Products as Poetry: A Case Study of the Sun-Crow Teapot Design Based on Traditional Chinese Poetic Aesthetics

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Abstract: The concept of emotional design has become the main focus in the current trend of perceptual consumption. After reviewing the historical development of Eastern and Western art, we determined that traditional Chinese art emphasizes subjective expression. Moreover, classical Chinese aesthetics favor poetics, whereas classical Western aesthetics focus on rationalism. Poetics are image based, and personal perceptions are used to analyze and understand external objects. These perceptions are expressed implicitly through symbols or metaphors. Classical Chinese poetic aesthetic theory is based on nearly 2,000 years of history and, thus, comprises a myriad of valuable ideas. The artist of the sun-crow teapot has extensive experience researching and creating Chinese art, and drew on these experiences and knowledge to craft the teapot. However, the purpose of the design was to achieve Donald A. Norman's reflective level of emotional design. In addition, the teapot was designed to exhibit traditional Oriental charm while conforming to modern style aesthetics. Design strategies inspired by traditional Chinese aesthetics include the concept that humans are an integral part of nature, wonder derived from opposing similarities and dissimilarities, the theory of the emptiness-solidity relationship, the concept of meaning that is retained when images are forgotten. To modernize the teapot, the design strategy was derived from the theories of Cezanne. Thus, the teapot was crafted using both spherical and cylindrical shapes to create a contemporary and fashionable abstract minimalist style. Case evaluation results indicate that a poetic design based on traditional Chinese artistic techniques can be implemented.

Keywords: Chinese Classical Aesthetics, Emotional Design, Poetic Design, Bionic Design, Product Design.

1. INTRODUCTION

Lope de Vega, in one of his sonnets, uniquely referred to two famous contemporaries: he called the Italian poet Marino “a great painter for the ears,” and the Flemish painter Rubens “a great poet for the eyes.” Six hundred years later and 6,000 miles away, a similar concept was expressed in a parallel situation. In one of his poems, the Chinese poet Su Shih (1036-1101) praised a poet and a painter: “Tu Fu's poems are figureless paintings, Han Kan's paintings are wordless poems.” In both poems, a special relationship is established between poetry and painting in that they are considered parallel, comparable, interchangeable (Frankel, 1957).

However, this type of relationship is not exclusive to poetry and painting; Chu (2003) stated that “poetry and other arts all are the outpouring of emotion.” In addition, Heidegger (1993) believed that “all art is essentially poetry.” Similarly, current industrial design is free of the shackles of functionalism and instead focuses on consumer emotional satisfaction. Thus, the concept of emotional design has become the main focus in relation to perceptual consumption, and “poetic design” has become an emergent topic.

2. RESEARCH PURPOSE

The artist of the sun-crow teapot has extensive experience researching and creating Chinese art, and drew on these experiences and knowledge to craft the teapot. However, the purpose of the design was to achieve Donald A. Norman's reflective level of emotional design. The teapot was designed to express traditional Oriental charm while conforming to modern style aesthetics.

3. LITERATURE REVIEW

3.1. The features of poetry

The Collins English Dictionary (2003) defines a poem as “a composition in verse, usually characterized by concentrated and heightened language in which words are chosen for their sound and suggestive power as well as for their sense, and using such techniques as meter, rhyme, and alliteration.”

The Oxford Advanced Learner's Dictionary defines the term “poetic” as “like or suggesting poetry, especially because it shows imagination and deep feeling.” Webster's Dictionary states that the term means “having or expressing the qualities of poetry (as though aesthetic or emotional impact).”

Based on these concepts, we can consider aesthetics and emotional presentation as features of poetry. Although perceiving poetry is a complex process, we believe that aesthetic feeling is primarily derived from rhyme and emotion is induced by the imagination through the suggestive power of poetry and the senses.

