Original Paper

The Construction of Designers' Visual Design Thinking in the Visual Communication Design Perspective

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1. Introductory

With the continuous development of our country's modernisation process and the continuous development of education, the education of design talents is getting more and more attention from people, the era of design as a "secondary subject" in schools has ended, modern people have recognised that the world of design is a world of infinite wonders, and that some design experience is an indispensable element for enriching people's lives, and design is related to the deepest things in human nature. Design is closely related to the deepest part of human nature. As an important part of the design field, visual communication design is not only an education of design techniques as traditionally believed, but also a complex systematic project to develop wisdom. It is not possible to improve one's design quality with only a little bit of technique. In addition to mastering design technique, we must also be familiar with the development history of design and its development prospect, have the ability to appreciate design and have insight into design, and fully explore one's own visual thinking, so as to make one's own design thinking more active. Visual thinking is a novel concept. This ability is inherent in us, and for designers of visual communication design, the cultivation of visual thinking should be richer and more diversified. But to engage in design through this ability requires special training.

2. The Rise of Visual Communication Design and Development Trends

2.1 The Rise of Visual Communication Design

Visual communication design terminology was popularised at the World Design Conference held in Tokyo, Japan in 1960, which includes the design of newspapers, magazines, posters and other printed publicity materials, as well as film, television, electronic billboards and other communication media, which communicate the contents of the visual communication design is the art of serving modern business to the eyes and thus modelling the expressive design collectively referred to as visual communication design. Film posters, in short, visual communication design is "design that shows and

informs".

Visual communication design mainly conveys all kinds of information to people through vision, so the main elements of visual communication design are text, illustration and logo, which are the most important elements of visual communication design, which also determines that the main function of visual communication design is to convey what the designer wants to express to every receiver of this information through these three elements. Its main function is to play the role of communication.

2.2 Development Trend of Visual Communication Design

Since the 20th century, especially after entering the 21st century, the social environment has changed qualitatively with the emergence of communication media, and visual design has gradually transcended its original scope, no longer confined to plane and printed materials, but moving towards more and more extensive fields. Network technology, digital art and design, digital film and television, multimedia advertisements and other short films have successively appeared on the stage of history, and they produce thousands of colourful visual information, which undoubtedly heralds the arrival of a new era.

With the continuous development of global integration, international communication media and the explosion of information, the original monotonous and unchanging design method has received the impact of people's diversified needs. Especially in the adjustment of the degree of importance of the design responsibility, resulting in the early traditional design based on the emergence of a variety of new designs. At the same time, due to the great material abundance and the great increase of consumption level, people's demand for spiritual aspects has also changed. People's attitude towards visual communication design is no longer the satisfaction of basic functions and attributes, but more hope that it can be ever-changing and more personalised, and pay more attention to the needs of self-psychological level. This also leads to another aspect of the future development trend of visual communication design, which is to be more profound in terms of expression and message, and more concerned about the common problems faced by human beings.

Another major development trend in the content of visual communication design is that the content is closer to the viewer's inner world. Future design will no longer rely on certain design techniques or brilliant colours to attract people's attention, but on the grasp of the viewer's inner world, and the designer will use creativity to get close to the viewer's heart and impress him/her.

3. The Proposal of Visual Thinking and Tts Importance in Visual Communication Design

3.1 Presentation of Visual Thinking

Although Gestalt psychology's research on perception and creative thinking has initially opened the gap between the strict boundaries of perception and thinking, the concept of "visual thinking" has not yet been explicitly put forward. The earlier and more detailed study and clarification of this concept should be the contemporary American art psychologist of German descent, Rudolf Arnheim (Rudolf Arnheim). In the 1950s, he published the book Art and Visual Perception. As a work on the psychology

89

of art, although it did not yet explicitly use the concept of "visual thinking", it already put forward the important idea that "all perception contains thinking, all reasoning contains intuition, and all observation contains creation". By the end of the 60s, Arnheim's basic ideas about visual thinking had been formed, and on the basis of his thesis, he published a monograph directly titled Visual Thinking, in which he not only further elaborated on the rational function of visual perception, but also elucidated the concept of "visual image" (visual image), which is the concept of "visual perception" (visual image). In this work, he not only further elaborated on the rational function of visual perception, but also clarified the important role and significance of "visual image" in thinking activities in general and creative thinking activities in particular.

