

THE ORIGINS OF  
PHOTOGRAPHIC  
DISCOURSE

AND THEN CAME DAGUERRE

In 1939, one hundred years after photography had been disclosed to the world, the thicket of received ideas about the medium’s invention was so dense that even such an astute observer as Paul Valéry could not extricate his thoughts from the tangle. For years the French poet and critic had been recording his unique perceptions of science, history, and contemporary culture. His commentary-filled notebooks gradually acquired the reputation of an informal national archive. Yet when Valéry addressed the French Academy on January 7, 1939, in observance of photography’s centenary, he merely reworked mythopoetic conventions: “And then came Daguerre,” Valéry intoned. “With him, the photographic vision was born and it spread by singular leaps and bounds throughout the world. A marked revision occurred in all standards of visual knowledge.”<sup>1</sup> *Sans ornement*, this was what people had been saying for decades: Photography was unprecedented – powerfully, mysteriously, unprecedented.

For Valéry, and many others, photography had not evolved gradually in the manner of other nineteenth-century inventions. Instead, the medium had erupted into the social world like Athena emerging fully formed and impatiently precocious from the head of Zeus. Photography had no apparent childhood, no period of adolescent experimentation, and no interval of incremental progression in the public eye. Even after one hundred years of thought and experience, 1839 remained an *annus mirabilis*. The arrival of photography resisted rendering in ordinary terms. The medium’s enigmatic origins aroused the kind of agreeable frisson nobody much cares to extinguish with plain facts.

Those who witnessed the advent of photography in 1839 discussed its debut in the language of exceptions. Long before it could effect sig-

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nificant social change, photography was confidently described as a transformational technology. In 1839 and the decade that followed, anticipation of photography’s having social consequences drew credence not from shifts already attributable to the medium in its first years, but from the apparent suddenness of the medium’s appearance. Before anyone had seen much of it, photography was said to be a wonder, a freak of nature, a new art, a threshold science, and a dynamic instrument of democracy.

As might be expected at such an event, Paul Valéry’s centenary lecture accentuated the marvelous aspects of photography. Had he elected to, Valéry could have related other equally credible chronicles. He might have drawn on the durable genealogy that supposed photography to be the inevitable outcome of a set of experiments and technological devices. His talk might not then have been as exhilarating, but the absorption of photography into the saga of progress would have been equally familiar to his audience.

One hundred years after its 1839 disclosure to the world, photography’s origins had not one story but many conflicting stories. The medium was thought to be old and new, natural and artificial, the result of brilliant individual effort and the outcome of gradual societal development. Today, these contradictions continue to pack its history or, one should say, its histories. Although the story of photography grew considerably more elaborate with time and circumstance, its basic lineaments were legible in 1839. Fundamental to past and present renderings of the medium has been photography’s distinctive relationship to nature.

SPONTANEOUS REPRODUCTION:  
NATURE AND THE NATURAL AS  
EXPLANATION IN PHOTOGRAPHY

Before the book, the codex; before the automobile, the carriage. Before photography?

Photography has no single, clear, antecedent in part because the medium’s many applications do not easily submit to a unitary definition. In photographic morphology there is no preparatory Ur-form. If photography is defined principally as a means of making multiple copies, then its precursors can be sought among print media such as woodcut and engraving. But if photography is defined as a means of copying observable reality exactly, then its antecedents are likely to be located in a wide range of visual – and even verbal – encodings of optical experience. When replication and exactitude are compounded in the definition, pursuit of photography’s precursors can lead to the realm of magic and illusion.

Photography’s basic conceptual difficulty might have been troublesome in writing its prehistory and history. Instead, the several definitions of photography allowed writers to choose among and combine emphases. Within a decade of photography’s disclosure in 1839, the circumstances of its invention and substance were expressed by a collection of inconsistent ideas.

Photography’s multiple definitions also facilitated the grafting of old meanings onto the new medium. A central source of photographic interpretation was the complex of ideas about nature and originality that had been rehearsed in eighteenth-century thought. Writers such as Alexander Pope distinguished between natural genius and genius that was achieved through learning.<sup>2</sup> They ranked natural agency above human agency and held that the product of effortless inspiration was more authentic and more valuable than a product derived from work. Relatedly, genius and the works of genius were legitimized not simply by inspiration, but by that aspect of originality that emphasized the importance of being first.

