

Research on Personalized Accessory Design Based on Users' Individual Characteristics*

Rui Zhang

Department of Industrial Design
Hubei Institute of Fine Arts
Wuhan, China

Abstract—Accessory is a kind of external presentation for people to purposefully decorate themselves, hide themselves, and express themselves with the awakening of human's self-consciousness. Its evolution has gone through a long history and is still evolving. It will become an important criterion for the design of accessories to meet the individual needs of the people to develop accessories that conform to different individual characteristics from certain perspective.

Keywords—individual characteristics; personalized; accessory; matching; design

I. INTRODUCTION

Today, with the pursuit of individualized style, the image, as an external manifestation of personal connotation, shows the individual's personal taste and cultivation, expressing comprehensive personal information. Therefore, as an important part of the first impression, the external image design of the individual has been paid more and more attention, and accessories that reflect the user's exclusive personality are characterized by their uniqueness and referential characteristics, so they can better reflect the personal characteristics and style of the wearer. The characteristics of these accessories can highlight the individual's traits, to make people full of self-confidence and charm, fully demonstrate the inner self-cultivation through external performance, and inspire vitality.

II. THE ORIGIN OF PERSONALIZED ACCESSORIES

Personalization is a method of creating concrete and vivid characters in a kind of literary and artistic works, which is also an important aspect of typicalization. In contrast to popularization, it is often used to refer to needs and services with individual characteristics. It is the unique statement that adding the need of unique, alternative, and own traits on the basis of popularization.

The origin of accessories has always been considered as a product of human consciously decorating the body. When humans put a bird's colored feathers on their heads or put a beast tooth on their body, the original prototype of the

accessory is thus defined. The development of archaeological excavations around the world has enabled the re-emergence of the trajectory of human activities. These imprints strongly support the development of accessories. As the external decoration of the body, the generation and development of accessories have different stages due to the evolution of their functions. According to these differences, four more obvious stage characteristics can be summarized.

A. Survival Design

Labor creates the human being, and for the development of ethnicity, human beings must gain a survival advantage for themselves in the process of getting along with the outside world. In the early days, humans generally only used natural stones and branches as extensions of human functions. In the subsequent evolution process, they begin to select the materials and shapes with purpose. From then on, the Paleolithic era represented by chipped stone tool and the Neolithic Age represented by the polished stone implements begin, which also marks the addition of hunting in the survival mode based on collection. The meat protein brought by the acquisition of large prey contributes to the prosperity of the tribal population, while the hunting of the beast highlights the strength of the group, which is a manifestation of viability.

First, the string consisting of small gravel or animal bones of different colors may have the function of counting and memorizing, and has similarity with the knot rope. Second, due to hunting needs, in order to conceal and confuse prey, people often wear hides and horns on the body to slowly approach the prey, and these horns and bones can also be used as weapons to attack and defend themselves. Third, wearing beautiful bird feathers and animal hair and imitating the movements of nature creatures to dance can please the opposite sex.

B. Symbolism

The living environment of the primitive society is extremely harsh, but human beings, as an evolving advanced intelligent species, have overcome various natural disasters, survived stubbornly, and constantly promoted the progress of human civilization. When the basic needs of the organism are met, other new requirements will continue to emerge. In addition, the original needs will be met in a more advanced

*Fund Project: 2016 fund project of Fashion Art Research Center — a key research base of humanities and social sciences in Hubei Province: "Research on Personalized Accessories Design Based on Users' Individual Characteristics" (IFA-2016-03)

form than in the previous [1]. The symbolism of accessories is not the natural attributes of jewelry as a material itself, but a ritual carrier and representation of consciousness that conforms to the social laws of the era in which it is placed. Its presentation form contains recognized value and meaning.

