SAMUEL F. B. MORSE AND THE DAGUERREOTYPE: ART AND SCIENCE IN AMERICAN CULTURE, 1835-55

by

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Abstract

SAMUEL F. B. MORSE AND THE DAGUERREOTYPE: ART AND SCIENCE IN AMERICAN CULTURE, 1835-55

by

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This dissertation is the first extensive examination of Samuel F. B. Morse's (1791-1872) daguerreotype activity. Morse, well known as an important nineteenth-century painter and inventor of the electro-magnetic telegraph, was among the first in the country to experiment with Louis-Jacques-Mandé Daguerre's 1839 invention. Indeed, he was the most important, critical voice regarding photography in the medium's very early years. My study argues that Morse's work with the daguerreotype, particularly his partnership with chemist John William Draper (1811-1882) needs to be read as a vital link between his careers as a painter and an inventor. Through my analysis of Morse's photographic practices and products, I show that the artistic, photographic, and telegraphic work of Morse are linked through his life-long ambitions of personal greatness and national service, and that he repeatedly attempted to realize these goals through mechanical reproduction, be it the use of a camera obscura to create his most important paintings, the recording of a photographic subject, or the transformation of an electric current into a telegraphic message. While Morse had long been involved with both the fine arts and invention, his very conscious turn to privileging scientific technology over the arts in the 1830s is indicative of Morse's awareness of the emphasis American culture placed on native technology over the visual. I contend that Morse

chose to yoke his desires for American fine arts onto this decided direction of American progress, and that the daguerreotype offered Morse the opportunity to bridge these two fields within his own work, an attempt that ultimately proved unsuccessful. Having unearthed new and important primary source information regarding Morse and the daguerreotype, I examine his role in the early photographic community in New York, and show his importance in the positive reception of the new technology within the United States, particularly as it relates to the fine arts. I also provide the first extensive discussion of Draper as a photographer.

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Many individuals provided invaluable assistance during the research and writing of this dissertation. I owe an enormous debt of gratitude to my advisor, Katherine Emma Manthorne. Katherine constantly provided sound intellectual guidance and encouragement through her multiple, careful, readings of the text's many stages. She pushed my work in new and profound directions; one could not ask for a more thoughtful and discerning academic advisor. In his role as second reader, Geoffrey Batchen offered thorough, constructive criticism that consistently challenged me to re-think earlier assumptions; this dissertation is a better product due to his astute observations. My interest in Morse's photography began during a seminar taught at the Graduate Center by Sally Webster; it was a joy to have her participate in the project's fruition as third reader. I am particularly grateful to her for the suggestion that I compile an appendix of Morse's known photographs or photographic attempts, extant or not. Finally, it was an absolute privilege to have Paul Staiti serve as the fourth reader for this dissertation. I began my career as an art historian under Paul's watchful eye while an undergraduate at Mount Holyoke College; I only hope my work on Morse successfully builds upon his excellent example.

I also need to thank Bruce Weber, Director of Research and Exhibitions at Berry-Hill Galleries in New York. Bruce taught me an enormous amount about conducting art historical research, in particular the specific how-to's of leaving no stone unturned. Such knowledge proved extraordinarily valuable in researching this dissertation, and is

responsible for the majority of the new primary source documentation surrounding Morse's photography that I uncovered.

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ILLUSTRATIONS

Introduction

"There is not a shadow of a doubt in [Samuel F. B. Morse's] mind but he is a great man, he never had the least suspicion that he was not."[1]

- Letter of Samuel Breese to Catherine Breese, October 10, 1841

The above contention, that Samuel F. B. Morse (1791-1872) considered himself a great man regardless of the actual circumstances surrounding his life, was written by Morse's cousin Samuel Breese to his sister Catherine Breese with a certain degree of contempt. When the letter was written in October of 1841, Morse was an easy target: though serving as the president of the National Academy of Design, he had not painted a picture in over three years; his invention, the electro-magnetic telegraph, had received very little federal or private attention and even less funding; he had suffered an embarrassingly bad loss in his run for New York City mayor earlier that year; even his year-old daguerreotype studio, the so-called "palace of the sun," appeared to be a commercial failure. Morse did not seem aware of his cousins' derision, but if he had been, he surely would have had the last laugh. A few short years later, the telegraph – and by extension Morse himself – was being hailed as "the most wonderful climax of American inventive genius."[2] He lived to receive an Order of Glory from the Sultan of Turkey, to be accepted into France's Légion d'Honneur, to be decorated by the King of Denmark, and to see a sculpture of himself erected in New York City's Central Park. Following his death, Morse was called "the greatest man of the nineteenth century," and

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[1] Samuel Breese to Catherine Breese, October 10, 1841, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester.

[2] Washington *Union*, May 1, 1845, quoted in Kenneth Silverman, *Lightning Man: The Accursed Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 2003), p. 243.

"the most illustrious American of his age."[3] On the one-hundredth anniversary of the first telegraphic transmission in 1944, the country staged a re-enactment that was broadcast nationally. Morse's unwavering faith that he was destined for greatness, it seems, was not unfounded; in the early twenty-first century, Morse's iconic status within American culture remains unquestioned.

It is precisely because of this iconic status that Morse deserves further treatment. This dissertation is the first extensive analysis of Morse's work with the daguerreotype. At the time of his death and through most of the twentieth century, Morse was remembered primarily for the invention of the telegraph. In the 1980s, art historians Paul J. Staiti and William Kloss successfully resurrected Morse's artistic career, establishing his relevance to nineteenth-century American art.[4] This study adds to the existing discourse by providing a thorough treatment of Morse's work with the daguerreotype. Most importantly, I want to establish that Morse was the earliest, most important critical voice regarding photography in the United States in the medium's initial years, 1839-41. As such, a complete understanding of his hopes, thoughts and attitude towards the daguerreotype is vital. Through my examination, I offer new insight into the histories of American art, technology, and photography.[5]

I do want to be clear that a close examination of Morse's daguerreotyping is not due to any inherent "greatness" in the man himself or his actions (though it is not my

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[3] Quoted in Silverman, p. 441.

[4] Paul J. Staiti, *Samuel F. B. Morse* (New York: Cambridge University Press, 1989) and William Kloss, *Samuel F. B. Morse* (New York: Harry N. Abrams, Inc., 1988).

[5] A daguerreotype is one of the earliest methods of photography, and is a unique image, containing both the negative and positive upon its metal plate. The basic procedure is as follows: a copper plate coated in silver is exposed to iodine. The sensitized plate is then placed in a camera and exposed to the light for a set interval of time. The plate is then exposed to heated mercury vapor, which develops the image. The image is then fixed by rinsing the plate in a solution of sodium thiosulfate or salt.

intention to knock down his very real accomplishments, either). I want to stress instead that the critical study of such a well-known figure has the potential to illuminate *how* such iconographic constructions are created and sustained within American culture. First and foremost, an in-depth understanding of Morse's work with the daguerreotype supplies greater knowledge of the artist and inventor's motivations within all three of his careers. Morse's daguerreotype activity occurred at a pivotal moment in his life, when he was poised between resuming his career as a painter and pursuing a career as an inventor. The majority of Morse scholars treat him in one or the other vein, and while such focus is necessary when unearthing the specifics of either his artistic or technological activity, the nature of the daguerreotype (and all photography) as a form of visual representation *and* a science and technology requires an analysis of Morse in terms of both. This analysis, in turn, establishes a continuum within Morse's activities and impetuses across his varying occupations. A full understanding of the links between his art and his telegraphy is vital for re-evaluating Morse's role and importance within the communication and technological revolutions of the nineteenth century. Brooke Hindle has accomplished some work in this regard by establishing that Morse's "visual or spatial" mode of thinking as an artist aided his conceptualization of the telegraph.[6] What is less often considered by scholars, including his primary biographers Samuel Irenaeus Prime, Carleton Mabee, and most recently Kenneth Silverman, is how Morse's painting, daguerreotyping and telegraphy are all part and parcel of Morse's life-long ambition to achieve personal success in the guise of recognition as a "great man," and to provide his nation with a product for which it would be internationally recognized and celebrated,

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[6] Brooke Hindle, *From Art to Technology and Science* (Worcester, MA: The American Antiquarian Society, 1986), p. 26.

and which would also be of educational use and service to the American public.[7] His turn from the visual (including the daguerreotype) to the technological as the primary means of realizing his goals is indicative of nineteenth-century American culture's privileging of native invention over the visual in its own construction of "great men." Moreover, Morse's inability to be concurrently recognized as great in both the arts and invention demonstrates a move away from the "arts and sciences" model of knowledge embodied by figures such as Charles Willson Peale, who was known as an accomplished painter and man of science, to the fracturing of these disciplines into discrete, separate fields. Finally, when Morse's work with the daguerreotype is analyzed in relation to the telegraph, and to his paintings that were most in service of those same goals, what emerges is an abiding, deep interest in the use of mechanical reproduction in order to aid communication of these goals, be it the use of the camera obscura to create his most significant paintings, the recording of a photographic subject, or the register of the telegraphic key onto its tape.[8]

Of course, the connection of Morse's activities has been recognized, if not thoroughly treated, by some scholars, and Staiti in particular has persuasively established how Morse's artistic activities were in service of his larger ideologies concerning American society; namely, in establishing Morse's belief that America was destined for a thousand years of greatness and peace through a divine mandate known as millennialism, a belief he inherited from his father, Jedidiah Morse. According to Staiti, Morse also

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[7] The major biographies on Morse are, Samuel Irenaeus Prime, *The Life of Samuel Morse, LLD, Inventor of the Electro-Magnetic Recoding Telegraph* (New York: D. Appleton and Company, 1875), Carleton Mabee, *American Leonardo, The Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 1943), and Silverman.

[8] These ideas are fully discussed in Chapter One, in relation to Morse's thoughts on "mechanical imitation."

espoused the idea that only an educated and cultural elite could lead the American people to their destined greatness, and that the country was responsible for relaying its peace to the rest of the world.[9] As Staiti's main concern is examining Morse as a painter, he nods towards how these guiding principals connect to the invention of the telegraph, but appropriately maintains focus on Morse's artistic activities, such as his founding of the National Academy of Design and his two paintings the *House of Representatives* and the *Gallery of the Louvre*. This study is extremely indebted to Staiti's theories regarding Morse's "millennial desires," that is, that Morse's most important work in the fine arts was primarily in the service of aiding America achieve its millennial destiny. Of particular importance has been Staiti's astute interpretation of how Morse's millennial desires impacted his execution and production of the two above-mentioned paintings. I want to expand upon the idea of millennial progress to include its relation to Morse's almost complete turn to *technology*, an aspect Staiti acknowledges but, in accordance with his project's focus, does not fully explore.[10]

Indeed, the fact that Morse *chose* to pursue technology rather than remain in the fine arts, and what this choice reveals about mid-nineteenth century American culture, and about the man himself, is little discussed in the related literature. Morse's move from artist to inventor is typically credited to his lack of financial success as an artist and his ultimate failure to receive a government commission for the Capitol Building rotunda

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[9] Staiti, pp. 3-4, and also Paul J. Staiti, "Ideology and Politics in Samuel F. B. Morse's Agenda for a National Art," essay in *Samuel F. B. Morse, Educator and Champion of the Arts in America* (New York: National Academy of Design, 1982), p. pp. 44-49.

[10] Staiti, *Samuel F. B. Morse*, pp. 224-228. Staiti focuses on Protestant leaders' enthusiasm over the potential moral aspects of technologies like the telegraph and the railroad, which possibly could aid in evangelizing the ever-expanding American population.

panels. His move to technology is, therefore, often discussed as something of a "fall back" plan that fortuitously expanded when his career in painting did not meet his expectations.[11] This is surely true in part, as Morse was devastated not to receive the Congressional commission. However, Morse's decision to focus on the telegraph rather than painting was also due to his realization that science and technology would help him achieve his goals more effectively and rapidly than would painting, and, due to the professionalization of each of these fields (the fine arts, science and technology) in the second quarter of the nineteenth century, that he could not be recognized fully as both artist and inventor. Morse had long been involved with both technology and the fine arts. However, while he emphasized the fine arts over technology in the 1820s and early 1830s, in the late 1830s and early 1840s he exhibited an increasing commitment to technology, and shifted his focus from the arts to invention. Morse's work with the daguerreotype can be read as an attempt to bridge these two areas of his own life. The interpretation I offer of Morse as a daguerreotypist treats him not solely as an artist or as a scientist/technologist, but as both, considering the integration of the different dimensions of his personality. Thus, Morse's daguerreotype practice offers an opportunity to study the construction of the roles of artist, inventor and scientist during this time frame. It also highlights the importance of the idea of technological progress in American culture in the mid-nineteenth century, and Morse's growing awareness of this as a possible way to achieve his goals. My analysis of the photographic activity and images of chemist John William Draper (1811-1882), who was briefly Morse's business partner in a daguerreotype studio, gives additional insight into the constructions of artist and scientist,

[11] For example: "Because the telegraph now demanded his devotion, his interest in painting faded and he remembered the rejection of his application for the painting at the Capitol as the end of his art career," Mabee, p. 118.

and also points to sites of overlap and connectivity among the varying disciplines. My exploration of this partnership is of particular importance, as it demonstrates each man's influence on the other, and Draper's eventual turn from the hard sciences to the humanities also reinforces the fracturing of these fields in the mid-nineteenth century.

This study also establishes Morse's place in the early American photographic community. There have been only two article-length discussions of Morse as a photographer: Geoffrey Batchen's 1991 "'Some Experiments of Mine': The Early Photographic Experiments of Samuel Morse," and, more recently, François Brunet's "Samuel Morse, 'père de la photographie américaine.'"[12] Batchen successfully established the dates of Morse's early experimentation with the basic science that is photography, the capturing of an image on a surface with light-sensitive chemicals, to 1821-22, contrary to the previously given date of around 1810. The confusion among previous scholars surrounding these dates stems from Morse's March 9, 1839 letter to his brother Sidney E. Morse, in which he discusses his proto-photographic experiments conducted with Yale professor Benjamin Silliman. The other scholars Batchen lists, including Floyd and Marion Rinhart, Josef Eder, Robert Taft, and Beaumont Newhall, assumed the reference to Silliman in Morse's letter referred to his student days at Yale from 1805-1810, and Batchen shows that it is probably referring to when Morse and Silliman were neighbors in New Haven in 1821-22. While this article establishes an important aspect of Morse's proto-photographic work, it says almost nothing about Morse's practical work with the daguerreotype after 1839, and leaves the reader wanting further information. Brunet does discuss Morse's daguerreian activity after 1839 in an

[12] Geoffrey Batchen, "'Some Experiments of Mine': The Early Photographic Experiments of Samuel Morse," *History of Photography* 15 (Spring 1991): 37-42, and François Brunet, "Samuel Morse, 'père de la photographie américaine,'" *Etudes Photographiques* 15 (November 2004): 4-30.

effort to explicate Morse's status as the "Father of American Photography" for a French audience unfamiliar with the subject. While Brunet does accomplish his task successfully, he primarily assembles the existing information (albeit correctly), offering no new discoveries or interpretations, and does not reproduce a single daguerreotype by Morse. Despite these efforts, the study of Morse's photographic career has been riddled with apocrypha and the re-cycling of misinformation. I have uncovered new and important primary source information regarding his studios, sitters, motivations and attitude toward the medium. My study successfully establishes much of the historical record regarding the who's, what's, when's, where's and how's of his practical work with the daguerreotype, and hopefully it will provide the foundation for new directions in both Morse studies, and those treating early American photography.

The study of early American daguerreotypy consists primarily of social histories; among the most influential are Beaumont Newhall's *The Daguerreotype in America*, Richard Rudisill's *Mirror Image: The Influence of the Daguerreotype on American Society*, and Floyd and Marion Rinhart's *The American Daguerreotype*.[13] Newhall actually begins his text with Morse, noting, incorrectly, that Americans first heard of the process through the artist and inventor. This is the first book-length publication that deals solely with the daguerreotype in America, and Newhall provides a fairly straightforward history of the medium in the nation. The Rinharts built upon Newhall by presenting a more in-depth explanation of the same history. Having discovered significant primary source documentation about the practices of early American

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[13] Beaumont Newhall, *The Daguerreotype in America* (New York: Graphic Arts Society, 1961), Richard Rudisill, *Mirror Image: The Influence of the Daguerreotype on American Society* (Albuquerque, NM: University of New Mexico Press, 1971), and Floyd Rinhart and Marion Rinhart, *The American Daguerreotype* (Athens, GA: The University of Georgia Press, 1981).

daguerreotypists, they provide a straight historical account of the medium's early years in the U. S. It was not their objective to offer an interpretive analysis of the daguerreotype within American culture, and the result of their research is a veritable bible of names, facts, and dates surrounding the early practitioners. Morse, along with many other early American daguerreotypists, is treated accordingly. Rudisill, on the other hand, provides similar excellent primary source research, but he also proposed that the daguerreotype was particularly appealing to nineteenth-century Americans as the medium cultivated a cultural nationalism, was a technology that enabled society to adjust to the change from an agrarian culture to an industrial one, and that it reflected and engendered a spiritual truth gained from "perceiving the works of God in nature."[14] Here Morse is given a more thorough treatment than in the previously mentioned volumes. Rudisill deftly analyzes an early letter of Morse's to daguerreotype co-inventor Louis-Jacques Mandé Daguerre, as well as Morse's April 1840 speech regarding the daguerreotype to the National Academy of Design, contextualizing the latter as part of a larger trend he sees in which the daguerreotype is regarded as holding new aesthetic possibilities for American art.[15] What Rudisill fails to mention is that Morse was the first publicly to discuss this possibility, and that Morse's speech – which was re-printed at least twice in the New York City press – probably influenced the later writers he cites. Rudisill also reproduces a daguerreotype, incorrectly attributed to Morse, of Morse's daughter and second wife (Fig. 1).

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[14] Rudisill, p. 5.

[15] Ibid., p. 185.

The essential work of Alan Trachtenberg expanded upon these sources and successfully contextualized the American daguerreotype within a larger cultural framework, drawing predominantly upon contemporary literature.[16] In particular, Trachtenberg linked America's enthusiasm for the daguerreotype over William Henry Fox Talbot's paper process to the national craze for technological innovation, pointing out the much-discussed period associations of the daguerreotype, telegraph and railway, and posits that the daguerreotype's popularity was symbolic of "the first *democratic* popular culture in modern history."[17] Indeed, my own project largely began as a response to Trachtenberg's work, as a quest to discover how Morse, as the inventor of a truly democratic machine but also as the promoter of an often terrifically elite form of fine art, fit into such a construction. How did such a man earn the moniker "Father of American Photography," which remained in place well into the twentieth century?[18]

As photo-historian Douglas R. Nickel has noted, undertaking a monographic approach to a figure can be a tricky business, particularly in a relatively new field such as the history of photography. He notes that such a treatment can lift the figure "up and out of history, emphasizing the ways the chosen figure was 'ahead of his time' instead of

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[16] See Alan Trachtenberg, "Photography: The Emergence of a Keyword," in *Photography in Nineteenth Century America*, ed. Martha Sandweiss (New York: Harry Abrams, Inc., 1991), pp. 17-47; "The Daguerreotype: American Icon," in *American Daguerreotypes from the Matthew R. Isenburg Collection* (New Haven: Yale University Art Gallery, 1989), pp. 15-20; "Mirror in the Marketplace: American Responses to the Daguerreotype, 1839-1851," in *The Daguerreotype, A Sesquicentennial Celebration*, ed. John Wood (London: University of Iowa Press, 1989), pp. 60-73; "Likeness as Identity: Reflections on the Daguerrean Mystique," in *The Portrait in Photography*, ed. Graham Clarke (London: Reaktion Books, 1992), pp. 173-192; and *Reading American Photographs: Images as History, Mathew Brady to Walker Evans* (New York: Hill and Wang, 1989), pp. 3-70.

[17] Trachtenberg, "The Daguerreotype: American Icon," p. 18.

[18] For example, see Robert Taft, *Photography and the American Scene* (1938 reprint, New York: Dover Publications, 1964), p. 38.

situated in or symptomatic of it."[19] Nickel justifies his choice of genre, in relation to nineteenth-century British photographer Francis Frith, by noting that he wants to create "a plausible biographical subject whose importance is discovered in the way his work illuminates the cultural contexts from which he emerges."[20] My study of Morse's daguerreotypy is intended to do the same: offer a more thorough understanding not only of Morse, but also of the cultural context of early American photography and society, particularly the relationship of the fine arts and the sciences. Also, while this dissertation is a study in the history of photography, it is also a study in the history of American art, a field in which utilizing a monographic treatment of a figure to explore larger art historical or cultural questions is standard. A good, recent example of such an approach is Rachael Ziady DeLue's 2004 publication, *George Inness and the Science of Landscape*, which uses Inness's landscape paintings as a vehicle through which to examine nineteenth-century American scientific inquiry, and illuminates many of the intersections between art and science during this period.[21]

There exist very few monographs on early American daguerreotypists, likely due to the lack of available information and, as with Morse, the lack of extant images. One notable exception is William F. Stapp's 1983 catalogue on the work of Robert Cornelius.[22] There is clearly more to be done, particularly within an art historical context.

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[19] Douglas R. Nickel, *Francis Frith in Egypt and Palestine: A Victorian Photographer Abroad* (Princeton, NJ: Princeton University Press, 2004), p. 11.

[20] Ibid., p. 12.

[21] Rachael Ziady DeLue, *George Inness and the Science of Landscape* (Chicago: The University of Chicago Press, 2004).

[22] William F. Stapp, *Robert Cornelius: Portraits from the Dawn of Photography* (Washington, D.C.: National Portrait Gallery, 1983). Of course, there are also numerous excellent books on the "second generation" of American daguerreotypists, such as Southworth and Hawes, Mathew B. Brady and Augustus

This study takes its cue from several scholars of photo-history, especially Carol Armstrong's treatment of Anna Atkins in the exhibition catalogue *Ocean Flowers: Impressions from Nature*, and Robin Kelsey's work regarding Timothy O'Sullivan. Like them I consider Morse and Draper's extant plates as objects indicative of the technological or scientific contexts in which they were created, but also as formal images available for art historical unpacking.[23] I also borrow from Douglas Nickel's approach to Francis Frith and historicize Morse's actions and images as symptomatic of his cultural milieu.[24] What emerges from this method is an awareness of Morse's willingness to align the daguerreotype with the fine arts, and of his belief that the new medium had the potential to provide a revolution in the arts, a revolution that could brilliantly marry his two interests. In his work with the daguerreotype, I posit that Morse very consciously chose to yoke his goals for the fine arts within American society to the decided direction of American progress: science and technology. As historians of technology have explained, in the first few decades of the nineteenth century invention and technology

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Washington, but I am focusing here on those active in the first few years of the medium's existence, roughly 1839-1842. See, for example, *Young America: The Daguerreotypes of Southworth and Hawes*, eds. Grant B. Romer and Brian Wallis (New York: George Eastman House and International Center of Photography, 2005); Ann M. Shumard, *A Durable Momento: Portraits by Augustus Washington, African-American Daguerreotypist* (Washington, D.C.: National Portrait Gallery, 1999); and Mary Panzer, *Mathew Brady and the Image of History* (Washington, D.C.: National Portrait Gallery, 1997).

[23] Carol Armstrong, "Cameraless: From Natural Illustrations and Nature Prints to Manual and Photogenic Drawings and Other Botanographs," in *Ocean Flowers: Impressions from Nature*, eds. Carol Armstrong and Catherine de Zegher (Princeton, NJ: Princeton University Press, 2004), pp. 87-165, and Robin E. Kelsey, "Viewing the Archive: Timothy O'Sullivan's Photographs for the Wheeler Survey, 1871-74," *Art Bulletin* 85 (December 2003): 702-723.

[24] Nickel, p. 15. My use of both Nickel and Armstrong might seem odd, as Nickel is highly critical of Armstrong's treatment of Frith in her 1998 study, *Scenes in a Library, Reading the Photograph in the Book, 1843-1875* (Cambridge, MA: The MIT Press, 1998), asserting that Armstrong unduly privileges critical interpretations over historical. I do not believe this is the case with Armstrong's text that I am utilizing. Rather, in her essay "Cameraless," Armstrong successfully contextualizes Atkins within her historical, social and scientific environment, while simultaneously offering a formal analysis of Atkins's drawn and photographed images.

became synonymous with ideals of American progress.[25] The fact that Morse abandoned the daguerreotype as he abandoned painting points to American culture's privileging of native technology over the visual in its construction of what constitutes a "great man," and leads to Morse's also very conscious decision to associate himself with scientific innovation to achieve his goals. This is not to undermine photography's, and in particular daguerreotypy's, very real popularity within the United States, but to say that American culture did not place the same kind of emphasis on the visual as it did on the strictly technological. No painter or photographer received the kind of accolades described at the beginning of this text, as did Morse for his work on the telegraph.

In terms of my choice of vocabulary regarding "science" and "technology," it is necessary to note that the intersections and divides between these two fields was in the nineteenth century and remains today a matter of some contention. There are two basic views on the matter: one sees technology as the by-product of hard science, and therefore as somewhat subservient to its parent field; the other proposes a more fluid and interdependent relationship between the two.[26] Morse was aware of the bias against inventors by proponents of the first model, such as scientist Joseph Henry, and, despite his relative lack of scientific training or knowledge, was desirous of being admitted into the ranks of "serious" scientists. By the time Morse achieved renown for the telegraph, he generally was considered a great man of both science and technology. Therefore

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[25] This is a well discussed topic among historians of technology, see, for example, Alan I. Marcus and Howard P, Segal, *Technology in America, A Brief History* (New York: Harcourt and Brace Jovanovich, Inc., 1989); Brooke Hindle and Steven Lubar, *Engines of Change: The American Industrial Reolution, 1790-1860* (Washington, D.C.: Smithsonian Institution Press, 1986); and Paul Israel, *From Machine Shop to Industrial Laboratory: Telegraphy and the Changing Context of American Invention, 1830-1920* (Baltimore: The Johns Hopkins University Press, 1992).

[26] A good discussion of this history is found in Thomas P. Hughes, "The seamless web: technology, science, et cetera, et cetera," *Technology and Social Process*, ed. Brian Elliott (Edinburgh: Edinburgh University Press, 1989), pp. 9-19.

when I am juxtaposing either term against Morse's artistic career, I often do not make a distinction between them, more in accordance with the second model described above. At other times, particularly in my discussion of Draper's work or Morse's telegraph patent trials, it is useful to distinguish between hard science and technology as in the first example.

Finally, the difficulty of building an art-historical argument around so few images must be addressed. There are only two images I have seen that I am confident are by Morse, and one of these was co-produced with Draper. These are, respectively, *The Portrait of Reverend Reuben Nelson* (Fig. 2), and *Still-Life* (Fig. 3). I am still uncertain about the plate in the collection of the International Center of Photography, which is currently attributed to Morse (Fig. 4). Both this and the portrait of Draper at the National Museum of American History, Smithsonian Institution (Fig. 5), I label as *possibly* by Morse. An additional two portraits exist, and I am accepting the attribution to Morse based on their inclusion of a stamped mat similar to the known plate at the Metropolitan Museum of Art, *Portrait of the Reverend Reuben Nelson*.[27] A complete list of extant plates, known lost plates, and photographic subjects attempted or considered by Morse is found in the appendix of this dissertation. Given the dearth of extant plates, I have relied heavily on Morse's written and published statements regarding the medium, as well as on period reviews and descriptions of his works, in attempting to establish his views of and hopes for the medium. This includes the descriptions of several now-lost daguerreotypes. And while I do intend a formal analysis of the images that are known, their limited number accounts for my hesitation in positing an overall aesthetic for the works as a

[27] Though I have contacted the collector who owns these portraits, they have thus far declined to work with me and I have not yet been able to see the plates themselves.

whole, or for proposing a photographic "oeuvre" for Morse, which I believe is, at this point, impossible to establish (and also risky at such an early moment in the medium's history, when many practitioners were simply attempting to successfully capture an image). The almost two hundred plates by Draper in the Draper Collection at the National Museum of American History, Smithsonian Institution, are quite crucial to this study, as many are revealing about the pair's photographic interaction and the possible influences of Morse upon Draper. These images make a vital contribution to a full understanding of the symbiotic relationship between the two men.

Summary of Chapters

I begin by establishing Morse's place in the "arts and sciences" model of knowledge that was prevalent in the United States in the late eighteenth and early nineteenth centuries, and by situating him as being particularly open to the daguerreotype upon its announcement in early 1839. Using his artistic career as a backdrop, I focus my discussion on Morse's involvement with the technological and the mechanical during his activity as a painter until 1835. This includes detailing his association with Yale professor and noted scientist Benjamin Silliman, his proto-photographic experiments with Silliman, and the other inventions and machines he created during this time. I also characterize Morse's ambitions and objectives regarding his desire for personal success, and his hope of aiding his nation in receiving the international acclaim and recognition he felt was its due. Prior to 1835, this took the form of his work with the fine arts, particularly in establishing the National Academy of Design and his paintings the *House of Representatives* and the *Gallery of the Louvre*. Morse's openness to mechanical reproduction, and his ideas regarding its place in relation to the fine arts, can be found in

his *Lectures on the Affinity of Painting with the Other Fine Arts*, first delivered in 1827; his positive ideas on the subject were made manifest in his use of the camera obscura to create the above-mentioned paintings.

My second chapter focuses on Morse's work with the daguerreotype proper, starting in early 1839. This section is less about analyzing the individual images and more about clarifying the details of Morse's photographic activity, including a full account of his March 1839 meeting with Daguerre, his resultant letter regarding that meeting, and his promotion of the daguerreotype within the United States. Here I begin to suggest that Morse positively associated the daguerreotype with the fine arts, and presented it to his fellow artists as a device that could be of enormous benefit to their profession. I explicate Morse's partnership and daguerreotype studio with Draper, as well as treating the later daguerreotype studio he ran on his own, the so-called "palace of the sun." I also examine Morse's interaction with Frenchman François Gouraud, and contextualize Morse within the period discourse on American technology.

Chapters Three and Four treat the respective photographic work of Morse and Draper, not including the work they produced together, which is discussed in Chapter Five. Much has been made of Morse's privileging of history painting over portraiture within his career as an artist. The third chapter analyzes Morse's statements regarding the hierarchy of genres, and compares them to his actual work regarding the daguerreotype, most of which was in portraiture. Morse's enthusiasm over the photographic portrait as opposed to the painted portrait is in alignment with his interest in and growing awareness of the primacy of the mechanical in American culture. I focus on the daguerreotypes that Morse created alone, including two engravings after

daguerreotypes, and the extant plate *Portrait of Reverend Rueben Nelson*. I compare these to other period daguerreotypes and paintings in an attempt to determine how Morse conceptualized the medium's relationship to this genre. I go on to focus on the work of Draper, first examining the portraits he created as evidence of his growing interest as an image-maker, and then applying this interest to the more purely scientific images he created, such as his photographs of the moon, his micro-daguerreotypes, and his daguerreotypes of the solar spectrum. This analysis highlights areas of overlap and connection between the arts and sciences, but also begins to document the fracturing between these disciplines; an occurrence that would have an impact on both Morse and Draper.

The final chapter closely looks at the work created by the pair, *Still-Life* (Fig. 3), and offers an in-depth analysis of this image relating to Morse's probable desires for the medium as a technologically-based means of visual reproduction that could aid his long-time goals of personal fame, nationalistic success, and elevating the standards of culture in America. A plate produced by Draper alone demonstrates the fluidity between the fine arts and the sciences at this time, and indicates Morse's influence on Draper. Finally, I conclude with a discussion of the artistic and scientific communities' reactions towards Morse's dual careers, and argue that the professionalization of both disciplines caused Morse to choose science and technology over the fine arts – including the daguerreotype – as the path to achieve his millennial desires. It is Morse's activity with the daguerreotype, however, that provides the essential link between his two roles in American culture, and supplies a more thorough understanding of this well-known figure.

Chapter 1: Samuel F. B. Morse and Technology pre 1835: the "Arts and Sciences" in America

Samuel Finley Breese Morse (1791-1872) was born in historic Charlestown, Massachusetts, into a household ideally situated for the creation of an American icon. Morse's father, well-known Calvinist minister Jedidiah Morse (1761-1826), was the nation's pre-eminent geographer through the first half of the nineteenth century. Jedidiah imbued Morse and his brothers with the belief that the United States was destined for millennial greatness, the idea that "a thousand years of peace, predicted in Scripture, was imminent in America, which would in turn have the responsibility of carrying the empire of peace to the world."[1] Morse and his brothers, Richard Cary Morse and Sidney Edward Morse, adopted these ideals, which became the predominant driving force in their lives. It was a belief in his nation's glory, and a conviction that he, Samuel, was destined to play an integral part in achieving that glory, that motivated Morse throughout his two careers as artist and inventor.

Jedidiah's *American Geography*, published in 1789, was the first book of importance on the subject in the nation. Morse's awareness of this "first," and of the other important firsts the Morse men contributed to their country in the service of its millennial destiny, is evident in a list Morse compiled documenting these accomplishments:

> First Geography of the United States, Jedd. Morse
> First Religious Society in house of Jedd. Morse
> First Religious Newspaper Sidney E. Morse
> First Telegraph (in the literal sense of the term) S. F. B. Morse
> First Course of Lectures on the Fine Arts in U. States S. F. B. Morse[2]

[1] Paul J. Staiti, *Samuel F.B. Morse* (New York: Cambridge University Press, 1989), p. 3.

[2] Quoted in Kenneth Silverman, *Lightning Man: The Accursed Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 2003), p. 321. It is unclear when Morse compiled this list, but, as will be discussed in

While Jedidiah would map and plot and chart the contours of the land itself, and record these in a volume as proof positive of America's incipient superiority over other nations, Morse would attempt to live his life as that proof. Whether by creating an institution to elevate the arts in his country, or by inventing a device that would revolutionize communication and uphold America's reputation as the most innovative and modern nation in the world, Morse was continually seeking greatness, for himself and for his nation.

Morse came of age in an era when the distinction between artist and scientist or inventor was not strict, and the professionalization of each occurred during his lifetime. He partially contributed to the separation of these disciplines into distinct fields through his founding of the National Academy of Design, the first arts organization in the nation run by artists; also the telegraph patent trials of the late 1840s to early 1850s helped define the role of inventor versus scientist. In his youth, though, as the young nation for which his father had such hopes struggled to develop an identity and culture distinct from that of Europe, the arts and sciences were more synonymous with general culture or intellect. Although the country's greatness was still in its nascent stages, the Morses felt all the proper ingredients were in place for its inevitable fruition. Jedidiah's *American Geography* makes this point clear; the book not only discusses the physical properties of the United States, but also characterizes and assesses the cultural life of its inhabitants on a state-by-state basis. In his chapter on Massachusetts, for example, Jedidiah wrote:

> Next to Pennsylvania, this state has the greatest number of societies for the promotion of useful knowledge and human happiness . . . These institutions, which are fast increasing in almost every state of the union,

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later chapters, the importance placed on being "first" is probably why none of Morse's accomplishments in photography are included in the list.

> are so many evidences of the advanced and advancing state of civilization and improvement in this country. They prove, likewise, that a free republican government, like ours, is of all the others the most happily calculated to promote a general diffusion of useful knowledge, and most favorable to the benevolent and humane feelings of the human heart.[3]

That Jedidiah was well known and respected as an authority on the state of culture in the United States is evinced by a letter from Joseph Pintard, who addressed Jedidiah's somewhat lackluster assessment of the progress of the arts and sciences in New York by writing, "Tell our friend Morse that by the next edition of his Geography our city will offer a better picture of the *progress of civil society* than in his last."[4]

Pintard was probably hoping to have his fledgling museum, which opened in 1791, be included in the next edition of Jedidiah's *Geography*. His goal for the museum was that it "collect and preserve whatever relates to our country in art or nature, as well as every material which may serve to perpetuate the Memorial of national events and history."[5] It was founded on the same principles that guided Charles Willson Peale's Museum in Philadelphia, which by 1786 contained the combined elements of fine art and natural history that it would retain until 1827. Peale firmly believed that American cultural institutions should be accessible to a broad range of the public, as opposed to more elitist European precedents, and marketed his museum as such.[6] Pintard's museum at the Tammany Society, with its similar range of paintings and natural artifacts,

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[3] Jedidiah Morse, *The American Geography*, 2nd Ed. (London: John Stockdale, 1789), p. 175.

[4] Quoted in Thomas Bender, *New York Intellect: A History of the Intellectual Life in New York City, from 1750 to the Beginnings of Our Own Time* (Baltimore: Johns Hopkins University Press, 1987), p. 48.

[5] Quoted in Bender, p. 47.

[6] David R. Brigham, *Public Culture in the Early Republic, Peale's Museum and Its Audience* (Washington, D.C.: Smithsonian Institute Press, 1995), p. 2.

eventually became the basis for P. T. Barnum's famous museum on Broadway.[7] While both of these institutions can be seen to embody the "arts and sciences" model of knowledge that characterizes this period of intellectual history in America, neither Scudder's Museum nor Peale's appear in the 1792 edition of Jedidiah's book. These institutions evidently were not the kind of culture Jedidiah had in mind for the "advancing state of civilization and improvement in this country." His millennial beliefs of America's predestined, eventual greatness were tied to an Enlightenment-era notion of democratic aristocracy and the primacy of an educated, cultured elite. Certainly there needed to exist cultural institutions, but the more cultured class should shape and instruct the general public as to what was proper culture and what was not. Jedidiah, and later Samuel, had little use for institutions such as Peale's and Scudder's, which smacked of what they might consider popular rather than intellectual taste. Instead, the elder Morse reserved his praise for "improving institutions" such as The American Philosophical Society in Philadelphia, which had been co-founded by Benjamin Franklin in the early eighteenth century.[8]

Jedidiah's concern for his nation's reputation throughout Europe, a concern that Samuel would inherit, is markedly evident in *American Geography*: "The natural genius of Americans, not through prejudice we would charitably suppose, but through want of information, has suffered in the descriptions of some ingenious and eloquent European writers."[9] Jedidiah went on to describe at length how Abbe Raynal of France asserted

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[7] Bender, p. 47.

[8] Jedidiah Morse, *American Geography* (London: John Stockdale, 1792), p. 325.

[9] Ibid., p. 63.

that America had not produced one good poet, one able mathematician, or one man of genius in a single art or a single science, and how Thomas Jefferson replied that although America was a young nation, it had already turned out Franklin, George Washington, and astronomer and mathematician David Rittenhouse.[10]

In light of his father's almost fanatical intertwined beliefs regarding culture, millennialism, and nationalism, it is not surprising that from his student years Morse showed an avid interest in both the arts and the sciences; interests that would evolve into the tools he utilized to realize his lifelong ambitions of personal success and advancement of his country. He experimented with each until the early 1840s, after which the lion's share of his attention was focused on technology. This experimentation would position him as particularly qualified to attempt the basic science that is photography: fixing an image onto a surface through a reaction of chemicals to light. Through photography, Morse would briefly glimpse a means of disseminating his ideals regarding taste and culture - ideals he had inherited from his father and expanded upon tenfold - to the general public, thereby elevating the standards of taste and culture in America, but via a thoroughly progressive, innovative technology. In the first thirty or so years of Morse's life, the idea that technological innovation was particularly American became entrenched within American society. Morse's awareness of this, and how if affected his work, has been largely overlooked by scholars. This chapter details Morse's interest in the scientific and technological prior to 1835, establishing that the majority of his experimentation in these fields directly relates to the fine arts. Even more significantly, much of Morse's technological and artistic activity, be they actual paintings or his written statements regarding the arts, demonstrate a marked interest in utilizing what Morse

[10] Ibid., p. 64.

terms "mechanical imitation." Below, I argue that Morse's use of the camera obscura, his daguerreotypy, and electro-magnetic telegraph are all linked through their reproductive mechanical natures.

Morse's Scientific and Technological Experiments, Prior to 1835.

Morse's status as a man of science was not questioned at the time of his death, yet it was hotly debated after he made his telegraphic process public in 1837, particularly during the lengthy legal disputes over his patent rights which took place between 1848 and 1854. Historian of technology David Hochfelder has explained that in the first half of the nineteenth century, the field of science moved from the realm of the amateur gentleman hobbyist to that of the professional. Science was popularized through a variety of means, including public lectures, popular journals, and scientific societies.[11] Hochfelder has written: "At the turn of the [nineteenth] century, amateur science had been largely restricted to elites who had regarded scientific knowledge as an embellishment to their classical educations and refined manners."[12] By the time of the telegraph patent trials in the mid-nineteenth century, Morse was considered by many to be an old-fashioned amateur practitioner of science, and was labeled as such by his detractors in the telegraph litigation in an effort to de-legitimatize his claims to the invention. I am not interested in weighing in on Morse's scientific or inventive abilities, but rather in chronicling his efforts in these areas prior to his work with the daguerreotype and during his active career as an artist in order to highlight their

[11] David Hochfelder, "Taming the Lightning: American Telegraphy as a Revolutionary Technology, 1832-1860," Ph.D. dissertation, Case Western Reserve University, 1999, pp. 15-37.

[12] Hochfelder, p. 15.

importance to his efforts in the visual arts, and to examine the commonalities between them.

Morse began his education at Phillips Academy in Andover, Massachusetts and then attended Yale College in New Haven. It was at Yale that Morse began to demonstrate a marked interest in both art and science. His interest in the fine arts appears to have developed independent of any particular role model, and Morse's earliest biographer, Samuel Irenaeus Prime, reports that the young artist made extra pocket money as a portraitist. By the end of his junior year, Morse was charging his classmates one dollar for a simple profile and five dollars for a miniature on ivory. He wrote his parents about his extracurricular activities: "I employ all my leisure time in painting. I have a great number of persons engaged already to be drawn on ivory, no less than seven."[13]

While at Yale, Morse also fell under the tutelage of several eminent scientists, particularly Benjamin Silliman and Jeremiah Day. In February 1809, Morse reported, "My studies are at present, Optics in philosophy, Dialling, Homer, beside disputing, composing, attending lectures etc. etc., all which I find very interesting and especially Mr. Day's lectures who is now lecturing on *Electricity*."[14] One month later he described one of these lectures in detail, "Mr. Day's lectures are very interesting. They are upon Electricity. He has given us some very fine experiments. The whole class taking hold of hands formed the circuit of communication and we all received the shock apparently at

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[13] Samuel F. B. Morse to Elizabeth Morse and Jedidiah Morse, August 1809, Samuel F. B. Morse Papers, Manuscript Division, Library of Congress (hereafter cited as Morse Papers). This type of activity is a neat precursor to Morse's 1840 daguerreotype featuring his 30th reunion class at Yale, the first such to be taken in America, fully discussed in Chapters Two and Three.

[14] Ibid.

the same moment."[15] He also wrote, "I am very much pleased with chemistry. It is very amusing, as well as instructive. There are many beautiful and surprising experiments performed, which are likewise very useful."[16] In this last letter, Morse is referring to the experiments of Benjamin Silliman, who was one of the most respected American scientists of the day. He founded the first journal devoted to science in the nation in 1818, called the *American Journal of Science*, or often simply "Silliman's Journal." This publication has been classified as "the first scientific periodical of national scope and it remained the leading outlet for [scientific] publication until at least the civil war."[17] Importantly, Silliman initially was hopeful of including articles on the fine arts, among them sculpture, painting, and engraving. He wanted his journal to "advance the interests of this rising empire, by exciting and concentrating original American effort, both in the sciences, and in the arts."[18] One can presume Silliman brought this same attitude about science, innovation and the fine arts into his classroom at Yale. Morse was greatly affected by Silliman, and would later deepen their acquaintance into friendship when the two became neighbors in the early 1820s.

After Morse's graduation from Yale in 1810, his parents apprenticed him to a bookseller in Boston. He continued painting in his off time and evenings, and soon became aware of, or met, painter Washington Allston, though there is no exact record of

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[15] Samuel F. B. Morse to his parents, March 8, 1809, Morse Papers.

[16] Samuel F. B. Morse to his parents, February 1809, quoted in Carleton Mabee, *The American Leonardo, A Life of Samuel F.B. Morse* (New York: Alfred A. Knopf, 1948), p. 18.

[17] Hochfelder, p. 48.

[18] Quoted in Leonard G. Wilson, "Benjamin Silliman: A Biographical Sketch," essay in *Benjamin Silliman and his Circle: Studies on the Influence of Benjamin Silliman on Science in America*, ed. Leonard G. Wilson (New York: Science History Publications, 1979), pp. 17-18. Wilson also points out that it eventually proved impractical for Silliman to include articles on the fine arts in his journal as he had originally intended.

when or how this happened. Morse pleaded with his parents to be allowed to study with the eminent artist. They soon relented, and the budding artist traveled to England with Allston to enroll in the Royal Academy of Fine Arts for a formal education in the arts under the instruction of American expatriate artist Benjamin West. Morse arrived in England in 1811 and began his studies with Allston in preparation for acceptance to the Royal Academy. He soon became roommates with another young American painter, Charles Leslie. Morse's association with Allston, West and Leslie was extremely formative and important for his development as a painter. However, he made another acquaintance in London who in all likelihood contributed to his bourgeoning interest in photography. Samuel Taylor Coleridge, poet, writer and critic, was a close friend of Allston. Coleridge had also been close with several of Britain's leading men of science, particularly proto-photographers Tom Wedgwood, son of the famous ceramicist, and Humphry Davy.[19] In June 1802, Wedgwood and Davy had published an article in *Journals of the Royal Institution of Great Britain* called, "An Account of a method of copying Paintings upon Glass, and of making Profiles, by the Agency of Light upon Nitrate of Silver. Invented by T. WEDGWOOD, Esq. With Observations by H. DAVY," arguably the first published account of photographic experiments. Regarding the relationship of the three men, photo-historian Geoffrey Batchen has observed, "Indeed, so intimate was Coleridge with Wedgwood and Davy that it seems more than likely he would have taken part in any photographic experiments they undertook. Certainly he would have discussed with them the scientific and philosophical implications of their

[19] I am following Geoffrey Batchen's classification of "proto-photographer:" "those who practiced, recorded, or subsequently claimed for themselves a precocious onset of the desire to photograph," before the 1839 announcement of the daguerreotype. See *Burning with Desire: The Conception of Photography* (Cambridge: MIT Press, 1997), p. 50.

work."[20] Through Allston, Coleridge met and became quite close with Morse and Leslie, and was a frequent visitor to their rooms.[21] Coleridge was apparently subject to "fits of despondency" during these visits. In order to counteract these fits, Morse and Leslie would feign an argument over various metaphysical and artistic points in Coleridge's presence. "Each argued with the other until Coleridge became interested, and, rousing from his fit of despondency, spoke with an eloquence and depth of metaphysical reasoning on the subject far beyond the comprehension of his auditors."[22] Morse and Coleridge, along with Leslie, traveled together with Allston to the country for the sake of Allston's health.

Although it is unclear how much truth resides in the anecdote of Morse and Leslie arguing Coleridge out of his depression, Morse was surely aware of Wedgwood and Davy's experiments. His former professor from Yale, Benjamin Silliman, published an addendum to the pair's "Account" when it was included in a chemistry text, and had met Davy in 1805.[23] It seems highly likely that, given Silliman's interest, he would have discussed the experiments with his students. Given Morse's own interest in chemistry while at Yale, the sciences and current experimentation were probably among the topics covered by Morse and Coleridge during their frequent conversations. Undoubtedly, Morse also would have been excited to learn of Coleridge's acquaintance with Wedgwood and Davy, and even more excited about the photographic experiments they

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[20] Ibid., p. 60.

[21] James Wynne, "Samuel F. B. Morse," *Harper's New Monthly Magazine* 24 (1862): 231-232.

[22] Ibid., p. 231.

[23] Geoffrey Batchen, "Tom Wedgwood and Humphry Davy, 'An Account of a Method.'" *History of Photography* 17 (Summer 1993): 181.

had performed some ten years prior. In these experiments, Wedgwood and Davy exposed white paper or leather treated with nitrate of silver to light via a camera obscura, creating impressions of objects and human profiles.[24]

Being an American in England during the War of 1812 was not always easy on Morse. His feelings of nationalism, already powerful due to his upbringing, were strengthened by the occasional prejudice he experienced abroad. It is during his sojourn in England that Morse's nationalism became inextricably intertwined with his hopes for the arts in his country. Morse's strong feelings on the state of the arts in America, the type of paintings Americans should be viewing, and his desire to be the greatest American painter living, are all evinced in an astonishing series of letters he wrote to his parents during 1814-15. On March 12, 1814, he considered the condition of the fine arts in America:

> It is really a pleasant consideration that the palm of painting still rests with America, and is, in all probability, destined to remain with us. All we wish is a taste in the country and a little more wealth. . . . In order to create a taste, however, pictures, first-rate pictures, must be introduced into the country, for taste is only acquired through a study of the old masters.[25]

Here, we find evidence of Morse's millennial beliefs in relation to the arts, that the "palm of painting rests with America, and is . . . destined to remain with us." His assertion that "a taste" must be developed through a study of "first-rate pictures" is one that will evolve and have a direct impact on both his painting and his daguerreotyping. A few months later, Morse detailed his desired role in bringing this taste to his homeland:

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[24] See Ibid., p. 172.

