

From Scroll to Screen: The Transformation of Viewing Methods of Chinese Painting in the Digital Context and Its Cultural Impact

Xiaozhu Wu

*School of Art & Design, The Australian National University, Canberra, Australia
U8014615@anu.edu.au*

Abstract. This study focuses on the viewing logic in traditional Chinese painting, particularly how handscroll paintings emphasize an equal weight on “temporality” and “spatiality.” It also explores how digital media have altered these viewing methods and analyzes whether this transformation affects the cultural expression and understanding of Chinese painting. Traditional Chinese painting, especially long handscroll landscapes, emphasizes the coexistence of temporal and spatial dimensions; it excels at providing an immersive viewing experience through the viewing method of “roaming observation,” and uses textual elements to aid in the appreciation and understanding of the content and logic of the imagery. However, in digital media, such as VR installations, immersive videos, and short videos, the viewing pace is often accelerated and the text-image relationship simplified. This tends to cause misreading of the traditional viewing experience and a weakening of cultural connotations. Meanwhile, through literature analysis and case studies—focusing on cases such as *Flying Over A Panorama of Rivers and Mountains* and *Roaming the Fuchun River*—the study reveals the process by which viewing methods shift from “roaming” to “scanning” under the influence of digital media. The results show that although digital media enhances the expressive power of images and broaden their reach, there are issues where the traditional viewing logic is being overlooked. Therefore, this paper suggests that future digital displays should pay greater attention to the design of interactive pacing and the integration of text and image, in order to ensure that traditional aesthetics and cultural connotations are given equal emphasis while exploring better dissemination pathways.

Keywords: Chinese scroll painting, digital media, text-image relationship, VR, viewing logic, cultural communication

1. Introduction

This study examines the changes in the viewing methods of traditional Chinese handscroll paintings in the context of digital media. Traditional scroll paintings, because of their mode of creation and aesthetic criteria, possess both a “temporal” and a “spatial” dimension. Their unique features, such as “shifting scenes with each step” and the juxtaposition of image and text, exemplify a convergence

and fusion of Confucian, Buddhist, and Daoist thought, and reflect the aesthetic tradition and viewing philosophy of traditional Chinese painting. In the era of rapidly developing digital media, this slow-paced viewing method—rich in historical depth and cultural connotations—often faces the risk of misinterpretation or even simplification. Especially in formats such as short videos and VR, the aesthetic characteristics of traditional Chinese painting can potentially be reduced to mere symbols or commodified. Therefore, exploring the transformation of these viewing methods is of great significance for understanding the expressive power of Chinese painting in contemporary times, its capacity for cultural dissemination, and the extent of its integration with technology.

This study centers on the topic of the “transformation of viewing logic,” specifically discussing changes in the viewing pace, text-image system, and mode of interaction of scroll paintings in digital presentations, and analyzing how these changes affect the viewer’s aesthetic experience. In terms of methodology, a combination of literature research and case analysis is adopted. The advantage of this approach is that it allows for detailed, case-specific analysis, addressing the problems and challenges encountered in digital displays.

The ultimate goal of this study is to propose a set of digital viewing logics for traditional Chinese painting, so that under the premise of technological innovation and globalization, Chinese painting can still accurately convey its aesthetic spirit, visual language, and cultural core. To achieve this goal, the paper will discuss the subject from different angles, including viewing methods, text-image system, and characteristics of the medium.

2. Description: viewing methods and visual rhythm of traditional Chinese painting

2.1. Spatial unfolding and temporal progression in the scroll structure

In traditional Chinese painting formats, the scroll—comprised mainly of handscrolls and hanging scrolls—is a particularly important category. For the handscroll, its viewing method is especially immersive, providing an experience that combines a sense of space and time. Especially in landscape paintings, its most typical feature is the idea of “shifting scenes with each step.” Because a handscroll is often several meters long in horizontal format, the viewer must unroll it sequentially from right to left. The viewing speed is determined by how quickly the viewer unrolls the scroll. At the same time, the viewer cannot take in the entire painting at once; rather, as the scroll is gradually unfurled, the viewer explores the content step by step, progressively entering the world depicted by the scroll through this act of “walking” along it. This process of watching while unrolling reflects a linear and dynamic viewing trajectory. As Li Ying has noted, during the viewing process the observer simultaneously senses the passage of time and the unfolding of the painting’s narrative; and as the viewer unrolls and then rolls up the scroll, the completeness and narrativity of the image reach a state of highly refined unity [1].

