

# Art Characteristics of Experimental Animation Short Film Studies Under the Background of New Media

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**Abstract.** Experimental animation film with its strong artistic expressive force and unique exploration of innovation has become the animation art history and could not be ignored important component. With the rapid development of animation industry, animation on the commercial value of the pursuit of strong became the mainstream trend of development. However, in experiment, exploration, innovation for the purpose of experimental animation film and not forgotten, but in this new media rapid development under the background of the times has been more fully recognized, experimental animation film can provide nutrition for creation is unable to substitute, should not be ignored. How to develop the experimental animation "experimental" is a problem that deserves attention.

## Introduction

Experimental animation film not to create business value for the purpose, and is committed to the art of animation of exploration and innovation. Here we may not enjoy the magnificent scene be struck with fright, and complicated storyline, however, experimental animation with its minimalist lean narrative way afford much food for thought philosophy, can also give you the heart shock. This paper analyzes on the new media context of experimental animation showing the characteristics of art, how discussed under the new times of experimental animation to show the unique personal style and consciousness.

On the "experimental animation" for accurate positioning on the basis of experimental animation, exploration in the development process of the present innovation and exploration. Experimental animation in its short features, the art of animation is a limit to try, from the form and connotation of the expression showed a strong consciousness of exploring and pioneering consciousness, showing the independent thinking, self expression, refused to folk art charm. This article elaborated in the era of new media, new ideas and superb technical support on experimental animation development brought enormous power, and from the artistic characteristics and new media in two aspects of new media in the creation and promotion of experimental animation advantages, cited a number of classic experimental animation film on its artistic value and advantages were fully demonstrated. In the animated cartoon author's creation, the intelligent superb technical support and convenient media platform, experimental animation film was a more powerful ii development momentum and broad development prospects. Finally this paper, experimental animation development prospect, and certainly for the creative industry brings development power.

## Overview of Experimental Animation Short Film

Experimental animation short film and we see in the cinema to see animated movies or TV series of animated cartoon is different, the film is not the pursuit of profit in business success, does not require the film perfect in every respect, but pay attention to in the process of animation creation, innovation one aspect, or in the field of technology to be able to have a new attempt and exploration,

or to adopt new film language to express a profound meaning, or with a unique great choreography show a thought-provoking artistic conception, or hope to make innovations and breakthroughs in artistic technique of expression, and so on.

**The Definition of Experimental Animation Short Film.** "Experimental animation and animation art, animation is with conventional relative category, mainly through to the animation art techniques, forms, media and the way of performance of ultimate attempt to reflect unique personal style and concept of the creator, and a strong sense of exploration in the form and connotation and pioneer consciousness. 'experiments' and not only refers to the meaning of try and innovation, more refers to a kind of independent thinking, self-expression, refused to the spirit of Buddhism. [1] animation production process is complicated and heavy, must have the perfect tools, professional technical support and collaborative team, each factor is indispensable. Along with the continuous renewal of animation technology and mature, the art of animation concept also gradually becomes the key to pitchman creation. As people demand for animation and animation the development of art itself, now in the field of animation, each country, each style of animation emerge in endlessly, and enrich the expressive force of animation, formed a distinctive genre of animation. The development trend of animation will also clear animation form two major categories, category is the commercial profit as the ultimate aim of commercial animation film, who we are going to study for the purpose of artistic exploration of experimental animation short film. If we want to an accurate definition of experimental animation short film, we still need to be two types of animated films as a comparison to understand.

On the one hand, the audience is most familiar with commercial value of the animation film, we can call this kind of movie commercial animation film. As the main content of the animated movie with a story, formed the pattern of art style, and through to capital as the link of the mass production of commercial operation mode, pay attention to commercial effect, has a large audience. The development tendency of the animation will became the most familiar we are now the most common commercial animation. In theater for example we see the "up", "kung fu panda," and so on. Pitchman, of course, not content with "cookie-cutter" animation art creation, more eager in form, content, style, etc, with the development of a more comprehensive, the mainstream of the animated film formed a certain scale, the animation visual expression of digging, and rich creative spirit came another animation The experimental animation short film. Experimental animation short film often length is not long, has the characteristics of individual creation. Experimental animation short film does not require the integrity of the story, but each lens can hold the audience's attention, guide their thinking and feeling. Experimental short film to from content to form of animation to explore all the factors, the creator of the form of artistic accomplishment in highly generalization, use the lens to convey delicate emotions, and to the portrait of the mind. Experimental animation short film in trying to set up in all aspects of innovation is on the basis of research and experimentation, with emphasis on best practices and performance, it has the bright individuality expression animation language, try to pursuit of afford for thought. Experimental animation and commercial animation is different, the greatest characteristic of experimental animation is no matter from content to form, with the creator personal strong subjectivity and exploratory. For animation creator should not only have enough artistic expression also has a profound cultural background, to get more free personal space, and for the art characteristic of animation film, as audience we are not in simply see, hear, but silent. For example the best animated short Oscar awards "father and daughter", in this film, screen appears in the color of pure, the use of the concept of light and shadow, black and white and dichromatic expressed people exquisite feelings between father and daughter. Short time only eight and a half, and the overall frame style adopted European illustration art characteristic, let the

