

The Symbiotic Evolution of Technological Media and Impressionist “Transient” Painting

Yang Liu

Shenzhen Nanshan Foreign Language School (Group) Gaoxin Middle School, Shenzhen, Guangdong 518063, China

Abstract: Artificial intelligence-generated art and impressionist painting form a dialogue across time and space in the aesthetic dimension of ‘transience’, revealing the symbiotic evolution of technological media and artistic cognition. This paper takes ‘the symbiosis of light and colour and algorithm’ as the starting point, and compares the light and colour experiments of Monet’s ‘A Thousand Haystacks’ series, Degas’s dynamic slicing compositions, and other art cases, to explore how the technological medium can continue to transform the Impressionists’ interpretation logic of “instantaneous perception” with the mechanism of data parsing and parameter restructuring. The exhibition will explore how the technological medium can continue and transform Impressionism’s interpretative logic of ‘instantaneous perception’ through the mechanism of data analysis and parameter restructuring.

Keywords: Impressionism; Transience; Artistic evolution

1. From classical stasis to dynamic capture

In France in the second half of the 19th century, the process of industrialisation accelerated the disintegration of the social structure, and the field of art also underwent a transformation driven by scientific and positivist thinking. Impressionism, as an important starting point of modern art, the core of its visual revolution lies in the subversion of classical painting’s ‘static gaze’ with ‘dynamic capture’, a change rooted in the historical context of technological innovation, but also stems from the artist’s understanding of the ‘transience’. This change was not only rooted in technical innovation in the historical context, but also originated from the artists’ conscious exploration of the aesthetics of “transience”.

Impressionist painters abandoned the grandiose themes of religion, history and mythology that the Academics promoted, and instead focused on the momentary fragments of modern urban life and natural landscapes. Monet’s ‘Aljeantey Bridge’ takes the industrial landscape along the Seine River as its object, juxtaposing steamships, iron bridges and shimmering water, showing the ‘moment of modernity’ in which industrial civilisation and nature mingle. This choice of subject matter is not only a rebellion against the academy’s hierarchy, but also marks the return of art from ‘divine narrative’ to ‘human perception’. Therefore, the secular landscape of Impressionism is the dispelling of religion and myth, and its essence is the awakening of the aesthetic consciousness of the bourgeois civil society as a whole.



Fig 1. Seurat, Sunday Afternoon on the Island of the Great Bowl, oil on canvas 207cm x 308cm 1886,
Museum of the Art Institute of Chicago Collection

Impressionist painters made use of the theory of physical optics to reconstruct the visual reality with complementary colours and quick strokes. Seurat’s Sunday Afternoon on the Island of the Great Bowl (Figure 1) breaks down the colours into the primary colours of the spectrum through the pointillist technique, allowing the viewer to complete the mixing of the colours in the retina, thus realizing the ‘instantane-

ous solidification of light'. Monet's way of creation is even more typical: he carries several canvases and paints the same scene for only ten minutes a day at a fixed time, recording the continuous variation of light and colour in time through series of creations. This 'instantaneous-serial' mode subverted the pursuit of timelessness in classical painting and shifted painting from static modelling to the experimental field of dynamic perception. The perspectival modelling and anatomical structure followed by the academics faced disintegration under Impressionism. Degas's *Dance Lesson* presents the occasional dynamics of the dancers in a tilted composition with an intercepted perspective, and the edges of the image are deliberately cut, suggesting a photographic observation of a momentary capture. Manet's *Lunch on the Grass*, on the other hand, defies the spatial order since the Renaissance by dissolving the depth of field through planar processing, making the figures and the background into colourful patches. 'Incomplete composition' is not only a rebellion against traditional aesthetics, but also a metaphor for the fragmented visual experience of modern people - as philosopher Benjamin said, the "accidental glimpse" of impressionism is the very essence of the sensory experience of urbanisation. As philosopher Benjamin said, the 'accidental glimpses' of Impressionism are the aesthetic projection of sensory overload in the process of urbanisation.

2. Systematic recording of light and colour transients

Monet's *Haystacks* series is a masterpiece of Impressionism's 'transience' aesthetics, which is not only a deepening of the visual revolution of 'dynamic capture' mentioned above, but also the ultimate practice of Impressionism's scientific creation methodology. This series of works uses ordinary objects as carriers, and through systematic and continuous creation, time scale is introduced into the practice of painting, completely reconstructing the relationship between art science and natural science.

In France at the end of the 19th century, the expansion of the railway network and the popularity of portable painting tools allowed artists to break through the confines of the studio and go deep into nature for continuous observation. Monet set up a mobile easel in the fields of Giverny, and recorded the same group of haystacks 24 hours a day in the 'assembly line' mode characteristic of the industrial era. This way of creation has a hidden echo of the standardised production in factories at the time - each painting is both an independent 'sample of the moment' and a 'part of time' in the overall sequence. Art historian David Joslett has commented: 'Monet's haystacks are not isolated landscapes, but a chronicle of visual experience in the age of industrialisation'.

