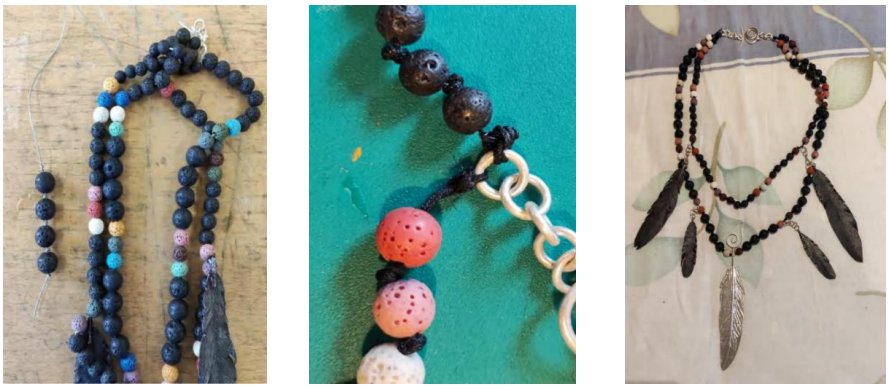
(a) (b)

Fig 8. Models of graphic design of bird head.



(a) (b)

Fig 9. Design drawings for "Feather Necklace":
(a) printing sketch; (b) printing and drawing sketch.



(a) (b) (c)

Fig 10. Making process for the "Feather Necklace"
(a) beads; (b) red and black beads; (c) difference between feathers.

The final piece, "Feather Necklace", is mainly composed of black, white and red volcanic rock beads, creating a strong visual contrast while maintaining overall harmony (Fig 10.a). The three colours correspond to different psychological images: black symbolizes the unknown

and power, white represents purity and balance, and red symbolizes life and the flow of emotions. This colour configuration is not only an external manifestation of the designer's inner emotions but also constitutes the “Visceral” level stimulation in emotional design. The rough texture of the volcanic rock enhances the wearer's tactile experience at the "behavioural" level, while the bright lustre of the central silver feathers forms a focus in the visual sense (Fig 10.b, Fig 10.c)

Furthermore, the researcher incorporated a simplified bird totem symbol in the form of a pattern on the feather and buckle sections of the piece (Fig 11), to symbolize the spiritual connotations of "connection" and "protection". When worn, the necklace would slightly sway with the movements of the body, and the difference in touch between the silver feathers and the volcanic rock became an "interaction signal" at the “behavioural” level, reminding the wearer of the internal connection between the body and emotions. At the “reflective” level, this interactive experience further awakened the wearer's cultural memory of the symbolic meaning of birds, allowing them to re-establish an emotional identification with protection and guardianship in their subconscious (Fig12).



Fig 11. Bird-shaped fastener.

Through reflection, the "feather necklace" becomes a fusion of the researcher's personal experience and cultural memory. The designer projected their own desire for "security" and "spiritual protection" in the production process. Through the emotional design that focuses on the sensory level, it triggers the user's experience, further enabling the user to regenerate emotions and re-cognize the cultural significance. The work progresses through three layers of experiences – “Visceral” – “behaviour” – “reflective", transforming the jewellery from a material symbol into a spiritual medium that carries emotional connections and cultural identity.



Fig 12. “Feather Necklace”.

4. Conclusion

This study reveals that bird totems still possess distinct cultural vitality and emotional value in contemporary jewellery design. Through emotional design and symbolic constructivism, after conducting design approaches such as variable design on bird totem jewellery at the "visceral" level, it can guide users to further gain a sense of active participation and the effects brought about by interaction at the "behavioural" level. Subsequently, it enables users to continuously deepen their understanding of the bird totem culture at the reflective level and gradually establish emotional connections and cultural identities. Thus, the totem no longer merely represents cultural symbols but becomes a medium connecting individual psychology and cultural identity. This transformation does not reflect the cultural continuation of traditional symbols in modern society but demonstrates the protective role of bird totems in the contemporary context. From the design perspective, the study finds that convertible design provides a new open path for the re-expression of traditional symbols, making jewellery not only decorative but also a medium for conveying emotions and cultural meanings, and promoting individual and cultural dialogues. At the same time, in this study, the autobiographical design enabled the researcher to base their work on their own experiences of anxiety and emotional regulation. They transformed the cultural symbolism of bird totems into embodied emotional designs, thereby endowing the jewellery with genuine psychological resonance and spiritual sustenance. This method effectively avoided the problem of totem symbols being used superficially or decoratively in contemporary jewellery, achieving a deep connection between personal experience and cultural significance in the works.

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