audience appreciate the simplicity of deep emotional expression, also show the charm of experimental short film. We can put the experimental animation short film succinct summary into a word, the characteristics of experimental animation film is a kind of picture to feel, full of extreme artistic expression, the pursuit of individual character, contains the spirit of art animation short film.

**The Classification of Experimental Animation Short Film.** For specific classification experimental animation short film, can be said to be no cloud, from the emphasis of the different classification can get different results, in this paper, we try to from the animation theme style to differentiate, the experimental animation short film is divided into two categories: one is a pioneer consciousness is the art of animation clips, the other is a commercially valuable experimental short film.

**Art Short Film Pioneer Consciousness.** This is the art of animation film pioneer consciousness according to the performance of the subject is divided into two kinds, one kind is mainly in the aspect of audio-visual language and bold exploration and experiment, has novel expression in sound painting form, or adopt a unique material for animation production, the performance style will have the idea that find everything new and fresh, such films sometimes ignore the basic theme, plot, the film will even show no animation story theme. The theme of this short film is often contain all details in the video, the video sometimes hard to understand the audience, as if the creator in his own mood to vent, the audience can only silently to use specific language to express. Another is refers to those to profound themes, all those involved sometimes deep into the theme of the film could not explain in words. Or creator of a well-known theme for the analysis of the special Angle of view, using the maverick way of viewing the situation to describe a thing. In this respect abroad experimental short film artist came out to walk in the forefront of the world animation film. Fortunately, most of the experimental short film to be able to simply, clearly the theme properly, we can also use these animated short name pioneer abstract animation, animation art, animation, etc.

The Czech famous animation film director Yang. Shi Yunmei is known as the "western countries since the war in the master of one of the most important animation film makers, but in today's cartoon art world is not so loud, fame, and even our public view nor his work, is this why? One of the most main reason is that his works express is a kind of unique pioneer in the world, and this world is not the public can understand the art world. Shi Yunmei and think," civilization is dying. Terrorism is the human civilization there are consequences of absolute inequality. Black humor is very important, it is to keep the essence of a human civilization. He believed that the consumption era will serve as the end of civilization, utilitarianism and splurging waste indicates the death of civilization. [2] ", that is, his this kind of idea all the time from his works, also let Shi Yunmei works more intense personal. He describes a pioneer in the art world is full of absurdity, terror, cruel, naked described the animal characters of hidden in the human form, and human themselves are not willing to admit of ginger and desires." Bloody tongue, screw the maggots, chopped meat is not enough, surrealism, quick montage and continuous big scene, is Yang. Shi Yunmei apply to perfection. [3]"

**Commercially Valuable Experimental Short Film.** Commercially valuable experimental animation and we talked about in front of the commercial animation is the most closely, most has the "realistic". This animated short very practical experimental animation can be converted to productivity and get more people to accept. This class contains the commercial value of experimental short film is film for commercial service, with shorter length, audio-visual language concise, to the audience in the form of animated short notice. Audiences of this kind of countless in the forms of experimental short film clips, we call it "set pieces", or "exported". One day some of the branches is outside the main story, the characters in the story the other opening of a new story

for processing or similar main body of the story, but by others to tell or play. There are main story mentioned in detail but did not elaborate, complete them here. In 2008, for example, a by Andrew Stanton, pixar animation studios, Disney film distribution computer animation science fiction movie "wall-e", and for the audience of this movie set pieces short electric drying work wave force. The film will be included in the "wall-e" DVD, in content with the movie wall-e adventure in the truth of the spacecraft.