William Henry Fox Talbot, Louis Jacques Mandé Daguerre, and Joseph Nicéphore Niépce – the recognized pioneers of photography – shied away from explaining photography as an invention wrought by human hands. Each insisted that photography originated in nature and was disclosed by nature. According to Talbot, an English scientist, photography depicts its images “by optical and chemical means alone.” The image is “impressed by Nature’s hand.”<sup>3</sup> As Daguerre put it: “The DAGUERREOTYPE is not an instrument which serves to draw nature; but a chemical and physical process which gives her the power to reproduce herself.”<sup>4</sup> And Niépce, the least-known photographic forebear, defined his accomplishment as “spontaneous reproduction, by the action of light.”<sup>5</sup> An agreement drawn up by Niépce and Daguerre referred to Niépce’s attempts “to fix the images which nature offers, without the assistance of a draughtsman. . . .”<sup>6</sup>

Photography’s inventors of course were aware of the medium’s verisimilitude and reliable visual reproduction. Yet they stressed the apparent spontaneity of the medium. Photography was autography, a natural phenomenon discovered and revealed by experimenters, not a process invented by humans.<sup>7</sup> In other words, beginning with the earliest verbal accounts of the medium, photography was described in different terms than the machines, instruments, and processes of the Industrial Revolution. For example, however radical the changes wrought by the railroad, the story of its invention has remained mundane.

By situating photography in natural history rather than in human history, photography’s pioneers distanced the medium from technological history as commonly understood. They challenged simple notions of technical genesis with the proposition of natural genesis. As a revelation, photography seemed to be qualitatively removed from the history of print media such as woodcut.

The idea that photography originates in nature periodically re-

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Excerpt

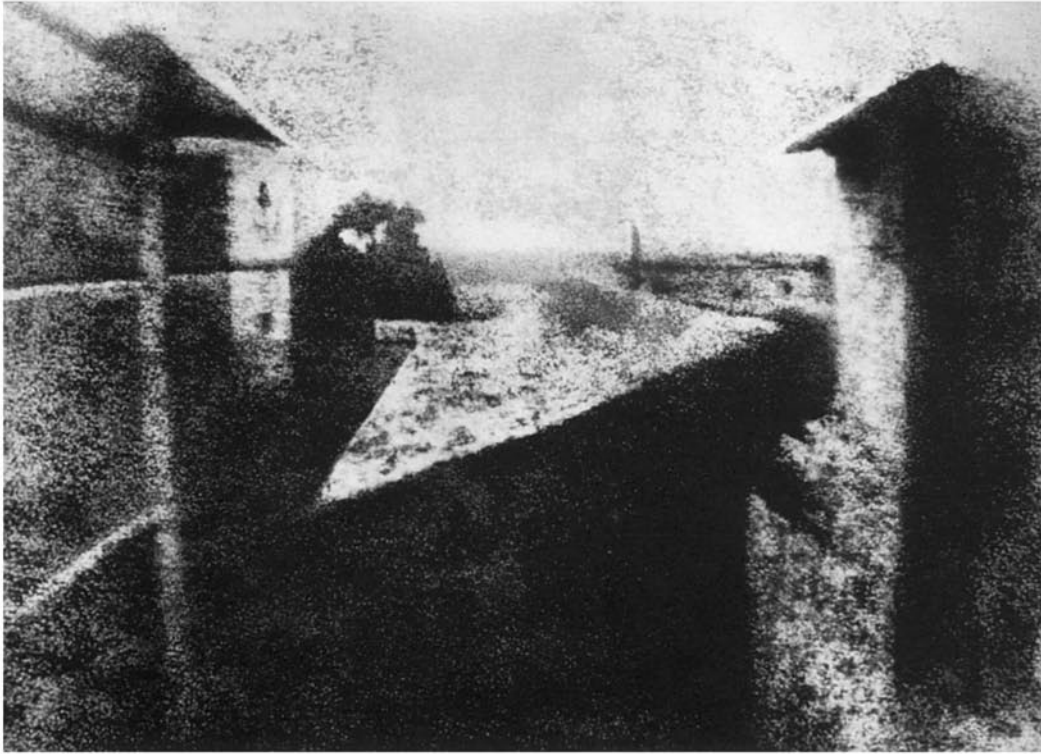
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FIGURE 3

