

Analysis of Visual Expression of Isomorphic Techniques in Public Welfare Poster Design

YanJun Wang¹ Shiyan Huang²

^{1,2} Xiamen Academy of Arts and Design, Fuzhou University, Xiamen, Fujian, China

ABSTRACT

Public welfare posters are a popular visual expression for the public to reveal bad social phenomena. On the one hand, public welfare posters strengthen the warning of social undesirable phenomena, on the other hand, the continuous exploration of various forms of expression also provides more possibilities for the visual communication effect of posters. Through the understanding and analysis of the "isomorphic" artistic expression technique and the visual emotional communication effect of public welfare posters, the innovative design and application analysis and practice of public welfare posters with the "isomorphic" technique are carried out, bringing positive value to the communication effectiveness of public welfare posters in the future.

Keywords: *Public welfare posters, Isomorphism, Visual expression, Emotional transmission, Originality.*

1. INTRODUCTION

Public welfare posters are a unique form of artistic expression with social benefits and value orientation, which can reflect social issues, promote public welfare ideas such as green environmental protection and social morality, and stimulate public resonance and action with their concise, clear, and approachable characteristics. In the current stage of technological development and industrial maturity in the world, with the continuous improvement of living standards and infrastructure, various social and environmental issues are hot topics that the people attach great importance to today. Therefore, public welfare posters provide an important way to express various social phenomena today with their concise and impactful expressive power.

2. OVERVIEW OF PUBLIC WELFARE POSTERS

The purpose of public welfare posters is to promote the civilized progress and healthy development of society by spreading beneficial concepts, create a good social moral atmosphere, improve the quality of the entire society, and awaken the correct understanding and close attention of the entire society's citizens to the issue

of social responsibility, in order to promote the civilized progress and healthy development of society¹. The design concept of public welfare posters emphasizes putting people first. The focus is on social issues, public needs, and public interests, rather than commercial profits. The design language of public welfare posters is close to the public, concise, clear, and friendly.

In the current social environment, the development of public welfare posters is supported and praised by the public today. It has now become a very extensive means of promotion. The breadth of dissemination involves various cities and media, from first to third tier cities, offline advertising activities, and various media platforms. In terms of the scope of content and presentation methods involved in public service advertising, public service posters present richness and diversity in various fields, including environmental protection, education, health, animal protection, and environmental protection. In terms of presentation methods, designers continuously integrate and innovate various presentation methods, combining symbolization, exaggeration, contrast, isomorphism,

1. Huang Tianling, Liu Jun, On Creativity and Performance of Modern Public Interest Poster Design [J]. Journal of Nantong Textile Vocational Technology college, 2009, 9(02): 54-56.

and other techniques with various carriers to create more unique visual expression.

Today, with the progress and development of society and the awakening of public awareness, the influence of public welfare posters is constantly increasing. From individuals to enterprises, to governments and countries, there is an increasing emphasis on public welfare undertakings, and relevant concepts and actions are promoted through the form of public welfare posters. The enhancement of this influence has made public welfare posters play an increasingly important role in promoting social progress and development.

3. ANALYSIS AND APPLICATION OF "ISOMORPHISM" TECHNIQUES IN PUBLIC WELFARE POSTERS

3.1 Classification and Visual Representation of Isomorphic Techniques

The main design manifestation of isomorphic techniques is the clever combination of two or more elements through graphics and visual connections, forming a new whole that is somewhat related to the combined elements. That is, through two independent whole forms or logically related or unrelated, through isomorphic organization and combination, a new and interconnected whole is formed, which is rich in meaning and interrelated, and expresses logical visual effects and content meanings. There are different combination techniques and characteristics.

3.1.1 Classification and Characteristics of Isomorphic Techniques

The application of isomorphic techniques results in a visual response originating from the relevant perceptual responses in Gestalt psychology. Arnheim pointed out in "Visual Thinking" that "visual perception is not a passive repetition of stimuli, but a positive rational activity."² This indicates that people understand and process the elements they see through their perception, while isomorphic techniques effectively apply this psychological response and proficiently use it as a foundation for various types of artistic creation.

2. (U.S.) Rudolf Arnheim, Visual Thinking [M]. Xi Shouyao, trans., Chengdu: Sichuan People's Publishing House, 1998: 47.

The characteristic of isomorphic techniques is to visually combine elements to form a new vision, and the resulting new visual presentation will be conveyed through the viewer's visual perception, combined with their own psychological awareness, to feel the content and conscious tendencies expressed from it.

Therefore, isomorphic techniques need to form different visual effects through different combinations and means to convey different content and consciousness tendencies. In isomorphism, there are several main techniques, including permutation isomorphism, heteromorphic isomorphism, heterogeneous isomorphism, and hetero-visual isomorphism. There are differences in the forms of expression among different techniques, but the overall design concept is roughly the same - in permutation isomorphism, the main focus is on replacing a similar element in shape with the original element based on its shape. Different elements have similar forms and significant differences in meaning; In heteromorphic isomorphism, it refers to two elements with similar forms, each taking a part to form a new whole, forming a combined new element; Heterogeneous isomorphism refers to the replacement of materials or textures in the original elements, creating a strong sense of novelty and visual impact; In placement isomorphism, one element is placed in a so-called external framework, and another element is combined into a new element as a whole; In the hetero-visual isomorphism, it utilizes the relationship between objects and shadows to transform and replace the same shadow, creating a contrast between objects and shadows, and endowing them with profound connotations and meanings.