Still have a kind of experimental films, the author in writing does not pursue its commercial value, simply to some aspect of animated short experimental exploration, purely as an experimental animation short film. However, after the animation director for creation, derive the nutritious ingredients in the experimental films, and carries on the artistic processing, will it become a complete commercial animation film and on the big screen, can also call this kind of animated film "commercially valuable experimental animation short film". In 1929, for example, by the world animation master, and walter Disney's early one of the partners? The walkers according to music symphony works totentanz made a full of experiment means about 6 minutes long animated short - point Lou Dance. (Skeleton Dance).) use the color with black and white film, described in the evening, after a group of lovely PM Lou drill out partying and dancing from the grave situation, the point Lou unload themselves even beat out the rhythm of the bone Dance, image vivid interesting, unique. At that time, such a simple experiment short and not too much public attention, and in 1993 The Disney was a popular, and has a gothic style commercial animation "The Nightmare Before Christmas" (" The Nightmare Before Christmas). This is a doll animation frames shooting, the film was a huge success in business. The film tells the story of the "bone ancient Lou jack" on Halloween city hope oneself can to prepare for the Christmas day once a year, and kidnapped the Santa Claus, dress up for people to distribute his own Christmas present. But he handed out strange Christmas presents for people, coffin-like gift box, bite ghost, ghost doll... These elaborate gifts do not achieve expected results, it is a full of fantasy of Christmas. When the hero "point Lou jack" to point Lou appear in the image screen, we can understand, the color with terror, weird funny and adopt Broadway opera form commercial masterpiece "the nightmare before Christmas" inspiration is come from the experimental short film more than sixty years ago the ancient Lou bone dance.

### **The Era of New Media Art Characteristics of Experimental Animation Short Film**

Because of CG (Computer Graphics Computer Graphics) technology, makes the whole animation art in visual or auditory expression more rich, New Media, New Media era. The development of animation art has never stopped, all countries in the field of animation exploration has also been continuously forward. With the popularity of computer and application, all kinds of art began to develop in the direction of the digital, accompanies the rise of the network, the saved information transmission time, more and more people begin to pay close attention to the creation of the new media art. Experimental animation short film in the context of the new media are in the form of expansion to the without borders, anything or everything can be in the hands of animation artists become creative material. We can from the point of view on the technique of animation, animation image needs to be taken by grid conditions, in this era of creativity constantly emerging, who is to limit the animation to go the traditional route? Today's animation can be painted on the glass, can use the clay sculpture, sculpture, collage, paper cutting, photos, can also directly for food or plants and animals to shoot the vivid characters, this is a no you can't do only you unexpected creative era. The diversity of information technology has created the diversity of art, so in terms of animation art, and also brought a diversified performance. Animation, is not the traditional concept of animation, the traditional focus on experimental animation cartoon exploratory and artistic quality. Now in the

era of new media, under the influence of experimental films this feature is not changed, the experimental animation directors or sticking to the animation art more space exploration and efforts. Different is the new media era, give the experimental animation creative adds a more beautiful scenery on the road, for example: rich and colorful technique of expression extends previous drab animation style; Alternative unique story can bring the audience a psychological shock; A new era of animation art interactive features to enhance the art of communication with the audience.

**The Concept of "New Media".** "Animation besides as an independent art form, more as a part of the new media art, and interaction, music, video, audio, text, film, architecture, environment, media, computer programs, and so on with each other echo, form the new art form of more abundant. [4]," the so-called new media, is a relative concept, compared with the traditional media, in technology, operations, products, services and other business model has quite innovative media platform and institutions. "New media is based on computer information processing and the impact of media forms. [5]" in with the aid of digital and network technology, and then through the Internet, local area network (LAN), wireless communication network channels, such as computer, mobile phones, digital TV media, such as the shape of the dissemination of information to the audience. New media as a communication platform, is playing the important role in animation creative industry chain, the relationship is interactive symbiosis 3.2 experimental animation short film under the new media era of the advent of the era of new media art characteristic, has brought in every field of creative power, the leap in terms of experimental animation short film is to be reckoned with. Create favorable conditions, to a desire for the development of the industry to take power is infinite. New media brought fresh to the whole animation industry support, the flowers bloom in all new media today, as audience we can have more choice, choose more suitable for his way of media communication. Because of the development of science and technology, make something we once thought it was "magic" mystery also gradually revealed, we can all become the magician with magic. The new media in such aspects as information meet the increasing of the spiritual needs of the audience at the same time, also increased the size of audience, the audience group was the key to support new media operation and development.