Beatty and Ball (2010) suggested that the process of poetry composition is derived from the inherently ill-defined nature of the task. Ill-defined problems are those in which the goals are vague, the optimal solution is unknown, and the limitations of the problem space are not fully specified (Ormerod, 2005). These problems produce numerous uncertainties and, therefore, create a listener when trying to understand, thereby generating a mind that “seems to be, but it cannot be completely sure.” This ambiguity sparks the imagination. In traditional Chinese paintings,

impressionism and empty spaces constitute the method used to promote the poetic imagination.

In addition to the uncertainties of ambiguous poetry, the theme or story of a poem provides crucial sources of inspiration for the reader's imagination. Poetry can be divided according to the nature of the content as narrative or lyric poetry. Narrative poetry tells a story and lyric poetry typically expresses personal (often emotional) feelings. In ancient China, because of the theory that humans are an integral part of nature, poetry was often created by referring to nature. Therefore, the development of lyric poetry occurred much earlier and more extensively than Western poetry did, and to a greater extent involved the use of symbolism based on scenery or objects to convey ideas and moods.

3.2. Emotional design

The purpose of poetic design is emotional expression, which can be regarded as a component of emotional design. Kolko (2007) considered that the interaction between emotions and poetry occurs in the conceptual space between a person and an object: “It is at once physical, cognitive and social. A poetic interaction is one that resonates immediately but yet continues to inform later—it is one that causes reflection, and one that relies heavily on a state of emotional awareness. A poetic interaction is one that is nearly always subtle, yet mindful.”

Reflection is a feature of a poetic interaction. Donald A. Norman defined it as the third level of emotional design. His three levels of design include visceral, behavioral, and reflective design (Norman, 2005). Visceral design focuses on appearances, behavioral design emphasizes the pleasure and effectiveness of using a product, and reflective design involves considering the rationalization and intellectualization of a product.

Klegin and Caldwell (2012) summarized 11 methods for enhancing emotional performance by empathizing with people and helping them perceive and express their feelings, including leaving space, considering relationships, designing personality, telling stories, maintaining traditions, and imitating nature.

3.3. Traditional Chinese artistic techniques

After reviewing the historical development of Eastern and Western art, we determined that traditional Chinese art emphasizes subjective expression. Moreover, classical Chinese aesthetics favor poetics, whereas classical Western aesthetics focus on rationalism. Poetics is image based, and personal perceptions are used to analyze and understand external objects. These perceptions are expressed implicitly through symbols or metaphors. Giambattista Vico (1668–1744) called this philosophical concept “poetic wisdom.”

Classical Chinese poetic aesthetic theory has developed over nearly 2,000 years and, thus, comprises a myriad of valuable ideas, such as the concept that humans are an integral part of nature (天人合一), the theory of the emptiness-solidity relationship (虛實相生), the concept of meaning that is retained when images are forgotten (得意忘象), and wonder derived from opposing similarities and dissimilarities (妙在似與非似之間).

We can associate these concepts with several design techniques or concepts:

a. Bionic design: the concept that humans are an integral part of nature.

b. Impressionistic performance: wonder derived from opposing similarities and dissimilarities.

c. Leaving space, contrast and harmony: the theory of the emptiness-solidity relationship.

d. Ornamentation: the concept of meaning that is retained when images are forgotten.

4. DESIGN STRATEGIES

Beatty and Ball (2010) interviewed five expert poets and discovered that they all seemed to be heavily inspired by what was “familiar” to them and, therefore, what was “ordinary,” “mundane,” or “everyday.”

One of the authors of this paper conducted a comprehensive study on the Gui tripod and subsequently published a book entitled *The Secret of the Bronze Jue Tripod and Jia Tripod: From the Prehistoric Gui Tripod to the Origin and Dating Problem of the Xia and Shang Cultures* (Lu, 2007). This book revealed that the Gui tripod symbolizes the sun crow, which is related to ancient sun worship. The historical and cultural importance and outstanding performance in the plastic arts of the Gui tripod indicate that it is one of the most representative objects of prehistoric China.

