

# The application of computer image processing technologies in fashion brands' print advertising graphic design

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**ABSTRACT.** With the advent of the informational age, computer technologies have been applied to all professional areas of society and have significantly impacted people's daily lives. In the arena of print advertising graphic design, momentous breakthroughs have been made in computer image processing technologies. This essay will analyze the current situation of fashion brands' print advertising graphic design, summarize the common principles and applications of computer image processing technologies in fashion brands' print advertising graphic design, using Photoshop software as an example, aiming to utilize image processing technology to increase fashion brands' advertising creativity and provide new perspectives for the development of fashion brands' advertising graphic design.

**Keywords:** Computer technologies, image processing, fashion brand, print advertising

## 1 INTRODUCTION

The computer imaging process technologies have cultivated the development of economy and culture from a social perspective. In the artistic design area, due to the fast speed and accuracy, the computer image processing technologies have met the requirements of beautification, adjustments and created broader space for creativity in fashion brands' print advertising graphic design. Image processing technologies can not only highlight the features of style characteristics of clothing, color effect, and wearing characteristics, but also render the atmosphere of the whole picture, providing a clear and unique character of the fashion brand. After applying image processing technologies, the advertisement has created visually appreciable images, at the same time also achieved the purpose of publicity, impressed the audience, and ultimately trigger a desire to purchase<sup>[1]</sup>. The application of computer image processing technologies has become critical means to promote the sustainable development of fashion brands' print advertising graphic design. Therefore, it is particularly essential to discuss this topic and study this area.

## **2 THE CURRENT SITUATION OF APPLYING COMPUTER IMAGE PROCESSING TECHNOLOGIES IN FASHION BRAND'S PRINT ADVERTISEMENT**

With the development of fashion trends, more fashion brands' print advertisement catches people's attention. When people walk in front of the bustling urban apparel commercial shops; when people travel in the subway, bus station; when people read a fashion magazine in their leisure time, there will always be eye-catching well-designed fashion brands' print advertisements. All this is inseparable from the rapid development of computer image processing technology, with which designers use computer software to beautify and adjust advertising images, so that fashion brands' print advertisement in a solidified way silently conveyed the designers' understanding of beauty and fashion. Moreover, the international brands of fashion advertisement are even the whole fashion industry's wind vane.

### **2.1 The status analysis of domestic fashion brands' print advertising graphic design**

China's fashion industry started relatively late, which leads to the low production level of fashion print advertising graphic design, especially the low creativity and monotonous methods of expression in fashion print advertisement. With the advent of the digital age, the emergence of digital photography, computers, and network platforms, development opportunities have been brought to China's fashion print advertising industry. While learning and referring to foreign advanced technology and methods of expression, China's fashion print advertising industry has begun to explore its digital image methods of expression. In recent years, China's image processing technology in the fashion brands' print advertisement has become more and more mature. It has begun to pay attention to the expression of creative ideas of the advertisement. The consequent works can reflect the brand image and have a relatively strong visual impact. These changes in China's well-known local sports brand Li Ning's print advertisement are especially significant. Li Ning began to internationalize after being listed in the stock market. Their brand image advertisement and product print advertisement gradually live up to the international advertising standards of several major sports brands. From the perspectives of choice of image tone and expression of creativity, you can see the digital image technology of the early-stage and late-stage processing has been relatively mature [2]. The strong visual impact of these advertisements reflects the constant improvement of domestic fashion brands' print advertising image processing technology (Figure 1).



**Fig. 1.** Print Advertisement from Li Ning (The lower right corner of the advertisement translated: Shaking the world)

## **2.2 The status analysis of overseas fashion brands' print advertising graphic design**

The overseas fashion industry started earlier, so many fashion brands have been well aware of the high added value of the advertisement. Advertising can bring unlimited vitality to the brand, so the advertisement focuses more on the building of fashion brands, through various ever-changing methods of expression to attract the attention of consumers. Fashion advertising graphic design is inspired from a broad social perspective, relying on the most advanced software technology, make full use of the visual advantages brought by image processing technology to reflect the creative ideas and cultural connotation of the advertisement. Many fashions print advertisement not only represents the cultural connotation of the product, the values of the enterprise, but also interprets the philosophy of life, attitudes, and ways of living a life. For example, Benetton brand advertisement used "Benetton's harmony color" to promote its concept of racial harmony, which is Benetton's use of social themes to replace product themes to build brand influence<sup>[1]</sup>, through the bold expression of advertisement to impress the people (Figure 2).