[25] Samuel F. B. Morse to Jedidiah Morse, March 12, 1814, Morse Papers.

> The Americans at present stand unrivalled [meaning West, John Singleton Copley, John Trumbull, and of course Allston], and it is my great ambition (and it certainly is a commendable one) to stand among the first. My country has the most prominent place in my thoughts. How shall I raise her name, how can I be of service in refuting the calumny, so industriously spread against her, that she has produced no men of genius? It is this more than anything (aside from painting) that inspires me with a desire to excel in my art. It arouses my indignation and gives me tenfold energy in the pursuit of my studies. I should like to be the greatest painter *purely out of revenge*.[26]

Now, Morse has placed himself firmly into the United States' millennial destiny -- a destiny he clearly felt, like his father in *American Geography*, that his European colleagues were challenging. Morse countered this gauntlet by proposing that not only will the development of culture happen through the study of first-rate pictures, but he himself will excel in his art until he is the best possible painter, proving to the entire world that his country is capable of producing "men of genius." A year later, on May 3, 1815, Morse wrote yet another letter that combines his nationalism, elitism, and ambition. He began by harshly criticizing popular forms of entertainment:

> It may, perhaps, be said that the country is not rich enough to purchase large pictures; yes, but two or three thousand dollars can be paid for an entertainment which is gone in a day, and whose effects are to demoralize and debilitate, whilst the same sum expended on a fine picture would be adding ornament to the country which would be lasting. It would tend to elevate and refine the public feeling by turning their thoughts from sensuality and luxury to intellectual pleasures, and it would encourage and support a class of citizens who have always been reckoned among the brightest stars in the constellation of American worthies.

In this passage Morse's cultural elitism – the same elitism that led Jedidiah to exclude Scudder's and Peale's museums from his *Geography*, but include Franklin's American Philosophical Society – is distinctly evident. Also evident, again, is Morse's own ambition. Not only does he want the nation to purchase large history paintings to "elevate and refine the public feeling," but he desires this because it would "support a

[26] Samuel F. B. Morse to Jedidiah Morse, May 2, 1814, Morse Papers.

class of citizens who have always been reckoned among the brightest stars in the constellation of American worthies": the implicit suggestion, of course, is that this class of worthy citizens supported by the purchase of large paintings would include himself. Morse ended the letter with an unabashed and bold statement, spelling out these aspirations in no uncertain terms:

> I do not speak of portrait-painters; had I no higher thoughts than being a first-rate-portrait painter, I would have chosen a different profession. My ambition is to be among those who shall revive the splendor of the fifteenth century; to rival the genius of a Raphael, a Michael Angelo, or a Titian; my ambition is to be enlisted in the constellation of genius now rising in this country; I wish to shine, not by a light borrowed from them, but to strive to shine the brightest.[27]

While Morse's methods of attaining this longing to "shine the brightest" would alter over time, the basic desire remained constant throughout his life. Morse wanted to shine, but, importantly, to do so in the service of aiding his country attain the greatness he felt was its due.

By mid-summer 1815, Morse was ready to return home. He had made great strides in his artistic development while in England, and clearly felt ready to fulfill his destiny as "the brightest . . . in the constellation of genius now arising in [America]." After an appalling sea voyage, Morse's ship landed in Boston on October 19, 1815. Full of promise, hope and excitement about the prospect of being home and finally painting grand subjects for Americans, the young artist took a studio in Boston and awaited what he hoped would be the inevitable onrush of clients.

Art and Inventions, 1816-1820

[27] Samuel F. B. Morse to Jedidiah Morse, May 3, 1815, Morse Papers.

Morse's parents had tried to warn him about the probable lack of commissions in America apart from portraiture, and much to his disappointment, Morse found them to have been correct.[28] Worse, even portrait commissions were scarce. In August, 1816, Morse traveled north to Concord, New Hampshire, with the hopes of securing some work. He had letters of introduction from his father to fellow clergymen, and was soon employed in making small portraits of the local citizenry at fifteen dollars each. In Concord Morse met the woman he would eventually marry, Lucretia Pickering Walker, a local judge's daughter. He spent the autumn and winter of 1816-1817 traveling about New Hampshire, picking up various portrait commissions from town to town. The man who aspired to be an American Old Master, though, was not satisfied with the life of an itinerant portraitist. There was also the practical concern of money, as he needed to amass a sizeable amount in order to marry his fiancée Lucretia. As portraiture was unfulfilling artistically, and schemes for a grand painting featuring a historic controversy at Dartmouth College proved unfeasible, Morse turned his thoughts to science and technology.[29]

Simultaneously, as historian Paul Israel has noted, invention became an important force in American culture:

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[28] Elizabeth Morse to Samuel F. B. Morse, December 19, 1814, wrote, "You must not expect to paint anything in this country, for which you will receive any money, but portraits." Quoted in *Samuel F. B. Morse, His Letters and Journals*, Vol. 1, ed. Edward Lind Morse (Boston: Houghton Mifflin Company, 1914), p. 159 (hereafter cited as *Letters* Vol. 1 or 2).

[29] The controversy at Dartmouth College involved the revision of the college's charter, which had been granted in 1769, by the state legislature. Daniel Webster represented the Federalist board of trustees at the Supreme Court trial on the matter, and argued that the state could not interfere with the original charter, as it was a contract between the state and the college. The Court agreed, and the resultant ruling written by Chief Justice John Marshall in 1819 became a historic Constitutional clause. Morse was undoubtedly attracted to this subject as it featured the failing Federalist party in a noble light. He wanted to paint the scene on speculation, feeling certain the public would be interested in it and hopeful that Dartmouth would purchase it. It became clear to him, though, that he lacked the monetary means to execute such a work without a definite buyer, and abandoned the idea.

> At the time of Morse's birth, Americans were ambivalent about the benefits offered by material progress achieved through technological change. But as changing political and economic conditions transformed the agrarian society of Morse's youth into an emergent industrial power, they came to embrace new technology as a positive social goal. In the process, Americans came to celebrate and promote invention.[30]

Historians Brooke Hindle and Steven Lubar also discuss the role of technology in America during the first half of the nineteenth century, tying its increasing popularity to the need for economic expansion following the Revolution. Hindle and Lubar explain, "Most [Americans] agreed that economic improvement would benefit from technological change, that invention would benefit the nation. . . . A much exaggerated emphasis came to be placed on invention."[31] Historians of technology Alan Marcus and Howard Segal also note that America's focus on technology began to skyrocket around the turn of the century, noting "After about 1800 Americans . . . increasingly threw off the yoke of mercantilism, and emphasized progress, development and growth. Technology would be instrumental in fulfilling these new social goals."[32] Morse's repeated inventive efforts prior to his work with the telegraph indicate his awareness of technology's cultural impact, and his desire to be associated with this particularly American brand of modernity. Given his interest in science and technology while a student at Yale, it seems reasonable that when his painting career was not proceeding as he'd hoped, Morse would begin to tinker with various devices, both out of interest and in the hopes of making some money.

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[30] Paul Israel, *From Machine Shop to Industrial Laboratory: Telegraphy and the Changing Context of American Invention, 1830-1920* (Baltimore: The Johns Hopkins University Press, 1992), pp. 5-6.

[31] Brooke Hindle and Steven Lubar, *Engines of Change: The American Industrial Revolution, 1790-1860* (Washington, D.C.: Smithsonian Institution Press, 1986), pp. 75-76.

[32] Alan I. Marcus and Howard P. Segal, *Technology in America, A Brief History* (New York: Harcourt Brace Jovanovich, Inc., 1989), p. 53.

In around March 1817, Morse returned to Charlestown and with his younger brother Sidney E. Morse began experimenting with a flexible piston-pump that they hoped to market to fire-engines, as an improvement on black-smiths' bellows, and for use on boats. There are several letters from this period that may refer to the pump, one of the first believed to be from March 4, 1817, when Jedidiah wrote to Morse, "Your b.r wants your assistance now in making some imp.t philosophical experiments with him."[33] A few weeks later Morse's mother, Elizabeth, wrote to the third Morse brother, Richard Cary, that Sidney and Morse had been engaged in engrossing "philosophical experiments" for only two weeks.[34] As Morse biographer Carleton Mabee points out, however, these letters may also refer to experiments on the propelling of steamboats by expulsion of water. An account book of Richard's notes, "Disclosed the project of propelling a vessel by action on a column of water to Cap.t Hull this day April 2.d 1817."[35] Regardless of which experiment the letters refer to, in the spring of 1817 Morse certainly had invention on his mind at the expense of art, and by the summer the pump had his full attention.

Morse and Sidney spent the summer of 1817 tinkering with various models of their pump and showing the device off to friends and possible investors. They applied for an American patent and dreamed of securing one in Europe as well. The invention was a

[33] Jedidiah Morse to Samuel F. B. Morse, March 4, 1817, Morse Papers. Mabee seems to be accurate in his designation of this as among the first references to the pump, see p. 387, n. 14.

[34] Elizabeth Morse to Richard Cary Morse, April 8, 1817, quoted in Mabee, p. 387, n. 14.

[35] Quoted in Ibid.

joint venture, and the patent was in both brothers' names.[36] The first definite correspondence referring to the pump appears in the summer of 1817, when Morse wrote to Lucretia:

> We are daily in expectation of hearing of the arrival of our models of machinery from Washington, and of receiving out letters-patent. We have just tried our fire-engine on a larger scale, and it succeeds to our utmost expectation. We have shown it to several friends, who have given it their entire approbation, and think it will not only be profitable to us, but beneficial to the community. From its cheapness, it will be within the reach of every village.[37]

Here Morse is stressing his two main goals in life: that any invention or artistic product he create needed to achieve profit for himself, and be beneficial to the community. During the same summer, Sidney wrote to Morse, "Since you left us I have been employed in newly modifying and improving the pump-machine. . . . I think of calling it 'Morse's Patent Metallic Double-Headed OCEAN DRINKER and DELUGE SPOUTER VALVE Pump-Boxes."[38] [emphasis original]

By September of 1817, it was apparent to Morse that any money obtained from the pump would not be coming for some time, and portrait commissions remained scarce. He briefly considered a career in divinity, but was quickly dissuaded on the advice of his family and friends. Itinerancy again seemed the only option to accrue some capital, and various friends and relations convinced Morse that he might have success in Charleston, South Carolina. Dr. James E. B. Finley, Morse's mother's uncle, offered to serve as his

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[36] Both Morse and Jedidiah wrote in letters of December 1817 that the patent was secured. However Mabee reports that The United States Patent Office claims to have no record of such patent. See Mabee, p. 388, n. 17.

[37] Samuel F. B. Morse to Lucrectia Pickering Walker, Summer 1817, quoted in Samuel Irenaeus Prime, *The Life of Samuel F B. Morse, LL.D., Inventor of the Electro-Magnetic Telegraph* (New York: D. Appleton and Company, 1875), p. 103.

[38] Ibid.

host in the area.[39] Morse spent the remainder of the fall ordering his affairs. He was hopeful about the future profits from the pump, and wrote to Lucretia, "Our inventions are in a prosperous way; it takes a deal of time and patience to attend them, but I hope they will be a handsome property to us ere long."[40] A week later, things must have taken a turn for the worse, as he wrote, "Our inventions are slowly progressing. Surely an Inventor earns his money hard. It appears to me I would not go through the vexations, and delays, and disappointments, I have gone through, for double what I expect to obtain from them."[41] Shortly before his departure, he added, "Portraits and engines, and pumps and bellows, and various models of various things, letters to write, and visits to pay, and preparations for voyages by sea and land, all crowd upon me."[42]

Morse departed for Charleston in December 1817, and on his way south stopped in New Haven, where he took the opportunity to exhibit the pump to those who could best assist him in its promotion and give the invention a scientific seal of approval: his old professors Silliman and Day. Day had since been made president of the college, and Morse was undoubtedly doubly pleased to be able to display the pump to cotton-gin inventor Eli Whitney, who had been made a professor at Yale as well. Silliman and Day were enthusiastic about the machine, and apparently wrote letters of recommendation for it. Day admired the pump's "simplicity [in] construction, [and] effectual security against

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[39] For a complete account of Morse's activity in South Carolina, see Paul J. Staiti, "Samuel F. B. Morse in Charleston, 1818-1821," *South Carolina Historical Magazine* 79 (1978): 87-112.

[40] Samuel F. B. Morse to Lucretia Pickering Walker, November 20, 1817, quoted in Prime, p. 104.

[41] Samuel F. B. Morse to Lucretia Pickering Walker, November 27, 1817, Morse Papers.

[42] Samuel F. B. Morse to Lucretia Pickering Walker, late fall 1817, quoted in Prime, p. 106.

friction," and Silliman displayed the model to his classes.[43] Silliman also requested drawings to print in the first issue of his periodical, the *American Journal of Science*.[44] Even Whitney, who had not known Morse as a student, had favorable things to say about the pump: "Having examined the model of a fire-engine invented by Mr. Morse, with pistons of a new construction, I am of opinion that an engine may be made on that principle (being more simple and much less expensive) which would have a preference to those in common use."[45]

Morse's shrewd notion to show the pump to his scientific contacts, and the stroke of luck in winning Whitney's endorsement, paid off. The town of Concord, New Hampshire, agreed to purchase a fire-engine fitted with one of Morse's pumps.[46] The sale was arranged by Samuel Sparhawk, Lucretia's second cousin by marriage and through whom Morse and his future wife had met. The Concord *Patriot* reported on April 14, 1818, the town's purchase of "a new invention of Mr. Morse . . . [the fire-engine] requires much less manual labor, and throws water to as great a distance and in as large quantities."[47] Unfortunately, the fire-engine proved to be a dismal failure. When a demonstration was mounted in Sparhawk's yard that July, the machine produced no water at all. Lucretia wrote to Morse in Charleston, reporting that an observer had noted,

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[43] Samuel F. B. Morse to Jedidiah Morse, January 8, 1818, quoted in Prime, p. 107.

[44] Silverman, p. 45. Silverman does not cite his source for this knowledge, and the drawings were not reproduced in the *American Journal of Science*.

[45] Samuel F. B. Morse to Jedidiah Morse, January 8, 1818, quoted in Prime, p. 108.

[46] In March of 1818 the town voted to contribute $100 toward acquiring an engine, *Concord Town Records*, 1732-1820 (Concord, New Hampshire, 1894), p. 494, cited in Mabee, p. 388, n. 6.

[47] Cited in Prime, p. 104.

"Mr. Morse had better stick to his brush, *he will do well enough then*."[48] By November of 1818, the pump was back in Charlestown.[49]

Portraits and engines, indeed. Morse had spent the majority of 1817 dividing his time between pure painting and pure inventing, and by early 1818 he had tired of it. As much as Lucretia's news of the engine's failure must have been a disappointment to him, Morse had already decided to "stick to his brush." He had written his parents the day after he arrived in Charleston, "The machine business (between ourselves) I am heartily sick of. It yields much vexation, labor, and expense, and no profit. Yet I will not abandon it. I will do as well as I can with it, but I will make it subservient to my painting."[50] Morse was true to his word; he continued to invent, but the pump was his last purely mechanical invention until his experiments with telegraphy in the early 1830s. The remainder of his inventions and experiments until the telegraph were truly "subservient to [his] painting;" in fact, they were all directly related to or in support of the fine arts. In addition to and perhaps more important than being related to the arts, they are all related to mechanical reproduction of an existing subject, something that would have great impact on Morse's future involvement with daguerreotyping**.** The invention of the pump and Morse's promotion of it via Silliman, Day and Whitney, however, are significant early indications of his awareness of the growing importance of technological innovation to American society, and his desire to be associated with its

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[48] Lucretia Pickering Walker to Samuel F. B. Morse, July 10, 1818, cited in Mabee, p. 68.

[49] "Engine back from Concord," entry in family notebook just after one dated November 5, 1818, cited in Ibid.

[50] Samuel F. B. Morse to Jedidiah Morse, January 28, 1818, cited in Prime, p. 108.

ascension.

Art and Inventions, 1820-1825

The first reference to an innovation related to the fine arts from this period appears in a letter from Richard Morse to patriarch Jedidiah written in February 1820. Richard apparently interrupted Morse in the process of painting a portrait, and reported to his father the scenario he witnessed:

> The room appeared dark. I distinguished a lady with her back to me and a young man standing by her; and looking around for someone else, began to think [Morse] had disappeared out the window or through the floor. At length I discovered a face peeping at me from one side of a canvas in the further corner of the room under a window through the upper part only of which light was admitted. [Morse] was the more hidden as he looked at me through some black gauze which was interposed between him and the sitter through which he looks to take the backgrounds of his pictures.[51]

Paul Staiti describes this device as "a mechanism that would alter reality and allow vision to be identical to image. Skeptical of purely imaginary effects . . .Morse invented a technology that could simulate fictive conditions."[52] This type of manipulation of space and atmosphere in order to record what is seen rather than what is imagined is crucial to Morse's later interest in photography. Morse is altering the light in his studio in order to achieve a particular effect in his painting, the same way a photographer might adjust conditions of lighting before he takes a portrait in twenty years time. This sort of activity positions Morse as not only being receptive to, but more importantly, to pursuing actively one of the principles that is most essential to photography: the recording the object in front of the camera that will become the resultant image's subject. In constructing a device that would alter the scene before him so he could paint what he *witnessed*, rather

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[51] Richard Cary Morse to Jedidiah Morse, Feb 5, 1820, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University.

[52] Staiti, *Samuel F. B. Morse*, p. 59.

than what he *imagined*, Morse was attempting to duplicate photographic conditions that did not yet exist.

This interest in the literal transcription of a subject or idea, the working to record and communicate something mechanically (here, a witnessed scene; later, a photographic subject or an electric current), is evident in other inventions and paintings Morse would create over the next few years, and is importantly stressed in a series of lectures he delivered. The first of these experiments took place in New Haven, where Morse had re-located after portraiture commissions in Charleston grew scarce due to an economic depression. Morse's parents had moved there from Charlestown, Massachusetts in 1820, and in April of 1821, Morse joined them, his wife and new daughter Susan, with no further plans of itinerancy. Happily, Benjamin Silliman was the Morses' next-door neighbor, and during the summers of 1820 and 1821 Morse and Silliman spent much time together, often undertaking geological expeditions in the Berkshire and Adirondack Mountains. Morse also aided Silliman with various chemical and electrical experiments in the latter's laboratory. As the Morse household was quite crowded (in addition to Morse, Lucretia, and Susan, Sidney and Richard had also re-joined their parents), Morse had built an adjoining studio and laboratory of his own, "a portable wooden house, a painting room . . . which could be attached to the family house or moved into the garden at will. There he not only painted, but worked on . . . experiments with cameras."[53]

This fascinating note regarding "experiments with cameras" is probably a reference to Morse's proto-photographic experiments of this period, which he undertook with Silliman in the painting-room. Morse described these experiments in March 1839,

[53] Mabee, pp. 82-83.

after meeting Louis-Jacques Mandé Daguerre in France and viewing the daguerreotypes first-hand. He wrote to Sidney about the encounter, and reminded his brother of his own previous experiments:

> You have perhaps heard of the Daguerreotipe, so called from the discoverer, M. Daguerre. It is one of the most beautiful discoveries of the age. I don't know if you recollect some experiments of mine in New Haven, many years ago, when I had my painting room next to Prof. Silliman's, experiments to ascertain if it were possible to fix the image of the Camera Obscura. I was able to produce different degrees of shade on paper, dipped into a solution of nitrate of silver, by means of different degrees of light; but finding that light produced dark, and dark light, I presumed the production of a true image to be impracticable, and gave up the attempt.[54]

Here, Morse is basically describing the creation of a negative image; like Wedgwood and Davy, whose experiments he and Silliman were undoubtedly following (both use nitrate of silver), neither pair was able to create a positive image or fix the image, that is, stop it from continuing to develop.[55] Early scholars of the history of photography assumed this letter referred to Morse's student days at Yale; Geoffrey Batchen however has demonstrated that the experiments referred to were conducted between 1821-22.[56] This proto-photographic effort to "fix the image of the camera obscura" certainly relates to the mimesis of Morse's similar experiment of this period, and to the marble-carving replication machine discussed below. Also, the "painting-room" next to Professor Silliman's" surely refers to the 1821-22 period, rather than to Morse's days at Yale. Between his endorsement of Morse's pump and their shared proto-photographic

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[54] Samuel F. B. Morse to Sidney E. Morse, March 9, 1839, quoted in "The Dagguerreotipe," *New York Observer*, April 20 1839, p. 62. This letter is fully discussed in Chapter Two.

[55] Morse's roommate from his 1832 stay in Paris, Richard W. Habersham of Savannah, Georgia, later claimed that Morse had described these experiments during their time abroad; see *Letters* Vol. 1, p. 421. There is no way to ascertain if Morse actually did so, or if Habersham was misremembering.

[56] Geoffrey Batchen, "'Some Experiments of Mine': The Early Photographic Experiments of Samuel Morse," *History of Photography* 15 (Spring 1991): 37-42.

experiments, Silliman's ideas about science and technology as aiding the advancement of America and their probable influence on Morse cannot be overstressed. Morse had already inherited from his father the desire to elevate America's status, and had decided on his own to achieve this through his work in the fine arts. Between the cultural atmosphere in the United States regarding technology and Silliman's promotion of science, he surely realized that mechanical innovation could be another way of realizing his goals.

Morse's interest in mechanically transcribing a subject, the basic task of photography and of these proto-photographic experiments, is also apparent in his activity as a painter at this time. This is particularly true of the painting that played an integral role in his desire to elevate the cultural standards in America and to accrue personal fame, the *House of Representatives* (Fig. 6). Having grown dissatisfied and restless in New Haven, and still desirous of executing a painting of national importance, in the autumn of 1821 Morse concocted the idea of painting the interior of the House of Representatives. He had been hoarding a great bolt of canvas – eleven by fifteen feet – since his departure from London in 1815, specifically purchased and saved for use in a grand history painting relating to the United States. The interior of the Hall of Representatives, with attendant members of Congress, seemed an ideal choice – it was a new structure, designed by architect Henry Benjamin Latrobe; as part of the reconstruction of the Capitol after the war of 1812, it symbolized the government's renewed power and authority. And there was precedence: John Trumbull's 1818 painting *The Declaration of Independence* (United States Capitol Art Collection, Washington, D.C.), showing the

Founding Fathers signing the Declaration, had been a marked success. Morse arrived in Washington on November 6, 1821, and acquired rooms close to the House Chamber.

The first aspect of the painting Morse tackled was the interior space of the domed chamber. The rendering of Latrobe's architecture proved difficult for Morse; the perspective was especially challenging, and he quickly sent home for his camera obscura. A scant two weeks after his arrival, Lucretia wrote to her husband, "I will send your cannister [sic] full of tea and the camera-obscura by father."[57] Morse worked hard at the interior over the next month, and by December 23 he felt able to move on to sketching portraits of individual Congressmen. He relayed the trying experience to Lucretia:

> I have had a great deal of difficulty in the *perspective* of my picture, but by hard study and perseverance I have conquered thus far, and have now a pretty thorough and deep knowledge of the science. I have been obliged to dive into the principles and invent many new problems to accomplish my purpose. . . All the difficulties which respect the principles of perspective I have entirely overcome, all is now plain.[58]

From Morse's request for the camera obscura in early November, to his spending the entire month of December engaged in a study of perspective, it is safe to assume that he used a camera obscura in his rendering of *The House of Representatives*. This assumption is furthered by a notice about the painting that appeared in the *National Intelligencer*, which declared, "The view of the lofty and splendid Hall . . . is mathematically correct."[59]

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[57] Lucretia Walker Morse to Samuel F. B. Morse, November 24, 1821, Morse Papers. Jedidiah Morse was in Washington to present a report on the state of the American Indian, which he had spent several years preparing.

[58] Samuel F. B. Morse to Lucretia Walker Morse, December 23, 1821, Morse Papers.

[59] *National Intelligencer*, February 16, 1822, n.p.

While previous scholars have acknowledged Morse's use of the camera obscura in the *House of Representatives* and its chronological proximity to Morse's proto-photographic experiments, this use is rarely contextualized within Morse's larger interest in the mechanical and in reproductive devices, or in the larger context of American technology.[60] Artists' use of the camera obscura, and that instrument's relation to photography, has been the subject of much scholarly interest.[61] Jonathan Crary, for example, argues against the traditional, positivist notion of the camera obscura evolving seamlessly into photography, and photography into film. Instead, Crary postulates that ideas about vision and observing drastically altered during the late eighteenth and early nineteenth centuries. Increased scientific knowledge about the exterior world and geography, as well as about the interior world of the body, caused viewing to shift from an objective, fixed activity to one that is subjective and flexible. Explorations into bodily phenomena such as retinal afterimages, and increased activities such as map-making, prompted early nineteenth-century society to question severely the heretofore-presumed truthfulness of vision. Such explorations proved that the eye was not entirely trustworthy, and "the shifting processes of one's own subjectivity experienced in time became synonymous with the act of seeing, dissolving the Cartesian ideal of an observer completely focused on an object."[62] Therefore, while the camera obscura enjoyed

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[60] For example, see Batchen, p. 39, and Staiti, *Samuel F. B. Morse*, pp. 79-80.

[61] See for example, Jonathan Crary, *Techniques of the Observer, On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1990), and David Hockney, *Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters* (New York: Viking Press, 2001).

[62] Crary, p. 98.

unprecedented popularity during the nineteenth century, the observer's approach to it or any optical device had been completely transformed.[63]

Though Crary focuses his argument on transformations in European culture, Morse was an active participant in the type of shift in thinking Crary describes. Certainly Jedidiah's involvement in map-making accustomed Morse early on to a new type of world-view, and to rely on the mechanical more than on the corporeal – this is evident in his use of the many types of reproduction devices, as well as in his series of lectures discussed below. The light-altering device Morse used in his portraiture is indicative of this, as is his attempted invention of a marble-carving machine to replicate sculpture also discussed below. Moreover, Morse is participating in the general, Western cultural shift Crary describes, yet via an American interest in the mechanical and its strong relationship to notions of American progress. This is evident in the similarities and differences between the *House of Representatives* and the panorama, a popular form of pictorial entertainment that belongs to the new, subjective viewing experience of the nineteenth century as defined by Crary.

The panorama first appeared in the 1780s, and became extraordinarily popular very quickly.[64] A viewer entered a darkened, circular, theatrical space and found him or herself surrounded on all sides by a painted scene. The scene or view was separated from the viewer by a railing, and the cloth hid the unfinished, topmost border of the canvas from the viewer's eye. This cloth also hid the skylights that allowed light to be evenly

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[63] On the popularity of the camera-obscura during the nineteenth century, see John H. Hammond, *The Camera Obscura, A Chronicle* (Bristol: Adam Hilger Ltd., 1981), pp. 104-142.

[64] I am privileging the panorama over Daguerre's diorama as the panorama remained popular well into the nineteenth century, and was more prevalent in the United States than the diorama.

distributed throughout the theatre. The panorama also came in longitudinal, or extended form. Rather than being a 360-degree, circular view, this format was simply a long stretch of canvas painted with a view as if it were a stretch of passing landscape. This type often came in the guise of the moving panorama, in which two posts were attached to either end of the canvas and then rolled out, so progressive portions played out in front of the motionless viewer's eyes.[65] There were a variety of types of views associated with the panorama: those showing an overall view, say perhaps a detailed and accurate depiction of Jerusalem, those that showed the playing out of a particular scene, such as the shipwreck and subsequent raft of the ship *Medusa*, and there were those that featured parades or processions.

The panorama is, then, simply a collection of details that serve as a replacement or stand-in for the real, actual whole. As historian Stephan Oettermann has remarked, "The basic aim of the panorama was to reproduce the real world so skillfully that spectators could believe they what they were seeing was genuine."[66] This type of viewing experience, of arm-chair tourism, in which the viewer can visit a location without leaving the comfort of his own home or city, was also pervasive in the popularity of late eighteenth and early nineteenth-century prints. Both the print and the panorama pre-figure the touristic aspect of photography that remained a defining quality of the medium throughout the nineteenth century.[67]

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[65] On the history and various types of panorama, see Stephan Oettermann, *The Panorama: History of a Mass Medium* (New York: Zone Books, 1997).

[66] Oettermann, p. 49.

[67] On photography, travel, and arm-chair tourism, see Joan M. Schwartz, "The Geography Lesson: photographs and the construction of imaginative geographies," *Journal of Historical Geography* 22 (1996): 16-45.

The House of Representatives can be read in a similar manner. Morse used the camera obscura to create a realistic viewing experience. Like the panorama, Morse's painting is an accumulation of details assembled to stand in for the actual whole. In constructing the interior, Staiti, who has offered a comprehensive analysis of this painting, notes, "because Morse could not view Benjamin Latrobe's chamber in one glance, he had to combine a sequence of horizontal views and at the same time maintain an illusion of spatial volume."[68] The "sequence of horizontal views" was taken with the aid of the camera obscura, and joined to create the final painting when he returned to New Haven the following February. Morse applied a similar technique to his rendering of the figures in the work. He called the Congressmen into his studio, which was adjacent to the chamber, one at a time, and executed small portrait sketches of each. Working from these studies, he later assembled the figures into the final whole. While this method of assemblage was a reasonable and common one for executing a painting that included a multitude of figures, it underscores the constructed nature of the scene. Moreover, the figures depicted are not a group one would have likely found in the House on any given day. Morse included sixty-eight congressmen, the six justices of the Supreme Court, two editors of the *National Intelligencer*, two doorkeepers, two servants, a clerk and a sergeant-at-arms. He also includes the commissioner of the Transcontinental Treaty of 1819, Lionel Tazewell, who was in Washington in 1821 to broker the Treaty of Spain. Most interestingly, pictured in the visitors' gallery are Jedidiah Morse, Benjamin Silliman, and a Native American Pawnee chief called Petalasharo. Jedidiah was in

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[68] Paul J. Staiti, "Samuel F. B. Morse and the Search for the Grand Style," essay in *Samuel F. B. Morse* (New York: Grey Art Gallery, 1982): 42. Staiti's primary discussion regarding *The House of Representatives* appears in *Samuel F. B. Morse*, 1989, pp. 71-101.

Washington at this time to deliver his findings on the Indians' moral and religious state to Congress. This explains his and Petalashoro's presence in the picture, and surely Silliman was much on Morse's mind while he used the camera obscura to aid his painting.[69] It also, again, reinforces Silliman's importance to Morse, and how Morse was cognizant of Silliman's importance to American culture.

This type of constructed reality, which seems to transcribe the world but which is assembled from numerous details, is what Roland Barthes refers to as the "reality effect," and was particularly pervasive in nineteenth-century culture.[70] As in the panorama, the reality effect is evident in the *House of Representatives*. The panorama offered "a program guide to help [visitors] find their bearings in the exhibit. It contained a sketch of the picture marked with numbers and corresponding legend to identify the most important features."[71] The *House of Representatives* offered a similar pamphlet to its viewers with an identifying key.[72] Morse's painting is also similar to the panorama in the sheer scale of it: the *House of Representatives* measures a massive 86 x 130 inches. Additionally, the painting lacks any specific narrative; it corresponds with the type of panorama that offered its observers a realistic "view." As with the panorama, the size was meant to aid the viewer to focus on the overall scene and the architectural space, to feel as though you were seeing the chamber itself, and not focus as much on the individuals or details. This is reinforced by contemporary accounts of the painting as well as by Morse's stated goals

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[69] Staiti states that both Morses were acting as Silliman's representatives in February 1822 for "secret negotiations with Monroe and Calhoun." See Staiti, *Samuel F. B. Morse*, pp. 84 and 273, n. 21.

[70] Roland Barthes, "The Reality Effect," *The Rustle of Language* (New York: Hill and Wang, 1986), pp. 141-148.

[71] Oettermann, 60.

[72] Staiti reproduces this key, *Samuel F. B. Morse*, pp. 242-244.

for the work. In the key that accompanied the painting, Morse wrote, "The primary design of the present picture is . . . to exhibit to the public a faithful representation of the National Hall."[73] The *Charleston Courier* noted that, "[Unlike John Singleton Copley's 1779 painting *The Death of the Earl of Chatham*] in which . . . the *figures* are *principal*; in Mr. Morse's picture, the *room* is *principal*, occupying more than two thirds of the canvas."[74]

Morse, then, used the camera obscura to create, as realistically as possible, a high-brow version of the panorama. Moreover, it was a distinctly *American* subject. Surely the American people would want to view a realistically, mechanically-transcribed view of their own government in action? It is important to recall that Morse was so convinced of the painting's potential that he painted it on speculation; this was not a commissioned piece, there was no secure buyer. He paid his own way in Washington, and worked fourteen-hour days to complete the canvas. If successful, this painting would fulfill Morse's goals: it would be a product of significance to his nation, by educating and uplifting the taste of the American people; it would demonstrate on many levels America's genius, that of his own artistic skill and the successful organization of the United States government; and it would garner for him a degree of wealth and fame. The importance of this painting to Morse's millennial desires has been successfully explained by Staiti, who argues that, in featuring the Congressmen at rest, Morse was depicting the Congress he desired rather than the fractious Congress that existed. Staiti argues, "As a rhetorical effort that represses the political realities of the moment, the *House of*

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[73] Ibid., p. 243.

[74] Quoted in Staiti, *Samuel F. B. Morse*, p. 89.

Representatives is a morally and religiously guided construction that leads the way to the millennial future."[75] I contend that in featuring the congressmen at rest, Morse's attempt to portray *actuality* as opposed to dramatizing his subject is in accordance with his efforts to create as realistic a scene as he could, in an effort to replicate the success of forms of popular entertainment such as the panorama. Though Congress was often in disarray as the Members argued with each other, surely lulls such as the one Morse portrayed were more often the norm than unruly scenes. Moreover, this interest in mechanically-rendered reality in order to create an imaginative final product is evident in Morse's later efforts, as described below.

Unfortunately, the realism of the painting proved to be wildly unpopular: the painting was not dramatic enough, and was a financial failure. Morse's brother-in-law Charles Walker opined, "the want of success with the multitude is that the figures are small, whereas they, who do not boast of taste, must be pleased with something that can be comprehended at once . . . with figures larger than life."[76] It toured throughout New England from February 1823, until late that year, and intermittently until 1825, when Morse shipped it to England with the hopes of finding a buyer there. The painting lost money everywhere it was exhibited; the American public, it seems, was not ready to turn their thoughts to intellectual pleasures.[77] Morse had made a grave miscalculation; while he had indeed rendered a realistic view in the manner of a panorama, the subject was not exciting or exotic enough to elicit an enthusiastic response from his audience.

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[75] Ibid., p. 94.

[76] Charles Walker to Samuel F. B. Morse, July 15, 1823, Morse Papers.

[77] For a complete discussion of the public's reaction to *House of Representatives* and its financial failure, see Staiti, *Samuel F. B. Morse*, pp. 94-101.

As it quickly became evident that the *House of Representatives* was not going to generate the type of profits Morse had anticipated, he turned his attention, once again, to pure invention. Having spent considerable time the previous two years working with the camera obscura, Morse's interest in literal transcription was high. Sometime in the winter or spring of 1823, Morse attempted to join his interests in technology, fine art, and mechanical reproduction by designing a marble-carving machine for the replication of sculpture. On August 6, 1823, he wrote to the Secretary of State in Washington, D.C., describing his machine and articulating his desire for a patent. He had hired a local mechanic, Hezekiah Augur, to construct his design.[78] Later that month, while on tour with the *House of Representatives* in Albany, Morse wrote to Lucretia, "I await with some anxiety the *result of experiments with my machine*. I hope the invention may enable me to remain at home."[79] As the *House* was producing little revenue, and commissions for portraiture in Albany were few, the artist remained restless and anxious about the future. If things did not turn around favorably, he wrote his wife, he would try his luck in New York. He remained cautiously hopeful about his new invention, though, and added, "I leave out of this calculation the *machine for sculpture*. If that should entirely succeed, my plans would be materially varied, but I speak of my present plan as if that had failed."[80] By December of 1823, Morse's machine had produced a successful

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[78] Prime, p. 127. Morse's hiring a mechanic to construct the proto-type of his invention will be repeated with both his daguerreotype camera and telegraph; this is further discussed in Chapter Two. Soon after, Augur became a sculptor of note in his own right, and was the first in the country to carve full-length figures in marble. See *The Britannica Encyclopedia of American Art* (New York: Simon and Schuster, c. 1974), p. 51.

[79] Samuel F. B. Morse to Lucretia Walker Morse, mid-August 1823, quoted in *Letters* Vol. 1, p. 246.

[80] Samuel F. B. Morse to Lucretia Walker Morse, quoted in Prime, p. 129.

copy of the bust of an *Apollo*, and triumph appeared imminent.[81] Morse soon discovered, however, that a patent for a similar machine had been granted to Thomas Blanchard in 1820, and he abandoned the project. His willingness to discard such an endeavor after discovering that he could not be the "first" is another indicator of Morse's lofty ambitions in terms of the types of contribution he wanted to make to society, and the type of recognition he wanted to gain; it was not enough to create a painting or an invention that was simply good or serviceable – it needed to be either dramatically better than what had preceded it, or entirely new and revolutionary.

Replication, 1825-35

Given his use of various devices to aid technical replication of an existing subject during the early 1820s, it is highly significant that Morse addressed the idea of mechanical replication and its place in the fine arts in the series of lectures he wrote in late 1825 and early 1826, and first delivered in the spring of 1826, *Lectures on the Affinity of Painting with the Other Fine Arts*. He also discussed the benefits and dangers of studying and collecting copies of European Old Masters in his 1827 lecture delivered for the National Academy of Design, *Academies of Art: A Discourse*.

Morse did indeed decide to try his fortunes in New York after the financial failure of the *House of Representatives*, leaving his family, which now included his son Charles, in New Haven. His brothers Sidney and Edward had preceded him to the city and had begun a religious weekly newspaper called the *New-York Observer*. In late 1823, Morse acquired a studio on Broadway across from Trinity Church and, much to his wife's dismay, slept on the floor there. While not actually engaged in scientific or technological experiments at this time, it is interesting to note that during this period Morse executed

[81] Ibid., p. 138. There is no record of which Apollo Morse's pointing machine successfully reproduced.

portraits of the three well-known scientists or inventors with whom he had interacted during the preceding years: *The Reverend Jeremiah Day* (1823, Yale University Art Gallery), *Eli Whitney* (1824, Yale University Art Gallery), and his former mentor, *Professor Benjamin Silliman* (Fig. 23). Staiti refers to these portraits as belonging to the "pinnacle of [Morse's] portrait career," and the fact of their commissions indicates Morse's continued association with the nation's premiere men of science and technology.[82] In late 1824, Morse finally found the type of commercial success he desired, when he was awarded by the city of New York the commission to paint Marquis de Lafayette's portrait (Fig. 13). No sooner had he found a degree of professional success, than he suffered a great personal tragedy: in February 1825 his wife Lucretia, who had recently given birth to their third child, Finley, unexpectedly died of an undiagnosed heart ailment. Morse was utterly grief-stricken, yet seemed to find some solace in his work; it was in late 1825 and early 1826 that he was instrumental in co-founding the National Academy of Design, an institution established with the intent of giving artists an alternative to the American Academy of Fine Arts, run by Colonel John Trumbull. The immediate goals of the National Academy were to insure the instruction and well-being of American artists, in an institution presided over by artists. The ultimate aim, of course, was one that was entirely in keeping with a philosophy Morse had been promoting since his student days in London: to elevate the level of art produced

[82] Staiti, *Samuel F. B. Morse*, p. 113.

and overall artistic sensibility in America.[83] Morse was elected the Academy's first president and continued to preside over it for over twenty years.[84]

Nearly simultaneous to the National Academy's conception and founding were the series of lectures Morse wrote and delivered, *Lectures on the Affinity of Painting with the Other Fine Arts*. It is in these lectures that Morse addresses the idea of mechanical replication and its relation to the fine arts. The lectures were not written for the National Academy, nor delivered there; they were delivered in the chapel of Columbia College, under the auspices of the New York Athenaeum.[85] Morse first read the four lectures over a series of four Monday evenings in late March and early April of 1826, and likely began work on them the previous November. They are frequently mentioned in his correspondence from this period, the first reference from a letter to his parents on November 3, 1825. Morse wrote, "Every leisure moment must be devoted to my lectures, which I hope to complete by March if possible."[86] By January 1, 1826, he had completed two of the four, and outlined to his parents his hopes for the talks:

> These lectures are of great importance to me, for, if well done, they place me alone among the artists; I being the only one who has as yet written a course of lectures in our country. Time bestowed on them is not, therefore, misspent, for they will acquire me reputation which will yield wealth.[87]

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[83] The complete history of the founding of the National Academy of Design and its goals is well-documented elsewhere; see, for example, *Samuel F.B. Morse, Educator and Champion of Arts in America* (New York: National Academy of Design, 1982).

[84] Morse was president of the NAD from 1824-1845, and again from 1861-62.

[85] The New York Athenaeum was founded in 1824, "as an association of the city's elite that aimed to 'advance science, art, and literature.'" Staiti, *Samuel F. B. Morse*, p. 169.

[86] Samuel F. B. Morse to Jedidiah and Elizabeth Morse, November 3, 1825, Morse Papers. Significantly, this letter was written only five days before the November 8 meeting of artists who, disgruntled with the poor treatment they received at the American Academy of Fine Arts, would eventually form the National Academy of Design.

[87] Samuel F. B. Morse to Jedidiah Morse, January 1, 1826, quoted in *Letters* Vol. 1, p. 284.

Here, Morse is stressing the importance of being "first," something that was not possible with his pointing machine for the replication of sculpture. The lectures, however, had the potential to garner him the type of success and renown he desired, they would "acquire [him] reputation, which [would] yield wealth"; they would also give something of lasting, significant importance to the improvement of the country. Morse's hopes for the lectures were not in vain. They were quite successful, and did earn him much of the success and acclaim he desired.[88] He reported to his parents, "My audience, consisting of the most fashionable and literary society in the city, regularly increased at each successive lecture, and at the last it was said that I had the largest audience ever assembled in the room."[89] Contemporary reviews reinforced Morse's assessment of the event: *The New-York American* stated, "Mr. Morse treated his subject with taste and skill, evincing that he was not less ready with the pen than with the pencil."[90]

The lectures were largely modeled on Sir Joshua Reynolds's *Discourses*, though with a few significant deviations, and addressed what defined the fine arts, and how painting deserved to be ranked among them. He firmly placed the onus of advancing the state of the fine arts in America onto the public, stating that if they demanded works of high quality, the artists would be impelled to produce.[91] The significance of these talks to

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[88] Perhaps the lectures were too successful; between them and his presidency of the NAD, Morse was in great demand and had more portrait commissions than he could handle. He turned so many sitters away that his "patronage 'never fully returned to him.'" See William Kloss, *Samuel F. B. Morse* (New York: Harry N. Abrams, Inc., 1988) p. 103.

[89] Samuel F. B. Morse to Jedidiah Morse, April 18, 1826, quoted in *Letters* Vol. 1, p. 286.

[90] March 21, 1826, quoted in Nicolai Cikovsky, Jr., ed., "Editor's Introduction," *Samuel F.B. Morse, Lectures on the Affinity of Painting with the Other Fine Arts* (Columbia, Missouri: University of Missouri Press, 1983), p. 12 (hereafter cited as *Lectures*).

[91] Lecture 4, *Lectures*, p. 112.

Morse's artistic thinking cannot be underestimated; as Nicolai Cikovski, Jr., who has written on Morse's literary achievements, has noted:

> [The] Athenaeum lectures represented a gathering of long-standing ideas and beliefs and were not, though composed under the pressure of time, the hasty concoction of the moment, and can be considered the authoritative version of Morse's artistic thought. . . [An] expression of his artistic views so complete in their substance and so adaptable to varying uses . . . they are virtually a canonical statement.[92]

It is in this context that Morse addressed the nature of replication and copying, outlined in his ideas regarding mechanical versus intellectual imitation.

Morse's experiments of the early 1820s made use of scientific and technological principles to achieve certain artistic results, and his thoughts on mechanical and intellectual imitation can be read as a summation of this series of experiments. In Lecture 2, Morse wrote:

> There is then an Imitation which copies exactly what it sees, makes no selections, no combinations, and there is an Imitation which perceives principles and arranges its materials according to these principles, so as to produce a desired effect. The first may be called *Mechanical* and the last *Intellectual Imitation*.[93]

According to Morse, Intellectual Imitation was the pinnacle of fine art, as one took inspiration and exact detail from nature but applied intellect and imagination to create a picture. He noted, "A picture then is not merely a copy of any work of Nature, it is constructed on the principles of nature. While its parts are copies of natural objects, the

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[92] Nicolai Cikovsky, Jr., "'To enlighten the public mind, . . . to make the way easier for those who come after me': Samuel Morse as a Writer and Lecturer," *Samuel F.B. Morse, Educator and Champion of the Arts in America*, pp. 60-61.

[93] Lecture 2, *Lectures*, p. 59.

whole work is an artificial arrangement of them."[94] Mechanical imitation, therefore, is not simply helpful towards achieving intellectual imitation; it is quite essential:

> Is not Mechanical Imitation in Painting a necessary excellence through every step even to the highest grade of epic? I have allowed that it is . . . There is no reason why every thing that is selected to be represented should not be imitated exactly. In the epic, which is the highest class of Painting, the effect is produced by a more severe selection and rejection of objects, but having made the selection, down to the minutest fold of drapery, I can perceive no reason why all that is adopted should not be mechanically imitated with exactness.[95]

This type of thinking is prevalent in his merging of transcription and painting through the camera obscura, and in the light-altering device he used for portraiture when Morse changed the conditions of the room in order to copy mechanically what was in front of him. In the epic, the "highest class of painting," more intellect and imagination is utilized, such as in the *House of Representatives*. Using the camera obscura, Morse obtained exact views of the interior of the House chamber; he utilized mechanical imitation and copied nature exactly. He took these views, though, and combined them with his own imagination, using intellectual imitation to create the final work.

The same way Morse's early 1820s experiments set the stage for his later work in photography, with their focus on mimesis in the merging of art and technology and science, this portion of his lectures detailing mechanical and intellectual imitation very clearly foreshadows how he will approach the medium. They also signify Morse's openness to different kinds of representation, which will prove instrumental to his conception of the telegraph. This acceptance of the mechanical in relation to the fine arts can be read as a particularly American quality; indeed, it is in Morse's insistence on the

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[94] Lecture 4, Ibid., p. 112.

[95] Lecture 2, Ibid., p. 61.

importance of mechanical imitation that his *Lectures* differ significantly from Reynolds's *Discourses*.[96] In addition to Morse's promotion of the mechanical in his lectures, American culture's openness to the idea can be read in how the Pennsylvania Academy of Fine Arts in Philadelphia served in many ways as a school and professional organization for engravers. This is in marked contrast to the British Royal Academy of Fine Arts, which defined itself as an academy of fine arts by prohibiting mechanical engravers from its ranks.[97] Morse delivered these lectures throughout the 1820s and 30s, and there is evidence that he delivered them, virtually unchanged, as late as 1840.[98] As will be further discussed below, this is well *after* Morse had painted his last picture, but while he was in the very midst of his brief career as a commercial photographer and was promoting his electro-magnetic telegraph. Clearly, these were concepts that continued to hold relevance for him.

Morse's machine for the replication of existing sculpture involved purely mechanical imitation, and his attitude regarding actual copies of existing works are partially outlined in his 1827 lecture, *Academies of Arts: A Discourse*, which was delivered in the Chapel of Columbia College on the first anniversary of the National Academy. In this talk, Morse railed against the "disease" of collecting "Old Pictures."[99] Such activity, warned Morse, was detrimental to the blossoming of a purely American art. This notion seems at odds with his attempt to invent a machine to replicate sculpture,

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[96] Cikovsky discusses this difference; see *Lectures*, p. 25.

[97] Laura Rigal, "Empire of Birds: Alexander Wilson's *American Ornithology*," *Art and Science in America, Issues in Representation*, ed. Amy R. W. Meyers (San Marino, CA: Huntington Library, 1998), p. 65.

[98] *Lectures*, p. 18.

