

**READING
AMERICAN
PHOTOGRAPHS**

*Images as History
Mathew Brady to Walker Evans*

Alan Trachtenberg



HILL AND WANG
*A division of Farrar, Straus and Giroux
New York*

Prologue

Whatever new object we see, we perceive to be only a new version of our familiar experience, and we set about translating it at once into our parallel facts. We have thereby our vocabulary.

—RALPH WALDO EMERSON
"Art and Criticism" (1839)

I

IN A PAMPHLET in 1855 on the elements of photography, James E. McClees, a Philadelphia daguerreotypist, deplored the "endless variety of names" by which the medium had come to be known: "Daguerreotype, Crystalotype, Talbotype, Calotype, Crystalograph, Panotype, Hyalograph, Ambrotype, Hyalotype, etc., etc., etc." All were useful terms, designating particular variations in the basic process of fixing the image on the ground glass of a camera obscura—the process discovered separately by Niepce and Daguerre in France and William Henry Fox Talbot in England, and revealed to the world in 1839. But the Babel of names confused things, and McClees was not alone in feeling that "the sooner the art becomes divested of the quackery of terms the better." Like others, he wished to settle the matter of a generic name and place a final seal of certainty upon the medium. McClees based his choice of "photography"—the term had been in limited use since 1839—on etymological correctness, for was not the medium a way of writing with light?¹

Early attempts at establishing a legitimate vocabulary for the medium reflect deeper attempts at comprehension. From its birth the medium had aroused contradictory responses. Pictures seemed both reassuringly familiar and disconcertingly new, recognizable as pictures, but with a difference. Witnesses to Daguerre's first pictures on the silver-coated

metal plate of the "daguerreotype" thought they were monochrome drawings or aquatint engravings. "Who will assure us that they are not drawings in bistre or sepia?" asked one journalist. "M. Daguerre answers by putting a magnifying-glass into our hand, whereupon we perceive the smallest folds of a piece of drapery and the lines of a landscape invisible to the naked eye."² Unlimited mirror-like detail made all the difference. If these miniature images resembled handcrafted pictures, they also surpassed them at their own game of reproducing the visible look of things.

The dialectic of strange and familiar, of astonishment mingling with recognition, points to the predicament into which the medium was born, a predicament of comprehension. The problem of the name embodies a larger problem of knowledge: by what "parallel facts," in Emerson's phrase, should the process be translated and brought into our vocabulary? At stake was not the abstract question of the "nature" of the medium but the question of its practices, its social uses, including its legal status.³ The selection of the term "photography" placed the new process among the familiar practices of making legible inscriptions, the parallel crafts of writing and drawing. Lexically, photography means a kind of pictographic writing, communication through images. Images, moreover, of a particular kind. The dilemma of naming derives partly from the fact that the novelty of the device overshadowed the familiar form of its picture. Niepce and Daguerre and Talbot had aimed only at fixing the images which form themselves in the camera obscura. The device was long familiar. Aristotle noted that light coming through a small aperture casts upon a surface opposite the opening an inverted image of the scene before the aperture, an image visible in a darkened room. Eleventh-century Arabian savants used a device modeled on this principle for astronomical observations. Renaissance painters outfitted a similar device, a camera obscura, with a focusing lens to help them trace perspective lines. Long before 1839, the camera image had come to seem second-nature, the true look of reality which painting attempted to imitate.⁴

Rather than the work of light alone, the camera image was, however, the product of a lens designed in a certain way to produce a certain effect. Photography confirmed the image as natural, for was not the process instantaneous and automatic, unmediated by hand? It was easy to forget that the construction of the camera box, the design of the lens, the shape of the frame—all were "tied," in Hubert Damisch's words, "to a conventional notion of space and of objectivity whose development preceded the invention of photography, and to which the great majority of photographers only conformed." As Damisch puts it:

"The photographic image does not belong to the natural world. It is a product of human labor, a cultural object whose being . . . cannot be dissociated from its historical meaning and from the necessarily datable project in which it originates."⁵

Just as the novelty of fixing the image delayed recognition of the conventional basis of the picture, so the image's familiar aspects kept from view the other side of the equation: photography's radical difference from handmade pictures. Daguerre's magnifying glass disclosed more than the astonishing truth that the machine-made image does not dissolve into brushstrokes or pencil lines, that it continues intact, mirror-like, to the limits of its metal base. The glass revealed the equally revolutionary irrelevance of manual skill in producing the illusion of reality. Photography transferred the skills of the hand to an inanimate apparatus. What the hand had learned from centuries of training now belonged to a mechanism. The new process excluded the hand and freed the eye to serve in its place. By taking aim through the camera, the eye could now concentrate the hand's traditional knowledge of composition and style into a swift, instantaneous act. "The daguerreotype does not demand a single manipulation," the French scientist François Arago explained in 1839, "that is not perfectly easy to everyone. It requires no knowledge of drawing, and is not dependent upon any manual dexterity."⁶

This extraordinary event—a process of objectifying human skills into "dead" machinery identical in its logic to the mechanization of the means of production in the same era—did not necessarily change the character of pictures produced by photography. The old and familiar remained the chief source of imagery. But within the familiar conventions, unfamiliar powers of reproduction revealed by Daguerre's magnifying glass came to the fore. In the early years, photographers asserted, as their claim to a legitimate trade in portraits, their greater ability to execute the same illusions of reality attempted by painters. The appeal of lifelikeness, as Baudelaire lamented in 1859, lay at the heart of photography's enormous popularity in the mid-nineteenth century in the form of cheap, mass-produced pictures.⁷

Lifelikeness, the mirror effect, had another radical implication. It suggested a new relation of pictures to time. The photographic image, conventional and familiar in form, bore within it a disruptive event—the signification, as Roland Barthes formulated it, of the camera's *having been* at the actual scene of the image at some precisely datable moment in the past.⁸ Each photograph represents a nonrepeatable event. Unlike a painting or drawing, which conflates the duration of its making with the inner subjective time of the maker's memory and mental processes,

the making of the photographic image occurs at once. The determinable, datable character of the photograph and its machine-like exactness of whatever detail falls within the lens's focus give the camera image a privilege among images in regard to the past. Each photograph bears a distinct and unique message.