Fig. 2. Print Advertisement from Benetton

### **3 THE PRINCIPLES OF COMPUTER IMAGE PROCESSING TECHNOLOGY IN FASHION BRAND'S PRINT ADVERTISING GRAPHIC DESIGNERS SHOULD FOLLOW**

Image processing software, using computer operation as the platform, greatly broadens the design theme, enriches the expression of fashion advertising design, and deepens the concept of fashion design and the connotation of fashion products. The computer image processing software is used to make detailed modifications to the picture, which ensures the integrity and perfection of the advertising design of the fashion brands. Fashion brands' print advertising graphic design plays an important role to render, describe, and express the message that enterprises want to convey, attract people's attention, with its unique form, unique techniques, specific light, color, image, and graphic design. Because image processing is closely related to the effect of fashion advertising works, the designer should follow certain principles in the image processing of fashion brands' advertisements.

#### **3.1 The innovative principles of fashion brands' print advertising graphic design**

Computer image processing technology greatly meets the innovative needs of fashion brands' advertising design. The use of image processing software, image modification, text arrangement, the color adjustment provides the advertising screen with a novel visual effect, therefore leaves a deep impression on the audience's mind. This fascinating artistic expression not only conveys the information of goods or services clearly and accurately but also establishes the brand image and corporate image that contributes to sales.

### **3.2 The integrity principles of fashion brands' print advertising graphic design**

Fashion brands' print advertising graphic design should focus on the goal of improving product sales and corporate visibility. This can assist the enterprises to establish a good market image to guide consumers to actively consume. Therefore, the integrity of fashion brands' advertising is particularly important. Due to the commercial and utilitarian tendency of fashion print advertising graphic design, it is becoming more and more prominent. Some people will use computer software processing technology to create a false advertisement, through image processing, text arrangement, exaggerating the function and value of products. It may cause the brand image in the minds of consumers to be tarnished. However, in good faith principle, the advertising graphic design with appropriate artistic treatment, can not only give people a strong visual pleasure but also guide people's consumption behavior.

### **3.3 The emotional principles of fashion brands' print advertising graphic design**

The design concept and advertising content of fashion brands' print advertising must be consistent with the emotional needs of consumers and thus trigger emotional resonance[3]. Through some emotional expressions, such as love, pride, identity, preference, security, responsibility, etc., fashion advertisements can create a strong psychological attraction to the target audience. This approach not only uses pleasant information to express advertising ideas, more importantly, to help advertising attract the attention of the appeal object in the shortest possible time and convey the most important message or guide the appeal object to continue to explore the content of advertising.

## **4 THE APPLICATION OF COMPUTER IMAGE PROCESSING TECHNOLOGY IN FASHION BRANDS' PRINT ADVERTISING GRAPHIC DESIGN**

Adobe's Photoshop software is an indispensable image processing tool for advertising graphic design professionals. It is a digital image processing software that integrates image editing, production, advertising creative expression, image scanning, image input, and output [2]. Photoshop software can provide a very powerful drawing function and modify the digital image, adjust the color, clarity, size, and other image information processing. Photoshop can not only process real-life images but also create virtual scenes. For fashion brands' advertising design, after digital images are stored in a certain format on the computer after shooting, the computer processing has almost no limitation. As long as the designer has an idea, he or she can use Photoshop to render digital images with the desired image effect and eventually form a powerful advertising image. There are several key image processing techniques in fashion brands' print advertising graphic design.