First is the original worship and religion. As early as the primitive period, when human beings began to explore the world, they were full of fear and doubt towards external nature. When it was impossible to explain the world with existing knowledge, the "supernatural mystical power" became one of the important elements and became a part of the cognitive model of human understanding the objective world [2]. People at that time believed in animism and thought that the natural phenomena of animals, plants or non-living things had some unspeakable supernatural powers. They were in awe of these powers and hope to acquire them. Thus, totems with powerful significant functions came into being. Although the corresponding witchcraft etiquette and totem activities have long been sunk in the irreproducible history, the unearthed original ornaments, painted pottery, jade, stoneware, etc. confirm the hunger of the original ancestor for survival and reproduction and the powerful spirit coagulated in the totem [3]. Religion can be understood as a representation of social ideology within a certain scope. Like the original totem, the symbolic meaning of the religious symbol has long exceeded the external form of the graphic, but is as an internalized fixed existence in the control of social awareness and religious rules. The religious symbols worn by believers, such as the Christian "Cross", the "Six-Star" of Judaism, the "Star Moon" of Islam, and the "eight-diagram-shaped appetizer" of Taoism, reflect that the believers have condensed the faithful beliefs in their hearts on a symbolized object.

Second is the class division. In addition to the primitive worship represented by the totem, the hero worship and ancestor worship with human beings as main body began to emerge. The different survivability of individuals or groups results in the uneven distribution of living materials. This kind of competition is often accompanied by fierce conflicts, and the violent flaunt has once been the glory and pride in the merging history of clan and tribe. The original national witchcraft etiquette became the hierarchical rule of social rule monopolized by some rulers. It is this kind of rule that reflects the emergence of the hierarchy, which in turn represents power, and the clan symbol or hierarchical emblem that exists throughout the world strongly proves this.

C. Collective Aesthetic Consciousness

The differentiation between the classes formed by material, wealth, belief, power, etc., has a strong influence in the operation of the entire social system. It is this kind of "tending to good" organism instinct imitating the superiority that presents the characteristics of the effect of the below following the behavior of the above.

Marinenti once described the conceptual basis of futuristic clothing in a speech slamming "Nude Art." He believes that clothing is not only an artistic creation or cultural product, but also an expression of personal taste and

attitude. It corresponds to a social class and system. Although the practicality of accessories is second to clothing, it has more purely symbolic and social than clothing. It can be a symbolization of social class, personal status, religious beliefs, etc. [4]. American sociologist Blumer once discussed "fashion" and put forward the "collective choice theory" of fashion mechanism. He believes that "fashion" is not exactly the result of symbolic differentiation and counter-differentiation between the so-called classes, or the imitation and counter-imitation of behaviors, but also a product of collective choices made by collective tastes of education [5]. In addition to the convergence and aggregation of this collective aesthetic taste, the deeper meaning is to achieve a kind of concealment and protection of the self through convergence to avoid being treated unfriendly.

D. Personalized Needs

When the accumulation of material wealth and the spiritual civilization of society develop to a certain stage, the thoughts of freedom, democracy and equality begin to appear. The phenomenon of imitating the rich and powerful class is gradually weakened. People begin to consciously express their own characteristics and differences to show the sense of presence as an individual. In the context of today's open society, the accessories that once had strong symbolic features have been transformed into the externalized representation extensions of the individual's internal expression.

III. THE CHARACTERISTICS OF PERSONALIZED ACCESSORIES

The emergence of personalized accessories is the result of long-time evolution of human civilization. In today's dazzling accessories, every user can choose their favorite accessories. Although there are thousands of styles of these accessories, through comparison analysis and serious judgment, we still can sort out the elements of personalization.

A. Regional Characteristics

Accessory is an aesthetic extension requirement after satisfying the basic living guarantee, and features of the region where it emerged and existed can be visually reflected. For example, in mountains and plains, tropics and Frigid Zone, inland and coastal areas, different regions have different climates, different properties, and different external objective conditions, thus resulting in different lifestyles. It is this difference that makes accessories has obvious regional characteristics. In the plain areas based on agricultural cultivation, the clothing and accessories are mainly made of cotton and other plant materials. The ornaments are mostly precious metals and precious stones and the patterns are mainly plant flowers, small animals, insects, etc.; In the grassland area based on migration and nomadism, the clothing and accessories are mainly made of animal fur, etc. The ornaments are mostly precious metals and precious stones, and the patterns are mostly geometric patterns and religious patterns. In the jungle areas based on hunting, the clothing accessories widely use the animal skin and bone and

the native plant material, the pattern is affected by the animal body pattern. For example, in the Chabari tribe in Papua New Guinea in the South Pacific, they even cut the skin several times during the adult ceremony for the boys, so that the recovered scars formed a crocodile-like scale. [6]