Nicéphore Niépce,  
*View from the  
 Window at Gras*,  
 c. 1826, Gernsheim  
 Collection, Harry  
 Ransom Humanities  
 Research Center,  
 Austin, Texas.

sanctioned the medium's worth. In a letter to the American painter Washington Allston, Samuel F. B. Morse wrote, "Nature . . . has taken the pencil into her own hands."<sup>8</sup> William Henry Fox Talbot (unwittingly, one supposes) would later adapt this phrase for the title of his book *The Pencil of Nature* (1844–46). Ralph Waldo Emerson accentuated the affinity between a natural, that is, an egalitarian, society and the natural art created by photography. "'Tis certain that the Daguerreotype is the true Republican style of painting." He added, "The artist stands aside and lets you paint yourself."<sup>9</sup>

The ongoing denotation of photography as a natural phenomenon is evident in the persistent, interchangeable use of the words "discovery" and "invention" to describe photography's beginnings. For example, Talbot, despite having experimented with photography over a long period of time, referred to his work as a "discovery" and as an "invention." Contemporary newspaper accounts also used both terms.<sup>10</sup> In the mid-twentieth century, the critic Clement Greenberg still found it appropriate to use both terms as well. "Photography is the most transparent of the art mediums *devised or discovered* by man," Greenberg wrote.<sup>11</sup> The penchant for using the two words interchangeably was also apparent during the 1989 sesquicentennial of photography.<sup>12</sup>

Phrasing the new medium as a component of nature allowed photography to be imbricated in a much older cultural disposition. From ancient times, there persisted what might be called the idea of pho-

tography before the fact of photography. The idea of photography was the yearning in Western culture for a means of representation free from omission, distortion, style, murky subjectivity, or outside interference. The idea of photography betokened the wish for a universal language conceived by nature and therefore appropriate to genuine human progress as well as to scientific pursuits.

The idea of photography enunciated an intimate connection between seeing and knowing that has its roots in Plato's *Republic* (Book VI). But in the eighteenth century, sight and insight were part of an ongoing dialogue about humans in a state of nature. In 1758 Jean-Jacques Rousseau proposed that a communal festival be held out-of-doors, in the bosom of nature, where false appearances could be shed, allowing the hearts of all present to beat as one.<sup>13</sup> In his essay titled "Nature," published in 1836, just prior to the public disclosure of photography, Emerson articulated the belief that innocent sight could lead to transcendence:

Standing on the bare ground – my head bathed by the blithe air, and uplifted into infinite space, – all mean egoism vanishes. I become a transparent eyeball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or particle of God.<sup>14</sup>

In this proposition, passive sight yields greater knowledge than active reason can uncover. Sight is both site and symbol of unmediated perception.<sup>15</sup>

For some nineteenth-century commentators, the possibility that natural vision was chaste vision promised personal redemption. Seeing implied an impeccable and direct truthfulness not achievable through verbal texts. For all its beneficial effects, reading could not hold a candle to pure seeing. "While we are confined to books," Henry David Thoreau wrote, "we are in danger of forgetting the language which all things and events speak without metaphor, which alone is copious and standard." "No method or discipline can supersede the necessity of being forever on the alert," he continued. "What is a course of history or philosophy, or poetry . . . compared with the discipline of looking always at what is to be seen?" True sight yields insight. "Will you be a reader, a student merely," Thoreau taunted, "or a seer?"<sup>16</sup>

Interpretations of the photographic medium fused with prior, recuperative senses of seeing. One can observe Edgar Allen Poe, in his article "The Daguerreotype" (1840), merging the idea of photography with photographic practice. Poe argued that "all language must fall short of conveying any just idea of the truth . . . but the closest scrutiny of the photogenic drawing discloses only a more absolute truth, a more perfect identity of aspect with the thing represented."<sup>17</sup>

