CGI Ink-Painting Animation in Contemporary China, 1989-2019

By Chen Hailu; translated by Yixing Li

From 1961 to 1988, Chinese animators at the Shanghai Animation Film Studio produced four traditional ink-painting animated films, winning numerous accolades at home and abroad. No new ink-painting animation had been produced since 1989. It was not until 2003 that ink-painting animation resurfaced in China with the production of Summer, a 3D animated short. Over the decades, the world’s animation technology has undergone profound changes. The development of Computer-Generated Imagery (CGI) technology has given new hope to Chinese ink-painting animation production. This essay provides an overview of influential ink-painting animated films from 2000 to date. It analyses three aspects: the advantages of CGI technology, the aesthetics of traditional Chinese ink-painting animation, and the influence of modern and contemporary art on the style and storytelling strategy of traditional Chinese ink-painting animation. Following that, the essay will predict the current trends in Chinese CGI ink-painting animation.

Chinese Ink-Painting Animation and Ink Animation

Currently, there is often some confusion between traditional Chinese ink-painting animation and ink animation. What the two types of animation have in common is that ink is used in the painting process. In Chinese, the two terms are very similar, but they are starkly different in nature. “Chinese ink-painting animation” refers specifically to animated films that adopt the artistic style of traditional Chinese ink painting. “Ink animation,” on the other hand, refers generically to animation made using black ink, which includes many genres and styles and is primarily related to Western traditional ink painting. The two forms, therefore, have their respective roots in Eastern and Western art. Although they share a common medium (ink), a closer examination reveals that the two forms are descended from vastly different sources. Chinese ink-painting animation and Western ink animation present two distinctive film genres, with major differences in artistic styles, film language and cultural significance.

Traditional Chinese ink-painting animation, also known as Chinese classical ink-painting animation, was first developed successfully by the Shanghai Animation Film Studio in 1961 with the film Little Tadpoles Look for Mama. Subsequently, the studio produced The Herd Boy’s Flute (1963), Deer Bell (1983) and Feelings of Mountains and Rivers (1988), testifying to the diversity and maturity of Chinese ink-painting animation (Fig 1). The genre, with its unique cultural and aesthetic qualities, is deemed highly representative of “the Chinese school of animation.”
Ink animation, on the other hand, either uses ink as the primary medium of painting or mixes ink with other media, such as watercolor, fountain pen, oil pastel, etc. The painting technique incorporates sketching, graffiti, illustration, decorative painting and other Western painting methods, displaying the minimalistic and simplistic style that is characteristic of modern art. Ink animation films, most of which follow Western art forms and trends, include Canadian NFB short *Hat* (1999, see Fig 2), Dutch British short *Father and Daughter* (2001), *The Aroma of Tea* (2006), French film *La Jenue Fille Sans Mains* (2016), Japanese film *Last Samurai* (2002), and *The Tale of Radiance* (2013), etc.

**CGI Ink-Painting Animation in China (2000-2019)**

In the 1990s, under the influence of globalization, the development of the Chinese animation industry was greatly impacted by American and Japanese animation. This was mainly due to the demands of corporate transformation (fueled by the economic reformation), which clashed with the mechanism of the existing animation industry. On the other hand, Chinese animation had also welcomed an opportunity for the development of digital technology. CGI animation technology began to flourish, and the technology of graphics processing and production such as 3D Max, Maya and 2D Flash and Photoshopp animation have developed rapidly. This not only promoted the rapid development of China's commercial animation, but also brought hope to the
revival of traditional Chinese ink-painting animation. The original production process faced the disadvantages of high labor cost, low production efficiency, long production cycle, high investment cost, etc., resulting in stoppage and stagnation. With CGI technology, it is possible to continue research and development as well as creative work. Under such circumstances, the studios and enterprises are eager to employ fresh digital technology to pioneer a new generation of ink-painting animation. Apart from that, as the times are changing, the existing ink-painting animation seems stylistically outdated, and animators hope to break through and try their hands at more modernized approaches, such as “new Chinese ink painting” and “contemporary Chinese ink painting.”

1. The Emergence of CGI Technology in China around 2000

CGI animation can be categorized into 3D animation and 2D animation. From the table below, we can see examples of Chinese CGI ink-painting animation in 3D and 2D from 2000 to 2019.