The author considered the Gui tripod (Fig. 1) to be a familiar vessel and similar to a teapot in function. Therefore, the Gui tripod was used as a reference for shape in the development of a sun-crow teapot (Fig. 2) with excellent functionality that can exhibit the qualities of poetry. Additionally, design strategies inspired by traditional Chinese aesthetics and emotional design methods were used.

Furthermore, to modernize the teapot, the design strategy was derived from the theories of Cezanne, the father of modern art. Thus, the teapot was crafted using both spherical and cylindrical shapes to create a contemporary and fashionable abstract minimalist style.

Figure 1: The pottery Gui-tripod

4.1. Visceral level

4.1.1. Focusing on proportions and contours to create an aesthetic form

Classical Greek aesthetics emphasized harmonious proportions, and involved the creation of the “golden ratio” relationship. Traditional Chinese art also attaches importance to proportion, but emphasizes intuition and learning experience. In addition, in contrast to Western geometric modeling, Chinese art involves organic modeling and linear expression. Regarding the “poetic” performance, the form of traditional Chinese art is characterized by uncertainty and facilitates the expression of imagination.

In Chinese calligraphy, a single line is created by determining the proportion and the manner in which an abstract structural relationship can be constructed at the moment the brush touches the paper. In addition, the brush strokes are not required to be smooth or exhibit harmonious

proportions; including crucial variations may produce works that incorporate emotional elements. The author has been committed to learning and creative calligraphy, which were useful in determining the optimal proportions and emotional lines used to create the sun-crow teapot.

4.1.2. Emphasizing personality style to enich emotional experience

A survey conducted by the American Research Center on popular colors indicated that the "seven seconds law" is used in the selection of goods: when presented with an assortment of goods, people require 7 seconds to determine whether they are interested in the commodities. Therefore, the purpose of modern design that emphasizes creative performance is to appeal to consumers based on the first impression. In addition to the advantages of the consumption process, unique products can reflect the distinct taste of users, and be personalized to meet their emotional needs. The sun-crow teapot, consisting of three legs and a beak-shaped spout, is completely unique compared with other works and has become the focus of attention.

4.1.3. Defining the current environment to conform to fashion trends

Aesthetic fashion has changed throughout history, and constructing a fashionable Gui tripod was a major goal in this design case. As mentioned previously, Cezanne's theory, “treating nature by means of the cylinder, the sphere, the cone,” was the basis of the author's design concept. The author successfully integrated the past and present, and used digital technology to complete the teapot.

Figure 2: The Sun-crow teapot set

4.2. Behavioral level

4.2.1. Considering vessel function to provide enjoyment of use

Socrates stressed that, in the relationship between beauty, good, and use, considering function and conformity as the primary objectives is the basic premise of beauty. Muneyoshi Yanagi (1941), a leader of the Japanese folk art movement, indicated that "One big mistake people make in modern times is being confined to visual beauty only, and do not care about use.” Practical function provides pleasure in the process of use, thereby reflecting the aesthetic qualities of the product.

The various functions of the sun-crow teapot have been recognized by tea experts.

4.3. Reflective level

4.3.1. Implementing a bionic design to reflect nature

Bionic design has become a crucial creative tool in the age of “perceptual consumption.” Klegin and Caldwell (2012) said, “Borrow cues from the natural world. If people get even the slightest hint that something is alive, they are instinctively drawn to it.”

The Gui tripod, which was the design basis of the sun-crow teapot, was originally considered a bionic masterpiece in ancient China; it was constructed freehand, and it is both simple and dynamic. Consequently, subsequent works are considered subpar compared with the Gui tripod. Therefore, the sun-crow teapot features a basic bionic design that is inherited from the excellent form of the Gui tripod.

4.3.2. Emphasizing impressionistic performance and leaving space to inspire imagination

Inspiring viewer imagination is another purpose of creating a poem. n ancient poem stated that “there's an end to the words, but not to their message.” Chinese paintings emphasize poetry; painters who use "impressionistic performance" and who "leave space" successfully convey the mood of poetry.

