On Computer Digital Illustration Design

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Abstract: The text mainly analyzes digital method, expression style and creativity of computer digital illustration from the perspective of modern design development. With the dramatic development of digital technology and computer network popularization, it reveals that illustration design gains great technical support. Artistic thoughts and ideas also win the new release, which generates a new visual experience for individuals. Digital illustration has become the most appealing and fashionable art form in this era.

With science and technology being escalated ever increasingly, traditional painting methods have been replaced by digital illustration method, which is very prevalent and quite multi-functional. Illustration designers can tackle with design work via digital tools, such as computer and digital board and so on. Dramatic changes have taken place in the field of computer digital illustration and exerted a revolutionary impact on design conception and design method.

1. Concept of computer digital illustration
"Chahua" in Chinese is similar with illustration in English. As for its’ exposition, illustration can be expounded into case, example, explanation, icoography and illustration. It is an art form that expresses some things, explains objectives, narrates a certain process, describes realms of fantasy. Based on digital and new media technology, digital illustration is an art that integrates human rational thinking and artistic inspiration through digital methods. With the development of information technology, digital illustration art is now permeating into all aspects of life.

2. Digital methods of computer digital illustration

2.1. Hardware
The hardware system of computer consists of arithmetic unit, controller, memory, input device and output device. Computer digital illustration design pays much attention to operation of graphics, so it puts forward a high requirement for CPU and graphics card. At present, CPU technology has been highly integrated in computer hardware to meet the requirement. Computer hardware is a prerequisite to provide a powerful technical support for graphics processing and image processing, and ensure the great development of computer digital illustration.

2.2. Software
There are a large number of painting softwares and auxiliary software for digital illustration, such as Photoshop, Adobe Illustrator and 3Dmax, Maya. Functional digital software helps to shorten the time of design and creation process, making it easier for illustrators to draw scenes and compose scenes.

2.3. External equipment
Hand-painted board is the most primary external equipment in digital illustration and the most important tool in formulation. Hand-painted board consists of a pressure pen and a board which can be erased and modified easily and takes place of traditional brush and paper. There is no need to buy expensive paint brush and paper, which is very economical and environmentally friendly.

Instead of the traditional paper and pen, illustrator can design on a board in a paperless way. Illustrators can simulate reality and spark inspiration via excellent painting techniques and image processing functions, such as Photoshop, Painter, 3D software.

To sum up, digital means of computer digital illustration brings unprecedented changes to creation concept and illustration art methods. With the development of computer software and hardware and external equipment, illustrators are completely liberated from heavy and single hand-drawing, and they can focus on artistic imagination and innovative creation.

3. Computer digital illustration expression style
According to pragmatic approach, computer digital illustration have five different styles. As follows:

3.1. Fashionable style
Illustration in a fashionable style is mostly to express illustrators’ concept and attitude towards fashion, mainly using vector software drawing.

Exaggerated proportions and vivid colors produce a highly visual impact. For example, characters are exaggerated, lines are simple and concise, and colors are bold and bright in illustration 1, expressing a sense of fashion and modernity. In the same picture, warmth of colour and degree of saturation seem to be opposite, but unite in reality. It looks seem the color warmth and saturation are opposite, but united in reality perfectly. The expressiveness and impact of the picture are very strong, giving people a warm, gorgeous and beautiful sense.

Illustration 1

As a result of the development of science and technology, style and technique of illustrator is increasingly mounting in its diversification. These illustrations use novel styling and elements to convey fashionable and refreshing messages. Illustration in a fashionable style are mostly used in female commodity, shopping brochures, online dynamic advertisement, TV show titles and so on.

3.2. Aesthetic style
Elegant blue and sweet pink is widely applied to cater to people's pursuit and yearning for the beauty of life in aesthetic style illustration. For example, green grass and trees in digital illustration are endowed with new colors by illustrators, such as blue and pink. They abandon original colors for the sake of dreamlike and soft workd. It is very enjoyable for audiences to appreciate aesthetic style illustration. Digital computer aesthetic style illustration shortens the distance between the work and the audience, so that the audience feel relax and pleasant. Aesthetic style is usually obtained through digital painting, watercolor painting and used in the design of games, postcards, bookmarks, photo albums and so on.

3.3. Cartoon style
In 1973, Japanese TV broadcasted a preview version of an animated cartoon based on the serial comic "Doraemon". In 1999, "Doraemon" was first introduced to China, and quickly became a hit throughout the country, winning the hearts of millions of children. The characters of Doraemon is classic deeply, and leave an unforgettable memories in a whole generation which can be kept clear enough to stay forever.

Cartoon design with distinctive artistic features, uses exaggerated and refined techniques to express opinions and emotion. The cartoon style illustration requires designer to have a solid artistic foundation and high skills so that he can extract feature elements from the natural prototype and express opinions through artistic methods. In this case, people can fully understand the characters. Cartoon style illustrations not only appear on cartoons, but also on packaging, magazines, and the Internet to propagate design concept and catch consumers’ attention.

