

Toy Innovation and Game Design under Digital Design

-- Taking Cyberpunk Style as an Example

Xiaoshi Han, Ying Zhang

College of Art and design, Wuhan Textile University, Wuhan, China

Abstract. Cyberpunk style was born before World War II, and originally originated in the United States. This style has evolved from the previous cartoon, image, film, novel, design, TV series, animation and other forms, and now it is more gradually derived from the innovative design of toys, game design and other designs. Among many forms, Cyberpunk's forward-looking style and prediction of the outside world have set a unique symbol for the cultural field, and provided a new form of expression for contemporary visual design. Cyberpunk, as a sub cultural art, has received extensive attention in recent years. Various visual art works around Cyberpunk emerge in endlessly, closely linked with contemporary and visual communication art. This paper discusses the origin and development of Cyberpunk, as well as toy innovation and game design under the influence of Cyberpunk style. It also gives examples to analyze the application of contemporary "Cyberpunk" art style in some emerging fields, and discusses the feasibility of Cyberpunk style visual images in other visual design fields.

Keywords: Cyberpunk; Digital Design; Toy Innovation; Game Design.

1. Introduction to Cyberpunk

1.1. Origin of Cyberpunk World View

In the 1970s, Science and technology in the United States developed science and technology, and its economy was prosperous. But behind this prosperity, the world situation is very depressed due to the outbreak of the US Soviet Cold War and the Arab-Israeli War. It is in this era of hope and despair that inspiration is brought to the creation of science fiction art.

In 1968, the publication of Philip Dick's novel "Will Bionics Meet Electronic Sheep?" was a pioneer of Cyberpunk. The term Cyberpunk is mentioned for the first time in the article. Cyberpunk is a combination of Cybernetics, neuromechanics and punk. "Punk" originated from the hard rock music team, which originally meant "decay" or "waste". The punk here goes beyond the scope of music and has the meaning of "Counterculture", "anti authority" and the pursuit of freedom. The plot background of Cyberpunk is mostly described in the future. In general, "high-tech, low life" can perfectly introduce the basic world view of Cyberpunk.

It was not until the publication of William Gibson's masterpiece Neuromancer in 1984 that the status of Cyberpunk as a new science fiction category was confirmed. Since then, Cyberpunk has gradually spread from science fiction literature to graphic design, film and television, music, games and other fields. In Cyberpunk's works, the future world of the jungle is often described. In the future world, governments and large conglomerates will rule humanity through high-tech means. They will control humanity through certain "systems" and "chips", making some humans "machines" and strengthening their rule. Although technology is extremely advanced, and although humans are equipped with standard prosthetic devices for the back of the brain, our oppression and confusion will continue to be the same. The oligarchs in skyscrapers are the true owners of cold cities, and ordinary people can only survive in slum settlements. Among them, freedom and control, prosperity and decline, machinery and human relations, these controversial and philosophical issues have always run through the whole world of Cyberpunk, and are also the core issues of Cyberpunk style.

1.2. Cyberpunk and Futurism

Futurism is a popular social trend of thought in modern western countries. It aims to predict and predict the future of social development based on human past development and scientific knowledge, so as to control and plan the current process and better adapt to the future. In the early days of Cyberpunk, its background was mostly set on extraterrestrial planets, including the 1983 version of Blade Runner. However, most of the later works, including the 1989 version of "Power Shell Team", are based on the earth as the main background. In recognition of the upper limit of contemporary technology and the prediction of future time and space, the world view pattern of the whole Cyberpunk style works will tend to be realistic and stable. Building a more widely recognized worldview from contemporary cognition is the main creative approach of modern science fiction films, rather than just the divergence of ideas and the release of imagination. The settings that run counter to the public cognition are far less touching than those created by various elements drawn from the reality of life. Therefore, in the future Cyberpunk works, we can see more settings based on and matched with the context of contemporary scientific and technological development. There are less gratuitous elements of dazzle and more realistic meanings, being able to reflect on some hidden dangers, contradictions, and even problems in the current society are thought-provoking and thought-provoking.

2. Cyberpunk's Visual Image Information Composition

2.1. Cyberpunk Cultural Creativity

The cultural creativity under the framework of Cyberpunk worldview is more centered on the future, ethics, science and technology. The integration of contemporary regional cultures has become the regional cultural characteristics of Cyberpunk culture style. Huge data, complex traffic, cool mechanical artificial limbs, gorgeous neon lights, the integration of eastern and western regional cultures, and the society of material crossflow can all be classified as Cyberpunk style worldview culture. The core of the discussion is some value problems exposed by our contemporary hidden trouble contradictions in the anticipation of future scientific and technological breakthroughs. Most creators of Cyberpunk schools start with cultural elements such as ethics, science, environmental factors and religion to express the social ideology in the Cyberpunk world. Cyberpunk's creation is based on its core contradiction, which explains the reflection of a series of results caused by the excessive development of the future fictional world science, biology, medicine, religious studies, etc., such as environmental destruction, the extinction of individual consciousness, the blurring of moral and ethical boundaries, and the contradiction born in science but with a negative attitude towards the development of science. The process of exploring its contradiction is an expression of Cyberpunk's cultural creativity. The Cyberpunk theme is ultimately the product of the development of science and culture, and also reflects the concern about the excessive development of science from the side. The contradictions of science, ethics, environment and religion are also the core of Cyberpunk's cultural creativity.