Photography as natural vision easily transmuted into photography as neutral vision. The camera image was thought to be an analogue of the picture on the human retina. As such, the medium was understood as material confirmation of the Enlightenment proposition that the im-

age on the human retina is independent of the subject’s thoughts and feelings. The photograph was externalized, ideal human vision. It confirmed the possibility of direct perception of knowledge and authenticated the Cartesian model of an intellect that routinely scrutinizes retinal images for information.<sup>18</sup>

Even before a camera image was successfully fixed, the concept of such a picture was explained in terms of perfecting an artificial retina. In 1816 Niépce casually referred to the camera he was building as an artificial retina.<sup>19</sup> François Arago, the French politician-statesman who championed the new medium, spoke of photography’s potential to be a kind of objective retina (*réfine physique*) that would make possible the study of the properties of light, “independent of our senses.”<sup>20</sup> He predicted the usefulness to science of an artificial eye (*une sorte d’oeil artificiel*).<sup>21</sup> An early report on the new medium, written by Jules Pelletan and published in January 1839, described Daguerre’s achievement as an artificial retina. Soon after, J. B. Biot, the distinguished scientist who lent his political and scientific support to Daguerre, also used the phrase.<sup>22</sup>

The conception of photography as an artificial retina ignored critical differences between camera vision and human vision. In early analogies between photography and human sight, the artificial retina was understood to be monocular and static, not binocular and active like human vision. Nevertheless, the similarities between camera vision and human vision were pushed to the point that the two types of vision became synonymous. The creation of an artificial retina was perceived as a credible scientific goal. Concurrently, the analogy between human sight and infallible perception expressed a wish for permanence, stability, and control and implicitly challenged arbitrariness, fragmentation, and disorder. The photograph as an exterior, artificial retina seemed to reflect the desire to immobilize and intellectualize discrete images rather than render the flux of optical reality. In other words, as the first photographs were made, the emergent photographic discourse shaped the meaning of photography as a symbol of order. In this regard, it is important to note that despite early photography’s technical flaws, for example, the fragility of the daguerreotype and the instability of the calotype, photography was frequently called faultless. The medium’s lengthy and messy procedures were acknowledged, yet discounted. The idea of the artificial retina’s neutral vision made real photographs look better.

The photograph gave palpable physical evidence of an objective space in which the intellect could freely function and augured a radical change in the condition of knowledge. Photography suggested that the world would become more immediate and more legible to more people than in the past. This expansion of knowledge was not simply the result of more people having easier access to more images. At its most utopian, the photograph surpassed the need for interpretation because the measure of its success was the appearance of the world to ordinary people. Nascent in the concept of photography as a neu-