[99] Samuel F. B. Morse, *Academies of Arts, A Discourse* (New York: G. and C. Carvill, 1827), pp. 43-44.

which was presumably meant to duplicate classical and old master pieces for exhibition and study by the general public and artists alike (the latter of whom would also draw these pieces as part of their training). As Staiti points out, though, the "disease" Morse attacks in his lecture "is not to be confused with the positive benefits from studying the best examples of European art. Good taste, derived from the study of good European art, would improve American artists and collectors."[100] The marble-carving machine was surely meant to elevate American standards of taste by providing artists and the public with examples of "good" art to study. The same sentiment lies behind a painting of Morse's that combines all of these ideals -- the importance of mechanical imitation, Morse's goals for personal success, his desire to leave a lasting legacy of worth to his nation, and the usefulness of studying the old masters for the betterment of American art and taste: the 1831-33 painting, the *Gallery of the Louvre* (Fig. 7).

Morse left for Europe on November 8, 1829. Due to outstanding debts from previous years, though, Morse could not finance the trip on his own. He accepted numerous commissions from New York patrons to make copies of Old Master works, such as Raphael's *School of Athens* and Tintoretto's *Miracle of the Slave*. Having the money for these copies paid in advance, Morse was able to remain abroad until 1833. He went first to London, then quickly to Paris and into Italy, and eventually back to Paris, where he remained until his return to America. In Paris, Morse executed his second large-scale work meant to meet his myriad goals that also utilized a camera obscura. Like its predecessor the *House of Representatives*, the *Gallery of the Louvre* was not a commissioned piece, but one done on speculation. The painting features the Salon Carré of the Louvre Museum, hung from ceiling to floor not with the contemporary French

[100] Staiti, *Samuel F. B. Morse*, p. 164.

paintings that were actually displayed there in the early 1830s (dominated by Theodore Géricault's *Raft of the Medusa*), but with Old Masters culled from other parts of the museum.[101] In the foreground of the work, Morse represents himself, instructing a student (possibly his eldest daughter Susan, added once home in New York) who is making a study from Paolo Veronese's *Marriage at Cana*, hanging nearby. American author James Fenimore Cooper and his family are shown on the left side of the canvas, gesturing towards the surrounding canvasses and appearing to exchange their thoughts in a lively manner. Other visitors dot the gallery, some simply admiring the paintings, others creating or copying works themselves. Despite having no secure buyer for the painting, Morse worked on it virtually non-stop, even staying in Paris through a vicious cholera epidemic that killed over 20,000 people in order to complete his work.

More important to this study than exactly *what* Morse chose to depict in the *Gallery of the Louvre*, is *how* he executed its depiction. As with *House of Representatives*, there is evidence that Morse used a camera obscura to create this painting. Morse wrote to his brothers in the summer of 1832 and partially explained his working method:

> I am diligently occupied every moment of my time at the Louvre
> finishing the great labor which I have there undertaken. I say 'finishing,'
> I mean that part of it which can only be completed there, namely, the copies
> of the pictures. All the rest I hope to do at home in New York,
> such as the frames of the pictures, the figures, etc.. . . . [Every one] says
> I have caught the style of each of the masters.[102]

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[101] For further information on the *Gallery of the Louvre*, see David Tatham, "Samuel F.B. Morse's *Gallery of the Louvre*: The Figures in the Foreground," *American Art Journal* 13 (Autumn 1981), pp. 38-48, Hugh R. Crean, "Samuel F.B. Morse's *Gallery of the Louvre*: Tribute to a Master and a Diary of Friendship, *American Art Journal* 16 (Winter 1984), pp. 76-81, Kloss, pp. 126-135, and Staiti, *Samuel F. B. Morse*, pp. 188-206.

[102] Samuel F. B. Morse to Sidney E. Morse and Richard C. Morse, July 18, 1832, Morse Papers.

The canvas used for this work measures six by nine feet, and Morse rolled it on its easel stand through the galleries and hallways of the museum to the Salon Carré, where he transcribed the room itself. He probably utilized the camera obscura to make small replicas of the works he wanted to represent, and later he copied these onto the canvas itself, often altering their dimensions. As William Kloss has noted, this method is demonstrated through an examination of Morse's copy of Titian's *Francis I*. There is a small, oil on panel version of Morse's copy in the collection of the Terra Foundation for American Art, and there is a tracing of the work, of the same size, at the National Academy of Design. The tracing is in reverse, indicating that it was made with a camera obscura, as the camera obscura reflects the scene in front of it in reverse. Morse copied the tracing onto the small canvas, then painted the copy itself.[103]

In this way, *Gallery of the Louvre* was painted in a manner almost identical to *House of Representatives*, adhering to the principles outlined by Morse in his 1826 Lectures. The camera obscura allowed Morse to utilize mechanical imitation in order to transcribe faithfully and realistically the details of each Old Master painting included in the larger canvas. He then used intellectual imitation to create the overall work, using imagination and intellect to select which works he would represent, where they would be placed on his canvas, and how to alter each, if needed, to execute a cohesive composition. Morse's use of the camera obscura for both of these works was not uncommon in the early nineteenth century, but when combined with his views regarding mechanical reproduction and his interest in invention and technology, especially the proto-photographic experiments and the pointing machine, and considering the importance he placed on mechanical imitation in his lectures, what emerges is a continuous interest in

[103] Kloss, pp. 129-130.

the mechanical transcription or reproduction of a subject (be it a sculpture, a copied scene like the interior of the *House of Representatives* or a copied painting for inclusion in the *Gallery of the Louvre*) towards an end product that will help Morse to meet his ambitions for himself and for his nation.

Morse left Paris for New York via the *Sully* on November 15, 1832. For the past ten years, he had been creating works or machines that involved, as stated, somehow mechanically transcribing a subject, all in the service of his objectives. It is not surprising, in this context, that on the voyage home from Paris Morse first envisioned the basic idea that would become the electro-magnetic telegraph. Just as the sculpture-replicating machine copied its subject, the camera obscura captured the scene Morse wished to trace, or to record with light-sensitive chemicals in 1821-22, Morse realized on this voyage that electricity could be utilized to mechanically transcribe its subject; in this case, an electrical current symbolizing a letter or number.[104] It is this process of marking, copying or transcribing a subject or idea – be it a painted subject, a photographed subject, or current used to create a telegraphed message – via mechanical means that unites Morse's most important work, and which has previously been neglected by scholars. This link between the painted and the invented in Morse's work becomes startlingly clear

[104] This transcription of an electrical current into a telegraphic message is what, in essence, Geoffrey Batchen separately refers to as "Electricity Made Visible," in his essay of the same title in *New Media, Old Media, A History and Theory Reader*, eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), pp. 27-44, and paraphrased from Morse's own statement: "If . . . the presence of electricity can be made visible . . . I see no reason why intelligence might not be instantaneously transmitted by electricity to any distance." It is important to recall that Morse remembered making this statement on board the *Sully*, when he was later recounting the voyage in order to defend himself against Charles T. Jackson's claims of having co-invented the technology; it is impossible to know for certainty if Morse actually uttered such a phrase while on the ship. Draft of a letter from Samuel F. B. Morse to Charles T. Jackson, September 18, 1837, Morse Papers. Batchen is utilizing the idea of "electricity made visible" to articulate a history of new media, in which he cites Morse's first telegraphic device as an early example. I am using the idea of mechanical imitation of an electrical current, which in essence is making the electric visible to create a telegraphic message, to show the similarities among Morse's painting, photography and inventing.

only when the photographic is also considered, establishing a continuum between what are normally thought of as two separate and distinct halves of Morse's life and career.

Morses's brothers later testified during the patent trials that he began talking about his ideas for communicating through electricity the moment he stepped off the boat. But Morse also had other matters to attend to: he was much occupied with resuming his presidency at the National Academy, and he needed to complete his great canvas. The *Gallery of the Louvre* was not exhibited until early October 1833. Unfortunately, the picture proved to be as unpopular with the public as *House of Representatives*.[105] In August 1834, Morse sold the work for $1200 to George Hyde Clarke, whose portrait Morse had painted in 1829 (St. Louis Art Museum). Clarke was also a friend and neighbor of Cooper's, who possibly encouraged Clarke to purchase the work.

The failure of the *Gallery of the Louvre* was in many ways the beginning of Morse's distancing himself from the artistic world. The more fatal blow, however, occurred in 1837, when Morse did not receive a commission to paint a mural for the Rotunda of the Capitol Building. He had pinned the last of his artistic hopes on receiving the commission; indeed, his trip to Europe partially had been in preparation for it. And while these two events were indeed devastating for the artist, his turn to technology had less to do with a rejection of the fine arts, and, as is discussed in the following chapter, more to do with an embracing of innovation and progress that was proving to be the more accepted direction of American culture.[106] Morse was appointed Professor of Painting

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[105] For one view on why the painting failed commercially, see Staiti, *Samuel F. B. Morse*, pp. 175-206.

[106] For example, see Merritt Roe Smith, "Technology, Industrialization, and the Idea of Progress in America," in *Responsible Science, The Impact of Technology on Society*, ed. Kevin B. Byrne (San Francisco: Harper & Row Publishers, 1986), pp. 1-10.

and Sculpture at University of the City of New York (now New York University) in 1835, and in November of that year took residence in the Northwest tower room and the five floors beneath. While he had some painting students over the next few years, he used the studio space primarily as a telegraphic laboratory, and painted his last pictures in 1837.[107] It was also in 1837 that Morse gave his first public demonstration of his telegraph, and he demonstrated the machine before Congress in the early New Year. Disappointed with the United States government's lack of support for his invention, Morse traveled to Europe in the hopes of gaining patents there. It was during this trip that Dominique François Jean Arago announced Louis-Jacques Mandé Daguerre's invention of the daguerreotype, to which Morse eagerly responded.

[107] Morse was later listed as "Professor of Literature of the Arts of Design." He does not appear to have taught any courses, but only took single students. Morse remained affiliated with the University until his death. See unpublished memorandum from Bayrd Still to Carl Prince, "Association of Samuel F. B. Morse with New York University," December 16, 1977, John W. Draper Papers, New York University Archives, New York University.

Chapter Two: Morse as a Photographer, 1839-1841

Morse left for Europe in mid-May of 1838 with high hopes. He was traveling abroad this time not to soak in the great works of art of past ages, but to promote his thoroughly modern invention, the electro-magnetic telegraph. Morse had spent the lion's share of the 1830s working on his invention, first quietly developing and then actively promoting the device, and was now hoping to obtain European patents. He traveled to London with his brother Richard (who thought the voyage would aid his health), and his new partner in telegraphy, Francis O. J. Smith, a lawyer and Congressman from Maine.[1] Morse met swift resistance from the British, which he suspected was due to nationalist reasons, and soon moved on to France.[2] Despite receiving widespread admiration and praise for the telegraph, Morse's efforts to gain a French patent also proved fruitless at this juncture. The journey was not entirely made in vain, however, for a variety of reasons: Morse made important contacts that would lead to his eventual success with the telegraph in England, France, and Russia. And, of course, during this trip Morse had his famous meeting with Louis-Jacques Mandé Daguerre, the co-inventor of the daguerreotype.[3]

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[1] Francis O. J. Smith had served as chairman of the Congressional Committee on Commerce, which in February of 1838 awarded Samuel F. B. Morse $30,000 in order to construct a fifty-mile line to test the telegraph; he subsequently took a leave of absence from Congress to fully participate in Morse's telegraphic enterprise. On Smith, see Thomas L. Gaffney, "Maine's Mr. Smith: A Study of the Career of Francis O. J. Smith, Politician and Entrepreneur," Ph.D. dissertation, The University of Maine at Orono, 1979.

[2] "Partially, from *national or other motives*, aside from the justice of the case, I am persuaded, influenced the decision against me." Samuel F. B. Morse to Susan Morse, July 26, 1838, quoted in Samuel Irenaeus Prime, *The Life of Samuel F. B. Morse, LL.D, Inventor of the Electro-Magnetic Telegraph* (New York: D. Appleton and Company, 1875), p. 359.

[3] As is well known, Daguerre was not the inventor of the daguerreotype on his own, but co-inventor (or at least business partner) with Joseph Nicéphore Niépce and his son Isidore. This statement alone (and the acceptance of 1839 as a "start" date for the medium of photography) is a loaded assumption; that being said,

The period in which photography re-entered Morse's life, the late 1830s and early 1840s, has been dubbed Morse's "dark ages" by his earliest biographer.[4] Indeed, as described in the previous chapter, it was a particularly tumultuous period for him both personally and professionally. His artistic career had been on the wane since the beginning of the decade, with the financial failure of his 1832-33 painting *The Gallery of the Louvre*. He had been crushed after not receiving a commission from Congress to paint a mural in the Capitol Rotunda. The promotion of his new invention, the telegraph, was progressing incredibly slowly, and at times seemed permanently stalled. By the close of the decade, Morse was depressed, deeply in debt, and caught between resuming his career as an artist or progressing with his career as an inventor.[5]

The typical reading of Morse's involvement with photography is that it was a welcome distraction during this parenthetical period of his life. On one level this is certainly true, for the daguerreotype embodied, in one medium, the ability to both create a visual result and to engage in the type of technological and mechanical experiments he had long enjoyed. Morse's work with the daguerreotype, however, can be read on a deeper level: first, that it was in direct accordance with his long-held goals of personal and nationalistic success, and second, that it provides an important link between his

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however, it is neither my intention nor interest to categorize "firsts" here, or debate the primacy of invention. The history of Daguerre and Niépce's partnership, as well as a fuller account of the history and historiography of the medium, can be found in, among others, Geoffrey Batchen, *Burning with Desire, the Conception of Photography* (Cambridge, MA: MIT Press, 1997); Mary Warner Marien, "Toward a New Prehistory of Photography," *Multiple Views: Logan Grant Essays on Photography*, ed. Daniel P. Younger (Albuquerque, New Mexico: University of New Mexico Press, 1991), pp. 17-39; and Martin Gasser, "Histories of Photography 1839-1939," *History of Photography* 16 (Spring 1992): 50-60.

[4] Prime, p. 423.

[5] While Morse does not appear to have executed any paintings after 1837, he remained president of the National Academy of Design until 1845 (he was first appointed in 1824), and in 1841 claimed to still be pondering the creation of a never-realized canvas, *The Gem of the Republic*. On *The Gem of the Republic*, see Kenneth Silverman, *Lightning Man: The Accursed Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 2003), pp. 209-210.

active careers as a painter and inventor. Not surprisingly, given his interest in the previous twenty or so years with the mechanical transcription of a subject, Morse grasped almost immediately that the daguerreotype could prove revolutionary to the fine arts because of its mechanical nature. Given his focus on technology and his awareness of American society's primarily positive association of technology with progress, Morse seized upon the daguerreotype as a possible way to unite American beliefs in progress with his long-held and almost abandoned objectives for the fine arts in the United States, those of helping educate the public about taste and enhancing their ability to recognize "good" art, thereby advancing the state of American culture.

This chapter details in full Morse's photographic career. The hard facts regarding Morse's work in photography have not yet been established within the existing literature (when exactly he had his studios, what types of works he produced, and so on), and current scholarship contains much contradictory or incorrect information. This chapter redresses these errors and fully explicates the practical details of Morse's photographic efforts, thereby establishing an accurate basis from which to theorize about his resultant activities and images. While I do touch upon other scholars' assessments of modernity, progress and the daguerreotype as uniquely American, and how such ideas relate to Morse's daguerreian activity, these associations receive more thorough treatment in subsequent chapters.

Morse and Daguerre: The Meeting

Morse arrived in Paris from London in late July of 1838, and quickly set about attempting to obtain a French patent for his telegraph. During this process he somehow was introduced to Dominique François Jean Arago, the secretary of France's *Académie*

des Sciences and director of the Paris Observatory.[6] Arago invited Morse to demonstrate the telegraph at the Observatory, and was so impressed with the device that he arranged for a showing to be held before the assembled members of the Académie on September 10, 1838. Despite the enthusiastic response of the press, the Académicians, and the countless visitors who came to see the apparatus (which Morse demonstrated in his rooms on Tuesdays when he was "at home"), Morse could not secure an appointment to demonstrate the telegraph at the French court. He was still in Paris, in an agony of seemingly endless waiting, when Arago introduced Daguerre's process to the Académie on January 7, 1839.

Joseph Nicéphore Niépce and Daguerre had each been experimenting with photographic processes on their own throughout the 1820s, and in 1829 the two men formed a partnership to promote what would eventually evolve into the daguerreotype.[7] Niépce died in 1833, and by 1835 Daguerre felt he improved upon the existing process enough to draw up a new contract with Niépce's son Isidore.[8] Daguerre and Isidore had been trying to sell the invention to various governments for some time, and when this failed they had hoped to interest individual buyers, or investors, in subscriptions. Neither approach was successful, and before offering a second subscription to the public in late 1838, Daguerre showed the process to several Académicians, hoping they could grant the

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[6] Morse and Arago apparently met on September 4, 1838, but there is no record of how they were introduced; see Prime, p. 363.

[7] The "prehistory" of photography, that is, the various experimenters and processes that predate the 1839 public announcement of the daguerreotype, is a complex and often contentious topic. For a list of sources that detail the subject more completely, see note 3.

[8] Isidore Niépce was never satisfied with the changes to the initial agreement, insisting that Daguerre had cheated his deceased father out of his proper rights to the invention. For a full account of the contacts, see Helmut and Alison Gernsheim, *L. J. M. Daguerre, The World's First Photographer* (New York: the World Publishing Company, 1956), pp.70-76.

daguerreotype some scientific credibility. Arago was so entranced by the process he instantly became the invention's champion. He convinced Daguerre to abandon the idea of subscriptions, believing he could persuade the French government to purchase the rights to the process.[9]

The day before Arago's January 7th speech to the Académie, an article on Daguerre's process appeared on the front page of *La Gazette*, based on a press release issued by Arago.[10] Between these two carefully orchestrated events, and the ensuing flurry of newspaper articles, Morse surely was aware of the daguerreotype almost immediately. He had, after all, been patiently waiting since the previous September for some kind of forward motion on his own invention, and such enthusiasm on the part of the Académie for a new invention would have piqued his concern and interest instantly, particularly given his own proto-photographic experiments of the early 1820s. It is curious, though, that in his surviving correspondence Morse remained mute on the process for almost a month. Perhaps he was waiting to see if the invention was genuine, or if the attention surrounding the daguerreotype would simply fade. Perhaps he was just too busy with own struggles to be terribly concerned – during January and February of 1839, Morse was contending with Charles T. Jackson's continuing claim of priority regarding the invention of the telegraph, ongoing delays from the French government, and the exciting prospect of telegraph lines in Russia and Poland, proposed by an admiring agent of Czar Nicholas I, Baron Meyendorff. Morse soon realized that the daguerreotype was no flash-in-the-pan, though, and that it posed a very serious threat to

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[9] Helmut and Alison Gernsheim, *L. J. M. Daguerre, The History of the Diorama and the Daguerreotype* (New York: Dover Publications, Inc., 1968), pp. 77-81.

[10] Anne McCauley, "François Arago and the Politics of the French Invention of Photography," *Multiple Views: Logan Grant Essays on Photography, 1983-89,* pp. 43-69.

his telegraph for government attention and, more importantly, for government funds. Indeed, the first surviving, concrete mention of the daguerreotype to appear in his correspondence refers to just this realization, as he wrote to Smith on February 2, 1839, comparing "things here to an April day, at one moment sunshine, at the next cloudy." The committee of the *Académie Industrielle* had come to see the telegraph, he reported:

> With the committee of the Academy came several members of the Chamber of Deputies, one of whom observed to me: "The Government should by all means own this Invention; it is of vastly more importance than the daguerreotype, which is proposed to the Chambers. Why has it not been offered to the Government?"

Morse annotated this portion of his letter with a definition of the daguerreotype, as there were no notices in the American press of the daguerreotype until March. He explained the daguerreotype was, "a most singular and beautiful discovery by M. Daguerre, by which the camera obscura imprints, permanently, the objects it reflects, and with such minuteness, that the microscope discovers the minute organization in the print, as in the real object."[11] At this point Morse had not actually seen any daguerreotypes, and probably was describing the process from notices he had read in the press.

Morse soon decided it was necessary to view his competition for himself. At the suggestion of the American counsel in Paris, Robert Walsh, he wrote to Daguerre sometime near the end of February 1839, requesting to examine some daguerreotypes; he would show Daguerre his telegraph in return.[12] The meeting took some time to arrange,

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[11] Samuel F. B. Morse to Francis O. J. Smith, February 2, 1839, Francis O. J. Smith Papers, Maine Historical Society. Smith had returned to the United States in June, 1838, see Gaffney, p. 388.

[12] "A few days ago I addressed a note to Mr. D[aguerre], requesting, as a stranger, the favor to see his results, and inviting him in turn to see my Telegraph. I was politely invited to see them under these circumstances, for he had determined not to show them again, until the Chambers had passed definitely on a proposition for the Government to purchase the secret of the discovery, and make it public." Samuel F. B. Morse to Sidney E. Morse, March 9, 1839, re-printed in "The Dagguerrotipe," *New-York Observer*,

as on March 1 Morse wrote to Daguerre begging to re-schedule: "The time, Mon. Daguerre, in his great kindness, has fixed to show his most interesting experiments is unfortunately one that will deprive M. [Morse] of the pleasure. . . . Will Monday or any other day be agreeable to Mon. Daguerre."[13] The two were not able to meet for another week, and while Morse was anxious to view these "most interesting experiments," he was even more anxious to assert the telegraph's superiority, as he wrote to Smith on March 2, mere days before meeting with Daguerre:

> I am told every hour that the two great wonders of Paris just now, about which everybody is conversing, are, Daguerre's wonderful results in fixing permanently the image of the *camera obscura* and Morse's Electro-Magnetic Telegraph, and they do not hesitate to add that, beautiful as are the results of Daguerre's experiments, the invention of the Electro-Magnetic Telegraph is that which will surpass, in the greatness of the revolution to be effected, all other inventions.[14]

On the appointed day, March 7, 1839, Morse and Daguerre met in Daguerre's residence and Diorama office at No. 5 rue des Marais, the so-called "Maison du

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April 20, 1839, p. 62. On Walsh suggesting that Morse contact Daguerre, see Samuel F. B. Morse to Edward L. Wilson, November 18, 1871, reprinted in "Our Picture," *The Philadelphia Photographer* 9 (January 1872): 3.

[13] Samuel F. B. Morse to Louis-Jacques Daguerre, March 1, 1839, Samuel F. B. Morse Papers, Manuscript Division, Library of Congress (hereafter cited as Morse Papers). Photo-historian Robert Taft claims that Morse wished to re-schedule the original Sunday Daguerre had suggested due to his conservative religious views; Robert Taft, *Photography and the American Scene* (1938 reprint, New York: Dover Publications, 1964), p. 11. Taft's take seems to have come from the heavily annotated biography of Morse, *Samuel F. B. Morse, His Letters and Journals*, ed. Edward Lind Morse, Vol. 2 (Boston: Houghton Mifflin Company, 1914,), p. 129, in which Edward Morse claims Morse's re-scheduling of the initial meeting "satisfied his puritan conscience" (hereafter cited as *Letters* Vol. 1 or 2). In his March 1 letter asking Daguerre to re-schedule, however, Morse simply states that he has "an engagement for the entire Sunday of a nature that cannot be broken."

[14] Samuel F. B. Morse to Francis O. J. Smith, March 2, 1839, Francis O. J. Smith Papers, Maine Historical Society.

Diorama."[15] This building stood around the corner from the theatre that housed the Diorama itself. Daguerre showed Morse several examples of his work, and Morse was able to examine these under a magnifying glass.[16] It is near impossible to ascertain exactly which daguerreotypes Morse viewed while at Daguerre's studio, but his letter of March 9 describing the meeting does reveal that he was able to view a range of plates that demonstrated the medium's abilities. One of these daguerreotypes was surely *Boulevard du Temple, Noon* (Fig. 8), a street scene showing a ghostly man having his boots polished, described in detail below. Morse also noted an "interior view," probably a still life, and describes a scientific plate featuring a magnified view of a spider. The still life might have been that which Daguerre later flanked by two views of the Boulevard du Temple, and sent to King Ludwig I of Bavaria as examples of his process (Fig. 9).[17] Unfortunately, Daguerre's plates of microscopic views have not survived.

The following day, March 8, 1839, Daguerre paid a visit to Morse's third-floor rooms at 5 rue Neuve des Mathurins. He arrived at noon, spent over an hour inspecting the telegraph, and "[expressed] himself highly gratified at its operation."[18] Unfortunately, while Daguerre was with Morse, his Diorama theatre caught fire. The audience was able to escape without harm, and Daguerre's house, which contained his daguerreotype equipment and pictures, was saved, but the Diorama pictures and theatre were completely

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[15] Morse relays that the two met "at [Daguerre's] rooms in the Diorama," "The Dagguerrotipe," p. 62. For further information on the "Maison du Diorama," see *L. J. M. Daguerre, The History of the Diorama and the Daguerreotype*, p. 15.

[16] Morse's reactions to these images are described in detail below.

[17] Stephen C. Pinson, catalogue entries 14-16, *The Dawn of Photography, French Daguerreotypes, 1839-1855* (New York: Metropolitan Museum of Art, 2003), CD-ROM.

[18] "The Dagguerreotipe," p. 62.

destroyed. The two continued to correspond, but these two days in March 1839 appear to constitute their only personal interaction.[19]

Letter of March 9th

Morse was incredibly impressed with the daguerreotypes he viewed at Daguerre's studio. Indeed, he was so moved by what he saw, and surely so shocked by the unfortunate coincidence of the Diorama theatre fire, that on March 9th he sat down and wrote his brother Sidney E. Morse in New York a letter that detailed in full the rich events of the previous two days: his meetings with Daguerre, a dramatic account of the fire, and, perhaps most importantly, his impressions of the daguerreotypes he had seen. Morse sailed home on March 23 after eleven months abroad, and the letter sailed with him. He and the letter arrived in New York on April 15, and almost immediately upon his return, Sidney published part of the letter in his newspaper, the *New-York Observer*. It appeared on April 20, 1839, and would be the first in a long series of articles the paper ran on daguerreotyping.[20] While this publication was not the first report of the

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[19] There is an outside possibility of a later meeting between the two men, as Morse returned to Europe in 1845, and through Arago demonstrated the improved telegraph to the Académie on November 10 of that year. See Prime, p. 538. Daguerre had retired to Bry-sur-Marne in 1840 or 1841, but came to Paris monthly; see *L. J. M. Daguerre, The History of the Diorama and the Daguerreotype*, p. 125.

[20] Two other accounts on photography appear to pre-date Morse's letter in the American press. The first is, "The New Art, or, 'The Pencil of Nature,'" *National Intelligencer*, March 7, 1839, p. 2, which is a re-print of an earlier article from the *Boston Mercantile Journal* (I have not yet been able to see this edition of the *Boston Mercantile Journal*). The second article on the daguerreotype to appear before Morse's in the United States is, "The Pencil of Nature, A New Discovery," *The Corsair* 13 (April 13, 1839): 70- 72; this is also a reprint, taken from "New Discovery – Engraving," *Blackwood's Edinburgh Magazine* 45 (March 1839): 382-390. Morse's March 9th letter is re-printed in the April 20, 1839, edition, p. 62, and not on May 18, 1839, as is claimed by some scholars, including Dolores Kilgo, "The Sharp-Focus Vision: The Daguerreotype and the American Painter," Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1982, p., 8; William Welling, *Photography in America, The Formative Years: 1839-1900* (New York: Crowell, 1977), p. 7; and Silverman, p. 190. I have not yet been able to locate the original letter. I assume the letter was written to Sidney alone, and not to both Sidney and Richard as is often assumed, as Sidney was serving alone as the editor of the *New-York Observer* at this time, and Richard was residing upstate in Hudson, New York. That the original letter is longer than what was published and was personal is

daguerreotype to appear in the United States, it was the first *first-hand* account of the new technology published in the country. It also appears to have been the most widely disseminated early account of daguerreotyping in America; it was re-printed in several other New York papers, in Philadelphia, New Orleans, and at least twice in Boston, in a matter of days. Morse reported to Daguerre, "The letter I wrote from Paris, the day after your sad loss, has been published throughout this whole country in hundreds of journals, and has excited great interest."[21]

Morse's letter retains a place of distinction in the history of photography, as it is one of the earliest, and indeed one of the most eloquent, surviving accounts of an initial reaction to the daguerreotype image. It is also one of the only extant eye-witness reports of Daguerre's very early plates, and in all respects is a vital document for this early period in photography. The letter is often cited by historians, however almost exclusively in the service of what it relates about the daguerreotype itself or to theorize about reactions to the new medium. The passage most often quoted is indeed quite striking:

> For example: in a [daguerreotype] 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 50 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 street. The effect of the lens upon the picture was in a great degree like that of a 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 an

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indicated by a note in the paper that precedes the re-print of the letter, "The following is an extract from a private letter of Professor S. F. B. Morse to the editor of the Observer, dated, Paris, March 9th."

[21] Samuel F. B. Morse to Louis-Jacques Daguerre, May 20, 1839, Morse Papers. I have found re-prints of Morse's March 9th letter in the *New York Commercial Advertiser*, April 22, 1839 p. 2; the *Boston Daily Advertiser*, April 22, 1839, p. 2; the *Boston Courier*, April 29, 1839, p. 4; *Niles' National Register* 56 (April 27, 1839): 134-135; *The [New York] Evening Post*, re-printed from the *New Orleans Observer*, April 25, 1839, p. 2; and *The [Philadelphia] National Gazette*, April 22, 1839. There are doubtless others.

> individual who was having his boots brushed. His feet were compelled, of course, to be stationary for some time, one being on the box of the boot-black, 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]

As scholars have noted, Morse's description is likely detailing Daguerre's plate *Boulevard du Temple, Noon* (Fig. 8).[23] Alan Trachtenberg has astutely observed that Morse's letter is an indication of the daguerreotype's limitations, as it points to the contradictory abilities of the medium to capture detail in limitless minutia, but cannot reproduce objects in motion.[24] In a separate essay, Trachtenberg also notes how the headless man described by Morse can be aligned with the daguerreotype's uncanny qualities, in its ability to create an image that was "strange and estranging," and that such qualities are apparent in many period writers' reactions to the medium.[25] While all of these interpretations are compelling and useful, the letter is also particularly revealing about Morse's attitudes towards and potential plans for the daguerreotype.[26]

The original March 9 letter Morse wrote to Sidney is presumed lost, and we must refer to the version published on April 20. The brothers surely discussed publishing the letter prior to its appearance in the paper – it is hardly thinkable that Sidney would have published Morse's personal correspondence without his permission. Indeed, the intimate nature of the letter is stressed in the brief note that prefaces Morse's text, as Sidney

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[22] "The Dagguerreotipe," p. 62.

[23] Pinson, catalogue entries 14-16, *The Dawn of Photography, French Daguerreotypes, 1839-1855*.

[24] Alan Trachtenberg, *Reading American Photographs: Images as History, Mathew Brady to Walker Evans* (New York: Hill and Wang, 1989), p. 15.

[25] Alan Trachtenberg, "Likeness as Identity: Reflections on the Daguerrean Mystique," in *The Portrait in Photography*, ed. Graham Clarke (London: Reaktion Books, 1992), p. 188.

[26] One of the few scholars to discuss the letter as such is François Brunet, "Samuel Morse, 'père de la photographie américaine,"' *Etudes Photographiques* 15 (November 2004): 12-14. Batchen also relates this letter to Morse specifically, as discussed below.

acknowledges that he is printing "an extract from a private letter." Thus, the published version must be read in light of Morse's likely involvement; between what is deliberately stated, and what is deliberately *not* stated (but tantalizingly referred to in an editor's postscript, which will be discussed below), it seems as though Morse was already laying plans to take a recess from telegraphy, and to focus on photography. Moreover, he was announcing his plans and asserting their primacy from potential rivals in a very public manner.

Throughout the letter, Morse expressed his deep admiration for Daguerre's accomplishment; enough so that his enthusiasm for the invention seems to completely eclipse his earlier worries about a rival to his telegraph. Instead, Morse seemed to make a distinct and positive connection between his invention of the telegraph and Daguerre's invention of the daguerreotype. Though Morse did not refer to the shared links of instant communication in this letter, this could not have escaped his attention, particularly given his years of interest in mechanical transcription or communication. More explicit in the March 9 letter, however, are Morse's views on the status of the inventor, and his desire for appropriate compensation for and acknowledgment of a new technology, as well as Morse's intentions for the medium.

Morse began the letter by wondering if his brother has heard of the daguerreotype (which he misspells as "Daguerreotipe"), and labeling it "one of the most beautiful discoveries of the age." He followed this acknowledgement by immediately reminding his reader of his own, prior experiments with the basic technology of photography:

> I don't know if you recollect some experiments of mine in New Haven, many years ago, when I had my painting room next to Prof. Silliman's, experiments to ascertain if it were possible to fix the image of the Camera Obscura. I was able to produce different degrees of shade on paper, dipped

> into a solution of nitrate of silver, by means of different degrees of light; but finding that light produced dark, and dark light, I presumed the production of a true image to be impracticable, and gave up the attempt. M. Daguerre has realized in the most exquisite manner this idea.

Morse was particularly concerned with the notion of primacy in experimentation and invention at this point of his life; he was in the midst of a lengthy and very public battle with Dr. Charles T. Jackson of Boston over who had first imagined the electro-magnetic telegraph. Jackson had been a fellow passenger on the *Sully* voyage in 1832, the overseas journey during which Morse conceived of the telegraph, partially through conversations with Jackson. When Morse began receiving notice for his invention in the press, Jackson had written to Morse, at first politely: "I suppose that the reason why my name was not attached to the invention of the Electric Telegraph is simply that the editors did not know that the invention was our *mutual* discovery."[27] Morse was outraged at the challenge, and after trading a series of increasingly nasty letters with Jackson, he secured a caveat for his early, telegraphic prototype with the Commissioner of Patents in Washington. That had taken place in 1837, and now in early 1839, Jackson re-opened his attack, this time going through the press. Morse and Jackson began to publish, in turn, accusatory letters to each other in various American papers. While Jackson's claims were eventually discounted, it is important that he was not claiming to have actually invented the telegraph, but that he had conceived of the *idea* of the telegraph. As it was Morse, though, who realized the idea (albeit via a crude prototype), it was Morse who did eventually receive full credit for the invention. In his March 9 letter, Morse happily granted Daguerre the honor of having actually realized the process of photography, and fully admitted he had been unable to do so. But he was very careful to mention to his American audience that he had had the idea

[27] Charles T. Jackson to Samuel F. B. Morse, September 10, 1837, Morse Papers.

himself prior to Daguerre – not in order to claim responsibility for the invention, as Jackson was doing with his telegraph, but to establish himself as having expertise in the field.

Another instance of Morse relating the invention of the telegraph to that of the daguerreotype comes near the end of the letter, when he made a plea for the French government to reimburse Daguerre for his losses after the fire. Morse incorrectly assumed that Daguerre's daguerreotype equipment had been destroyed along with his Diorama:

> But while he was thus employed [viewing the telegraph], the great building of the Diorama, with his own house, all his beautiful works, his valuable notes and papers, the labor of years of experiment, were, unknown to him, at that moment becoming the prey of flames. His secret indeed is still safe with him, but the steps of his progress in the discovery, and his valuable researches in science are lost to the scientific world. I learn that his Diorama was insured, but to what extent I know not. I am sure all friends of science and improvement will unite in expressing the deepest sympathy in M. Daguerre's loss, and the sincere hope that such a liberal sum will be awarded him by his Government, as shall enable him in some degree at least, to recover from his loss.

Proper compensation for an invention was also weighing heavily on Morse's mind at this time, as he had spent the past eleven months in Europe hoping to secure patents and funds from the French and British governments. He was still hoping to secure these from his own government as well.

In the bulk of the letter, Morse focused on his reactions to the plates he viewed. His initial response is startlingly similar to that of other early viewers, particularly that of Arago as outlined in his July 3, 1839 report to the French Chamber of Deputies. Both stress the daguerreotype's potential use for the sciences; Morse focused on the microscopic qualities of the technology through his enthusiastic re-telling of seeing a plate with a magnified "impression of a spider," which he labeled "Rembrandt

perfected." He wrote, "You perceive how this discovery is, therefore, about to open a new field of research in the depths of microscopic nature. We are soon to see if the minute has discoverable limits." He also noted, "The effect of the lens upon the picture was in a great degree like that of a telescope in nature." Arago focused more on the daguerreotype's potential for the fields of astronomy and physics, the former more in accordance with his position as director of the Paris Observatory. But he did, like Morse, refer to the microscopic and telescopic, using these as examples of the daguerreotype's unknown possibilities. Both men also emphasized the daguerreotype's fidelity to detail, which caused Morse to exclaim, "[The] exquisite minuteness of the delineation cannot be conceived. No painting or engraving ever approached it." Arago, citing painter Paul Delaroche, praised photography's "'unimaginable precision' of detail."[28] Batchen, one of the few scholars to comment on how this letter reflects on Morse himself, notes that the artist and inventor drew upon examples of both the fine arts ("Rembrandt perfected") and the sciences ("a telescope in nature"), to describe the photograph, but also seems to suggest that the daguerreotype, containing aspects of each, surpasses both.[29]

In many respects, the postscript that follows the letter in the *New-York Observer* is more revealing about the possible intentions of Morse the future photographer than is the letter itself. Like the forward, this postscript was likely written by Sidney, and was surely penned with Morse's input and approval. It reflects a conversation Morse must have had with his brother regarding what he envisioned for the daguerreotype, as Sidney opened with the intriguing statement, "From [Morse] we have received some additional

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[28] Dominique François Arago, "Report," July 3, 1839, reprinted in Alan Trachtenberg, ed., *Classic Essays on Photography* (New Haven, Connecticut: Leete's Island Books, 1980), p. 18.

[29] Batchen, p. 137.

information respecting this very interesting discovery, which we cannot at present communicate." He continued:

> We are even more impressed with the value of the invention as a means of procuring, without labor or expense, perfect and satisfactory panoramas of all the most interesting places and scenery on the globe. . . . . With what delight will the eye dwell on the panoramas of Jerusalem, Thebes, Constantinople, Rome, and other cities of the old world, delineated with unerring fidelity of the Daguerreotipe?

On one level this statement reflects the educated nineteenth-century man's inclination for travel and the era of the "arm-chair" tourist, already in place with prints and painted panoramas; the "old world" was a source of great fascination at this time, and would soon be amply documented by photography as Sidney predicts. The locations listed by Sidney, though, are also reflected in Arago's report. Indeed, Arago spent an inordinate amount of time in his report stressing the potential usefulness of daguerreotyping for preserving the hieroglyphics of "Thebes, Memphis, Karnak."[30] The similarity leads one to wonder if this was something Daguerre might have emphasized when promoting his device to both Morse and Arago. Regardless, the Morse brothers were immediately struck by photography's ability to record far-off places. They were, after all, the sons of a geographer.[31]

It is Sidney's second assertion, however, that is the most telling about the brothers' probable conversation regarding Morse's plans for the daguerreotype. Sidney

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[30] Arago, p.17.

[31] As discussed in Chapter One, Jedidiah Morse was the author of one of the first texts on American geography. Jedidiah's influence on Morse as a staunch Calvinist and proponent of American millennialism has been amply discussed by Paul J. Staiti, *Samuel F. B. Morse* (New York: Cambridge University Press, 1989). For a discussion on how map-making such as that in Jedidiah's *Geography* corresponded to a new world-view, see Chapter One, pp. 43-45. On photography's role as an extension of print culture for the "arm-chair" traveler, see Joan M. Schwartz, "The Geography Lesson: Photographs and the Construction of Imaginative Geographies," *Journal of Historical Geography* 22 (1996): 16-45.

declared himself impressed with photography's potential to capture, "if we apprehend its power correctly, perfect representations of the human countenance." This idea surely came from Morse the former portraitist, as Daguerre did not seem to think photographic portraiture was feasible.[32] Sidney's postscript continued, "With what interest shall we visit the gallery of portraits of distinguished men of all countries, drawn, not with pencil, but with the power and truth of light from heaven!" Could plans for such a gallery have been the "additional information" Morse confided in Sidney, which he could "not at present communicate"? This is highly possible, as Sidney slyly concluded the entire article by prophesizing, "It may not be long before we shall witness in this city the exhibition of such panoramas and portraits."[33]

The Daguerreotype, the Telegraph, and the Conflicted Nature of American Progress

Morse's two-day meeting with Daguerre signifies the onset of his direct involvement with the daguerreotype proper. As noted, Morse had been developing his telegraph at the expense of his painting for the past two years, and had been working on

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[32] Morse relayed this to Marcus Aurelius Root in a letter dated February 10, 1855. "In my intercourse with Daguerre, I specially conversed with him in regard to the practicality of taking portraits of living persons. He expressed himself somewhat skeptical as to its practicability, only in consequence of the time necessary for the person to remain immovable. The time for taking an out-door view was from fifteen to twenty minutes, and this he considered too long a time for any one to remain sufficiently still for a successful result," re-printed in "Who Made the First Daguerreotype in this Country?" *Photographic and Fine Art Journal* 8 (September 1855): 280. It should be noted that a daguerreotype attributed to Daguerre and dated 1837 appeared in *Études photographiques* 5 (November 1998): 4; André Gunthert provided an accompanying article, "Daguerre ou la promptitude, Archéologie de la réduction du temps de pose," 4-25, as did Jacques Roquencourt, "Daguerre e l'optique," 26-49. The claim of an 1837 portrait brought a flurry of response, most notably from R. Derek Wood, "A Note on the Daguerreotype Portrait Said to Be of 'Nicolas Huet, 1837,'" at http://www.marillier.nom.fr/collodions/dwHuetUk.html. Wood points out that, among other things, the supposed subject had died in 1830. Regardless of whether or not Daguerre was successful in achieving a portrait before 1839, it is important that, according to Morse, Daguerre appeared unconvinced of its practicality, and furthermore, if Daguerre *was* successful, Americans seemed unaware of it. This, in turn, gave Morse the opportunity to pursue an aspect of the medium, portraiture, which was new and innovative. Morse's interest in photographic portraiture and its ties to his nationalism are fully discussed in Chapter Three.

[33] "The Dagguerreotipe," p. 62.

the telegraph in general for the past seven. In addition to the specific connections Morse saw between himself and Daguerre as inventors, he must also have been aware of the specific cultural and technological links between the telegraph and the daguerreotype. Both harness an invisible, natural substance (light with the daguerreotype, electricity with the telegraph) to create a mark or impression on a receiving surface, generating a daguerreotype image or a telegraphically coded number or letter. Period writers noted the similarities almost immediately and commented upon it often; for example, when the Atlantic telegraphic cable was laid in 1858, Jeremiah Gurney's photographic studio projected a transparency that read in part, "Daguerre and Morse/One harnessed the Light, and the other the Light-ning."[34] An anonymous poem from 1852 also celebrated the connection:

> FRANKLIN brought down the lightning from the clouds,
> MORSE bade it act along the trembling wire,
> The trump of Fame their praises gave aloud,
> And others with the same high thoughts inspire.
> DAGUERRE arose – his visionary scheme
> Was viewed at first with jeers, derision, scorn,
> Conquered at last by the grand power supreme
> Of god-like mind – another art was born.[35]

Many contemporary scholars, including Trachtenberg and Rebecca Solnit, have commented upon the prevalence of the phrase "the annihilation of time and space" in mid-nineteenth century American journals and newspapers in relation to technologies that

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[34] "The Atlantic Cable and Photography," *The American Journal of Photography* 7 (September 1, 1858): 111-113.

[35] Quoted in Geoffrey Batchen, "Electricity Made Visible," in *New Media, Old Media, A History and Theory Reader*, eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), p. 38.

did just that: bring the distant near and make communication near instantaneous.[36] The technologies most associated with this annihilation are the railroad, the telegraph, and the photograph. How did Morse, who was eventually recognized as the inventor of the telegraph and the "Father of American Photography," fit into this cultural milieu? Given his many years of work involving mechanical imitation and communication, and his decision to pursue technology at the expense of his painting as a means to achieve his ambitions, what was Morse's attitude towards this "annihilation of time and space" to which he contributed so strongly?

In his correspondence, Morse was actually fairly ambivalent about the idea of progress. "Improvement is all the rage [in New York]," he remarked dryly in a letter to James Fenimore Cooper in 1833, "Houses and churchyards must be overthrown and upturned whenever the Corporation plough is set to work for the widening of a narrow, or the making a new, street."[37] He was more openly critical of his city-mates in another letter to Cooper written the following week: "There is nothing new in New York, everyone is driving after money, as usual. . . . Come prepared to find many, very many things in taste and manners different from your own good taste and manners."[38] The idea that too much technological progress and resultant wealth could corrupt the nation's moral and political fiber was deeply rooted in America's Federalist past, and was

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[36] Alan Trachtenberg, "Photography: the Emergence of a Keyword," in *Photography in Nineteenth Century America*, ed. Martha Sandweiss (New York: Harry Abrams, Inc., 1991), p. 19; Alan Trachtenberg, "Mirror in the Marketplace: American Responses to the Daguerreotype, 1839-1851," in *The Daguerreotype, A Sesquicentennial Celebration*, ed. John Wood (London: University of Iowa Press, 1989), p. 61; and Rebecca Solnit, *River of Shadows: Eadweard Muybridge and the Technological Wild West* (New York: Penguin Books, 2003), pp. 11-24.

[37] Samuel F. B. Morse to James Fenimore Cooper, February 21, 1833, Morse Papers.

[38] Samuel F. B. Morse to James Fenimore Cooper, February 28, 1833, Morse Papers.

commented upon by figures such as Thomas Jefferson. As historian of technology Merritt Roe Smith has pointed out, "When [Jeffersonians and other Americans] spoke of progress, as they often did, they consequently gave human betterment (intellectual, moral, spiritual) equal weight with material prosperity. Without betterment, prosperity was meaningless."[39] While this idea had shifted by the early 1830s and American society more fully embraced a "business-oriented emphasis on profit, order, and prosperity," there remained resistance to the idea that technological progress automatically equaled social betterment, particularly among the nation's intellectual community. Writers such as Henry Thoreau, Nathaniel Hawthorne, Herman Melville and (eventually) Ralph Waldo Emerson often wondered whether technology would be the downfall of society; Hawthorne even wrote a short story in 1843 entitled "The Celestial Railroad" in which passengers on a steam locomotive realize their destination is hell.[40]

Historian Leo Marx has famously characterized this push-and-pull within American culture between the celebration of technological achievements, and the simultaneous fear of their corruption, which, in turn, creates a longing for a pastoral ideal, as "The Machine in the Garden."[41] Trachtenberg also refers to this tension when he describes American society's difficulties in acclimatizing to the new medium of photography. Drawing upon period literature and popular fiction (particularly the novels

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[39] Merritt Roe Smith, "Technology, Industrialization, and the Idea of Progress in America," essay in *Responsible Science: The Impact of Technology on Society*, ed. Kevin B. Byrne (San Francisco: Harper & Row Publishers, 1986), p. 4.

[40] Ibid., pp. 4-8. Ralph Waldo Emerson praised technology throughout the 1830s, but by the late 1840s became convinced that the machine had become unmanageable and a detriment to society. See Leo Marx, *The Machine in the Garden, Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964) pp. 262-263.

[41] Marx, pp. 243-353.

of Hawthorne), he notes that many sources refer to a sense of dislocation photography caused its sitters and viewers, in that it made the once familiar startling and new.[42]

Morse's attitude towards the technologies with which he was involved can be understood in light of this tension within American culture towards progress. His quite reasonable (and quite ardent) desire for appropriate remuneration and recognition for his inventive or artistic efforts was at odds with his conservative and Calvinist upbringing, which frowned harshly upon the wanting of worldly goods. Since his earliest days, Morse had rationalized his yearning for success by couching it in terms of a greater desire to be of service to mankind, and that any glory for him is glory for his country.[43] He stressed this in a conversation with Robert G. Rankin regarding the telegraph in 1835, who later recalled: "[Morse] felt as if he was doing a great work for God's glory as well as for man's welfare; that such had been his long cherished thought."[44] Morse's son and biographer, Edward Lind Morse, refers to Morse's desire to aid humanity frequently throughout his heavily annotated compilation of his father's letters and journals. "[Morse's] great ambition had always been to work some good for his fellow-men, and here [the telegraph] was a means of bestowing upon them an inestimable boon."[45] Morse himself outlined these views most clearly in a letter to his friend Catherine Pattison in 1838:

> Be thankful, Catherine, that you are not an inventor. Invention may seem an easy way to *fame* . . . But the condition of an inventor is, indeed,

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[42] See in particular Trachtenberg, "Mirror in the Marketplace," and "Photography: Emergence of a Keyword."

[43] Staiti discusses how Morse justifies his invention in terms of God's will, pp. 221-225.

[44] Letter of Robert G. Rankin to Samuel Irenaeus Prime, April 25, 1873, quoted in Prime, pp. 305-306.

[45] *Letters* Vol. 2, p. 14.