How have American photographers and their audiences read and acted upon those messages? How have they put the "having been" of the medium into a *significant* (because signifying) relation to a commonly shared present? How, under what circumstances (social and intellectual) of collective life, and *why*, have they employed the medium to make sense of their times—in effect, to "make" the history they lived by? Photographic images do not become history automatically. Destined by the medium's technology to represent a specific moment in the past, they are also free to serve any representational function desired by a photographer and his audience. It is by virtue of motives, desires, and choices beyond the medium itself that images become tokens of a relation between then and now, between the "having been" and the "is." Images become history, more than traces of a specific event in the past, when they are used to interpret the present in light of the past, when they are presented and received as explanatory accounts of collective reality. They become history when they are conceived as symbolic events in a shared culture.

Between an exposed photographic plate and the contingent acts whereby people read that inscription and find sense in it lies the work of culture, of the wider history within which the medium achieved its name as *light writing*. The story of how American photographs have performed as history within American culture goes back to the earlier pictorial art before the appearance of the new medium. Painting prepared the way for the photograph—superbly exemplified in a remarkable self-portrait by a Philadelphia artist, Charles Willson Peale, whose career as artist, scientist, and fervent supporter of the democratic cause in 1776 embodied the broad cultural program of revolutionary Enlightenment in the late eighteenth and early nineteenth centuries. Reading American photographs can profitably begin with a reading of Peale's 1822 painting, a compelling reflection upon the American artist and his tasks at a time of cultural transition.

II

While planning "The Artist in His Museum," completed in 1822, Peale wrote that "the Design should be expressive that I bring forth into public view, the beauties of Nature and art."⁹ A self-portrait to com-



1. "The Artist in His Museum." Self-portrait by Charles Willson Peale,

memorate his eighty-first birthday, commissioned by the American Museum in Philadelphia, which he had founded in 1784, the canvas elucidates Peale's conception of his mutual labors as artist and collector of natural specimens. It depicts the conceptual world of art into which photography would appear seventeen years later—a world in which art seems comfortable in its task of providing exact copies of visible nature.

We see the artist at the entrance to his museum, the threshold broadened at the bottom to resemble the proscenium of a stage—an effect produced also, of course, by the curtain he lifts and by his theatrical gestures. At the outset, then, the viewer encounters a figure in black identified by the title of the painting as “the artist,” but by his performance seeming also an impresario, a showman. He stands, moreover, in a space that seems to be a workshop as well as a stage, taxidermist's tools together with the dead turkey and fragments of bone suggesting the place where the objects displayed behind the curtain—the stuffed creatures in their cases and the reconstructed mastodon skeleton—were worked on, and the palette and brushes linking this foreground space to the painted portraits at the top of the cases in the rear, and to this painting itself, the artist's self-portrait.

Museums display objects for the sake of study. A place of study suggests *studio* or workshop. A museum is also “the seat of the Muses,” a place of *making* as well as showing. Thus, by title and symbol, the painting identifies the artist as servant of the Muses, maker of things which did not exist before, though as imitations they *seem* real. The artist stands between his raw material and the finished art, between things unsorted and unclassified and things rearranged, reassembled, placed in compartmental spaces in the long corridor of display and instruction—“to display,” as Peale described the purpose of his museum in 1800, “by visible objects the harmony of the universe.”¹⁰ The artist's gesture in raising an edge of curtain implies the didactic purpose. He displays his skills of imitation not for their own sake but to teach us to see and know the order of things in the world beyond the enclosed space, the outside world, whose only living sign is the pale light illuminating the space behind him, the Long Room of the Philadelphia museum. The four figures in the deep space of the painting act out attitudes proper to the viewing of the painting itself: close attention, study, and astonishment.¹¹

Peale designed his painting to teach us how to think about art as well as about nature, art in relation both to nature and to human skill. The lesson concerns the role of art in making visible the order of nature. Following Linnaeus's designations of class and genus as the principle governing universal order, the painting illustrates the artist in his task

of illuminating the unity of nature, a unity based on a coherent structure of forms rising from the simplest to the most complex—the “great chain of being” of Enlightenment thought. Thus the serial ranking of specimens in the Long Room of the museum: lower order of creatures—ducks and penguins—on the bottom, rising through songbirds and birds of prey to the row of portraits of distinguished public figures at the top. Art clarifies the system, brings it to view. To make the order of things visible requires two commensurate acts: clarity of representation, and formal placement of the represented thing within a strictly defined spatial form. In a lecture on the Linnaean system in 1799, Peale remarked that it provides “the master key of a grand Pallace by which we can step into each of the apartments and open any of the Cabinets, to become acquainted with their contents.”¹²

The key is both mental and tangible—the abstract system of classification, and the physical brushes, palette, taxidermist's tools. The link between seeing and knowing requires, then, thought and action, ideas and labor—gathering specimens and preparing them for display, as worked-over objects or as painted images. Without such acts, the world remains a random clutter, “jumbled together,” Peale wrote. In the painting the turkey and the bones represent the jumble outside the “Pallace” of the Long Room, whose strict linearity represents the reconstruction of true order. The museum shows the disorganized world of experience transfigured and clarified by art, the combined arts and crafts of taxidermy, archaeology, and painting. It is right, then, that Peale should include the workshop in his representation of the museum, of himself “in” the museum. The artist assertively portrays himself as the mediator of the world's truth, one who not only creates a copy of things, “a world in miniature,” but reveals the true order hidden within things, an invisible order he brings to view.