B. Cultural Elements

The development of different geographical characteristics has formed different cultures. With the deduction of time, the elements of culture are also deposited in the accessories, and they become more and more obvious with the exchange of different cultures. For example, the introverted and implicit nature of oriental culture, its grand view of the universe, and the philosophical thoughts of harmony between man and nature make jade a representative of the most typical accessories. Jade has a multi-dimensional cultural interpretation in Chinese culture. It can even be used as a metaphor for human character at a certain cognitive level. In Western culture dominated by modern science, precious metals and gems with quantifiable value such as gold and diamonds have become the best choice for jewelry. On the surface, this is the choice of things, and the deeper reflections are actually different standards of cultural value identification. In the analysis of cultural elements, the analysis from the material level can be used to interpret people's perceptions at the spiritual level.

C. Personality Elements

Personality refers to the relatively stable personality psychology characteristics with core significance expressed in people's attitude towards reality and corresponding behaviors, which can best express individual differences. This is a multi-dimensional and most critical entry point in the analysis of elements and design considerations for personalized accessories. The elements of personality include social character, cultural personality and individual psychological characteristics. It can be defined as a general term for an individual's thoughts, emotions, values, beliefs, perceptions, behaviors, and attitudes. It determines how we examine ourselves and the environment around us, as well as our tendency to choose. For example, personality preferences, aesthetic taste, personal cultivation, value recognition, etc., are important evaluation basis for whether the accessory design has individualized characteristics. The personality elements here include both the personality of the user and the personality of the design creator.

IV. CONSIDERATION OF THE USER'S INDIVIDUAL CHARACTERISTICS IN THE DESIGN OF PERSONALIZED ACCESSORIES

When designing personalized accessories for individual characteristics of users, it is necessary to analyze and think from the two aspects of objective factors and subjective factors of users. The objective factors refer to the innate physical characteristics such as the user's individual skin color, body shape and facial features; subjective factors refer to the psychological characteristics of the user's individual taste, cultivation and cultural connotation.

A. Developing the Strong Points and Avoiding the Weak Points

The main criterion for personalized accessory design is to match the users' external physiological characteristics. Through design, the accessories can be made to echo, highlight, and emphasize the users' external advantages. It can also coordinate, balance and hide some of the weak shortcomings of the user.

Taking the figure as an example, like other organisms in nature, human faces and bodies have some widely recognized mathematical proportional relationships due to natural evolution. Ancient Greek scholar and architect Marcus Vitruvius Pollio, Leonardo di ser Piero da Vinci, the legend of Italian Renaissance and the German artist Albrecht Dürer of the same period have conducted in-depth research. From their point of view, it is not difficult for us to draw the conclusion that the in body with perfect proportion, the height and stretching length of the two arms plus the shoulder width is the same. The height of the human body and the length of the extended arms form a square that encloses the human body, while the hands and feet fall exactly on the circumference centered on the navel. In this proportional relationship, the human body is equally divided into two parts by the groin, and the navel is just on the golden point of the entire human height. This perfect proportional relationship has been used by artists in various artistic expressions, so there are works of art that we appreciated. However, like other organisms, it is difficult for human body to achieve a perfect golden section. Just like the spiral of the nautilus, in the trend of its growth process, it is only close to the spiral of the golden section, but it does not reach the proportion of the golden spiral [7]. It is such a pursuit of perfect proportion, so in the design of accessories, it is necessary to carry out targeted design according to the user's own real scale, so that the appearance and presented state can be as close as possible to this coordinated proportional relationship.

