Application Research of IP Image Design under the concept of Environmental Protection
-- A case study of "Wuhan Lake IP Image Concept Design"

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Abstract. Wuhan enjoys the reputation of "the city of one hundred Lakes". The numerous and beautiful lake scenery is a beautiful scenery line of the city. According to the Wuhan Lake Protection Master Plan approved at the end of 2018, there are 166 natural lakes in Wuhan, and the water area of Wuhan accounts for a quarter of the city's total area. However, with the development of today's society, the pollution of lakes caused by sewage discharge and household garbage has become more and more serious, and the major lakes in Wuhan have been polluted to varying degrees. Therefore, it is more important for Wuhan, also known as "River City", to control the lake water area, and the form is more severe, which requires people to have a higher awareness of environmental protection. Secondly, in the development of Wuhan lake culture, the "cultural atmosphere" is insufficient, and many lake cultural values need to be developed. In today's era, IP construction, as a production mode of cultural system construction, is more easily accepted by the public. Taking IP image as a new carrier of culture, it is more likely to be entertaining and interesting in communication and thus more likely to bring more possibilities for the dissemination of public environmental awareness. In this situation, this paper tries to arouse the public's awareness of environmental protection in the form of IP from the perspective of Wuhan lake culture, using literature research, case analysis, design practice and other methods, and create a unique, malleable and social IP image series design.

Keywords: Wuhan lake; Environmental protection; Cultural value; IP image.

1. Introduction

Wuhan is known as "the city of 100 Lakes", just as said in the description, according to the latest figures released by the Wuhan Water Bureau, the total area of lakes is 17,535.27 hectares, there are 166 natural lakes, visible water area is quite large. However, there were 36 lakes of category V, accounting for 21.1%. There were 80 lakes in class IV, accounting for 46.8%. In other words, Wuhan has more than 110 lakes and reservoirs with poor water quality, accounting for 68 percent of the total. At present, Wuhan is facing an awkward situation of being "better than water but worried about water". With the intensification of urbanization and worsening of lake pollution, the natural properties of lakes in Wuhan are constantly weakened, and most of the lakes are seriously polluted, showing a trend of eutrophication.

A sound ecological environment is the basis for sound urban development. It is also fully mentioned in the UN 2030 Sustainable Development Goals that "by 2030, improve water quality by: Reduce pollution, eliminate waste dumping, minimize the discharge of hazardous chemicals and materials, halve the proportion of untreated wastewater, and dramatically increase global waste recovery and safe reuse."

Therefore, for a city with such a large water body area as Wuhan, the management of lake waters is more severe and important. According to the existing problems and severe forms of the lake environment in Wuhan, this topic starts from the visual communication design, focuses on its advocacy public information transmission of the lake environmental governance in Wuhan, and awakens the public's inner awareness of environmental protection through the form of lake visualization IP. Create unique, malleable and social IP image series design.
2. Application of IP image in environmental protection concept

2.1 IP image design principles

In the current cultural context, the concept of IP mainly refers to cultural products or cultural images with great influence, or refers to the interconnection and integration between culture and products, so that it is given a certain image carrier, and forms a certain public resonance and cultural identity, and has a certain social and economic benefit circle of fan community.

Secondly, the design of IP image should have its own attributes. First, IP image design should have certain cultural content attributes, which is also indispensable in the design. An IP image design without content is like an "empty shell", which loses the meaning contained in the beginning of the design. Therefore, in the design process, we should not only focus on the visual aspect. More importantly, it should be reflected in its own content, people, background story level, so that the IP image can have stronger vitality. Second, IP image design should have certain emotional attributes. A good IP image can resonate with the public and the people it is aimed at. Therefore, in the process of designing IP images, characters should be endowed with certain emotions, personalities and backgrounds, or designed in the form of expression so that they can interact with users. Its meaning is to establish some degree of emotional communication with the public or consumers. Third, IP image design should have a certain attribute of extension, a good IP image can be grown, rather than fixed after the completion of the design. Secondly, the significance of extension is more important to enable IP image to have more forms and channels of communication, so that it can fully participate in and penetrate into the daily life of the public or consumers. While strengthening the vitality of IP image, it can also enhance the brand influence of its IP.

2.2 The significance of IP image to environmental protection

The essence of IP, in fact, is a kind of spiritual consumption, which is the recognition of the set world outlook and cultural concept. With the improvement of the overall social level and education level, the overall quality of the public is also greatly improved, so the concept of environmental protection is widely recognized by people. When environmental protection turns into a fleshified image of IP, its effect is more likely to touch and infect the people it targets.

Compared with general environmental protection publicity, the image of IP and emotional communication between the public and the created IP can make it have more inner experience, carry more cultural content and more important social responsibility and mission. Through the explanation of the relationship between the conceptual definition, theme, characteristics and functional meaning of IP image and the design works, it will reveal the existing problems in the current society or the aspects it points to more intuitively and deeply, so that the audience can have a stronger inner reflection. In the rapid development of contemporary society, people's pace of life is very fast, often only pay attention to their own circle, and ignore a lot of things outside their own, including what is happening all the time, and these things are a lot of problems are closely related to everyone's daily life, and some of the role of environmental ip image, it is to let people pay attention to their own lives, and at the same time, through the emotional interaction with IP, it can convey different ideas and reflections to everyone from another level. Therefore, the design of public welfare IP image can play a positive role in building correct values and ethics and promoting good social customs.

