Research on Visual Language of New Media Graphic Design

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Abstract: With the development of software and hardware technology, new media graphic design lags behind the research of design practice in the field of theoretical research under the condition of the combination of new media technology and graphic design. Many related works and researches are mostly focused on the application of design software and technology. Many designers stay on the grandstanding of technology and technology, and the design works have no taste and expression way too much emphasis on technology, so art vocabulary is not professional enough. Through the study of new media and graphic design visual language, this paper is conducive to the realization of more effective visual information dissemination, and promote the overall development of graphic design theory and practice, which has a certain practical significance.

1. Introduction

With the comprehensive use of computer technology, network and remote communication technology, the technology of information communication embodies new features in the contemporary digital communication environment [1-3]. It not only gives birth to new ways of information communication, but also makes information present a new look from release to reception, and then to feedback. New media is a comprehensive concept [4-5]. It does not refer to a specific media, but a group of media to meet the new needs of information dissemination. Now people say that the new media is based on the traditional media, with the latest science and technology as the background and means of media.

In the aspect of communication, the new media shows the comprehensiveness of sensory stimulation [6]. The new media contains more technical components than the traditional media [7], which integrates the advantages of multi-media and achieves good audio-visual effect. The new media integrates the characteristics of real-time, dynamic and interactive, and integrates the functions of text, voice, picture, color, animation, music, film, three-dimensional space, so as to meet the audience's psychology of seeking new and changing, and strengthen the effectiveness of information dissemination at the same time. The analysis of its manifestation and psychological characteristics will be discussed in detail in the following parts.

2. The Communication Characteristics of Graphic Design Visual Language in New Media Information

The visual language of new media graphic design is the product of the combination of technology and art [8]. Its communication mode has high knowledge, technical connotation, wide range of communication and strong communication strength. Therefore, the graphic design based on new media technology has a new connotation compared with the traditional media graphic design. In summary, the visual language of graphic design under the new media mainly has the following three new characteristics.

Dynamic makes the use of four-dimensional means of expression become a reality. Combined with other sensory stimulation such as sound, it breaks the static performance range and design principles of traditional graphic design. Multi perspective space performance and time concept
become a new field of graphic design under the new media. Figure 1 shows the movement process of a butterfly on the page. The red line in the figure shows the trajectory of the butterfly movement, which can not be realized by traditional graphic design.

Figure 1 Dynamic graphic representation

Interactivity is the communication of information and the reception and feedback of the audience. The information communication of new media has changed people's way of thinking, from one-way communication to two-way communication, from entity to virtual, which are all new characteristics brought by the interaction of new media communication. The audience is no longer just the receiver of information, they have greater opportunities to choose and participate, to meet the different needs of the audience.

Diversification is the diversification of design factors. New media graphic design uses multimedia technology to organically combine traditional and separated forms of information dissemination, such as language, text, voice, image, graphics, and process, transmit and display various information. In this way, the means of expression and the scope of expression of graphic design have been greatly expanded. The visual language of graphic design in the future is comprehensive and diversified, covering the design of all human senses, such as human-computer interface, network, animation, game, virtual environment, virtual product design, visual art, etc., which is a new cross industry based on digital science in the information age design style, and has gone beyond the concept and scope of existing graphic design.

New media is a kind of multimedia which integrates the advantages of traditional media, that is, composite media [9]. All kinds of information services provided by traditional media can be found in new media. In this way, the visual language of new media graphic design also shows many new features in information communication. At the same time, as new media graphic design also exists in digital form, visual design seems to have gone beyond the original scope, to a more in-depth digital and diversified development, such as the rise of multimedia design in recent years, web interface design, etc. In the new century, visual design is not only to deal with plane problems, but also to deal with sound, light, animation and other effects.

3. The Expression of Graphic Design Visual Language in New Media

With the development of new media technology, the static visual communication design style has been seriously impacted, and the way of thinking and expression of visual language design are undergoing tremendous changes [10], and multi perspective performance is possible. Due to the integration of information technology, multimedia technology and art design, the concept of creation has changed from the perspective of graphic design. The elements of structure, shape, space and time in the new media have changed the original concept of time and space. To a certain extent, it indicates the importance of visual language research in new media graphic design and the future development direction.