> not enviable. I know of but one condition that renders it in any degree tolerable, and that is the reflection that his fellow-men may be benefited by his discoveries. . . . Unless there is a benevolent consideration in our discoveries, one which enables us to rejoice that others are benefited even though we should suffer loss, our happiness from any honor awarded to a successful invention is exposed to constant danger from the designs of the unprincipled.[46]

So uncomfortable is Morse with the idea of wanting fame for the sake of fame, he suggests in this letter that such a desire will "expose" the inventor to "the designs of the unprincipled." Rather, fame can only come if there is a "benevolent consideration" in one's use of technology.

Morse's desire to be of service to his nation and to humanity was not solely a means to justify his hope for personal renown. As discussed in the previous chapter, these two ambitions were inextricably linked in Morse's mind and were the driving force behind his professional actions throughout his various careers. His commitment to the betterment of the United States, which had begun with his work in the fine arts, is referred to repeatedly in his correspondence regarding the telegraph, and is often manifested as a fairly extreme nationalism. Indeed, Morse made clear that he was willing to change careers because it would be of greater benefit to America: in reaction to the decision by the Committee of Congress not to give Morse a rotunda commission, his friends and supporters had created a fund through which they would pay him to execute the picture instead. Morse was deeply moved by this gesture, yet politely deferred his friends' offer, and instead traveled to Europe in pursuit of patents for his telegraph. In a letter to the subscribers, he wrote, "I ought not to conceal . . . that circumstances may arise, in relation to the Telegraph, which may make it a paramount duty, *to myself and my*

[46] Samuel F. B. Morse to Catherine Pattison, January 22, 1838, Morse Papers.

country, to suspend for a season the commission" [italics mine].[47] His nationalism is apparent in another letter he wrote to Catherine Pattison in 1837, when he expressed his fear that before the telegraphic machinery could be perfected "*other nations* will take the hint and rob me of both the credit and the profit."[48] On another occasion he proclaimed, "I claim for myself and *consequently for America* priority over all other countries in the invention of a mode of communicating intelligence by electricity [italics mine]." He hoped that if he claimed the glory for America, America would return the favor monetarily. "Hopes, you perceive, continue bright, but they are somewhat unsubstantial to an empty purse. I look for the first fruits in America. . . . I rejoice quite as much for my country's sake as for my own that both priority and superiority are awarded to my invention."[49] Morse believed there was cause for "national exultation in being not merely *first* in the invention as to time, but *best* too."[50]

The cultural tension regarding technology and progress in America Marx and Trachtenberg describe manifested itself in Morse in a variety of ways. In addition to couching his wish for money and fame in terms of advancing American society, Morse seemed conflicted regarding the cultural elitism of his youth, which he never fully lost, and the democratic technologies of telegraphy and photography with which he was involved. As will be discussed in subsequent chapters, in many ways the more Morse became involved with democratic machinery, the tighter he clung to the cultural and

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[47] Samuel F. B. Morse to Thomas S. Cummings, cited in Prime, p. 292.

[48] Samuel F. B. Morse to Catherine Pattison, August 27, 1837, Morse Papers.

[49] Samuel F. B. Morse to Francis O. J. Smith, January 21, 1839, Francis O. J. Smith Papers, Maine Historical Society.

[50] Samuel F. B. Morse to Francis O. J. Smith, November 30, 1839, Francis O. J. Smith Papers, Maine Historical Society.

social elitism of his youth, and the more he desired to retain the cultural standards of his nation. There appears to be a correlation between his deepening involvement with these technologies and his increasing nationalism and xenophobia, which culminated in a series of events: his 1836 and 1841 mayoral runs for New York as the Nativist candidate, his publications of vitriolic anti-Catholic and anti-immigrant tracts in this same time period, and his activity as an ardent anti-abolitionist in the 1860s. These actions suggest that Morse's nervousness about the machine in *his* garden was that the annihilation of time and space, which did benefit mankind, also encouraged an increasing population of citizenry of which he did not approve. As will be shown, this type of tension comes into play within his daguerreian activity. Morse appeared less affected by a sense of the uncanny or dislocation caused by the daguerreotype (or railway, or telegraph) that Trachtenberg describes, and is more concerned about "social turmoil" and "perceptions of crisis" relating to photography that are also detailed by Trachtenberg.[51] As is discussed below and in subsequent chapters, Morse countered this social turmoil, in his daguerreian work at least, by downplaying the medium's democratizing affect on portraiture, and by attempting to align it with the fine arts. While this kind of fear about preserving a certain type of "America" is certainly a less attractive side of nineteenth-century culture and modernity than, say, an unfettered celebration of pure technological and democratic progress, Marx, Trachtenberg and Smith have shown how pervasively it was a side of U. S. culture all the same.

Early Experimentation, summer - fall, 1839

[51] Trachtenberg, "Mirror in the Marketplace," p. 63.

Sidney's prediction that an exhibition of photography in New York would occur in the near future was a fairly accurate one. The first daguerreotypes exhibited in the city were shown around September 26, 1839. They were the work of D. W. Seager, an Englishman living in New York, and with whom Morse was at least familiar, if not acquainted. The summer season between the first flurry of announcements regarding Daguerre's invention in March and April 1839, and the autumn showing of these works was a fairly quiet one. Daguerre's manual outlining the process of photography was not published in France until August 1839, and did not appear in the United States until mid-September 1839, at the earliest. While it has been conjectured that there must have been some practitioners working on the daguerreotype over the summer of 1839 without the benefit of the manual, there is very little evidence of this.

For his part, Morse spent the summer of 1839 trying to right his affairs after his eleven-month absence.[52] He immediately became re-immersed in his duties as president of the National Academy of Design. A few days after the publication of his March 9 letter on April 20, a newspaper notice appeared describing a "brilliant little *fête*" given by the Academy on April 23. The article discusses Morse's return and recounting of the daguerreotype; within two weeks of this party, he nominated Daguerre as an honorary member of the Academy. The notes from the Academy's minutes record the Frenchman's name in a list of "honorary members" on May 8, 1839.[53] Morse was re-

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[52] "My affairs, in consequence of my protracted absence and the stagnant state of the Telegraph here at home, have caused me great embarrassment, and my whole energies have been called upon to extricate myself from the confusion in which I have been unhappily placed," Samuel F. B. Morse to France O. J. Smith, May 24, 1839, Francis O. J. Smith Papers, Maine Historical Society.

[53] *Inclusive Notes from the Minutes of the National Academy of Design, June 4, 1838 – May 8, 1844*, p. 16, National Academy of Design Archives.

elected president of the Academy on May 18, 1839, and on May 20 he wrote to Daguerre, informing him of his election to the Academy. "When I proposed your name, it was received with wild enthusiasm, and the vote was *unanimous*," Morse gushed.[54] He also offered to arrange an exhibition of Daguerre's plates in New York, believing this might help the Frenchman's financial situation after the disastrous fire. He presented this plan to both Daguerre and Arago, and explained to the latter, "An exhibition . . . of a few of his admirable results in several of our cities, I am persuaded, would yield a sum which may not be unimportant in the present state of M. Daguerre's affairs."[55] He offered his own services as organizer of this exhibition, free of charge. This could be the exhibition that Sidney Morse referred to in his postscript to Morse's April 9 letter published in the *New-York Observer*. Regardless, Morse was certainly trying to create an environment in the United States that would be critically and financially friendly to Daguerre's works and invention; of course, this was the type of environment he hoped would exist for his own creative works and inventions, as well.

Intriguingly, the newspaper notice of the "brilliant *fête*" given at the National Academy also described a collection of photogenic drawings circulating the party:

> Everyone was glad to welcome back [Morse] from Europe, and to congratulate him on the distinction he has won there by his magnetic telegraph. It was a pleasure . . . to hear his animated description of the recent wonders brought to light by the curious discovery of Daguerre, which promises such marvelous additions to the existing knowledge of both art and nature. A gentleman present had with him a portfolio of specimens, not of Daguerre's but of Talbot's photogenic contrivance, the method of which we heard discussed with full understanding by an eminent chemist of our city,

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[54] Samuel F. B. Morse to Louis-Jacques Daguerre, May 20, 1839, Morse Papers. The actual records of the vote are lost, and one must wonder if the result really was unanimous, or if Morse was exaggerating to gain Daguerre's favor.

[55] Samuel F. B. Morse to Dominique François Arago, May 20, 1839, Morse Papers.

> who deals with paint and pencil almost as skillfully as with retorts, peroxydes [sic] and subacids.[56]

The photogenic drawing was a rival photographic process to Daguerre's, which Englishman William Henry Fox Talbot had been working on through the mid 1830s. After Talbot heard of Daguerre's invention in early January of 1839, he showed some of his photogenic drawings to the Royal Society of London later that month.[57] Who was the mysterious owner of this portfolio of photogenic drawings? Who actually produced the drawings themselves? There is no further indication of them in the current literature on Talbot; indeed, this newly discovered reference is thus far the only proof they even existed. Were they even by Talbot, or by another practitioner of the process? Several Americans were experimenting with photogenic drawings in the Spring of 1839, including two Harvard students and Dr. John Locke of Cincinnati, Ohio. Very little is known of the Harvard experiments, and Locke's were not reported in the New York press until several weeks after the Academy party.[58] What became of the portfolio? One must

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[56] "National Academy of Design," *New-York Commercial Advertiser*, April 24, 1839, p. 2, and re-printed in the *New-York Spectator*, April 25, 1839, p. 3.

[57] The photographic works Talbot termed "photogenic drawings" were created in a variety of ways: there were works that were in essence photograms, in which Talbot placed a sheet of paper sensitized with salt and silver nitrate into a printing frame and laid an object such as a piece of lace or a leaf onto the paper, and then left the paper with the object in the sun, creating a direct-contact image. Talbot also placed the sensitized paper into small camera obscuras and pointed these at various points around his estate grounds, creating images of buildings and landscapes. The majority of Talbot's work in photogenic drawings before 1839 took place in 1834-35. He responded to the news of Daguerre's invention by showing a range of his works to the Royal Society in London on January 25, 1839. On January 31, 1839, Talbot's paper "Some Account of the Art of Photogenic Drawing" was read to the Society by Michael Faraday. See Larry J. Schaaf, *Out of the Shadows: Herschel, Talbot & the Invention of Photography* (New Haven: Yale University Press, 1992), pp. 36-54.

[58] On the Harvard students, see Welling, p. 7. A report of Dr. John Locke's experiments appeared in Morse's brothers' newspaper the *New-York Observer*, May 18, 1839, p. 79, some three weeks after the April 23, 1839 party. As the notice simply re-prints an article from a Cincinnati paper and does not mention the portfolio at the Academy party, it seems unlikely that Locke was the producer of this mysterious group of photogenic drawings.

wonder if Morse, alarmed at the perceived threat of photographic priority towards Daguerre, quashed their continued circulation. Despite the portfolio's star turn at an Academy party, there is no record of Morse – or of any other Academician – suggesting that Talbot be nominated to the National Academy of Design, as Daguerre had been. Indeed, Morse consistently and insistently promoted Daguerre's process without a word towards Talbot's, and even assured Daguerre that in America, at least, the daguerreotype would be considered the only acceptable photographic medium:

> Notwithstanding the efforts being made in England to give to another the credit which is your due, [I assure you] that throughout the United States your name alone will be associated with the brilliant discovery which justly bears your name. . . . Should any attempts be made here to give to any other than yourself the honor of this discovery, my pen is ever ready in your defense.[59]

Though the two processes were completely different ways of making photographs, Morse assured Daguerre that in America, the Frenchman will be considered the "Lone Inventor" of photography, just as he was struggling to be considered the "Lone Inventor" of telegraphy.[60] There has been much speculation on the part of scholars as to why the daguerreotype retained such favor in American culture over Talbot's photogenic drawings, and later over his calotype process, which consisted of a paper print made from a negative. As Trachtenberg has noted, there is no simple answer to this puzzle, and he postulates that perhaps the daguerreotype's popularity was due to "the way it held opposites in balance – hand and machine, craft and science, art and technology."[61] This was surely some of the appeal for Morse, but also essential for Morse was his absolute

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[59] Samuel F. B. Morse to Louis-Jacques Daguerre, May 20, 1893, Morse Papers.

[60] I borrow the term "Lone Inventor" from Silverman, pp. 320-322.

[61] Alan Trachtenberg, "The Daguerreotype: American Icon," essay in *American Daguerreotypes from the Matthew R. Isenburg Collection* (New Haven: Yale University Art Gallery, 1989), p. 16.

conviction in the primacy of the inventor. Morse had met Daguerre, he associated himself with Daguerre, and seemed to view Talbot as an interloper who was, as he feared with those encroaching on what he viewed as his sole right to the telegraph, out to "take the hint and rob" Daguerre, "out of both the credit and the profit." As will be discussed in further detail below, Morse was the primary critical voice regarding photography in its first few years within the United States, and his strong opinion on the daguerreotype as the proper photographic technique over any of Talbot's processes would have had an impact on early practitioners.

Daguerre did not take Morse up on his offer for an exhibition, citing the long distance and the fact that his discovery was soon to be made public. He graciously thanked Morse and the National Academy for his honorary membership, which might indeed have been welcome after he had been snubbed by France's Academy of Fine Arts, which preferred the softer, more muted results of another inventor's direct-positive process, that of Frenchman Hippolyte Bayard.[62] Morse did not write to Daguerre again until November. Otherwise the press and Morse are fairly quiet on the subject until the fall.[63]

As Daguerre mentioned in his July 26 response to Morse, his negotiation with the French government was coming to a close. On August 19, 1839, the French Académie

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[62] Louis-Jacques Daguerre to Samuel F. B. Morse, July 26, 1839, quoted in Prime, p. 407. On critical reaction to the daguerreotype in France, see Dominique Panchon-de Font-Réaulx, "The Splendors and Mysteries of the Camera Obscura: Critical Reaction to the Daguerreotype," *The Dawn of Photography: French Daguerreotypes, 1839-55*. On Hippolyte Bayard, see Nancy Boghossian Keeler, "Cultivating Photography: Hippolyte Bayard and the Development of a New Art," Ph.D. dissertation, The University of Texas at Austin, 1991.

[63] Some reports on the daguerreotype in the press from this interim period include: May 18, 1839, the *New-York Observer* states Professor Locke of the Medical College of Cincinnati, Ohio, was successful in making what seem to have been photogenic drawings, and July 6, 1839, the *New-York Observer* speculates that Daguerre's process will not be made public for another two or three years.

des Sciences and the Académie des Beaux-Arts held a joint meeting in which, for the first time, the process of daguerreotyping was publicly demonstrated.[64] The following day, Alphonse Giroux, who had been granted by Daguerre the sole right to market daguerreotype cameras bearing Daguerre's signature, released the published manual which explained the process in full.[65]

There has been much speculation on the part of historians as to how Daguerre's manual, published on August 20, 1839, made it to the United States in time for the exhibition of successful results by Seager on around September 26, 1839.[66] The evidence is conflicting: Seager may have been in London at the time of the French Académies' demonstration, and carried a manual or description of the process from a newspaper home with him. Another theory is that he may have been in Paris during the spring of 1839 (at the same time as Morse), seen some of Daguerre's works, and commenced experimenting over the summer on his own. When he did receive a description of the process in mid September, he therefore might have been able to produce a result quite quickly. Regardless, Seager must have made his first results sometime before September 27, 1839, and we have Morse to thank for this information. On September 28, 1839, a notice appeared in the *New York Journal of Commerce* that stated, "Prof. Morse showed us yesterday the first fruits of Daguerre's invention, as put in practice in this country. It was a perfect and beautiful view, on a small scale, of the new Unitarian church [The

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[64] The Gernsheims report that Daguerre was overcome with stage-fright, and that Arago performed the actual demonstration. Gernsheim and Gernsheim, *The World's First Photographer*, pp. 96-97.

[65] See Louis-Jacques Daguerre, *An Historical and Descriptive Account of the Various Processes of the Daguerreotype and the Diorama,* ed. Beaumont Newhall (New York: Winter House Ltd., 1971), p. 268.

[66] A comprehensive outline of the various possibilities is available in R. Derek Wood, *The Arrival of the Daguerreotype in New York* (New York: the American Photographic Historical Society, 1994).

Church of the Messiah], and the buildings in its vicinity"[67] (Fig. 10). Morse's response appeared on September 30, and he hastened to correct the paper:

> In your mention this morning of the specimen of Photographic drawing by the Daguerreotype which I showed you, you use the phrase "first fruits of invention in this country," this may convey the meaning that I am the first to produce these results from the process just revealed by Mr. Daguerre to the Institute of France. If there is any merit in first producing these results in this country, that merit I believe belongs to Mr. D. W. Seager of this city, who for several days has had some results at Mr. Chilton's in Broadway. The specimen I showed you was my first result.[68]

Morse's insistence on correcting the paper's error once again underscores his desire to give credit where it is due, as he gave to Daguerre over Talbot, as he hoped for with his telegraph. By this account, Morse must have produced his earliest daguerreotype by no later than September 27, only a few days after Seager's successful results. The conflicting accounts of how Seager acquired the instructions do not apply to Morse (though he may have obtained a manual from Seager), as Morse recounts in a letter of 1855, "Some copies of [Daguerre's manual] were immediately sent to this country, one of which I received in the latter part of August or September; and immediately I had made for me the apparatus from the description in the book."[69]

Morse's almost immediate success with the daguerreotype might have something to do with the fact that he was able to have a camera made so quickly. While immersed in his telegraph for the past several years, Morse had made the acquaintance of several

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[67] "The Daguerreotype," *New York Journal of Commerce*, September 28, 1839, p. 2.

[68] *New York Journal of Commerce*, September 30, 1839, p. 2.

[69] "Who Made the First Daguerreotype in this Country?", p. 280. Anthony Prosch, George W. Prosch's brother, recounts that Morse received his manual from Seager, A[nthony], Prosch, "The First American Daguerreotype," *Anthony's Photographic Bulletin* 14 (March 1883): 76. George Prosch was Morse's "instrument maker," as discussed below.

skilled mechanics. He lacked the necessary mechanical skills to construct anything beyond the most crude of prototypes, and with all of his inventions or experimentation that required a piece of machinery – the marble-carving machine, the telegraph, the daguerreotype – Morse might construct a prototype or sketch a design himself, but would hire a mechanic to build the working model. In this case, Morse approached George W. Prosch, a mechanic who had a workshop in the basement of 142 Nassau Street in Manhattan, the same building that housed Sidney Morse's *New-York Observer*, and where, also, Morse was living at the time.[70] Morse had possibly already contacted Prosch for assistance in building his telegraph; many years later, Charles E. West recalled that in the autumn of 1839 Prosch was "[Morse's] instrument-maker."[71] By January of 1840, at least, Prosch had become just that: Alfred Vail, one of Morse's more mechanically minded partners in the telegraphic enterprise, wrote to Morse wondering if "Mr. Prosch will make me a first-rate, most perfect [telegraph] machine, and as speedily as possible."[72] Once again, the telegraph and the photograph are conflated at this point in Morse's life, as Morse appears to be working on both simultaneously, and utilizing the same mechanic for the construction of two separate machines, each of which, in their own way, would revolutionize communication in the nineteenth century.

Prosch was unable to construct the telegraphic device speedily, but he did produce a daguerreotype camera in an exceedingly short period of time.[73] West recalls that the

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[70] "The First American Daguerreotype," p. 75.

[71] Charles E. West, "The Daguerreotype," *The New York Times*, February 19, 1883, p. 3.

[72] Alfred Vail to Samuel F. B. Morse, January 13, 1840, cited in *Letters* Vol. 2, p. 153.

[73] The telegraph machine Vail requested in January was still not complete by September, as Morse wrote to Vail, "As to the telegraph, I know not what to say. The delay in finishing the apparatus on the part of

camera was made "in a few days."[74] Morse reminisced about his first daguerreotype in 1855, recalling:

> As soon as the apparatus was made, I commenced experimenting with it. . . . The first experiment, crowned with any success, was a view of the Unitarian Church, from a window on the staircase, from the third story of the New York City University. . . .It was in September, 1839.[75]

This recollection corresponds to Morse's letter to the *Journal of Commerce*. There appears to have been much interaction among these very early experimenters in New York. In addition to Seager having possibly shared his copy of Daguerre's manual with Morse, Morse and others agreed to be listed as "scientific gentlemen . . .familiar with the [daguerreotype] process and its extraordinary results," in an advertisement for a lecture that Seager would give at the Stuyvesant Institute on the daguerreotype on October 5, 1839.[76] These types of interactions, in addition to the extreme proximity in date of Seager's and Morse's first successes with the daguerreotype, begs the question of whether there was not also more direct collaboration between the two.

For the remainder of that autumn, Morse continued gathering the appropriate equipment and experimenting with the process. At first, he used plates coated with silvered copper bought at a hardware shop. The silver was impure, though, and while he

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Prosch is exceedingly tantalizing and vexatious." Samuel F. B. Morse to Alfred Vail, September 7, 1840, Morse Papers.

[74] West, p. 3

[75] "Who Made the First Daguerreotype in this Country?" p. 280. A daguerreotype by John W. Draper featuring the same church is in the Photographic History Collection, National Museum of American History, Smithsonian Institution, Washington, D. C., and is discussed in Chapter Four.

[76] *The New York Morning Herald*, October 3, 1839, n.p. This same announcement was run in several New York papers in the surrounding days.

was able to obtain results with these plates, he found them unsatisfactory.[77] After a few weeks of trial and error, Morse turned to a local manufacturing company for assistance. He ordered thirty-eight silvered plates from the Scovill Manufacturing Company, a Connecticut firm that specialized in rolled metal products such as buttons and butt hinges. Scovill jumped at the chance to expand its production, as owner J. M. L. Scovill wrote:

> The Daguerreotype is going to be all the go here for a time & they have to use Plated Metal to get the Picture on . . . . Professor Morse called on me today he had been to Chamberlin [Scovill agent in New York] & ordered 38 plated 6 1/2 x 8 1/2 in. for a trial . . . Mr. Morse thought the quantity wanted would be great as soon as it was got in operation.[78]

Scovill rushed to get plates to Morse and the others, and wrote his brother, "[The daguerreotypists] want to get the views before the leaves are off the trees."[79] The plates were ready in a few days, but were completely unsuccessful. Scovill reported, "Mr. Morse says they now look as though they had been under the operation of the daguerreotype by the shades and unevenness of the surface."[80] Unfortunately, it took several more months of trial and error on the part of the Scovill Manufacturing Company to produce a plate that was comparable to those being produced in France. J. M. L. Scovill confessed to his brother that the local daguerreotypists were not pleased with the situation, but that the firm would persevere, "Professor Morse & all hands are Chop Fallen about it, but . . . . they shall want 300 lb. per week if it can be made here & the

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[77] "The greatest obstacle I had to encounter was in the quality of the plates." "Who Made the First Daguerreotype in this Country?", p. 280.

[78] J. M. L. Scovill to W. H. Scovill, October 15, 1839, quoted in Theodore F. Marburg, "Management Problems of a Manufacturing Enterprise, 1802-1852; a Case Study of the Origin of the Scovill Manufacturing Company," Ph.D. dissertation, Clark University, 1945, p. 246.

[79] J. M. L. Scovill to W. H. Scovill, probably October 17, 1839, quoted in Floyd Rinhart and Marion Rinhart, *The American Daguerreotype* (Athens: The University of Georgia Press, 1981), p. 158.

[80] Lamson Scovill, October 21, 1839, quoted in Ibid, pp. 158-59.

only difficulty is in the plating."[81] By January of 1840, the firm had solved its plating problem, and by the mid-1840s the company was the leading American manufacturer of daguerreotype plates.[82] Morse had already moved on, however. He complained to George Vail, Alfred Vail's brother and the major financial source of the telegraphic experimentation, about the difficulties in acquiring suitable plates, and over their price as well:

> I have the Daguerreotype apparatus just completed and hope today to try an experiment with it. I am troubled to get proper plates. The silver workers have put on such a price that they have put a damper on the whole matter. This will not last long as we shall have imported plates soon which will make them reasonable. A dollar and a half! And 5 cents for a plate of silvered copper 8 1/2 by 6 1/2 inches is a little too hard upon the *specie currency* just now.[83]

Eventually, Morse came to rely on Corduan, Perkins & Company, a New York firm devoted solely to the making of daguerreotype plates.[84]

Remarkable at this very early date in the medium's history, Morse also reported to George Vail that he hoped to travel to Morristown, New Jersey to photograph the Vail family's Speedwell Iron Works: "I hoped to be able to take a Daguerreotype view of

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[81] J. M. L. Scovill to W. H. Scovill, December 31, 1839, quoted in Marburg, p. 249.

[82] Ibid., p. 250.

[83] Samuel F. B. Morse to George Vail, October 26, 1839, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D. C.

[84] Joseph Corduan was probably the first American daguerreotype plate-maker. Corduan, Perkins & Co. seemed to operate from 1839-40, and Corduan & Co. operated from around 1840-43. See Rinhart and Rinhart, pp. 162 and 423. One extant Morse plate, *Still-life*, bears the Corduan, Perkins & Co. mark, and is discussed in Chapter Five; period articles describing Morse's first exhibited plate featuring New York's City Hall also note the Corduan, Perkins & Co. mark, see below.

Speedwell this season but if I leave the city I must go East."[85] Morse reiterated this desire to Alfred Vail a few days later:

> I wished and intended to have had everything ready to come out for a day or two and Daguerreotype your picturesque place, while the trees were in such a state as to make a pleasing picture, but the season is so far advanced that I shall have to defer it to the spring.[86]

In this letter to Alfred Vail, re-printed here for the first time, Morse also described taking an early, successful still life daguerreotype:

> I have the Daguerreotype apparatus, and have produced some beautiful results, but the process is a very nice and critical one in every stage of it, yet the result is wonderful, and exquisitely minute beyond description. For example, I have taken an interior view, busts, books, rug, etc. From the place where the camera is fixed, I can discern that the books are lettered on the back but cannot read them with the naked eye; the picture has these books, reduced of course to a very diminished scale, with the naked eye the *lines* of letters are perceived but the *letters* themselves cannot be perceived, yet with a magnifier every letter is visible and easily legible.[87]

Clearly, having seen the still life images at Daguerre's studio he described as "Rembrandt perfected" inspired Morse to create a similar picture. The language of this letter is very similar to that in his letter of March 9 to Sidney, in which he exclaimed over the minuteness of detail in Daguerre's plates. While the image Morse describes is now lost, a similar still life plate, created with his photographic partner John William Draper the following Spring, is described in Chapter Five.

In addition to his plate difficulties, Morse was also having problems obtaining a decent lens for the camera Prosch had constructed. In mid-November he responded to

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[85] Samuel F. B. Morse to George Vail, October 26, 1839, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D. C.

[86] Samuel F. B. Morse to Alfred Vail, November 4, 1839, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D. C.

[87] Ibid. A complete analysis of another still life image of Morse's, including its relationship to those produced by Daguerre, can be found in Chapter Five.

Daguerre's letter from the previous July, complaining that while he had been experimenting, he had met "with indifferent success, mostly, I believe, for the want of a proper lens." Morse must not have judged his view of the Unitarian Church as very good, for he also informed Daguerre, "I hoped to be able to send you by this opportunity a result, but I have not one which I dare send you. You shall have the first that is in any degree perfect." This possibly explains why Morse had not exhibited his own result as Seager had; only two years earlier he had still been making his living as a full-time artist, and likely would not have wanted to exhibit any visual work he considered lackluster. On the topic of lenses, Morse requested that Daguerre be so kind as to choose two from the firm Messrs. Edward & Co., which a M. Lovering would send to him. He closes his letter by hesitantly suggesting an exchange of plates: "If, after receiving the result which I send you, you should deem it worthy of an exchange, I need not say how gratified I should be to receive one from you own hand, either for myself personally, or for the National Academy of Design."[88] There is no indication that Daguerre replied to this letter; indeed, a year later, Morse wrote to Lovering himself, wondering what had become of his request. He informed the Frenchman that he had "never heard from you nor had any intimation that my letter was ever received. After waiting some months, I procured both lenses and plates here."[89] Nothing appeared to come of Morse's request for an exchange of plates with Daguerre, either. It is possible, though, that Daguerre did not bother to respond as examples of his work and lenses authorized by him (as those for sale by M. Lovering of the Messrs. Edward & Co., which Morse had requested, were not)

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[88] Samuel F. B. Morse to Louis-Jacques Daguerre, November 16, 1839, quoted in Prime, p. 408.

[89] Samuel F. B. Morse to M. Lovering, September 30, 1840, Morse Papers.

were already on their way to New York. François Gouraud, classified by photo-historian Beaumont Newhall as Daguerre's agent in America (though in actuality he was working for Alphonse Giroux, the "official" maker of daguerreotype equipment), landed on Morse's home turf by the close of the month.[90]

François Gouraud and Morse, winter 1839 - summer 1840

The Morse-Gouraud exchange, fully excavated here for the first time, is one of the most revealing instances in Morse's photographic career about his attitude towards the new medium in particular, and American invention and technology in general. The first notice of Gouraud's presence in New York appears, tellingly, in Sidney Morse's paper the *New-York Observer*. On November 30, 1839, the *Observer* enthusiastically reported:

> We have been favored with the sight of a large number of pictures from a collection of the exquisitely beautiful results of this wonderful discovery, just arrived from Paris; several of them were taken *by Daguerre himself*. The collection is in the hands of M. Gourraud [sic], a gentleman of taste, who arrived on Saturday in the British Queen, and who made himself acquainted with the mode of obtaining these results, under the immediate instruction of M. Daguerre. . . . We hope M. Gourraud will stay so long among us as to give a few practical lectures, and also to furnish an opportunity for our citizens of taste to see this collection of Nature's own paintings.[91]

Given Morse's history of concern with the taste of his fellow citizenry, the emphasis on Gouraud being a "gentleman of taste," and on the exhibition being an opportunity for "our citizens of taste," leads one to wonder about the level of Morse's involvement in this and the other articles the *Observer* printed on the daguerreotype since the publication of

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[90] The exact date of Gouraud's arrival in New York is cloudy; for a full account of the various possibilities, see Wood, *The Arrival of the Daguerreotype in New York*.

[91] "The Daguerreotipe," *New-York Observer*, November 30, 1839, p. 90.

his initial letter the previous April.[92] Certainly all of this emphasis on taste is in accordance with Morse's interest for advancing the state of culture in his nation. Morse's participation in the *Observer* articles was probably extensive, as he was still living in the headquarters of the *Observer*, and experimenting with the daguerreotype quite literally under his brother Sidney's nose. It seems logical, then, to assume that Morse knew about Gouraud's arrival immediately, and if the notice in the *Observer* is any indication, he was excited about the Frenchman's presence.

Indeed, the press in general, which had been fairly quiet about the French invention since September, became in December suddenly abuzz with articles and notices on the topic, a new one appearing every few days. The *Observer* printed a short piece on the proper pronunciation of the foreign word, which noted, "Some truly mangle it most sadly."[93] The *New York Evening Post* reported that Gouraud had yielded to the "urgent requests of the numerous visitors that have been so much delighted in viewing the specimens of this most beautiful art," and was to remain in New York for a time, exhibiting Daguerre's works as well as his own views of the city. He would give demonstrations and lectures, the article stated, and had taken rooms at 57 Broadway for this purpose.[94] The *Observer* and *The New-Yorker* ran articles on the same day, December 14, with the *Observer* encouraging its readers to visit Gouraud's exhibition, and warning of forgeries of Giroux equipment.[95] *The New-Yorker* article discussed the

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[92] In addition to the first publication of Morse's letter from Paris on April 9, 1839, the *New-York Observer* printed at least nine more articles on the daguerreotype in the remainder of that year.

[93] "The Daguerreotype," *New-York Observer*, December 7, 1839, p. 195.

[94] "The Daguerreotype," *New York Evening Post*, December 9, 1839, p. 2.

[95] "The Daguerreotype," *New-York Observer*, December 14, 1839, p. 198.

exhibited daguerreotypes directly, and is noteworthy in that it made direct comparisons between the daguerreotypes and, in general terms, works of art. This article, possibly by *New-Yorker* editor Horace Greeley, only described in detail one of the pieces:

> It is not in landscape views that the Daguerreotype impresses us most with its beauties, but in interiors, copies of oil paintings and statuary, where delicate shades and minute objects are to be preserved. . . . The best specimen of the art in Mr. Gouraud's collection is No. 21 – an interior, is which are represented several statues, bas reliefs, drapery, and a portrait of M. Daguerre himself.[96]

The rest of the comments are startlingly similar to those made by Morse in an early fall letter to his friend and former teacher, artist Washington Allston, so much so that one wonders if Morse was not the anonymous author behind this *New-Yorker* piece. In the letter to Allston, Morse mused on the effects daguerreotyping would have on painting, and claimed, "Artists will learn how to paint . . . how to look at Nature. . . . Our studies will now be enriched with sketches from Nature which we can store up during the summer, as the bee gathers her sweets for winter, and we shall thus have rich materials for composition." The *New-Yorker* declared, "Incomplete and superficial as the best artist must confess his labors to be, what a chance does the Daguerreotype afford him of studying the appearance which Nature should put on in his representations upon canvases." Morse asserted to Allston, "Nature, in the results of Daguerre's process, has taken the pencil into her own hands, and she shows that the minutest detail disturbs not the general repose."[97] *The New-Yorker* asserted to its readers, "To the inventor of this curious art be all due credit for his ingenuity, but to Nature herself let all the merit of the

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[96] "The Daguerreotype," *The New Yorker*, December 14, 1839, p. 205.

[97] Samuel F. B. Morse to Washington Allston, probably September 1839, quoted in Prime, p. 405.

wonderful fidelity in the minutiae of the pictures be awarded."[98] The journal concluded by also encouraging its readers to pay a visit to 57 Broadway, where they could view Gouraud's exhibition for themselves.[99]

Morse must have made Gouraud's acquaintance soon after the Frenchman arrived in town; he later claimed to have procured Gouraud's exhibition rooms and lecture halls.[100] Scholars have treated the interaction between the two men detailed in the following pages, but to a much lesser extent than is presented here. This careful reading of the complete exchange between Morse and Gouraud is particularly revealing of Morse's conceptualization of himself as a photographer and inventor, and how he linked these ideas to strong nationalistic beliefs.[101]

By early January 1840, Morse was taking daguerreotype lessons from the Frenchman. For a brief period, he kept a journal that recorded his experiments in the medium, called "Memoranda of the Daguerreotype" (though the notebook had begun its life as "Memoranda of Meals at Refectory, corner of Nassau and Beekman Streets"). In this journal, which he kept for only January and February of 1840, Morse jotted down the

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[98] "The Daguerreotype," *The New-Yorker*, December 14, 1839, p. 205.

[99] Another article from December 1839 that commented on Gouraud's exhibition appeared in *The Knickerbocker* 14 (December 1839): 560-561. Here, the anonymous author (most certainly not Morse) encouraged the reader to "suppose himself standing in the middle of Broadway, with a looking-glass held perpendicularly in his hand, in which is reflected the street, with all that therein is, for two or three miles, taking in the haziest distance. Then let him take the glass into the house, and find the impression of the entire view, in the softest light and shade, vividly retained upon its surface. This is the DAGUERREOTYPE!" [emphasis original]

[100] Letter to the Editor from Samuel F. B. Morse, *New York Evening Star*, February 24, 1840, p. 2, and Letter to the Editor from Samuel F. B. Morse, *New York Evening Star*, March 3, 1839, p. 2.

[101] Other sources that treat Gouraud and Morse include, Beaumont Newhall, *The Daguerreotype in America* (New York: New York Graphic Society, 1961), pp. 27-32; Carleton Mabee, *The American Leonardo, A Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 1943), pp. 233-241; and Silverman, pp. 200-202.

various exposure times, levels of chemicals, camera angles, and degrees of cloudiness on the days that he attempted to produce successful plates. Two entries record his work with Gouraud. Both these entries are littered with bitter footnotes and asides, surely made at a later date, after he and Gouraud had had their very nasty, and very public, falling out. On January 14, Morse wrote, "Made proofs with M. Gouraud," and added what appears to be a later insertion, "He took one plate, I another."[102] Later in the entry, Morse describes how he followed Gouraud's advice in length of exposure to produce an image of the back of city hall. The image was "tolerable," and he wondered how Gouraud had been able to calculate the correct exposure time. "[M. Gouraud] said he would give me table," Morse wrote, and later footnoted the entry, "Never given to me."[103]

The next and last entry that mentions Gouraud is dated January 18. Squeezed in between these two entries, Morse made what appears to be a later notation marked January 17, which simply observes, "Mr. Seager quarreled with M. Gouraud." The January 18 entry is similar to that of the 14th, noting chemicals, exposure times and the like. Morse also notes on this date, "Dr. Chilton came to be present at a lesson of M. Gouraud" – Dr. Chilton being the chemist whose drugstore served as an early exhibition hall for Seager, and who provided these early experimenters in New York with many supplies. The remainder of the notebook details Morse's experiments made without Gouraud, including further attempts to record New York's City Hall and to create a still life.

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[102] Entry of January 14, 1840, "Memoranda of the Daguerreotype," Morse papers.

[103] Ibid.

Morse must have deemed one of his efforts to capture City Hall more than "tolerable," for sometime in mid-February Morse exhibited such a view. The first notices appeared in the press on February 18, 1840:

> Mr. Morse has executed an admirable specimen of photogenic drawing, with an instrument constructed by himself. It represents the front of the City Hall, and is remarkable for its strength and distinctness, quite as much as the best of those executed by Daguerre himself, which have been brought to this country. The plate on which the drawing was taken was manufactured by Corduan, Perkins & Co., No. 28 Cherry Street. The success of Mr. Morse, in producing this beautiful specimen does the greatest credit to his skill.

This article went on to describe the difficulty of deciphering Daguerre's manual, and marveled, "Mr. Morse, however, has overcome all these difficulties in the fullest manner."[104] Similarly, on February 23, 1840, the journal *The Corsair* reported:

> No sooner has the exhibition of the magnificent drawings obtained by Daguerre been made, and the process explained, than one of our citizens has constructed an instrument with which he has been enabled to produce a picture quite as remarkable for strength and distinctness as the most perfect specimens yet exhibited. Mr. Morse is the gentleman who has made the successful experiment. His drawing represents the front of City Hall.[105]

The Morse daguerreotype was exhibited on Chambers Street, and *The Corsair* gave it unabashed praise, declaring "We never saw anything in the shape of an engraving so beautiful and complete as the splendid pictures produced by the Daguerreotype."[106] It was an article such as these, which gushed over Morse's view, which caused the first

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[104] *The [New York] Evening Post*, February 18, 1840, p. 2. A similar notice was printed in the *New York Commercial Advertiser*, February 18, 1840, p. 2, and *The Evening Post* article was re-printed in the *[Boston] Daily Evening Transcript*, February 21, 1840, p. 2.

[105] "Pictures by the Daguerreotype," *The Corsair*, February 23, 1840, p. 794.

[106] Ibid. Morse's plate likely was exhibited in a building on the corner of Broadway and Chambers Street that became known simply as the "granite building." A February 4, 1840 notice in the *New York Morning Herald* mentions Gouraud exhibiting his views of City Hall and the American Institute at "the new granite building, corner of Chambers and Broadway," p. 3. Apparently many early daguerreians as well as painters had studios or lived in this "granite building" throughout the 1840s, see Rinhart and Rinhart, pp. 252-3. I am thankful to Grant B. Romer for bringing the "granite building" to my attention.

public sign of ill-will between Morse and Gouraud, though it is likely the two men had some kind of falling out while Morse was taking lessons from the Frenchman. Gouraud had been giving lectures on daguerreotyping and displaying his works for a little over a month, including exhibiting his own view of City Hall.[107] Perhaps he disliked competition for exhibition-goers from someone he considered a student, and wanted to assert his own supremacy in the medium, or perhaps he truly believed he was paying Morse a compliment, but on February 21 Gouraud offered the following rather patronizing response to the favorable reviews Morse's daguerreotype had been receiving in the press:

> I am glad to learn, from a respectable journal of this city, that Professor Morse has executed a specimen of photogenic drawing as distinct as it could be done by M. Daguerre himself. . . . Having endeavoured [sic], during two months, to give Mr. Morse all the instruction in my power, I am naturally pleased to hear of his success, as I should of the success of all the numerous amateurs who have attended my private instructions.[108]

Morse's own journal belies Gouraud's claim of "two months" of instruction, and naturally a man of Morse's ego and pride could not withstand being publicly labeled an "amateur," particularly where a form of visual replication was concerned. He responded to Gouraud's letter with one of his own, to the same journal, *The New York Evening Star*. In this letter, Morse reminded the *Star's* readers that he had produced several successful daguerreotypes prior to Gouraud's arrival in New York, simply by following Daguerre's published instructions. Of his lessons with Gouraud, Morse claimed, "M. Gouraud either possessed no knowledge of the subject beyond the published account of M. Daguerre, or

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[107] In an advertisement for Gouraud's lectures and exhibition, a local paper reported, "The views of the City Hall and the American Institute are those which serve to illustrate the process [of daguerreotyping]." *The New York Morning Herald*, February 4, 1840, p. 3.

[108] Letter to the Editor from François Gouraud, *New York Evening Star*, February 21, 1840, p. 2.

if he did, he kept it to himself; at least he revealed nothing *new* to me."[109] Gouraud was outraged by this claim.

The exchange of increasingly acrimonious letters to the press continued, even after Gouraud left New York for Boston in early March. Gouraud nastily wondered, "Why [must Morse] make such a parade about producing, unassisted, a good drawing with the Daguerreotype? Is it because we may soon expect to see children producing them at the corners of the streets?"[110] Morse replied to Gouraud's latest with the continued assertion that he had learned nothing from the Frenchman, and expanded on this by reporting that Gouraud had continually promised to teach him new techniques of Daguerre's. "I have charged him with intention to mislead me," Morse wrote. He questioned Gouraud's association with Daguerre, and asked, "Has M. Daguerre pretended to give a discovery to the world, and bound himself to reveal it, in all its minutest particulars, and then kept back secrets to be hawked about this country for a dollar per head?"[111] Morse clearly felt Gouraud was cheapening Daguerre's invention with such false claims, and thereby cheapening Daguerre's good name as an inventor. Once again, it seems likely that Morse was making connections between the daguerreotype and the telegraph, between Daguerre's status as Inventor and his own: his primary concerns in these letters move from defending his own reputation as an artist to defending Daguerre's as an inventor. Gouraud's burgeoning identity as charlatan and the effect it would have on Daguerre's reputation mirrored his own problems with Charles T.

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[109] Letter to the Editor from Samuel F. B. Morse, *New York Evening Star*, February 24, 1840, p. 2.

[110] Letter to the Editor from François Gouraud, *New York Evening Star*, February 27, 1840, p. 2.

[111] Letter to the Editor from Samuel F. B. Morse, *New York Evening Star*, March 3, 1840, p. 2.

Jackson (also an emerging charlatan) and the effect it had on his own reputation as inventor of the electro-magnetic telegraph.[112]

Morse was not the only one to make this connection. It took Gouraud several weeks to craft a response to Morse's latest attack; he had temporarily re-located to Boston and was in the midst of publishing his own treatise on the daguerreotype: *Description of the Daguerreotype Process or, a Summary of M. Gouraud's Public Lectures, According to the Principles of Daguerre*. When he did send his answer, it was mockingly titled, "THE ELECTRIC TELEGRAPH!! [emphasis original]" Throughout the letter, Gouraud questions Morse's conception of himself as an originator, by continually and sarcastically referencing the telegraph. He labels Morse's charges against him as "one more in his long list of self-illusions." He spelled out these illusions clearly to his readers:

> Indeed, after having *invented* the Electric Telegraph, after having *originated* the brilliant conception of the picture representing the Hall of the House of Representatives . . . . after having, I say, originated all these, and a thousand other things *not yet given* to the world, what does Mr. S. F. B. Morse (don't mistake) do, but claim to have improved upon the Daguerreotype?[113]

Gouraud recognized Morse's desire to protect his own reputation as an inventor, and that a positive association with Daguerre would be beneficial to either man. He protested that he had never claimed to be an agent of Daguerre's, only of Mssrs. Giroux & Co., Daguerre's official manufacturers of daguerreotype equipment. He had truthfully and only asserted to be a pupil of Daguerre's; Morse's assaults were written "*with the design*

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[112] In later years, Jackson attempted to claim credit for other inventions as well, including the use of ether in surgery and the discovery of guncotton. See Mabee, p. 198.

[113] Letter to the Editor from François Gouraud, *New York Evening Star*, March 19, 1840, p. 1. The paper included a helpful notice to its readers on the second page, where the letters were usually found, informing them that Gouraud's response was on page one.

of exciting against me the exquisite susceptibility and the well known delicacy of Mr. Daguerre, IN ORDER TO RUIN ME IN THE MIND AND ESTIMATION OF THAT GREAT MAN! [emphasis original]"[114]

Although Morse did not deign to answer these charges, the "daguerreotype controversy," as it was soon dubbed in the press, continued into the summer. At this time the issues became murkier, as more players entered the fray and more complicated accusations arose. One such player was Messrs. Giroux & Co. employee Abel Rendu, who was also an attaché in the French Department of Public Instruction. On June 24, 1840, the *New-York American* printed a notice that included a letter to Gouraud from Rendu. Rendu claimed that he had been to see Daguerre, and that Morse had indeed written to Daguerre as Gouraud had feared. Daguerre understood from Morse that Gouraud had been representing himself as "speculating" the daguerreotype, Rendu reported. Rendu charged Morse with granting Daguerre's honorary membership to the National Academy in order to give his claims of speculation more credibility with Daguerre. Gouraud seems to have believed his *j'accuse*, which now had the support of a fellow countryman, would be quite a blow to Morse, and he managed to have the same article published simultaneously in at least two other New York papers. It was picked up by the *Boston Evening Transcript* and the *Boston Daily Advertiser* as well, and appeared in those papers two days later.[115] Morse responded, somewhat wearily, in the *Evening*

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[114] Ibid.

[115] The same article appears in the *New York American*, June 24, 1840, p. 2, the *New York Evening Signal*, June 24, 1840, p. 2, and the *Boston Evening Transcript*, June 26, 1840, p. 2. The *Boston Evening Transcript* claims their article is a re-print from a third New York paper, the *New York Commercial [Advertiser]*. The *Journal of Commerce* later reported that the article was published in four New York papers and possibly three Boston papers, "Daguerreotype Controversy," *Journal of Commerce*, July 8, 1840, p. 2.

Signal. He claimed never to have written to anyone in Europe denouncing Gouraud, and correctly points out that Daguerre had been nominated to the National Academy an entire year prior to this current accusation. The New York *Journal of Commerce* rushed to Morse's defense, wondering publicly why the *New York American* and the *Boston Daily Advertiser* did not publish Morse's response. "Courtesy to strangers does not require American Editors to abuse their own countrymen," asserted the *Journal*, "especially those who have done so much for the honor of the country, as Mr. Morse has in the department of Fine Arts."[116] The *New York Commercial Advertiser* joined the fray, siding with Morse and proclaiming, "Mr. Morse's word will be taken without hesitation."[117] The *Journal* followed up on this about a week later, reminding its readers "[Morse] has made himself poor by his devotion to the interests of the public in the department of the Fine Arts," and insisting the *New York American* run Morse's response. Their interest in the case was not provoked by Morse himself, the paper proclaimed, but only because they were "A Friend to Fair Dealing."[118]

The whole matter appeared to blow over, until the fall of that year when Morse received a letter from Abel Rendu himself. After Gouraud neglected to settle some accounts with Giroux & Company, Rendu wrote a letter of profuse apology to Morse. Morse responded graciously, assuring Rendu "I saw at once that you had been deceived by him as I had been."[119] He then took it upon himself to write to Nathan Hale, the editor

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[116] *Journal of Commerce*, July 2, 1840, p. 2

[117] *New-York Commercial Advertiser*, July 1, 1840, p. 2

[118] *Journal of Commerce*, July 8, 1840, p. 2

[119] Samuel F. B. Morse to Abel Rendu, October 27, 1840, Morse Papers.

of one of the less supportive papers during the "Daguerreotype Controversy," the *Boston Daily Advertiser*. Hale's son, Edward Everett Hale, had taken daguerreotype lessons from Gouraud in Boston. Morse did not comment upon this, but rather cast Hale's unhelpfulness to his own case in nationalistic terms. He sent Hale a copy of Rendu's letter of apology, and added somewhat stiffly, "Excuse me, sir, if I also feel that my standing in the community for 30 years ought to have protected me in my own native place from the one-sided slanders of an irresponsible foreign adventurer."[120] Meanwhile, Gouraud left behind him a trail of unpaid rent in both New York and Boston, and was eventually sued for insulting a schoolmaster.[121]

The following summer, Morse ran into Gouraud in upstate New York, at Niagara Falls. He wrote his brother Sidney at length about the chance meeting, noting "Mr. G. seemed to feel very '*deep regret*' that he had once ever attacked me, [and] said that he was deceived by others," and felt Gouraud was "more to be pitied than blamed." Gouraud now claimed that he had been "grossly slandered" by Rendu, and Morse wrote, "I fear Rendu is not what I had supposed him to be, an honorable and correct man. How cautious it is necessary to be with these foreigners!" Of particular interest to Morse was Gouraud's work in the area with the daguerreotype, and he closed by telling Sidney that Gouraud served as his group's guide to the region: "He has been here 3 or 4 months, and is really *manufacturing* views of the Falls systematically and on a large scale." As Morse himself had gone to Niagara with the partial intention of photographing the Falls (an exciting and previously unknown fact), Gouraud's daguerreian activity in this area would

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[120] Samuel F. B. Morse to Nathan Hale, late October or early November 1840, Morse Papers.

