

# Warnings Against Image Traps in the Internet Era: Current Research on Art Appreciation and Its Problems

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**Abstract:** Art appreciation research has been given a new meaning in the Internet era. Network communication makes art images more accessible, makes art trading channels more open, and makes the art market appear as an image trap where it is difficult to distinguish the real from the fake. Tracing back to the root of the problem, the discussion of "authenticity" and "fakes" cannot be avoided from a creative point of view, and creators, communicators and audiences or consumers, as the active factors in the communication process, can be matched with three categories of factors, namely, culture, technology and literacy, respectively, to attribute the image traps. The following are some of the factors that can be matched in the attribution of image traps.

**Key words:** fakes, image traps, art appreciation, aesthetic value, web communication

## 1. Introduction

Chinese art works are different from the West, when you get a pair of ancient art works, it is difficult to be able to see at a glance the dynasty or school, writers love a certain dynasty, a certain master and have to follow is a reason, for example, Chinese calligraphy and painting in addition to the excavated gold, the size of the seal script, the official script, cursive, regular script and running script in the history of the presentation of the appearance of the clear, other pictures in the catalogue have to be carefully viewed in the explanation of their illustrations, otherwise, no knowledge of the style of the author, the context of the era.<sup>1</sup> For professional connoisseurs, a greater part of the reason is that the scarcity of genuine works of art before the Ming and Qing dynasties, and the price in the auction market increases with the age of the work, leading to the emergence of forgeries, humitations of genuine works of art are endless, and professional connoisseurs can not judge, but ordinary people are even more "blind men feeling the elephant", which makes the appreciation of works of art more difficult.

The examination of ancient works of art mainly relies on "visual inspection" and "examination", observing the similarities and differences, so as to identify; the latter needs to look up the cultural background, biography, poetry and fugue and other literature to identify which writer the work is from. Relatively speaking, this way of appreciation is more professional, need to spend more time, and the connoisseur is generally from the team of experts, the ordinary connoisseur is too demanding, for the collection of enthusiasts or ordinary connoisseur group, from the author of the work and the collector of the inscription, seal, inscription, calligraphy

and painting framing materials, as well as their own knowledge of the master of pen and ink to certify that this piece of work is authentic is a more common way<sup>2</sup>.

However, the Internet era has reconfigured people's appreciation of works of art, on the one hand, access to more diversified channels of pictures, some enthusiasts can even get pictures of genuine works on the network after printing for tracing and learning, on the other hand, although people in the access to pictures has brought great convenience, but also in the authenticity of the process of identifying the difficulty of the emergence of the phenomenon of forgeries as the authentic and widely circulated.

Therefore, the dilemma of art appreciation in the Internet era mainly lies in the fact that it is easy to step into the image trap, which brings dilemmas to art criticism and the aesthetics of the original works, so why is there an image trap? Why is there an image trap? What are the disadvantages of the image trap? The following will be analyzed from three aspects: cultural factors, technical factors and literacy factors.

## **2. Cultural Factors**

Discussions on the method of art appreciation never stop in the academic world. In addition to combing the literature at the historical level, it is more important to face the works and judge the works in terms of style and technique. From the viewpoint of cultural factors, there are several reasons for the emergence of image traps.

### **2.1. The network art appreciation elements are not complete**

The difficulty of appraising works of art directly requires not only that the appraiser has a deep knowledge of culture and history, but also that he or she has a certain degree of practical experience in the creation or appreciation of collections. When faced with a number of lack of excavation evidence of ceramics, bronzes, ancient silk and other works of art, according to the artifacts themselves, deduce its function, structure, form, technology and style of evolution, to find out the artifacts with each other before and after the relationship between the series of persuasive arrangement, is the identification of the necessary process. When confronted with paintings and calligraphic works, the style of the era is presented in the style, structure, form, and even the composition of the ink and brush, which are all four items in the dimension of time will show obvious and interrelated evolution.