3.1.2 Unique Visual Expression Formed by Clever Composition

In the application of isomorphic techniques, the clever use and association of elements are the unique visual expressions exhibited by this design technique. Due to its rich symbolism formed by simple visual elements, when applied to posters, it can create a strong and clear visual impact and emotional expression, enhancing the attractiveness and infectiousness of the poster. As seen in Bright Woo's work "Greedy Face" ("Figure 1"), this series of posters employs isomorphic techniques to connect and combine a part of an animal's head with a part of a human body, forming a new visual image. Food is then replaced by money. This visual

image is exaggerated in form and composition, depicting corrupt individuals who exhibit a greedy and unsightly eating behavior towards money, similar to that of animals. The poster combines the elements of humans and animals, as well as exaggerated eating states. The visual combination

of these elements can be clearly associated with the corrupt person's insatiable greed for food, like competing animals for money, through the viewer's conscious combination. The poster uses simple graphic elements to create an impactful visual effect.



Figure 1 Bright Woo "Greedy Face", Chinese Mainland.

a Image source: 2023 Taiwan International Graphic Design Award.

And in his poster work "Happy Earth Day" ("Figure 2"), Fukuda Fumio cleverly employs isomorphic techniques to create a visually appealing and meaningful representation. In the series of posters, the Earth is isomorphic to sprouting seeds, and the handle of the axe is

combined with the sprouting trunk to form new visual elements. This element conveys the theme in a very direct and satirical form and meaning. The clever combination of elements creates a unique visual expression.



Figure 2 "Happy Earth Day", Fukuda Fumio, Japan.

a Image source: https://zhuanlan.zhihu.com/p/342757232?utm_id=0

3.2 Application and Practice of Isomorphic Techniques in Public Welfare Posters

3.2.1 The Holistic Expression of Isomorphic Techniques

In the design of public welfare posters, the application of isomorphic techniques often takes a relatively simple form of expression, using minimalist graphics to quickly and accurately convey awareness and emotional needs. When the viewer obtains the first glance of attention and attraction, the overall visual representation of the

object of interest is presented first, highlighting the unity and integrity of graphic visual expression through isomorphic techniques. In the visual form of public welfare posters using isomorphic techniques, the first visual form is formed by the combination of various elements, and it is a unified and integrated form of the selected elements, without causing visual feelings of division and exclusion. In the animal protection series public welfare poster "Cage" ("Figure 3"), at first glance, the overall visual image is formed by combining the animal images reflected in the QR code as the main body.



Figure 3 "Cage" self-drawn by the author.

In this poster, isomorphic techniques are used on the lines composed of animals with the visual subject of QR code elements through the variation of lines. In the overall poster, on the basis of element isomorphism and foundation, attention is paid to the unity of the overall visual, using the thickness of lines and the combination of lines and surfaces to form the "surface" of animals in the arrangement of "lines". With such lines, they are fused with the lines in the two-dimensional code element graphics to reasonably solve the original contradiction between "form and form" in the two-dimensional code and animal silhouette, and to cleverly form a unified and harmonious picture composition. These are the aesthetic visual representations that reflect natural harmony.

3.2.2 Coordination Performance in Isomorphism

In public welfare posters, the techniques of isomorphism also emphasize the coordination between graphics and images, not only the

coordination of visual symbols, but also the rational expression of graphic meanings. Isomorphic graphics are created through bold imagination by designers, not out of thin air. They are the new images created by designers through rational logical thinking, combining two or more objects with no surface connection but internal connection in their creation³. Therefore, this is also an important manifestation of the use of isomorphic techniques. It is necessary to consider both visual logic and psychological logic. Based on a new whole composed of multiple elements that are isomorphic, the selected combination elements need to be carefully studied. In cases where the elements have differences, the possibility and rationality of combining in graphics and symbolism should be sought and endowed to avoid abrupt or biased information transmission. In the public welfare poster against marine pollution, "This Is Not Mine" ("Figure 4"), visual graphic symbols of

3. Wang Zhenze, He Xiaohan, Performance and Application of Creative Graphics in Print ADs Design [J]. Design, 2015, (21): 154-155.

marine animals and marine debris are selected to find coordination points from the graphics with

significant differences in meaning. This provides new and reasonable ideas for communication.



Figure 4 "This Is Not Mine" self-drawn by the author.

In this poster, based on the selection of graphic symbols, this series of posters selects visual graphic symbols for marine organisms and white pollutants. In the absence of any relevance to the meaning of these graphics, the design explores the integration of form and symbolism. In the exploration of graphic visual forms, the designers select some aspects of white garbage that are similar to the morphology of marine animals and perform partial isomorphic substitution. White garbage is about to replace parts of the body composition of marine organisms. And the designers select clever angles and combine them with dynamics to form a new overall new graphic that is not detached from the original elements, so that the graphics combine visually to form a sense of visual coordination. The ability to recognize two element shapes and recognize new graphic symbols within a single overall shape is a visual transmission.

