On Cyborg Art from Traditional Plastic Art to “Body” Expression

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Abstract
Cyborg art from the earliest picture of imagination to now presents a concrete image, in this process, people’s technology and concept of “Cyborg” gradually deepened. This study will take “How Do We Become Posthumans” as the theoretical support, and explore and analyze the evolution of Cyborg technology and Cyborg concept in combination with works such as “Dadasov Self-Portrait”, “Emotion Analyzer”, “Rewired/Remixed: The Divided Body” and their phenomena. With the development of The Times, our “body” in the narrow sense gradually disintegrated, and towards “post-body” and “post-human” development. The flourishing situation of Cyborg art in the world and the gradual emphasis on Cyborg theory in China are conducive to the development of a new topic for the understanding and application of Cyborg metaphor in Chinese contemporary art. The better integration of art and technology will promote the interdisciplinary development of Cyborg art and bring more elements and more diverse presentation to the picture of the future society.

Keywords
Cyborg, Posthumanism, Cyborg art, Body media

1. Introduction
In theory, Cyborg is a cybernetic organism, a hybrid of machine and organic. For humans, by contrast, we are all chimeras of machine and organism, a mixture of theorizing and fiction. In short, we are all cyborgs.

With the development of the theory of Cyborg and the progress of science and technology, the landscape of Cyborg doctrine has gradually emerged in the field of art. From the beginning, the traditional media means such as painting works, sculpture works, video art and installation art on paper or canvas have also presented the Cyborg art. From the beginning, it was mainly a visual effect, to the present avant-garde and avant-garde art with “body” as the medium, which makes people full of infinite speculation and reverie about the future social landscape. Art is a symbolic language and a way of expression for people to convey information (Alexander, 2015). Cyborg art is to make a beautiful picture of imagination for Cyborg. With the continuous development and innovation of science and technology, at the same time, people’s lifestyle and social culture are closely related to science and technology and art design, and the development of Cyborg art is complementary to each other, showing unprecedented fit (A promise, 2022).

2. Cyborg Doctrine
In What Makes Us Posthuman: The Virtual Body in Literature, Information Science, and Cybernetics, postmodernist literary critic Catherine Heller argues that we are undergoing a transition from human to posthuman (Biro, 2009). And Hans Morave has written that human identity is essentially a form of information, rather than a physical
specification and expression (Chen Yuheng, 2019). Harawi argues that posthumans, like humans, are historically specific and contingent belonging relations rather that stable good (Else, 2012).

Since the enlightenment of western philosophy, human beings have been seeking rationalism and free will, emphasizing ontological consciousness and placing “man” above everything (Fu Tong, 2021). But compared with “post-human”, “human” is a form of information data, which is desubjectivated. The dynamic cognitive flow between humans, animals, and machines is symbolized and instantiated (Hu Qiyuan, 2022). The cognitive domain, like the world itself, is not a binary system of self/other, mind/body, culture/nature, male/female, etc. It is a complex system of integrated, multiple properties and mutual progress (Jian Shengyu, 2021).

Cyborgism, also known as cyborgian art, began as the contemporary art movement in Britain in the mid-20th century (Joyce Lie, 2021). It is also one of the most influential and widespread modern art phenomena in contemporary art. Nowadays, in the expression of cyborg’s art, the creative media and expression techniques show the characteristics of diversification and crossover. Art is no longer a single category, but interspersed with various industries and fields (Liang Yongjia, 2021).

It’s works of art are mainly around core technology and core concepts to reflect, in the early period, the game’s most art use such as painting, sculpture, video, digital art forms to present, in the future with the development of science and technology, and as a creature, living organisms, and even the human body such as a variety of media, to shape the game’s image. It combines many fields of modern science. Among them, the combination of man and machine is the typical image in cyborg art, in which the body plays an important role (Li Bingyan, 2021). Cyborg art is presented in two main forms:
- The first kind of works
  - The picture presented mainly by visual feelings.
- The second category of works
  - It is based on the “body”, combining various technologies such as surgery, communication technology, biological and genetic technology can be felt in the physical world of cyborg image of art experiments.

3. An imaginary picture

In terms of time, the earliest “cyborg” image appeared from the 1920 dada “cyborg” image. In one of the earliest Cyborg works, the Dada artist Raul Hausmann’s “Self-Portrait of Dadasov”, presented at the first International Dada Fair in 1920, was a cyborg whose head was formed by a mechanical pressure gauge. Attached to its head is an unusually large lung, which occupies almost the entire upper body. This size seems to indicate that the large lungs can completely replace the work of other organs, and at the same time the lungs are monitored by the manometer in the head. The whole cyborg body sits quietly in a chair, as if the “human” in the picture only needs to breathe, and does not even need to eat or think. This kind of strange picture sense, let the viewer can perceive a kind of future mystery from it. In this period, Dada artists began to integrate machines with human bodies to show the growing influence of science and technology on human life. People gradually had an inseparable relationship with machines. In fact, people had begun to rely on machines at that time.

