

Analysis of Aesthetic Principles in Typography

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Abstract. With the development of the times, typography has developed from a writing skill to a systematic, diversified and open study. Typographic art, which refers to the overall careful arrangement of Chinese characters according to the basic principles of human vision, is the crystallization of human labor and experience, and is becoming more and more complete with the development of human civilization. Chinese characters are the carriers of Chinese culture, the visual symbols for recording the Chinese language, and the tools for human exchange and communication. The paper combines the research the general overview of the current research status of some domestic experts and scholars on the technology of typeface design, organizes and summarizes the relevant papers, and will launch an in-depth discussion according to the current stage.

Keywords: Typography; Chinese Character Design; Design Research.

1. Preamble

In our country, Chinese typography emerged mainly in the process of the creation and development of printing. In ancient times, Chinese typography also had a brilliant history, and entered into prosperity in the Song Dynasty. With the invention of Bisheng's "movable type printing", the carving knife used to carve characters had a profound impact on the shape of Chinese characters. Yu Bingnan mentioned in his book "Artistic Characters", "After the invention of printing, a typeface was created that was light and straight, with a square and proportional structure, which was eye-catching to read. It was later known as the Song character." The Song font was so popular after it was introduced to Japan in the Ming Dynasty that the Japanese have been referring to it as the "Ming Dynasty font", which is also the ancestor of the old Song font, the most common modern Chinese character printing font. Enterprise logo text refers to a kind of text which is specially written to indicate the name of the enterprise or the commodity. Therefore, the enterprise standardized text design, mainly including the company commodity standardized text design and personal commodity standardized text design. Company commodity standardized text, is one of the most basic requirements of the corporate brand image logo, the application range is wide, often associated with the logo, and has a clearer description of the power, can be directly the production of the enterprise's information conveyed to all consumers, the visual and auditory at the same time to convey the information to improve the unity of the enterprise's image and the goods between the degree of appeal, and the design of its meaning and the logo has the same significance. At present, academics have carried out a lot of theoretical discussions and practical research on the issue of enterprise standardized text design, and made a number of enlightening and constructive results, which provide an important theoretical basis for standardized text design. This paper also collects and summarizes the relevant research results of some scholars in China.

2. Domestic and Overseas Related Research

2.1. Overview of Domestic Research and Practice on Typography Methods

At present, scholars at home and abroad have more research results on font design methodology and related issues, and the practice in font design methodology has made good achievements, which are summarized and analyzed by the author.

There are also many ways to change the structure of characters, such as graphic substitution, sharing of strokes, cross-application, horizontal thinning, thick and thinning, random handwriting, sharp



corners, localized stretching, curve adjustment, and so on. The development of Chinese characters, after more than 6,000 years of historical evolution, can be roughly divided into three stages: Stage 1: from the Yin and Shang oracle bone inscriptions, Shang and Zhou gold inscriptions, to the Qin seal scripts. From the random and realistic pictograms, it changed to the symbols which are regular in form and close to abstract. The second stage: the Qin seal script was transformed into the official script. The transformation of the Qin Seal Script into the Official Script, or the "Clerical Transformation", was a turning point in the change from ideographic Chinese characters to the modern script. The Small Seal Script broke the hieroglyphic-based method of character structure and gradually formed the basic pattern of modern Chinese character writing. Stage 3: Qin Seal Script transformed into Regular Script. Although there was a change in the way it used the brush, the composition of the characters remained basically unchanged. Chinese characters evolved rapidly from pictograms to symbols of lines and handwritten strokes suitable for writing with brushes, as well as printed scripts that facilitated engraving.

With the rapid development of international character art, there has been a new wave of Chinese character font creation in China and abroad, and a number of forums and academic events have been held each year, such as the "Character Ecology Character Design Series" in 2017, which explored how the field of character design is evolving and expanding under the context of the new era and the character ecology; and The "Guangzhou International Chinese Character Creativity Conference" in 2019, with the theme of "Post-Information Age", focused on the new trends of the digitalization and intelligence era, and expanded the modern significance of Chinese characters as a carrier of knowledge. From the academic activities in the past two years, it is clear that designers nowadays have been thinking about the relationship between Chinese characters, the times and technology, and trying to find the development direction of Chinese character design in such discussions.