Art, then, stands revealed as consisting of craft and the communication of knowledge. True to his Enlightenment values, Peale portrays himself overtly not as a romantic artist whose pictures project his interior life, his private visions, dreams, or emotions, but as an Age of Reason man of useful skills, a public figure performing a high intellectual task of civic importance. Placing himself in a mediating posture between the workshop, its tools and its raw materials, and the museum, the space of exhibition and instruction, he chooses a theatrical mode—the proscenium, the curtain, his gestures—in order to project the image of the artist as a responsible citizen sharing his skills and serving the cause of truth. The mode also provides a role for the viewer as spectator, centered before a stage, poised for both entertainment and instruction. In its overt lesson, Peale's didactic portrayal of the artist prefigures

the role adopted by early photographers in America: the link between art and craft, the civic role and the notion of art as exact imitation. Art makes knowledge *sensible*, Peale argues, available to the eyes and the touch, pleasurable as well as useful. Into this mold photographers would pour their own ambitions for public acceptance.

Yet, once we make out the explicit theme of Peale's painting, riddles begin to assault us. The two-part structure of the canvas poses one question. Why does he drop the curtain over most of the mastodon's skeleton? Why, in a painting so committed to lucidity, does he dramatically block our vision of one whole quadrant of the canvas? The vertical division between a well-lighted and an obscure area, moreover, corresponds to the split between the front or apron-workshop with its random objects and the receding geometricized space of the Long Room. The objects in front are painted in *trompe l'oeil*, as illusions of real objects lying there. The rear of the canvas follows strict rules of perspective. Why does Peale employ different systems of representation in separate areas of the canvas? And how are we to understand the fountain of light bursting from the dome of the artist's head? What is its source?

In regard to the vertical division, the Quaker woman serves as the connecting link between the two spaces. From her gesture of astonishment we deduce that what is hidden from our view behind the curtain is not only windows, the source of the light in the Long Room, but the reconstructed skeleton of a prehistoric creature of awesome dimensions. What light falls upon—the stuffed animals in their cases, the portraits above, and everything in the foreground—can be studied and known, as the other visitors in the Long Room indicate by their postures of attention and contemplation. Is the skeleton shrouded from view because the animal it represents can be known only by conjecture to the mind if not the eye? Are certain items in the natural order beyond reliable knowing, capable of apprehension only subliminally, by skeletal reconstruction and by their "sublime" effect such as that evinced by the startled woman?

The relation between foreground and background raises additional questions. Compare the objects on the floor with those in the rear. Jawbone, shank, turkey: each is depicted descriptively, as a discrete entity; we see them as things, isolated unique objects. They represent only themselves, not genus or class. In the rear, objects are classified. We see and know them in their relations to each other—relations not of individuals but of classes. Each specimen of a particular group is interchangeable with all others in that class; they stand for each other, and cumulatively for the class, the abstraction which confers representational value on each. The stuffed animals have lost their animate life

to gain a "rational" life as *specimen*, interchangeable with all others in the same class. The categorized items lose what the foreground objects still so obdurately possess, their intractable "thisness."

The painting depicts this difference in status through a different mode of depiction in each case: a perspectival mode in the rear; what can be called an optical or descriptive mode in the front.¹³ Viewing the rear, we stand as if before a window, looking from a distance into a space we do not occupy; the smallness of the human figures enhances the illusion of distance, distance unaccountably vast from the presiding figure of the artist who appears in the foreground, illuminated from a light source different from that which bathes the interior and casts lateral shadows.

These schisms in the field of the painting derive paradoxically from the argument it exemplifies: the illustration of the making of a miniature world whose schema corresponds with and makes visible the order of the universe. It is a dynamic story of the process of art, the transformation of unique things such as we see in the front into specimens such as we make out in the rear. The story requires a front-rear division between jumble and order, and by bringing that division to view, Peale discloses a chasm within the system of explanation his painting provides. Intellectual interest governs the geometrically precise rendering of what lies behind the curtain, but what lies in the foreground represents *painterly* interest. The foreground objects catch and hold our eye (less than our mind) with their detailed rendering, their *trompe l'oeil* presence. Against the ordered array of objects in the rear representing genus and class, they stand forth as discrete and individual, as sensuous things of *this* world. Peale's museum is rent, in short, by an intellectual contradiction manifest as compositional discordance. The logical relation of parts of the canvas brushes up against the visual relations. A precarious balance holds the parts together, the system represented in the rear threatening to fall back (or, as it were, forward, into the workshop) into its original components of discrete objects—genus and class into thing, order into disorder, lucidity into obscurity, knowledge into mystery. While not imminent, a sense of potential collapse into origins—ultimately, into the painter's medium displayed in the foreground objects—looms over the painting. Raising the curtain becomes a Promethean act of defiance.

The central figure of the artist embodies another contradiction. Comprised of darkness and light, obscurity and illumination, he has a head and eyes that shine, a body that merely occupies black space. Peale explained that he chose to show himself in "my black suit contrasted to the light of the Long room, with all the shadows inclining to the front

of the picture." But what is the source of the light? He "made a bold attempt," he writes, to place the light behind him,

and all my features lit up by a reflected light, beautifully given by the mirror, the top of my head on the bald part a bright light, also the hair on each side. That you may understand me, place yourself between a looking glass and the window. Your features will be well-defined by that reflected light. A dark part of a curtain will give an astonishing brightness to the catching lights, and thus the whole figure may be made out with strong shadows and have catching lights.¹⁴

Peale composed himself standing before a mirror, a strong light at his rear focused by the mirror upon his bald pate. Translated into the picture, this arrangement suggests that the light comes from what is the darkest section of the curtain: an impossibility, or a paradox. The light we see has no demonstrable source in the picture; seeming to emanate from the artist's head itself, light deceives, is a trick of mirrors. The effect is stunningly ambiguous. The "mirror of nature" implied by the painting's overt theory of imitation coexists with a magician's mirror which conjures illusions and distorts appearances.