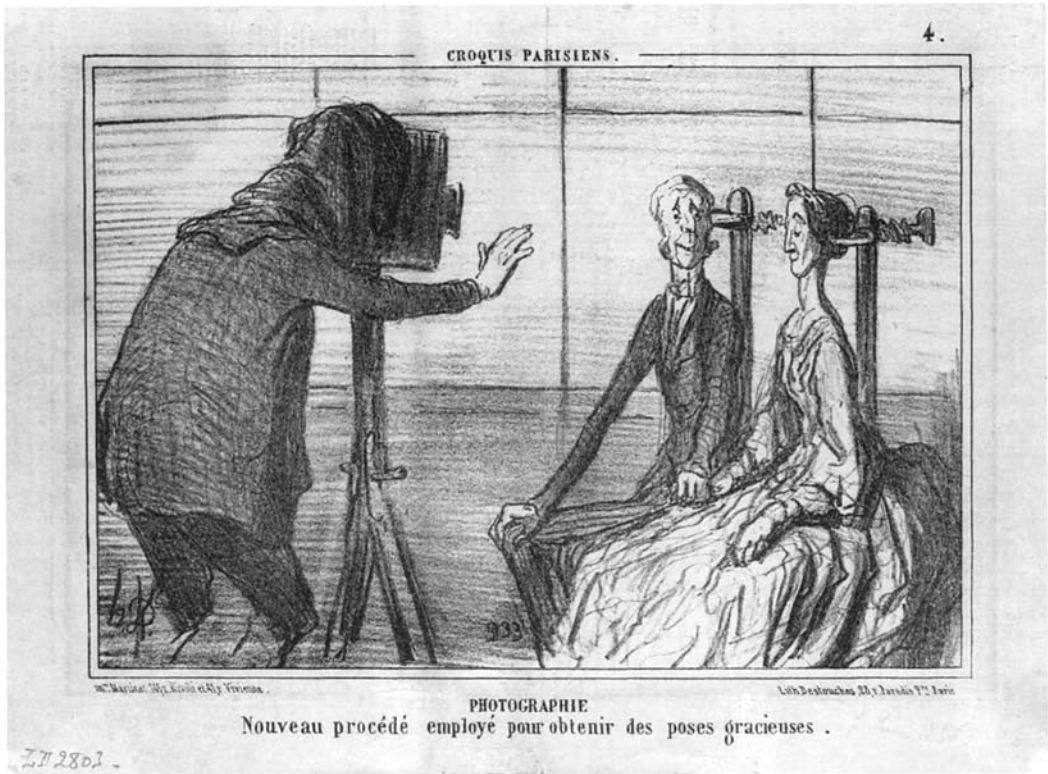


FIGURE 4

Honoré Daumier, *Nouveau procédé employé pour obtenir des poses gracieuses*, lithograph, c. 1856. National Gallery of Canada, Ottawa, Canada.

tral, artificial retina was the revolutionary idea that pre-photographic domains of power and expertise could and should wither.

Neutral Vision in the Modern Era

Just as the idea of photography as natural vision persisted into the modern era, so too did the notion of photography as neutral vision. However much we know about the psychobiology of human vision, we experience seeing directly. Nothing appears to come between us and the world. Many of the words and concepts that we use (“I see”; “I’ll have a look”; “that was short-sighted”) equate sight with knowledge. Imbedded in both language and experience is the sense that seeing is believing. The experience of sight is perpetually symbolic.

The nineteenth-century belief that photography offers humans an innocent, dispassionate way of seeing sustained the post–World War I modernist experiments of Alexander Rodchenko, Man Ray, and László Moholy-Nagy.<sup>23</sup> The intrinsic distinctiveness of the camera’s glass eye (the phrase is Clement Greenberg’s) is that it is ingenuous, possessed of a transparency that can “sense contemporary reality naively and express it directly.” In a 1946 review of the photographer Edward Weston’s work, Greenberg characterized photography as “clean of past and tradition.”<sup>24</sup>

Greenberg maintained that art photography that was unwilling to take account of the mechanical nature of the camera was bad art.

More than a decade earlier Lewis Mumford had expressed a similar judgment. Mumford disparaged Pictorialist photographs, the gauzy views popular at the turn of the century and for the next several decades. Pictorialism struck him as a “relapse from clean mechanical processes . . . [that] worked ruin in photography for a full generation.”<sup>25</sup> According to Mumford, montage – the splicing together of unrelated images employed in dadaism and surrealism – was “not photography at all but a kind of painting.”<sup>26</sup> Mumford insisted that predilection for pure form in photography, the trait of so much modernist work, enervated the medium and evinced a “segregated esthetic sensibility.”<sup>27</sup>

Similarly, in the 1960s the modern French critic André Bazin observed that in contrast to painting the originality of the photographic medium rested on its “essentially objective character.”<sup>28</sup> Bazin’s sense of photographic originality echoes with the two meanings of originality that had evolved in photography’s first decade. Like photography’s earliest commentators, Bazin applied this dual sense of originality. His concept of photography begins in nature: “Photography affects us like a phenomenon in nature, like a flower or a snowflake whose vegetable or earthly origins are an inseparable part of their beauty.” The medium is without precedent. The advent of photography was the “first time an image of the world is formed automatically, without the creative intervention of man.” Bazin did not totally discount the personality of the photographer, but he emphasized the way in which the medium brought about a rupture with the past. “All the arts are based on the presence of man, only photography derives an advantage from his absence,” he observed.<sup>29</sup>

