Exploration of Visual Image Design in Sports Universities—Taking the Visual Image Design of Wuhan Institute of Physical Education as an Example

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Abstract. The university visual identification system is an extension of the enterprise visual image identification system, which displays the university visual brand image jointly through the logo, standard color, standard font, auxiliary graphics and standard combination. As far as the visual image recognition system of sports colleges and universities is concerned, the refinement, digitization and standardization of the image are important means to realize the visual symbol of sports characteristics and its attached value and cultural connotation. This article from the perspective of visual communication design, following the integration and fine-tuning and complement, using the theory of the method of literature study method, graphic method and contrast method, etc, has carried on the induction summary to the visual image of sports colleges and universities at home and abroad, taking Wuhan sports college as an example, discusses the basic connotation of Visual identification system, Wuhan institute of physical education including signs, standard colors, fonts, graphics and standards, etc., and the design result is given.

1. Introduction

With China’s higher education continuous reform and development, the shaping of the university brand not only plays an increasingly important role in the development of colleges and universities themselves but also useful in the competition of higher education. Sophisticated university image design can not only fully show the essence of university history and culture, but also set up unique visual expression mode of universities. Meanwhile, it is more convenient to make use of the current Internet and "we media” to enhance the cultural communication power of universities, enhance brand awareness and expand influence.[1]

UIS[2](University Identity System), UIS(University Identity System) is a system form which refines the university spirit, behavior norms and other information, yet convey to the public a sense of identity with the University by using the overall image design and the overall expression system ,so as to form a good impression of the University, then enhance the popularity and reputation of the university brand, gain advantages in the competition, and finally promote the establishment of the University's status in the whole social relations.

UIS consists of idea identity system (MIS), behavior identity system (BIS) and visual identity system (VIS) [3]. Among them, the visual identification system includes two aspects: basic logo and application system. The basic logo includes basic image elements such as symbol, standard color, font and related auxiliary graphics; the application system mainly includes the publicity and guidance system designed based on the university environment. [4]

In this paper, from the perspective of visual communication design, following the integration, fine-tuning and supplement, using the methods of theoretical literature research, graphic method and contrast method, this paper summarize the visual image of sports colleges and universities at
home and abroad. Taking Wuhan Institute of physical education as an example, this paper discusses the basic connotation of visual recognition system of Wuhan Institute of physical education, including symbols, standard colors, fonts and Related auxiliary graphics and other basic image elements, and gives the design effect.

2. Overview of the Visual Picture of Physical Educational Institutions

2.1. The Concept Source of University Image Recognition System

The word "image recognition system" originated from the totem symbol with symbolic meaning in the ideology of a nation or even a country. The concept of "university image recognition system" comes from the extension of "enterprise image identification system" [5].

In the operation of corporate image recognition becoming more and more mature, people began to try to enhance the sense of belonging and cohesion of the same group of people in many other fields with a visual symbol form that can be different from other and internal unity, and thus form a specific cultural connotation. In the university cultural image, cultural taste and school brand, through the excellent and successful university visual identification system, it exerts the function of culture education imperceptibly, improves the soft power of school culture, and at the same time, through the university identification system, the relationship between the university and teachers and staff throughout the school will have a chemical reaction, so that the university, faculty and students make up an ideological "iron triangle" tightly connected.

As shown in Figure 1, Harvard University [6], known as the "near-mature campus of the visual image recognition system", has strict and systematic enforcement standards for the school visual identification system. The university supports the application of the system to various social activities, and also derives considerable benefits from the practical application of the UIS, carrying out the re-shaping of the brand. Harvard UIs is protected by copyright and has a dedicated management manual and in-depth legal terms.

![Figure 1. Example of UIS at Harvard University.](image)

2.2. Analysis of the Current Situation of Visual Image Characteristics of Domestic and Foreign Sports Colleges and Universities

To summarize the visual image of sport schools and universities both domestically and internationally, it can be summarized as follows:

(a). Round seal styles of school badges

According to the preliminary sampling survey, influenced by the traditional idea of "round sky and round place", many sports universities, in particular those in China, mainly use the round seal styles of school badges [7], as shown in Figure 2.
(b). Shield seal styles of school badges
This type is primarily to enhance the school's reputation and historical and cultural heritage, to show its strong academic atmosphere. The Taipei Sport University and National Taiwan Sports University emblems are shown in Figure 3. They are both shield shaped school emblems with historical value and cultural imprint, or they are slightly adjusted on the basis of the original shield shaped school emblem and combined with the standard characters of the full name of the University in classical style.

(c). Standard font styles of school badges
The school name is directly used as the visual image of the university brand, with special emphasis on the unique character of the name and the standard font. With the standard character style of individual color and personality, it reflects the school connotation culture and brand personality. Figure 4 shows the emblem of the University of Warwick.