2.2. Juxtaposition of image and text and “reading-style” viewing

In the traditional Chinese painting system, embedding text is essential. Text not only serves as a supplement to the pictorial content and an ornament in areas of blank space, but also functions as an explanatory complement to the narrative of the image. As Xue Ziyun pointed out, the text that appears in a handscroll helps to anchor the composition through its layout, aiding the viewer in understanding the picture’s structure and in “partitioning” the scenes. It also establishes the relationships between characters, the time and place of events, and the narrative content, acting as a supplement and cue to the painted imagery [2].

With regard to embedded textual content, the components are generally divided into items such as colophons (inscriptions), introductory panels, poetic inscriptions, and seals. In handscroll paintings, images and text are presented side by side, together forming a viewing path of “reading–viewing” from both visual and textual directions. While viewing the images, the viewer must simultaneously read the accompanying text. This allows the viewer to understand the background of the depicted scene, the narrative structure of the picture, and even to empathize with the painter’s creative state of mind, thereby appreciating the feelings and intentions the painter has imbued in the work. Furthermore, the viewer can fully exercise their own subjective initiative, imparting new emotional experiences to the image through their personal interpretation.

This viewing method has distinct cultural characteristics. Due to differences in historical development and cultural background, the way images are presented in handscrolls differs from the “visuality” of Western painting that emphasizes purely visual expression. Instead, equal emphasis is placed on text and image, stressing narrative record, lyrical expression of sentiments, and an intertextual relationship between literary content and imagery. The viewer is not a passive bystander, but alternates between “viewing” and “reading,” becoming a co-constructor of the scroll’s imagery. Wang Jiayi pointed out that a handscroll painting is composed of several parts: the tiantou (front blank section), the yinshou (introductory title panel), the main painting (huaxin), the inscriptions (tiba), and the tuowei (trailing end section). This structure guides the viewer to interact with both image and text using both hands and eyes, thereby becoming immersed in the scene and maintaining a balance between autonomous viewing and narrative progression [3]. In addition, as the painting is passed down through time, the poems and colophons in the piece continually accumulate — different viewers, each with their own understanding of the work, add to and further refine the painting’s narrative structure. This has become a unique cultural phenomenon.

2.3. Viewing pace and the embedding of cultural experience

The viewing method of traditional Chinese painting is not merely a visual behavior, but a cultural activity that carries cultural continuity and aesthetic mentality. Especially in the context of viewing a handscroll, the viewer is often not standing at a distance; instead, they burn incense and prepare tea, sit in a quiet room, and use both hands to unroll the scroll and appreciate it section by section, with the unrolling speed determining the viewing speed. This viewing rhythm is generally slow. It is slow not only in terms of the time taken, but also in the mental state of “quiet observation” and introspective contemplation. In this process, the viewer fully engages their own cultural cultivation and aesthetic sensibilities, using touch, sight, and cultural intuition to grasp the artistic meaning and interest of the imagery.

The cultural origin of this leisurely viewing pace lies in the combined influence of the three teachings of Confucianism, Daoism, and Buddhism in ancient China. Confucianism’s introspective ethos of “cultivating oneself and harmonizing the family,” Daoism’s idea of “emptiness and tranquil non-action,” and Buddhism’s practice of meditative observation and attainment all shaped, to some extent, the culture of viewing handscrolls. These philosophies influenced the viewing culture of the handscroll, making it an elegant activity through which ancient literati cultivated themselves and refined their sentiments. A handscroll is not only an object for artistic appreciation, but also a text to be studied and pondered.