<table>
<thead>
<tr>
<th>Title</th>
<th>Year of Production</th>
<th>Production Technology</th>
<th>Painting Composition</th>
<th>Subject Matter</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Summer”</td>
<td>2003</td>
<td>3D</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Believe in the Power of Brand”</td>
<td>2005</td>
<td>3D</td>
<td>Ink</td>
<td>Contemporary</td>
</tr>
<tr>
<td>&quot;Unique Writing&quot;</td>
<td>2006</td>
<td>2D</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Chicken Wants to Fly”</td>
<td>2008</td>
<td>2D</td>
<td>Contemporary ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Dialogue”</td>
<td>2008</td>
<td>2D</td>
<td>Contemporary ink</td>
<td>Contemporary</td>
</tr>
<tr>
<td>“Harmonious China”</td>
<td>2010</td>
<td>2D (Traditional Production + CGI)</td>
<td>Contemporary ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Drunken Concubine”</td>
<td>2012</td>
<td>2D (Traditional Production + CGI)</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Divergence”</td>
<td>2013</td>
<td>2D</td>
<td>CHN Traditional ink</td>
<td>Contemporary</td>
</tr>
<tr>
<td>“Companions”</td>
<td>2015</td>
<td>2D</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Peach Blossom Fish”</td>
<td>2018</td>
<td>2D</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
<tr>
<td>“Autumn Harvest”</td>
<td>2018</td>
<td>3D</td>
<td>CHN Traditional ink</td>
<td>Traditional</td>
</tr>
</tbody>
</table>
Since 2000, there have been two influential examples of ink-painting animation films: 3D film *Summer* (2003) and the CCTV opening titled *Believe in the Power of Brand* (2005). The former is an independent animated film produced in China, and the other is a short produced by the German 3D technology team for the opening title of CCTV. Both works are in the form of short clips. Although both films employed 3D computer technology, the visual difference between them is very obvious. *Summer* uses traditional Chinese ink painting, with its typical layout, blending technique, white space, ink layering and so on (Fig 3). In addition, the film also incorporates numerous 3D motion shots. Visually, the frequent movement of the camera and three-dimensional panning and zooming have replaced the traditional viewpoint of “one picture for each shot,” thereby bringing innovation to the existing visual habits of ink-painting animation. The serenity and stability of ink painting has turned into vivacity with the motion lens. The intricate elements and laws of traditional ink painting, such as background and foreground, white space, centering, frame and corners, the horizontal and the vertical, clustering and scattering, which are all based on two-dimensional space, have been challenged. We may further notice that traditional ink painting, which aims to establish a certain “artistic conception,” requires the viewer to be relatively fixated at a certain angle. However, in 3D animation, the rapid movement of the camera has transformed the way the audience experiences the “artistic conception.” The viewpoint is forced to be constantly on the move, hence becoming relatively distracted. As such, although the 3D lens attempts to bring the audience’s eyes and mind “into” the picture and let them immerse in it, this advantage turns into a disadvantage instead. The traditional Chinese ink-painting animation before 1988 did not face this problem, as the movement of the 2D lens was quite limited. The “coordinate-style” movement of the lens could effectively reenact the original way of observing ink paintings; it guided our viewpoint from one picture to the next, and preserved the continuity of the story. (Storytelling strategy is another important point that makes up the “artistic conception”; I will expound on this later.) There is no doubt that this method had given full consideration to the traditional appreciation habits and “artistic conception” of Chinese ink paintings.

![Image](https://acas.world/2020/07/24/cgi-ink-painting-animation-in-contemporary-china-1989-2019/)

**Fig 3:** Image formation in 3D ink-painting animation *Summer* (2013)
In 2D ink-painting animation, camera movement is predominantly horizontal (left and right) or vertical (up and down), and sometimes diagonal. That is similar to the camera movement in ordinary films, except that it is not easy to capture a 360-degree panning shot that revolves around an object. Hence, in 2D animation, most of the camera movement is also two-dimensional. In addition, there is a type of camera movement in 2D ink-painting animation that simulates movement in three-dimensional space. This is realized with the technique of layering. For example, the front, middle and back layers move in parallel motion at different speeds, achieving a kind of three-dimensional effect. We can see that the way 2D animation deals with 3D space is rather impressionistic. Hence, 2D ink-painting animation not only conforms to the methodology of ink painting when the camera is fixed, but also takes such methodology into account when the camera moves. As a result, the aesthetics of the film is always coordinated with the viewer’s perspective, and has the advantage of allowing us to observe it in the way we would observe a traditional ink painting.