Where exactly is this artist—in his museum, a place of rationalist enlightenment, or in a theater of illusions, of artful deception? Is he a copyist (art as science) of nature's grand order, or a magician (science as art) casting spells as his body swirls on his forward toe? Similar questions would be directed to the photographer a few years later. Peale's painting suggests by its ambiguities that questions about the sources of imitation lurked within the cultural ambiance of American art in the years before photography. Are pictures literal, scientifically accurate copies of the world's order? Or are they deceptions, tricks played against the credulity of our eyes? Does art, or representation as such, clarify or mystify? Are pictures to be trusted? Indicating a shift in thinking about the role of art in an increasingly commercial, urban society—a shift from museum to theater, from study to spectacle—such questions would shortly fall to the photographer and become the new medium's burden.

III

In a few years another figure in black would appear with different tools—wooden box, glass lens, chemicals, silver-coated copper plates, vials and flames, and darkened chambers. Some suspected this figure, the daguerreotypist, of alchemy and necromancy, the lifelike image he brought out on a blank plate coated with polished silver a piece of black magic. "It appears to me a confusion of the very elements of nature,"

New Yorker Philip Hone recorded in his journal in 1839, unconsciously evoking one of the sources of photography, as McClees would remark in 1855, in the discoveries by "the Alchemic philosophers" of "the property in certain salts of silver of rapidly blackening by exposure to light."¹⁵ "The real black art of true magic arises," exclaimed the popular writer N. P. Willis half mockingly.¹⁶ Many years later one of the early daguerreotypists, Abraham Bogardus, wrote:

I remember the public estimate of the "dark room"; they thought the operator conducted some hocus-pocus affair in there. "Say, now, Bogardus, what do you do in there, do you say something over it?" I remember when a prominent merchant who had had a daguerreotype taken was asked how it was done. He said you sat and looked at the glass (lens) until you "grinned yourself on the plate."¹⁷

The aura of alchemy surrounding the daguerreotype seemed, moreover, to arouse never quite forgotten taboos against graven images and likenesses, icons, reflections, mirrors—against imitation as such, as Jean Baudrillard writes, for "it makes something fundamental vacillate."¹⁸ In *The House of the Seven Gables* (1851), Hawthorne draws on these associations by having his artist, Holgrave, first display a daguerreotype in a garden near Maule's Well, a fountain paved with a mosaic of colored pebbles, whose waters are thought to be bewitched. "The play and slight agitation of the water, in its upward gush, wrought magically with these variegated pebbles, and made a continually shifting apparition of quaint figures, vanishing too suddenly to be definable"—exactly the effect of the daguerreotype.¹⁹

A copper plate coated with highly polished silver, bearing a floating image developed in fumes of mercury and toned in gold, the daguerreotype contained within itself the alchemical hierarchy of metals, from low to high, from base to noble. It also resembled a looking glass, another object charged with magical associations. By a slight shift of focus from the image to the surface on which it appears, beholders see their own reflections.²⁰ A doubling of image upon image: the viewer's image, mobile and immediate, superimposes itself upon the fixed daguerrean image. The effect was apparitional in another sense as well: at the merest tilt of the plate, the photographic image flickers away, fades into a shadowed negative of itself while still entangled in the living image of the beholder. The primary image comes to seem evanescent, suspended in a depthless medium. Moreover, as in a mirror, the daguerrean portrait appears reversed right to left, which meant that you could look at your own image in the past, as if in a mirror-once-removed, mingled with the image of yourself at this very moment.

Suspicion of occult practices eventually faded, dispelled by the young profession, though never entirely. The photographer came to seem familiar: another artist fulfilling the goal represented in Peale's painting: reproducing things in the world, making imitations, copies, perfect replicas. It was thought that photography, with its ability to reproduce mirror-like reflections of the world, would extend and refine the painter's resources of imitation. Its capacity for exact reproduction of things seemed limitless; no tangible subject, not the moon or the stars, could escape its fixating lens. But were its pictures really copies of the world such as painters made, or copies of another kind, another order of picture?

"There was never anything like it," remarked a daguerreotypist in 1858 who signed himself "Shade," about his first successful picture in 1842. "For hours I have held it, carefully noting all the soft minutiae of light and shade: and still the little rough-edged silver tablet was a joy forever, discovering some merit of complete similitude hitherto unnoted; it seemed inexhaustible, yielding new pleasure as often as consulted."²¹ But what kind of thing was it, with its inexhaustible similitude? Daguerreotypes resembled pictures made by hand, but their uncanny reality seemed to the wonder-struck initiates an inexplicable excess, an elusive surfeit. They seemed to represent the world, in shape and texture if not in color, the way the world was customarily seen in painted or drawn or engraved representations—only more so, with more minutely detailed textures, more sharply delineated shapes and forms, a closer approximation of the thing itself. But were they in fact *representations* as that word was normally understood by viewers of works such as Peale's painting—pictorial copies or replications of real things? Did they belong to art, to the long tradition of two-dimensional picturing of the sensible world, the making of illusion on flat surfaces? Or were they something else—magical emanations, not pictures at all but pieces of the world transferred by light to a plate—like shadows or footprints?

0 The daguerreotype seemed to *possess* its sitters.

The most common figure of speech was that, through the camera, "nature paints herself." If so, could the resulting image be claimed as *anyone's* intention? If the world inscribes itself through the "pencil of nature," art, in the sense of making, would no longer seem an appropriate or relevant category. The automatic, unflinching, and remorselessly unselective mirror-like character of the camera image seemed to sever the link to art, to set photography free from traditional practices of picturing—fatally so, it seemed to many skeptics and denigrators. But the obverse argument, born in the very language by which early writers received photography into existing systems of thought, dis-

agreed: the common suffix "type" signified that photographs were pictures impressed upon a surface, as in printing. Their difference is a difference of means, not substance—not an ontological but an instrumental difference.