**The Real Virtual Technology.** In the context of a new media support, animation art got unprecedented development, our life also introduced to the new era of digital 3 d. With all the new the emergence of a variety of media, animation art is also the more splendid performances of age. Virtual digital media technology with a powerful creative force entered the field of animation production, the so-called virtual technology is "on the carrier of virtual reality technology and the design method, with a variety of senses as a platform of people, human rational thinking and artistic inspiration highly integration of a new integrated digital art form." This technology can bring more realistic to the audience "immersive" audio-visual experience, for the experimental animation, technical support is injected into the power. Although not rely on sophisticated technology and experimental animation, but more and more software can improve as experimental animation show more rich audio-visual feast. Support new media technologies to make animation 2 d stereo rise gradually in the world, and present a real 3 d animation world, this is a big stride of video art, although the road is very long, but the technology constantly improve, let the audience a visual feast also continues to be perfect. Animators using the three dimensional animation software to create a virtual three-dimensional space, in the virtual three-dimensional world according to the need to create a realistic animated object parameters of performance model, and the objects to the corresponding color, material, and then through the analog camera and a full range of motion, the final rendering to generate the final dynamic images. Although the traditional animation technology also can reach the level must be realistic, but content animation aesthetic expression conveys much

more than that, it involves the role, scene, composition, Jingbie, camera Angle, light, color, sound and so on various simulation design. Using virtual experimental animation short film countless technique for the creation of a 3 d technology, and for the three dimensional animation creation technology advances, is obvious. France, for instance, original animation short film "Get Out", the full use of 3 d technology to show the French romantic feelings. Film tells the story of a doctor in eight minutes to persuade a patient out of a door, the way the world outside is not as terrible as patients themselves think, the patients themselves want to stay in a beautiful world, and very exclusive to the out his fantasy world of terror. Of course, when the audience see the ending, would have to complained again, for the romance of the French can tell so charming. Two of the world in the film, the switch, complete with 3 d technology, there is only a stereo technique to the author's intention rain drops try to show it. Domestic film " come up with new adventures, story narrative rhythm of the rich are adopted in the whole film in 2 d and 3 d with the means of expression. Fights in the sites need strong visual impact in paragraph the author used the three-dimensional technique of expression, make the dimensional feeling of three-dimensional audiences in brilliant visual effect. If there is no 3 d technology support, I think, as the audience how much we will miss the visual feast! The current mainstream 3 d animation software and support software mainly include MAYA, 3 on3dmax, Softimage XSK be, World Bulid, etc. Under the new era of high technology promotes the changing of CG animation, CG animation (Computer Graphic) here we can understand for experimental animation in the form of Numbers. The wide use of CG animation technology, let the audience get more chance to watch the magnificent scene, motion of fierce fighting scenes and ten-day bad 丶 special effects. In this era of fast rhythm, high needs of CG animation techniques used in improving the efficiency of animation undoubtedly at the same time, also for experimental animation artists' creation provides more space and subject matter. In recent years, with the development of computer hardware, software technology, make of this emerging technology has become the indispensable element in art, film and television animation. Especially generated entirely by computer 3 d animation is more affected by the audience, CG three-dimensional animation art meets the audience to enjoy the beauty of the visual, auditory. From animation field in recent years, film and television listed outstanding works in the field of view, even using CG animation films get praise is in an endless stream, but the CG technology innovation is not only the ascension of the software can achieve, it needs more pitchman in technological innovation and creative idea of perfect fusion between.

**Rich Expressional Form.** Experimental animation short film has always been adhering to the taking refused to the innovation of the common flow line, in addition to the script in the pursuit of novel alternative performance, production technique of rich and experimental films under the new media age presents one of the great features. Experimental animation artists continuously explore on the technique of expression is perfected the art of hand-drawn experimental animation language, generated a lot of style variety of outstanding works. Exploration of both from material performance and the form of painting, its artistic value is of animation art forms and artistic language develops, is the animation artists in the creation of experimental, pioneering, originality, and the continuation of the aesthetic ideas, expand the space for the development of experimental animation. Chinese painting Cun pen type of experimental animation short film "For The Remainder", tells The story of an old cat, is nearing The end of their life course, step on their stable old house, goodbye house, a scene. This animated short is made from 3 d modeling, appearance material use Chinese painting Cun pen type, the animation using the unique visual expression, showed a real Chinese painting style, and into the 3 d technology, although is two-dimensional visual effect but also shows the perfect three-dimensional space. In addition, 2012 online quickly

became animated short "How To MakeFun)), use the technique of shot by lattice, very interesting shows the chalk on the blackboard SIMS with real people fight scenes.

