Study on the Application Principles of Emotional Factors in Display Design

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Abstract—Display design is an activity for public participation, which takes display as the subject of information exchange and transfer and enables the public to give feedback information while receiving it. And the psychological factors play a vital role in this process. All acts and things that can be received by human visual organ shall be included in the display content. Emotional factors shall be effectively applied in the display design and emphasis shall be laid on the audiences' emotional needs.

Keywords—*emotional factors; display design; humanized design*

I. INTRODUCTION

There exist close and extensive connections between display activities and human life, and all exchanges of human beings in matter and spirit are intimately related to the display activities. Unlike the primal and simple article exhibition and arrangement for people to enjoy, the display activity in modern society, via the act of design, contains multiple meanings including display, exhibition, demonstration, reflection and so on. It is an activity for public participation and enables the public to give feedback information while receiving it. Therefore, display is the subject of information exchange and transfer.

The nature of display is people's demand for information. Mood and emotion are indispensable parts for perception. The simple and well-operating articles may not be liked by the audience. Moreover, most of the time, the perceptual knowledge plays a more crucial role than rational analysis in decision making by people, which explains the importance of emotional factors. Thus, to be a successful designer, one shall not only pay attention to the usability of the design work but also emphasize its emotional impact on people. Apart from the content with functional requirements, people are more eager to acquire the emotional pleasure.

II. ORGANIZATION OF THE TEXT

A. Application in sensory stimulation

The emotional design which is the most direct and easiest to accomplish is the emotional design that stimulates human sense organs. The emotions aroused at this level are exactly belonging to the sensory level of emotional experience as previously mentioned. Generally, the sensory stimulation showed in display design is achieved by four modes, namely the increase in contrast ratio, freshness, degree of variation and pre-saturation intensity. In terms of the type, there are as many means of using sensory stimulation to arouse emotional experience as there are sense organs in human. In this paper, the following stimulation methods most commonly used in display design have been listed: shape and color stimulation, erotic stimulation, horror stimulation and sadness stimulation, which are generally based on certain exaggeration and contrast.

1) Application of shape and color stimulation method

Shape and color stimulation is designed to, in display design, draw people's attention by directly using novel shape and color as well as their exaggeration, contrast, deformation and ultra realistic form. Design in this category aims to directly use people's perception, especially the visual perception principle, to meet people's most instinctive preference for shape and emotional experience. Therefore, in form, the design works are usually colorful and bright with exquisite or novel ornamental feature. Such as the passageway in display space, it normally adopts the brand dominant hue added with exaggerated figure graphics of freshness and interestingness to form the strong point of visual stimulation, which play an extremely significant role in the atmosphere rendering of display environment.

2) Application of erotic stimulation method

Erotic stimulation is designed to draw people's attention by mixing products' nature or performance with sexual implication and make people have a sense of joy. In many cases, there is no direct connection between the design works' practical functions and the modeling with sexual implication and erotic sense or the pretty boys and girls in advertisements. However, sensational modeling language or image is able to arouse people's interest and make them concentrated. Besides, design of erotic stimulation can mix the pleasure brought by image with the evaluation of the product, thereby enabling consumers to acquire synaesthesia. That's why we sometimes feel some jeans very "sexy" or some chocolates very "sweet".

3) Application of horror stimulation method

Horror stimulation is designed to achieve a specific purpose by arousing people's sense of terror. Sense of terror is an important self-protection mechanism formed in the process of human evolution and can help people keep away from the danger. Therefore, it's quite strong for the people's sensory stimulation, able to make people quickly focused, help them

deepen memory and arouse the speedy, intense and lasting emotional experience.

For instance, in the modern commercial window display, models with no facial features or even with no head are often used to display garment and accessories. Incomplete body is not delightful after all, however, this display method absolutely has its own design objective. The intentions are obvious: first avoid people's attention paid to facial features which will shift the audience's focus to exhibits, ensuring the viewpoint more concentrated; second use this unusual display carrier to draw people's attention and transfer this attention to exhibits.