2.3 Application analysis of IP image in environmental protection

Under the theme of "Limited Resources, Unlimited recycling", Shenzhen Municipal Bureau of Ecological Environment and Shenzhen Evening News held the unveiling ceremony of a series of activities on resource recycling in 2022 for the construction of "waste-free City" in Shenzhen at the Green Beauty (Shenzhen) Super Green Technology Institute. Representatives of citizens, enterprises and teenagers gathered together to explore the process of e-waste treatment and recycling and understand the development of comprehensive utilization of urban resources in the form of "visit and visit + waste-free popular science class". At the unveiling ceremony, the IP image of Shenzhen's
"waste free city" -- "Deep Waste Free" was first shown offline, comprehensively promoting the construction of Shenzhen's high-end "waste free culture" and igniting the enthusiasm of citizens to participate.

"Deep No Waste" IP image design is extracted from Shenzhen "waste free city" symbols, and then combined with scientific and technological intelligence, green environmental protection, resource recycling as a creative. In terms of the overall design creativity, the head shape of IP image "Deep No waste" is outlined by green leaves. Combining with waste recycling, it forms a smart helmet with green leaves, representing the harmonious coexistence between human and nature. Intelligent sensing ear has the function of sensing whether the surrounding environment meets the standard of waste free; The face is an environmental smart display screen, in which "0" represents the concept of "harmless" in the "waste free city", and "-" represents the concept of "reduction" and "low-carbon" in the "waste free city". The "inverted triangle" LOGO in the middle of its belly represents the waste free energy core, respectively representing reduction, harmless, resource.

In the visual language of "deep no waste" IP image design, the concept to be conveyed by Shenzhen "no waste city" is reflected everywhere. In the shape and details of IP image, it fits in with it everywhere. In the interpretation and publicity for the masses, it is more vivid, vivid and influenced, and has a good communication effect.

![Image of Deep No Waste](Image from Internet)

On June 2, 2022, in the theme activity of "June 5" World Environment Day, Ningbo Ecological Environment Bureau unveiled the IP image of Ningbo ecological environment "Ningbo Xiaohuan". The most representative eye mask of "Yongxiaohuan" is extended according to the concept icon of circulation, reflecting the elements of ecological environment; Overhead oxygen element, a good interpretation of oxygen is an indispensable part of our life; The blue "adventure scarf" on the neck is the exclusive equipment of Yong Xiaohuan, reflecting the character's adventurous personality; The scarf ends with an element of water that represents water quality protection. In addition, the distinctive symbols on the chest of "Ningbo Xiaohuan" cover the three meanings of the letter "N", "Sanjiang" and "energy", which not only represents the elements of Ningbo, but also reflects the significance of environmental protection. Stable and solid small feet with earth color, representing two feet mud, soil treatment and waste.
2.4 IP image products in environmental protection concept of the application of the deficiencies and solutions

On the level of environmental protection concept, there are numerous types, each of which has its own unique aspects, which requires IP image design to have different forms and connotations on this basis, which needs to conform to its content and significance. After research, summarize IP image products in the concept of environmental protection reflected in two deficiencies. First of all, at the present stage, some forms of environmental IP are poorly consistent with the theme they embody. The overall form, color and composition method of environmental IP products lack a close fit with the theme, and there is no clear visual language correlation between the products and the theme they express and the idea they want to spread. As a result, the target crowd cannot receive sensory information well, and the transmissibility is greatly reduced. Secondly, at the present stage, there is a lack of emotional transmission of environmental IP images. Many of them carry out unilateral emotional transmission from the perspective of the initiator's conception, but cannot get a good emotional resonance with the audience, which will interrupt the emotional echo between users and participants.

Therefore, at the present stage, what is needed in the design of environmental IP image is to closely fit with the theme expressed, and the fit here refers to the multi-faceted fit, that is, the shape, decoration, content, character and other aspects should be reflected, so that the audience can intuitively and easily feel the content contained, and through the deepening of its content mining, find innovative points, make the form of IP image more attractive, and then according to its cultural content unique, visual display, so that viewers can more directly have emotional resonance with the IP image, so as to better play the environmental communication effect brought by the IP image.

3. Practice of IP image design of Wuhan Lake

According to the research on the lake in Wuhan City and the audience in the current IP market, it is concluded that when people buy or receive IP images, most of them will leave a deep impression on the cultural content set up by the IP images they receive. Therefore, the design of IP images should conform to the psychological and physiological characteristics of relative people. In this way, people can obtain certain information from the IP, so that users and audience can have certain emotional preferences and resonance, and then the target audience can have certain memory or identity of the IP image, so as to achieve the role of information transmission.
3.1 Content localization

From the perspective of Wuhan lake, this design fully taps the cultural connotation and value of Wuhan lake, so that the IP image created by it has certain cultural content. The shape similar to the water droplet is adopted in the body shape, which is relatively simple and easy to accept and has a more populist role while fitting the creation theme, and provides certain modeling basis for the extension of IP image. The IP can be serialized and full of vitality.