American reaction to the new medium recapitulated European response. "They resemble aquatint engravings," Samuel F. B. Morse wrote in a letter after seeing Daguerre's work—the first recorded reaction by an American—"for they are in simple *chiaro oscuro*. But the exquisite minuteness of the delineation cannot be conceived. No painting or engraving approached it." Morse's letter, published in the *New York Observer* on April 20, 1839, plays on similarity and difference: the pictures of interiors are "Rembrandt perfected," but the representation of "minuteness" fits no existing category. Like Daguerre, he applies a magnifying glass to the miniature image:

In a view up the street, a distant sign would be perceived, and the eye could just discern that there were lines of letters upon it, but so minute as not to be read with the naked eye. By the assistance of a powerful lens, which magnified fifty times, applied to the delineation, every letter was clearly and distinctly legible, and so also were the minutest breaks and lines in the walls of the buildings; and the pavements of the streets. The effect of the lens upon the picture was in a great degree like that of the telescope in nature.

Objects moving are not impressed. The Boulevard, so constantly filled with a moving throng of pedestrians and carriages, was perfectly solitary, except for an individual who was having his boots shined. His feet were compelled, of course, to be stationary for some time, one being on the box of the boot-black and the other on the ground. Consequently, his boots and legs are well defined, but he is without body or head because these were in motion.²²

The first item perceived in this view of a Paris boulevard is a *sign*, a set of legible words. But a curiously photographic form of illegibility follows in the next paragraph. Supremely accurate on one hand, on another the photograph simply erases what is there, annihilates the throngs, decapitates the solitary remaining figure, leaving only boots and legs. These ghostly effects call into question Morse's initial confidence that "exquisite minuteness of delineation" is an adequate statement of the medium's capacities.

Less than a year after Morse's letter, Edgar Allan Poe also applied a magnifying lens to explain the daguerreotype. How, he asked in a brief article in January 1840, can one describe the effect of these unimaginably truthful images? "All language must fall short of conveying any just idea of the truth." The daguerrean image achieves an unprecedented "identity of aspect with the thing represented."

For, in truth, the Daguerreotypic plate is infinitely (we use the term advisedly) is *infinitely* more accurate in its representation than any painting by human hands. If we examine a work of ordinary art, by means of a powerful microscope, all traces of resemblance to nature will disappear—but the closest scrutiny of the photogenic drawing discloses only a more absolute truth, a more perfect identity of aspect with the thing represented. The variations of shade, and the gradations of both linear and aerial perspective are those of truth itself in the supremeness of its perfection.

“Identity of aspect with the thing represented”—here, Poe argues, lies the utter and complete difference between handmade pictures and the daguerreotype. To call the image a mirror image is not, for Poe, a metaphor but a statement of equivalence. “Perhaps, if we imagine the distinctness with which an object is reflected in a positively perfect mirror, we come as near the reality [of the daguerreotype] as by any other means.”²³ In its function as a mirror lay the image’s most radical challenge to the representational system portrayed by Peale and evoked by Morse.

Poe did not elaborate the implications of his mirror allusion. The fullest argument for the uniqueness of photographic images appeared almost twenty years later, in three articles between 1859 and 1863 in the *Atlantic Monthly* by the Harvard savant and wit, medical doctor and man of letters, Oliver Wendell Holmes. An enthusiastic member of a network of amateurs who exchanged their pictures with each other, Holmes writes in these essays about the form of photography known as stereography—a way of joining two images in an instrument called the stereoscope (from the Greek words for “solid” and “to see”), to produce an illusion of three-dimensional space. Thrilled by this new application of science to vision, Holmes himself had invented an inexpensive popular stereoscope. The extraordinary reality produced by these instruments helps account for his exuberant figurative language. Photographs can now be seen as “forms,” exact tracings of the actual subject, as skin outlines the body it clings to. Images are membranes, films, effigies cast off by things themselves. The time will soon come “when a man who wishes to see any object, natural or artificial, will go to the Imperial, National or City Stereographic Library, and call for its skin or form, as we would a book at any common library.”²⁴

The stereoscope had first appeared in the 1830s, before photography, but clearly part of the same impulse toward optical experiment which gave rise to the fixed image. Based on the principles of binocular vision—the fact that each eye records a slightly different image, fused by the brain into a single image that allows us to perceive the difference between objects near and far—the first stereoscopes used mirrors and

refracting prisms to produce an illusion of solidity by bringing together two separate drawings of geometrical shapes. By the early 1840s, photographs replaced drawings, and within a decade the stereoscope would become the rage throughout the world.

In 1849 Sir David Brewster, who had invented the kaleidoscope, devised a simpler stereoscope with decentered magnifying lenses for viewing two small photographs of the same scene made a few inches apart. Demand for stereo viewers rose dramatically after their display at the Crystal Palace Exhibition in 1851, and with the introduction of paper prints a few years later, stereographs flooded the market. “No home without a stereoscope” was the motto of the London Stereoscopic Company, founded in 1854.²⁵ With the mass publication of stereo views of every imaginable subject on earth and in the heavens, the stereoscope became the first universal system of visual communication before cinema and television.

Stereographic viewing offered the photograph not as a formal, traditional picture but as a singular illusion of solid objects in space. Stereo photographers composed their pictures in small, compact cameras with two parallel short focal-length lenses which could make “instantaneous” or stop-action pictures. The chief object was simulation, to create illusions of real things in real space. “The effects of stereoscopic representation,” explained Brewster in 1856, “are of a very different kind” from those created in two-dimensional pictures. The stereoscopic effect “is due solely to the superimposition of the two plane pictures by the optical apparatus employed, and to the distinct and instantaneous perception of distance by the convergence of the optic axes upon the similar points of the two pictures which the stereoscope has united.” It has nothing to do with the conventional methods of creating perspectival effects in drawing and painting.²⁶