Based on Arnheim's theory, the American psychologist McKean formally put forward the concept of "visual thinking".

3.2 The Concept of Visual Design Thinking

Vision is a basic medium of thought, and the perceptual characteristics of visual thought are not limited to the scope of direct perception, but also include mental images in a broader sense, and the connection between these images and direct perceptual grasping, and thus it also has the cognitive function of general thinking activities.

Specifically, human's judgement on the momentum is not the result of rational judgement and thinking, but the perceptual judgement produced by our vision in the moment of contact with the figure, which does not need to go through special processing. The trajectory of the real thing that we human beings capture through the vision will produce an image in the human heart, and the image is the intermediary of communication between perception and thought, linking the world of appearance and abstract thought. According to Arnheim, "Thought proceeds by means of a more appropriate medium, visual imagery. And what makes language helpful to creative thinking is its ability to make this imagery available as thought unfolds."

Thus thinking requires imagery, and imagery contains thinking. In short, the formation of such imagery is in fact the product of the mind's interpretation of the nature of sensible things; it is not a mechanical reproduction of a physical object, but a positive and active grasp of its general structural features.

3.3 The Importance of Visual Design Thinking in Visual Communication Design

Visual design thinking is an active rational activity, a creative grasp of reality; visual thinking from the beginning to the end with the help of imagery, in the observation, imagination, drawing and other forms of constant alternation, change in the creative activities; visual thinking is the right hemisphere of the brain's unique function, and its creative mechanism is the right and left brain division of labour, cooperation and interaction results. Visual communication design mainly conveys various information to people by using vision.

Visual symbols in iconography include all things visible to the eye and symbols that express the characteristics of things, such as buildings, products, etc., while "communication" is the process by which the information developer uses symbols to convey information, including "who", "what", "to

90

whom", "the effect of the impact of how" of the four procedures, in fact, Ulrike mentioned "the process of recognition The four procedures are in fact the "process of knowing" mentioned by Ulrike. According to Gombrich's classification of visual perception, visual thinking can be divided into "seeing, looking, attending and reading", which is actually a decomposition of the visual system. The requirement of visual communication design is to merge the visual systems to achieve the purpose of conveying information. In this process, one important factor is indispensable, which is the ability of visual thinking.

For designers, capturing this pleasure is the same as capturing people's vision and accurately conveying information. This process depends on the designer's grasp of its basic elements when operating visual thinking, which include shape, volume, space, light and shadow, texture, colour and so on. It is not difficult to see that they are all related to the form, the first three are the essential elements of the form, and the last three are the apparent elements of the form. It can be said that the study of visual thinking is also the operation of the elements of the form and the overall perception.

4. Cultivation of Designers' Visual Thinking in Visual Communication Design

Our role as designers also changes from a worker or a designer to a director, who must have the ability to synthesise all kinds of knowledge, understanding, thinking and sensibility, to reconstruct the relationship between the characteristics of the human body, the space of information and the space of the environment; who can all discover, select, mobilise all visual elements and create new images through the appropriate media; who decides who operates rather than an operator who is familiar with the tools; he must have the capacity for perceptual expression and the creative vigour of thought that transcends all domains.