### **4.1 Image editing**

In the creative expression process for fashion brands' advertisements, shooting photos of the brand endorsement model in advertisement creates the most powerful and most popular advertising images. After shooting photos, the designers must carry out image processing, that is, the use of Photoshop processing software to edit the image. Image editing can not only make the digital image zoom, rotation tilt, show different perspectives and other effects, but also make

the image repairs, de-spotting, reproduction, and other effects. Through a series of correction and beautification operations on the image, the designer then achieves the ideal picture effect, so that fashion brands' print advertisement presents natural wind, retro style, national style, and other different styles, highlighting the personality of fashion brands. The graphic advertising design of fashion brands not only meets people's visual aesthetic needs but also acts as an important means for consumers to realize the brand's desire to trigger consumption.

#### **4.2 Image composition**

Fashion print advertisement usually creates a specific situation to highlight brand characteristics, strengthen the emotional communication between the brand and consumers. The setting of the situation may be a common scene in people's daily life, or perhaps a seductive scene, or maybe an amazing dream scenario. The setting of these advertising situations cannot be finished without the help of the Photoshop image synthesis function. In the advertising image, many picture elements are not created together during the shooting process, many human figures, objects, and background are separately shot or created as virtual images with software, so this series of elements can later be perfectly and appropriately combined in a picture[2], to create a specific visual situation. It is necessary to carry out image synthesis processing. Image composition is to combine several images through the superposition of each layer, patchwork, and other effects, combined with the effects of various layer styles, to synthesize a specific situation with a complete image in the expression of the advertisement so that advertising communication creates an immersive experience for the audience.

#### **4.3 Image special effects**

Fashion print advertisement is the best symbol of popularity. Many classic clothing print advertisements can be categorized as arts because the fantastic pictures give people a strong visual enjoyment. To achieve the "amazing" effect of fashion advertisement, the image special effect function is used in image processing, and the expected effect is achieved through the filters in Photoshop and various application tools. Filters are one of the most powerful and creative tools in Photoshop software. Simply speaking, filters are used in different ways to alter various data of the image to change the pixel data of the image, to achieve the effect of an artistic image. In the filter's various functions, the image can be oil painting effect, sketch effect, watercolor effect, embossed effect, a variety of fuzzy effects, and other special effects processing. With powerful filter functions combined with functions such as channels, you can make a variety of special effects on images and text processing[2]. Therefore, the Photoshop filter processing of various special effects images can be commonly seen in many excellent fashion print advertisements.

#### **4.4 Image coloring**

Fashion and popular colors are a pair of fashion combinations. A popular color is the key factor of information communication in fashion print advertising graphic design. Fashion print advertisement uses the image tuning function of Photoshop processing software to process the basic color of the graphic image and optimize the color setting of the image. Photoshop software color mode mainly has RGB, CMYK, and other modules, so designers can apply with color modules to assist in the design of image color<sup>[4]</sup>. During the design process, if there is no directly available color selection, the selected color can be further fine-tuned using the color adjustment tool. If

the color adjustment effect is still not ideal, you can select the Image Adjust option in the menu of the Photoshop software for more detailed adjustments<sup>[5]</sup>. For color contrast, brightness, you can modify the original tone, or you can optimize the color layer of the graphic image by adding a layer mask so that you can achieve the best color result. This will allow the entire image to finally achieve the desired effect of advertising design, so that people may have a more intuitive experience of fashion.

#### **4.5 Text processing**

In the design of print advertising for fashion brands, text can also convey emotion and information. Designers can clearly express brand information and communicate silently with consumers. Focusing on text expression in the creative expression of advertisement, image processing technology can not only complete the text filling program in the picture but also effectively carry out arts processing of the relevant text<sup>[6]</sup>. In Photoshop software, click on the drawing tool "T", which will pop up the text input window, enter the required text, and then the size of the text, font, location, color design, the glyph symbols have a strong, clear visual effect, making the message more easily recognizable. Text combined with pictures can better display the theme of advertising, reflecting the characteristics of fashion brands.

## **5 CONCLUSION**

The new Photoshop software has developed more capacity to process digital images, effectively expanded the fashion brand's advertising graphic design theme, strengthened the expression of fashion print advertising design and product connotation, so those good ideas can be applied to powerful advertisements to promote consumers' desire to purchase. With the improvement of people's aesthetic level, designers' application of computer image processing technology in fashion advertising still needs to be improved.

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