Holmes’s idea of a visual library draws on a notion close to the heart of Western thought since the ancient Greeks, that all knowledge derives from the eyesight, that we know as much as we see (the word “theory” derives from the Greek word for “sight”), and that the world consists of visible objects which define themselves to our eyes by their differences and similarities of appearance in space. The magnified photographic image formed in the stereoscope fills the entire range of vision—unframed, unbordered, boundless, as if the eye were there before the very scene. Like peep boxes, the stereoscope produced replica-like illusions of reality—“so lifelike,” wrote the English photographer Claudet, “as to be almost startling.”²⁷ The stereoscope allows the photograph to be seen with such enhancement of detail, in “frightful amount,” as Holmes put it, that “the mind feels its way into the very depths of the

picture."²⁸ Holmes described the effect as "half-magnetic" and "dream-like."²⁹ The eye activates the mind to "feel" what it sees, to know the scene not through abstractions of language but directly: a new form of reading, a new kind of library. In the stereoscope the photograph became a perfect simulacrum, the world itself transposed into a living image, and the viewer into a passive, disembodied spectator of an illusory, detached, and immaterial world.

The irrepressible Holmes added another twist which, as Harvey Green and Allan Sekula have remarked, draws on the language of capitalist political economy.³⁰ Playing on popular anxieties about inflated paper money since the crash of 1837 (aggravated by another bank failure in 1857), Holmes offered the stereographically enhanced photograph as a new form of security between an image and what it claims to represent. "There may grow up something like a universal currency of these banknotes, or promises to pay in solid substance, which the sun has engraved for the great Bank of Nature." The figure of speech recalls an advertising gimmick some daguerreotypists used in the hard times of the 1840s, of distributing handbills in the form of imitation banknotes. One appeared in Boston about a decade before Holmes's article: "Chases Daguerrian Bank . . . Will pay on demand Likenesses . . . unsurpassed by any in the world and warranted never to change."³¹

Just as the number inscribed on dollar bills represents a promise on the part of the bank to exchange the note for a fixed amount of gold or silver, the photograph represents "solid substance." The idea is that a photograph stands to its referent the same way paper notes stand to the monetary value inscribed on their faces and guaranteed by the promise of species payment—a promise honored too often in the breach for the comfort of Americans in creditor classes in these years. Holmes based his metaphor of photographs as cash on a verbal play whereby photography abolishes matter and transfers its substantive value to images:

*Form is henceforth divorced from matter. In fact, matter as a visible object is of no great use any longer, except as the mould on which form is shaped. Give us a few negatives of a thing worth seeing, taken from different points of view, and that is all we want of it. Pull it down or burn it up, if you will.*³² [Holmes's italics]

Holmes fills out the conceit by proposing that library collections, or image banks, be created through a "comprehensive system of exchanges."

By carrying to a comic extreme the idea of the photograph as an exact objective copy made without intervention of human desire or will

or interest, Holmes implies that value or meaning resides entirely in the image itself, which can then be distributed as absolute knowledge. This notion, as Sekula observes, abstracts what Marx called "use value" from the image, the labor embodied in its production, and the cultural values represented by its material referents, and makes it over into an object, like money, of universal exchange. Conceived as an objective mechanical process which destroys (or replaces) what it copies, photography itself, Holmes insists, guarantees the value of images as visible truth.

Holmes calls "the divorce of form and substance" achieved by the photograph the "greatest of human triumphs over earthly conditions," and foresees no end to the "transformations to be wrought." "Let our readers fill out a blank check on the future as they like—we give our endorsement to their imaginations before hand." Holmes cannot resist elaborating his marketplace conceit: "Matter in large masses must always be fixed and dear; form is cheap and transportable."³³ Fanciful as it is, his obsessive linking of photographs and money suggests that the idea of the photograph as a surrogate reality arose from a need within the dominant ideology of the times. Holmes conceives of the effect of the photograph as identical to that of money—the transformation of tangible values ("substance") into intangible tokens of exchange ("form"). Only, where money in the bourgeois economy is a commodity in its own right, its stated values always fluctuating in a money market, the photograph is imagined to remain constant, always referring to the very "substance" it has annihilated. As Sekula remarks, the notion is "bizarre." Yet it is plausible in a era of extended crisis. The metaphor which transferred an elusive solidity of reference from money to photographs subliminally promised stability in the antebellum world of inflated money, shaky confidence, and conflicting values. Holmes's figurative language unwittingly snares a truth.

But is a photograph as good as hard cash, a solid guarantee that what it shows is always the same, always there, always reliable? Holmes's metaphors express a hope rather than a proven truth. Yet the same metaphor which depicts photographs as money cuts the ground from under the hope. Even gold fluctuates. The market betrays the very idea of a solid substance, a reliable measure of absolute value. Holmes's analogy of images as cash ironically turns out to be truer than he realized. Like money and other commodities, photographs shift and slide in meaning. They may seem to offer solid evidence that objects and people exist, but do they guarantee what such things *mean*? The lesson of the photograph, as early photographers came quickly to learn, was that meanings are not fixed, that values cannot be taken for granted,

that what an image shows depends on how and where and when, and by whom, it is seen. The connection between photography's image-world and the real world or *Lebenswelt* of everyday life defines a problem—a question rather than a certain answer.

Holmes's hope survives in the popular belief that photographs can be seen, handled, and swapped as if they were tokens of an absolute reality, as if they can be taken at face value. Early in 1988 *The New York Times* reported that somewhere on a desolate prairie near Bismarck, North Dakota—in the “middle of nowhere”—“the Federal Government is selling pictures of everywhere.”³⁴ The Earth Resources Observation Systems Data Center—EROS—maintains an archive there of some six million images, “non-military” satellite and aerial photographs of practical use to geographers, city planners, relief and public interests groups, and whoever would like to see the fires at Chernobyl, or their own back yards from hundreds of miles in outer space. EROS seems the triumph of Holmes's imperial vision, and perhaps an ironic commentary on the ancient myth of passion: a central archive of millions of images, and growing at the rate of twenty thousand per month. Machine-made images with awesome qualities of resolution, they are a far cry from what Alfred Stieglitz meant when he said that when he makes photographs he makes love. Their purpose is to keep track of things, to identify this and that, to monitor the world. EROS represents photography triumphant: the instantaneous reproduction of the world. The unerring mechanical eye replaces the ancient god of love, and photography, in the guise of a disembodied automatic eye, assumes the name of myth. Emerson's famous figure of speech, the “transcendental eyeball” (“I am nothing; I see all; the currents of Universal Being circulate through me; I am part and parcel of God”), has come true in the function of a machine: another irony. To submit the myth of the unerring objective camera to the test of historical analysis is one of the purposes of this book.