The design of the sun-crow teapot emphasized the effect of “impressionistic performance” and “leaving space.” Therefore, a beak-like spout, a three-legged structure, and tilted momentum effectively symbolize a bird's physical characteristics and vitality.

4.3.3. Changing the shape and characteristics to emphasize the essential connotation

Traditional Chinese painting focuses on invoking form to convey spirituality. Modern Japanese animation employs exaggeration, metaphor, and symbolism to emphasize the characteristics of an object and, thus, obtain a concise form. This method is similar to that employed when writing short poems: the essence of the visual image is extracted, providing additional charm and appeal.

4.3.4. Linking the object to a situational story

Both the sun and the moon were once thought to be pulled by a flying bird. Therefore, the author designed a tea set with two teapots. One symbolized the sun and the other symbolized the moon. Contrast was achieved by using strong and gentle shapes. Yin and yang and hardness and softness reflect the basis of traditional oriental philosophy, Tai Chi, as well as convey Oriental aesthetics, wonder derived from similarities and dissimilarities.

The tea set includes matching cups in the shape of bird eggs. The three-legged element was incorporated into the cups to symbolize chicks. Pouring the tea from the teapot into the cup represents a parent feeding a child. This conveys the image of a happy family and symbolizes generations and an endless cultural heritage.

4.3.5. Incorporating traditional symbols to enhance the cultural characteristics

In semiology, a traditional pattern is a decorative form of beauty that incorporates symbolism. The German philosopher E. Cassirer (1874–1945) asserted that humans should be defined as an animal symbolicum (a symbol-making or symbolic animal), and sought to understand human nature by exploring symbolic forms in all aspects of a human being’s experience.

The sun-crow teapot, with the lid knob symbolizing the crest and the pinch handles representing wings, was completely decorated with Yun Wen (cloud pattern). Yun Wen is a Chinese traditional decorative pattern and can be traced back to the vortex pattern (渦旋紋), a type of prehistoric

painted pottery decoration, the Yunlei Wen (雲雷紋) pattern exhibited between the Shang and Zhou dynasties (1562–221 B.C.), and the cloud scroll patterns (卷雲紋) that were prominent during the Warring States period (475–221 B.C.).

The cultural connotation of the cloud pattern is "Yuan Qi" (元氣, the origin of the heavens and the earth and all things), which combines spirituality and auspicious meaning.

4.3.6. Reviewing traditional philosophy to climb overlooking the future

Analyzing the development of history reveals that the symbolism and modeling techniques used to create the Gui tripod reflects the development of Chinese philosophy and artistic expression. The purpose of constructing the sun-crow teapot, inspired by the Gui tripod and the theories of Cezanne, was to incorporate elements of traditional philosophy and adapt to contemporary trends.

5. EVALUATION OF THE WORK

Two questionnaire surveys on the sun-crow teapot were administered. In addition to related attributes, both questionnaires comprised an overall performance evaluation based on three indicators: “attractiveness to people,” “sophisticated design,” and “craft masterpiece.” Regarding personal preference, add an option of the favorite product. The results are shown in Tables 1 and 2, and indicate that the teapot was evaluated favorably (Lu, 2013; Lu & Lin, 2014).

Kolko (2007) said, “A poetic interaction is one that is nearly always subtle, yet mindful.” This feature of poetic interaction was included in one of the questionnaires for the evaluation of poetic attribute. The teapot received a high score for this item, ranking second among all bird-shaped teapots.

The teapot was entered into competitions and received two major awards: Taiwan's Golden Pin Design Award and the “Most Creative Award” in the Chinese Craft Excellence Award.