(d). Abstract or concrete geometric symbol styles of school badges
The school emblem is designed by using abstract or concrete geometric modern graphics representing the school, and the full name or corresponding abbreviation of the university is used as the standard signature. Figure 5 shows the logo of three sports universities in Poland, China and Russia.
3. Brief Analysis of the Logo of Wuhan Institute of Physical Education

3.1. The Historical Origin of the Symbol

The prototype of the school emblem is shown in Figure 6, which is the emblem of the sixth discipline society of National Institute of physical education undertaken by Wuhan Institute of physical education. The round logo points to the Chinese letter in pinyin martial WT. the overall layout is in the shape of a flying bird, also like a table tennis racket. Torch, track, swimming track and other sports symbols are displayed.

By consulting the pertinent information of the Wuhan Institute for the History of Physical Education and Archives, the school did not identify this logo as the school logo in a document, only by convention. There is no record of the font design prototype (font, size, spacing, etc.) of the emblem. Only the photos of the venue in that year kept by the scientific research institute.

3.2. Ideas for Visual Image Design

3.2.1. An Interpretation of the Name

The theme of Figure 6, which shows the Wuhan Institute of Physical Education and emphases on the sixth scientific association, is "A great hawk spreads its wings".

The Wuhan Institute of Physical Education stands by the East Lake, where the students fight with high spirits, grow up with sweats and tears and has created countless great achievements. Just like the "A Happy Excursion", wrote by Zhuangzi, recorded that "...the water is smitten for a space of three thousand li around, while the bird itself mounts upon a great wind to a height of ninety thousand li " and "...far above the region of the clouds, with only the clear sky above it. And then it directs its flight towards the Southern Ocean", whose momentum is similar to Wuhan Institute of Physical Education’s soul of fighting, accumulating richly and breaking forth vastly, and cherishing high aspirations.

Chinese phonetic alphabet of martial arts in the internal structure of school mark "WT" construct the visual image of big bird "the roc", making the image elements visually changeable and ample in content.

3.2.2. Selection and Analysis of School Logo

As shown in Figure 7, the symbol is fitted to be round to make the logo fuller. The sign is specified to be isomorphic with abstract Kunpeng, perspective runway and flaming torch.

Kunpeng is one of the ancient Chinese celestial beast, which first appeared in the Taoist doctrine Zhuangzi · A Happy Excursion. The book says, "In the northern ocean there is a fish, called the k’un, I do not know how many thousand li in size. This k’un changes into a bird, called the p’eng. Its back is I do not know how many thousand li in breadth. When it is moved, it flies, its wings..."
obscurring the sky like clouds.” In Chinese culture, kunpeng is often used to make reference to "great things" [8]. The perspective of the track of the West track and field implies the sports spirit of "striving upward and striving more than ever", and also shows the campus characteristics of Wuhan Institute of physical education that the ratio of playground area to school area is higher than that of colleges and universities in China; the torch burning together symbolizes the endless Olympic fire and the "courage, sincerity, perseverance, learning, speculation and action" that the Wushu people abide by Attitude. As the main body of the logo, it covers a wide range and has typical representative significance. The Chinese and English characters inside the logo are deformed in calligraphy and combined with modern font strokes. The integration of traditional and modern, blending the ancient and creating the present, shows the school's rigorous academic attitude and innovative spirit facing the future.

Selecting red as the standard color, it symbolizes the spirit of struggle and struggle like Kunpeng, and implies the goal and momentum, youth and passion. The use of circular frame not only balances the overall structural layout of the school logo, but also coincides with the campus life atmosphere of unity and friendship. The rich feeling of modeling shows the diversification and internationalization of school development and the diversification of subject setting. The overall shape of the logo is simple and solemn, the implication is clear, and the identification is strong, which accurately shows the school culture and characteristics of Wuhan Institute of physical education.

3.2.3. Analysis of Symbol Formation

The combination of graphics and Chinese, English and other elements is one of the most important visual elements of the university image, including location, distance, size are specified in detail to ensure the consistency of information. After a series of attempts and adjustments [9], the combination of graphics, Chinese and English and other elements of Wuhan Institute of physical education is redesigned, using the wool font used in the previous school logo, and the school name is "Wuhan instruction of physical education", which is consistent with the Chinese English translation in the school emblem, and is expressed in Times New Roman font.