In terms of the series selection of design, due to the characteristics of Wuhan as "the city of a hundred lakes", it provides a lot of possibilities for the selection and development of IP, and the series of content that can be mined is also quite sufficient. Therefore, the design of IP image has great malleability based on the framework of this theme. At present, this design chooses two directions respectively: Wuhan lake story series and Wuhan Lake name series.

The lake in Wuhan has a long history and culture. In the series of lake Stories in Wuhan, the classical cultural stories of each lake are excavated through the exploration of history and culture, and corresponding echoes are generated in the IP image design according to the plot or structure of the story. At the same time, the connotation of the lake and the change of the city are described through the form of stories, and the thinking of the city is inspired. In order to spread the public welfare concept that you want to promote. In the series of lake names in Wuhan, as there are so many lakes in Wuhan, each lake has its own unique name, and each name has its own unique aspects, so this series starts from the name of the lake, to explore the unique and interesting lake names, so as to achieve the purpose of cultural dissemination.

Then, on the basis of the two, the concept of lake pollution is implanted to make its concept advocacy more vivid and full of substitutions. When introducing the concept, the pollution sources that cause lake pollution are displayed on the basis of a certain association with IP images, so that the target people can not only deeply understand the IP content, but also understand the common sources of lake pollution in daily life. For educational and advocacy purposes.

3.2 Modeling extraction

In the Wuhan Lake story series, through the exploration of the history or legend of each lake, the relevant characters or things contained in the story plot are transformed into the design, and then reflected in the IP image. In addition, the choice of the pollution source of the lake will also have a certain correlation and suitability with the story content and image appearance. While communicating and resonating with the public, the concept of lake environmental protection is infiltrated into it.

In the series of Wuhan Lake names, through the excavation and research of many lakes in Wuhan, the names of lakes that can be transformed visually are extracted, and combined with the characteristics of the lakes, the modeling is combined with the names of lakes, and the pollution sources of lakes are combined with the modeling of IP images, so as to reflect its advocacy purpose.

![Fig. 3 Sketch (Author's drawing)](image)
3.3 Application expansion

This design not only embodies the concept of protecting the lake environment on the IP image modeling, but also carries out some design on the interactive IP image product packaging. The packaging shell of the product is made of transparent material, and the IP image ontology product is placed inside the container, and some liquid (cloudy and opaque) with the polluted color of the lake after debugging is filled, so that the IP image ontology inside the liquid cannot be observed in the appearance, forming a blind box-like product, which produces certain attraction and market effect in terms of its interactivity and interest. Secondly, a wiping cloth printed with advocacy pictures is placed on the lid of the container for cleaning, so that users can convey the concept of lake environmental protection through a series of interactions in the process of opening the package to get the IP image body, and make them have a deeper impression to realize the purpose of the message.

3.4 Design significance and application value

In combination with the current situation of Wuhan lake, through the green communication of visual communication design, IP visualization, story-oriented form, adapt to the current product trend form, attract more people's attention and interest in this issue, as far as possible to correct the blind...
chaos in real life, with the interactive design of IP image. In this way, people can think about the protection consciousness of the lake environment, so as to advocate and drive people to their own norms of behavior. Finally, IP image design can make a certain contribution to the pollution control of Wuhan lake, and build a reasonable, optimized, green visual and spiritual space.

4. Summary

Through the discussion and research of this topic and combined with the practice of IP image design of Wuhan lake, it is proved that IP image design has a great exploration space and an important role in the advocacy of lake environmental protection, and in the cultural connotation of Wuhan lake there are also a lot of cultural content to be explored and visualized.

From the perspective of design, the IP image concept design of Wuhan lake should first contain the deep cultural characteristics of Wuhan lake, and grasp its characteristics. Secondly, by inserting certain lake environmental protection concepts into the design, users and the public have a deeper impression to realize the purpose of the theme expressed.

In today's era of rapid social development, the destruction of ecological environment has become a more and more serious problem, the key to the problem is how to improve the public awareness of environmental protection, so to improve the public awareness of environmental protection is one of the important ways to make the phenomenon better.

To sum up, the concept of IP image conceptual design of Wuhan lake has a good space for development. In view of the limited research capacity of the author, the feasibility of this method needs to be further studied. For example, there are still some deficiencies in the depth of the excavation of lake cultural content and the deeper scientific research on the lake pollution in Wuhan. Further investigation and research should be carried out from multiple layers in the future. Secondly, in the part of IP image design, social factors such as communication mode should be further considered, as well as how to make it have better serialization extension to maintain the vitality of IP image, and how to further combine the interactive innovation of IP with the concept of Wuhan lake pollution control in a deeper level, so as to achieve better communication and advocacy effect. These are questions that still need to be considered and reflected upon.

References