Table 1: User's preference and overall evaluation scores and ranking for questionnaire 1

No	Image	preference		attractiveness		sophisticated design		craft masterpiece	
		Percentage	Ranking	Mean	Ranking	Mean	Ranking	Mean	Ranking
1		19.5	2	3.13	4	3.71	3	3.71	1
2		9.8	6	2.88	8	3.56	5	3.20	5
3		13.5	4	3.02	5	3.29	6	3.13	6
4		**17.3**	**3**	**3.56**	**2**	**3.78**	**2**	**3.66**	**2**
5		22.6	1	3.44	3	3.63	4	3.54	3
6		2.3	8	2.98	6	2.90	9	2.90	7
7		11.3	5	3.64	1	3.88	1	3.41	4

8		3.8	7	2.92	7	3.21	7	2.90	7
9		0	9	2.67	9	3.01	8	3.76	9

Table 2: User's preference and overall evaluation scores and ranking for questionnaire 2

No	Image	preference		attractiveness		sophisticated design		craft masterpiece	
		Percentage	Ranking	Mean	Ranking	Mean	Ranking	Mean	Ranking
1		6.3	3	3.37	6	3.73	3	3.45	7
2		2.1	9	3.26	8	3.57	7	3.43	8
3		0.7	11	3.07	11	3.36	10	3.07	11
4		**16.7**	**2**	**3.73**	**2**	**4.06**	**2**	**3.92**	**2**
5		2.8	8	3.33	7	3.64	5	3.48	5
6		52.1	1	4.46	1	4.35	1	4.25	1
7		0.7	11	2.91	12	3.04	12	3.05	12
8		2.1	9	3.08	10	3.26	11	3.19	10
9		3.5	7	3.48	3	3.64	5	3.47	6
10		4.2	5	3.47	4	3.65	4	3.61	3
11		4.2	5	3.22	9	3.47	9	3.4	9
12		4.9	4	3.45	5	3.55	8	3.55	4

6. CONCLUSION

Chinese traditional thinking involves “poetic wisdom,” which was termed by Giambattista Vico (1668–1744). He emphasized humanistic social thought and was opposed to the natural sciences. The concept of emotional design appeared in the twentieth century, and was derived from humanism. Abraham Harold Maslow (1908–1970), a humanistic psychologist, proposed the hierarchy of needs, which has become the theoretical basis of emotional design.

The concept of emotional design has become the main focus in the current trend of perceptual consumption. Consequent theories, concepts, and related methods have emerged and have been used to promote the development of creative design. These ideas can be explored by analyzing

traditional Chinese philosophy or art theory.

Although Western knowledge is widely accepted, Chinese descendants inevitably inherit the culture of poetic thinking. Therefore, Chinese artists have numerous advantages in achieving the goal of emotional design. Although numerous methods can be used to engage in creative design, traditional Chinese art must be learned and understood because it can offer artists countless ideas.

The strategy used to construct the sun-crow teapot can be associated with the following traditional Chinese ideas:

1. The concept that humans are an integral part of nature (天人合一) was expressed through the bionic design to convey a sense of nature.
2. The theory of the emptiness-solidity relationship (虛實相生) was presented by using the shape and characteristics to emphasize the essential concepts. In addition, impressionistic performance was used and space was left to inspire imagination.
3. The concept of meaning that is retained when images are forgotten (得意忘象) was achieved by emphasizing impressionistic performance and leaving space to inspire imagination. The incorporation of traditional symbols enhanced the cultural aspects.
4. The concept of embodying a spirit in a physical form (以形寫神) was conveyed by using the shape and characteristics to emphasize the essential concepts. In addition, impressionistic performance was used and space was left to inspire imagination.
5. The concept of wonder derived from opposing similarities and dissimilarities (妙在似與非似之間) was conveyed by using impressionistic performance and leaving space to inspire imagination.

The Taiwanese government has recently been dedicated to promoting cultural and creative industries, primarily focusing on industrial applications that involve converting traditional cultural relics into creative designs; however, Chinese cultural relics are diverse and exhibit distinct characteristics. This sun-crow teapot case is a type of art that transforms relics into creative designs. The case evaluation results indicate that the poetic design based on traditional Chinese artistic techniques was successfully implemented.

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