4) Application of sadness stimulation method

Emotion stimulation aims to arouse people's sympathy. Psychology holds that sympathy is a socialized feeling, generally referring to the experience and understanding for other people's emotions. It is related to but different from empathy. Based on empathy, sympathy places extra emphasis on the awareness of emotions of the other person involved, including two components: emotional experience and emotional cognition. Whereas, empathy is the resonance of other people's emotions, sometimes also with cognitive processing involved, but it is still an emotional experience to a large extent, non-voluntary and uncontrollable. Therefore, sympathy not only enables people to have emotional experience of being close to others but also shall include the cognition and judgment for its status so as to drive certain behaviors.

B. Manifestation of rationality and efficiency

Rationality and efficiency are the most important embodiments of design modernity. During the era of handicrafts, even though people also pursued the effectiveness and efficiency of using objects, the skill level of people was still the main factor deciding work efficiency as most of tools at that time were hand or semi-hand tools, and tools were in a position whether matching the skill development, such as the skilled and magical craftsmanship in Dismemberment of Ox by Paodin. For the highly skilled cook, although the sharp knife was also an indispensable tool he must rely on, the most principal reflection of the sense of efficiency was his extremely miraculous skills. Therefore, the rationality that object embodies mainly lies in the coordination between human and object – whether the object is handy and durable.

Due to overly rational and cold appearance lack of human touch, the extreme modernism design has not been completely accepted by the public. However, the modernistic design concept of "purposiveness" has been deeply rooted among the people. Nowadays, even if it's easy to produce all sorts of objects with traditional style, people would not do that any more, just as said by Le Corbusier: "a new spirit" has appeared, and this is what we characterize as rational spirit of design – effective, highly efficient, most simplified, suitable for purpose.

C. The representation of personification

Hegel, Fechner and other aestheticians mentioned that beauty of nature can make us remember people or can indicate personality. For example, we believe that some creatures look good, and their good places actually are good characteristics that can actually remind us of beauty, such as kitten's docile charming eyes, and antelope's strong and handsome posture. Similarly, the upward vitality of plant makes us think of the vigorous life. Especially artifacts are as people's conscious creation. In order to make them look more beautiful, people tend to use their own or other animals' characteristics of making people feel pleasure to endow them with forms, which makes them appear human-like characteristics, and this is the personification of the design.

Personification design means that designers endows design objects with characteristics which are similar to people or other biological characteristics, such as shape, posture, facial expression, acoustics, etc. Personification design comes from the imitation of nature (including people), but it is not a direct and figurative imitation. To highlight the personality characteristics that designers want to mainly stress, the design needs to be carefully processed, such as abstraction and deformation, and exaggeration or simplification, so that personality characteristics showed by design objects stay in specious state. Sometimes personification design's modeling language is very straightforward, making people see at a glance what personality characteristics to imitate. And sometimes it seems to be relatively vague, so that viewers cannot easily decipher the design, which requires them to have certain knowledge background, life experience and appreciation ability. And, in general, too figurative personification design language seems to be not as fun and interesting as the image's design language, and personification design is the most common emotional manner used by the modern design. Also, it can transfer the designer's emotional experience for some human life or biological characteristics of into the image, and reveal the emotional experience through the specific form. Therefore, those viewers with similar experiences can read out these emotional experiences from the design, thus forming a resonance.

D. The representation of sense of humor

Humor is a kind of complicated emotional experience, sometimes joy, pleasure, happiness, sometimes funny, bizarre, joking, mocking, and sometimes humorous and self-deprecating. Biology believe that humor is a kind of potential human instinct, produced before people have complex understanding and thinking ability, is a kind of functional phenomenon to maintain physical and mental balance, and a kind of emotion that can make people relax and free from the tension. Later, with the improvement of people cognitive ability and their ability of transforming nature, and the continuous development of civilization, humor becomes a kind of pure emotional behavior having no sense of utilitarianism, but humor is still a kind of important emotional experience to make people relaxed and relieve stress. So many designers and marketers believe that humor can improve the persuasiveness of product design and advertising, and it is easier to be accepted. According to statistics, 25% of television advertising and about 30% of the radio advertising use some kind of humor. From the art and design specifically, the ways of showing humor mainly include the following categories.