Believe in the Power of Brand is not traditional Chinese ink-painting animation, but Western ink animation. Its methodology is completely different from Chinese ink painting, which is particular about brush strokes (tick, spot, dye, blend, rub, drag etc.) and the five different ink textures (thick, light, dry, wet and charred). In Believe in the Power of Brand, the ink spreads out like 3D particles (which is a rendering method in 3D animation) as if ink is diffusing in water. Upon first sight, the diffusion of the ink appears to resemble a Chinese ink painting, but it is actually a simulation of ink made by 3D animation.

2. The “Dilemma” of 3D Traditional Ink-Painting Animation

CGI 3D animation is made with Maya, 3D Max, Cinema 4D, Adobe After Effects and so on. Compared to 2D animation, 3D animation has distinctive features in picture layout and advantages in production. The layout of 3D animation is based on 3D space and simulates the objective world. This is in line with the methodology of traditional Western paintings, in which the sense of volume, light and shadow, spatial relations and picture composition are all based on the imitation and representation of the objective world. Traditional Eastern paintings, on the contrary, are starkly different in aesthetics. Eastern art is effective in expressing the world, and relies on the appeal and rhythm of the medium of art (brush and ink), coordinating it with white space. The simple and succinct structure of ink painting does not need to be examined from a scientific perspective. The most outstanding aesthetic trait of this Eastern art lies in the establishment of “artistic conception,” harmony and balance.

From a technological perspective, 3D animation has several advantages compared with 2D animation. Firstly, the camera movement is more flexible, especially with regards to depth; secondly, it is more realistic. However, from an aesthetic perspective, these two features contravene the laws of traditional ink painting. It is said that “resemblance is found amidst differences, and one must transcend the body to portray the spirit.” In
traditional ink painting, artists do not seek to mimic the reality; instead, they attempt to condense the reality and achieve the likeness of the “spirit.” Therefore, ink painting should not conform to realism. The impressionistic style of Chinese ink painting is in contradiction with representation and realism; it pursues the concept of “less is more” and surrealism.

Traditional ink painting is a display of the classical Chinese culture, which is an amalgamation of Confucianism, Buddhism and Taoism. In the spirit of “taking minimal action” (wuwei and buzuo), Chinese artists tend to abandon whatever they can afford to not draw. This is in line with the methodology of harmony between the virtual and the real, the black and the white, the invisible and the visible, the scattered and the dense. It cleverly employs white space to give the picture an opportunity to “breathe.” White space (bubai or liubai) is a technique that helps to build the artistic ambience. It is philosophically similar to the Buddhist meditation method, which emphasizes the existence of the intangible. The real world exists in the void, and not in representation. No external intervention is required; reality is when the spirit returns to itself and achieves vacancy and serenity. This coincides aesthetically with the concept of “less is more” in contemporary Western art. We could say that the conceptualization of “less is more” was indeed a result of Western art absorbing the essence of Eastern art and undergoing a transformation from realism to abstract art, from representation to expression. Therefore, traditional Chinese ink painting is not at all aesthetically outdated; quite on the contrary, it belongs to the realm of avant-garde and trendsetting art. In terms of technology, we could use 3D animation to experiment with ink painting; but in terms of aesthetics, as 3D animation is incompatible with Chinese ink painting in nature, the result appears rather awkward. If the artists insist on reproducing traditional Chinese ink painting with 3D animation, it is likely to result in an incongruous mix. It is as if we are trying to draw a sketch with Chinese brush and ink—it would still look somewhat like Western art.

Let me illustrate my point. In The Herd Boy's Flute (1963), the “aesthetic conception” is very close to traditional Chinese ink painting (Fig 4). From Pose ① to Pose ⑩, the herd boy enters a dream. He falls asleep gradually on the tree branch, and the camera moves backwards slowly; the close-up dissolves into a mid-shot and then into a panorama. The front canopy moves into the picture (see Pose ⑥), the leaves start to fall, and the camera shifts downwards. Two butterflies appear amidst the leaves, and the camera follows their movement, completing the transition. The shot uses layering, the shifting of the front layer and camera movement to simulate 3D space. The entire process uses 36 seconds to set the ambience. In contrast, let us examine a panning shot in Summer (2003) that rotates nearly 300 degrees (Fig 5). From Pose ① to Pose ⑦, as the character enters the picture and the camera pans, we can see the precise setting and character as well as the realistic style. The entire rotation only uses 6 seconds. While this attests to the advantage of 3D animation in production, it also exposes the lack of coordination between rhythm and mood, and the failure to establish the “artistic conception” of Chinese ink painting.
3. Continuity and Challenges of 2D Traditional Chinese Ink-painting Animation