Notes

Prologue

¹ James E. McClees, *Elements of Photography* (Philadelphia, 1855), facsimile reprint, International Museum of Photography at the George Eastman House, 1974, 3-4. For an early history of the term "photography," see Joseph Maria Eder, *History of Photography*, tr. Edward Epstein (New York, 1945), 258-59.

² Helmut and Alison Gernsheim, *L. J. M. Daguerre* (New York, 1968), 86.

³ Another problem was and is the ambiguous legal status of photographs. See Bernard Edelman, *Ownership of the Image: Elements for a Marxist Theory of the Law* (London, 1979), 37-67, for a discussion of how French law coped with determining whether photographs, being the product of a machine, qualified for copyright protection—whether the producers of machine-made images are also "authors." In Anglo-American law, standard copyright protection was extended to photographs as early as 1862 in Britain and 1865 in America. See Martha Gever, "Photography as Private Property: A Marxist Analysis," *Afterimage* 8 (Jan. 1981), 8-9. For a survey of recent legal decisions pertinent to photography, see George Chernoff and Hershel Sarbin, *Photography and the Law* (New York, 1977).

⁴ Eder, 36-45. Also, Helmut and Alison Gernsheim, *The History of Photography, 1685-1914* (New York, 1969), 17-29. A valuable discussion of the camera obscura in seventeenth-century Dutch painting can be found in Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century* (Chicago, 1983), 27-33 *passim*. For a discussion of the role of the camera obscura and the lens in the development of perspectival drawing, see Joel Snyder, "Picturing Vision," *Critical Inquiry* 6 (Spring 1980), 499-526.

⁵ Hubert Damisch, "Five Notes for a Phenomenology of the Photographic Image," in Alan Trachtenberg, ed., *Classic Essays in Photography* (New Haven, Conn., 1980), 287-390. For additional views on the conventionality of the photographic image, see E. H. Gombrich, "Mirror and Map: Theories of Pictorial Representation," in *Philosophical Transactions of the Royal Society of London* 270 (1975), 119-149; Peter Galassi, *Before Photography: Painting and the Invention of Photography* (New York, 1981); Heinrich Schwarz, "Forerunners and Influences," in William E. Parker, ed., *Art and Photography: Forerunners and Influences* (Rochester, N.Y., 1985), 109-18; and Joel Snyder, "Picturing Vision."

⁶ Gernsheim, *History*, 95.

⁷ Charles Baudelaire, "The Modern Public and Photography," in Trachtenberg, ed., *Classic Essays*, 83-89.

⁸ Roland Barthes, "Rhetoric of the Image," *Image, Music, Text* (New York, 1977), 32-52.

⁹ Quoted in Roger Stein, "Charles Willson Peale's Expressive Design: The Artist in His Museum," *Prospects: The Annual of American Cultural Studies* 6 (1981), 142. I am indebted

in many particulars to Professor Stein's invaluable detailed discussion of the painting. See also Charles Coleman Sellers, *Mr. Peale's Museum: Charles Willson Peale and the First Popular Museum of Natural Science and Art* (New York, 1980); and Edgar P. Richardson, Brooke Hindle, and Lillian B. Miller, *Charles Willson Peale and His World* (New York, 1982). Also relevant are Daniel Boorstin, *The Lost World of Thomas Jefferson* (New York, 1948), and Henry F. May, *The Enlightenment in America* (New York, 1976).

¹⁰ Stein, 156.

¹¹ See Charles Coleman Sellers, "Portraits and Miniatures by Charles Willson Peale," *Transactions of the American Philosophical Society* 42, Part 1 (1952), 161.

¹² Stein, 155.

¹³ I owe my understanding of this distinction to Alpers, *Art of Describing*, 26-71.

¹⁴ Quoted in Sellers, 161.

¹⁵ Allan Nevins, ed., *The Diary of Philip Hone, 1828-1851* (New York, 1927), 435; McClees, *Elements*, 5.

¹⁶ *Corsair*, 13 April 1839, 70-72. A week later, on 20 April 1839, in a letter from Paris, the *New York Observer* published Samuel F. B. Morse's eyewitness account of Daguerre's invention.

¹⁷ *Photographic Times* 15 (Sept. 11, 1885), 521.

¹⁸ Jean Baudrillard, *Simulations* (New York, 1983), 153.

¹⁹ Nathaniel Hawthorne, *The House of the Seven Gables* (Norton Critical Edition, New York, 1967; originally published 1851), 88.

²⁰ Hawthorne's "Monsieur du Miroir" conveys the mingled fascination and revulsion common in feelings about mirrors, whose "whole business is REFLECTION." *Mosses from an Old Manse* (Boston, 1892), 182-95. On mirrors in art, see Gombrich, "Mirror and Map"; Carol Armstrong, "Reflections on the Mirror: Painting, Photography, and the Self-Portraits of Edgar Degas," in *Representations* 22 (Spring 1988), 108-41; and Douglas Crimp, "Photography en abyme," *October* 5 (Summer 1978), 73-88.

²¹ *American Journal of Photography* (1858-59), 223.

²² Quoted in William Welling, *Photography in America: The Formative Years, 1839-1900, A Documentary History* (New York, 1978), 7.