3. Description: viewing methods and visual rhythm of traditional Chinese painting

3.1. Screenification of scrolls: from “roaming” to “scanning”

In traditional Chinese scroll painting, works such as *Dwelling in the Fuchun Mountains* and *A Panorama of Rivers and Mountains* predominantly employ a “roaming” mode of viewing, reflecting a viewing logic that gives equal importance to time and space. Under the horizontal composition of the scroll format, the viewer completes the act of viewing by unrolling the scroll by hand, thereby visually achieving something akin to “shifting scenes with each step.” However, this pace of viewing—approximating a “roam”—still maintains a certain distance from a true physical roam, since the viewer does not actually move. Today’s digital media, however, can achieve a scenario in which the viewer truly “roams.” For example, in 2018 at the Fantawild theme park in Zhengzhou, China, a dome flying theater attraction called *Flying Over A Panorama of Rivers and Mountains* was launched, themed around a famous traditional painting. Using 3D digital replication technology, it allows viewers to enjoy the entirety of *A Panorama of Rivers and Mountains* on a giant spherical screen through a simulated flying perspective. The viewer no longer controls the pace of viewing; instead, they are swiftly taken along a preset path, transforming the slow “roam” into a rapid “scan.” The resulting passivity of this viewing behavior exemplifies an “illusion of interactivity”: although viewers can engage with the imagery from different angles and at varying speeds, the entire process is controlled by the system of the theme park, and the viewer cannot govern the viewing rhythm. To a certain extent, this also suppresses the viewer’s capacity for independent thought and personal contemplation.

Furthermore, this change from “roaming” to “scanning” alters the cultural nature of the viewing experience. Li Xinduo and Jiang Yang have suggested that traditional “roaming viewing” is not only a form of artistic appreciation, but also a way for people in ancient times to cultivate the mind and attain understanding — a means by which the ancients learned about landscapes and the world, reflecting a close connection between the visual and the spiritual [4]. In digital media, however, the act of viewing a painting has shifted from the tranquility of a studio to the environment of an amusement park, and the viewing pace is guided by a system and accompanied by audiovisual stimuli. The viewing process becomes increasingly formulaic and programmed, causing the body-driven rhythm of viewing to yield to a consumerist logic of visual stimulation. Therefore, in combining Chinese painting with digital media, one should consider the coexistence of different viewing paces, and endeavor to preserve and respect the traditional viewing rhythm and cultural connotations of Chinese painting as much as possible.

3.2. Disconnection between image and text

In traditional Chinese painting, text and image are inextricably linked. In long landscape handscrolls, textual elements such as colophons, inscriptions, and seals each carry their own significance. They not only complement the imagery and provide background information, but also serve as a bridge for viewers to express their personal views and communicate with the painting. By both reading and viewing, the viewer completes the act of appreciating and understanding the artwork. However, in the current digital progression of Chinese painting, the status of text is often diminished or overlooked.

For example, in the VR installation *Roaming the Fuchun River*, the National Palace Museum in Taipei used the Wuyongshi scroll of *Dwelling in the Fuchun Mountains* as its basis, allowing the audience to enter the painting through an immersive perspective. This integration enables viewers to

break through the original boundaries of the handscroll and, to the greatest extent, physically immerse themselves in the painting, experiencing the delight of roaming through the landscape. At the same time, however, while the visuals are presented in full, the painting's colophons, poetic inscriptions, and seals are simplified or ignored. O'Halloran, in research on multimodal communication, points out that the relationships among different symbol systems form the foundation of meaning-making. When text and image are unable to co-occur complementarily, viewers may fall into misreadings and a narrowing of understanding [5]. In the context of traditional Chinese painting, colophons are not only explanations of the image content but also embody the viewer's own understanding and reflection. Weakening the linguistic information in effect weakens the viewer's connection to the cultural heritage of Chinese painting. In a study of handscrolls in Chinese painting, Sun Yujie noted that each component of a handscroll possesses a distinct texture and aesthetic appeal, and each provides a different viewing experience [6].

Therefore, text and image should be given equal weight in the digitization of traditional Chinese painting. The neglect of textual information is both a practical issue arising from the affordances of the medium, and a neglect of the traditional viewing experience of Chinese painting.

4. Significance of digital transformation for the dissemination and understanding of Chinese painting

4.1. Impact of changes in viewing methods on image understanding

In traditional landscape painting, viewing is an immersive process that places equal emphasis on “roaming” and “dwelling.” Unlike the linear perspective commonly seen in Western painting, Chinese painting often employs “scattered perspective” and the “three-distances method” to construct the temporal and spatial relationships in the scene. As Wang Jiayi pointed out, a handscroll painting is composed of multiple scenes from different times and spaces, and through the arrangement of specific figures and scenery, the entire scroll is linked together—giving the handscroll a dynamic pictorial structure with a storytelling quality [7].