1) The application of unexpectedly exaggerated mean beyond the convention

Some scholars studied baby's smile, and discovered that there are two kinds of stimulation that can earliest cause baby to smile: one is family's grimace, another is motion to throw him up and then catch him, thereby scholars believe that interruption, deviation and shock - experience driven out of the convention - are the necessary attribute of humor. Thus, one of the principles of creating a sense of humor is the emergence of the accident, and humor is not as the expected, logical way to run. As a philosopher Schopenhauer says: "smile is just because people suddenly find that his associating actual things and a concept are lack of will". Large booth and exaggerated props display both are a kind of deviation and shock. In a word, the design display beyond the convention can often bring about more and more attention.

2) The application of childish mean

It was found that children are more likely to laugh, because they are not like the worldly adults, so they are more easier to feel surprised and deviated; but on the opposite, although it is difficult for adults to reproduce the innocence and romance of childhood, they are less prone to appear feelings beyond normal emotions, and yet those designs expressing childish things can easily break through adults' convention, thus making them feel humor and funny. Especially under the heavy pressure of modern society, people often have the need to escape reality pressure, so there appear some childish new products or services, such as magic movies, online games, etc. And they, to some extent, are designed to meet the needs of adults to separate from the track of everyday life. Design, on the other hand, appears the tendency of "childish", and many target groups are the design of the young people, and its modeling shows the childish products' style, brightness and light, which is also a kind of expression to escape from reality pressure, and the return to the innocent childhood. Exhibits in the design display may not be used by children exclusively, but even adults will laugh at this show of childish means.

3) The application of absurd and exciting mean

Some scholars believe that humor comes from self-glory and superiority, thus such humor seems to be more like a mockery. British philosopher Thomas Hobbes says: "laughter is a sudden sense of glory, produced in his superiority in comparison with others". Mockery by using humor, even malicious, is also a tactful way, thus this subtle way is often used in the design display to express mocking emotion.

E. The representation of symbols and signs

The clearest design of symbols is the VI design of graphic design, which employs a set of signs, standard colors, standard font to symbolize a certain sense and concept. Thus, inside the company, it can encourage employees to form a common concept, strengthening the cohesion of the enterprise, and outside the company, it can convey the company's business ideas, shaping the corporative image. These symbols and signs are ways that designers consciously employ to inspire emotion, and are also the most direct and the shallowest ways. Window display of Shiseido cosmetics, as Japan's most influential brand of skin care, has been committed to promoting their enterprise culture concept of "a beautiful moment and a beautiful life", thus the standard image of traditional Asian women in the showcase is deeply rooted in the hearts of people.

Design display is also the design and manufacture process of symbols, and also hides potential laws of economics. The designers' ideas provide people with a variety of possible symbols, like merchandises, sell all kinds of symbols, and use different symbols to meet the needs of people for communication. At the same time, People according to the items, pass personal information, show ego, and lead to the identity of others. If you are a successful business person, you should buy handheld computers of this brand, and cigarette lighter of that brand. Also, if you want to show you are a tasteful lady, so perfume and leather bag of a certain brand are an essential part of your props. Symbolic signs, according to its conveyed information, can express different feelings of consumers, and also can stimulate other viewers corresponding emotional experience.

F. The narrative representation

Narrative is originally the vocabulary of a literary theory, and belongs to the category of narratology. Dutch scholar Mick Barr puts forward: "narratology is the theory about narrative, narrative of this paper, image, things like, events, and culturalartifacts of 'telling story'." The nature of narrative is the information exchange. Display design, as a kind of narrative material carrier, is similar to the communication mode of other properties (such as language, literature). Scholar Jacobson of Prague school had proposed a widely influential model, which contains six elements, so we can refer to them with elements of narrative process of the design art.

Design display employs design objects or images as the carrier, and apparently it is inferior to literature, film, television, etc. for those are as carrier of the change of time and space which can carry a large amount of information. The narrative of design works display needs to rely on the association and imagination of receivers or viewers of design for complementation, and often needs to give names as clues of the index "information". In this process, language interoperability between receiver and the sender is more important.

III. CONCLUSION

To sum up, this article expounds the law application of emotional factors in the design display, which is different from form, color, quality and other preceding expressed factors, for those are the basic forms of display design. If you want to emphasize the emotional experience of audiences in display environment, you need to further strengthen the design theme. This article, from the point of view of sensory stimulation, personification, sense of humor, symbolism and narrative, etc. presents common concrete ways and means when using emotional factors to design in the display environment, and through the case analysis, it analyzes and discusses the application rules of emotional factors in the design display.

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