There is no doubt that the constitution of 2D CGI is more suitable for traditional Chinese ink-painting than 3D CGI. On the technical level, its advantages in simulating traditional ink painting are also apparent. 2D CGI technology usually uses software such as Photoshop, Painter, TVP, Flash and Sai. In comparison, 30 years ago, sheets of transparent celluloid were painted with different shades of ink and layered together in traditional Chinese ink-painting animated filmmaking; then, the special effect of the camera was used to simulate the "five colors of ink" in Chinese ink painting. Each frame
was divided into different layers (usually 3-6 layers) by the technician. The more layers there were, the more realistic the ink simulation effect would be. The disadvantage is that excessive overlay of celluloid will result in a dark tone. As the number of layers increased, the production cost and manpower input would be doubled accordingly. In CGI, image processing layering is no longer an issue, and production time and labor costs have been drastically cut. Indeed, image and picture layer processing of 2D CGI is a very ideal technology in this case.

The birth of 2D ink-painting animation was due to technological advancement and the incorporation of traditional Chinese ink painting. Its breakthrough must also lie in one of the two paths above. Since 1988, the Shanghai Animation Film Studio had attempted to make several ink-painting animated shorts, such as *Drunken Consort Yang* (2012), but the technology and subject matter had not been updated.

The development of CGI technology has indeed brought convenience and more possibilities to the industry in terms of production methodology and process. However, ever since *Little Tadpoles Look for Mama* in 1961, ink-painting animation has always stopped at 20-minute experimental or artistic shorts, and the form and style have not advanced beyond such limitations. To date, there has never been a 90-minute theatrical production in the form of ink-painting animation. On a purely technical level, CGI technology already has the capacity to be an alternative for the production of 2D ink-painting animation. However, the attempt of a theatrical ink-painting animated feature film involves many other factors, such as the preparation of creative resources, choices of themes and genres that reflect shared values, commercial influence, etc. We anticipate that the younger generation of animation artists and enterprises will work together to prepare for a new step ahead.

### 4. Collision and Integration with Modern Art

The birth of contemporary ink painting alerts us to the fact that Chinese art is quietly evolving and entering a new phase. Chinese animation, too, has been undergoing drastic change since the 1990s. Globalization has exposed us to a wider array of artistic expressions and methods from animated films around the world. These films generally have their roots in experimental animation (or avant-garde animation), which had originated in 1910 and flourished in the 1960s, displaying the characteristics and unique context of Western modern art.

#### 1) Contemporary Artistic Expressions and Styles

Since 2000, CGI animation has seen the frequent use of 2D graphics processing software to produce painting effects. Notably, apart from the characteristics of traditional Chinese ink painting, some elements of contemporary Chinese ink painting have also surfaced, bringing a refreshing change to ink-painting animation.
Contemporary Chinese ink painting was born at the end of the 20th century. As China opened her doors to the world, artists have been exposed to contemporary Western art such as painting, multi-media art, performance art, installation art and so on. Traditional Chinese painting methods have undergone revolution, including ink painting. Contemporary ink painting is also known as modern ink painting, new literati painting, urban ink painting, experimental ink painting and so on. In fact, the integration of Western and Eastern painting had begun at the start of the 20th century. Artists such as Zhang Yuliang, Liu Haisu, Lin Fengmian and Wu Guanzhong had all studied Chinese painting and also pursued their studies in France, hence combining oil painting with ink painting. The fusion of East and West in their Chinese painting gave them contemporary qualities, intellects and expressions that local artists did not possess. The animated film *Chicken Wants to Fly* (2008) used Wu Guanzhong’s works as a reference. Wu had studied in France and he hoped to express the aesthetics and traditions of Chinese art through the form of Western oil painting. *Dialogue* (2008) had paid respect to the works of Han Yu, who was skilled at painting opera characters. His paintings were simple and unpretentious. Huang Miaozzi had commented about his works, “Han Yu’s paintings are like himself: homely and folksy, yet carrying elegance. They are so down-to-earth that they appear fashionable instead, and give off rich contemporary feels.” Just as Huang has said, Han Yu’s works show no sign of convention and routine. They are minimalistic, humorous, stylish, unique and innovative, full of traditional Chinese aesthetics as well as modern and contemporary qualities. *Harmonious China* (2010), the trailer for World Expo, had borrowed some of the “splash ink and color” technique from the works of Zhang Daqian, the renowned Chinese ink painter. The technique was an important innovation in traditional ink painting. These examples of experimental animation from 2008 to 2012 prove that animation artists were no longer content with the methodology of traditional or classical ink painting, and were seeking breakthroughs in the use of ink and brush.