3.4 Novel style
The unique feature illustration in a novel style emerges a high tension from the picture. Take the Illustration Ⅱ for example, colors of the picture are mainly black and white, supplemented in a color of high saturation. On a warm khakish-yellow background, the main body is represented in black, and some green and yellow colour embellishment occasionally. Everything in daily life is a source of production for illustration, which can be moulded and reorganized by the illustrators. The sharp-eyed leopard lies on the shoulder of the character, surrounded by flowers. This picture is very weird and gorgeous, which greatly provoked people's curiosity.

Most of the illustration in a new style are drawn with vector software (as it is shown by Illustration Ⅲ) and are generally used for decoration, tattoo design, clothing promotion, advertising, and sales promotion.

3.5 Ornamental style
Illustration in an ornamental style, just as implications in its literal name, it means an intensive illustration. To a large extent, it is suffused with ornaments. Illustration Ⅳ is one of the representatives in ornamental style. Illustrators showcase trees and thickets and the like that is closely tied to an ocean of ornaments with an intense mosaic of color blocks. In terms of color, on the one hand, they make fully use of colors with a high degree of purity so as to create a feeling of gorgeousness and color saturation in a whole picture. On the other hand, illustrations have been particularly endowed with decoration and artistry due to the abstraction of a mosaic of color blocks.
In general, illustrations are adopted ways to display by a crowd of lines and blocks of color. A host of computer digital illustrations in an ornamental style are drawn via vector software, as we all know, which is frequently employed in costume design, fabric design, as shown like Illustration VI, and interior design.

As a philosopher said that there are no identical leaves in the same tree, everyone has a world of absolute difference in perception towards a same objective in the same world. It is universally acknowledged that everyone has an individual personality and preference, of course so has every painter. As for the meaning of painting they are intended to convey, it exactly distinguishes from others regarding realization and appreciation. Therefore, apart from above five styles I have mentioned, it would appear that they will proceed to produce a variety of works in diverse types with renewing ideas. Computer digital illustration is considered as a new type to display illustrations, which never imposes restrictions to illustrators for their free-range creation; on the contrary, it releases more space to them to exert their ability of imagination on illustration instead of engaging in a traditional pattern of painting. In addition, illustrators can deliver their true feelings in a more untrammeled and relaxing statue to design their illustrations.

4. Creativity in computer digital illustration

There is a magic power to transform decadent stereotype into original ideas in the course of computer digital illustration. In the context of its overwhelming power, originality comes to life by their hands, although it is regarded as the most difficult point in the course of illustration design. Designers masterly fuse their ideas and formulation into their unique artistry in order to generate an original and novel work in accordance with illustration requirements.

Originality is deemed to the soul of illustration design and it drives illustrators to conceive their illustrations depends on individual thinking. This kind of individual thinking is the very eye-catching point for people in that they have no way to neglect such a surprise stemming from individual originality. As far as the computer digital illustration itself is concerned, it is a process of originality at its creation. By virtue of formidable digital technology, illustration designers are capable to devise new and unusual computer digital illustrations. Therefore, there is a growing number of popularity commence to concentrate on computer digital illustration step by step because it renders novelty and surprise to people.

Illustration VI

The Dunhuang frescoes (as it is shown by Illustration VI) are created according to a prototype of music performed by prostitutes in ancient time. The lines of the Dunhuang frescoes are drawn smoothly with delicate colors, the characters in a shape of “U”, are depicted with graceful movements, and such is a delight that all people are captivated by its charm. Traditional illustrations of the Dunhuang frescoes are basically identical with the archetype in a model but adjust its colors so that it has no chance to draw people’s attention. On the flip side, computer digital illustration designs the frescoes in a modern method. As it is shown by Illustration VII, generally speaking, it obviously has a great innovation in postures while discarding of monotonousness unlike the former. To more specific, the facial shape of characters and their decorative clothing strike to a fashionable and resplendent tendency, and correspond with modern folks’ aesthetic attitudes. In addition, when appreciating it, the whole picture represents a sense of passion and pleasantness benefiting from its colorful colors. It is
because there is an innovation based on traditional Dunhuang frescoes, people have an opportunity to rediscover it in a new horizon, and this is the meaning of creativity.

When it comes to digital tools, there is no denying that it admittedly possesses overwhelming functions. Put it bluntly, it is a tool indeed, by its nature, which needs people to navigate no matter how tremendous functions it has. Thus, illustrators themselves should have a proficiency in painting techniques and unparalleled ideas; furthermore, it is a must for them to get familiar with digital graphics software. Only in this way, can their own artistic styles come into being and their thoughts and feelings be unexceptionably manifested in illustrations.

5. References
[1] Haiou Xu. Illustration art. Suzhou University Press. March 2009
[2] Shaofu Lu. Graphic creative design. Shanghai People's Art Publishing House. June 2004
[3] Ju Gu. Secret of Digital Painting and Software Application. Jiangxi Fine Arts Publishing House. March 2004
[4] J.Ge,K.Hokao "Research on residential environmental evaluation of local cities considering regional characteristic and personal residential preference " , Journal of Environmental Sciences, 2004.16.