## Experimental Animation Film Widely Used in the New Media

With the rapid development of new media technology, the types of emerging media platform also emerge in endlessly, for example, we know more common network platform, mobile platforms, and interactive television, etc. Previously considered expensive media promotion in today's technology rapid development and types of the increasingly rich media, under the catalysis of civilian and popularization gradually, well-deserved become common advantage of new media. For the new media era of new media experimental animation art, can be understood as the application of advanced technology in animation art, which is the emerging science and technology to express the ideas under the new era of animation art. Now the network has become the main media. Besides, there are also emerging powers, such as: mobile phone platform, film and television platform, and so on. Now new media use of modern methods, such as film, television, video, computer, network broadcasting for the integration of a new means of communication, as a result, new media art and technology are closely linked, the experimental short film in the new media media on the use of a larger audience, the affirmation of the group.

Experimental animation short film in the network media the dissemination and application. Virtual digital world to exist in the real world we brought new audio-visual perception, we also ushered in the visual aesthetic level change slowly. In this revolution, Internet penetration to the rapid growth of its strong CG technology of again and again to leap type development provides an important opportunity. The Internet as a mass of new media in our life plays an important role gradually, it has a fast, timely and interactive, wide spread surface etc, also for experimental animation as the transmission of video works. Therefore, compared with the traditional media, new media, especially the Internet has a distinct advantage for the promotion of experimental animation. If we can make good use of this new type of platform to create and promote experimental animation, as a result will be the traditional media cannot match.

In our country, for example, the China Internet network information center (CNNIC) in the 29 times China Internet network development state statistic report, released some data in the report shows that by the end of December 2011, the number of Chinese Internet users reached 500 million, 513 million, in addition, the size of the home computer access to the Internet broadband Internet users in China to 392 million, detailed data show that the power of the Internet as a mainstream media now status. As the network market continues to expand, the Internet for experimental animation short film and even the entire animation industry provides a more spacious space for communication.

Popular experimental films through the network is not in the minority, there are some short film is popular on the Internet, the good word of mouth by netizens to obtain the bigger market, such as "miss puff" series of animated short film is a classic case. By "China's first video web site," said - youku production of a series of animated short film "miss puff" in April 1, 2010 started in this web site, less than half a year has become a youku so far the largest serial animated short. "Miss puff" series clips to adopt scene to film and three-dimensional scene, two plane animation character of combining the production technique, offer rendering of the new visual feast. Miss puff's goldfish club is youku in November 2010 by "11 degrees youth" series of new media film project launched one of the animated short film works, and the project by the China film group and youku mutual support. Only a week, "miss puff's goldfish rainbow" trailer was viewed more than hundreds of thousands of times, fully demonstrates the miss puff series gained a big following in the net friend

and affirmation is how strong, in addition the air miss puff's goldfish have been viewed over 5 million times.

Experimental animation short film in the mobile phone media analysis of the application characteristics. New media to include new content is the issue of its product platform and distribution channels, and compared with the traditional media is now leading the public's status, to interactivity is an important characteristic of new media and traditional media to winner, as a result, the Internet and mobile platforms, film and television media, and other new media are more demand and favour. "So-called mobile media, that is, to mobile phones as a tool of information acquisition and display, with the spread of satellite communication networks and the Internet as an information channel for information dissemination activities of media." with the development of new media, digital technology, promote the cell phone more popular as a means of media." The handset media is using the tool of mobile information dissemination; With communication technology, the development of computer technology and popularization, the mobile phone is has the communication function of miniature computers, and mobile media is the extension of network media. The popularity of 3 g network, but also for the expansion of mobile phone function provides a solid strength. Data statistics, in 2011 at the end of April, "2011" China mobile Internet industry summit held in chengdu, issued at the meeting in China's first white paper on the mobile Internet industry development, the meeting pointed out, according to statistics, in 2010, the size of the global mobile Internet users reached 865 million, more than 47 million 3 g users in China, and in 2011 is expected to more than 120 million, such high Numbers show that the spread of mobile power has been briskly. Now fast food type, younger life Rhythm, let us demand for mobile phone as a media to spread information more and more intense. In the way of work, work time interval time, and so on, all can take advantage of the time, we can all take out mobile phones, to receive any information, we are interested in entertainment, sports, news, stocks, etc. The characteristics of experimental animation short film short is also accord with the demand of mobile media.