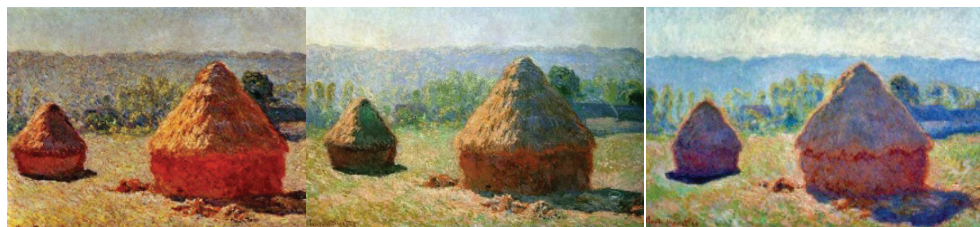


Fig 2. Monet's Haystacks series Oil on canvas 1890-1891 Collection of the Art Institute of Chicago Museum of Art

The real innovation of the *Haystacks* (fig. 2) series lies in its systematic nature. Monet abandons the traditional narrative of the 'decisive moment' of painting, and instead constructs a multidimensional matrix of time slices. When these works are juxtaposed, the viewer can intuitively see that the edges of the haystacks under the hot midday sun are sharp as knives, with their saturated colours at their peak, while the *Golden Haystacks* at dusk suggests the physical process of the exhaustion of light through the soft gradation of tawny colours. This 'serialisation' is not only a deconstruction of transience, but also pioneered the concept of 'seriality' in modern art, which directly inspired contemporary art practices such as Warhol's *Marilyn Monroe*. In *Haystacks on a Late Summer Morning*, the top of the haystacks is treated as an almost abstract stack of colours, while the ground projection appears as a flowing blue-violet ripple - this exaggerated reproduction of 'retinal memory' has evolved from the realm of objective recording to an active intervention in visual perception. This exaggerated reproduction of 'retinal memory' has evolved from the realm of objective recording to an active intervention in visual perception. As Merleau-Ponty pointed out in *The Phenomenology of Perception*, 'The reality of impressionism is not the reality of the object, but the reality of the subject at the moment of perception.'

3. Slicing up the trajectory of movement

Degas's ballet series is not only an extension of Impressionism's 'instantaneous' aesthetics, but also a structural breakthrough of the traditional paradigm of dynamic expression. Unlike Monet's *Haystacks* series, which constructs a time sequence through continuous recording of light and colour, Degas chose to deconstruct the continuity of movement in the same image, capturing the essence of dynamics through a visual grammar of 'slicing'. This way of creation is not only rooted in the observation of mechanical movement in the industrialised society of the 19th century, but also alludes to the visual cognitive revolution brought about by the development of photography, ultimately resulting in a unique style that combines classical precision with modern experimentation.



Fig 3. Degas, Dancers on the Stage, pastel 28.4cm x 42cm, 1877, Musée d'Orsay, Paris

Although trained in the neoclassicism of Engel, Degas transformed the line from a modelling tool into a dynamic vehicle. In *Pink and Green Dancers*, the dancers' flying sarongs are outlined with intermittent curved lines, and these seemingly random strokes are in fact a visual translation of centrifugal force - the variation of the lines suggests the difference in dynamic speed, and the visual vibration generated by the colour combination simulates the residual shadow of movement. This 'unfinished sense' of line processing not only continues Impressionism's pursuit of instantaneous perception, but also gives scientific precision to dynamics through anatomical knowledge. As Degas said himself: 'My lines do not depict contours, but trace the trajectory of the flow of energy'. Unlike impressionist painters such as Monet, who were obsessed with natural light, Degas transformed the gas lighting backstage at the opera house into an aesthetic laboratory. In *Dancers on the Stage* (Fig. 3), he used the strong contrast between light and dark produced by overhead illumination to cut the dancers' limbs into geometrical modules of light and shadow: the arms in the highlighted areas form dynamic leading lines, while the torsos in the shadows are degraded into abstract blocks of colour. Such an approach not only reinforces the dynamic tension of the moment, but also creates an 'unnatural' visual rhythm through artificial lighting, foreshadowing the 20th-century futurist promotion of mechanical aesthetics.

Degas's exploration of dynamics not only continues Manet's *Lunch on the Grass*, which was a breakthrough in traditional spatial order, but also provides an important inspiration for contemporary art. The juxtaposition of 'time-space' implied in his works directly inspired the expression of multiple movement trajectories in Duchamp's *Nude Woman Descending Stairs*; and his focus on non-performing moments foreshadowed postmodern art's obsession with the 'backstage' arena. More importantly, this way of creation reveals the deep-seated contradiction of impressionist aesthetics: in the pursuit of 'transience', Degas rationally deconstructed the perceptual 'glimpse', and pushed the visual revolution of impressionism into the dimension of self-reflection and aesthetic reconstruction.

4. Symbiosis between technological media and perceptual logic

Impressionism's aesthetics of 'transience' is not a purely visual style, but a composite system constructed by the innovation of perception and the iteration of technological carriers. This dual dimension not only reflects the penetration of scientific rationality into artistic thinking in the 19th century, but also reveals the paradigm shift of visual experience in the context of industrial civilisation. From Monet's series of light and colour experiments to Degas's dynamic slicing presentation, Impressionism, through the interaction of technological tools and perceptual logic, extracted the 'instant' from physical time and transformed it into an aesthetic object that can be gazed at, thus completing the first conscious exploration of 'transience' in the history of art. thus completing the first conscious exploration of 'transience' in the history of art.