For example, in the identification of porcelain, the need to make judgments on the size and structure of the porcelain, to analyze the craftsmanship behind the decoration, and even to match the style of the kiln, and the higher requirement is to rely on the information conveyed by the visual, in order to identify the authenticity of the basis but also to examine the real and imaginary mood. In such requirements, the Internet image identification becomes difficult.

### **2.2. Diversity brings aesthetic differences**

Purely from the point of view of aesthetic value, the art of authenticity and forgery at the same time for the appreciation, it is impossible to determine a work of art is authentic or forgery, Beardsley believes that the authenticity and forgery in the aesthetic point of view should not be treated differently, "in the explanation of those who are better than another painting, or a work

of art is better than the other, logically, we can put it is the authenticity of the forgery or this point included?" He believed that the external formal and structural characteristics of a work of art were the only factors in aesthetic judgment, whereas Goodman believed that there must be an aesthetic difference between a forgery and an authentic work of art, a difference that could not be perceived by the senses alone.<sup>3,4</sup> Since aesthetics belongs to a subjective judgment spontaneously generated by human beings, it changes with the times. For example, during the Tang Dynasty in ancient China, the public aesthetics took obesity as the beauty, but only a few hundred years after that, during the Song Dynasty, the public aesthetics had already shifted to take thinness as the beauty. For example, in recent years, many artworks of cultural and creative products of museums have appeared with the selling point of "ugly and cute" and "dumb", not only the Qianlong with scissor hands, but also the animated version of the Horse Treading Flying Swallows (Figure 1), but also a lot of artworks in the form of emoticon packets for the public to know. and many works of art are familiar to the public in the form of emoji packages.



Fig. 1. Gansu Museum "Horse Treading Flying Swallow" Objects and Cultural and Creative Products

To a deeper extent, although there is a tendency to diversify aesthetic differences, the literary attainments, creative background, and historical research value of the era in which the authentic artworks were created cannot change with the times.

Moreover, the appearance of identical forgeries and authentic works have the same aesthetic characteristics, but their aesthetic value may still be very different, because once the value judgment is involved, it is inevitable to assess the intrinsic attributes of the artwork, so the aesthetic value can not be based on the intuitive feeling of the artwork to judge.

### **2.3. Recognition of forgeries by the art system**

From the point of view of painting and calligraphy works, fake painting and calligraphy common way of counterfeiting, mainly by copying the original, no manuscript counterfeiting, modification and replacement of seals and models.

In today's art system, more and more connoisseurs give certain recognition to forgeries and paintings, believing that there is a certain value in the process of copying the original or imitating it, just as many art museums exhibit a number of copies of calligraphy masterpieces for people to enjoy and feel the flow of the brushwork in the art museum.<sup>5</sup> For example, the Jin Dynasty

Wang Xizhi's "Lanting Preface" authentic, the world for a long time, Zhenguan years, Emperor Li Shimin had ordered the Hongwen Museum topiary people such as Feng Chengsu hooks copied a number of books, the more famous copy of Yu Shinan this, Suiliang (Mi Fu poetry) this, Feng Chengsu this, known as the Liugongquan this, Qing Dynasty Inner Household Gouxian "play Hongtang" engraved Liu Gongquan "Lanting Poem", Dong Qichang Lin Liu Gongquan "Lanting Poem", Qing Dynasty Gaozong Hongli Lin Dong Qichang Lin Liu Gongquan "Lanting Poem", etc. calligraphy of successive generations of Wang Xizhi's copy, also has the cultural value and aesthetic value. Another example is Yue Fei's cursive "before and after the division table", "full river red", etc., which is honored by the art world as a divine product, but not by Yue Fei, but by a calligrapher of the Ming Dynasty who imitated it under his own name, and the ornamental nature of the copying of Yue Fei's cursive script by the contemporary calligrapher Hu Weiping is also recognized in the industry as shown in Fig. 2 <sup>6</sup>.