Guo Xi, in his treatise *Linquan Gaozhi* (“Lofty Message of Forests and Springs”), proposed the famous “three distances” method — high distance, level distance, and deep distance. This theory laid the theoretical foundation for the spatial construction of subsequent landscape paintings. As Guo Jiaqi noted, in the painting *Early Spring*, Guo Xi used the placement of multiple vantage points to break the spatiotemporal limitations of a single scene. By controlling the vertical height, depth, and horizontal expanse of the composition, he imparted a panoramic sense to the image, making the viewer feel as if they are personally in the scene, experiencing the change of seasons and the flow of time [8].

By contrast, Western painting has long been dominated by linear perspective, which ensures the faithful reproduction of a momentary visual scene. This visual logic emphasizes a unified viewpoint and spatial depth, but it restricts the viewer's ability to change perspective freely. Therefore, when Chinese painting is presented in short videos or on screens, its panoramic sense and intrinsic “roaming” viewing logic tend to be weakened. For example, in digital exhibitions, traditional handscrolls are often split into several image segments; this mode of presentation undermines the handscroll's traditional viewing logic, leading Chinese painting to be regarded more as a decorative style rich in Eastern imagery rather than as a viewing philosophy with cultural depth. Scholar Ho once pointed out that after modern Chinese painting entered the global art market, it was often misinterpreted as a visual symbol of “Oriental charm,” with its philosophical and cultural imagery seldom mentioned [9]. At the same time, some scholars have noted that the application of new

media technology in the dissemination of Chinese painting has led to certain drawbacks: for instance, digital technology may fail to convey a work's "authenticity" and the artistic qualities of the original piece, and viewers in front of screens are unable to engage in deep contemplation and appreciation. These issues illustrate that there is still a need for adjustment and improvement in the interplay between digital media technology and the dissemination of Chinese painting [10].

In light of these problems, practitioners of digital media need to reconsider how to balance the cultural connotations and traditional viewing logic of Chinese painting. They must seek ways to help viewers better interpret the visual information while also allowing them to grasp the aesthetic spirit of the work through an immersive experience.

4.2. Digital display and the contemporary expression of Chinese painting

In today's rapid development of digital media, the dissemination of Chinese painting has begun to fuse with new technologies such as VR, AR, and AI. Digital installations can, to some extent, inspire new viewing methods for Chinese painting and expand the expressive potential of images. Therefore, it is crucial to employ these technologies appropriately. Mingyong Cheng, who has conducted extensive research on integrating current digital media technologies with traditional Chinese painting, pointed out that a VR project like *Roaming the Fuchun River* effectively uses digital technology to render the painting's scattered perspective in real time, and, by incorporating eye-tracking technology, gives the viewer a high degree of freedom in viewing. Each viewer can have their own visual angle and trajectory, which aligns well with the traditional "roaming" viewing logic.

Digital media, while offering more possibilities for expression, have also enriched the viewing experience that paintings provide to the audience. An important step forward is to better exploit the advantages of digital media in conjunction with the traditional logic and cultural connotations of viewing paintings. Existing relevant cases each have their pros and cons. The key issue is whether practitioners can move beyond surface-level reproductions of the artwork and not merely replicate the visual information. Instead, they should strive to integrate textual information with pictorial logic, adhering to the cultural mechanism of "roaming viewing," so that Chinese paintings can continue to convey their aesthetic ideas and philosophical connotations in a digital context.

5. Conclusion

This paper has examined how the viewing methods of traditional Chinese scroll paintings change under different digital media technologies, and the cultural impact of those changes. From scroll to screen, the ways of viewing Chinese paintings, the places they are displayed, and their aesthetic expressions have all undergone transformations. Digital media, while expanding sensory experience, have inevitably changed the original viewing logic of the handscroll, and this has affected the cultural connotations embodied in these works and their modes of interaction with viewers.

However, these changes have also brought new vitality and possibilities to the ancient art of Chinese painting. Through immersive experiences, interactive design, and other new technological means, the narrative tension and aesthetic value of Chinese painting are equally amplified. Only by finding a balance between new technologies and the traditional viewing logic and cultural connotations, and by developing modes of dissemination better suited to the handscroll's inherent logic and aesthetic expression, can traditional art achieve better development and continuity in a contemporary context.

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