Prof. Yueyi Li analyzed the way of font design and pointed out that font design does not simply refer to a simple change of strokes. Rather, it should be viewed as a combination of basic structures such as horizontal, vertical, apostrophe, press, dot, etc., and therefore graphic font design. While pursuing glyph variations, they should also be easily recognizable. A font that is not easily recognizable will not facilitate the promotion of the corporate brand. To maximize the readability of the text, it is ultimately a commercial design that should take into account the cultural background of most readers as well as the ability to recognize graphics. This is a prerequisite for text design. Secondly, the text creative design to ensure consistency between the text and the word, master the structure of the text, form, rhythm. Otherwise, it is easy to produce a chaotic feeling.

About the font design methods in the domestic research and practice, under the joint efforts of scholars. Currently there are the following design methods: First, the connection between the word meaning and word shape; when the logo, glyph design in a very specific thing, you can use the characteristics of the specific object. For example, the whole glyph design gives the feeling that the ink printed on paper gives a dense feeling, then in the design of the strokes can be used to achieve some effect, the effect of water halo, to reflect the temperament of the glyphs. Second, the reasonable use of mathematical ratios and glyphs; the golden ratio, for example, in the design of glyphs or auxiliary shapes to create, the reasonable use of the golden ratio can not only be a harmonious layout, but also allows the shape of the shape to produce a better consistency between. Third, in the glyph design using the reasonable use of the grid; when we are in the glyph design, in some cases the use of the grid can be better to enhance the efficiency and quality of product design. Do text design can be drawn before the draft, and then according to the characteristics of the design style, and then choose or use the square, triangle, square, arc, ellipse and other types of lattice to text design, such as special requirements can also be used to contradict the space. This makes the text design produce a certain regularity.

Chen Rong, a domestic researcher, in the article "Methods, Processes and Prospects of Han Yi New Humanities Song Font Design", pointed out that: the shape consistency of the four sides of each Chinese character must be better ensured when designing Chinese fonts, and accurate recognition of the information must be guaranteed. For example, a smaller face rate can be set to obtain a reasonable

and more relaxed original character spacing. The Song character has basically remained unchanged for nearly a hundred years, and has remained resilient. There is no doubt, however, that in the course of the development of screen display technology, boldface characters have become more and more predominant because of their superior adaptability. Now should be a critical point in the evolution of traditional Song characters, and Song innovation will never be in this direction alone.

2.2. Overview of Foreign Research and Practice on Typography Methods

Foreign research and practice on typographic methods: Japanese and Korean characters, which are also in the Orient and whose fonts are influenced by Chinese characters. Oriental fonts are mainly based on Chinese characters and have influenced many Asian countries. Among them, Japan and Korea were the first countries to incorporate Chinese characters into their own writing systems, which was closely related to the political and economic factors at that time. Japanese and Korean characters are inextricably linked to Chinese characters, and there is a direct use of Chinese characters in their respective scripts. In the process of cultural inheritance, Chinese characters have been involved, and after combining their cultures, they have developed their own different characters, resulting in different languages and cultures. Ahn Sang-soo, a graphic design professional in the Republic of Korea, has made outstanding achievements in fonts and sculptures, and his creation of the "Ahn Style", which pioneered the development of the four-square shape of the Korean character and opened up a whole new dimension in the art of stylization of the Korean character, was awarded the Gutenberg Prize in Germany. According to Ahn Sang-soo, reading Hangul means reading the letters in Hangul. The initial, middle, and final tones of the Korean character, the initial and final tones, which correspond to the sub-tones, and the middle tones, which correspond to the vowels, are combined together, giving them all their own exclusive positions. Although the initial and final sounds use the same letters, they are written differently and have different meanings in different regions. In some ways they are also very different from Chinese characters. He says that drafts will still be hand-drawn. When doing the first draft of a design, the hand-drawing method will definitely continue. Designers can't forget the feeling of the hand, and among all animals, the most accurate hand is human, and the things made with the hand can represent human nature very well. Although we are now basically using computers to do design, but in the initial stage of design should have the feeling of the hand, the hand and the brain is one. The role of the computer is only to realize the feeling of the hand in the final step of completion.