The colour of the logo is an important part of symbolizing the spirit of the brand and the culture of the campus. Through the strong impression generated by visual communication, the purpose of color recognition is achieved [9-10]. The use of auxiliary color is to produce a rich visual effect in the use of images, so as to enhance the expressive strength and vitality of the imagination. In view of the identification and reproducibility of the future logo used in various media, a better unified image of the communication colleges and universities, especially refining the standard color of fight red. The auxiliary color is matched by dream blue and vitality yellow. The color selection is inspired by the color of the Chinese flag on the Olympic podium and the blue of the East Lake. In order to make the brand logo of Wuhan Institute of physical education revitalize and exert its appeal on various application media, a special auxiliary graphic is designed, which is based on the basic shape of the logo, and is composed of simple stroke images of each sports item and the date of establishment of the school. With the use of color with strong color impact, it presents the diversity and decoration of the image under the premise of unified image. It is mainly used in printed material, various packaging and large-scale activities to display rich visual effects and enhance the meaning and emotional appeal of the image. Figure 8 is an auxiliary figure composed of standard colors. The figure "1953" comes from the history of Wuhan Institute of physical education founded in Nanchang in 1953. The silhouette of athletes comes from the valiant posture of hard-working and hard-working athletes on the training ground of representative sports. The design not only shows the school's long history of more than half a century and the great achievements of previous alumni in the sports field, but also shows the Kunpeng spirit of continuous self-improvement and tenacious struggle and the school motto and spirit of "being brave, honest and resolute, learning to think and do".

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4. Technical Implementation and Effect Display

The re-design of the visual image of Wuhan Institute of Physical Education not only integrates the resources of the campus image, but also normalizes the use of the existing visual image of Wuhan Institute of Physical Education, endowing the inner connotation of "A great hawk spreads its wings", thus the school image tends to a unified and highly individualistic bright style.

4.1. Basic System Design

The most important element of visual information is to ensure the consistency of visual information with English[11]. Figure 9 is the basic part of the UIS of Wuhan Institute of physical education, including the standardized drawing of the logo, the Yin and Yang diagram of the logo, the nonintrusive scope and minimum size limit of the logo, standard font, special words for school motto, auxiliary graphics, standard combination, examples of color combination of basic elements, etc.
Figure 9. Basic part of UIS of Wuhan Institute of Physical Education.

4.2. Logo Design

The logo is the symbol and spirit of Wuhan Institute of physical education. It is the concentrated expression of its school running characteristics and the core of visual identification system. After precise drawing and visual correction, the standard value map of signs is mainly used for making signboards, outdoor billboards, slogan boards, building appearance and other large projects that cannot be enlarged by negative film. Figure 10 grid diagram is convenient for rapid drawing of accurate signs, and the relationship between the modeling scale and blank distance of the logo has been expressed in the unit grid.
4.3. The Standard Color

Figure 11 shows the UIs standard color of Wuhan Institute of physical education. The emergence of auxiliary color is to produce rich visual effects in the use of visual image of Wuhan Institute of physical education, so as to enhance the expressive force and vitality of imagination. Selecting red as the standard color, it symbolizes the spirit of struggle and struggle like Kunpeng, and implies the goal and momentum, youth and passion. The auxiliary color is matched by dream blue and vitality yellow. The color selection is inspired by the color of the Chinese flag on the Olympic podium and the blue of the East Lake. Considering the difference of the future logo used in the theme recognition and reproduction of various media activities, the specific style of auxiliary color is not limited here.

4.4. Standard Font

The standard Chinese character of Chinese Institute of physical education is Maoti. In order to ensure the harmony and unity between the logo and the logo, the design has repeatedly refined and arranged the structure and spacing under the condition of unchanged font, so that the whole combination is coordinated with each other, and the image has a strong visual recognition effect. As shown in Figure 12.
4.5. The Auxiliary Graph

The auxiliary graphics of Wuhan Institute of physical education are designed on the basis of the basic shape of the logo and the combination of the simple stroke images of each sports item and the date of the establishment of the University. With the use of color with strong color impact, it presents the diversity and decoration of the image under the premise of unified image. It is mainly used in printed matter, various packaging and large-scale activities to show rich visual effects. After precise drawing and visual correction, the network grid is mainly used to quickly draw accurate graphics. The unit grid has expressed the relationship between the modeling proportion and the blank distance of the logo. As shown in Figure 13.

![Figure 13. The auxiliary graphics of Wuhan Institute of Physical Education.](image)

4.6. Standard Portfolio

The combination of graphics and Chinese, English and other elements is one of the most important visual elements of the university image. The location, distance and size are specified in detail to ensure the consistency of information. The nonintrusive range refers to the space range left around the sign to ensure the eye-catching of the sign when the sign and other letters or design elements on the same plane exist at the same time. As shown in Figure 14.

![Figure 14. The auxiliary graphics of Wuhan Institute of Physical Education.](image)

5. Conclusion

Nowadays, the importance of University visual image is increasingly prominent, which is not only related to the degree of recognition of the audience, but also related to the construction of the school's own soft power. From the perspective of visual communication design, this paper discusses the characteristics of visual image of sports colleges and universities at home and abroad. Combined with the characteristics of Wuhan Institute of physical education, this paper gives a preliminary design of UIs of Wuhan Institute of physical education, and gives the corresponding analysis.
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