In the exploration of the combination of cognitive meanings represented by isomorphic graphics, the selection of marine animals is mapped to marine ecology, and the symbolic cognition of white garbage is conveyed through plastic packaging. In the symbolism expressed by the two elements, it can be explored that white garbage causes marine pollution, and a new symbolism is derived from the combination of marine ecology and the threat to marine animals. The use of white garbage instead of animal bodies also allows the new graphic elements to independently sort out the different meanings of the two elements through the viewer's visual perception, brain perceptual processing, and receive the graphic symbolism that

white garbage is threatening marine organisms and replacing them until they disappear completely in the poster. It demonstrates the rationality and logical regularity of element combinations in the combination of graphic symbols and meanings under isomorphic techniques, which is the coordinated expression of graphic symbolism in isomorphic techniques.

3.2.3 Visual Orientation in Isomorphic Techniques

In the visual expression of public welfare posters using isomorphic techniques, the use of isomorphic techniques creates a visual impact and freshness between the similarities and differences of graphic elements, thereby guiding the viewer's gaze and attention. Moreover, through the substitution and combination of elements, under appropriate conditions, it can trigger the viewer's visual association processing to form directional graphic imagination and warning concepts. In the public welfare poster "They Are About to Disappear" ("Figure 5") that reflects the phenomenon of global warming, the images of Arctic animals and melted candles are fused. In a concise visual expression, the burning candle elements are integrated into the similarity of the overall animal image and the difference between the candle and the animal, which are not directly related to the symbolism. Through novel composition and element collision, the visual impact is enhanced, guiding the viewer's visual attention and attraction.



Figure 5 "They Are About to Disappear" self-drawn by the author.

In this poster, isomorphic techniques are used to provide clear guidance in both graphics and concepts. Through the transformation and fusion of animal images and candle shapes, viewers are inspired to make new associations, guiding them to have a visual imagination of animals shedding tears and melting like candles. In addition, in the design of the title font, compositional techniques are also used to combine and replace the font with the melting state of the candle, and then combine it with the main visual graphics, and through the overall vision, deeper associations are made to introduce the theme. Through the selection of Arctic animal graphics, the biological community and overall environment of glacier ecology are defined. Through the directional nature of graphic associations and the visual image of candle burning, the association of global temperature rise is conveyed, leading to the concept that Arctic animals and the overall Arctic environment are melting due to climate warming. The use of animal melting and strong visual impact has guided and strengthened the warning in this public welfare poster about the enormous harm caused by glacier loss due to global warming. Therefore, in the application of isomorphic techniques, the combination of graphic elements guides the viewer to receive breakthroughs and extensions of new elements, guiding the viewer to autonomously associate and recognize the visual effects and concepts that the designer wants to convey through the graphics created by the designer, and enhancing influence and memory with a unique visual impact.

4. USING "ISOMORPHISM" TECHNIQUES FOR PUBLIC WELFARE POSTER DESIGN - EMOTIONAL TRANSMISSION THROUGH CREATIVE SYNESTHESIA

By using isomorphic techniques to showcase various characteristics in public welfare posters, isomorphic techniques not only focus on the visual impact brought by graphics, but also pay attention to the psychological and emotional transmission reflected through human perception, achieving emotional and viewpoint dissemination from designers to viewers. Therefore, the expression and value of isomorphic techniques are not only a new visual representation of graphic language creation, but also an exploration and innovation of visual stimulation for viewers to grasp emotions and convey spirit. Designers should continuously explore the characteristics of various element symbols, use isomorphic techniques to process and creatively express graphics, and further explore the dissemination in various aspects of public welfare posters, achieving multi-dimensional emotional dissemination, and enriching the functional significance and emotional connotation of public welfare posters.

5. CONCLUSION

For the innovative application of "isomorphism" in designer's future design and the possibility of future public welfare poster design, with the continuous development and progress of society, designers are constantly innovating and breaking

through in the application of design techniques. The "isomorphic" design technique, as a unique design technique, will have more innovative applications in future designs. Meanwhile, with the continuous development of public welfare undertakings, public welfare poster design will also face more possibilities. In the application and exploration of graphics, seeking greater visual impact between graphic isomorphism, and in today's trend of digitization and cross domain vision, isomorphism has gradually become mainstream. The diversification of isomorphism techniques in the expression of public welfare posters has become possible. Exploring new media and carriers that carry isomorphism graphics has become one of the directions for future research and innovation. In the context of emotional design being increasingly valued, using isomorphic techniques to convey and explore synesthesia can create multi-sensory resonance among viewers, which can also create different possibilities for future public welfare posters. Designers explore new forms of expression and media to enhance the visual effectiveness of isomorphic techniques, creating more creative and unique public welfare posters. They spread public welfare posters through multiple channels and forms, thereby expanding the influence and coverage of public welfare undertakings, to respond to the continuous development and progress of society, better convey information and emotions, and make positive contributions to society.

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