3.1. Static Visual Representation

In the traditional graphic design, its design object and scope are limited in two-dimensional
space, and the exploration of dimension is also a two-dimensional and three-dimensional expression method, which also determines its static expression. In graphic design, the two-dimensional design is mainly the comprehensive design of image and information elements such as graphics and characters. The graphics can be illustrations, photographic photos, patterns and signs, and the whole graphic design work can also be regarded as a complete graphic. One of its main features is the combination with printing technology, so that it can be presented as a mass-produced print. As an important aspect corresponding to 3D product design in art design, it almost includes all design activities on 2D level, such as logo design, font design, poster design, packaging design, etc. 3D in graphic design is different from 3D in product design. 3D image in graphic design shows a kind of optical illusion or pure visual center of gravity, position, direction, combination, shape and space. Figure 2 is a visual design that uses 2D graphics to express 3D depth.

![Figure 2 The feeling of three-dimensional space](image)

Due to the limitation of communication mode, the final result of traditional graphic design is mainly presented in the form of printed matter, such as books, posters, packaging, etc., which is a static visual performance of static display effect of cigarette packaging, as shown in Figure 3. In the new media graphic design, in addition to the traditional visual expression techniques, dynamic visual expression has become a significant feature.

![Figure 3 The Cigarette packaging design](image)

### 3.2 Dynamic Visual Representation

Dynamic visual expression is a significant feature of visual language in new media graphic design. For graphic designers, the traditional creation is usually limited in the scope of traditional media, and only a static moment in time. The new media graphic design is different. The design scope is beyond the scope of printing media. It can show the connection between macro and micro things from infinite time and space, and play the creativity in the time going against the trend. Visual image can show a concept vividly in the form of story plot, which can make the audience immersive and more convenient to remember. Film language has also been adopted and inherited by new media graphic design, in which image, text, video, audio and three-dimensional elements
are integrated. Taking font design as an example, the use of font has been valued at the beginning of design. Traditional font is from complex to simple, which changes in the complexity and simplicity of modeling and decoration. In addition to the traditional means, the font design by using new media is mainly embodied in the experience of reading from static to dynamic and in the process of moving track. There are many differences between four-dimensional dynamic font design and traditional graphic design. The recognition rate, readability, speed, rhythm and movement track of characters on the screen are all necessary considerations for graphic designers under the new media, especially for dynamic design creativity. Every rotation and jump of characters must be carefully considered to express specific emotions and meanings clearly. In the new media graphic design, font is alive and has vitality. Figure 4 is a dynamic text design, the background music is a tango dance, and let the "tango" shape run through it. Here, the text becomes a kind of flowing line, free interaction and dance.

![Figure 4 The dynamic text design](image)

In traditional graphic design, the charm of collage lies in the collection of several objects with (or without) relevance, and the composition of a complete and rich new concept by mixed arrangement.

![Figure 5 The festival poster design](image)

As shown in Figure 5, the atmosphere of the festival is represented by visual symbols such as notes, eyes, ears, etc. In the graphic design under the new media, it is "four-dimensional" to change from "static" to "dynamic" and plot collage. The collage is not only an object, but also a scene with space-time concept. In the design process, designers often need to express a comprehensive concept, which can be composed of seemingly unrelated common things. The key is not what kind of object to choose, but how to re demonstrate through its unique angle to give the audience a comprehensive meaning.
Conclusion

In the dynamic four-dimensional plot display, every shot and action process needs time to complete. The modelling, expression form and dynamics in the plot are also inseparable from the time and space form. Time can express a concept, or predict the development process of a thing and become an effective supplement to visual language. The concept of height, distance and other distance can be conveyed through the control of time, and the audience can also feel and understand the connotation of the non visual part of the plot performance in the flow of time. Therefore, we can not ignore the multi-dimensional and three-dimensional characteristics and functions of graphic design in the information age, and better use them in the visual language of graphic design.

References