2.2. Cyberpunk Science Fiction Visual Elements

The science fiction visual element in the Cyberpunk theme is a visual expression of the Cyberpunk image. After the Cyberpunk genre gradually transited from literature to cartoons and film and television works with image significance, the science fiction visual element has always been an inextricable topic for Cyberpunk image expression, ranging from Active camouflage in the film Shell Attack Team, huge neon lights, and holographic projection with oriental characteristics, The huge billboards, strangely shaped motorcycles, huge humanoid projections, and even the performance of some malfunctioning visual effects and related color applications in "Silver Wing Killer" are all visual elements belonging to the future, and I will collectively refer to them as science fiction visual elements. It is a form of expression that exists as an expression of science fiction concepts.

2.3. Cyberpunk Dystopia World

The term 'utopia' comes from Greek, which means 'utopian country' or 'utopian land'. Utopian works usually describe society as a paradise of happiness, fairness, order, no oppression, no sin, no corruption, and full of hope, with a perfect social, political, and legal system. The concept of "Dystopia" derived from the word "utopia" is "an imperfect or anti ideal society". The works of Dystopia type do not eulogize the bright and beautiful society, but focus on depicting the bad and ugly society, full of negative and pessimistic emotions.

Cyberpunk's works inherit the gloomy decadence of Dystopia literature and are full of Pessimism towards the future world. The perfect social state envisioned in utopian works is completely distorted and subverted, with all beauty gone without a trace, replaced by black elements such as drugs, violence, and crime, presenting a wasteland scene filled with images of collapse. In an environment full of cold, terrifying, and decadent atmosphere, there is a towering elite class, a struggling middle class, and a nearly abandoned impoverished population. The logic of capital is everywhere, and technology has become a tool and means of capital. Large capitalist monopoly companies rely on their advanced technology to control society and the people, arbitrarily depriving resources, and continuously exacerbating the wealth gap. The functions of the state and government are gradually being weakened, and politics and economy are in the hands of the chaebols of large corporations. These large companies have spies, engage in activities such as information theft and bribery of scientists through improper means, and even have their own military and armed forces, and are able to implement their own rules within a certain range.



Figure 1. The movie 'Shell Attack Mobile Team'

(Image from a movie clip from the Powershell Mobile Team)

3. Game Development Trend in Cyberpunk Style

With the progress of modern technology and the increasing demand for spiritual, cultural, and entertainment, as well as people's understanding of the real society and the transformation of political trends. The gaming industry in China has achieved rapid development and made significant contributions to overall socio-economic growth. According to the 2021 China Game Industry Report, the actual sales revenue of the Chinese game market has reached 165.566 billion yuan, surpassing the United States to become the world's largest video game market. By 2021, the actual sales revenue of the Chinese gaming market will reach 296.513 billion yuan. In the past 20 years, the Chinese gaming industry has developed rapidly, from disorder to maturity. Since 2000, the output value of the game industry in the United States has exceeded that of the film industry, which is one of its symbolic Sex industries. In Japan, the total output value of the game industry has reached 20% of GDP, becoming an important industry leading the development of the entertainment industry. This indicates that the gaming industry is thriving in many countries.

In recent decades, games have rapidly developed a lot of themes and content, of which "science fiction" is a popular important branch of the game, and Cyberpunk art, as a special attribute of science

fiction, has been gradually used and become a popular game theme in recent years because of its strong visual style and unique humanistic settings.

3.1. Cyberpunk 2077

Cyberpunk 2077 is a game developed with reference to the famous science fiction writer Mike Goldensmith's novel of the same name. It is a role-playing game set against the background of a corrupt future world with dark future and highly developed technology. In the background setting of the game, due to the advancement of technology, the authority of the country has decreased, resulting in the formation of autonomous regions centered around enterprises. The advancement of technology only enriches the lives of the wealthy class, and the class is severely solidified. The people at the bottom live in dire straits, and to enjoy a technological life, they must pay hard labor. For this state, The official CDPR of the game uses "**entropy increasing doctrine**" to describe the Social phenomenon of 2077. People have created more and more complex means to survive. The social structure is out of order, ethnic groups are divided, and identity and politics are like chains binding everyone. 2077's worldview basically uses the conventional settings of Cyberpunk, such as high-tech low life, corporate colonialism, cyberspace in the deep network, and Cyborg in which human beings are a combination of flesh and machinery.