2) Storytelling Strategy: Modern Non-linear Narration in Contemporary Chinese CGI Ink-painting Animation

Contemporary literature contains numerous storytelling strategies. We may observe that linear narration is predominantly used in commercial and traditional Chinese animation. From the 1940s to the 1990s, Chinese animation had been using the strategy of linear narration in most works. This is because animated films, which were targeted at
children and teenagers, needed to be easily comprehensible and educational. However, as a form of art, animation is not only at the service of children and teenagers. In the West, some animated films are made in the pursuit of pure and avant-garde art. They are normally made by independent artists and showcased in international film festivals and exhibitions. China was relatively new to such animation works. In 1988 and 1992, Shanghai held two international animated film festivals, which were possibly China’s earliest public film activities promoting the cultural exchange of animation works. Subsequently, in the 1990s, independent animation works gradually surfaced in China. Some of these works, which proved to be the best in the world and the earliest in China, featured distinctive animation techniques and diversified storytelling strategies. Apart from the strategy of linear narration that we are already familiar with, they experimented with non-linear narration, multiple story lines, abstract stories and so on. These works granted Chinese artists and audience a refreshing encounter with animation.

While the diversification of storytelling strategies is predominantly inspired by literature, other forms of audio-visual arts have also influenced experimental and contemporary animation. In these works, we can observe the impact of emotions and psychological analysis on creativity, discover a more concrete and vibrant subjective world on the ideological level, and explore themes that have never been discussed previously, such as the subtle evolution of values in the changing times. These transformations have deeply impacted traditional animation and ink-painting animation. Dialogue (2008) connects parts of Han Yu’s works related to Chinese opera using the method of visual association, attempting to deconstruct and reconstruct a story and presenting a comical visual effect. In Convergence (Chen Hailu, 2013), the fight between the two characters leads the audience to explore a deeper structure, a more secluded realm of philosophy in which the symbols of Yin and Yang, black and white, share a dialectical relationship of confrontation and unity (Fig 7).

![Fig 7: Divergence: Peking Opera (left) & experimental animation (right), 2013](image)

**Conclusion**

In conclusion, since 2000, Chinese CGI ink-painting animation has been developing rapidly and updating constantly. Ink-painting animation has been exploring different
means and methods, such as 3D and 2D, new painting styles, multi-media coordination, and thematic breakthrough. The industry is seeking to replace the traditional methodology and discover a new direction that is more valuable and befitting of contemporary aesthetics and beliefs. We are witnessing the modernization of ink-painting animation. Some works are using a new creative mentality to explore the charm of traditional aesthetics, while others are experimenting with new CGI technology.

We should be reminded that Chinese ink painting is not only a medium, but also a condensed cultural symbol and representation of Eastern fine art. Therefore, ink-painting animation has a special cultural connotation and is able to resonate deeply with the audience. During the development of CGI ink-painting animation, artists ought to give more thought to the function of cultural dissemination, and not merely regard ink painting as an external form. Just as Cai Yuanpei has said, “The uniqueness of Chinese painting lies in its impressionistic style and spirit. As such, although we generally respect the classics, the master artists always try to give personality to their works. Therefore, painting is definitely not just a technique, but an expression of the artist’s mind and sophistication. Based solely on technique, a fine piece of art may be said to have an objective value. But if it stops at that, we could criticize it for the lack of personality and thought.”

Creation is a process of deconstruction and reconstruction. We can learn from Western digital technology and the liberal creative methods of experimental animation, and transform these new techniques into our own unique language and methodology, using them to express our own culture and spirit. Having achieved that, Chinese ink-painting animation will be able to attain a true breakthrough and enter a new era.

Bio:

Hailu Chen is Associate Professor of Animation in the School of Design at the East China Normal University, Shanghai. She had worked as a key animator and executive director at the Shanghai Animation Film Studio. Her representative work includes Lotus Lantern (1999), Warrior (2006), and The Magic Aster (2008), which won numerous awards such as Golden Rooster Award, Hundred Flowers Awards, and Huabiao Awards. She also made independent animated films, which won awards at international film festivals.

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1 Chen Hengzhe, eds., Essays on Chinese Culture (Zhongguo Wenhua lunji) (Fuzhou: Fujian jiaoyu chubanshe, 2009), 41-58.