[121] Mabee, p. 240.

have been even more interesting to Morse.[122] The artist and inventor also relayed that Gouraud had made improvements to the daguerreotype camera, for which he had applied for a patent. In his effort to make amends with Morse, he apparently shared this now-unknown information freely.

The dispute between Morse and Gouraud is particularly enlightening about Morse's attitudes towards photography. It demonstrates Morse's concern with preserving Daguerre's reputation, as he wished his own to be preserved. His insistence on his own photographic abilities without Gouraud's instruction also indicates Morse's desire to be publicly recognized as having expertise in the medium.

The Photographic Partnership of Morse and Draper: spring – autumn, 1840

In the late winter of 1840, Morse must have been feeling confident in his daguerreotyping abilities. He had overcome his initial plate and lens difficulties, and his view of City Hall was being praised in the press. Other New York experimenters were feeling similarly confident. John Johnson and Alexander Wolcott, for instance, jointly invented and patented a "mirror" or reflecting camera, which had no lens, but used mirrors both within the camera and outside the studio windows to direct sunlight onto the plate and the sitter, respectively.[123] With this camera, Wolcott was able to take portraits from life, and some of his first sitters included other early practitioners, including Morse. The "mirror" camera caused quite a stir among the daguerreotypists in New York, and

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[122] Samuel F. B. Morse to Sidney E. Morse, June 26, 1841, Samuel F. B. Morse manuscripts, New-York Historical Society. There is only one, intriguing reference to Morse's desire to photograph Niagara Falls, but it is from that same summer of 1841: "Cousin Finley [Morse] went to Niagara to take the Falls," Sidney R. Roby to his uncle Sidney Breese, July 17, 1841, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester.

[123] For a full description of the reflecting camera and Johnson and Wolcott's experiments, see John Johnson, "Daguerreotype," *Eureka* 1 (October 1846): 23-25.

Morse was so impressed with the device he asked Wolcott to join forces and work on the invention with himself.[124] Wolcott apparently declined, for Morse soon joined forces with John William Draper instead.

John William Draper (1811-82) was, like Morse, a professor at the University of the City of New York. The young chemist was twenty-eight years old when he was appointed to the University in 1839, and he retained the position for the remainder of his life.[125] Whether Morse and Draper met through the University or their shared interest in the daguerreotype is unknown, but they were acquainted with each other by January of 1840. Morse mentioned Draper in his "Memoranda of the Daguerreotype" notebook on January 18, where he made a note about the correct chemical focus for an exposure, "according to Professor Draper's successful experiment." This remark suggests the two were previously acquainted, and Draper biographer Donald Fleming believes that they exchanged advice throughout the fall of 1839, when each was independently experimenting in their rooms at the University. [126] It is also unclear when exactly Morse and Draper decided to collaborate and open a joint photographic studio, but it was certainly after Wolcott had turned down Morse's offer, probably in late February or early March of 1840. Regardless, their partnership began in the Spring of 1840, probably in late March or early April. They opened a portrait studio on the roof of the New York City University building on Washington Square's east side. The studio, described as a "primitive gallery," consisted of "a turret room for a workshop, and a hastily constructed

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[124] Johnson, p. 25.

[125] Draper and his photography will be discussed in full in Chapter Four.

[126] Donald Fleming, *John William Draper and the Religion of Science* (Philadelphia: University of Pennsylvania Press, 1950), p. 21.

shed, with a glass roof, served for an operating room."[127] It was one of the first commercial portrait studios opened in the city, though not *the* first, as Wolcott had beaten Morse and Draper to the punch by at least a month, advertising for sitters in early March.[128]

Undaunted by their potential competition, Morse and Draper commenced taking portraits of their fellow New Yorkers. Draper was already proficient in taking daguerreotypes of living subjects (which may have had something to do with why Morse approached him as a potential business partner): on March 31, 1840, Draper sent a notice to *The London and Edinburgh Philosophical Magazine*, claiming he had "succeeded during the winter in procuring portraits by the Daguerreotype."[129] Morse had likely met with some degree of success in portraiture as well before the opening of the studio, and though it surely improved upon his close association with Draper, who had been studying the matter in depth since the previous autumn, he hastened to remind his fellow New Yorkers of his own accomplishments with the following notice in, once again, Sidney's *Observer*:

> Prof. Morse has succeeded in taking the miniature of his daughter, by improving upon the discovery of M. Daguerre. The picture is executed quite perfectly too, and as well delineated as the pictures of objects without

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[127] This is the most complete description of the Morse-Draper studio I have been able to find. Draper apparently provided it in an interview, in about 1878, to the *New York World*. I have not been able to find this interview, but it is discussed in an obituary on Draper in that same paper, "Dr. John Draper Dead," *New York World*, January 5, 1882, p. 5. This as-yet-unfound interview seems to provide the information included in a second obituary, "Professor John William Draper," *New York Herald*, January 5, 1882, p. 5. The *Herald* obituary, in turn, inspired two additional articles on the studio: Dudley Armytage, "Who Took the First Photographic Portrait?," *The Field Naturalist* 1 (July, 1882): 28, and "The First Photographic Portrait," *Journal of the Society of Arts* 30 (August 18, 1882): 932.

[128] Welling, p. 19.

[129] "Portraits in Daguerreotype," *The London and Edinburgh Philosophical Magazine and Journal of Science* 16 (June, 1840): 535.

> life. Europeans have not succeeded in taking Daguerreotype likenesses of persons.[130]

The last line about the lack of photographic portraiture in Europe is probably a subtle dig at Gouraud, with whom Morse was still verbally sparring.[131]

Morse's photographic portraiture as a whole is the subject of the following chapter. For now, suffice it to say that the pair of professors opened and operated a fairly successful portrait studio on the roof of the University. Morse later recalled that they "made a charge to those who sat to us . . . as our experiments had put us to considerable expense."[132] Draper recounted the experience matter-of-factly as well: "We . . . had a building on the top of New York University, in which we took many portraits, first with a four-inch lens, and then with an achromatic lens and plates, both French, which we imported."[133] The make-shift studio was apparently a marked success, and the pair spent the summer photographing the city's elite for $5 a picture, including Theodore Frelinghuysen, chancellor of the University and future Vice-Presidential candidate.[134] The pair had "all the business they could possibly attend to," taking portraits on sunny days, and teaching others the practice of daguerreotyping on cloudy days. The pair appeared to experiment with plates from various early makers, and Morse even enlisted

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[130] *New-York Observer*, April 18, 1840, p. 63.

[131] How Morse's reporting of his photographic victory over Europeans relates to his nationalism is discussed in Chapter Three.

[132] "Who Made the First Daguerreotype in This Country?," p. 280.

[133] John W. Draper, "Who Made the First Photographic Portrait?," *The American Journal of Photography* 1 (June 1858), p. 5.

[134] "Dr. John Draper Dead," p. 5. Theodore Frelinghuysen ran as Henry Clay's running mate in the 1844 Presidential election.

the help of friend and fellow artist Asher Durand in the acquisition of daguerreotype plates from Europe, where Durand was visiting that summer.[135]

A wonderful group of letters in the Breese-Stevens-Roby Papers at the University of Rochester, cited here for the first time, chronicle the growing success of Morse's daguerreotype practice. According to Morse's cousin Samuel Breese, who was living in the *Observer* building and working with Sidney Morse, "cousin Finley" made considerable progress over the course of the summer. Early in the season, on June 30, 1840, Samuel Breese informs his father, "Finley spends most of his time at the University trying hard to take Daguerreotype Portraits without much success."[136] Almost two weeks later, on July 9, 1840, Breese sends his sister Catherine two daguerreotype views, "The picture of the Astor House is not as good as I wish it was but is the best I can get unless I pay a high price. The view of the City Hall is I think the best picture taken in this country yet."[137] Could the view of city hall be one that Morse made? It was high praise over one of his views of that building, exhibited the previous February, which caused the onset of his controversy with Gouraud. Finally, by August 10, 1840, Breese appears to have allowed Morse to take his own daguerreotype portrait: "I have lately had my portrait taken by the Daguerreotype. It is tolerably good as a likeness they say – I am not exactly

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[135] Durand makes two entries in his journal that refer to his attempts to acquire daguerreotype plates for Morse. The first is dated June 27, 1840 [London]: "Our business was for information relative to plates for the Daguerreotype process in behalf of Mr. Morse." The second is dated August 11, 1840 [Paris]: "In company with Mr. Boily [sic] call'd at the establishment of Mr. [this is blank] optician and professor of the Daguerretype [sic] process and ordered 150 plates for Mr. Morse according to his instruction." Asher B. Durand Papers, New York Public Library. I am grateful to Barbara Gallati, Curator of American Art, Brooklyn Museum of Art, for bringing these references to my attention.

[136] Samuel Breese to S[amuel] Sidney Breese and Helena Breese, June 30, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester.

[137] Samuel Breese to Catherine Breese, July 9, 1840, Ibid.

suited with it and in time having a better one taken, or I would have sent this one. . . . Cousin Finley has taken quite a number and lately has been quite successful."[138]

Early American Critical Reaction to the Daguerreotype

At this point, one must wonder about the reaction of Morse's artist friends and fellow National Academicians to his daguerreotyping. What did they make of Morse's new career creating mechanical portraiture, when only a few years prior he had been one of the era's greatest portrait *painters*? While Morse reported to Daguerre that his honorary nomination to the National Academy of Design had been "unanimous," one wonders if this was actually the case. No record of the vote exists, and Morse may have been exaggerating his fellow Academicians' enthusiasm for photography. But he may not have been. The fact of the matter is, insofar as daguerreotyping pertains to the fine arts, Morse was the primary force behind the bulk of initial, critical reaction to the new medium in the United States, particularly in New York. And as we have seen, his reaction was overwhelmingly positive. As the president of the nation's premiere organization for the arts, his influence on the subject of the daguerreotype in relation to the fine arts must have been considerable.

At the time he opened his studio with Draper, Morse's enthusiasm for the daguerreotype and its relation to the fine arts had manifested itself in several instances. The first, of course, was his famous March 9 letter to his brother Sidney, in which he labels Daguerre's works "Rembrandt perfected."[139] That Morse made an immediate and positive connection between the daguerreotype and an esteemed Old Master artist is

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[138] Samuel Breese to S[amuel] Sidney Breese and Helena Breese, August 10, 1840, Ibid.

[139] Morse's exact phrase is, "The impressions of [Daguerre's] interior views are Rembrandt perfected," "The Dagguerreotipe," p. 62.

telling of how he would continually support the medium's relationship to the fine arts.[140] Morse outlined his views on this very relationship in his letter to Washington Allston, discussed above, in which he unabashedly declares, "Art is to be wonderfully enriched by this discovery. How narrow and foolish the idea which some express that it will be the ruin of art, or rather artists, for everyone will be his own painter."[141] As mentioned, this letter bears an uncanny resemblance to a December 14, 1839 *New-Yorker* article; it is highly likely that Morse was the author of that piece, or that his attitude towards photography influenced the author: "Incomplete and superficial as the best artist must confess his labors to be, what a chance does the daguerreotype afford him of studying the appearance which Nature should put on in his representations upon canvas." Morse immediately began to promote the daguerreotype upon his return from Europe, as evinced by the article discussing his glowing description of the daguerreotype at the National Academy's April 23, 1839 party.[142] Finally, it is consistent with this pattern that

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[140] Morse's reference to Rembrandt can be read in a variety of ways. In the mid-nineteenth century United States, a casual reference to Rembrandt among educated citizens seemed to connote the skillful use of light and shadow. For example, in a literature review of 1834, the reviewer commented that the author possessed "a Rembrandt sort of skill in light and shade, which communicates an effect to her descriptions in strict keeping with the characters and events that are introduced," *The Museum of Foreign Literature, Science, and Art* 24 (April 1834): 388. Or, in describing a walk through Manhattan, a writer for the *New-Yorker* noted, "[Witnessing a funeral] throws, like the shadows in Rembrandt's pictures, a reasonable darkness and gravity over the otherwise gay and frivolous scene," "On Walking the Streets," *The New-Yorker* 4 (March 3, 1838): 786. It is possible, then, that by referencing Rembrandt in relation to the daguerreotypes in Daguerre's studio, Morse was commenting on their ability to capture light and shadow. This is a quality of photography he later extolled in a speech to the National Academy of Design: "What lessons of light and shade, in all their fascinating varieties, are fixed and brought under the contemplation and closest scrutiny of the artist! Fixed I say; no longer subject to the capricious change of hour, or weather, or season." Morse's speech is re-printed in, "Annual Supper of the National Academy of Design," *New-York Commercial Advertiser*, April 27, 1840, p. 2. It is also possible that Morse was referring to Rembrandt's etchings, which seemed to have less prevalence in the American public mind, but which would have been known to Morse. It is most important for this study to note that Morse made a firm and instantaneous connection between a fine artist and the daguerreotype, as he would strive to associate the daguerreotype with the fine arts.

[141] Samuel F. B. Morse to Washington Allston, probably fall 1839, quoted in Prime, p. 405.

[142] "National Academy of Design," *New-York Commercial Advertiser*, April 24, 1839, p. 2.

Morse grant to the inventor of the medium, Daguerre (and significantly, not to Talbot), the ultimate mark of acceptance into the American artistic scene: nomination for membership into the National Academy of Design.

It is important to recall that when Morse made this nomination, in May of 1839, he was the only member of the Academy to have actually seen a daguerreotype, though surely the Academicians had read related newspaper articles describing the process. Morse's influence on this topic must have been great, for although the Academicians had not seen a daguerreotype, many had seen the portfolio of photogenic drawings, and still it was Daguerre, as opposed to Talbot, who was voted into their fellowship. And while we will never know if Daguerre's nomination really was "received with wild enthusiasm," as Morse reported, we do know the nomination did pass. The rest of the Academy was finally able to see examples of daguerreotypes for themselves throughout the following fall and winter, and by the spring of 1840 they seemed to want some clarification. Perhaps they had yet to be convinced of the daguerreotype's usefulness to their art; perhaps they were those Doubting Thomases that Morse refers to in his letter to Allston, who believed that the daguerreotype would be the "ruin of art." Or perhaps they were "wild with enthusiasm" for the medium, and wanted their reigning expert, Morse, to expound on everyone's new favorite invention. Whatever the reason, the Academicians requested Morse, new proprietor of one of the city's first daguerreotype portrait studios, to address the topic of the daguerreotype and its relation to the fine arts during their annual supper, held on April 24, 1840.[143] The resultant speech is now lost, but within a

[143] There is no record of this request in the existing National Academy of Design minutes, the only note that remains of the supper itself is dated April 20, 1840, and states "Resolved, that the annual supper be given on Friday evening next – that Mr. Ingham be a committee to prepare the same, and also that the sum of $250 be appropriated to defray the expenses thereof," *Notes from the Minutes of the National Academy*

few days it was re-printed in several local newspapers. In his address, Morse continued to promote photography as beneficial to art, artists and public taste:

> The daguerreotype is undoubtedly destined to produce a great *revolution* in art, and we, as artists, should be aware of it and rightly understand its influence. This influence, both on ourselves and the public generally, I am of opinion will be in the highest degree *favorable* to the character of art.

He went on to repeat his previous assertions (from his letter to Allston and the *New-Yorker* article) that it was photography's ability to record "Nature" which would prove valuable to art and artists:

> By a simple apparatus, easily portable, [the artist] now has it in his power to furnish his studio with *fac-simile* sketches of nature, landscapes, buildings, groups of figures, &c., scenes selected in accordance with his own peculiarities of his own taste . . . painted by Nature's self with minuteness of detail, which the pencil of light in her hands alone can trace, and with a rapidity, too, which will enable him to enrich his collection with a superabundance of *materials* and not *copies*; - *they cannot be called copies of nature, but portions of nature herself*.[144]

Morse told his fellow artists (never mind that he had been identifying himself primarily as an inventor for several years now, tonight he was fully an artist) that such "portions of nature" must surely "modify . . .the artist's productions." Daguerreotypes, he insisted, can assist with problems of optics, perspective, proportion, and teach precious lessons of light and shade.

Ever concerned with his fellow citizens' standard of taste, Morse did not waste an opportunity to consider publicly how the daguerreotype might be of use in this regard. He concluded that the daguerreotype, in reproducing nature, must aid the average

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of Design, June 4, 1838 – May 8, 1844, p. 36, National Academy of Design Archives. Morse began his speech, however, by stating, "I have been requested to give my opinion of the probable effects to be produced, by the discovery of Daguerre, on the Arts of Design."

[144] *The [New York] Evening Post*, April 27, 1840, p. 2, also printed in the *New-York Commercial Advertiser*, April 27, 1840, p. 2.

person's appreciation of nature, and therefore of any art based upon that nature – which, of course, is the form of art superior to all others:

> I have but a moment to speak of the effect of the Daguerreotype on the *public taste*. It is clear that in so far as individuals are interested in observing its wonderful productions, their taste must be improved. Already have I witnessed its influence on many persons, who notice with surprise effects of light and shade and perspective, long familiar to artists. . . . Can these lessons of *Nature's Art*, if I may be allowed the seeming paradox, read every day by thousands charmed with their beauty, fail of producing a more just estimate of the studies and labors of the artist, with a better and sounder criticism of his works? Will not the artist, who has been educated in Nature's school of Truth, now stand forth pre-eminent, while he, who has sought his models of style among fleeting fashions and corrupted tastes, will be left to merited neglect?

Morse finished his address by calling upon the assembled Academicians to recall the inventor responsible for photography, and by associating photography with the arts in no uncertain terms: "Gentlemen, Daguerre is a painter; he is a member of this Academy. I, therefore, propose to you the following sentiment: - Honor to Daguerre, who has first introduced Nature to us, in the character of *Painter*."[145]

These combined documents of Morse's – his letters, his influence on or authorship of the *New-Yorker* article, the National Academy of Design speech – constitute almost all of the American reaction to the daguerreotype as it relates to the fine arts during the initial years of photography in the U. S., from about 1839 to 1841.[146] It is these documents which most clearly indicate Morse's hopes that the daguerreotype could assume the work his painting could not: that it could elevate the status of culture in the United States by educating the American public on how to recognize and appreciate good

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[145] Ibid.

[146] One notable exception appears in *The Knickerbocker* 14 (December 1839), p. 561. The editor, after viewing Gouraud's exhibition, declared, "Indeed, the DAGUERREOTYPE will never do for portrait painting. Its pictures are quite *too* natural, to please any other than very beautiful sitters."

art. Implicit in this desire is that he, Morse, will lead the charge of this Cultural Revolution. His continued, positive support of photography's relationship to art, particularly as president of the nation's leading arts institution, gave the medium a validity in the United States it lacked elsewhere. Somewhat ironically, this was particularly true of the daguerreotype's reception in its home country, France. Rather than grant Daguerre membership to its body, art historian Stephen C. Pinson has demonstrated that the French Academy of Fine Arts politely declined to meet with the inventor and artist, "stating that the daguerreotype did not warrant their official consideration 'in relation to art.'"[147] The very things for which Morse praised the daguerreotype – its fidelity to detail, its ability to capture nature exactly – were those for which the majority of the French artistic community scorned it.[148] Art historian Dominique Panchon-de Font-Réaulx discusses how the French Academy was more comfortable with Hippolyte Bayard's photographic process, which was a direct-positive on paper, as opposed to Daguerre's unique image on metal:

> The academicians preferred the velvety look of paper to the coldness of metal; they preferred the blurriness and the softness of images on paper to the precision of daguerreotype images; most of all, they preferred Bayard's slow process, which required his participation at all times, to Daguerre's chemical and physical process, in which nature seemed to reproduce itself without assistance.[149]

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[147] Stephen C. Pinson, "Reversals of Fortune," *The Dawn of Photography, French Daguerreotypes, 1839-1855*.

[148] Of course there were those in the French artistic community who supported the advent of photography, in particular painter Paul Delaroche. See Stephen Bann, *Parallel Lines: Printmakers, Painters and Photographers in Nineteenth-Century France* (New Haven: Yale University Press, 2001), pp. 91-109.

[149] Panchon-de Font-Réaulx.

Panchon-de Font-Réaulx does mention several early French critics who, like Morse, saw the value in the photographic real as a *step* to the imaginative process in painting. These critics, though, comprised the exception rather than the rule. The reaction from the French artistic community towards the daguerreotype was, overall, quite frosty.

There were early reactions in English that were not positive about the future of the arts in light of the new, mechanical medium. Indeed, the first mention of photography in the United States (which pre-dates Morse's letter in the *Observer* by a week) was quite dire in this respect, and predicted the demise of at least printmaking: "Steel engravers, copper engravers, and etchers, drink up your aquafortis and die! There is an end to your black art. . . . All nature . . . shall be henceforth its own painter, engraver, printer and publisher."[150] This statement originally appeared in a British journal, but it was re-printed at least twice in the United States. [151] It is also relevant that the author of the article seems to be addressing craftsmen more than painters. Indeed, American artists seem to have taken their cue from Morse more than from the *Corsair* piece, for they did not seem particularly concerned about the effects photography would have on their painting careers. Thomas Cole, a fellow artist who in essence was the father of American landscape painting, wrote in 1840, "You would be led to suppose the poor craft of painting was knocked in the head by this new machinery [but] the art of painting is creative, as well as an imitative art, and is in no danger of being superseded by any

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[150] "New Discovery," *Blackwood's Edinburgh Magazine* 45 (March 1839): 383-384.

[151] The article appears, heavily edited and re-arranged, as "The Pencil of Nature, New Discovery," *The Corsair* 13 (April 13, 1839): 70-72, and as "New Discovery in the Fine Arts – the Daguerreoscope, *The New Yorker*, April 20, 1839: 71-71. While some scholars, including Alan Trachtenberg and Richard Rudisill, have postulated that *Corsair* editor Nathaniel P. Willis was the author of this piece, Willis scholar Thomas N. Baker does not believe this is the case. Rather, Baker speculates that Willis (or his co-editor) simply copied the *Blackwood's* article, as was customary practice in much journalism at the time. E-mail correspondence from Thomas N. Baker to the author, May 11, 2005.

mechanical contrivance."[152] From the initial introduction of the medium, American artists appeared to employ the daguerreotype, rather than shun it. By late 1840, some painters were not only utilizing daguerreotypes to create pictures, they were advertising such use. For example, a Madame Guillet noted that she was using the daguerreotype to create painted miniatures, and therefore long sittings were no longer necessary. "A single [daguerreotype] sitting produces a perfect facsimilie of the features, from which a most accurate miniature is painted. Sitting for one's portrait, by this method, is no longer the Herculean task that Sheridan gravely pronounced it."[153] By the mid-1840s, it was completely acceptable for artists to use the daguerreotype in order to create paintings, in both portraits and genre subjects.[154]

Morse, solo, & the daguerreotype, spring 1840 – winter 1841

Even while operating a portrait studio with Draper, Morse continued to act independently on other photographic projects. In early March of 1840, his telegraphic partner Alfred Vail penned a long letter to Morse, not about electro-magnetism, but about daguerreotyping. It appears that Morse had succeeded in enlisting Vail's support for his new business venture, however briefly. Vail had just returned from a trip to New Orleans and other parts Southern, and reported "few if any [daguerreotype] experiments have been made there." He did find, though, "a great desire to engage in [daguerreotyping]," and recommends that whoever is willing to send instruments and instructions to the South would partake in "the 'flood that leads to fortune.'" He also inquired if Morse had been

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[152] Quoted in Welling, p. 8.

[153] "Drawing and the Daguerreotype," *New-York Mirror* 18 (November 7, 1840), p. 159.

[154] See Van Deren Coke, *The Painter and the Photograph, from Delacroix to Warhol* (Albuquerque, NM: University of New Mexico Press, 1972), pp. 18-91.

able to "have a picture taken which you intended for me?" Vail did not mention what this picture's subject might be – perhaps a portrait of someone, or the telegraphic instruments – but he does wish that it be sent as soon as possible, along with Morse's bill. Finally, he wonders when Morse would be able to "take a view" of his family's Speedwell Ironworks in Morristown, New Jersey, as Morse had discussed with both Vail brothers the previous autumn. Vail was anxious for the view to be made. If it would not prove too expensive, he wanted to have the view engraved and reproduced on the Ironwork's circular.[155] Morse did live up to his promise, and he traveled to Morristown in early May of 1840 to take the view, as George Vail reported to his brother Alfred: "Professor Morse is here today to take Daguerreotype view[s] of Speedwell but it rains very hard, having a NE storm on hand and he will not succeed."[156] As no further mention of this view is made in the existing correspondence, it seems safe to assume that George was correct, and Morse was unable to take a successful image of the Ironworks.

Morse traveled elsewhere with his daguerreotype equipment. After a full summer of making portraits with Draper and battling Gouraud in the press, he ended the season with a bang: at his thirty-year reunion at Yale University, Morse took a group portrait of his graduating class, purported to be the first such picture ever taken. Ever eager to report on Morse's accomplishments, Sidney Morse and the *Observer* published a long article detailing the event, entitled "Interesting Class Meeting." Even more interestingly, what appear to be notes for this article in Morse's own hand are present in the Morse papers at the Library of Congress, indicating that the artist and inventor did indeed have

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[155] Alfred Vail to Samuel F. B. Morse, March 11, 1840, Morse Papers.

[156] George Vail to Alfred Vail, May 8, 1840, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D.C.

influence over the *Observer* articles concerning himself. In these notes, Morse lists the assembled classmates, and relayed that he took two impressions. Later that afternoon, Morse was able to take to a class meeting "the best impression," and notes that "the likenesses were most often very distinct and good."[157] The *Observer* embellished on Morse's fairly straightforward account, providing an annotated list of the gathered class, citing each man's status and accomplishments. The article also waxed nostalgic about the joys of reunion and reminiscing, and pondered the daguerreotype's place at such an occasion:

> Arranging them side by side, [Morse] has, by the power of this wonderful art, transferred the perfect likeness of each individual to his plate, so that he has now in his possession the invaluable treasure of the image of his classmates, from whom he has been separated thirty years, and who will probably never be assembled in this world again. The likenesses are so natural that individuals not connected with the class, recognize their acquaintances on the plate, without the least hesitation.

The article concludes with the exclamation, "How valuable would such a memento of early friendship be to every class, on leaving college for the busy scenes of life!"[158] This type of language, associating photography with memory and nostalgia, particularly in terms of portraiture, soon becomes overwhelmingly prevalent in the contemporary literature surrounding the medium. Its relationship to Morse and his photographic portraiture is discussed in full in the following chapter.

By the fall of 1840, Morse truly was on his own. Sometime during this season Draper quit the daguerreotype studio he and Morse had established, resuming his duties

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[157] Undated notes, probably August 19 or 20, 1840, Morse Papers.

[158] "Interesting Class Meeting," *New-York Observer*, August 29, 1840, p. 138.

at the University, and continued experimenting on his own.[159] Perhaps Draper's departure is why Morse wrote to Vail on September 7, "I have not had a moment's time to give you a [letter] in return. I am tied hand and foot during the day endeavoring to realize something from the Daguerreotype portraits."[160] With no Draper, Morse had taken up the work of two. Advancement on the telegraph continued to be stalled, and Morse was exceedingly discouraged by its lack of progress and the resultant lack of funds. For the present, the daguerreotype seemed to be his best hope. "I am under the necessity of attending to duties which will give me the means of living," he griped to Vail. It did not help matters that he had to chase down a delinquent French dealer of daguerreotype plates, who had never filled his order.[161]

One upside to devoting so much time and energy to the daguerreotype was surely, for Morse, his continued status as one of the reigning experts on the subject in the country. Morse continued to take in pupils, and other experimenters such as Eben Norton Horsford wrote to him for advice. Horsford wrote: "I learn, with equal astonishment and gratification, that you have succeeded in taking likenesses in ten seconds with diffused light. Pray reveal to me the wondrous discovery. So capricious has our sunlight been, that we have done very little since I last saw you."[162]

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[159] Draper later recalled, "From April to the fall, when I was obliged to resume my duties of teaching, we kept our gallery open, and then Professor Morse, quite devoted to it, opened a gallery on his own account," "Dr. John Draper Dead," p. 5.

[160] Samuel F. B. Morse to Alfred Vail, September 7, 1840, Morse Papers.

[161] Samuel F. B. Morse to M. Lovering, September 30, 1840, Morse Papers.

[162] Eben N. Horsford to Samuel F. B. Morse, November 18, 1839, quoted in Prime, pp. 408-409. I have been unable to ascertain when Horsford and Morse met in person.

By November of 1840 Morse had abandoned his studio on the roof of the University and was in the midst of opening a new studio, this time on the roof of Sidney's *New-York Observer* building, at the corner of Nassau and Beekman streets in lower Manhattan. It was due to this studio that he had been able to reduce his exposure times so drastically. He replied to Horsford: "I have lately built me a room expressly for the purpose of Daguerreotype operations on the top of my brothers building 137 Nassau, where I hope to be in operation in a few days." This must have been more convenient for Morse, as he was still living in the *Observer* building as well.[163] His letter to Horsford continued:

> It is true that I have taken portraits in diffused light in ten seconds, and one not so strongly marked in *five seconds*. I feel confident that I can make an arrangement by which I can take a portrait in two seconds if not in one. . . . [The new studio] is entirely of glass, so that I have nearly the effect of outdoor light. . . . I have also used the sun which gives a more pleasing result on the face, and in ten seconds gave a beautifully sharp and well defined delineation of all the features. [164]

In the group of newly excavated Breese letters, Samuel Breese also wrote of this studio to his family in upstate New York, and, as he had over the summer, stressed Morse's continuing development with the medium:

> Finley is very busy fixing up his glass palace on the roof of the house and in a few days will be able to receive his visitors. He has a fine parlour in the third story for the purpose of receiving ladies, and a woman to wait upon them thus – I am afraid that you did not receive a very favorable impression of Daguerreotype portraits from the specimens I showed you, they are not all as bad as mine.[165]

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[163] The New York City Street directory does not list Morse in the year 1839-1840, but in 1840-1841 he is listed at 142 Nassau Street, the address of the offices of the *New-York Observer*, and New York University. In 1841-1842, and 1842-1843, he listed at 138 Nassau Street and New York University, while the *New-York Observer* is still listed at 142 Nassau Street. According to historian Bayard Sill, Morse left the University building on May 15, 1841. See unpublished memorandum from Bayard Sill to Carl Prince, December 16, 1977, John W. Draper Papers, University Archives, New York University.

[164] Samuel F. B. Morse to Eben N. Horsford, Horsford Family Papers, Special Collections, Rensselaer Polytechnic Institute.

This letter sheds wonderful new light on Morse's studio, particularly that he had a separate parlor for receiving ladies. Sidney described the studio to the third Morse brother, Richard, in similar terms, and noted "The workshop over the room where I sleep has been fitted up for the purpose [of daguerreotyping], the roof having been removed [and a] skylight built over the whole."[166] Sidney had spent $500 on outfitting Morse's new "palace of the sun," as he termed it, and had hoped to be repaid quickly. He was thus far disappointed, though, for - somewhat inexplicably after such a profitable summer - Morse was not making any money from the new studio. For his part, Sidney remained optimistic about the enterprise, and explained to Richard, "I cannot but think that [Morse] will earn soon $20 or $30 a day by Daguerreotype portraits. He has taken some beautiful groupes [sic]; but as yet none for which he has received pay."[167]

A clue as to why Morse was not charging for his "beautiful groups" might lie in a letter he wrote to his cousin, Reverend Edward S. Salisbury, about a month after Sidney informed Richard of the new studio. It appears that Salisbury commissioned a painting from Morse, and forwarded him $300 as advance payment. The letter Morse penned in return offers a rare insight into the artist and inventor's state of mind during the years he

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[165] Samuel Breese to S[amuel] Sidney Breese and Helena Breese, December 11, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester.

[166] Sidney E. Morse to Richard C. Morse, January 29, 1841, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University.

[167] Ibid. That Sidney labeled Morse's studio "a palace for the sun" comes from Prime, p. 403. Prime was serving as the editor of the *New-York Observer* during this period (he held the position from 1840 – 1885) and was an eye-witness to these events. On Prime's involvement with the *Observer*, see "Founding and Early History of the *New York Observer*," undated manuscript, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University.

was heavily involved with the daguerreotype. He informed his cousin that he was initially reluctant to accept the offer:

> I have hesitated . . . . because I had begun to despair of ever being able to touch a pencil again. The blow I received from Congress, when the decision was made concerning the pictures for the Rotunda, has seriously and vitally affected my enthusiasm in my art. . . . That prize which, through the best part of my life, animated me to sacrifice all that most men consider precious – prospects of wealth, domestic enjoyments, and, not least, the enjoyment of country – was snatched from me at the moment when it appeared to be mine beyond a doubt.

Morse's association of his perceived failures in painting with having to sacrifice "enjoyment of country" once again indicates his overwhelming need to have his work associated with some kind of betterment for his nation. He went on to explain that the telegraph kept him from despair at that low point in his life, but continued to worry that his abilities as an artist would not be up to par for the commission, and asked, "what can I now expect to do with declining powers and habits in art broken up by repeated disappointments?" Morse promised his cousin that he would try, and enlightened Salisbury as to how he hoped to overcome the neglect of his artistic skills:

> I am at present engaged in taking portraits by the Daguerreotype. I have been at considerable expense in perfecting the apparatus and the necessary fixtures, and am just reaping a little profit from it. My ultimate aim is the application of the Daguerreotype to accumulate for my studio models for my canvas. Its first application will be to the study of your picture.[168]

Were these the "beautiful groups" Morse was photographing in his palace of the sun? Not commissioned portraits, but studies and models for possible future paintings?

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[168] Samuel F. B. Morse to Reverend Edward S. Salisbury, February 24, 1841, Morse Papers. Scottish photographers David Octavius Hill and Robert Adamson were also known for taking early photographs of group subjects, but with the negative-positive paper process as opposed to the daguerreotype. See, for example, *Hill and Adamson: Photographs from the J. Paul Getty Museum* (Los Angeles: J. Paul Getty Museum, 1999).

Morse's daguerreotypes of groups from this period were significant enough to attract notice in the press on at least one occasion; about two weeks prior to his letter to his cousin, the *New York Evening Post* wrote the following article. This notice has been neglected by previous scholars, and is important enough to cite in full:

> Mr. Morse has executed lately some Daguerreotype likenesses, which have extraordinary beauty in their way. We have just seen a family group of three persons taken by him, which, differently from most Daguerreotype likenesses, is really a beautiful picture. The arrangement of the group, and the attitudes, under the direction of the artist, are exceedingly elegant and agreeable. The expression of the countenances is also free from constraint and harshness which is often seen in things of this kind. The specimen we have seen was executed in the space of fifty seconds, not in the sunshine, but in what is called diffused light – the ordinary light of a well lighted apartment. Mr. Morse, in addition to his merits as an artist, possesses extraordinary mechanical skill, and has spent a great deal of time in endeavoring to perfect the Daguerreotype for the taking of likenesses of the human face and figure.[169]

Perhaps Morse was not seeing any profits from his daguerreotype work because, rather than charging sitters for portraits, he may have been paying models for their time, plus dealing with the expenses of plates and other equipment. The *Evening Post* article, as well, specifically discussed the beauty of the daguerreotype in relation to Morse's status as an artist. In the letter to his cousin, Morse indicated that he planned on using the daguerreotype in exactly the way he recommended its use as president of the National Academy of Design: to gather portions of nature herself to aid his final artistic product. This is exactly how he used the camera obscura to create both the *House of Representatives* and the *Gallery of the Louvre*; indeed, this kind of literal transcription of "portions of nature" in order to compile a whole is the same idea behind the telegraph,

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[169] *The [New York] Evening Post*, February 13, 1841, p. 2.

which uses electricity to make a mark representing a letter or number, which in turn compiles a word, which turns into a message.[170]

The painting commissioned by Salisbury, however, does not seem to have been realized. As Morse gave the $300 advance to Sidney to hold for safe keeping, in case he could not complete the commission, it was doubtless returned to their cousin.[171] Money was always a concern for Morse, and by April of 1841 he must have tired of accumulating models for his canvas at all expense and no profit; in this month he launched what amounted to a veritable media blitz, advertising his portrait studio in at least four separate newspapers and journals. Several of these advertisements have been newly excavated and are being published here for the first time.

To begin, the notice that appeared in *Niles' National Register* (originally printed in the *Journal of Commerce*) was meant to appeal, perhaps, to those who are scientifically minded, as it focuses on a "Daguerreotype Discovery." Here, Morse promoted the rapidity with which he is able to take portraits, a feature of his "palace of the sun" which he had previously boasted of to Eben N. Horsford:

> By a peculiar preparation of the plate, discovered by Mr. Geo. Prosche [sic] of this city, daguerreotype likenesses are taken at the studio of professor Morse, with the most perfect correctness, in a second of time – as quick, indeed, as the aparture [sic] of the lens can be opened and shut again.[172]

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[170] The telegraph went through several stages of development, but in all its manifestations the basic technology remained the same: pulses of electric current were used to deflect an electromagnet, which caused a marker to produce written code on a strip of paper. Eventually, the code evolved into the dash-dot system that became known as Morse code.

[171] Samuel F. B. Morse to Reverend Edward S. Salisbury, February 24, 1841, Morse Papers. This seems particularly likely in that October of the same year, 1841, Morse also began to return the money his friends had raised in 1837 in response to his not receiving the Capitol Rotunda commission.

[172] *Niles' National Register* 60 (April 17, 1841): 112.

Or perhaps the notice was meant to appeal to those time-conscious New Yorkers, who even in 1841 were in a hurry. Regardless, it did seem to be the fashion of the time for daguerreotype studios to promote particular improvements in their own processes, surely hoping to assure potential sitters that their process was the best. William H. Butler, for example, advertised that he "has so far improved his [daguerreotype] apparatus as to enable the operator to take portraits in *diffused light*, in from five to fifteen seconds . . . . they can operate in any weather."[173] The dazzling light reflected from mirrors in order to take portraits the year prior had had blinding effects on sitters; Morse's own cousin Sarah Breese Walker complained of this when recounting her experience in Morse and Draper's University-roof studio. She recalled, "we remained seated [on the roof], exposed to the noonday sun for hours, our complexions becoming actually tanned and the tears often streaming down our cheeks, and we were taken literally, 'with a drop in the eye!'"[174] Having the technical ability to take a portrait in dim light, or very quickly, would certainly be a selling point.

Morse continued to promote his studio in a second advertisement, though here his approach was more matter-of-fact, and he coolly asserted his own abilities to daguerreotype in poor weather:

> DAGUERREOTYPE PORTRAITS, Taken from 10 o'clock A.M. until dark, at Professor Morse's studio, No. 136 Nassau street, opposite Brick Church, by S. BROADBENT. Professor Morse will generally be in attendance. N. B. Cloudy and even stormy weather present no obstacles to a successful result of the process.[175]

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[173] *New York Tribune*, April 20, 1841, p. 3.

[174] *Personal Reminiscences of the Late Mrs. Sarah Breese Walker* (compiled by James Eglinton Montgomery, privately printed, 1884), p. 50. Walker's account of Morse's photographic activity will be discussed in full in Chapter Three.

[175] *New York Sun*, April 10, 1841, p. 3.

The introduction of Samuel Broadbent in this advertisement is telling. Morse had complained earlier of being "tied hand and foot to the daguerreotype;" it seems he could not handle the burden of an entire studio alone, and enlisted Broadbent, his former student, for assistance.[176] Indeed, the spring of 1841 was a busy time for Morse. He had accepted the Native American Democratic Association's nomination for mayor of New York, an office for which he had previously run (and lost quite badly) in 1836 (Morse's xenophobic, anti-immigration political views and their relation to his photography are discussed in full in the following chapter). The elections were held in April, and Morse was the victim of several nasty political tricks by the opposing Whig party. They first published a false notification, alleging to be from the Native American party, announcing Morse's removal as their candidate. The Native American party responded with two ads assuring the public that Morse was indeed still their candidate. One of these, which included a letter from Morse, appeared in the *New York Sun* directly above the previously cited advertisement for his daguerreotype studio. The day ballots were to be cast, April 13th, the Whigs tried another trick, this time publishing a false letter under Morse's name that announced his withdrawal from the race. The voting public was by this time thoroughly confused about whether or not Morse was actually running, and as a result he received only 78 votes.[177] In the midst of all this political activity, it is no wonder Morse

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[176] Taft classifies Broadbent as Morse's former pupil, p. 38. An obituary for Broadbent does not classify him as Morse's student, but notes, "[Broadbent] studied and practiced portrait and miniature painting with much success, until his friend, Prof. Morse, brought to his notice the wonders of the daguerreotype process, which Morse had just brought from Europe," see "Obituary, Samuel Broadbent," *The Philadelphia Photographer* 17 (October 1880): 309.

[177] On Morse's political activity with the Native American party, see Mabee, pp. 162-180, and Silverman, pp. 202-207.

brought Broadbent aboard to assist with the studio, and it also may help explain why Broadbent's name appeared so prominently in the above advertisement. While daguerreotyping was still a fairly new profession and had not yet earned the reputation it would have in future years, that it was something "men got into when they had nothing else to do," it may have seemed impolitic to Morse to remind voters of his current, catch-as-catch can professional life.[178] While stating that Morse would "generally be in attendance," but not doing the dirty work of actually taking the pictures, the advertisement gives the impression of Morse as the gentlemanly overseer of the operation, with plenty of time to also serve as mayor.

Finally, three separate advertisements for Morse's studio graced one particular journal, with one ad appearing weekly for a total of four and half months. This advertisement is newly discovered, and is being re-printed here for the first time. On April 24, 1841, readers of the *New York Mechanic* were informed of "*Daguerreotype Miniature Portraits in Perfection* – at Professor Morse's Saloon, corner of Beekman and Nassau Streets – detention one second – terms $6 including cases. Groups of three or four $8."[179] Here, Morse was again promoting the speed of his apparatus, as he did in the *Niles' National Register* advertisement of the previous week. We also learn of Morse's pricing; he had come quite a ways from the year prior, when he and Draper were charging a mere dollar a plate on the roof of the University. The second advertisement appeared the following week: "*The instantaneous painting of Appollo [sic] in perfection*.

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[178] "In too many instances men enter into [daguerreotyping] because they can get nothing else to do." "The Art of Photography," *Photographic Art Journal* 1 (January 1851): 1.

[179] *New York Mechanic* 1 (April 24, 1841): 2.

– We should hope that no friend of 'improvement in the arts and sciences,' would neglect to procure his *fac similie*, at Professor Morse's saloon, corner of Nassau and Beekman streets."[180] In this notice, Morse took a different tactic, and attempted to appeal to the friends of "improvement in the arts and sciences" by comparing the daguerreotype to "instantaneous painting" – yet another instance of Morse favorably aligning the daguerreotype with the fine arts. The final advertisement to appear in the *New York Mechanic* was first printed on April 17, 1841 and ran weekly until August 21, 1841. It is very similar to the one that appeared in the *New York Sun*, with one essential difference:

> Daguerreotype Portraits Taken with or Without Sunlight, from ten o'clock, A.M. until dark, every day at the studio of Professor Morse, no. 136 Nassau Street, Opposite the Brick Church, by S. BROADBENT. Professor Morse will generally be in attendance. N.B. – Portraits are taken equally well in *cloudy* and even in *stormy* weather. More recently likenesses are taken in the sunlight, in one second of time; without the sun in twenty seconds.

Now Morse has combined his promotions of both the ability to take portraits in diffused light and the speed of his camera.

Once again, we see Broadbent's name prominently displayed in an advertisement. Morse must have felt extremely confident in Broadbent's abilities, for soon after his crushing defeat at the hands of the Whigs he took an extended trip north, presumably leaving the studio in Broadbent's hands. He spent the majority of the summer months of 1841 touring the Niagara region and visiting his mother's family, the Breeses, in and around the Utica area. During this whole period the advertisement continued to appear, unaltered, in the *New York Mechanic*. Certainly any sitters who were hoping that Morse would "be in attendance," as the ad promised, were severely disappointed! It was at this time that Morse re-made the acquaintance of his old enemy François Gouraud, while

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[180] *New York Mechanic* 1 (May 1, 1841): 2.

visiting the Falls. Of course, Morse also attempted to take a view of the Falls, and he also passed many hours photographing his Breese cousins. Sarah Breese Walker, who had been so sorely abused under the hot sun of Morse and Draper's University-roof studio, recalled the visit: "The [summer of 1841 Morse] brought the [daguerreotype] apparatus to Utica and during his visit to us often amused himself by taking our likenesses in the open air, but the foliage and wind, however slight, were always obstacles to success."[181] Despite Walker's recollection of no successful results, there might have been at least one: the daguerreotype plate of Jacob Gebhard, of Sconondoa, New York.[182] Of course, Gebhard could have made a trip to New York as well, and been photographed at Morse's studio. Regardless, it is significant that Morse was invested enough in the process at this time to travel with his equipment. This was the same summer Morse apparently attempted to take a view of Niagara Falls, as discussed above.

Morse returned home to New York in August, and soon after he and Broadbent parted ways. Indeed, the advertisement featuring Broadbent's name last appeared on August 21, 1841. Broadbent traveled south to establish his own studio, and word got out that Morse needed a new assistant. Thomas Smiley of Philadelphia wrote to Morse inquiring after the job, but Morse had already hired someone, a Mr. N. V. Young.[183]

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[181] *Personal Reminiscences of the Late Mrs. Sarah Breese Walker*, p. 50.

[182] This plate was included in the 1932 exhibition at the Metropolitan Museum of Art, under the title *Jacob Gebhard of Schoharie Court House*. See Harry Wehle, *Samuel F. B. Morse, American Painter* (New York: Metropolitan Museum of Art, 1932), p. 48, listed under "Addenda." The Gebhards were part of Morse's sister-in-law's, Sarah Louisa Davis's (Richard Cary Morse's wife), extended family. See Mrs. Cornelius E. Crispell to her niece Elizabeth L. Gebhard, March 29, 1906, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University. In 1943, Mabee listed the plate as being in the possession of Mrs. Russell Colgate. It is presently unlocated.

[183] Thomas Smiley to Samuel F. B. Morse, August 24, 1841, Morse papers. N. V. Young is mentioned also in a December, 1841 letter from Samuel F. B. Morse to J. M. Edwards, Collection of Dennis A. Waters.

Young apparently only worked for Morse for a few months, as by late November he had opened his own shop in Baltimore with a Mr. Parker.[184]

Young's taking leave of Morse sometime that autumn indicates the wane of Morse's active involvement with the daguerreotype. Sarah Breese Walker, the cousin who recalled Morse bringing his daguerreotype equipment to Utica, also remembered that Morse spent much time that summer discussing his electro-magnetic telegraph.[185] Throughout the fall of 1841, Morse re-focused his energies on his invention. He had received a letter over the summer from Isaac Coffin, a Washington lobbyist who offered to assist Morse in his petition to Congress for funds to test the device.[186] This unexpected offer of help re-energized Morse's interest in the telegraph, and he spent a large bulk of that autumn making contact with his partners in the enterprise, Alfred Vail and Francis O. J. Smith.[187] There is very little mention of the studio, or daguerreotyping at all, in Morse's correspondence from this period. Frustratingly, one is left to wonder what became of the studio. Did N. V. Young continue to pose sitters in the "palace of the sun" from September to November while Morse negotiated with his telegraphic partners and the lobbyists in Washington? If he was seeing any profit from the studio, then Morse hid it from these parties, for he complained bitterly to them of being practically destitute: "Completely crippled in means, I have scarcely (indeed I have not at all) the means even

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[184] See Dennis A. Waters, "Dating American Daguerreotypes, 1839-1842," www.finedags.com/dating.

[185] *Personal Reminiscences of the Late Mrs. Sarah Breese Walker*, pp. 50-52.

[186] Isaac Coffin to Samuel F. B. Morse, June 24, 1841, Morse Papers.

[187] See Silverman, pp. 212-214.

to pay the postage of letters on the subject [of the telegraph]."[188] Morse may have been laying it on a little thick; he was, after all, asking his partners for monetary help in order to devise new tests for the system. But he may not have been; in October of 1841 *The New-York Mirror* printed an article, publicly wondering what had become of the subscription raised for Morse after his failure to receive the Capitol Rotunda commission.[189] Morse hastened to reply, writing a circular and sending it out to all who had contributed to his commission, along with initial return payments. The receipts – which came from his friends and colleagues: Thomas Cole, James Fenimore Cooper, and others – were sent to the *New-York Observer* offices, doubtless so Morse could publicly reply and provide proof of repayment if need be. Having unexpectedly to pay back his debt surely left Morse, who was always strapped for cash regardless, with even less capital than usual.

Morse may have also distanced himself from photography at this time as Alfred Vail and his brother George, who had really financed the operation, were displeased that Morse had neglected the telegraph for so long in favor of the daguerreotype.[190] As the Vail brothers held the purse strings to the telegraph's finances until he received some money from Congress, it must have seemed prudent to Morse to devote himself fully to electro-magnetism. In February of 1842 a congressman from Connecticut, William W. Boardman, agreed to sponsor Morse's petition later that year. Boardman recommended

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[188] Samuel F. B. Morse to Isaac Coffin, December 3, 1841, Morse Papers. Morse makes the exact same claim to Francis O. J. Smith in a letter written on the same day, Samuel F. B. Morse to Francis O. J. Smith, Francis O. J. Smith Papers, Maine Historical Society: "Completely crippled in means, I have scarcely (indeed, I have not at all), the means to pay even the postage of a letter on this subject."

[189] "Mr. Morse's 'Cabin of the Mayflower,'" *The New-York Mirror*, October 16, 1841, p. 335.

[190] Silverman, p. 213.

that Morse continue to advertise his invention until then, and noted, "It may be worth while to keep the matter before the public eye, and excite an interest in it."[191] Between this promised hope, the Vail's annoyance with his photographic activity, and Coffin's reminder that "a claim . . . needs the most constant, unceasing and untiring and vigilant attention to see that it is not neglected [in Congress]," Morse switched gears from daguerreotyping back to telegraphy.[192] The telegraph, it seemed, held more promise of fulfilling his goals of personal success and contributing to his nation than did the daguerreotype.[193]

Just as he remained active in the National Academy of Design once he had ceased painting, though, Morse did remain active in the photographic community well after he ceased being the proprietor of a daguerreotype studio. These activities include his intense involvement with Levi L. Hill's claims to have invented color photography in the early 1850s, when he publicly defended Hill against naysayers, as well as his acting as a judge in several photographic competitions during that time. As for Morse's "palace of the sun" on the roof of the *Observer* building, it lingered until 1849, when the other Morse brothers finally asked if it could be dismantled. Morse replied, "You may ascertain the cost of restoring the roof of the Daguerreotype room, and let me know. If the glass can be preserved in whole panes by a little pains in unputtying, I can make use of it [at Poughkeepsie estate Locust Grove] to great advantage. The larger plate glass I specially

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[191] William W. Boardman to Samuel F. B. Morse, January 7, 1842, Morse Papers.

[192] Isaac Coffin to Samuel F. B. Morse, June 24, 1841, Morse Papers.

[193] Other reasons Morse may have abandoned his work in photography, such as his nationalism conflicting with photography's democratic nature, or American culture's privileging native technology over the visual, are discussed in subsequent chapters.

wish preserved."[194] By 1849 Morse was finally well-off and comfortable due to his success with the telegraph, with a new wife, a new child (and several more to come), a new home, and with the accolades he had always craved. Though he was remembered throughout his life as the founder of the National Academy of Design and the "Father" of American photography, the praise primarily came from Morse's work with the telegraph.

[194] Samuel F. B. Morse to Richard Cary Morse, April 2, 1849, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University.

Chapter Three: Morse and the Photographic Portrait

Samuel F. B. Morse effectively began and ended his career as a painter in the guise of a portraitist. One of his earliest known paintings, executed in around 1809, is entitled *Morse Family Group* (Fig. 11). This watercolor on paper depicts the Morse family gathered around a Chippendale-style, rectangular table, upon which sits a globe. Jedidiah Morse, patriarch and geographic authority, rests a finger on the globe and appears to have paused in the midst of a lecture to his family.[1] Elizabeth Morse, Morse's mother, his two brothers Sidney and Richard, and Morse himself are shown with their eyes fixed to the spot on the globe that Jedidiah indicates. It is an almost breathless moment, as the Morses uniformly and transfixedly gaze at Jedidiah's pointed finger, and patiently wait for the resumption of Jedidiah's speech. The group portrait is an ambitious subject for an eighteen-year old who had had no formal training as yet; the figures betray a certain stiffness, indeed, the entire composition is somewhat rigid and overly linear. But Morse has effectively captured the spirit of the pregnant pause depicted, and accurately portrays the rapt attentiveness evident on the family members' faces. Each individual is deftly represented, from brother Richard 's youthful curiosity, on the far right, to matriarch Elizabeth's patient focus, on the far left, to Jedidiah's own moment of thoughtful meditation.

Of an entirely different nature is Morse's last known painting, *The Muse: Susan Walker Morse* (Fig. 12). Here, the group portrait is exchanged for the single, full-length sitter, and Morse's parents, siblings and self are exchanged for his daughter, Susan Walker Morse. Like *Morse Family Group*, *The Muse* depicts an anticipatory, breathless

[1] I have been unable to ascertain which spot on the globe Jedidiah indicates.

moment; Susan is shown seated, with her drawing pad on her lap, pencil poised on paper, eyes gazing upwards. Rather than waiting for the human father to resume speaking, however, Susan is depicted as waiting for the heavenly father to speak, to strike her with inspiration so she may begin to draw. Jedidiah's world of geography has been exchanged for Morse's own world of art, as embodied by his daughter and her empty pad. As befitting an artist in the prime of his career, all the clumsiness apparent in *Morse Family Group* is long gone. Susan is elegantly and gracefully depicted, and the entire canvas is filled with gorgeous, saturated color. When Morse exhibited the painting at the National Academy of Design's 1837 exhibition, critics generally hailed it as one of the artist's best works – if not *the* best. *The New York Commercial Advertiser* trumpeted, "[There is not] a *full length portrait* in the present exhibition that Morse's full length of his daughter would lose by comparison with," and the *New-York Spectator* declared, "The 'Full length of a young lady,' . . . by Mr. Morse, is the best portrait, and we are almost prepared to say the best painting, we have ever seen from his hand; and it is one of the very finest paintings in the exhibition."[2] Indeed, Susan's lovely face appears poised and calm, giving the viewer a sense of her character as a patient, soothing presence, appropriate for a muse. Morse's skill is evident in the luminous flesh tones of her slightly flushed face and creamy shoulders, and in that we can easily detect the sitter's body even under the voluminous yards of her butterscotch-colored taffeta dress.

These two works are different from the numerous commissioned portraits Morse created throughout his active career as an artist, as those tended to be half or three-quarter length portraits. It is worth recalling, however, that Morse devoted the bulk of his time

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[2] "The Fine Arts," *The New-York Commercial Advertiser*, August 2, 1839, p. 2; and "The National Academy," *New-York Spectator*, May 18, 1837, p. 4.

and energy as a painter – either via commission or personal choice – to portraiture.[3] The same is true for his brief career as a photographer. Morse's attitude towards the painted portrait was conflicted and at odds with his actual production; while he often expressed his disdain for the genre, his portraits rank among the most beautiful and compelling works he created, and Morse's enthusiasm for the photographic portrait was unbounded.[4] This chapter analyzes Morse's involvement with the photographic portrait, both in relation to his work as a portrait painter, and as an innovator in the technological and artistic aspects of the process. Through my analysis I consider the photographic portrait's ties to the arts, sciences, nationalism and nineteenth-century ideas of American identity. For his part, Morse briefly sought to achieve his goals of personal renown and of assisting in the betterment of his nation through photographic portraiture. Significantly, though, it appears that Morse's pursuit of these goals via the portrait was limited to his interest in developing the technology to make photography of a living subject practical and feasible; this was the aspect of the daguerreotype that was new, and to which Americans could claim the title of "first." The tension described in Chapter Two between Morse's lingering cultural elitism and active Nativism and the emerging democratic nature of the photographic portrait, defined by historian Alan Trachtenberg as being indispensable to the rise of "the first *democratic* popular culture in modern history," possibly manifested itself in Morse's desire to maintain portraiture within the

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[3] Paul J. Staiti's checklist of Morse paintings lists 236 portraits, as compared to forty-one subject pictures. Paul J. Staiti, *Samuel F. B. Morse* (New York: Cambridge University Press, 1989), pp. 256-259.

[4] For a discussion of Morse's varying portrait styles, see Paul J. Staiti, "Samuel F. B. Morse's Search for a Personal Style: The Anxiety of Influence," *Winterthur Portfolio* 16 (Winter 1981): 253-281.

realm of fine art, as opposed to pursuing what photo-historian John Tagg has described as the "democracy of the image."[5]

Morse and the Painted Portrait

Morse formulated a negative opinion of portraiture while a student at the Royal Academy of London, and his attitude in these student days was not an uncommon one. His reticence can be directly traced to the hierarchy of genres promoted by Sir Joshua Reynolds in his influential *Discourses*. Morse had read Reynolds early in his artistic training, possibly by 1810.[6] Reynolds's hierarchy would certainly have been the standard at the Royal Academy, where Morse was studying: Reynolds had been its president from 1768 to 1792. This influential pecking order of types of art decreed that a historic or heroic portrait was of value, while a common portrait held less importance.[7] Certainly Morse, or any other ambitious young artist studying at the Royal Academy, only wanted to produce works from the most important genres. Morse wrote of his determinations to his parents on May 2, 1814:

> I cannot be happy unless I am pursuing the intellectual branch of the art. Portraits have none of it, landscape has some of it, but history has it wholly. I am certain you would not be satisfied to see me sit down quietly, spending my time in painting portraits, throwing away the talents which Heaven has given me for the higher branches of the art, and devoting my time only to the inferior.[8]

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[5] John Tagg, *The Burden of Representation: Essays on Photographies and Histories* (Amherst, MA: The University of Massachusetts Press, 1989), pp. 34-59.

[6] Staiti, *Samuel F. B. Morse*, p. 11.

[7] Sir Joshua Reynolds, "Discourse IV," *Discourses on Art*, ed. Robert R. Wark (New Haven: Yale University Press, 1975), pp. 55-74. In his introduction, Wark also discusses the two separate genres of portraiture as decreed by Reynolds, p. xxxiii.

[8] Samuel F. B. Morse to Jedidiah Morse, May 2, 1814, Samuel F. B. Morse Papers, Manuscript Division, Library of Congress (hereafter cited as Morse Papers).

A year later, Morse had not changed his tune. "I do not speak of portrait-painters; had I no higher thoughts than being a first-rate-portrait-painter, I would have chosen a different profession," he rather loftily proclaimed. It is in this same letter, previously quoted in Chapter One, in which Morse spoke of his desire to be an American Old Master. "My ambition is . . . to rival the genius of a Raphael, a Michel Angelo, or a Titian."[9] As previously noted, this wish for greatness is an early indication of Morse's long-held ambitions, which remained constant in his work as an artist or as an inventor.

Morse's parents must have heaved great sighs of weariness upon receiving these letters. They supported their son's desire to be an artist, but they knew full well the reality of the situation for artists in America. Elizabeth Morse, in the time-honored way of parents dealing with idealistic offspring, attempted in vain to impose a much-needed reality check onto her son: "You must not expect to paint anything in this country, for which you will receive any money, but portraits. That is all your hope here, and to be very obliging and condescending to those who are disposed to employ you."[10] Morse turned to his mentor, esteemed American painter Washington Allston, who wrote a letter to Morse's parents on his pupil's behalf. "It is true [Morse] could there paint very good portraits," Allston conceded, "but I should grieve to hear at any future period that on the foundation now laid, he shall have been able to raise no higher superstructure than the

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[9] Samuel F. B. Morse to Jedidiah Morse, May 3, 1815, Morse Papers.

[10] Elizabeth Morse to Samuel F. B. Morse, December 19, 1814, quoted in *Samuel F. B. Morse, His Letters and Journals*, ed. Edward Lind Morse, Vol. 1 (Boston: Houghton Mifflin Company, 1914), p. 159 (hereafter cited as *Letters* Vols. 1 or 2).

fame of a portrait painter."[11] Between the attitude pervasive at the Royal Academy and Allston's views, it is clear from where Morse's youthful disdain of portraiture stemmed.[12]

Despite these protestations, once Morse returned to America and his career unfolded, he proved more than eager to accept a portrait commission if he felt it would advance his reputation. Indeed, when Morse's statements regarding portraiture are unpacked and analyzed in conjunction with the actuality of his activity as a painter, what emerges is less a contempt for the genre *per se*, and more a desire for greatness as an artist. As discussed, this desire germinated into Morse's overarching, lifelong goals of achieving personal recognition and contributing something of lasting social significance to his nation. Clearly, Morse (and Allston) did not, while in London at the Royal Academy, believe this could be accomplished via portraiture; once back in the United States, however, Morse was happy to accept a portrait commission if he felt it would assist in fulfilling his objective, if he felt it would contribute to the elevation of his nation's standards of taste, and if it was a historic portrait as designated by Reynolds. A prime example of this occurred almost immediately upon Morse's return from London: in December 1815, the Philadelphia bookseller Joseph Delaplaine inquired if Morse would be interested in contributing to his publication, *Delaplaine's Repository of the Lives and Portraits of Distinguished American Characters*. He offered Morse the opportunity to execute portraits of former President John Adams, of Massachusetts Governor Caleb Strong, and to copy John Singleton Copley's portrait of John Hancock. Each portrait

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[11] Washington Allston to Jedidiah Morse, March 15, 1814, Morse Papers.

[12] Allston was the first American painter who did not have to primarily rely on portraiture to make a living, and was able to enjoy a career as a history painter. See William H. Gerdts, "Natural Aristocrats in a Democracy: 1810-1870," *American Portraiture in the Grand Manner: 1720-1920*, Michael Quick et. al. (Los Angeles: Los Angeles County Museum of Art, 1981), p. 32.

would be engraved and published with an attendant biography, in conjunction with a large group of similar profiles; as the portraits needed for *Delaplaine's Repository* fell into Reynolds's first category of portraiture, that of "Historic," such a commission was more than acceptable to Morse.[13]

As art historian Brandon Brame Fortune has noted, *Delaplaine's Repository* and other portraits of American heroes and statesmen – presented in groups or singly – enjoyed great popularity in the United States after the American Revolution. These images of "worthies" – that is, Republican heroes, statesmen, philosophers, artists and inventors - were meant to provide American viewers with examples of civic virtue and genius, and therefore promote morality and instill national pride.[14] As discussed in previous chapters, Morse also returned from Britain with a commitment to elevating public taste in America. As early as 1815, he insisted to his parents, "[History paintings] would . . . elevate and refine the public feeling by turning their thoughts from sensuality and luxury to intellectual pleasures."[15] Morse enthusiastically embraced portraiture that supported this goal, such as *Delaplaine's Repository*, or the otherwise tiresome task of executing individual portraits of each congressman for eventual use in his grand history painting the *House of Representatives* (Fig. 6), and of course he was thrilled to receive the New York City commission to paint the Revolutionary war hero *The Marquis de*

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[13] Though Morse worked on the portraits all winter, Delaplaine was not happy with those of Adams and Strong, and asked that Morse copy Gilbert Stuart's portraits of these gentlemen to receive his pay. Interestingly, Delaplaine objected to Morse's portrait of Adams, in particular, due to its being too realistic and therefore unflattering – the same complaint that would surface regarding daguerreotype portraiture some twenty-five years hence.

[14] Brandon Brame Fortune, "Portraits of Virtue and Genius: Pantheons of Worthies and Public Portraiture in the Early American Republic, 1780-1820," Ph.D. dissertation, University of North Carolina at Chapel Hill, 1987.

[15] Samuel F. B. Morse to Jedidiah Morse, May 3, 1815, Morse Papers.

Lafayette (Fig. 13). Each of these paintings, he believed, would lift up the standards of public taste, be of significance to the state of American culture, enhance his reputation and eventually result in further commissions of the type he desired.

Despite Morse's success with *The Marquis de Lafayette* and his numerous and lucrative "common" portrait commissions, he continued to pursue his goals of renown and improving American culture and the nation's status via history painting.[16] As discussed in Chapter One, his paintings *House of Representatives* and *Gallery of the Louvre* were both unsuccessful attempts to further these ambitions. The period journals and art critics reinforced Morse's ideas that history painting and portraits of worthies were the only means to artistic achievement; reviewers often harshly castigated any exhibition or artist they felt relied too heavily on common portraiture. For example, in a review of the 1831 National Academy of Design exhibition, *The New-York Mirror* first objected to the number of portraits in the show, exclaiming:

> The pleasure to be expected from the exhibition is greatly diminished by the fact, that instead of the higher order of pieces, the room is nearly filled with portraits, leaving the visitor to derive all pleasure and profit which could be possibly gained from knowing that the gentleman in a very blue coat is Mr. Jenkins, and the lady with her hand bent over the back of the chair is Mrs. Jackson. . . . in general, to strangers, portraits are rather monotonous affairs, and should not be expected to interest outside of the domestic circle.

The reviewer went on to opine that if artists must paint portraits, they ought to focus their energies on well-known sitters:

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[16] Until a depression in 1819 drastically changed the economics of the city, as a portraitist in Charleston, South Carolina, Morse had earned $60-70 apiece for his portraits, and enjoyed a long waiting list of clients, Kenneth Silverman, *Lightning Man: The Accursed Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 2003), p. 48. This was quite admirable, seeing as how he had only been able to command $15 a head a few years prior, while touring New Hampshire and Vermont in 1816. Silverman, pp. 40-42, see also Staiti, "Samuel F. B. Morse's Search for a Personal Style," p. 270.

> The admission of a few heads, representing eminent individuals, is not objectionable; and there are several among those in question which, both as specimens of the art, and from the beauty and celebrity of the subjects, we should be sorry to lose. . . . If the artist, who devotes himself to this branch, wishes . . . to display his success, let him paint public men or beautiful women, something to please the eye and awaken the imagination. [17]

After this unsympathetic appraisal of the National Academy's 1831 exhibition and of American painting in general, *The Mirror* rather grudgingly labeled Morse's *Portrait of Dr. Stamford* [sic] "A fine likeness, and admirably painted" (location unknown). [18] The following year, *The Mirror* continued to carp about the number of portraits in the exhibition, and again requested that artists focus their efforts on famous sitters: "There is still the same inappropriate preponderance of portraits which drew forth complaints last year. . . . [artists should] paint the heads of persons known . . . the preservation of whose features is a matter of interest to the community at large." The journal did acknowledge that some of the onus for expanded subject matter rested upon the American public, "There is, on the part of the public, a kind of duty to encourage and reward him who abandons the more certain and lucrative walks of business, to purify their tastes and minister to them pleasures of an elevated character."[19] Such feeble calls, however, continued to pass unheeded by the general public.

As reviews such as these demonstrate, artists in the second quarter of the nineteenth century in America had a difficult task: they were criticized for relying too heavily on portraiture, yet the market for the types of historical works the critics desired to view (and Morse desired to paint) simply did not exist. Even Morse, who was widely

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[17] "The National Academy of Design," *The New-York Mirror*, May 7, 1831, p. 350.

[18] Ibid.

[19] "The American Academy," *The New-York Mirror*, May 26, 1832, p. 3.

regarded as one of the nation's best painters and a brilliant portraitist, was not exempt. For example, a European reviewer for *Blackwood's Edinburgh Magazine* praised Morse's portraiture, noting "[Morse's] portraits are powerful, free, and distinguished by painterly handling," while a review in *The New-York Mirror* complained, "Mr. Morse . . . we regret to say, has but few pictures in [the National Academy of Design's fourth] exhibition, and those few are all portraits."[20] Even his beautiful painting *The Muse* received criticism for being a mere portrait: "[*The Muse*] displays the obvious powers of Mr. Morse for large composition, and we only regret that his ability has not been appropriated to some historical subject more worthy of his genius."[21]

Eventually, Morse came to regard the painted common portrait as his bread-and-butter, his "fall back" plan. He knew he could make a living at it, if necessary, but loathed to do so. In times of financial duress, such as the mid-1830s, he fretted, "I ought to use the remaining years of my life in that department of art [portraiture] which will leave bread to my children."[22] At one such juncture in Morse's life, one sympathetic critic accurately summed up the difficult situation in which Morse found himself:

> It is with feelings of *pleasure* and *regret* that we hear of Mr. Morse's determination to confine himself to portrait painting: regret that we shall lose the enjoyment of his higher productions; and pleasure that our amiable friend has at lenth [sic] consented to adopt that branch of the profession which alone is calculated to give support to an artist in this country.

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[20] Quoted in the *United States Gazette*, November 8, 1824, p. 3; "The Fourth Annual Exhibition of the National Academy," *The New-York Mirror,* May 16, 1829, p. 354.

[21] "The Twelfth Annual Exhibition of the National Academy of Design," *The New-Yorker*, May 6, 1837, p. 109.

[22] Samuel F. B. Morse to Guilian Verplank, January 2, 1832, Samuel F. B. Morse manuscripts, New-York Historical Society.

This critic reminded readers of the excellence of the same portrait mentioned in the earlier reviews cited above, Morse's *Portrait of Dr. Sandford*, and labeled it "one of the finest specimens of portrait painting we have ever seen."[23]

Morse's attitude of resignation towards the painted portrait is in marked contrast to the enthusiasm he exhibited towards the photographed portrait, and (albeit for a brief period) Morse pursued the career of daguerreotype portraitist with vigor. This seems particularly odd, as it is the "common portrait's" transcripive qualities that cause it to be placed so low on Reynolds's list; direct transcription of a subject is, of course, photography's fundamental task, and the one that was most admired and celebrated about the new medium upon its arrival in 1839.[24] Morse's seeming about-face, however, is in direct accordance with his desire for personal recognition and greatness for his nation, and his concordant sidestep in focus from the arts to technology. Morse could not achieve his goals in a career as an itinerant portraitist, or as a grounded one who was dependent upon the whims of the wealthy. When he did not receive the Capitol Rotunda commission in 1837, it was clear that he would not achieve them via important government commissions – portraits or otherwise – as well. In photography's early days, though, it must have appeared that assisting in developing the technology to achieve the photographic portrait could possibly garner for Morse some of the attention and wealth he craved. It would not only be a glory for him personally, but a glory for America as well: it had been deemed near impossible by Daguerre, who can be read here as representative of France as a whole, to realize a portrait by daguerreotype. As discussed in Chapter Two, Morse had long been interested in the technological as a means of

[23] "National Academy of Design," *The New York Evening Post*, June 5, 1832, p. 2.

[24] Transcriptive skills were not valued in portraiture or in landscape painting. See Gerdts, p. 29.

possibly realizing his goals, and this has only gained in strength with his work on the telegraph. Invention continued to gain credence and import in American society, and with the daguerreotype, Morse could apply this interest to a form of visual representation.

This distinction between types of portraiture, one favorable to Morse (historic) and the other not (common), does not take into account the many portraits Morse voluntarily executed of loved ones as tokens of affection and remembrance. Morse created at least fifteen paintings or drawings of his immediate family members over the course of his artistic career, and the fact that his first and last known paintings both depict family seems indicative of the pleasure he took in the subject. Susan, Morse's daughter and oldest child, is not only the sitter for his last painting, but, tellingly, also for his first attempts at photographic portraiture. Much has been written on the photographic portrait's strong ties to memory and nostalgia; as will be discussed below, this was an aspect of the medium of which Morse was strongly aware, and possibly promoted in conjunction with his daguerreotype studio.[25]

Morse and The Photographic Portrait

The first record of Morse's interest in photographic portraiture appears almost from the onset of his direct interaction with the medium; that is, from his initial meeting with Daguerre in March of 1839. Morse does not mention portraiture in his famous March 9 letter to his brother Sidney, in which he coined the marvelous phrase "Rembrandt perfected" in relation to the daguerreotypes he had seen at Daguerre's studio, yet Sidney somewhat coyly does it for him, in his editor's postscript to the published version of that letter:

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[25] For a recent and thorough discussion on the relationship of photographic portraiture to memory, see Geoffrey Batchen, *Forget Me Not: Photography and Remembrance* (Amsterdam: Van Gogh Museum, 2004).

> From [Morse] we have received some additional information respecting this very interesting discovery, which we cannot at present communicate. . . . We are even more impressed with the value of the invention as a means of procuring, . . . if we apprehend its power correctly, perfect representations of the human countenance, than with its power to reveal the secrets of "microscopic nature." . . . With what interest shall we visit the gallery of portraits of distinguished men of all countries, drawn, not with pencil, but with the power and truth of light from heaven! It may not be long before we shall witness in this city the exhibition of such . . . portraits.[26]

As discussed in Chapter Two, this postscript indicates that Morse discussed the possibility of photographic portraiture with Sidney upon his return to New York from France. What else could this intriguing "additional information respecting this very interesting discovery, which we cannot at present communicate" be, particularly when followed by a fantasy of visiting a "gallery of portraits of distinguished men of all countries, drawn, not with pencil, but with the power and truth of light from heaven"? Portraits of distinguished men of all countries certainly fell into the higher category of Reynolds's hierarchy, and therefore would have been an exciting prospect to Morse. In later recollections of his meeting with Daguerre, Morse continually stressed that the Frenchman did not think photographic portraiture a possibility, but according to this "additional information" Sidney relays, Morse himself does seem to have immediately grasped its potential.[27]

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[26] "The Dagguerreotipe," *New-York Observer*, April 20, 1839, p. 62.

[27] "In my intercourse with Daguerre, I specifically conversed with him in regard to the practicality of taking portraits of *living persons*. I well remember that he expressed himself somewhat skeptical as to its practicality, only in consequence of the *time* necessary for the person to remain immovable," Samuel F. B. Morse to Marcus Aurelius Root, February 10, 1855, reprinted in, "Who Made the First Daguerreotype in This Country?" *The Photographic and Fine Art Journal* 8 (September, 1855): 280. Morse also recounted, "In reply to the question which I put to M. Daguerre, Cannot you apply this to portraiture? he gave it as his opinion that it would be impracticable." Samuel F. B. Morse to Edward L. Wilson, November 18, 1871, printed in *The Philadelphia Photographer* 9 (January 1872): 3. As noted in Chapter Two, fn. 32, recent French discussions indicate that Daguerre may have been able to take a portrait as early as 1837. Indeed, in Morse's remembrances, Daguerre never states that portraiture is not *possible*, but that it is not *practical*. Regardless of whether or not Daguerre had taken a portrait prior to 1839, Morse was clearly taking

By his own account, Morse first attempted to create a photographic portrait almost as soon as he received a copy of Daguerre's manual in the fall of 1839. He recalled his experiments in an 1855 letter to fellow daguerreotypist Marcus Aurelius Root:

> I have now the fruits of these experiments, taken in September or October, 1839. They are full-length portraits of my daughter, single, and also in a group with some of her young friends. They were taken out of doors, on the roof of a building, in the full sun-light, and with the eyes closed. The time was from ten to twenty minutes.[28]

Root reproduced an engraving after one of these daguerreotypes in his 1864 text, *The Camera and the Pencil, or, The Heliographic Art*, which is discussed below (Fig. 14). Morse did not mention any further attempts at portraiture until he opened his University roof-top studio with fellow University of the City of New York professor, chemist and physician John William Draper, in the spring of 1840. Sarah Breese Walker, Morse's cousin, recalled that on the roof-top studio, "the light was not obstructed by the street or the surrounding buildings. . . . [The] light was intensified by the aid of mirrors, fastened on the roof, which reflected the sun."[29] This corresponds to Draper's treatise on the best method to take a daguerreotype portrait, published the summer after his work in the rooftop studio with Morse, in September of 1840. He described the use of mirrors in taking portraits as follows:

> To procure fine proofs . . . involves obviously the use of reflecting mirrors to direct the [sun's] ray. A single mirror would answer, and would economise [sic] time, but in practice it is often convenient to employ two; one placed, with

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Daguerre's statements to mean that he, Morse – and America – had the opportunity to advance the technology to the point of making portraiture not only possible but also practical.

[28] Samuel F. B. Morse to Marcus Aurelius Root, February 10, 1855, reprinted in "Who Made the First Daguerreotype in This Country?," *Photographic and Fine Art Journal* 8 (September 1855): 280.p. 280. The "September or October, 1839" date that Morse recalls is problematic, as discussed in detail below.

[29] *Personal Reminiscences of the late Mrs. Sarah Breese Walker* (compiled by James Eglinton Montgomery, privately printed, 1884), p. 50.

> a suitable mechanism, to direct the rays in vertical lines; and the second above it, to direct them in an invariable course towards the sitter.[30]

Walker recalled the brightness of the sun causing her cheeks to tan and tears to stream down her face; to alleviate this kind of discomfort Draper recommended the use of "some kind of blue medium, which shall abstract from [the rays] their heat, and take away their offensive brilliancy."[31] This remarkable article goes on to provide, in essence, a summation of everything practical Draper (and, presumably, Morse) had learned about photographing people over their summer spent upon the University rooftop. Draper discusses the requisite, uncomfortable daguerreotype chair, with "a staff at its back, terminating in an iron ring, [so the sitter's head] may be kept sufficiently still to allow the minutest marks on the face to be copied." He notes that the sitter's hands should not rest upon their chest, as the rise and fall of the body with respiration would cause the hands to blur, or "to bring them out of a thick and clumsy appearance." He also points out that such motion "[destroys] also the representation of the veins on the back [of the hands], which, if they are held motionless, are copied with surprising beauty." Scientist that he was, Draper relayed much of the information with full technical details. Rather than simply suggest to his reader that a white background is not suitable for a portrait, Draper notes, "White, reflecting too much light, would solarize upon the proof before the face had had time to come out, and owing to its reflecting *all* the different rays, a blur or irradiation would appear on all edges, due to chromatic aberration." Draper applied a

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[30] John W. Draper, "On the Process of the Daguerreotype, and its Application to taking Portraits from Life," *The London and Edinburgh Philosophical Magazine and Journal of Science* 17 (September 1840): 223.

[31] For Walker's discussion, see *Personal Reminiscences*, p. 50, and Draper, "On the Process of the Daguerreotype," p. 223. For a recent discussion on the history of blue light in photographic studios and its perceived associative health benefits, see Tanya Sheehan, "'Doctor Photo': The Cultural Authority of Portrait Photography as Medicine in Nineteenth-Century America," Ph.D. dissertation, Brown University, 2005, pp. 160-204.

similar argument towards the colors of clothing a sitter should wear, and which they should avoid. If a man was dressed in a black coat, for example, it would be impossible to acquire a decent proof: "By the time that his face and fine shadows of his woollen [sic] clothing are evolved, his shirt will be solarized, and be blue, or even black, with a white halo around it." According to Draper, in such instances it was necessary that the sitter wear a temporary drape of "a drab or flesh color."[32]

Nowhere in the surviving sources do we encounter this kind of scientific unpacking of the process from Morse. The technological aspects of the process he does discuss are a bit more vague; in relaying to Eben Norton Horsford how he was able to reduce his exposure times for portraiture to five or ten seconds, Morse stated, "The conditions of rapidity in the process are, 1st, shortness of focus. 2nd, largeness of diameter, or quantity of light of the lenses. 3rd, nearness to the object, and I may add a fourth, quality of daylight about the object."[33] These less distinct conditions ("quality of the daylight about the object") are a far cry from Draper's analysis of the relation of the sun's rays to chromatic phenomena. Much as Morse was trying to represent himself as a scientist and inventor at this time in order to gain credibility and funds for his telegraph, he lacked much of the chemical know-how necessary to analyze and, quite frankly, advance the daguerreotype process in the same way that Draper did. The advancements Morse did make in photography were more ideological in nature, concerning the relation of the daguerreotype to the fine arts; his major mechanical advancement was the construction of one of the first daguerreotype cameras (though, as noted in Chapter Two

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[32] Draper, "On the Process of the Daguerreotype," p. 224.

[33] Samuel F. B. Morse to Eben Norton Horsford, November 20, 1840, Horsford Family Papers, Special Collections, Rensselaer Polytechnic Institute.

and as with the telegraph, Morse provided the basic concept and rudimentary model, and hired mechanic George Prosch to construct the more sophisticated working machine). Indeed, in later years, Draper specifically mentioned Morse's lack of scientific knowledge: "[Morse] was not familiar either with chemical or optical science, and took an interest in photographic portraiture only from an artistic point of view, his earlier life having been devoted, as is well known, to painting as a profession."[34] This actually corresponds to a statement Morse had made himself, years earlier, in his letter to Root: "Prof. Draper's other duties calling him away from his experiments . . . . *I* was left to pursue the *artistic* results of the process, as more in accordance with my own profession."[35] Though a rift developed between the two men in later years, at the time they were co-owners of a young portraiture studio, they presumably shared all technical and artistic discoveries about the process with each other.[36]

Morse clearly attempted to apply some of the basic principles for portrait painting to his work in photography, particularly those concerning pose and composition. A comparison of the previously mentioned engraving after one of Morse's first daguerreotypes, which appeared in Root's text (Fig. 14), with a second engraving after an early daguerreotype by Morse, which appeared in an 1873 *Scribner's Monthly* article (Fig. 15), is revealing of Morse's methods. Though facsimiles of the originals, which are now lost, these engravings illustrate some of the only known daguerreotype portraits created by Morse, and are therefore worth considering. As Morse explained, when the early

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[34] John W. Draper to the Editor, *Scribner's Monthly* 7 (March 1874): 631.

[35] "Who Made the First Daguerreotype in This Country?," p. 280.

[36] The exchange between the arts and the sciences as embodied by Morse and Draper is the subject of Chapter Five.

daguerreotype was taken, the sitters would have had their eyes open for part of the exposure, and closed for part of the exposure, therefore the engraving features the girls with their eyes opened.[37] Both engravings feature two women arranged in a pyramidal or semi-pyramidal composition, one seated and the other either standing, in the case of the Root engraving, or possibly seated at a slightly higher elevation, as with the *Scribner's* engraving.[38] In each, the figure in the higher position is facing the viewer, and the figure in the lower position has her head turned slightly to one side. Both engravings illustrate a deliberate arrangement of the figures' hands: in the Root engraving, the standing figure has her left hand placed on the seated girl's lap, and the seated girl covers her friend's hand with her own. Similarly, the *Scribner's* engraving features the elevated woman's hand resting on her friend's shoulder, while the seated figure places her hand on her friend's knee. This kind of physical entwinement between the figures creates a unified visual subject, in addition to conveying the intimacy shared by each pair. In both engravings, the seated figure's second hand rests carefully, palm down, in her own lap – perhaps to best illustrate the veins there, which according to Draper were copied so beautifully?

The fact that Morse chose to photograph a more complex group subject – his daughter Susan and her friends – as his first attempt at photographic portraiture, in

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[37] In Morse's original reply to Root, no mention of the engraving is made. Root must have been intrigued by Morse's discussion of these early daguerreotypes, and specifically arranged for the engraving so as to reproduce it in his 1864 text.

[38] It should be noted that the daguerreotype after which the *Scribner's* engraving is copied originally contained three figures, though, as it is impossible to ascertain where the third figure may have been placed, I will treat it as a complete composition. The original daguerreotype was part of a group that Morse gave to Vassar College, where he was a trustee. See Benson J. Lossing, "Professor Morse and the Telegraph," *Scribner's Monthly* 5 (March 1873): 585. The entire group of Morse daguerreotypes at Vassar was probably lost during a move in 1976; correspondence from Nancy S. MacKechnie, Curator of Rare Books and Manuscripts, Vassar College Libraries, March 1999.

addition to attempting the single subject described by Draper and the Alexander Wolcott and John Johnson partnership, is indicative of his ambitions for the medium, and his interest in holding photography to the same high standards he held for painting. Just as Morse preferred to execute a large-scale history painting as opposed to a pedestrian portrait painting, with the daguerreotype of Susan and her friend, Morse attempted to create a more visually arresting and intricate first attempt at photographic portraiture, one that, notably, more resembled a painted portrait, as opposed to the more straightforward single male sitter of other first attempts.[39] The *Scribner's* engraving is probably one of the "beautiful groups" to which Morse's brother Sidney referred, those that were spoken of so glowingly in the local press: "We have just seen a family group of three persons taken by [Morse], which, differently from most Daguerreotype likenesses, is a really beautiful picture. The arrangement of the group, and the attitudes, under the direction of the artist, are exceedingly elegant and agreeable."[40] While daguerreotype studios had begun to proliferate in Manhattan by early 1841, when this review was written, according to the author of the article, most photographic portraits were constrained and harsh. In these two plates at least, Morse was doing more than attempting to secure an image onto the plate, he was attempting to create a photographic image that had all the artistry of his painted portraits. This type of artistry was possibly one of the lessons he transmitted to his students of the medium. Morse's student Albert Southworth, for example, became known for the elegant arrangements of his daguerreotype portraits with his partner Josiah

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[39] Draper's first attempts at portraiture are described below. On Wolcott and Johnson, see John Johnson, "Daguerreotype," *Eureka* 1, October 1846, pp. 23-25.

[40] *The [New York] Evening Post, February 13, 1841, p. 2.* On the "beautiful groups" Morse was photographing, see Sidney E. Morse to Richard C. Morse, January 29, 1841, Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University.

Hawes. Indeed, many of Southworth and Hawes's finest portraits display a similar type of compositional arrangement of groups of women as the two engravings after Morse's group daguerreotypes.

It is particularly revealing to compare these engraved images after Morse's daguerreotypes to the work of Southworth. Southworth and his later, first business partner, Joseph Pennell, studied with Morse in the spring of 1840, the same time that Morse and Draper were opening their roof-top studio.[41] One of the only surviving portraits from Southworth and Pennell that dates to 1840 features Southworth himself, and was either taken by Pennell or is a self-portrait (Fig. 16). This image displays the same type of frontal, evenly-lit, mug-shot type of composition evident in Morse's later studio portraits, such as his *Portrait of Reverend Rueben Nelson* (Fig. 2), and in those by early practitioner Robert Cornelius (Figs. 17 and 18). Though Southworth's gaze is slightly averted from the viewer, he exhibits the same intense stare that is evident Morse's portrait of Nelson. Overall, the portrait contains similar elements of stiffness and constraint that imbue most portraits from this date. Southworth's later daguerreotype work with his second business partner Josiah Johnson Hawes, however, consistently reveals the same type of artistry Morse seemed to employ in his group subjects: complex, physically entwined compositional arrangements of the figures, suggesting intimacy and warmth among them, which also highlights the photographer's skill and expertise in creating a compelling image (Figs. 19 and 20). Indeed, it was the high quality of the pair's portraits that earned the studio, as photo-historian Grant B. Romer has noted, "a

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[41] On Southworth as Morse's student, see Grant B. Romer, "'A High Reputation with All True Artists and Connoisseurs': The Daguerreian Careers of A. S. Southworth and J. J. Hawes," in *Young America: The Daguerreotypes of Southworth and Hawes*, eds. Grant B. Romer and Brian Wallis (New York: International Center of Photography, 2005), pp. 21-22.

reputation for both technical and artistic excellence."[42] While the majority of the well known and most successful Southworth and Hawes daguerreotypes were taken from the late 1840s-early 1850s, some years after Southworth's association with Morse, one cannot help but wonder if Morse indoctrinated Southworth in utilizing fine-art portrait conventions for his daguerreotype work; Southworth did reference Morse as his instructor on his first business card.[43]

This picturing of groups of women is a phenomenon that is directly linked to photography; there are far fewer formal painted portraits of this subject than there are photographs. Scholars such as Tagg and Trachtenberg have commented upon the democraticizing effect of photographic portraiture, how a genre that was once only accessible to the wealthy became, with photography, accessible to persons of nearly every social and economic class. Trachtenberg links this democratizing to specifically American ideals and an overall egalitarian transformation of American culture, and Tagg discusses photographic portraiture in terms of the rise of the lower and middle classes to greater economic and political importance.[44] Photography also allowed women to record their own friendships and relationships, a subject that previously had not often been considered important enough for an expensive painting commission.

Of course, as the current evidence suggests, neither of these engravings after Morse's daguerreotypes are of women who chose to have themselves recorded for

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[42] Ibid., p. 31.

[43] Ibid., p. 22.

[44] Alan Trachtenberg, "The Daguerreotype: American Icon," in *American Daguerreotypes from the Matthew R. Isenburg Collection* (New Haven: Yale University Art Gallery, 1989), p. 18, and John Tagg, *The Burden of Representation, Essays on Photographies and Histories* (Amherst, MA: University of Massachusetts Press, 1988), pp. 34-59.

posterity, as did those in Southworth and Hawes's daguerreotypes. These apparently were groups that Morse chose to photograph, and it is compelling that they are quite different from the existing daguerreotype portraits attributed to or possibly by Morse that seem to represent his studio work, that is, of sitters who paid to have their likeness taken (Figs. 2 and 4).[45] At first glance, the figures in the engravings seem much more lively than those in the daguerreotypes: their interaction with and physical proximity to each other lend the figures a certain degree of animation that is lacking in the more static-seeming daguerreotypes. Some of this perceived difference is due to a comparison of images containing two figures to those containing just one, but even more relevant, of course, is that these are engravings after daguerreotypes as compared to original plates. The artists of the engravings have surely taken certain liberties in their translations of the photographs; Morse himself stated that the figures in the daguerreotype after which the Root engraving was made had their eyes closed in the photograph, and the artist of the print represented their eyes as open; it is likely this artist added the slight smiles evident on the girls' faces as well. As the image took ten to twenty minutes in the hot sun to create, the pleasant expressions the sitters sport seem quite unlikely. Indeed, it seems more likely that the closed eyes in the original plates would lend these photographs a somewhat spooky and unsettling air.

The extant portrait photographs attributed to or by Morse all feature single male sitters. Of these, the only one that is firmly by Morse available for viewing is *Portrait of Reverend Reuben Nelson* (Fig. 2). An analysis of this portrait reveals how Morse applied

[45] I have only seen one daguerreotype portrait I am confident is by Morse, *Portrait of Reverend Reuben Nelson* (Fig. 2). Two others, which I have not been able to see, are in a private collection. There are, however, at least two more that remain attributed to Morse (either by their home institution or by myself). More evidence needs to be uncovered to verify these attributions. These are *Portrait of a Young Man* (Fig. 4), and *Portrait of John William Draper* (Fig. 5).

his training as a portrait painter to his studio work as well as to the groups of women. However a comparison of the plate with the engravings after Morse's daguerreotypes of these groups also demonstrates how Morse possibly differed in his studio work as opposed to his personal work.

Nelson eventually became a well-regarded Methodist minister; at the time this portrait was taken, however, he was about twenty-two years old and newly ordained. Intriguingly, Nelson was located in upstate New York at the time Morse was making daguerreotypes there. In 1838 he advertised a "Select School" in Cooperstown, New York, informing the local citizenry that he would instruct "the Higher Branches of the English and Mathematics, together with the Latin and Greek Languages."[46] By late 1840 the "Select School" – which likely meant that Nelson was taking on a limited number of pupils – had grown into a full-fledged academy, the Otsego Academy. Now Nelson boasted a "constant increase of students," and advertised that he had procured an additional teacher "whose reputation as a scholar is of the highest order."[47] Nelson actively ran his school throughout the following year, and, as discussed in Chapter Two, Morse was in upstate New York, particularly in nearby Oneida County, with his daguerreotype equipment in the summer of 1841. Could this daguerreotype have been made in upstate New York, and not in either of Morse's studios? While it is possible there is some as-yet undiscovered link between Nelson and the relatives Morse was visiting and photographing that summer (perhaps one of the younger Breese cousins was

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[46] *Freeman's Journal*, December 10, 1838, p. 3. The advertisement ran weekly through the end of the year. I am grateful to Tom Heintz, Otsego Town Historian, for his assistance in locating this and subsequent *Freeman's Journal* advertisements.

[47] *Freeman's Journal*, October 19, 1840, p. 3. Nelson's advertisement continued to run through the end of the year, and the Academy was also advertised in the spring and autumn of 1841.

Nelson's pupil?), it is equally likely that Nelson made a trip to the city during one of the school's breaks, and was photographed there.

Though the image does convey a certain amount of stiffness in comparison to the engravings after Morse's daguerreotypes of groups of women, it is a compelling portrait nonetheless. Perhaps most striking is the intensity of Nelson's stare, which forthrightly returns the gaze of the viewer. Both sitters in *Portrait of an Unknown Man* (Fig. 4), which is possibly by Morse, and *Portrait of John William Draper* (Fig. 5), also possibly by Morse, avert their eyes slightly to one side, which by comparison highlights the dramatic nature of Nelson's look. Nelson and the unknown man both exhibit solemn, almost stern countenances, perhaps reflecting the strangeness and utter novelty of the situation; it is almost certain that neither man had been photographed before this date. Trachtenberg has written extensively on the newness of the process producing a sense of the uncanny within these early sitters; he often cites an 1849 article by T. S. Arthur on this subject.[48] Indeed, Arthur details at length various reactions of early daguerreotype subjects, and describes sitters (especially ladies) who:

> feel their eyes 'drawn' towards the lens while the operation is in progress! . . . A few are affected with a prickling sensation, while the perspiration starts from every pore. A sense of suffocation is a common feeling among persons of delicate nerves and lively fancies. . . . Many daguerreotypes have a strange, surprised look, or an air as if the original was ill at ease in his or her mind. Of course, these various impressions are all the result of an effort to sit perfectly still and look composed. Forced ease is actual constraint, and must appear so. In Daguerreotype portraits this is particularly apparent.[49]

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[48] Alan Trachtenberg, "Photography: the Emergence of a Keyword," in *Photography in Nineteenth Century America*, ed. Martha Sandweiss (New York: Harry N. Abrams, 1991), pp. 17-45.

[49] T. S. Arthur, "American Characteristics: The Daguerreotypist," *Godey's Lady's Book* 38 (May 1849), p. 352.

Surely, both sitters in these daguerreotypes were attempting to appear as relaxed as possible, actually causing themselves to appear even more constrained and nervous.

Another striking element of *Portrait of Reverend Rueben Nelson* is the off-center placement of the sitter. It has been surmised that this composition is due to the portrait's early date, which can be inferred as due to Morse's relative lack of daguerreian skill.[50] Other very early portraits, such as Robert Cornelius's *Self-Portrait*, also display an off-center composition (Fig. 21); Cornelius's placement is surely due to its date of October or November of 1839, and the fact that Cornelius probably jumped in front of the camera after setting up the shot. Morse's portrait of Nelson, however, actually displays the artist and inventor's skill in arranging his subject: in his early teen years, Nelson had lost his right arm in a factory accident.[51] Morse has carefully positioned his sitter so he is slightly off-center, leaving Nelson's left arm and shoulder in full view, and his right arm carefully cropped out of the frame. The exact same technique is evident in a painted portrait made of Nelson some thirty years later, by Thomas Buchanan Read (1870, Wyoming Seminary, Kingston, Pennsylvania). Read also crops out the majority of Nelson's right arm, yet, like the Morse daguerreotype, the composition remains elegant. It stands to reason that Morse's highly regarded position as a portrait painter would attract daguerreotype clients; perhaps Nelson was nervous about having his missing arm recorded, and chose Morse deliberately for this reason.

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[50] "[The daguerreotype's] . . . off-center composition . . . suggest[s] an early date," Pierre Apraxine, *Photographs from the Collection of the Gilman Paper Company Collection* (New York: White Oak Press, 1985), p. 437.

[51] "It was in this [Hargrave's cotton-picking] factory that Reuben Nelson, who afterward became one of the most prominent Methodist preachers, lost one of his arms, his hand being caught and drawn into the spreader where the bolts were made for the cards," Joyce Foote, *Morris New York, 1773-1923* (privately printed, 1970), p. 28. See also Leroy E. Bugbee, *Wyoming Seminary 1844-1944* (privately printed, c. 1945), pp. 40-45.

A comparison of several very early daguerreotype plates reveals both the unique and typical qualities of Morse's work in photographic portraiture. As noted, the daguerreotypes of groups of women at this very early date, pre-1841, are highly unusual and ambitious. Combined with Morse's statements about using these "portions of nature" for artistic purposes, they suggest that Morse was hoping to utilize his daguerreotypes as models for larger canvases. Morse's portrait of Nelson reveals the artist's use of his training in portrait painting in the way he was able to create a balanced composition while mindfully excluding Nelson's missing arm. Otherwise, however, the plate is fairly typical of its period. A daguerreotype from the same date, 1841, by Robert Cornelius shows a half-length view of the unidentified sitter positioned in the center of the plate, and staring directly at the viewer (Fig. 18). The unidentified man in the Cornelius plate does sport a slight smile, which softens his gaze in comparison to that of Nelson and the other unidentified man in the plate possibly by Morse (Fig. 4). In Morse's painted portraits of single male sitters, the artist used dramatic lighting, slight twists in the sitter's pose, props such as desks, pens or letters held, and the sitter's facial expression to make each work unique (Figs. 22 and 23). Several of these devices were unavailable to Morse the daguerreotypist; sitters for early photographic portraits could rarely hold an expression other than that of fierce concentration, and the lighting needed to be fairly direct in order to obtain an image at all. The engravings after Morse's daguerreotypes reveal that he used more complex poses in his personal photography, but as there are so few extant portraits, it is impossible to know if Morse made use of props or varying arm placement in his studio work as well.

Nelson's portrait does offer another fascinating clue into Morse's daguerreotyping, as Morse's signature stamp, "S. F. B. Morse," is imprinted directly onto the lower right of the gilded mat. This same mat encases two other Morse portraits, also of single male sitters (private collection); there is also one extant mat, without an image attached (Fig. 24). The font in the Nelson portrait and the single mat is the same; perhaps Morse was using the block letters from his brothers' newspaper the *New-York Observer* to stamp these mats. After all, his "palace of the sun" was located within the *Observer* building, and Morse lived there as well. The fact of these mats is a fascinating link to Morse's photographic work. That they are signed, stamped, indicates Morse's desire to be known for his portraiture, putting his mark directly on the work. The "S. F. B. Morse" corresponds to how he commonly signed his letters, drawings and paintings. One compelling example of this is an ink on paper drawing by Morse dated May, 1840, that features the head of a young man with his eyes shut, and is also signed "SFB Morse" (Fig. 25).[52] The stamped mat also suggests that these portraits date from Morse's solo studio, the "palace of the sun" he operated from autumn of 1840 to autumn of 1841. This studio was more elaborate and formal than the make-shift one he had operated with Draper in the summer of 1840 on the University roof-top; as described in Chapter Two, Morse went to great pains to make sure his visitors were comfortable. Though the actual studio was also on the roof on his brothers' building, Morse outfitted a separate parlor on the third floor for the lady visitors and employed a woman to wait upon them. This was also the studio he advertised under his name alone. It stands to reason that the stamped mats

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[52] Jeff L. Rosenheim points out this drawing was likely made from a daguerreotype, rather than a live sitter, in "'A Palace for the Sun': Early Photography in New York City," in *Art and the Empire City, 1825-1861*, eds. Catherine Hoover Voorsanger and John K. Howat (New York: The Metropolitan Museum of Art, 2000), p. 228.

bearing his name would date from this period. Any daguerreotype or mat bearing the "S. F. B. Morse" stamp, then, likely dates from autumn 1840-autumn 1841.

Morse's attitude towards the photographic portrait was overwhelmingly positive, but he never suggested or promoted that it supplant portrait painting. Quite the opposite. He assured the assembled National Academicians in a speech made at their 1840 annual supper that painting would only be augmented by the photograph:

> I hear it asked, "will not the Photographic portrait unfavorably affect portrait painting?" Not at all. Be not alarmed. Nature's pencil is too true to be popular. She does not flatter. Who wishes to see or hear the truth of themselves? The Daguerreotype will be called to bring into existence the infant truth, but the painter will yet be needed to clothe [sic] it in more popular dress and "give a grace beyond the reach," *not of art* but of "nature."[53]

Samuel Irenaeus Prime, who, like Morse, lived in the *New-York Observer* building and also worked at the paper (he would eventually replace Sidney E. Morse as editor), later recalled Morse expressing similar sentiments to those in his speech:

> I was among the first whose portraits were taken by [the daguerreotype] on this side of the sea. [Morse] said that it would not hurt the business of portrait-painter, for *it would not flatter*. His prophecy was and is fulfilled, and the reason he gave for it is quite likely to be true. Nature tells the truth, and the photograph makes the defects as well as the beauties radiant and indelible. The painter can make a good likeness, yet make it look better than the original in the eyes of every one but those of the original.[54]

Early daguerreian artists and sitters seemed to agree with Morse. Before the technology advanced to the point that photographers such as Southworth and Hawes were able to utilize a "lighted camera" to smooth skin and mask blemishes on their sitters'

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[53] Morse's speech was re-printed in several local newspapers; see *The New-York Commercial Advertiser*, April 27, 1840, p. 2, and *The Evening Post*, April 27, 1840, p. 2.

[54] Prime is quoted in *Memorial of Samuel Finley Breese Morse, Including Appropriate Ceremonies of Respect at the National Capitol, and Elsewhere* (Washington, D.C.: Government Printing Office, 1875), p. 11.

faces, photographers and sitters alike acknowledged that the daguerreotype was a medium that would not necessarily compliment its sitter.[55] Before the technology to achieve a portrait was well known, *The Knickerbocker* advised against the possibility, observing "Indeed, the Daguerreotype will never do for portrait painting. Its pictures are quite too natural, to please any other than very beautiful sitters."[56] A Mr. Huntington, an itinerant daguerreotypist visiting Barre, Massachusetts in the summer of 1841, warned potential sitters, "Those so plain that their portraits need flattery, had better not attend, as the apparatus cannot be adapted to such an end."[57] Draper himself cautioned his fellow daguerreotypists, "[Daguerreotypes] give of course all individual peculiarities, a mole, a freckle, a wart. . . . Persons whose faces are freckled all over give rise to the most ludicrous results, a white, mottled [result] with just as many black dots as the sitter had yellow ones."[58] And Morse's own cousin, Samuel Breese, complained to his parents about the likeness Morse had taken of him, "I have lately had my portrait taken by the Daguerreotype. It is tolerably good as a likeness they say – I am not exactly suited with it and in time having a better one taken," but a few months later he good-naturedly

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[55] On Southworth and Hawes's use of the lighted camera, see Michael Robinson, "A Style Peculiar to Themselves: An Investigation into the Techniques of Southworth & Hawes," *Young America: The Daguerreotypes of Southworth & Hawes*, pp. 491-493.

[56] *The Knickerbocker* 14 (December 1839): 561.

[57] "Daguerreotype," *Barre [MA] Gazette*, July 7, 1841, p. 2.

[58] John W. Draper, "On the Process of the Daguerreotype, and its Application to taking Portraits from the Life," *The London and Edinburgh Philosophical Magazine* 17 (September 1840): 225.

acknowledged, "[Morse's portraits by daguerreotype] are not all as bad as mine – and I do not know but I am so homely that even the Daguerreotype cannot take me."[59]

Of course, Morse was well able to make the camera flatter in some instances, as demonstrated by the way he was craftily able to mask Nelson's missing arm. But Morse's insistence on photography's inability to surpass painting is not simple placation of the Academicians. On one level, it is wholly in keeping with his long-held views on mechanical and intellectual imitation, as expressed in his lecture series, *On the Affinity of Painting with the Other Fine Arts*. On another level, however, Morse's desire to retain portraiture within the realm of fine art can be read as an indication of his nervousness regarding the democratization of the image that photography clearly foretold, and his hope to preserve the cultural elitism of his youth.

As detailed in Chapter One, Morse's lectures *On the Affinity of Painting* were first delivered in March and April 1826, but he continued to consult and deliver them until at least 1840 – that is, well into his involvement with the daguerreotype.[60] Again, in Lectures 2 and 4 Morse stressed the importance of what he called "Mechanical Imitation," that is "an Imitation that copies exactly what it sees, makes no selections, no combinations," in the creation of what he termed "Intellectual Imitation . . . which perceives principles and arranges its materials according to these principles, so as to produce a desired effect."[61] Morse clearly articulated, in his speech to the National

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[59] Samuel Breese to his parents, S[amuel] Sidney Breese and Helena Breese, August 10, 1840 and December 11, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation Department, Rush Rhees Library, University of Rochester, Rochester, New York.

[60] "Editor's Introduction," Samuel F. B. Morse, *Lectures on the Affinity of Painting with the Other Fine Arts*, ed. Nicolai Cikovsky, Jr., (Columbia, MO: University of Missouri Press, 1983), p. 18.

[61] Lecture 2, *Lectures on the Affinity of Painting with the Other Fine Arts*, p. 59.

Academy, that the daguerreotype was "Mechanical Imitation," copying exactly what it sees (it does not flatter), that would serve as aid to painting, or "Intellectual Imitation," when he stated, "the Daguerreotype will be called to bring into existence the infant truth, but the painter will yet be needed to clothe [sic] it in more popular dress and 'give a grace beyond the reach,' *not of art* but of 'nature.'" Though it may be a crafty bit of semantic slippage, in Morse's eyes, positioning the camera to crop out a man's missing arm was a far cry from assembling an intellectual composition based on natural principles.[62]

It is also probable that the democratizing nature of the photograph and the telegraph was problematic for Morse on some levels, given his often-extreme xenophobia and his involvement with the Native American Democratic Association. This organization was a political party based on nativism, which opposed the Catholic Church and the immigration of lower social classes. Morse's anti-Catholicism, which evolved into his anti-immigration stance (and both are related to his anti-abolitionist stance), was surely learned from his father Jedidiah, who had preached against the supposed Catholic sect the Illuminati.[63] The Morse brothers Sidney and Richard also published diatribes against Catholicism on an almost weekly basis in their *Observer*, with Morse contributing a series of related articles under the pen name "Brutus" in the autumn of 1834.[64] These articles evolved into his publication, *Foreign Conspiracy Against the Liberties of the United States*, which proposed that European governments were planning to overthrow

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[62] As discussed in Chapter Two, Morse was interested in possibly utilizing daguerreotypes as "portions of nature" for use in larger canvases.

[63] Mabee, p. 164.

[64] Silverman, pp. 133-134.

the country through the Catholic Church. These and other activities led to Morse's involvement with Nativist politics proper, and he ran for Mayor of New York in both 1836 and 1841 as the Native American Democrat's candidate. Twenty years later, Morse helped form a group dedicated to revoking the Emancipation Proclamation, the New-York Society for the Diffusion of Political Knowledge.[65]

It seems significant that Morse's xenophobia turned from a general dislike of foreigners and Catholics inherited from his father to concrete action after his return from Europe in 1832, where he had been painting the *Gallery of the Louvre*. Of course, this is partially due to his having recently witnessed the ardent Catholicism of Italy, where he spent much of the trip.[66] But it is also the period when he began actively to work on the telegraph. Morse's sense of urgency in protecting what he believed was the appropriate racial, religious and cultural make-up of his nation – white, Protestant, and ascribing to a culture designated by elites such as himself – rose exponentially with his active participation in the development of technologies that were contributing to the break-down of that same social order. It is compelling to note, for example, that Morse's second run for mayor of New York on the Nativist ticket was in the spring of 1841, the exact same time he was operating his "palace of the sun."[67] Affordable, instant communication, be it of words or images, played an enormous role in the continuing rise of industry, which in turn engendered vast social changes and prompted the arrival of additional immigrants to

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[65] Mabee, pp. 342-353, and Silverman, pp. 397-403.

[66] On Morse's reaction to Italy, see Staiti, *Samuel F. B. Morse*, pp. 180-188.

[67] An advertisement for Morse's mayoral run appears directly above one for his daguerreotype studio, *New York Sun*, April 10, 1841, p. 2.

the United States; these technologies also aided the social and economic rise of the middle-class. As Trachtenberg has written:

> Might we . . . link the daguerreotype to the democratization of culture in general, to the new status of individuals, of persons in and for themselves, and of art as a free and equal experience, accessible to the many as a skill at once of making and appreciating? The era of the American daguerreotype witnessed the emergence of the first democratic popular culture in modern history, and photography made an indispensable contribution.[68]

The "democratization of culture" and "art as a free and equal experience" would have been ideals abhorrent to Morse, who in his youth had argued for history paintings that would "elevate and refine the public feeling." That, for Morse, was the job of the nation's elite: to educate and edify the lower classes.[69] "I believe in the possibility," he stated in around 1833, "by the diffusion of the highest moral and intellectual cultivation through every class, of raising the lower classes in refinement."[70] It is for these reasons that Morse wished so strongly to align photography with the fine arts. Not once does he comment upon the daguerreotype's ability to create a portrait for every citizen; rather he was enthusiastic over the medium's capabilities of recording nature, of educating the public on the qualities of fine art, and the possibility that this could improve public taste. He or his brother Sidney also expressed excitement over the medium's potential to capture images of "distinguished" persons in the postscript to the publication of his March 9 letter: "With what interest shall we visit the gallery of portraits of distinguished

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[68] Trachtenberg, "The Daguerreotype: American Icon," p. 18.

[69] For a discussion on Morse's desires for the National Academy of Design in this vein, see Paul J. Staiti, "Ideology and Politics in Samuel F. B. Morse's Agenda for a National Art," essay in *Samuel F. B. Morse, Educator and Champion of the Arts in America* (New York: National Academy of Design, 1982), pp. 9-53. An odd continuation of the belief that America's most educated were meant to support and guide the lower classes can be found in Morse's later participation in a pro-slavery society, in which "the official program of the society thanked God that four million beings, incapable of self-care, were entrusted to Southerners;" quoted in Mabee, p. 346.

[70] October 1833, quoted in *Letters* Vol. 2, p. 26.

men of all countries, drawn, not with pencil, but with the power and truth of light from heaven!"[71] Photographic portraits of distinguished persons, like painted portraits of important figures, had the possibility to inspire and educate their viewers.

Obviously, Morse did not let his ideals regarding photography keep him from operating either portraiture studio. In the medium's very early days, perhaps Morse felt his call would be heeded and the daguerreotype would primarily be used in the service of fine art, and that even its portraiture could be brought to an acceptable level. Perhaps, also, it is not a coincidence that he ceased working in photography in late 1841, when the medium was spreading at terrific rate, and quality was often sacrificed for quantity. Indeed, there appears to be a disconnect between Morse's personal photographic portraiture, as embodied by the greater artistry and more complex group subjects in the engravings after daguerreotypes, and the more static and constrained nature of his commercial photographic portraiture. It is possible that Morse's personal photographic portraits represent his hopes for the medium in assisting to elevate public taste by modeling the images after painted portraits, while his commercial photographic portraits, while still executed with a degree of artistry, were less carefully crafted in terms of pose and composition.

While Morse firmly believed (or hoped) that the photographic portrait would not supplant the painted, he was less optimistic about the printed portrait's chances against the photographic. This is possibly because they were both mechanical mediums, used in the service of the fine arts. Morse predicted, "The transcript of nature (so much more delicate than the most elegant engraving) will be preferred to [the engraver's] most

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[71] "The Dagguerreotipe," p. 62.

skillful production." He pondered that engravers would do well to utilize the daguerreotype, as "it gives [the engraver] at once on his plate the object he would engrave, and with unerring precision," and wondered if the "more distinct and contrasted imitations" of the engraver might be preferable to the public than the daguerreotype's "glare of the silver plate . . . [its] slaty [sic] and cold hue." Morse quickly countered this positive note, though, by cautioning, "should paper be found a substitute for the metallic plate, which is highly probable, these objections to photography will cease." Finally, Morse allowed that an engraved image had one distinct advantage over the daguerreotyped: its ability to be replicated:

> Portraits of individuals, by the Daguerreotype, cannot be multiplied indefinitely, as can an engraving – Many proofs can indeed be taken from one individual by repeating the process, but the death of the original of the portrait puts an end to any other multiplication of it, than the tool of the engraver of the pencil of the painter.[72]

Personal Photograph and Memory

Morse's choice of sitters for his daguerreotype portraits is not unlike those of his painted portraits – some were commissioned (the sitters who came to his studio), and some were taken for his own pleasure, out of affection for the sitter. This remained true even once he had mastered the process; in October, 1840, Morse's cousin Samuel Breese wrote to his sister in Sconondoa, New York, "Fanny Brown and Mr. Tom Walker are in the city . . . Finley is much taken with them, so much so that he intends taking them with

[72] Morse's speech is quoted in "Annual Supper of the National Academy of Design," *The Evening Post*, April 27, 1840, p. 2.

the Daguerreotype."[73] Here, Morse (who was known as "Finley" to his family) is planning on making portraits of his friends, apparently with no expectation of payment, but simply because he was "much taken with them." Similarly, Morse traveled with his daguerreotype equipment on several occasions, not in the guise of an itinerant photographer who journeyed from town to town to make money, but to further experiment with the process and to take portraits and images of his relatives and friends. The first mention of this is in the fall of 1839, when Morse apologized to the Vail brothers for not being able to travel to Morristown, New Jersey, to make an image of their Ironworks; he attempted to take the view the following May. In August of 1840, Morse brought his equipment to his thirtieth class reunion at Yale University and took a group portrait of the assembled class. Morse likely did this partially for publicity; the event occurs right when his studio with Draper is closing and he is beginning to construct his own "palace of the sun." Morse penned notes on the picture taking which seem to provide the basis for the article describing the event that Sidney E. Morse published in the *New-York Observer*.[74] Being known as the first to take an ambitious group portrait of such a well-known group (which included several university professors, the United States Commissioner of Patents, and the Governor of Connecticut) would surely provide an edge over the other portrait studios that were beginning to dot lower Manhattan, and, of

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[73] Samuel Breese to Catherine Breese, October 6, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation Department, Rush Rhees Library, University of Rochester, Rochester, New York.

[74] Morse's notes are undated, probably around August 19, 1840, Morse Papers. Morse records that two plates were taken; both are now lost. On the taking of the group portrait, see "Interesting Class Meeting," *New-York Observer*, August 29, 1840, p. 138.

course, is in accordance with the emphasis Morse placed on being "first," particularly at a new and innovative technology.

For entirely personal reasons, though, Morse brought his daguerreotype equipment to upstate New York the following summer. He was not taking pictures of anyone well known and no newspaper articles resulted from his journey; he was simply taking pictures of his family and friends while visiting (of course, this work would result in further practice and experimentation with the medium as well, which could only be beneficial). Sarah Breese Walker, Morse's cousin and the wife of the Mr. Tom Walker with whom Morse had been so taken with the previous year, recalled the visit: "[Morse] brought his [daguerreotype] apparatus to Utica and during his visit to us often amused himself by taking our likenesses in the open air."[75] It is likely that Morse also made photographs of his Breese cousins that summer, as he stayed with them prior to and after his visit with the Walkers, and had his equipment with throughout the journey.[76]

The portrait photograph's alleged ties to memory and nostalgia are almost as old as the technology itself, and surely are related to those ties already established during portraiture's long history, regardless of medium. Art historian Richard Brilliant has noted, "The portrait [is] the creation of a visible identity sign by which someone can be known, possibly for ever. This sign constitutes the admission that there is 'someone' out

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[75] *Personal Reminiscences of the Late Mrs. Sarah Breese Walker*, p. 50.

[76] In July of 1841, Morse's young cousin Sidney R. Roby reported to his uncle Sidney Breese, "Cousin Finley went to Niagara to take the Falls," Sidney R. Roby to Sidney Breese, July 17, 1841, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation Department, Rush Rhees Library, University of Rochester, Rochester, New York. Thomas Walker later became mayor of Utica, New York; his papers are located in the Oneida County Historical Society, but there are no daguerreotypes among them. I have also checked the Madison County Historical Society, New York, but have not yet been able to locate any of the Breese family daguerreotypes.

there worthy of identification and preservation."[77] The daguerreotype portrait appeared to highlight that visible identity sign, particularly due to its mechanical nature. As early as 1841, photographers were promoting daguerreotype likenesses as a way to remember those who had passed on: "Who does not consider accurate likenesses of those they love, invaluable? How many times do we hear the expressions of grief from survivors that they have no likenesses of friends who have left them - and what grief like that which is unavailing?"[78] As Batchen has pointed out, however, almost all of photography's most astute theorists believe that photography does not aid memory, but rather hinders it instead.[79] While this may be so, nineteenth-century Americans did not seem terribly bothered by the possibility.[80] Indeed, they wholeheartedly embraced the idea that the daguerreotype portrait would sustain memory, and flocked to have their portraits, and those of loved ones, taken. Like the advertisement cited above, Nathan G. Burgess made this connection explicit in an 1855 article entitled, "The Value of Daguerreotype Likenesses":

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[77] Richard Brilliant, *Portraiture* (Cambridge, MA: Harvard University Press, 1991), p. 14.

[78] *The Pittsfield [MA] Sun*, May 12, 1841, p. 3. The daguerreotype's complex relationship with, and possible continuation of, the association between mourning and posthumous portraiture already established in miniature painting, has been explored by Robin Jaffee Frank, *Love and Loss, American Portrait and Mourning Miniatures* (New Haven: Yale University Press, 2000).

[79] Batchen, pp. 15-17.

[80] Batchen makes a compelling argument that perhaps nineteenth and twentieth century society *was* bothered by the photograph's insidious encroachment upon memory; he proposes that the trend in memorial photography of adding hair, cloth and other physical signs of the sitter to the image can be seen as, "the efforts of ordinary people to overcome – or at least reduce – the power of photography to replace living, emotive memories with static and historical images," p. 94. I am inclined to agree with Catherine Keenan, who writes, "Whilst photographs *can* act in the service of forgetting, they can equally function as sites of memory." Catherine Keenan, "On the Relationship between Personal Photographs and Individual Memory," *History of Photography* 22 (Spring 1998): 61. The extreme popularity of portrait photography in the United States, particularly that of post-mortem photography, suggests that many nineteenth-century Americans also believed that on some level, photographs could operate as sites of memory.

> When those we love and cherish leave us forever; when their spirit passes away from this frail tenement of earth, to another sphere – who would not give all they possess for a likeness of that face, or a slight resemblance of those they once loved. The Daguerreotype possesses the sublime power to transmit the almost living image of our loved ones; to call up their memories vividly to our mind, and to preserve not only the sparkling eye and winning smile, but to catch the living forms and features of those that are so fondly endeared to us, and to hold them indelibly fixed upon the tablet for years after they have passed away.[81]

T. S. Arthur's 1849 article, "American Characteristics – The Daguerreotype," also clearly elucidates the relationship of the daguerreotype to memory, particularly in relation to post-mortem photography. Arthur relays two stories of parents in mourning: in the first, a mother finds a portrait of her recently deceased, adult daughter on display in a daguerreian studio. "She . . . gazed once more into the almost-speaking face of her child!" exclaimed Arthur. The second story serves as a cautionary tale to those who did not "secure the shadow;" Arthur describes a young couple who delayed having their small child's portrait taken. The child died, and, as Arthur cautioned, "the only image of the child that remained for the mother was on the tablet of her memory."[82]

The ties of the daguerreotype to remembrance and nostalgia extend beyond post-mortem portraiture, and are transposed onto the living as well. In arguing for the importance of the photograph, Marcus Aurelius Root wrote, "With these literal transcriptions of features and forms, once dear to us, ever at hand, we are scarcely more

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[81] N[athan] G. Burgess, "The Value of Daguerreotype Likenesses," *Photographic and Fine Art Journal* 8 (January 1855): 19. Burgess was also a specialist in post-mortem photography, see Floyd Rinhart and Marion Rinhart, *The American Daguerreotype* (Athens, GA: University of Georgia Press, 1981), pp. 300-302.

[82] Arthur, p. 352.

likely to forget, or grow cold to their originals, than we should in their corporeal presence."[83] Similarly, *The Photographic Art Journal* wrote:

> [Before the daguerreotype,] Friends at a distance could not send to each other their likenesses, as memorials of affection except under peculiar circumstances. Now the poorest man can have the portraits of his children taken, and they become invaluable the moment they are dead. Friends, at their parting, to go on distant and perilous expeditions, can, in an hour, and at a trifling expense, multiply their portraits, and leave them to be gazed on by those whom they have left behind.[84]

In the rapidly expanding nation, the daguerreotype was not only a way to remember those who had died, but also those who had re-located many miles from their original homes. Here is a clear instance of how photography, like the telegraph, truly did annihilate time and space.

Morse was no exception to promoting this view. The *New-York Observer* article discussing Morse's group portrait makes this explicit, when it exclaims, "How valuable would such a momento of early friendship be to every class, on leaving college for the busy scenes of life!"[85] Two advertisements attributed to Morse's studio blatantly continue this trend. The first, from the *New York Sun*, stated:

> To those who love: How cold must be the heart that does not love. How fickle the heart that wishes not to keep the memory of the loved ones for after-times. Such cold and fickle hearts we do not address. But all others are advised to procure miniatures at Professor Morse's Daguerreotype Establishment.

The second advertisement is from the *New York Tribune*:

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[83] Marcus Aurelius Root, *The Camera and the Pencil, or the Heliographic Art* (1864 reprint, Pawlet, VT: Helios Press, 1971) pp. 43-44**.**

[84] "The Daguerrean Art – Its Origin and Present State," *The Photographic Art Journal* 1 (March, 1851): 136.

[85] "Interesting Class Meeting," p. 138.

> In after-years to retain in our possession the likeness of some one who had been loved is a delicious, even if sometimes a melancholy, pleasure. Such a pleasure can any one enjoy who patronizes Professor Morse, the celebrated Daguerreotype Artist in his Palace of the Sun on Broadway.[86]

The language here is a bit more maudlin than that in his other advertisements, leading to the speculation that perhaps they were not penned by Morse, but by one of his assistants. As noted in Chapter Two, Morse was not in New York City for the majority of the summer of 1841, yet his advertisements continued to run throughout that period. Samuel Broadbent, Morse's assistant, presumably managed the studio and photographed the clients. Sometime in August of 1841, Broadbent left and Morse hired N. V. Young, suggesting that Morse had every intention of continuing to have the studio operate under his name in the coming months. Morse's correspondence through the autumn of that year, however, does not mention the daguerreotype at all, instead being completely concerned with the telegraph. It can be assumed that Young continued to run the studio for a period, without Morse's direct involvement. Regardless of who actually wrote the advertisement, Morse would have approved it, and both are strongly promoting the daguerreotype as a way to remember loved-ones either deceased or simply departed. Such a sentiment might not have been disagreeable to Morse, who had lost his first wife, Lucretia, in 1825, and at the time of his daguerreian work (some fourteen years later) still mourned for her. He

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[86] Both advertisements are quoted in Michael Gross, "The 'Wet' and the 'Dry,'" *Photo-Era* 42 (January 1919): 13. I have not been able to find either advertisement yet. It is perplexing that the second advertisement lists Morse's Palace of the Sun on Broadway, when it was located on Nassau and Beekman Streets. This address was very close to Broadway, and it is possible that Morse or his assistant, either Samuel Broadbent or N. V. Young, wanted to align Morse's studio with those that were just beginning to proliferate on lower Broadway.

claimed the passing years had "scarcely healed the wounds which the loss of a most lovely wife . . . opened in my heart."[87]

Morse did eventually remarry. In 1848 he wed Sarah Elizabeth Griswold, a distant cousin who was a deaf-mute. An intriguing stereo-daguerreotype featuring Sarah and Morse's daughter Susan playing chess is in the collection of the New-York Historical Society (Fig. 1).[88] Morse's relative Cornelia Griswold Goodrich donated the stereo to the Society, and identified the sitters in an accompanying letter. Goodrich states the daguerreotype was taken "on the lawn of his country seat 'Locust Grove' Po-keepsie-on-Hudson . . . and were given to me (his niece) by S. F. B. Morse from his collection."[89] Though Goodrich cites several inaccurate facts in the letter (including that Morse taught Daguerre the process of photography), she was thirty years old at the time of Morse's death, and it can be presumed that she knew him well enough to have the basic facts of sitter and location correct.[90] Unfortunately, there is so little else known about the plate we are left with more questions than answers. This daguerreotype could not have been taken before 1848, when Morse married Sarah (and he did not purchase Locust Grove until 1847) – well after his direct involvement with daguerreotyping. The eldest Morse

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[87] Samuel F. B. Morse to Alphonse Foy, February 25, 1839, Morse Papers.

[88] Batchen notes how photographs of people playing chess, in particular William Henry Fox Talbot's image of Nicolaas Henneman contemplating his next move, is an attempt to make visible the act of mathematical thinking. "Electricity Made Visible," in *New Media, Old Media: A History and Theory Reader*, eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), p. 42, n. 23.

[89] Letter of Cornelia Griswold Goodrich, March 1905, Department of Prints and Photographs, New-York Historical Society.

[90] The exhibition catalogue *Photography and the American Dream, 1840-1940* (Amsterdam: Van Gogh Museum, 2001), p. 98, features a salted paper print with Morse as the subject, dated circa 1855 and attributed to Mrs. C. G. Goodrich, Poughkeepsie. The catalogue gives no justification for this attribution. It is doubtful that this photograph was made by the same Cornelia Griswold Goodrich who donated the daguerreotype to the New-York Historical Society, as she was born in 1842, and was probably not making salted paper prints in her early teens.

child had married Edward Lind and moved to Puerto Rico with him in 1842, and this daguerreotype would have been made on one of her annual visits to Poughkeepsie. There is no record of Morse ever having owned a stereo-camera, and no other stereo-daguerreotypes attributed to Morse or featuring members of his family have come to light. There are, however, compelling similarities between this plate and Morse's painting *The Muse*, particularly in the positioning of daughter Susan (Fig. 12). In both works the sitters are placed outdoors upon a platform or terrace. Susan is seated at roughly the same angle, engaged in a pleasant, intellectual pursuit, one arm bent in her lap, skirts spread wide. Despite the remarkable formal likenesses, though, the late date of this plate suggests that it is not by Morse, but likely by a visitor to the estate.

"Europeans have not yet succeeded": Portraiture, Priority and Nationalism

Early photo-historians spilled a good deal of ink attempting to establish who took the first successful photograph of a human face.[91] I am not interested in such questions of priority, though it should be noted that not a single contemporary historian believes Morse took the first photographic portrait (and while the matter is still debated, all would agree that Draper has a better claim than Morse).[92] Contemporary writers and critics, however, in that pervasive, nineteenth-century positivistic drive to categorize and label and *know*, wanted very much to identify this individual. More often than not, they turned to Morse for the answer: by the late 1840s and early 1850s, when critics began asking these questions, Morse had become well known for his work on the telegraph, and

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[91] This is particularly true of Robert Taft, *Photography and the American Scene* (1938 reprint, New York: Dover Publications, 1964), pp. 24-39, and Beaumont Newhall, *The Daguerreotype in America* (New York: New York Graphic Society, 1961), pp. 22-27.

[92] Among the American claimants for the title are Draper, Alexander Wolcott and John Johnson, and Robert Cornelieus, see Ibid. Regarding Daguerre's possible 1837 portrait, see Chapter Two, p. 80, n. 32.

perhaps it was of more interest to readers if a now-famous individual who had been involved in those early days could provide the answer. What *is* of great interest here, rather than establishing who did what first, is analyzing how Morse dealt with these queries, and what his responses may reveal about ideas of priority and photographic portraiture in the mid-nineteenth century, and how his responses relate to his larger goals regarding his personal ambitions and his desire to contribute to the advancement of the United States.

All throughout the 1840s and 50s, Morse remained embroiled in legal battles for rights to his telegraph, so questions of priority, recognition (monetary or otherwise) and intellectual property rights must have been constantly on his mind, particularly in relation to his long-time ambitions. Where photography and portraiture was concerned, Morse was often quite vague on the topic: he never claimed to be the Inventor of photography, or anything remotely close to it; he was always careful to give that honor to Daguerre. But if others wanted to give him the honor of having taken the first portrait, he would not dispute them. Henry H. Snelling, for example, who in 1849 wrote what is likely the first text on the history of photography in the United States, wrote to Morse and asked him who had taken the first portrait. Morse replied:

> If [my portraits] were the first, other experimenters soon made better results, and if there are any who dispute that I was first, I shall have no argument with them; for I was not so anxious to be the *first* to produce the result, as to produce it in any way. I esteem it but the natural carrying out of the wonderful discovery, and that the credit was after all due to Daguerre. I lay no claim to any improvements.[93]

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[93] Morse is quoted in Henry H. Snelling, *The History and Practice of the Art of Photography; or the Production of Pictures Through the Agency of Light* (New York: G. P. Putnam, 1849), p. 9.

Despite – or perhaps because of – Morse's carefully worded non-answer to the author's query, Snelling took it upon himself to declare that Morse had made the first portrait: "It is to Professor Samuel F. B. Morse," Snelling wrote, "the distinguished inventor of the Magnetic Telegraph, of New York, that we are indebted for the application of Photography, to portrait taking."[94] A few years later, Snelling published an article by an anonymous author in his new publication *The Photographic and Fine Art Journal* entitled, "Some Facts Connected with the Early History of Photography." Perhaps in response to Snelling's claim made in his text on the medium, the author of this article gives a very detailed account of Draper's work in photography, and strongly promotes the scientist's priority in photographic portraiture.[95] It is possible that the author was Draper himself, writing about his own accomplishments in the third person, in an attempt to set the record, as he saw it, straight.[96]

Despite this article, some authors still turned to Morse for answers concerning the first days of daguerreotyping in New York. Marcus Aurelius Root, a photographer and author of another early text on the medium, penned a letter to Morse and spoke with him in person, asking who had taken the first portrait. Morse was similarly cagey with Root, as he had been with Snelling, responding, "Whether [Draper] or myself took the first portrait *successfully*, I cannot say."[97] Root re-printed Morse's response, first in *The*

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[94] Ibid., p. 7.

[95] "Some Facts Connected with the Early History of Photography in America," *The Photographic and Fine Art Journal* 7 (December 1854): 381-382.

[96] Howard R. McManus, who has researched Draper extensively, claims that the author of the article is indeed Draper. See Howard R. McManus, "'It was I Who Took the First,' An Investigation into Professor Robert Taft's Assessment of Whether Dr. John William Draper Took the First Portrait," *The Daguerreian Annual* (1996): 74.

[97] "Who Made the First Daguerreotype in this Country?," p. 280.

Photographic and Fine Art Journal, and then in his 1864 text, *The Camera and the Pencil, or The Heliographic Art*. It is in this book that Root reproduced the engraving after one of Morse's early daguerreotypes discussed above; the daguerreotype portrait Morse reported having been made in September or October 1839. This date seems particularly early for Morse to have been producing portraits, as Daguerre's manual was not available until late September of that year. Whether Morse is misremembering the date he took the image of his daughter and her friends or not (deliberately or not), it is significant that he wants Root to know that he had successfully taken portraits from an extremely early date.

Root did not bother to ask Draper about the priority of portraiture, but asked him instead – several years after he had corresponded with Morse (though the delay might have been due to a railroad accident which had kept Root bed-ridded for several years in the interim) – about his work with the daguerreotype and the microscope.[98] A scant two weeks later, Draper did receive a query about who had taken the first portrait, from the Mechanic's Club of the American Institute in New York.[99] Draper's response was published in the first issue of *The American Journal of Photography*, and he eventually referred Root to that publication. In his reply, Draper, somewhat understandably, comes off as quite testy; he first instructs his readers to consult the 1854 account published in *The Photographic and Fine Art Journal*, and then he carefully lays out the dates and manner of his experiments with portraiture both before Daguerre's invention had been

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[98] Marcus Aurelius Root to John William Draper, April 15, 1858, Draper Family Papers, National Museum of American History Archives, Smithsonian Institution.

[99] Charles Seely to John William Draper, April 29, 1858, Draper Family Papers, National Museum of American History Archives, Smithsonian Institution.

announced and after, and he concludes by crossly wondering, "How any doubt can be now entertained as to who took the first portrait, passes my comprehension."[100] Draper's insistence on priority is surely due to his experience as a scientist, where reputation and prestige are based upon due credit for one's discoveries.[101] Indeed, Draper was known to take umbrage at his colleagues when he felt he was not credited properly; in an 1842 article, attempting to claim recognition for a discovery he believed had been wrongly attributed to another, he wrote the disclaimer, "It ordinarily happens that there is not other gain to philosophers beyond the *mere credit* of their discoveries, they may be forgiven for reluctantly endeavoring to secure this their only reward."[102] In addition, Draper seems to have felt badly betrayed by Morse's non-committal responses to journalists and authors, likely adding to his vehemence on the subject.[103] The last blow between the once-partners came in the early 1870s, after the publication of the 1873 article in *Scribner's* mentioned earlier. The author of this article, Benson J. Lossing, reported that Morse claimed to have succeeded in taking likenesses of the human face with the eyes shut, while Draper was first to take a portrait with the eyes open.[104] Draper immediately wrote to the magazine in his defense, and declared, "*It was I who took the*

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[100] John William Draper, "Who Made the First Photographic Portrait?" *The American Journal of Photography* 1 (June 1858): 6.

[101] Also, Draper may indeed have taken the first photographic portrait. McManus offers a compelling and exhaustively researched argument for just that; see "'It was I Who Took the First,'"

[102] John William Draper, "On Certain Spectral Appearances, and on the Discovery of Latent Light," *Philosophical Magazine* 21 (November 1842): 348.

[103] Draper's claim was also challenged by supporters of Wolcott and Johnson's priority, see McManus, "'It was I Who Took the First,'" p. 73.

[104] Benson J. Lossing, "Professor Morse and the Telegraph," *Scribner's Monthly Magazine* 5 (March 1873): 585.

first [photographic portrait from life], and that not merely in America, for none had been taken in Europe." He continued in a similar vein:

> Professor Morse never took a photograph until he learned the art in my laboratory, in which, at that time, he spent every evening. . . . Professor Morse never made any pretension to a knowledge of chemistry or optics. His life had been spent in the study of art, not in the severe discipline of science. . . . He was not the inventor of photographic portraiture.[105]

Lossing produced the letter from Morse upon which he based his article, which *Scribner's* dutifully published the following year.[106] Draper responded again, more vigorously than before. He pointed out the history of Morse's hedging on the topic of priority in photographic portraiture, including citing the statement Morse had given Root in 1855 ("Whether Draper or myself took *the first* [photographic portrait], I cannot say"). He attacked the now-deceased Morse quite harshly, and stated:

> In the scientific world it is recognized that priority of publication shall be considered as establishing priority of discovery or invention. . . . In these publications [of mine] the invention, of course, was openly claimed by me, and Professor Morse's name was never mentioned. He saw them while they were in manuscript, and again after they were printed, and put forth no counter claim. Indeed, I believe he never published anything on daguerreotype portraiture. . . . I regret to have to add that [this matter] caused an alienation between my old friend and myself. I was astonished that he had forgotten the numerous fine portraits I had made and shown him long before the glass studio [of Summer 1840] was built, and long before he had done anything in the matter himself.[107]

Morse had had more early success with the daguerreotype than the scientist relays; as noted in Chapter Two, while he might not have taken a portrait by then, Morse had taken

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[105] John W. Draper to the Editor, *Scribner's Monthly* 6 (May 1873): 124.

[106] Benson J. Lossing to the Editor, *Scribner's Monthly Magazine* 7 (March 1874): 630-631. The letter Lossing refers to was originally published in *The Philadelphia Photographer* 9 (January, 1872): 3-4.

[107] John W. Draper to the Editor, *Scribner's Monthly Magazine* 7 (March 1874): 631.

a view of a nearby Unitarian church in September 1839.[108] Again, though, what is of interest here is not so much who preceded the other in creating a successful portrait, but in how each dealt with the issue of priority. Draper, with his training and background in the sciences, was aware of the importance of publishing his results from the onset of his experimentation. Initially, Morse did not seem terribly interested in claiming any priority in regards to photography; he began to make his slippery statements about the issue only after he'd spent years fighting legal battles over the rights to his telegraph and struggling to gain the renown and national acclaim he'd always desired. By the time of his death in 1872, Morse had become more than accustomed to accepting the honors that came his way. After years of struggling for recognition, perhaps he chose the luxury of believing the often-apocryphal stories that circulated around him.[109]

During the time of the actual experimentation to realize photographic portraiture, 1839-1840, Morse only makes one known attempt to grab the title of "first." Significantly, he does not claim to be the first person in the United States to have taken a photographic likeness of a human being. Indeed, by April 1840, when the notice was published in the press, Alexander Wolcott and John Johnson had been operating a daguerreotype portrait studio for a month. Instead, the news mention read:

> Prof. Morse has succeeded in taking the miniature of his daughter, by improving upon the discovery of M. Daguerre. The picture is executed quite perfectly too, and as well delineated as the pictures of objects without

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[108] See the *New York Journal of Commerce*, September 28, 1839, p. 2. Draper seemed to forget that both he and Morse had made views of this church, as he wrote in 1873, "The view of the church . . . referred to was taken by myself, from the window of my lecture-room, which is now the small chapel in the University," John W. Draper to the Editor, *Scribner's Monthly* 6 (May 1873): 124.

[109] Specifically, his tenuous though widely accepted status as the "Father of American Photography," which is discussed further below.

> life. Europeans have not succeeded in taking Daguerreotype likenesses of persons.[110]

Here, Morse did not promote his priority in portraiture – nowhere did the notice indicate that he was the first to accomplish the task (though, as with his later recounts of his early attempts at portraiture, the wording is unspecific enough that a lazy reader might infer just that). Rather, the newspaper piece simply stated that, improving upon Daguerre's method, Morse had taken portraits, and Europeans had not. The implied victory, therefore, was only partially Morse's, but overwhelmingly America's. Morse continued in this vein when he responded to Root's query, some fifteen years later:

> The time for taking an out-door view was from fifteen to twenty minutes; and this [Daguerre] considered too long a time for any one to remain sufficiently still for a successful result. No sooner, however, had I mastered the process of Daguerre, than I began to experiment with a view to accomplish this desirable result.[111]

The credit for the discovery is due to Daguerre, yet Morse is able to master it; Morse lays no claim to any improvements, yet he took portraits by improving upon Daguerre's discovery; this semantic and ideological flip-flopping suggests that Morse was struggling between his desire to be recognized for his accomplishments in photography and his wariness of overly imposing upon Daguerre's own rights (as Morse would define them) as Lone Inventor of the medium. Morse truly did wish to contribute to America' progress by supplying some kind of cultural or technological advancement to the nation, and therefore, much as he couched his wishes for adequate remuneration for the telegraph in nationalistic terms – the glory would not be his but his nation's – Morse was more

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[110] *The New-York Observer*, April 18, 1840.

[111] Quoted in Root, p. 346.

comfortable deflecting any advancement he made with the daguerreotype onto a larger rhetoric of American progress.

This kind of nationalistic sentiment frequently is woven throughout much of the early writing on the United States and daguerreotyping. Indeed, the daguerreotype eventually became known as "The American Process," and American daguerreotypes far exceeded in quality those from other countries at the 1851 London Crystal Palace exhibition.[112] Of these, Horace Greeley penned his famous line, "In Daguerreotypes . . ; we beat the world."[113] Both foreign and U. S. commentators often attributed the success of American daguerreotypes to the quality of the newer country's atmosphere. As early as 1840, Sir John Herschel admired Draper's daguerreotype of Dorothy Catherine Draper by noting it did "credit to the brilliancy of your Transatlantic sunshine."[114] Ten years later this type of association had become widespread, as an American visitor to the London exhibition made explicit: "American daguerreotypes are much better than those of England – probably because our air and light are clearer."[115] Daguerreotypists and critics often bristled at this view, however, and argued that Americans' success with daguerreotypes had more to do with their mechanical abilities than with the quality of the atmosphere. Indeed, *The Photographic Art Journal* addressed this claim directly, noting that American daguerreotypists living abroad were still able to make superior pictures to

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[112] On the "American Process," see Richard Rudisill, *Mirror Image: The Influence of the Daguerreotype on American Society* (Albuquerque: University of New Mexico Press, 1971), p. 228; on the American daguerreotypes in the London Crystal Palace exhibition, see Rinhart and Rinhart, pp. 116-122.

[113] Horace Greeley, *Glances at Europe* (New York: Dewitt & Davenport Publishers, 1851), p. 26.

[114] Sir John Herschel to John W. Draper, October 6, 1840, John William Draper Family Papers, Manuscript Division, Library of Congress.

[115] William Drew, *Glimpses and Gatherings, During a Voyage and Visit to London and the Great Exhibition in the Summer of 1851* (Augusta, ME: Homan & Manley, 1852), p. 369.

their European colleagues, and also remarked: "We could name more than one English gentleman who has made attempts in New York to get daguerreotypes equal to those of our artists, and have been entirely unsuccessful."[116] Regardless of the fact that a Frenchman had invented the daguerreotype, Americans gladly claimed it as their own: "To the French philosophers are we indebted for the first application of this science, but to American operators do we owe the perfection to which it has attained. . . . [Our] country [stands] pre-eminent in the production of photographic pictures."[117]

As noted, there already existed a strong link between nationalism and portraiture, as exemplified by artistic projects such as *Delaplaine's Repository*. This link was amplified with the daguerreotype, which married portraiture to a new technological process, particularly one at which Americans excelled. Daguerreotypists continued the tradition established in the fine arts of producing pantheons of worthies, the first being Mathew B. Brady's *Gallery of Illustrious Americans*; Trachtenberg has labeled this undertaking "The first ambitious photographic project to take America itself as subject and theme."[118] As discussed in Chapter Two, technological innovation and American progress were inextricably woven together at this time and these ties only became stronger as the nineteenth century progressed.[119] The American concept of personal

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[116] "Photographic Re-Unions," *The Photographic Art Journal* 1 (March 1851): 140.

[117] "The Daguerrean Art – Its Present State and Future Prospects," *The Photographic Art Journal* 2 (August 1851): 99.

[118] Alan Trachtenberg, *Reading American Photographs: Images as History, Mathew Brady to Walker Evans* (New York: Hill and Wang, 1989), p. 45.

[119] For example, see Merritt Roe Smith, "Technological Determinism American Culture," essay in Merritt Roe Smith and Leo Marx, eds., *Does Technology Drive History? The Dilemma of Technological Determinism* (Cambridge, MA: MIT Press, 1994), pp. 3-15, and Merritt Roe Smith, "Technology, Industrialization, and the Idea of Progress in America," essay in *Responsible Science, The Impact of Technology on Society*, ed. Kevin Byrne (San Francisco: Harper & Roe Publishers, 1986), pp. 1-30.

identity was similarly strongly rooted, and with the advent of the daguerreotype, portraits of "worthies" included the everyday citizen; by the mid-1840s, families kept images of all their members within the comfortable confines of their own parlors. Everybody was worthy of a portrait, and now everybody could afford one. T. S. Aruthur's 1849 article made this clear:

> A few years ago it was not every man who could afford a likeness of himself, his wife or his children; those were luxuries known to those only who had money to spare; now it is hard to find the man who has not done through the "operator's" hands from once to half-a-dozen times, or who has not the shadowy faces of his wife and children done up in purple morocco and velvet, together or singly, among his household treasures. Truly the sunbeam art is a most wonderful one, and the public feel it is a great benefit![120]

The combination of these elements – progress, technology, innovation, selfhood, national and personal identity – proved so heady to the American public that daguerreotype portraiture boomed into an enormous industry.[121] Despite his probable feelings regarding the democratization of culture that was concordant with daguerreotype portraiture, it is no wonder Morse wanted to claim to have been at its forefront, even at the expense of a thirty-year friendship. And surely the zeal nineteenth-century American society had for these elements, particularly those of innovation and progress (in addition to the status nineteenth and early twentieth-century American culture placed upon its "great men"), was a motivator for so many contemporary writers to turn to Morse, over other photographers, for answers about the early days of photography. This is also the reason, perhaps, why Morse, over every other early photographer, earned the moniker

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[120] Arthur, p. 352.

[121] See Rinhart and Rinhart, pp. 90-91.

"Father of American Photography."[122] This title possibly originated from an 1872 article in *The Philadelphia Photographer*. The editors of the journal asked Morse to recollect his time as a daguerreotypist, and they arranged to have him photographed next to his daguerreotype camera (Fig. 26). They wrote, "[Morse] brought the infant [photography] carefully across the ocean to its native home, where it has thrived and grown immeasurably. For this we honor Professor Morse, and his memory shall be perpetuated in our minds as the Father of American Photography."[123] By this time, a year before Morse's death, his reputation as an icon of American progress was secure. After all, he had been responsible for the laying of the trans-Atlantic telegraphic cable, of making near-instantaneous communication possible around the country *and* between continents, the very definition of progress. As discussed in Chapter Two, the theoretical links between the instant replication of telegraphic words and photographic images were surely not lost on Morse, the editors of the journal, or the American public. Indeed, this link was part of the medium's appeal for Morse, as it connected his efforts for transcription in his paintings to the transcription of the telegraph. A wonderful 1858 article in *The American Photographic Journal*, describing the Broadway photographers' celebratory displays to mark the laying of the Atlantic telegraphic cable, makes this connection explicit. Jeremiah Gurney's gallery, for example, projected a transparency which read, in part, "Daguerre and Morse/One harnessed the Light, and the other the Light-ning," followed by "The Atlantic Cable: May its 'continuity' be as perpetual as the rays of the Sun." Frederick's Photographic Temple of Art featured a display containing a transparency that read, "Europe and America/Daguerre and Morse," over the image of a

[122] This title remained in active use through the mid-20th century, for example see Taft, p. 38.

[123] *The Philadelphia Photographer* 9 (January 1872): 4.

camera obscura resting upon a coil of cable.[124] The country had succeeded so highly in the field of photography that by the late nineteenth century it needed a father; of the early American daguerreotypists, Morse – artist, inventor, and symbol of progress - was the most satisfying choice.

Curiously, the camera in the image that accompanied the 1872 *Philadelphia Photographer* article is resting on its side, which is telling of the long period of Morse's practical inactivity with the medium.[125] His reasons for abandoning the medium appear to be complex; on the surface it seems as though Congressional interest in his telegraph re-awakened, and while this seemed the most appropriate path to achieve his goals, he poured all of his energies in that direction.[126] But as discussed, Morse may have been disinclined to continue working in a medium that was quickly moving away from the realm of fine art, where he desired it, and into the domain of popular culture. While this is not to detract from the fact that Morse was most definitely in the vanguard of photographic practitioners in the United States, and did contribute enormously to the medium's advancement and status in this country, it would certainly be galling for someone like Draper, in later years, to watch as Morse received the lion's share of the credit for what were often collaborative efforts. Indeed, in practical terms, Draper accomplished much more with the daguerreotype than his inconstant business partner. Draper's experimentation and achievements with photography, and what these say about

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[124] "The Atlantic Cable and Photography," *The American Journal of Photography* 7 (September 1, 1858): 111-113.

[125] Morse maintained an active interest in the photograph through the 1850s – he served as a judge for several photographic competitions, and was actively involved in the debate surrounding Levi Hill's color daguerreotypes on the early 1850s. I have found nothing to suggest that he created a daguerreotype, however, after late 1841.

[126] The daguerreotype's status as a visual product, and American culture's privileging of technology over the visual as a factor in Morse's decision, is discussed in Chapter Five.

the intersection and fracturing of arts and sciences in mid-nineteenth century America, are the subject of the following chapter.

Chapter Four: John William Draper and the Photograph: Science

John William Draper (1811-82) and Morse both experimented with the reaction of particular chemicals to light before the 1839 announcements of Daguerre and Talbot's processes, and therefore both are considered proto-photographers, or those who in some way tinkered with aspects of the medium prior to 1839.[1] There are subtle but important differences, however, in the way each approached their experimentation with what would evolve into the photographic process. What little we know about Morse's experimentation has been described in Chapter One: in 1821-22, while living with his parents in New Haven, Morse conducted tests with his former professor, Benjamin Silliman, in an attempt to produce an image using the camera obscura (the pairing of Morse, an artist in the first bloom of his career, with Silliman, arguably the country's leading scientist at that time, in proto-photographic experiments, is a neat foreshadowing of Morse's later partnership with Draper).[2] Morse was using a camera obscura about the time of his proto-photographic experiments in order to obtain views of the interior of the Hall of Representatives in the United States Capitol Building, which he put to use in his 1821-23 painting *The House of Representatives*. As discussed, Morse's proto-photographic activity was in accordance with his interest in mechanical replication and communication of a subject in the service of his larger goals of personal renown and contributing a product of lasting significance to his nation, interest that also prompted his use of the camera obscura for his most important paintings, his attempt to invent a

[1] Geoffrey Batchen classifies both Draper and Morse as such; see *Burning with Desire*, *The Conception of Photography* (Cambridge, MA: MIT Press, 1997), p. 50.

[2] The significance of the artist-scientist pairing in early American photography, particularly as it relates to the production of images and the development of the medium, is discussed fully in Chapter Five.

machine to replicate sculpture, and his eventual invention of the electro-magnetic telegraph.

The case of Draper's proto-photographic experiments is quite different. With a background and training first in chemistry and then at medical school, Draper had long been interested in the application of light to varying chemicals. He published several articles on the subject in leading nineteenth-century scientific journals, such as *The Journal of the Franklin Institute* and the *American Journal of Medical Science*. The most significant of these, in terms of his proto-photographic work, is his 1837 series entitled "Experiments on Solar Light." Here, according to Draper, "I . . . examined the impressions of the solar spectrum, proved the interference of the chemical rays, investigated the action of moonlight and of flames . . . and also the effects of yellow and blue solutions, and other absorbing media."[3] The first article in this series (June 1837) contains a description of an experiment in which some of the basic principles of photography are utilized: Draper allowed a beam of light, made horizontal via a tilted mirror, to pass through an aperture with a lens into a shuttered room. In this literal camera obscura, or darkened room, the beam of light passed through a thin slit cut into a metallic screen, after which it was split in half by a trough containing liquid, so that "half the light . . . may pass though the liquid contained in the trough, and the other half pass by its side unintercepted [sic]." Each half of the now-split beam would fall onto a prism placed behind the trough. "The prism decomposes both, and there falls on the pasteboard screen [placed behind the prism], two spectra side by side . . . One of them has been acted

[3] John W. Draper, "Who Made the First Photographic Portrait?" *The American Journal of Photography* 1 (June 1858): 3.

upon by the fluid in the trough, the other is undisturbed."[4] Draper proceeded to fill the trough with different combinations of chemicals in liquid form, and as some chemicals altered the appearance of the spectrum by absorption, he compared the "disturbed" spectrum to the "undisturbed" spectrum, as projected onto the pasteboard screen.

In the second article in this series, from July 1837, Draper repeated the basic process described in the first, only minus the trough of liquid that split the beam of light and created two spectra. Instead, Draper allowed one undisturbed beam of light to create a spectrum, which fell upon a piece of paper treated with a salt of silver chemical solution, bromide, chloride and nitrate alternately. Here he examined which rays within the solar spectrum affected the chemicals most severely, by means of noting which created discoloration on the treated paper.[5] In the next and last article in the series that pertains to proto-photographic work, from August 1837, Draper exposed samples of similarly treated paper to moonlight and variously colored flames.[6]

In none of these articles or experiments does Draper express a desire to "fix" the image, though it does seem reasonable that, given his interest in chemical reactions to light, he might try to do so. The only evidence we have of such an attempt comes from an article published in 1858, when Draper was attempting to defend his claim as the first to make a photographic portrait. Regarding his 1837 experiments and others, he wrote:

The difficulty at this time was to fix the impressions. I had long known what

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[4] John W. Draper, "Experiments on Solar Light," *Journal of the Franklin Institute* 19 (June 1837): 471.

[5] John W. Draper, "Experiments on Solar Light," *Journal of the Franklin Institute* 20 (July 1837): 45.

[6] John W. Draper, "Experiments on Solar Light," *Journal of the Franklin Institute* 20 (August 1837): 114-115.

> had been done in the copying of objects by Wedgewood [sic] and Davy, had amused myself with repeating some of their experiments, and had even unsuccessfully tried the use of hyposulphite of soda, having learnt its properties in relation to the chloride of silver from Herschel's experiments, but abandoned it because I found it removed the black as well as the white parts.[7]

The language Draper uses in this passage is telling: he "amused" himself by repeating the experiments of Wedgwood and Davy. This word choice seems to indicate that Draper regarded image making itself as secondary to the more serious scientific pursuit of chemical reactions to light. His initial interest in photography, then, was not focused on the production of images *per se*, but on the chemical reactions that were soon to be discovered as the basis for those images.

Draper's documenting of his achievements via scholarly publication would be standard throughout his long involvement with the medium. As briefly described in the previous chapter, such actions are a customary part of the field of science in order to gain credibility and build one's professional reputation. But as this chapter demonstrates, Draper's work with photography grew from a purely scientific analysis of chemical reactions and the action of light to a more complex and wide-ranging interest in image making via those actions and reactions. Some of these images were created to serve a purely positivistic drive on Draper's part, the desire to make visual and record the inner and outer workings of people, plant-life, animals, insects and astronomical bodies. But other images seem to serve no purpose than just that: simply being images. This is particularly true of *Composition*, a daguerreotype produced in the early to mid 1840s that is the partial subject of Chapter Five (Fig. 43). And some, such as Draper's portraiture,

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[7] "Who Made the First Photographic Portrait?," p. 3. Tom Wedgwood and Humphry Davy published an essay in the *Journals of the Royal Institution of Great Britain* in June 1802 that recorded experiments in copying images by means of the chemical reaction to light. This is generally thought to be the first published accounts of proto-photographic experiments. See Batchen, pp. 26-31.

are a complex blend of these two factors, images that serve both as scientific "proofs" and as aesthetically pleasing objects. The present chapter examines Draper's first daguerreotype attempts, his work in portraiture and his contributions to scientific photography. In so doing, I examine Draper's daguerreotypes both formally and contextually, and consider the role of scientific photography - an aspect of the medium that is often untreated by art and photo-historians – in the larger context of early American photography and culture.[8] Of particular interest, in both this chapter and my dissertation overall, is the exchange between the sciences and the humanities in the initial development of the medium in the United States. How did this exchange affect photography's advancement? What were the larger cultural forces at play that led to the strict division of images associated with these varying disciplines, and what kinds of images were produced when the boundaries between disciplines were more fluid?

Early Views & Portraiture

Draper became seriously invested in pursuing the image-making aspect of photography when he first heard of Talbot's success, and recalled in a later article: "[Talbot's experiments] interested me greatly, as having been at work on the action of light for so many years." Draper attempted to repeat Talbot's process, and he also attempted to improve upon it: "I tried to shorten the long time required for setting the picture of a house or a tree, by using a lens of large aperture and short focus." Significantly, Draper reminded his reader that these elements were "the germ from which the art of portraiture eventually arose," and reported that while he could achieve images,

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[8] Some important sources that do consider the role of scientific photography are, Jon Darius, *Beyond Vision* (Oxford: Oxford University Press, 1984), M. Susan Barger and William B. White, *The Daguerreotype: Nineteenth-Century Technology and Modern Science* (Baltimore: The Johns Hopkins University Press, 1991), and Ann Thomas, ed. *Beauty of Another Order, Photography in Science* (New Haven: Yale University Press, 1997).

they were "too large and too faint." He also recalled that "there was no difficulty in getting the outline of a part of a person standing against a window, but then it was a silhouette and not a portrait, like those spoken of in Mr. Talbot's paper."[9]

Unable to achieve the results he wanted with Talbot's methods, largely due to an improper lens, Draper waited anxiously for the publication of Daguerre's process. When the manual arrived in late September of 1839 he, like Morse and Seager, was able to take views of nearby buildings almost immediately: "I succeeded with no other difficulty than the imperfection of the silverplating [sic] in copying brick buildings, a church, and other objects seen from my laboratory windows."[10] The church referred to is the same that comprised the subject of Morse's first successful plate, the Unitarian Church of the Messiah, at 728 Broadway. An obituary on Draper described his trials in detail:

> Putting an ordinary spectacle lens in a cigar box Dr. Draper began to experiment and succeeded easily in obtaining views from the east windows of the University Chapel. There was more of a view in those days than at present. The New York Hotel was then unbuilt [sic] and the houses on the south side of Washington place did not extend back far enough to obscure a view of the old Unitarian Church [of the Messiah], which used to stand on the east side of Broadway opposite the present site of the hotel. From these windows Dr. Draper took many and many a picture with his cigar box camera.[11]

One of these early views survives in the Draper Collection at the Photographic History Department, National Museum of American History, Smithsonian Institution (Fig. 27). This plate features a view of Broadway, and does indeed capture the Unitarian Church of

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[9] "Who Made the First Photographic Portrait?", p. 3. Draper is referring to Talbot's 1839 paper, "Some Account of the Art of Photogenic Drawing," in which Talbot notes: "Another purpose for which I think my method will be found very convenient, is the making of outline portraits, or *silhouettes*." Reprinted in *Photography: Essays & Images*, ed. Beaumont Newhall (New York: The Museum of Modern Art, 1980), p. 26.

[10] Ibid., p. 4.

[11] "Obituary, Professor John William Draper," *New York Herald*, January 5, 1882, p. 5.

the Messiah (Fig. 10). Draper's lab was "on the ground floor, beneath the small chapel."[12] Another, more perplexing early daguerreotype survives in the same collection at the National Museum of American History, featuring an unidentified landscape. This barely discernable plate shows large houses on the near and far shores of a body of water, and possibly showing views of Brooklyn from Manhattan.[13]

Draper, however, was not interested in simply duplicating Daguerre's process, but (as with Talbot's) in advancing it, and almost immediately set his sights upon obtaining a portrait. As discussed earlier, several other New Yorkers joined him in this desire, including Morse, Wolcott and Johnson.[14] One of the main aspects of Draper's experimentation that differentiates him from these others, however, is his regular publication of his findings; as a result of this, we have more information about the particulars of what Draper was attempting, and when, and how.

Draper's first attempts at portraiture took place indoors, in the chapel of the University building. Unsure about how much illumination was necessary, he dusted the face of his sitter – assistant William H. Goode – with flour, thinking the whiteness would create a sharper image.[15] He soon found that whitening the face was unnecessary, and

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[12] John William Draper to William Allen Butler, April 5. 1872, John William Draper Papers, New York University Archives.

[13] Morse attempted such views from the rooftop of the University in January of 1840, and it seems reasonable to believe that Draper would have as well. See "Memoranda of the Daguerreotype," notebook in Samuel F. B. Morse Papers, Manuscript Division, Library of Congress.

[14] Philadelphia was the other hot-spot for early experiments in daguerreotypes in general and portraiture in particular. See William F. Stapp, et. al, *Robert Cornelius, Portraits from the Dawn of Photography* (Washington, D.C.: Smithsonian Institution, 1983), and Floyd Rinhard and Marion Rinhart, *The American Daguerreotype* (Athens, GA: The University of Georgia Press, 1981), pp. 22-89.

[15] "Who Made the First Photographic Portrait?", p. 4, and John W. Draper, "On the Process of the Daguerreotype, and its Application to taking Portraits from the Life," *The London and Edinburgh Philosophical Magazine and Journal of Science* 17 (September 1840): 222. On Goode, see Howard R.

discovered instead that "by increasing the illumination and prolonging the time [of exposure] I could get the whole countenance."[16] But the impressions were not ideal; Draper was using a five-inch lens with a seven-inch focus, and though he was able to obtain an imprint with this grouping, "nothing like a good picture was possible."[17] He then switched to a four-inch lens with a fourteen-inch focus, moved his experimentation outdoors, and, after several days of trial-and-error, eventually found that with this combination "perfect miniatures can be procured, *in the open air*, in a period varying with the character of light, from 20 to 90 seconds." While the four-inch aperture allowed in too much light and created a shadow about the sitter's eyes (from their own forehead and eyebrows), Draper marveled at the daguerreotype's ability "to show each button, button-hole, and every fold."[18]

In order to illuminate the entire face and eliminate the pesky shadows in the eye area, Draper used mirrors to reflect the sun's rays into the sitter's eyes. He found that two mirrors served this purpose best, one to direct the rays upwards, and the other which would reflect those rays "at an invariable course towards the sitter."[19] Draper utilized blue glass or, alternately, a diluted fluid mixture of ammoniaco-sulphate of copper, to lessen the impact of the direct sun on the sitter. With such mirrors and filters in place (clearly ideas borrowed from his 1837 experiments), the camera set at an appropriate

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McManus, "'It was I Who Took the First,' An Investigation Into Professor Robert Taft's Assessment of Whether Dr. John William Draper Took the First Portrait," *The Daguerreian Annual* (1996): 84-87.

[16] "Who Made the First Photographic Portrait," p. 5. Goode recalled, in later correspondence, that this experimentation took place "within three days of the time Daguerre's pamphlet was received in New York." Goode is quoted in McManus, p. 86.

[17] "Who Made the First Photographic Portrait," p, 5.

[18] "On the Process of the Daguerreotype," p. 223.

[19] Ibid.

angle, and the aperture narrowed to three and half inches, it took anywhere from forty seconds to two minutes to obtain a portrait. If only one mirror was utilized, the exposure time was far less.[20] By December of 1839, at least, Draper had succeeded in taking portraits he felt were worthy of reporting to the scientific world. He sent a notice to the *London and Edinburgh Philosophical Magazine and Journal of Science* in late March of 1840, and informed them "[I] succeeded during the winter in procuring portraits by the Daguerreotype . . . and [they] only require from 20 to 45 seconds for execution."[21]

It is probably somewhere around this time, the winter of 1839-40, that Draper and Morse met. As described in Chapter Two, their portrait studio was established on the rooftop of the University building by late March or early April 1840. Interestingly, Draper provided a more thorough description of the partners' studio than Morse ever did; it is through Draper we know the two men used "a turret-room [of the University building] for a work-shop, and had a hastily constructed shed, with a glass roof, for the operating room."[22] As with Morse, though, Draper only provided these kinds of details regarding their studio in later remembrances of this period, when it became clear they might be of historical interest. He also, like Morse, casually mentioned instructing others in the daguerreotype process, but offered a frustrating lack of details on this aspect of their

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[20] Ibid., p. 225.

[21] "Portraits in Daguerreotype," *The London and Edinburgh Philosophical Magazine and Journal of Science* 16 (June 1840): 535. According to McManus, Draper's not reporting his success in portraiture until the spring of 1840 has caused confusion among historians as to who is responsible for taking the first photographic portrait. McManus, who strongly believes that Draper can claim priority, differentiates between what he labels Draper's "experimental" portraits in September of 1839, and his "practical" portraits created in the winter of 1839-40. See McManus, p. 83.

[22] Draper is quoted in his own obituary, "Dr. John Draper Dead," *New York World*, January 5, 1882, p. 5.

practice.[23] What he did acknowledge in these later accounts (that Morse glossed over) was Morse's focus on telegraphy during this period; in several instances, Draper obliquely referred to his own involvement in that invention's development.[24] Again, as Draper became concerned, in later years, with protecting his reputation as the first to accomplish a photographic portrait, he often stressed Morse's lack of scientific knowledge and divided attention at the time of their daguerreian experimentation in order to deflect any perceived attack on his own claim.

While these later accounts both Morse and Draper provided of their early photographic work and studio are fascinating and offer many insights of great use to the historian – a practical description of the studio, Morse's simultaneous work on telegraphy and photography, both men's role as instructors of the medium – they are, of course, colored by the passage of time. The repeated, later claims on both Morse and Draper's parts of their studio operating under a strict artistic/scientific and technological divide are a bit too pat to be believed.[25] After all, the photograph – particularly the daguerreotype –

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[23] "On dark days we used to teach the art to would-be daguerreotypers, as they were then called," Ibid. Similarly, Morse noted, "I practiced [daguerreotyping] for many months, taking pupils, many of whom, at this day, are among the most prosperous photographers," *Philadelphia Photographer* 9 (January 1872): 3.

[24] For example, Draper wrote, "[In winter 1839-1840] Professor Morse was completely involved with the invention of his telegraph; he had his apparatus in my laboratory," John William Draper to the Editor, *Scribner's Monthly* 7 (March 1874): 631; and also, "In my laboratory in the University building, and elsewhere with my help, Morse carried into effect the experiments that were needful to establish the practicability of the electric telegraph," Draper is quoted in "Dr. John Draper Dead," p. 5. Of course, Draper is not incorrect in his claim that he aided Morse's work on the telegraph. He published "On the Law of the Conducting Power of Wires," *American Journal of Science* 45 (1843): 392-94, which was an annex to Morse's larger article, "Experiments Made with One Hundred Pairs of Grove's Battery, Passing though One Hundred Sixty Miles of Insulated Wire," *American Journal of Science* 45 (1843): 390-392. Draper's appendix proved mathematically that Morse's wires could transmit over great distances, setting the stage for the trans-Atlantic cable.

[25] Draper claimed, "[Morse] was not familiar with either chemical or optical science, and took an interest in photographic portraiture only from an artistic point of view," *Scribner's Monthly* 7 (March 1874): 631; and "[Morse] supplied the aesthetic part, posed the sitters and all that, while I took the pictures," Draper quoted in "Dr. John Draper Dead," p. 5; Morse discusses this divide after their partnership dissolved,

is both a product of science and technology and, in the end, an image. As mentioned, this exchange will be discussed extensively in Chapter Five, but it is also relevant to Draper's work in portraiture. One must, then, examine the remaining texts and images carefully for an indication of how Draper approached the photographic portrait.

As with Morse, very few extant portrait daguerreotypes by Draper survive. There are only two that can be attributed to Draper with certainty: the well-known portrait of his sister, *Portrait of Dorothy Catherine Draper* (Fig. 28), and a portrait of an unidentified man (Fig. 29). The portrait of the unidentified man shows the figure seated in a three quarter-length view; he appears to be staring fixedly over the viewer's right shoulder. The sitter rests his elbows on the arms of the uncomfortable daguerreian chair, and clasps his hands together on his lap in an affable and relaxed manner. The scene is not elegantly arranged; the top of the sitter's head is positioned roughly halfway down the plate, leaving an awkward amount of indeterminate space in the upper third of the image. Much of the plate has been damaged, but in the background area to the right side of the sitter a small section of railing is discernable. It is likely, then, that this image was taken on the rooftop studio Morse and Draper had together, rather than indoors, where Draper was also known to experiment with portraits.

Draper's *Portrait of Dorothy Catherine Draper*, on the other hand, is quite elegantly arranged. It features the tighter view of a well-centered half-length portrait, without the unnecessary surrounding space apparent in the portrait of the unidentified man. Dorothy Catherine probably rests her elbows on the arms of the same chair as the

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noting, "[Draper pursued daguerreotypes] as to their bearing on some philosophical investigations . . . with great ingenuity and success, [and] *I* was left to pursue the *artistic* results of the process, as more in accordance with my own profession," Samuel F. B. Morse to Marcus Aurelius Root, February 10, 1855, *The Photographic and Fine Art Journal* 8 (September 1855): 280.

man (or at least a very similar one), and also clasps her hands in her lap. Part of the portrait's charm lies in the abundance of detail visible in Dorothy Catherine's elaborate costume: the flowers and pleated fabric of her bonnet that surrounds her face, the bonnet's long ribbon draping over her right shoulder, the two V's of lace that decorate the bodice of her light-colored dress, and that dress's fanciful, be-ribboned puffed sleeves. Part of the picture's appeal is also due to the sitter herself, though. Dorothy Catherine looks out at the viewer with a simple, direct and friendly gaze. Perhaps it is because she is surrounded by decorative layers of feminine garb, or perhaps it is due to the slight smile on her lips, but Dorothy Catherine appears much more relaxed, calm and welcoming than do many sitters in daguerreotypes from this period.

The appealing nature of this daguerreotype may account, in part, for the enormous amount of attention it has received over the years. But more likely that attention is due to its having been misclassified as the first portrait ever taken. As Howard R. McManus demonstrates, this misidentification can be traced to an error made by New York University Chancellor Henry M. MacCraken, who arranged to exhibit the photograph in the 1893 World's Columbian Exposition in Chicago.[26] Sir William Herschel, the owner of the daguerreotype who generously agreed to loan it to the Exposition, tried to correct Chancellor MacCraken to no avail. Whether the Chancellor disagreed with Sir William Herschel, or whether he deliberately ignored him – after all, having the first photographic portrait be so affiliated with his University would be a major feather in his, and the institution's, cap – is unknown. The daguerreotype was exhibited as the Chancellor planned, and in being labeled as the "first" it excited a tremendous amount of notice in

[26] Howard R. McManus, "The Most Famous Daguerreian Portrait: Exploring the History of the Dorothy Catherine Draper Daguerreotype," *The Daguerreian Annual* (1995): 149-171.

the press. This mistake has continued to be perpetuated, in a variety of manners, throughout the history of photography. Sometimes it is called the first, sometimes it is called Draper's first, or it is said that Draper called it his first, and so on.[27]

In actuality, Draper never assigned the portrait any particular priority. He merely offered it to Sir John Herschel and the public as a supreme example of his ability in the medium. The picture was probably produced in the late spring or early summer of 1840, while Draper was working with Morse. In July of 1840, he sent the plate to the editor of *The London and Edinburgh Philosophical Magazine*, to whom he had recently sent a long article on the process of daguerreotyping. He hoped they would include an "editorial note [to his article] giving a brief statement of the appearance of these portraits."[28] He also asked that the editor forward the plate and an accompanying note to Sir John Herschel, one of England's most pre-eminent men of science, whom Draper admired greatly. In this letter, he offered the portrait of Dorothy Catherine partially as a scientific specimen, a "proof" as he labeled it, "as an acknowledgement of the pleasure with which I have read so many of your philosophical researches."[29] Draper was also anxious to challenge one of Herschel's recently published claims regarding the necessity of an achromatic lens in photography. He informed Herschel that the Dorothy Catherine portrait had been achieved with a non-achromatic lens, that is, a lens that did not correct for different wavelengths of light, which are variously bent when passing through a lens.

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[27] For example, see Barger and White, p. 184.

[28] John W. Draper to the Editor of *The London and Edinburgh Philosophical Magazine*, July 1840, John William Draper Family Papers, Manuscript Division, Library of Congress. Apparently the plate did not reach the editor in time to meet this request; see McManus, "The Most Famous Daguerreian Portrait," p. 152.

[29] John W. Draper to Sir John Herschel, July 1840, John William Draper Family Papers, Manuscript Division, Library of Congress.

Obviously, Draper was quite proud of his accomplishments in portraiture, and though he called the portrait "not better in point of execution than those ordinarily obtained," he must have deemed it remarkable on some level not only to send it to a man whose work he respected highly, but also to contest that man scientifically. Certainly it is a much more successful image, aesthetically speaking, than the portrait of the unidentified man. Elsewhere in the letter, Draper was less modest in regards to his success with the portrait:

> I believe I was the first who succeeded here in obtaining portraits from the life. This plate will show you how near to perfection the art is progressing – a close examination will at once satisfy you that no aid whatever of an artificial kind – no touching with the pencil is resorted to.[30]

Herschel was quite impressed with the plate, and called it:

> beautiful and exquisite . . . by far the most satisfactory *portrait* which I have yet seen, and considering the shortness of the sitting does equal credit to the brilliancy of your Transatlantic sunshine and to your own perfect mastery of the details of that most surprising process.

Yet he answered Draper's point regarding the non-achromatic lens by pointing out the image's flaws, and stated they could be corrected if an achromatic lens was utilized:

> For instance the bright speck in each eye [of the portrait] *ought*, if the figure were rigid and the camera perfect, to exhibit a picture of the external landscape as seen through the window of the apartment. But this may be considered as too severe a test for a living figure.[31]

Draper did not seem to mind Herschel's mild criticism, and in later years he would send Herschel at least one other image of scientific interest he had created, as discussed below (the two also met in person when Draper traveled to London in 1857).[32]

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[30] Ibid.

[31] Sir John Herschel to John W. Draper, October 6, 1840, John William Draper Family Papers, Manuscript Division, Library of Congress.

[32] Donald Fleming, *John William Draper and the Religion of Science* (Philadelphia: University of Pennsylvania Press, 1950), p. 65.

It is through Draper's initial work in portraiture, however, that a subtle shift on his part becomes apparent, a shift from an interest in photography solely as a chemical, scientific exercise (an exploration of the reaction of chemicals to light and of the various wavelengths of light to chemicals) to a more profound interest in image making. All photographs are, in the end, images of something. In the case of Draper and portraiture, he moved from the desire simply to create a portrait, from wanting to develop the science and technology to the degree of being able to record the countenance of a living person successfully, to the desire to create a *pleasing* portrait. Such a desire likely accounts for his waiting to report to *The London and Edinburgh Philosophical Magazine* his success in photographic portraiture; as stated, while he was able to obtain an image of a living person in the autumn of 1839, "nothing like a good picture was possible."[33] He waited to publish his findings until he was able to attain portraits that, as he put it, "have all the beauty and softness of the most finished mezzotint engraving."[34] This kind of language, which aligns the photographic portrait with an artistic print, is indicative of a subtle move on Draper's part from regarding the end result of his experimentation as strictly objective to a more complicated blend of subject/object: artistic subject *and* scientific object.[35] This shift, expressed in similar word choices (surely partially due to his involvement with Morse, as will be discussed at length in the following chapter), is also apparent in the longer article Draper published on making portraits by daguerreotype. For example, it is

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[33] "Who Made the First Photographic Portrait," p. 5

[34] "Portraits in Daguerreotype," p. 535.

[35] I borrow this concept from Catherine de Zegher, "Ocean Flowers and Their Drawings," essay in *Ocean Flowers, Impressions from Nature*, eds. Carol Armstrong and Catherine de Zegher (Princeton: Princeton University Press, 2004), p. 76; see also Carol Armstrong, "Cameraless: From Natural Illustrations and Nature Prints to Manual and Photogenic Drawings and Other Botanographs," essay in *Ocean Flowers*, pp. 87-165.

surely no accident that he posed both the unidentified man and Dorothy Catherine with their hands carefully folded in their laps. As discussed in Chapter Three, Draper noted in his article that the hands should never rest on the chest, for the sitter's breathing would distort their appearance in the photograph, "destroying also the representation of the veins on the back, which, if they are held motionless, are copied with surprising beauty." While Dorothy Catherine sports a pair of lace-trimmed gloves, we are indeed able to make out the details on the backs of the male sitter's hands. Draper continued in this light, informing his audience, "certain pictorial advantages attend an arrangement in which the light is thrown upon the face at a small angle. This also allows us to get rid entirely of the shadow from the background, or to compose it more gracefully in the picture."[36] Again, it is Draper's use of language – phrases such as "pictorial advantages," "compose [the image] more gracefully" – that indicates he was, to a certain extent, now thinking like an image-maker as well as a scientist.

Scientific Images

Draper quit his partnership with Morse in September or October of 1840, when he was required to resume his teaching duties full time.[37] During and prior to his brief tenure as a commercial portraitist, Draper remained active in the area of scientific photography. While he does not appear to have made further portraits after his work with Morse, Draper continued his researches using the daguerreotype in science through the late 1850s.

Photography's complex relationship with the sciences began from the onset of Arago's January 1839 announcement of Daguerre's process (of course, depending on

[36] "On the Process of the Daguerreotype," p. 224.

[37] "Dr. John Draper Dead," p. 5.

how one defines "photography," it could stretch back even further, to the proto-photographers' chemical experiments). Arago began his July 3, 1839 speech to the French Chamber of Deputies, in which he asked them to consider granting Daguerre and Isidore Niépce a lifetime pension for the rights to the daguerreotype, in part by wondering whether the process would be beneficial to the sciences (as well as to the fine arts and archaeology). He went on to outline photography's potential usefulness to microscopic studies, physics, topography, and astronomy ("We may hope to be able to make photographic maps of our satellite. In other words, it will be possible to accomplish within a few minutes one of the most protracted, difficult, and delicate tasks in astronomy").[38] Many of the earliest practitioners of the medium were professional or amateur scientists, and used photography to deepen their respective fields in the multitude of ways envisioned by Arago, and then some.[39] Draper was certainly one of the most groundbreaking and pioneering among these early practitioners. He explored photography's application to the sciences from a diverse range of perspectives. In addition to his innovative work in portraiture, Draper took the first daguerreotype of the diffraction spectrum, and the first successful astronomical daguerreotypes featuring the moon; he was in the vanguard of experimenting with microscopic photography, the taking of daguerreotypes by artificial light, enlarging and duplicating daguerreotypes, and was essential in revealing by photography infa-red and ultra-violet rays. Finally, Draper

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[38] Dominique François Arago, "Report," July 3, 1839, reprinted in Alan Trachtenberg, ed., *Classic Essays on Photography* (New Haven: Leete's Island Books, 1980), pp. 15-25.

[39] As the sciences were becoming professionalized in the early to mid-nineteenth century, the distinction between amateur and professional was somewhat fluid. For example, see Ralph S. Bates, *Scientific Societies in the United States* (New York: The Massachusetts Institute of Technology, 1945), pp. 1-84, and David Cahan, ed. *From Natural Philosophy to the Sciences: Writing the History of Nineteenth-Century Science* (Chicago: University of Chicago Press, 2003).

was responsible for defining the principle that stated only absorbed rays produce chemical change. This was known throughout the nineteenth century as Draper's Law, but eventually became known as the Grothuss-Draper Law, in deference to German scientist C. J. D. Grotthuss who came to the same conclusion prior (though unbeknownst) to Draper.

The realm of scientific photography is vast, and its development under the auspices of art history and photo-history is only just beginning to be explored. Very few early practitioners making scientific images have been studied. Those who have received the majority of attention in terms of photography's very early history are also those who had a direct connection with the discovery of the medium itself; namely, Englishmen William Henry Fox Talbot and Sir John Herschel. Talbot introduced a different kind of photographic process, photogenic drawing, at the same time that Daguerre's single-plate process was announced. Talbot, who was extremely learned, used his process to explore microscopic photography, and he also made photogenic drawings of botanical specimens. Herschel was Britain's leading man of science.[40] His contributions to photography include the discovery of the fixing agent for the development of a photographic image (hyposulfite of soda or "hypo"), the invention of the cyanotype, and some of the most commonly used photographic nomenclature: photography, positive, negative, and snap-shot.[41] Despite a genuine interest in the medium, however, Herschel did not produce a

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[40] Herschel scholar Larry J. Schaaf refers to him as "the very embodiment of science [in early and mid-nineteenth century England] – Herschel and science were interchangeable terms, both to the man on the street and throughout the professional community." Larry J. Schaaf, *Tracings of Light: Sir John Herschel and the Camera Lucida, Drawings from the Graham Nash Collection* (San Francisco: The Friends of Photography, 1990), p. 9.

[41] Larry J. Schaaf, "Invention and Discovery: First Images," essay in *Beauty of Another Order*, p. 44.

wide amount of images, as his numerous other projects demanded his attention. Talbot and Herschel's fellow British practitioner Anna Atkins has also received notice in recent years. Atkins, an accomplished amateur botanist who was acquainted with both Talbot and Herschel, produced three albums of cyanotype images of algae, ferns and other plants.[42]

Other early practitioners were making scientific images, of course. In particular, the Frenchmen Alfred Donné, Léon Foucault and Hippolyte Fizeau were active in many of the same areas as Draper. Despite their accomplishments (which will be discussed in conjunction with Draper's work below), they have not received the same kind of scholarly attention as Talbot, Herschel and Atkins. While some of this attention, of course, is due to Herschel and Talbot's roles in the invention of the medium (which can most certainly be classified as "scientific") in terms of scientific photography produced after photography's inception, the inequality of academic discourse is perplexing. For example, strict scientific imagery makes up only a small portion of Talbot's output, and while Herschel, like Draper, a scientist with a wide range of interests, he did not produce anywhere near the amount or variety of photographic images that Draper did. Photographs from American geological expeditions dating later in the century, the 1860s and 1870s, have recently received some scholarly attention as scientific photography, but for the most part anything relating to astronomy, biology, physics and chemistry has been

[42] These were *Photographs of British Algae* (1843-54), *Cyanotypes and of British and Foreign Ferns* (1853), and *Cyanotypes of British and Foreign Flowering Plants and Ferns* (1854). The cyanotype is a photographic process invented by Herschel in 1841. It utilizes potassium ferricyanide, which results in a print with a white specimen on a brilliant blue ground.

largely ignored.[43] A recent example of this deficiency is apparent in the 2003 exhibition catalogue *The Dawn of Photography: French Daguerreotypes 1839-1855*. While there was a good sampling of scientific daguerreotypes on view during the exhibition's run at The Metropolitan Museum of Art, including several by Foucault, the catalogue's only nod to the sciences, apart from catalogue entries on individual works, was Christine Barthe's essay "The 'Observational Evidence' of Daguerreotypes in Anthropology."[44] While this essay does nicely cover an area of the medium that is not often treated, its singular focus in light of the wide range of scientific daguerreotypes actually displayed in the exhibition is indicative of the continued lack of scholarship surrounding these other areas of scientific photography.

As Talbot, Herschel and Atkins comprise a large portion of the discourse around scientific photography, a brief discussion of the differences between Draper and his British compatriots is in order to properly contextualize Draper in terms of the existing literature. Though Draper was born in England, he immigrated to the United States in 1832 at the age of twenty-one. He came from a vastly different background than that shared by Talbot, Herschel, and Atkins, who were all wealthy members of the British gentry. Draper was the son of an itinerant Methodist minister, and money was always

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[43] For sources that do discuss the role of scientific photography, see note 8. A recent example of excellent scholarship regarding some photographs made for such geological expeditions is Robin E. Kelsey, "Viewing the Archive: Timothy O'Sullivan's Photographs for the Wheeler Survey, 1871-74," *The Art Bulletin* 85 (December 2003): 702-723; another is also Rosalind Krauss, "Photography's Discursive Spaces: Landscape/View," *Art Journal* 42 (Winter, 1982): 311-319.

[44] There were several other scientific images on view at the exhibition from which *The Dawn of Photography* was culled and with which it was jointly curated, and happily these are included in the French version of the catalogue. *La daguerréotype francais: Un objet photographique* (Paris: Musée d'Orsay, 2003), pp. 362-367. The Metropolitan Museum's unfortunate choice of issuing their version of the catalogue in CD-ROM format makes the important information they did include – such as the catalogue entries for Foucault's works – difficult and cumbersome to access in English, as the CD-ROM is already somewhat incompatible with newer operating systems. See *The Dawn of Photography: French Daguerreotypes, 1839-1855* (New York: The Metropolitan Museum of Art, 2003), CD-ROM.

short in the family of four children. After Draper's father died in 1829, it is believed that his mother and his oldest sister, Dorothy Catherine, taught art to pay his way at the new University College, London (then called London University). By the time Draper crossed the Atlantic to make a new home in Virginia, he was at least partially responsible for the financial well-being of himself, his wife, his mother and his three sisters, all of whom emigrated with him.[45] Though slightly better off by the time he accepted the chair of chemistry position at the University of the City of New York in spring 1839, it must be assumed that he was in some way still helping to provide for his large extended family, as well as his own growing, immediate family (Draper's two sons were born by 1837). This difference of monetary means and class between Draper and the more famous of his British compatriots working in scientific photography in the medium's early days surely accounts for some of the differences in their production, as Draper lacked the leisure time and resources the English photographers enjoyed.[46] It probably explains, for example, Draper's eagerness to participate in a commercial portrait studio with Morse. It might also partially account for his work's wide scope and varied range, and also his consistent publishing and vociferous defense of his findings. They were, after all, not only a matter of deep interest and professional reputation, but as such, they were also his bread-and-butter.

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[45] On Draper's family background, see Fleming, pp. 4-19. I note Draper being only "partially responsible" for his sisters' well-being as these resourceful women opened "The Misses Draper Seminary for Girls" upon the family's arrival in Virginia. It is assumed that Dorothy Catherine provided the funds for the family's new house, and eventually paid for her brother's medical degree at the University of Pennsylvania. See Fleming, pp. 9-10.

[46] On Atkins, see Armstrong, "Cameraless," pp. 96-98; on Talbot, see Carol Armstrong, *Scenes in a Library: reading the photograph in the book, 1843-75* (Cambridge, MA: MIT Press, 1998), pp. 107-108.

More importantly, unlike these British practitioners, Draper had no background in image making. Talbot, Atkins and Herschel were all draftsmen – successful or not – before they were photographers (as, incidentally, were Daguerre, Niépce, and Wedgwood).[47] Talbot scholar Larry J. Schaaf has characterized his subject as having been frustrated with his lack of skill in drawing: "In an age in which the visual sketch with a pencil was almost as important as the verbal sketch with a pen, [Talbot] simply could not draw."[48] It was through this frustration at the side of the Italian Lake Como, Talbot later recalled, that he first thought of fixing the images created by a camera obscura.[49] Herschel, on the other hand, could draw quite well, and was fond of drawing as a way of augmenting his observations.[50] Before creating her albums of cyanotypes, Atkins made scientific illustrations of shells to augment her father's translation of Jean-Baptiste Lamarck's 1799 text *Genera of Shells*. It has been argued that all three, on some level, regarded photography as a type of drawing.[51] Draper, however, only became interested in image making *through* his work in photography. This difference is more than one of crafty semantics. Draper's subject is always and only tied to mechanical

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[47] This point of the immediate inventors of photography (Wedgwood, Talbot, Niépce and Daguerre) all desiring to make images is made by Larry J. Schaaf: "Each was launched on his quest [for photography] by a need to create images, rather than by an investigation of science;" see Schaaf, "Invention and Discovery: First Images," *Beauty of Another Order*, p. 28.

[48] Larry J. Schaaf, *The Photographic Art of William Henry Fox Talbot* (Princeton, New Jersey: Princeton University Press, 2000), p. 13.

[49] William Henry Fox Talbot, "A Brief Historical Sketch of the Invention of the Art" (1844), reprinted in *Classic Essays on Photography*, pp. 28-29.

[50] Schaaf, "Invention and Discovery: First Images," p. 46.

[51] See Armstrong, "Cameraless," pp. 90-95.

reproduction; he had no practical experience of creating an image in any way other than the mechanical.

Artificial Light & Copies

By July 1840, Draper had experimented with making daguerreotypes by artificial light, duplicating daguerreotypes, and taking astronomical and microscopic daguerreotypes. He published his findings in an article in *The American Repertory of Arts, Sciences, and Manufactures* entitled, "Remarks on the Daguerreotype." Here, Draper is clearly continuing the experimentation he outlined in his 1837 article, of the effects of light upon chloride of silver, but now was utilizing iodized silver. For example, he created several images by gaslight, which he had been unable to accomplish in 1837. Draper exposed an iodized plate in the camera to "the image of an argand gas-lamp . . . at a distance of about twelve feet" and after forty-five minutes received "a very strong and well-defined result." He also "placed a flat gas-burner (bat's wing) in a magic lantern, and received the image of one of the grotesque transparencies on a plate three inches square: in half an hour, a very fair representation was obtained."[52] A plate in the Draper Collection of the National Museum of American History, Smithsonian Institution, possibly features an image made from a magic lantern slide. The plate features what appears to be a medical image, showing two illustrated, attenuated figures lifting their garments to reveal their swollen bellies (Fig. 30).[53] The image itself is quite faint, as opposed to the daguerreotypes Draper made directly from prints that are discussed below.

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[52] John W. Draper, "Remarks on the Daguerreotype," *The American Repertory of Arts, Sciences, and Manufactures* 1 (July, 1840): 51-52.

[53] I have not been able to ascertain a source for the iconography of this image, nor have I been able to identify it with certainty.

As Draper probably used magic lantern slides of medical imagery for use in his lectures at the University's medical school, it seems probable that he could have used such a slide in the experiment he described. Draper clearly believed these accomplishments were worthy of scientific attention, as he reported his success to the New York Lyceum of Natural History, which was the chief scientific organization of the day (now the New York Academy of Sciences). The Lyceum reported that in March of 1840, "[Draper] stated that he had obtained [daguerreotype] impressions by artificial light; that it required a much longer time than solar light, from 30 to 45 minutes being necessary."[54]

As for the copying of daguerreotypes, Draper was sanguine. "There is no difficulty in making copies of Daguerreotype pictures of any size," he noted breezily. He simply cautioned his reader to make sure the plate was in "a full light, and in such a position as respects the incident light that [the plate's] lights and shadows may come out with the utmost clearness." He was desirous of "diminishing the bulk of the traveller's [sic] Daguerreotype apparatus," by making "very minute plates, with a very minute camera, and then magnifying them subsequently to any required size, by means of a stationary apparatus."[55] Though Draper reported that he successfully copied a number of his images, he does not state whether he was able to enlarge any as described.[56]

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[54] "Lyceum of Natural History, Proceedings," *The American Repertory of Arts, Sciences and Manufactures* 2 (November 1840): 249.

[55] "Remarks on the Daguerreotype," p. 402.

[56] Howard R. McManus suggests the portrait of Dorothy Catherine that Draper sent to Herschel could be a copy daguerreotype. He notes that the plate itself (now in the Spencer Museum of Art, University of Kansas) is a quarter-plate, with a half-inch margin around the actual image. McManus believes this margin might indicate the plate is an enlarged copy of a smaller ninth-plate. He also notes that Dorothy Catherine had a slightly misplaced left eye, which is not reversed in the daguerreotype as it would be if it were an original. See "The Most Famous Daguerreian Portrait," pp. 163-165.

Draper did, however, continue to explore various methods for copying daguerreotypes. In September of 1841 he suggested that the mercury and iodine mixture that develops the daguerreotype plate actually corroded the plate, thus creating the image; he wondered if the chemicals could be made to corrode more deeply, thus engraving the plate and making it suitable as a matrix from which to make copies.[57] In May of 1843, Draper followed up on this article. He postulated that by pouring a solution of isinglass over a gilded plate and heating the plate, the image would create an impression on the isinglass, thereby creating a printing block of sorts.[58] The described process seems somewhat difficult and cumbersome, however, and it does not seem to have been broadly employed.

Lunar Photographs

It was François Arago's fond hope, as the director of the Paris Observatory, that the daguerreotype would soon be able to record astronomical bodies. Indeed, at Arago's suggestion, Daguerre did attempt to record the moon, and by all accounts was able to capture an indistinct yet still recognizable image.[59] Renowned German scientist Alexander von Humboldt saw Daguerre's plate and, though he wished it had more clarity, was nonetheless quite impressed. He marveled to a friend, "Even the face of the moon leaves her portrait in Daguerre's mysterious substance."[60]

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[57] John W. Draper, "On Some Analogies Between the Phenomena of the Chemical Rays, and those of Radiant Heat," *The London and Edinburgh Philosophical Magazine* 19 (September 1841): 202.

[58] John W. Draper, "On the Tithonotype, or Art of multiplying Daguerreotypes," *The London and Edinburgh Philosophical Magazine* 22 (May 1843): 365-368.

[59] Daniel Norman, "The Development of Astronomical Photography," *Osiris* 5 (1938): 560.

[60] Von Humboldt is quoted in Ann Thomas, "Capturing Light: Photographing the Universe," *Beauty of Another Order*, p. 196.

While Draper may not have been the first to record a human face, he was the first to take an image of the moon that clearly and successfully recorded its lunar maria (the large, dark, basaltic plains on the moon's surface). He presented his findings to the Lyceum of Natural History on March 23, 1840, and possibly also on April 13, 1840.[61] The Lyceum's minutes for the first meeting report one of Draper's successful attempts:

> Dr. Draper announced that he had succeeded in getting a representation of the moon's surface by the daguerreotype. A portion of the figure was very distinct, but owing to the motion of the Moon the greater part was confused. The time occupied was twenty minutes, and the size of the figure was about one inch in diameter. Daguerre had attempted the same thing but did not succeed. This is the first time that anything like a distinct representation of the moon's surface has been obtained.[62]

The Lyceum also mentioned the event in the section entitled "March," of their published annual report for 1840, noting "Dr. Draper announced that he had succeeded in getting a representation of the Moon's surface by the daguerreotype, but owing to the Moon's motion, the figure was confused in some places."[63] Draper published his own account of his experiments a few months later. He first recounted that he over-exposed a plate and lost the image, and then described a more triumphant result:

> The moon being seventeen days old, by means of two lenses I obtained an image of her nearly an inch in its longest diameter; and to this, for three quarters of an hour, an iodized plate was exposed. The mercury bath evolved a chart, which was however deficient in sharpness partly owing to defects in the optical arrangement, but chiefly on account of

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[61] Don Trombino notes that Draper also exhibited some results to the Lyceum on April 13, 1840, but I have not been able to verify this. "Dr. John William Draper," *The Journal of the British Astronomical Association* 90 (Spring 1980): 567.

[62] Quoted in Trombino, "Dr. John William Draper," *The Journal of the British Astronomical Association* 90 (Spring 1980): 567. A less complete citation is also in Henry Draper, "On the Construction of a Silvered Glass Telescope, Fifteen and a Half Inches in Diameter, and its Use in Celestial Photography," *Smithsonian Contributions to Knowledg*e 14 (January, 1864), p. 33. I have not yet been able to locate the actual minutes.

[63] "Lyceum of Natural History, Proceedings," p. 249.

> the difficulty of making the heliostat follow the course of the moon with accuracy. The position of the darker spots on the surface of the luminary was distinct.[64]

Draper used the mirror of a heliostat – a device normally used to track the movement of the sun – to reflect the moon's rays through two lenses, within his camera, to capture an image of the moon onto an iodized plate, and left the plate exposed for forty-five minutes. He noted that the "defects in the optical arrangement" caused some blurriness in the final result, but was able to capture the dark spots of the lunar maria.

There is some debate as to what happened to Draper's lunar images. Some historians have postulated that the one presented to the Lyceum was destroyed in an 1866 fire that claimed many of that institution's holdings.[65] As Don Trombino has demonstrated, however, the New York Academy of Sciences (the former Lyceum) does maintain inventory records of all donations and holdings dating back to its inception, and there is no record of the Draper plates having been given to the institution.[66] Interestingly, there are several daguerreotype plates in the Draper Collection of the New York University Archives that show silvered, circular markings where the image once contained has now faded, likely due to corrosion from tarnish or chemical reactions to gases in the atmosphere. The dimensions of the plate match those of a daguerreotype, featuring an image of the moon, found in 1969 in a local Greenwich Village used bookshop, only a few blocks from the University (Fig. 31). The diameter of that image of the moon also matches exactly to the circular markings on the Draper plate. Trombino

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[64] "Remarks on the Daguerreotype," p. 402.

[65] