## On New Media Art, Its Development and Achievements in China

El New Media Art, su desarrollo y logros en China

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## Abstract

This essay is aimed to introduce the development status of the new media art in China; the author gave its definition based on his own understanding and observation, which included various forms. Moreover, the developing environment of the new media art in the world is presented systematically in the essay. The author combed the art history and technology history which are closely connected with the birth of the new media art. China has achieved many accomplishments in new media art forms, such as the successful hosting of 2008 World Olympic Games and 2010 World expo. In the opening ceremony of 2008 World Olympic Games, interactive art, installation art and virtual space are in perfect use. Especially, "scroll" has combined all the above technological methods into display, which brought about stunning sensory impact to the audiences. After two years, Shanghai was the focus of the world, 242 countries and international organizations that have attended 2010 Shanghai World expo. The new media art forms are bloomed and flourished, China pavilion's Qinming Riverside was endowed with new vitality via these new art media forms.

### **Key Words**

New Media Art - Science and Technology - Art - Beijing Olympic Games - Shanghai World Expo

### Resumen

Este artículo tiene como objetivo presentar el estado de desarrollo del nuevo "Media Art" en China; el autor ha elaborado su definición sobre la base de su propia comprensión y observación, que incluye diversas formas. Por otra parte, el entorno de desarrollo del nuevo Media Art en el mundo, se presenta de manera sistemática en el artículo. El autor ahondó en la historia del arte y de la tecnología, que están estrechamente relacionadas con el nacimiento del nuevo Media Art. China ha alcanzado muchos logros en nuevas formas de Media Art, como la exitosa organización de los Juegos Mundiales Olímpicos de 2008 y la Exposición Universal de 2010. En la ceremonia inaugural de los Juegos Olímpicos de 2008, el arte interactivo, arte de la instalación y el espacio virtual estuvieron perfectamente utilizados. Dos años después, Shanghai fue el foco del mundo, 242 países y organizaciones internacionales prestaron su atención a la Exposición Universal de 2010. Las nuevas formas de Media Art están floreciendo y prosperando. EL PABELLÓN CHINO, China Pabellón Qingming Riverside fue dotado de renovada vitalidad, a través de estas nuevas formas de comunicación a través del Media Art.

#### **Palabras clave**

Nuevo Media Art - Ciencia y Tecnología - Arte - Juegos Olímpicos de Pekín - Expo Shangai

### 1. Introduction

In the past, persistent advances in technology continued to boost the development of art forms, there was no exception from painting, sculpture, music, dance to photography. Japanese aesthetician Tomonobu Imamichi wrote in his book "About Aesthetics": "Art is between people and technology, which makes it possible to people's self-reversion."

In the future, with the future development of technology, what the art form will be is still hard to imagine. As a famous American contemporary art critic, John Russell, put it in his *Meaning of the Modern Art*: "no one is able to predict which direction the form of art is going to advance."

Currently, there is an ascendant force in various art forms; we call it the new media art. However, what is new media art? There is no internationally recognized authoritative definition, although people are aware of its existence, no one can deny that the progress of new media art and media technologies are closely related. Thus, in the constantly updated media technology, the connotation and denotation of the concept of new media art, the scope of new media artists will continue to be updated and transformed.

Based on the above understanding, I define the new media art as follows: the new media art is a kind of artistic behavior and works, which is carried out via the new media technology at a given period. For the time being, the new art form mainly includes Video Art, Expanded Cinema, Installation Art, Interactive Art, Virtual Spaces, Argumented Reality, Network Art, Software Art, Social Media, Techno-aesthetics, Bio-art and so on.

Most of these new types of art are based on digital multimedia and Internet technologies, or supported by gene technology, biotechnology, and new materials technology, these new technologies will be actively used in creating, carrying, broadcasting, receiving and criticizing behaviors of the new media art, these new types of art will bring forth profound revolutions in artistic aesthetics, experience and thinking, bringing new vitality to art, moreover, the new media art has created some characteristics such as interactivity and game-play features and so on, which the traditional art forms lacked.

From the perspective of art history, a sign of the birth of the new media art is in New York in 1965. In a cafe, a member of Fluxus movement, Korean American artist, Nam June Paik and his partner projected a film shooting the Pope's whereabouts with a portable camera in a taxi in New York, and it was the original form of new media art ------Video Art.Since 1970s, the space for new media art technology has been expanded larger and larger, Network Art, Installation Art and other follow-ups have stepped into the ranks of various forms of the new media art.

Since the 1980s, the new media art is gradually absorbed by the various major international exhibitions, and it gradually becomes the mainstream of art exhibitions. For example, Network Art Award of the Massachusetts Institute of Technology Media Lab (MIT Media Lab), San Francisco Museum of Modern Art Network Art Center (SFMOMA Webby Prize), Network art Award of the New York Whitney Biennial Art (Whitney Biennial: Internet Art) are important new media art exhibition spaces and sites.

After the 1990s, the new media art began to flourish on a global scale, and were successfully introduced into China, followed by a rapid rise. So far, China's new media art already has global influence, its iconic shows included major events of the 2008 Beijing Olympics and 2010 Shanghai World Expo and the 2012 London Olympics and other celebrations.

## 2. Research Methods

### 2.1. Historical Analysis

The author has collected and read various documents and has studied the general development path of the new media art from two perspectives: one clue is the relation between new media art and the entire art field, which the author define it as the artistic environment that new media art lies in; the other is the relation between new media art and technology, which the author call it the technological environment that new media art is in. The author has searched and overviewed enormous references, and compared them via much detailed analyzing. From these two dimensions, the author proved the general development clues of new media art.

### 2.2. Case Analysis

The 2008 Beijing Olympics and the 2010 Shanghai world expo were best stages for displaying of new media art since the 1960s. As the host of 2 events, China showed great achievements of new media art, which influenced the opening ceremony of 2012 London Olympics. Studying China's achievements is the second focus of this article. The author mainly did some typical research of new media art through some on-the-spot memories of these two great events ,reviewing of video materials and some interviews of relevant participants and producers of these great events.

## 3. Results

### 3.1. The study of new media art from the perspective of art history

First of all, artists have been able to choose from an ever larger scope of art materials, since Dadaism, Pop Art, Collage Art and Earth Art, which laid foundation for the art field to move towards pluralism in terms of materials. For example, Marcel Duchamp, "guardian of modern art", absorbed many artificial products like "Urinal" into the scope of art field, which got rid of the control of the set pattern of traditional and aesthetic style of art definition and were considered the origin of new media art.

Secondly, the rise of Happening Art, Conceptual Art and Body Art have made audience part of the works, which has enlightened the characteristic of combination and reaction of the new media art. For example, 18 Happenings in Six Parts by American artist Allan Kaprow had built up much closer and harmonious connections between audience and artists in 1959.

Finally, Fluxux in the 1960's has directly ushered in the birth of new media art. Nam June Paik ,the artist took broadcasting media as their direct art material. (MichaelRush,1999), after which the application of new media art in multimedia, network and digital technology were all considered the extension of Fluxus and the scope of material were expanded as the development of technology.

### 3.2. New Media Art in the technology environment

The development of art has been closely connected with that of science. The inventions of new technologies have made it possible for the birth of new art, which has become a significant cultural phenomenon of modern time. Photographs, films and TVs are all new forms of art thanks to the development of image technology. The connections are unprecedentedly combined via new media art. TV technology, multimedia technology, telecommunication technology, computing technology, network technology, digital technology and even bio-technology have all been impacting the concepts and forms of art forms.

On one hand, new media technology has nourished the language of artistic creation. Artists who are able to apply new media technologies in art work have obviously obtained more space and freedom and they can choose or even develop new media technologies based on their needs of creative work, which in result will stimulate the development of technology. The birth of Virtual Reality, Augment Reality have brought great infinity to their creative work, which is proof of the Buddhist verse, The imperceptible is the material; the material, the imperceptible."

On the other hand, how audience feel, appreciate and consume art has also been changed by new media technology, which makes the audience ever more picky than any other time and they pursue more comprehensive, more delicate art forms of much higher level, which is like the Buddhist description for the satisfaction of "eye, ear, nose, tongue, body and mind" or "color, sound, odor, taste, touch and law". Therefore, the application of new media technology in art should firstly serve the needs of the audience.

# **3.3. Artistic achievements exhibited by new media on Beijing Olympics** *Effects of interactive art*

The very first interactive new media artistic work in the opening ceremony of Beijing Olympics is the collection of 2008 smiley faces displayed on the projection screen in the stadium. These smiley faces represented global participation and were collected by Beijing Olympic Organizing Committee towards the world through network media. Children of different nationalities and skin colors, from different countries and regions, responded to the call with great passion. The projection screen gains the desired interactive effects in the opening ceremony.

Picture Scroll is another interactive work finished by designer and audience, together. The 76-meter-long drawing paper with a diameter of 2m is a piece of true paper, indeed, which is merely offered with special handling to carry storage battery and will open and close automatically. As one mainline of the opening ceremony, Picture Scroll runs throughout the opening ceremony. First of all, a dancer sketches out an ink painting. Then, kids paint it with color pigments. At last, athletes from 205 countries and regions all over the world "step out", signifying the perfect integration of China into the world.

#### Second, artistic effects of devices

Installation art is the important composing part of new media art. Besides the interactive artistic effects, Picture Scroll is an installation artwork, also. "Pottery", as one of the carriers for light and shadow effects in the opening ceremony of Beijing Olympics, plays successfully the role of installation, also. The ever-changing "countdown" effects are created by the huge "pottery matrix", where the built-in

LEDs serves as light source of pottery. They are mounted around the percussion surface. The performers can control them through switches. LED lights on pottery and background light on the scene will complement each other, fulfilling the magic combination of image and installation.

Thanks to the up-to-date characteristic of new media forms, the multi-frequency light emitting images formed by the pottery matrix extends not only the visual tension of audience, but also spatiality of installations. The visual and auditory experience of audience on the scene outreaches the preliminary expectation of the creation team. More extensive association is achieved from the performance. Such value-added association fulfills the true significance of installation art and embodies the special properties of installations in new media art.

### Third, virtual artistic effects

Combination of virtual technology and reality is another prominent advantage of new media art. The virtual image and scene and live performance on the scene form a dramatic responding relationship. Two seemingly contradictory aspects collide mutually, integrate continuously, and raise the artistic values of new media.

As one of highlights of the opening ceremony of Beijing Olympics, "Movable Type Printing" artwork consists of 896 pieces of font modules, can show traditional Chinese and modern simplified Chinese "harmony" character in succession as well as such modeling as water ripples, the Great Wall, and and so on . It tells the origin of Chinese civilization through the combination of virtual technology and reality.

In "Maritime Silk Road" theatrical performance, the projection screen at the top of stadium broadcasts on rough seas. Coupled with sound of the waves, a strong visual and auditory impact is produced. Actors perform in the virtual space built by new media art. The performance and the images become a perfect pair, showing the magnificent artistic effect of sea sailing.

## 3.4. New media artistic achievements displayed in Shanghai World Expo

Almost all 242 countries and international organizations that have attended 2010 Shanghai World Expo leveraged new media artistic means to furnish their pavilions, signifying that this artistic form has formed a global trend. As the audience is more apt to be attracted by such "playground-like" interactive exhibitions, Shanghai World Expo received unprecedentedly overall exhibition effects.

However, some exhibitions contained more techniques rather than artistic qualities and are stereotyped. Such exhibitions are forgotten quickly by the audience. The audience is deeply impressed by some exhibition pavilions, such as French Pavilion, where the visitors experienced the grand charm of France cheerfully, from the taste, sight, touch, smell, and hearing. "Big magic ball" that is as heavy as 1. 23t of German Pavilion swung in the voice of people and turn into a floating eyeball. The dynamic Qingming Riverside, the greatest treasure of Chinese Pavilion, broke completely the still and single mode of Chinese traditional painting, leverages and the digital multimedia application technology for substantial reel to turn it into a huge 3D animation art.

To guarantee the effects of virtual arts and get rid of overly plain and dull manifestation of 2-dimensional animation, the creation team selected "2.5-dimensional animation" to present the dynamic "Qingming Riverside", which proved that the artwork presented in this creative mode not only maintained the traditional artistic style of original painting, but also created vivid effects. After seven major steps including character setting, modeling, layout, special effects, lighting, rendering and post-production, the creation team ultimately took "Qingming Riverside" of Zhang Zeduan, painter in Northern Song Dynasty, as the blueprint and prepared the digital scroll that is 128m long and 6.5m wide, which is almost 30 times of the original painting. 12 units of film projectors are required to work simultaneously. The entire movable menu finishes a cycle in 4 minutes, 2 minutes are used to demonstrate Kaifeng City in daytime and 2 minutes at night. It showcases the day and night scenery of Kaifeng City depicted in "Qingming Riverside". 691 figures show in daytime and 377 at night. Rendered by multimedia art, the

figure identities, appearance, and movement are lifelike, presenting the audience the prosperous downtown scene of Song Dynasty and showing the outstanding contribution done by Chinese to world human civilization history.

In terms of interactive art effects, the audience could interact with the painting of "Qingming Riverside" in the course of enjoyment and exchange accordingly. The figures in the painting will speak by a slight click merely. Coupled with the boat and wind noise far away, the "Sense of immersion" of audience arises spontaneously. They don't take it as an artwork anymore and gain strong aesthetic enjoyment from it. It is exactly what the traditional painting art can't achieve. Thanks to the innovative techniques and experience applied to this project, the very creation team undertook the most important demonstration engineering of 2012 London Olympics-- promotional video for Mascot.

## 4. Debate

To sum up, new media art has become the mainstream of modern arts and its development draw benefits from techniques. 2008 Beijing Olympics and 2010 Shanghai World Expo are top events that demonstrated concentratedly the artistic achievements of new media and reflected to some extent that new media arts have achieved great achievements in China. This paper is dedicated to reveal such achievements to the world through professional analysis and make the world learn and care the new media art development of China.

However, some insiders will probably maintain that this logic is not sufficient, for this paper doesn't research the new media art achievements of other countries, like U.S, Spain, and Japan. Moreover, 2008 Beijing Olympics and 2010 Shanghai World Expo are not the professional grand events of new media arts. Though, it doesn't affects the argument points of this paper, that is, 2008 Beijing Olympics and 2010 Shanghai World Expo are sufficient enough to attract attention from the world to the new media art achievements of China. The world shall learn and care about it. Apart from this, there is no means to deny the new media art achievements of other countries positions of new media art exhibitions.

In this paper, the author tries to illustrate, by analyzing the art history logic and science history logic of new media art as well as the achievements achieved by new media arts in China, that the development level of new media art of a country depends more and more on its comprehensive national power with the progress of times and development of science and technology, including the technology level, culture resources and key enterprises. 2008 Beijing Olympics and 2010 Shanghai World Expo are taken as two typical events for analysis and the new media art achievements demonstrated there are outcome of reform and opening up of China. At least, the science and technological level of China are sufficient enough to support needs from new media art fields. China is not inferior to any American and European countries at all in this regard. But, such culture resources that can be used for new media art development as Qingming Riverside is world leading. It is exactly the very same Chinese enterprise that provides the new media art exhibition for 2008 Beijing Olympics, 2010 Shanghai World Expo and 2012 London Olympics. It can be concluded that the Chinese new media art will brace a promising prospect.

Probably, some will hold opposing views to the viewpoints above. In their opinion, it represents the vulgarized trend of new media arts. They believe that we should evaluate new media art in a way of complying with the conventional idea that we should define art from the microcosmic way of art and works. Actually, in this opposing view, a series of significant differences between the new media arts and traditional arts are ignored, obviously, which resembles the situation in the physics field to confuse Newton's classical mechanics with Einstein's theory of relativity.

Last but not least, new media art is not merely artistic behavior anymore, which combines technological and economic behaviors. New media arts are not patents of artists anymore. Anyone will become new media artist as long as they master the related and required techniques. Difference of new media artworks will not rely merely on the sophistication of creative techniques, which are not problems anymore in an era of high technology. Creativity itself is the foundation to judge pros and cons of new media artworks. Such creativity will not be personal behaviors of a talent, but more a market behavior of enterprises.

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