Working from entirely different perspectives, some contemporary critics have, perhaps unintentionally, ratified photographic transparency by insisting that photographic meaning is constructed entirely outside and beyond the camera.<sup>30</sup> In his frequently cited passage, John Tagg has asserted that photography has no special identity and that “its history has no unity. It is a flickering across a field of institutional spaces.”<sup>31</sup> The idea of photographic transparency, which is central to its originality, has been embedded in some very disparate arguments. Transparency has been used to differentiate photography from media such as etching and engraving, where craft techniques are more apparent. The notion of photographic transparency has also contributed to the argument that the history of photography is one with its subject – that it is no more than the history of what it pictures.

Natural Magic

Photography’s veiled beginnings, the legend of photography’s genesis in nature, the relatively spontaneous appearance of the photographic image, and the uniqueness of the photographic copy combine to suggest that something exceptional took place with the advent of photography. The proclivity of early viewers to associate photography with magic may date from Daguerre’s ill-fated attempt to market

shares in his invention directly to the public. Parisians, shown photography’s marvelously exact replications of street scenes and familiar with the dramatic illusions produced by Daguerre on the stage of his Diorama, concluded that Daguerre’s camera images were the result of either enchantment, trickery, or a sly combination of the two.<sup>32</sup> The highly illusionistic quality of the daguerreotype put audiences in mind of magic. Even for commentators who had not actually seen a daguerreotype, the medium seemed “more like some marvel of a fairy tale or delusion of necromancy than a practical reality.”<sup>33</sup> Subsequent writers frequently stressed the magical appearance of the image on the negative, a transformation made more mysterious by the fact that so few viewers actually witnessed the process.

Occasionally, even scientific minds explained photography with reference to the unconventional and supernatural. Recounting his first reaction upon viewing daguerreotypes, the renowned British scientist John Herschel declared that “it is hardly saying too much to call them miraculous.”<sup>34</sup> And as intent as François Arago was to render a convincing and conventional technological account of photography’s invention, he too ranged beyond the prosaic in his argument. In the version of photographic prehistory that he gave to the Chamber of Deputies and the French Academy of Science, Arago enlisted the speculative fiction of John Wilkins and Edmond Rostand. Arago proposed that however farfetched they might seem, fictional moon voyages, artificial wings, and machines powered by the sun were reliable heralds of coming events, framed in the language of the time in which they were written. For Arago and for many later authors, science fiction played a crucial formative role in technological development: in its dreams began wondrous machines.<sup>35</sup>

Photography’s supposed origins in nature and its association with nature guided conjecture about possible anticipations of the medium. The early Parisian photographers Mayer and Pierson expanded Arago’s notion of the technological imagination in their 1862 account of the discovery of photography. In a brief excerpt from *Giphantie*, a French utopian tale by Tiphaigne de la Roche published in 1760, by Mayer and Pierson uncovered what they believed was a prediction of the invention of photography.<sup>36</sup> Ever since, despite an occasional objection, *Giphantie* has been part of photographic lore.<sup>37</sup>

In *Giphantie* a voyager travels to an island where elemental spirits dwell. To make their art, these creatures smear a mysterious viscous material on canvas. The canvas, thus prepared, will retain a mirror image of any scene to which it is exposed.<sup>38</sup> The *Giphantie* canvases have been routinely cited as proof that the human imagination outruns the social and material means of production and that that which can be imagined is an accurate glimpse into the future. Whether magically or through the collective will or spirit of a people, photography had emerged. Like the artificial retina, this brand of naive futurism embodied a wish for predictability and unity in history. In photographic history, *Giphantie* has had a specific utility.

The persistence of the *Giphantie* excerpt may be explained by the

FIGURE 5

Unknown Artist,  
*Family Daguerreotypes, found every where.* *Harper's New Monthly Magazine* 15 (July 1857): 285.  
Courtesy of the  
Syracuse University  
Library.