4.1 Shift from "Copying" the Essence of Form to Training in Abstract Thinking

If the activity of thinking is carried on by means of intentions, most of these intentions must be highly abstract, because thinking is mostly carried on at a high level of abstraction. Training in abstract thinking about the nature of form is also training in the first step of the visual thinking process of visual perception. This part consists of two aspects. First, the reproduction of the essence of the form, such as sketching the shape, volume, spatial relationship of the object to accurately depict, training designers on the visual perception of the form of the ability; second, the abstract processing of the essence of the form of the object, such as: weakening the volume of the object and the space of the formal elements, emphasising the shape of the object training, analysing the shape of the object between the composition of the relationship between the shape of the object, emphasising the form of the shape or volume, space and other formal Abstract thinking ability of the essential problem.

a. Emphasising the visual perception of spatial form elements based on pictures

b. Emphasis on the visual perception of volumetric form elements

c. Emphasis on the visual perception of shapes as elements

4.2 Visual Training of Formal Representational Elements

The visual training of the elements of formal representation is the training of the visual experience of the second step of visual thinking. This part includes three aspects such as light and shadow composition training, texture simulation training, and colour composition training.

4.2.1 Light and Shadow Composition Training

Light and shadow composition training focuses on the expression of light and shadow and the compositional relationship between positive and negative shapes in the picture.

Light and shadow composition training stresses the use of rational and logical thinking methods to observe, understand and analyse objects. Specifically, it is to "see" and analyse the object from different angles, i.e., to observe the internal and external structural relationship of the object from different viewpoints and in a "transparent" way, especially the interconnection and combination of the parts of the internal structure of the object.

4.2.2 Texture Simulation Training

Texture training is a process that enriches the designer's visual experience by translating the sense of touch into visual perception.

In the representation of still life texture, the main reliance is on contrasting changes in brushstrokes, lines and tones. Sketching is seen as the gateway to design, as this training covers almost all of the basic areas of design. Drawing is a formal art form that uses monochromatic lines to represent things in the intuitive world, as well as to express thoughts, concepts, attitudes, feelings, fantasies, symbols and even abstract forms. By taking what you are looking at, sketching a concrete picture of it, and depicting the texture of it through our minds, you can better exercise your visual thinking skills.

4.2.3 Colour Composition Training

Colour Composition Exercise Institute designers are liberated from the essence of form, abandoning issues of shape, space and volume, and focusing on exploring the visual experience in the world of colour.

Colour composition is the combination of colours according to certain principles to create beautiful colours suitable for the purpose. Colour composition is the basic course of visual design. It starts from the human perceptual effect of colour, uses the principle of science and the law of combining the beauty of art forms, exerts human subjective initiative and abstract thinking, makes use of the transformability of colour in space, quantity and quality, combines and configures the colour on multiple levels and angles with the basic elements, and creates ideal, novel and aesthetic design colours.

4.3 Enriching Design Language Training with Visual Thinking

Through the first two parts of the training, designers have acquired certain visual experiences, and now combine these experiences with the transmission of information to carry out visual summarisation training. For example, under a theme, designers are asked to create a freehand doodle, take a portion of it and develop it into a complete design by stretching, copying, collaging, etc. The process is to express

92

their own freehand doodle without interference of techniques. In this process, the designers express their own understanding of the theme through free scribbling without any interference of techniques, and select a small part of it to develop into a piece of design work, which not only retains the record of the original visual feeling and experience of the theme, but also undergoes the re-creation of visual generalisation.

This visual thinking training process does not exactly build a common visual thinking process for designers, but it does create an opportunity for them to try to complete their own visual experience with various methods, to form their own visual generalisation, and to expand the designers' thinking mode and expression language. More importantly, in their future design studies, through such visual thinking training, they will use richer visual language and expression to convey information.

5. Conclusion

Design is a purposeful modelling activity involving a multitude of knowledge and applications. Through the training of visual thinking, the rational and functional elements of the form are expressed clearly, so that the designer has a keen insight, comprehensive analytical ability, accurate expression, and abstract thinking ability. Designers through a variety of visual experience, a variety of visual thinking training burst out of a spark of thought, the design language is constantly enriched, the expression of their work is constantly improved, this process is often unrepeatable, for designers, this process is also the most wonderful.

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