Swiss artist H.R. Giger created works such as the pen painting “Birth Machine” and the airbrush painting “Death Machine”. His most distinctive stylistic innovation is the interrelationship between the representation of human body and machine in a cold world. The images of the opposite sex created by Giger are a combination of human body shape, imaginary biological body shape and mechanical elements, full of science fiction sense. At the same time, the machine is embedded in the biological body, and the body is fused with the outside world. Think of a world in which all matter converges into a whole, a vast system. In this world picture, everything seems to have no boundaries, and all things exist as one.

Latour believe that we are in the real world, are “chimeras”, the so-called “subject” and “object” is the modern narrative under artificial for cutting, through the “transfer” and “purification” of two different practices, in fact, there are a lot of in the modern system of the middle section of “chimeras”, Latour called it “quasi-object” and “quasi-subject”.

In Cyborg’s vision, people make predictions about the future of the world. With the development of science and technology, people are filled with machines in every aspect of their lives, which play a role in communication technology and biotechnology all the time. Human beings seem to be in the vast ocean of data, playing a small unit of data, in which they encode and recombine with other things.
4. The Controlled “Body”

American multimedia artist Tim Hawkinson uses a wide variety of common materials that he uses to shape his artwork. Hawkinson often incorporates various technologies and media into a sculpture or installation, combining the body and machine to create a physical world in which the body and machine are combined. His electronic installation “Mood Analyzer”, uses a collage of photographs of his face and is wired to a machine that manipulates his facial features into expressions of emotion. The driver simply picks up light and dark patterns on a television set as a signal source. He said that the piece was more emotional than mechanical, that it was an emotional instrument in itself, and that there were many expressions in it that he himself could not make. It's not just about him, it’s about all of our sense of identity, the experience of our bodies, the relationship of our bodies to the outside world. Perhaps what was once considered unique to us is often overturned here.

In the development process of cyborg art, due to the development of communication technology, virtual technology and biotechnology, the transformation of “technicalization” has been realized under the joint effect. It is inevitable that the form of art will present different manifestations with the development of science and technology. Art can be combined with science and technology to become a new form.

Australian artist Stelarc provides intuitive images and experiences in his artwork. For example, Push: The Body on the Mechanical Arm is a mechanical arm fixed on the ground. Under the pre-programmed program, people stand on the mechanical arm to perform various movements -- the machine can control the human body. Again another of his works the attachment/to mixed: integral body, the device is a for people to wear of the mechanical arm, the robotic arm with the different position of the pilot wires, realize the manipulation of the wear of the mechanical arm experience, equivalent to a stranger miles away can manipulate your own arm for sports. In fact, these works can not help but make us reflect that in this information age, people’s initiative has been lost, people can no longer absolutely subjective decision, even the control of human own body is no longer absolute (Latour, 1993). It seems that human beings are subjectively controlling machines, but in fact, human beings have become “human beings” changed by machines. They are no longer human beings as natural organisms, but post-human beings, a new evolutionary unit of contemporary society.

The “self” has been lost in the reach of artificial intelligence, and humans still travel through a world full of machines and enjoy their services, but there is very little left for humans to actively decide (Li Zhi, 2022). Sitting in front of the flickering screen, we passively choose the prompts of a few cursors, the truth behind the cursor we know nothing, also have no other way, those flickering information data filled with confusion, so that human beings still think they are the masters of the world. What if humans had not already been transformed into data by machines?

5. Blurred boundaries

With the development of gene technology and biotechnology, human cell tissue and gene culture of other organisms have also been reduced to the scope of Cyborg. The most famous work of bio-art, the Green Fluorescent Protein Rabbit is a famous work by Eduardo Kac. The French Bio-art is a collaboration with French scientists to create a new species: a rabbit that fluoresces under special light. The rabbit is named Alba, and Eduardo Kacuses the GFP technology to transform an ordinary red-eyed rabbit. At the same time, Oron Catts and Ionat Zurr in the heads of the Tissue Culture and Art Project at the University of Western Australia created Symbiotic A, the arts science center. He focuses on the cultivation of living cells and the production of biological tissue artworks, including the cloned ears of Steilak.

The “Post-Life” Beijing Media Art Biennale focuses on the theme of “Post-life”, presenting artists’ interdisciplinary artistic experiments in the field of art and science and technology (Ma Shidi, 2022). To create connections and deepen discussions among artists, scientists, designers, and theorists. With the increasing development of science and technology, we have no choice but to think about how to cope with and develop in the face of the huge social change in the context of post-human theory, which has been gradually paid attention to. The “Art and Technology” lab has become a new model for future-oriented, integrated innovation. This mode not only changes the research mode of science and technology, but also provides a new paradigm for artists’ artistic practice which has long been centered on the studio. Biologic is an attempt to edit biological tissues and invent the responsive and transformational interfaces of the future. Based on the natural phenomenon of hygrogenesis, they introduced specific types of living cells as nanoactuators that respond to changes in body temperature and humidity. Bio-nano actuators can be controlled by electrical signals and communicate with the virtual world. They developed a digital printing system and design simulation software to assist in the design of the transformation structure. With the combination of computers and
communications, we can predict future developments in this very moment and greatly expand human creativity (Ma Jiaqi, 2020).