3.1.1. Cyberpunk 2077 Type Design



Figure 2. Game Cyberpunk 2077 English LOGO

(The picture is from the screenshot of Cyberpunk 2077 game)

The Type design of Cyberpunk 2077 presents a sense of metal as a whole, as well as a sense of neon light. The application of gradual texture of mechanical metal, combined with the fluorescent blue color of 2077 font, is interspersed with the visual elements of fault form circuit board in the whole font details. The edge integrity of the whole font, as well as the reflection of metal materials and the rendering of highlights, presents us with the most scientific and technological elements of the future. This logo echoes the settings in the game and is created at the highest level of current understanding of future technology, making the entire logo work more futuristic and closer to the current future.

3.1.2. Scene Design of Cyberpunk 2077

Most of the scene buildings in Cyberpunk 2077 are cold, dark and low. The building materials are mainly hard metal, plastic, steel, or simple and crude materials such as cement, brick and stone to show the simple and decadent effect. The Viridiplantae representing the breath of life seldom appear, even if they do, they also appear in dark colors. The building is full of all kinds of signs, which are the source of neon lights. The cultural elements in the signs are mixed, and most of these Neon sign appear in the form of fault art, with more visual effects. The living environment of the bottom class is dark and humid, filled with graffiti, underground tunnels, and complex casinos, often the scene of crime and violence. The upper level area presents a high sense of technology and industry, and the colors create a highly regular and deep, giving players a sense of inviolability.



Figure 3. Game Cyberpunk 2077 Game scene
(The picture is from the screenshot of Cyberpunk 2077 game)



Figure 4. Game Cyberpunk 2077 Game scene
(The picture is from the screenshot of Cyberpunk 2077 game)

In the world of Cyberpunk 2077, the boundaries of countries become blurred, and the society presents a state of chaos and division. Therefore, the game not only uses the combination of classic eastern and western arts in the Cyberpunk style, but also applies the national artistic styles of many countries in the game. Compared with the previous Cyberpunk movies, novels, and games, 2077 enriches the Cyberpunk world in all aspects, Players from many countries can find their own cultural shadows in it. Compared to the rigid and hasty presentation of other countries' cultures in previous cyber themed movies, the 2077 is more serious in integrating cultural elements. When driving, you can hear Japanese idol singer songs on the radio, and you can also hear Chinese band songs in the important plot of the story. This understanding of other countries' popular culture is a respect for players.

The core of Cyberpunk culture may not be the strange meaning of human body and the dazzling neon vision on the street, but the tragedy that human beings cannot dominate their own destiny in the social torrent, and the thinking of playing games with science and technology. In this regard, 2077 not only shows a more real Cyberpunk world, but also interprets the reflection on the development of human society.

4. Toy Innovation under the Influence of Cyberpunk Style

From the Japanese lucky bag in the early 20th century to the American twisted egg in the 1980s, and then to the Sony Angel blind box that swept the world in the early 21st century. Driven by contemporary trendy culture, blind boxes have become one of the trendy toys due to their precise attack on consumer psychology. With the vigorous development of the blind box economy, the market is gradually presenting a scene of "everything can be blind box".

The development history of the blind box market in China is not long, and it has only become popular in recent years. However, blind boxes are no longer niche products developed by toy merchants, and have become an important marketing model for various industries to strive for young consumer groups, gradually moving towards popularization. As a leader in the blind box industry, Bubble Mart attracts young consumers with its trendy design style, cultural extraction and application, and high-quality products.

4.1. POP MART

POP MART is a trendy cultural and entertainment brand established in 2010. In the past decade of development, a comprehensive operation platform covering the entire industry chain of trendy toys has been built around the four fields of artist exploration, IP incubation operation, consumer reach, and promotion and cultivation of trendy toy culture, aiming to use the brand culture of "creating trends and conveying beauty".

In order to encourage more young people who love trendy toys to have in-depth exchanges with the brand concept of "To light up passion and bring joy.", POP MART has successfully held six of Asia's largest international trendy toy exhibitions in Beijing and Shanghai, attracting over 100000 visitors per exhibition, filling the gap in the domestic trendy toy industry. POP MART has made more foreign fashion brands pay attention to the domestic market through the exhibition, and also broadened the channels for more Chinese outstanding designers to show their original art, thus adding impetus to the vigorous development of Chinese fashion toy culture.