²³ Edgar Allan Poe, "The Daguerreotype," *Alexander's Weekly Messenger* (Jan. 15, 1840), 2. A rich discussion of the cultural sociology of Poe's obsession with mirrors (of which his daguerreotype remarks are an instance) can be found in Robert H. Byer, *The Man of the Crowd: Edgar Allan Poe in His Culture* (forthcoming). The gist of his argument appears in "Mysteries of the City: A Reading of Poe's 'The Man of the Crowd,'" in Sacvan Bercovitch and Myra Jehlen, eds., *Ideology and Classic American Literature* (New York, 1986).

²⁴ Oliver Wendell Holmes, "The Stereoscope and the Stereograph," *Atlantic Monthly* 3 (June 1859), 748.

²⁵ Gernsheim, *History*, 257; and Eder, *History*, 381-85. See also Edward W. Earle, ed., *Points of View: The Stereograph in America, A Cultural History* (Rochester, N.Y., 1979); and William C. Darrah, *The World of the Stereograph* (Gettysburg, Pa., 1977).

²⁶ Sir David Brewster, *The Stereoscope: Its History, Theory, and Construction* (London, 1856), 2-3.

²⁷ Gernsheim, 255.

²⁸ Holmes, 744.

²⁹ "Sun-Painting and Sun-Sculpture," *Atlantic Monthly* 8 (July 1861), 14-15.

³⁰ Harvey Green, "'Pasteboard Masks': The Stereograph in American Culture 1865-1910," in Earle, ed., 109-15; and Allan Sekula, "Traffic in Photographs," *Art Journal* 41 (Spring 1981), 21-23.

³¹ I am grateful to Mathew Isenberg for calling this to my attention.

³² Holmes, "The Stereoscope and the Stereograph," 747.

³³ *Ibid.*, 748.

³⁴ *The New York Times*, 2 March 1988, A:12.

Chapter 1

¹ Welling, *Photography in America*, 7-15. Exhaustive information about the establishment of the daguerreotype in America can be found in Floyd and Marion Rinhart, *The American Daguerreotype* (Athens, Ga., 1981). See also the pioneering works by Robert Taft, *Photography and the American Scene* (New York, 1938), and Beaumont Newhall, *The Daguerreotype in America* (New York, 1961). Richard Rudisill, *Mirror Image: The Influence of the Daguerreotype on American Society* (Albuquerque, N.M., 1971), the first attempt to interpret the daguerreotype as a cultural force in America, remains an important touchstone. The best treatment of the daguerreotype portrait of eminent sitters is Harold Francis Pfister, *Facing the Light: Historic American Portrait Daguerreotypes* (Washington, D.C., 1978). Other published sources for the history of the daguerreotype in America can be found in the bibliographies of these works.

² On the 1837 depression, see Peter Temin, *The Jacksonian Economy* (New York, 1969); and Samuel Rezneck, "The Social History of an American Depression, 1837-1843," *American Historical Review* 40 (1934-35), 662-87.

³ Welling, 41.

⁴ Albert S. Southworth, "An Address to the National Photographic Association of the United States, Delivered at Cleveland, Ohio, June, 1870," *The Philadelphia Photographer* 8 (Oct. 1871), 320.

⁵ Contrary to common belief, the practice of daguerreotypy never died out. See Grant B. Romer, "The Daguerreotype in America and England after 1860," *History of Photography* 1 (July 1977), 201-12.

⁶ On itinerant painters and daguerreotypists, and the rapport between them, see David Jaffe, "One of the Primitive Sort: Portrait Makers of the Rural North, 1760-1860," in Steven Hahn and Jonathan Prude, eds., *The Countryside in an Age of Capitalist Transformation* (Chapel Hill, N.C., 1986), 103-38; and Grant B. Romer, "Letters from an Itinerant Daguerreotypist of Western New York," *Image* 27 (March 1984), 12-19, and "Noah North—Folk Artist" (forthcoming). Also, Diane E. Forsberg, *A Useful Trade: 19th Century Itinerant Portrait Artists* (Brattleboro, Vt., 1984). Also Newhall, *Daguerreotype*, chaps. 7-8.

⁷ Hawthorne, *Seven Gables*, 91.

⁸ T. S. Arthur, "The Daguerreotypist," *Godey's Book* 38 (May 1849), 352-55.

⁹ Sigmund Freud, *On Creativity and the Unconscious* (New York, 1958), 148.

¹⁰ *Ibid.*, 147.

¹¹ See Sir James George Frazer, *The Golden Bough*, abridged ed. (New York, 1951), 220-25.

¹² Welling, *Photography*, 17.

¹³ Reprinted in *Photographic Art-Journal* 1 (April 1851), 212.

¹⁴ See, for example, Wendy Wick Reaves, "Portraits for Every Parlor: Albert Newsam and American Portrait Lithography," in Wendy Wick Reaves, ed., *American Portrait Prints* (Charlottesville, Va., 1984), 83-134.

¹⁵ See Reese Jenkins, *Images and Enterprise: Technology and the American Photographic Industry, 1839-1925* (Baltimore, Md., 1975); Nathan Rosenberg, ed., *The American System of Manufactures* (Edinburgh, 1969); and David A. Hounsell, *From the American System to Mass Production 1800-1932* (Baltimore, Md., 1984).

¹⁶ See Welling, *Photography*, 17-18, for John Johnson's account of secret experiments he undertook with Alexander S. Wolcott in 1840 to increase available light while protecting the eyes of the sitter, to prevent a glaring look in the portrait.

¹⁷ Taft, *Photography*, 8; also Patrick J. Noon, "Miniatures on the Market," in John Murdoch et al., *The English Miniature* (New Haven, Conn., 1981), 206.

¹⁸ On the influence of the daguerreotype on the painted miniature portrait, see Marcus Aurelius Root, *The Camera and the Pencil, or, The Heliographic Art* (Philadelphia, Pa., 1864), 140-41. On the daguerrean adaptation of miniature cases, see Rinhart, *American Daguerreotype*, 305-49.