In the physical image of cyborg’s art, the future of cyborg is the existence relationship between self and other, organic and inorganic, nature and science, individual and collective, which constantly breaks the binary opposition. Cyborg artists have always tried to break through people’s own limitations. The development of The Times accelerates the process of human turning to post-human, and the sense of boundary has been gradually blurred. In the fog of evolution, it is time for human beings to abandon the former pride and honor and welcome the dawn of a new world.

Katherine Hayles argues that, in the post-human view, there is no essential difference or absolute boundary between physical existence and computer simulation, between the structure of human-computer relationships and biological organizations, or between robotics and human goals.

6. Become a post human

The post human subject is a mixture, a collection of heterogeneous and heterologous components, an independent entity of material information, continuously constructing and reconstructing its own boundaries. In some of the arguments about post-humans, there are still people who say that post-humans are anti-human and destructive. They may think that humans must rely on technology. The data visible everywhere is the development of technology and the decline of human environment. The human race is on its way to the top? Or step into the end of your destiny. The world is still the same world, and man is still the same man, but the result is that the climax of one place is actually the ultimate destruction. However, on the contrary, in the future world, human beings will no longer insist on the pursuit of the so-called control over the body, but in this huge data system, as a terminal to transmit or receive information, transmit and receive information “flow”. Human will not really lost in the bizarre, like let alone in the vast ocean storm blows to the middle of nowhere, but with other organisms to create a “utopia”, both biological and artificial, we enjoy the world together with them, and even let them enjoy ourselves - we become together the cyborg.

7. The importance of Cyborg’s artistic development

◆ The impact of Cyborg’s art development on the world

Avant-garde art, which is of great significance for promoting the process of world development, is the pioneer product of the development of The Times and self-promotion. For example, the European ideological and cultural movements initiated in the European capitalist countries of the 14th and 16th centuries to reflect the demands of the emerging bourgeoisie. The concept of “Renaissance” was already used by Italian humanist writers and scholars in the 14th and 16th centuries. At that time, people believed that literature and art had been highly prosperous in the classical Greek and Roman times, but declined and annihilated in the “dark age” of the Middle Ages. It was not until the 14th century that literature and art got “rebirth” and “revival”, so it was called “Renaissance”. It first arose in the city-states of Italy, then expanded to the countries of Western Europe, and reached its peak in the 16th century, bringing a period of scientific and artistic revolution, which opened the prelude of modern European history, and is considered to be the boundary between the middle ages and modern times. Renaissance is one of the three ideological liberation movements (Renaissance, Reformation and Enlightenment) in modern Western Europe. Therefore, in other words, the appearance and development of pioneer culture and art can be said to be an inevitable cultural movement that promotes the development of the whole world and influences each other. It has an invisible impact on the development of world culture and plays a decisive role in history.

◆ The influence of cyborg art on the State

The world unprecedented great changes happening in China, for China's up and down the five thousand - year history, most of the time for the opening of the culture has certain limitations, but in recent several hundred years, people accept new cultural trend of more and more big, and color as the country's economic and social development, people’s material life condition is getting better and better. At the same time, we are also in the national cultural reform system, the national angel coefficient is more and more close to the world average level, avant-garde art intervention is conducive to improving the basic quality of the people. As a result, most social residents have a higher and higher understanding of art and a higher acceptance of art, which is conducive to breaking people's imprisoned ideas.

◆ Cyborg art is conducive to the reversal of today's art forms
Nowadays, the artistic image of cyborg is usually presented as a negative horror of “the corruption of the body, the penetration of science and technology, and the abuse of the mind and body”. To try to reverse this pattern, humans don’t really get lost in the weirdness of a vast ocean alone with the wind lapping at them in the middle of nowhere, and it’s not just artificial intelligence and avatar concepts that implement Cyborg art (Shao Wenjing, 2021). We create a "utopia" with other living beings, whether biological or artificial, sharing the world with them and even allowing them to enjoy ourselves.

- Promote interdisciplinary integration

Strengthen the connection with various fields and categories, make art and technology more harmonious combination, promote the development of interdisciplinary, break the concept of art based on conservative new media media, release a new image as Cyborg art. At the same time, the art works show the distinct personal characteristics of the artist.

8. Conclusion

The “post” of the post-human is not the end of human beings, nor does it mean that “throwing out the bathwater also means throwing out the baby” (Zhao Yushan, 2022). Human beings will choose the right path at the intersection of times and step into the coming future with a brand new attitude. A decentralized human mind, living in peace with everything in the world, abandoning the self-interest that has been tightly held in the hand and choosing to seek blessings for other lives, will be the true sense of eternal peace and win-win. The progress of The Times is accelerating the transformation of human beings. The story of Cyborg then unfolds, which seems to provide us with research inspiration and theoretical perspective for the analysis of specific social phenomena. Art will be a new attitude, staged on the stage of history, open up a belong to the “post-human” pleasant space. Due to the prosperity of Cyborg art in the world and the gradual attention of the Chinese literary circle to the theory of Cyborg, about Cyborg will become a new topic in the development of contemporary art in China.

References

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