Fig. 2. Cursive Script by Contemporary Calligrapher Hu Weiping (left), Tablet of "Man Jiang Hong" (right)

### 3. Technical Factors

#### 3.1. High barriers to professional identification

The development of science and technology so that the identification of works of art more and more fine, such as infrared spectroscopy, X-ray fluorescence, Raman spectroscopy and other analytical techniques can be rapid, in situ, non-destructive detection of precious paintings and calligraphy, but the existence of cultural relics technology appraisal of the threshold of the high, long cycle, high cost and other barriers to identification of painting and calligraphy is even more difficult to identify the current identification of painting and calligraphy is generally used in the digital photographic analysis methods, usually by professionals to identify the shooting of high-quality images. High-quality images, but the calligraphy and painting, especially the ancient calligraphy and painting of ink, paper and mud used from ancient times, and the current generation in the composition is different, so even with the help of scientific and technological means is also very difficult to identify the authenticity of some of the ancient calligraphy and painting.

Moreover, in the scientific identification of painting and calligraphy, microscope has become an important tool for the identification of painting and calligraphy, such as the latest 3R company and painting and calligraphy identification unit jointly developed Anyty [Anyty] painting and calligraphy microscopic identifier 3R-MSA600, painting and calligraphy science and technology identification of special auxiliary tools. And there are conditions of ancient painting and calligraphy works with the help of infrared spectroscopy, gas chromatography, scanning electron microscopy and synchrotron radiation micro-CT and other modern means, the above identification methods are costly, not very suitable for general connoisseurs to identify.

On the one hand, the identification methods of painting and calligraphy are endless, but for the identification of works of art standards are different, resulting in identification of different ways, the process is complex, on the other hand, the high cost of identification so that many ordinary amateur connoisseurs deterred, which makes some works of art on the shelf and can not identify the authenticity.

### 3.2. AI synthetic painting and calligraphy is not easy to identify

Compared to porcelain, silk and other works of art digitization, painting and calligraphy and other works of art in the image processing has a unique advantage, digital calligraphy will be able to create traditional calligraphy tools, visual art effects, writing skills and calligraphy creation with the digital way to reproduce<sup>7</sup>.

In the research history of digital calligraphy, Wang et al. from Jilin University proposed a computerized Chinese calligraphy system CCC in 1986, and in the same year, Strassmann from Massachusetts Institute of Technology (MIT) proposed the first virtual brush model. Subsequently, a variety of virtual brush and ink-paper interaction simulation models have appeared in China and abroad, which can be roughly categorized into two types according to their modeling principles: empirical models and physical models. The empirical model actually ignores the physical mechanism of the pen, paper and ink in the actual writing process, and focuses on simulating the visual effect of the pen and ink on the paper in the process of calligraphy creation, such as simulating the brush in the actual writing process, the amount of ink contained in the pen and the visual effect of the calligraphic texture, as well as the "lifting, pressing, line, stay, stay, and so on, the pen movement and the changes brought about by the brush. changes. The physical model, on the other hand, focuses on the simulation of the physical process and state of the interaction between the brush and the ink-paper, and expresses the deformation of the brush during the writing process<sup>8</sup>. (Figure 3)



Fig. 3. Artistic Microblast Reproduction of Zhou Enlai's Calligraphy Works

In recent years, the rapid development of deep learning and other cutting-edge artificial intelligence technologies has achieved good results in the computer synthesis of paintings, such as image style migration, through convolutional neural networks to find the semantic correspondence between images, so as to achieve the migration of image lighting, color, texture and painting style and art image synthesis. Compared with painting, the combination of calligraphy and deep learning methods is more challenging. For the synthesis of calligraphy glyphs, if there is a slight error in the shape, spatial position, and spatial relationship between strokes, it is easy for the viewer to detect; while for paintings synthesized based on deep learning, such as the synthesis of Van Gogh's works, the viewer is not easy to detect the local features even if the synthesis effect is not ideal.

### 3.3. Network dissemination leads to the confusion of authenticity

Network communication has brought convenience to the image dissemination of artworks, which can help more people to understand the works of calligraphy and painting, and enhance the aesthetic quality of art, but similarly, the authenticity of the dissemination channels at the same time also give the forgeries or fakes to open up the market, the fake is easy to be passed into the real, but the real is not easy to be recognized, to the appreciation of artworks increased difficulties.