Figure 5. Bubble Mart series products

(Image from the official website of Bubble Mart)

4.2. Bubble Mart Steampunk Locomotive Series Blind Box

Bubble Mart Steampunk locomotive series blind box is the latest MOLLY third generation steam series produced by Bubble Mart. As a derivative of Cyberpunk style, Steampunk style also has its

unique charm. MOLLY Steampunk Animal Motorcycle Series has 12 regular models and one hidden model, each size is about 7.8-14.2cm high, and the material is PVC/ABS/hardware/magnet. Thirteen different blind box figures are mainly of brass color, and the form of the locomotive is not the same. The figures on the locomotive, as the main visual element, are distinguished by different types of animals, including sheep, huge curved corners as headwear, eyes with Steampunk style flavor, and wearing blue cloaks. There is a Playboy Bunny, who is in a dive state as a whole, also has a huge rabbit ear headdress, wears a pink and white skirt, and so on. Animals of different images show different postures, and the overall effect is also different.



Figure 6. Bubble Mart Steampunk Locomotive Series Blind Box
(Image from the official website of Bubble Mart)



Figure 7. Bubble Mart Steampunk Motorcycle Series Blind Box - Raccoon, Playboy Bunny, Sheep
(Image from the official website of Bubble Mart)

5. Conclusion

5.1. Derivative Style of Cyberpunk

Cyberpunk style visual images also have a variety of derivative styles and styles, such as Retrofuturism, Retrofuturism refers to the style imitation of early works based on the concept of the future in contemporary creation. The visual images created in the historical period about the future world structure are collectively called Retrofuturism after being imitated by many contemporary artists. Early Cyberpunk's visual image creation provides certain materials and ideas for contemporary Retrofuturism creation. For example, in the 1986 version of the Silver Wing Killer, there were ceiling fans in the huge future buildings, and various pipes connected to the back of the head of the attacking mobile team to transmit data. These visual elements are not in line with common

sense in today's view. They are a future world full of retro flavor. The similar style created by contemporary artists to imitate them is called Retrofuturism.

For example, the "glitch art", which originated after steam waves, originally meant "malfunction" due to short-term pulse wave interference and can be understood as an automatic or artificial bug. Unexpected image errors during electronic imaging. It exists in digital space, mechanical or human interference faults. It is more based on fault presentation and aesthetic creation. The neat or gradually melting lines are arranged in a gradually progressive relationship, using exaggerated red and blue channels to contrast colors, presenting a different side of the 'wrong'. The characteristic of visual form is on the one hand, and at a deeper level, it is a humanistic metaphysical metaphor and nostalgia. It not only talks about technological artificial intelligence, but also metaphorically implies a pessimistic message about technology and the future.

5.2. Impact of Cyberpunk on Modern Design

In applications in the field of UI and interaction, the overall visual style form of the short video application "Tiktok" produced by ByteDance is evolved from the artistic style of Cyberpunk. As an application for young audiences, the overall visual design must always follow the "trend" and adopt a form that completely subverts the mainstream, implying the future trend.

Young people are full of vitality and are more receptive to new things. Therefore, the visual style of graphical interfaces must be based on the future. Therefore, the style of electronic glitch art is chosen in the form presentation, which visually demonstrates the punk style of young people. The multi-dimensional creativity in the overall visual style presentation makes it stand out from the contemporary visual UI art style, with a certain degree of recognition and uniqueness.

References

- [1] George Orwell. Translated by Shu Xin. 1984 [M]. Beijing: Beijing Institute of Technology Press, 2013:325.
- [2] Eugene Zamyakin. Translated by Wang Juguang. We [M]. Beijing: Beijing Institute of Technology Press, 2013:214.
- [3] By Philip Dick. Translated by Xu Donghua. Can Biomimes Dream of Electronic Sheep? [M] Jiangsu: Yilin Publishing House, 2017:267.
- [4] Li Feng A Study on the Artistic Expression Techniques of Science Fiction Films with Waste Soil Theme [J]. Academic Forum, 2015.
- [5] Li Song Frontier Issues in Overseas Cyberpunk Research [J] Electronic University Press (Social Science Edition), Volume 13, Issue 6, 2011.
- [6] You Yuxi Cultural Integration in Postmodernism Aesthetics from the Perspective of Cyberpunk [J] Popular Literature and Art, 2015:282.
- [7] Chen Xu On the emergence and development of American science fiction [J] Foreign Literature, 2002.
- [8] Fan Dongyu Research on the Visual Communication of City Images in Cyberpunk Films [D]. Liaoning University, 2021.
- [9] Meng Xin Explore the presentation of Cyberpunk in easel painting [D]. Central Academy of Fine Arts, 2021. DOI: 10.27666/d.cnki.gzymc.2021.000210.
- [10] Dong Xu Visual Culture Research in Cyberpunk Images [D]. Dalian Polytechnic University, 2020. DOI: 10.26992/d.cnki.gdlqc.2020.000010.