By mobile phone transmission speed is amazing, no doubt, to the spread of experimental animation short film created a great convenience. Because everyone will have a lot of contacts, when he felt a film worth seeing, you can use the mobile phone site, weibo, blog, post bar, such as web pages, in each other between friends recommend, it spread very fast and convenient. It also laid the foundation for rapid spread of experimental films, the audience don't specifically make time to enjoy, but can open a cellular phone, anytime and anywhere to enjoy the latest one of the most popular animated short.

Experimental animated short application characteristics on visual media analysis. Television media and technology development, as there is a close visual art form, "from silent movies to 3D cinema, from optical, chemical equipment to a miniature electronics, digital equipment, film history is the development of scientific and technological development of the experimental animated shorts Want supported by more viewers and this stage would require a higher prevalence of some combination of media, film and television, is a very powerful medium of transmission. With the improvement of people's living standards, and to enhance the aesthetic ideas, more and more People are willing to spend time and money to make a good watch films or TV works. Filmography want to have more innovation to the audience enjoy the experience more visual, using animation techniques in his works, or Join footage is a more common creative approach. technical means to improve animation constantly updated with special effects films have made great progress, it is also fully marked. exploratory and experimental animation. Animation film technique and perfect fusion brought magnificent visual spectacle for the audience, with extraordinary animation techniques enrich the audience's viewing experience. We can watch the real-life dinosaurs millions of years ago

in "Jurassic Park" world, can also be experienced brutal shipwreck "Titanic" sank, you can also visit the beautiful scenery of the "Pandora." effects animation film has become an important part of the visual arts in the 2009 movie "perfect" Join in the film animation clips single line to represent heroine fantasy world, which is also an expression of the good reputation that end the film considerably. experimental animation short films in the movie in the use of advertising, as well as in popular music TV use is also becoming more common, when we pay careful attention to experimental animation, you will find that we do not lack the experimental animation clips around the figure, because today's market demands, experimental animation will hide their traditional characteristics since, more in line with the rhythm of a new era of animation market, but it can not make us ignore the experimental animation valuable artistic value.

Experimental animation short film in the mobile phone media analysis of the application characteristics. New media to include new content is the issue of its product platform and distribution channels, and compared with the traditional media is now leading the public's status, to interactivity is an important characteristic of new media and traditional media to winner, as a result, the Internet and mobile platforms, film and television media, and other new media are more demand and favour. "So-called mobile media, that is, to mobile phones as a tool of information acquisition and display, with the spread of satellite communication networks and the Internet as an information channel for information dissemination activities of media." with the development of new media, digital technology, promote the cell phone more popular as a means of media." The handset media is using the tool of mobile information dissemination; With communication technology, the development of computer technology and popularization, the mobile phone is has the communication function of miniature computers, and mobile media is the extension of network media. The popularity of 3 g network, but also for the expansion of mobile phone function provides a solid strength. Data statistics, in 2011 at the end of April, "2011" China mobile Internet industry summit held in chengdu, issued at the meeting in China's first white paper on the mobile Internet industry development, the meeting pointed out, according to statistics, in 2010, the size of the global mobile Internet users reached 865 million, more than 47 million 3 g users in China, and in 2011 is expected to more than 120 million, such high Numbers show that the spread of mobile power has been briskly.

## References

- [1] Hua Ming. western avant-garde movie history [M]. China film press, 2006, 15-50
- [2] Xue Yanping. non-mainstream animation movie [M]. The communication university of China publishing house, 2007, 25-153
- [3] Kandinsky. the spirit of art [M] China social sciences press, 1911, Strong
- [4] Wu Yiqiang, Hu Zhan. The China pioneer (experiment) animation movement of [J] art observatory, 2009, 2009-02168
- [5] Wang Xiaozhu. The journal of experimental animation art language research [D]. Beijing: tsinghua university, 2008