Internet online art auction platforms are varied, in addition to Alibaba, Jingdong and other large e-commerce auction platforms, there will be many niche platforms, consumers rely on images to identify auction items, and online transactions, this model brings a lot of room for manoeuvre. Many auction houses will take advantage of the "famous" reputation for publicity, such as Qi Baishi paintings, part of Qi Baishi's death by his family donated to the Beijing Academy of Painting, now become the Beijing Academy of Painting's collection, there are a number of dispersed in such as the National Art Museum of China, the Liaoning Provincial Museum of art museums, museums and other major domestic art museums, the flow of the private sector, but only a few thousand pieces. Thousands of pieces, but since the establishment of the domestic auction market in the past 20 years, has been on the auction of tens of thousands of pieces, under the name of "qi baishi" most of a variety of high school and low imitation of the fakes and imposters, due to qi baishi's strong market appeal, many auction companies, regardless of whether there is no authenticity, have to come up with a number of auctions, which ultimately led to a large number of forgeries flowing into the market. A large number of forgeries flowing into the market, as shown in Figure 4.



Fig. 4. Forgeries of Qi Baishi's painting Rabbit

#### **4. The factor of quality**

Logically, forgeries can be categorized into "photographic" copies and "reconstructed" forgeries, the former refers to one-to-one restoration of the original work, while the latter is a forgery of the same style based on the style of the original work. Both kinds of forgeries are able to flow in the market in the form of images at the lowest cost, which naturally makes the appreciation of artworks more difficult.

The emergence of a large number of forgeries is also attributed to the market demand, people in particular, the works of the masters of ancient and modern times and at home and abroad are equally favored, while the number of authentic works is limited, the value of the unlimited, the ordinary audience in their own economic affordability, naturally the pursuit of forgeries or counterfeits, the development of e-commerce platforms in the Internet era drove a number of celebrities and paintings began to industrialized means of bulk sales, Over time, for the average person, distinguishing between authentic paintings and forgeries has become less important, and the decorative value of some art forgeries exceeds their artistic value.

On the other hand, most of the domestic appraisal team from public organizations, serving third-party personnel are more collectibles business of individual business people, the market really do appraisal of professionals mixed, business professionalism is unattainable, the appraisal level is uneven, and many of the pictures of the forgeries spread on the network without a gatekeeper mechanism, which is paid for most of the ordinary consumer groups.

But for art appreciation, as long as it is recognized as a forgery, there must be an authentic counterpart, which is an important prerequisite for originality and creativity not to be regarded as identical.

#### **5. Conclusion**

This paper answers the possible pitfalls of art as image, including the uneven elements of online art appreciation, the aesthetic differences brought about by diversity, and the cultural factors of the art system's recognition of fakes, the barriers to professional authentication methods, the lack of easy identification of synthetic paintings and calligraphy by artificial intelligence, and the technological factors of the confusion of authenticity brought about by online dissemination, as well as the industrial production of fakes under the influence of market-oriented demands, and the professional appraisal team's The quality of the professional appraisal team is mixed.

Although the Internet era can use some technological means to identify the authenticity, but there will be many drawbacks, like some paintings and calligraphy, if there is no sufficient amount of data and large models of support, it is difficult to identify some of the heirloom relics that have just been unearthed, and the Internet era of art image traps sometimes make the authenticity of the authenticity and forgery of the identification of the artwork has become less important, and will partially impact on the popularization of the general public in the appreciation of the artwork of cultural and historical understanding.

Therefore, in the face of image traps, now not only to help the public to improve aesthetics, so that practitioners through the study of masterpieces to enhance the level of professionalism, but also in the auction market as far as possible to ensure that the collectors buy genuine works of

art do not spend money, and to encourage historians to study the value of works of art to improve the identification of genuine works of art of the business level.

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