Fig 4. Monet's Rouen Cathedral series Oil on canvas 1892-1894 Paul Getty Museum, Los Angeles Collection

Impressionist painters changed the 'static gaze' of classical painting, and instead reconstructed visual inertia with the 'instantaneous glance'. This shift was inextricably linked to the accelerated visual experience of industrialised societies: the speed of the railways, the spread

of photography, and the mobility of urban populations all shaped fragmented modes of perception. Monet's Rouen Cathedral series (Fig. 4) uses dozens of paintings to record the changing colours of the building façade in the light of day, and the way it is created is in line with the visual rhythm of modern people's 'glimpsing' - the viewer no longer stops to take a closer look, but rather puts together a complete image of the building through the fragments of the viewer's eyes. The viewer no longer stops to examine, but assembles a complete image through the visual fragments. This superposition of 'retinal memories' is not only an artistic translation of the phenomenon of optical transience, but also an aesthetic response to the sensory overload of the industrial age.

The dual dimension of the aesthetics of 'transience' has planted the gene of change in modern art: on the one hand, its systematic treatment of the 'instant' foreshadowed the futuristic exploration of time extension; on the other hand, the use of technological tools opened up the experimental expression of new media art. More importantly, this duality reveals the essential law of artistic innovation - when Impressionist painters injected industrial timetable-like precision into the study of light and colour, they have quietly transformed the mechanical logic of the industrial era into an aesthetic grammar, providing an important example for the dialogue between science and technology and art in the age of AI.

5. Conclusion

The symbiotic evolution of technological media and Impressionism's aesthetics of 'transience' reveals the deep interaction between artistic cognition and scientific rationality in the context of industrial civilisation. From Monet's Haystacks series to Degas's ballet dancers, artists have liberated the 'instant' from the linear constraints of physical time and transformed it into an aesthetic object that can be gazed at through the reconstruction of technological tools and the innovation of perceptual logic. This process is not only a revolution in visual language, but also a testimony to the resonance between art and the spirit of the times.

Impressionism's exploration of 'transience' was essentially an aesthetic response to the accelerated experience of industrialised society. Monet's series of creations simulated the instantaneous perception of the retina with 'light and colour experiments', which materialised the time dimension into visual sequences; Degas's sliced compositions, on the other hand, deconstructed the continuity of movement through photographic interception, giving dynamics a scientific precision. Although the two have different paths, they jointly point to the dialectical relationship between the technical medium and artistic thinking: the portability of paint in tubes, the instantaneousness of photography, and the standardised logic of industrial production are both the material basis of creation and the catalyst for the transformation of aesthetic syntax. This interaction not only subverts the pursuit of timelessness in classical art, but also, through the 'unfinished' brushstrokes and fragmented compositions, metaphorically represents the rupture and reorganisation of modern sensory experience.

It is worth noting that the 'transience' of Impressionism did not stop at passive recording of reality, but reconstructed the definition of artistic reality through the intervention of subjective perception. As Merleau-Ponty said, the truth of Impressionism is 'the subjective truth of the moment of perception'. This turn towards subjectivity opened the way for Post-Impressionism, Futurism and even contemporary new media art. From Cézanne's geometric deconstruction to Duchamp's experiments with movement trajectories, from Warhol's series of reproductions to the parameter generation of AI algorithms, the technological medium has always been the hidden gene of art's evolution, perpetuating the questioning and reconfiguration of the 'moment'.

References

- [1] Jonathan Clary. *The Techniques of the Observer* [M]. Translated by Peijun Cai. Shanghai: East China Normal University Press, 2013.
 - [2] Maurice Merleau-Ponty. *The Phenomenology of Perception* [M]. Translated by Jiang Zhihui. Beijing: Commercial Press, 2001.
 - [3] Lev Manovich. *The Language of New Media* [M]. Translated by Che Lin. Guizhou: Guizhou People's Publishing House, 2020.
 - [4] W. Benjamin. *The Work of Art in the Age of Mechanical Reproduction* [M]. Translated by Wang Caiyong. Hangzhou: Zhejiang Photography Press, 1993.
 - [5] Arthur Danto. *After the End of Art* [M]. Translated by Wang Chunchen. Nanjing: Jiangsu People's Publishing House, 2007.
 - [6] Rosalyn Krauss. *The Originality of the Avant-Garde and Other Modernist Myths* [M]. Translated by Zhou Wenji and Lu Yu. Nanjing: Jiangsu Phoenix Art Press, 2015.
-

Author Resume: Yang Liu, 1997.01.04, Male, Han, Yinan, Shandong Province, first-class teacher, master's degree, Shenzhen Nanshan Foreign Language School (Group) Gaoxin Middle School, Shenzhen, Guangdong Province 518063, research direction: Modern and Contemporary Art.