According to the heritable traits of the body, such as skin color and appearance characteristics, human beings can be divided into four major races: Asian race (yellow race), Caucasian race (white race), African race (black race), and Oceanic race (brown race). Each race has its own distinctive characteristics, and has formed different aesthetic standards at different stages of human civilization development. Even among the same race, there are individual differences. Targeted accessory design needs to take into account these differences and strengthen its superior characteristics and cover its shortcomings in line with its aesthetic standards. For people with larger eyes, it is suitable to choose no-frame glasses, because the frameless glasses can highlight the big eyes and sharpness of the face without the influence of the frame; on the contrary, the glasses with the frame form a double-frame visual effect with the eyelids of wearer in appearance, which adds another layer, and makes the eyes appear large and enhances the three-dimensionality of the face.

B. Highlighting Personality

The important feature of personalized accessory design is to be able to highlight some intrinsic characteristics of the wearer based on the external physiological characteristics of the user, such as personality characteristics, temperament cultivation, and cultural connotation and so on. At this level, accessories are not only a simple external accessory, but an appearance of the wearer's personality, an extension of subjective features, and sustenance of spiritual emotions. For example, the arrogance or introversion of character, the masculine or feminine temperament, the difference in aesthetic taste, and the difference in cultural taste all can expand the internalized emotions and information into an infinite psychological space within the limited volume through personalized accessories design, so the individual's appeal turned into an emotional appeal to accessories.

As a hidden feature different from physiological representation, personality is not easy to quantify intuitively. Therefore, in the analysis and extraction of individualized elements, it is necessary to conduct comprehensive analysis and consideration through the knowledge of other subject areas such as psychology, sociology, anthropology, culture, semiotics, and cognition, and turn the individual characteristics of the specific object into visible accessories to with the conclusions drawn from study and summary. Only by accurately grasping the common visual information of the characteristics and performance elements of the user object, and carrying out in-depth and meticulous emotional communication, can the individual realization be realized and make the design be better implemented around the theme of serving people. [8]

V. CONCLUSION

A stable, rich and convenient modern life has long turned people's basic needs for life from the material satisfaction of the past to the pursuit of self-personalization, and accessories as the expanding demand for people after meeting the functional requirements of clothing, under the current social era, has undoubtedly been raised to a higher level. From the artistic point of view, it will be an effective method in the field of accessory design research to take serving people as the goal, with accessory design as the carrier and personalization as the orientation, and to be based on contemporary science and technology.

REFERENCES

- [1] He Renke. History of Industrial Design [M]. Beijing: Beijing Institute of Technology Press, 2001:6. (in Chinese)
- [2] Stephen Hawking, Leonard Monlotino. The Grand Design [M]. Hunan: Hunan Science and Technology Press, 2013: 5. (in Chinese)
- [3] Li Zehou. The History of Beauty [M]. Tianjin: Tianjin Academy of Social Sciences Press, 2004: 8-22. (in Chinese)
- [4] Wu Xiumei. Weapon for Reconstructing the Universe: Research on the Futurist Accessories [J]. Art & Design, 2016, 12 (284): 76-77. (in Chinese)
- [5] Dong Qian. Collective Selection Between Ideology and Taste: Xinmin Evening News and the Dress Fashion In Early Years of Socialist Shanghai [J]. Shanghai Culture, 2016, 04:33-45. (in Chinese)
- [6] China News Net. Cruel Adult Ceremony: The boy's back skin is cut to make it a crocodile [EB/OL]. <http://world.people.com.cn/n/2014/0818/c157278-25487850.html>, 2014,08,18. (in Chinese)
- [7] Kimberly Ilam. Design Geometry — Research on Proportion and Composition [M]. Beijing: China Water & Power Press, Intellectual Property Publishing House, 2008: 12-18. (in Chinese)
- [8] Wang Yuping. Exploration of the "people-oriented" clothing design elements at the new level [J]. Art in China, 2013, 04: 108-110. (in Chinese)