The Western script represented by the Latin script. Although both Western and Oriental scripts originated from the generalization and refinement of the basic shapes of nature, they have shown different forms of expression in the process of development. Western script evolved from the abstraction of Latin characters into alphabets, with a simple geometric stroke structure, and a wide variety of forms were formed through different combinations of letters in the expression. After the printing press was introduced to the West, it was easy to print because of the variety of combinations of characters, thus spreading in large numbers. Laszlo Moholy Nagy, as a Bauhaus teacher of the three major components, created a sans-serif typeface that emphasized more on geometric structure and weakened the decorative nature of the text under the concept of Bauhaus design style - "Universal Type". The creation of the universal typeface greatly facilitated the development of typeface design, and the use of a high degree of order and modal proportions also broadened the boundaries of the theoretical and practical aspects of typeface design. The development of Western fonts has taken on more expressive forms, such as dynamic fonts, which are closely related to the characteristics of Western fonts.

After the first century A.D., Latin glyphs gradually diversified into writing forms, the most famous of which is the Roman glyphs created by the famous stonemasons of the time when they were inscribed on the triumphal arches of buildings. In addition, in the 8th century A.D., the Carolingian lowercase alphabet appeared in the Carolingian dynasty in France, which was a beautiful and practical script that used elastic feathers to adjust the strength of the writing to make a significant change in the human foot and shoulder. Based on religious considerations, before the advent of printing from

the third and fourth centuries A.D. until the beginning of the fifteenth century, the script that circulated in the West was mainly a new typeface in the form of handwriting, with the main writing instruments used being the reed and goose quill pens, and it was only later that the older typefaces written in the form of fountain pens were developed, and the language of writing tended to be more hard and stiff, and authors have argued that the Latin alphabet has a more elegant, simpler, and There are more variations of curved arcs, and it is easy to create a sense of movement on the screen, whereas Chinese characters are more cumbersome in structure, with complex changes in strokes but more varied in form, thus the Latin alphabet is simpler in composition.

Western culture also attaches great importance to the spirit of rationality, which also emphasizes reason, science, logical reasoning and analysis. The West focuses on harmony in concrete forms.

3. Reach a Verdict

Accelerating the construction and implementation of the system of typography methodology is a major issue encountered in the development of China's cultural industry at present. Domestic experts and scholars have carried out in-depth research and practice on this issue from various perspectives, and have given many very constructive views, which provide a lot of theoretical materials for the author's research. The author takes this as the starting point of the study, and intends to put forward the following conclusions according to the current state of practice of text design methods: Firstly, we need to avoid some of these problems for the text deformation: First, the text cannot contain a fork as far as possible, which will be regarded as a bad behavior in commercial use. Second, we need to take into account the display effect under various sizes at the same time, to do the modification of the stroke and position change. At the same time, we take into full consideration the differences in the environment used in the processing of text deformation to design the most optimized method. This is the most basic and one of the main ways of expression in font design; Second: Westerners write with hard pens, while Easterners write with soft pens. Eastern designers should have the feeling of using a brush, while Westerners should understand the attributes of a hard pen; Third: Chinese and Western font design are complementary and mutually reinforcing. Although the two types of characters are very different, some visual and reading principles, as well as the relationship with the humanities and other thinking, there are still a lot of Western can be used in China, and on the Chinese character font design is very beneficial. It is believed that as long as some of the shackles of being stuck in a rut are thrown off and reasonable methodologies are introduced, the future of Chinese character typeface design will have a more diversified development and a broader sky. The author deeply recognizes that fonts are closely related to culture, customs and human feelings, and that the humanistic and historical elements implied in fonts are worthy of in-depth study, so as to provide theoretical references for the construction and improvement of the font design system.

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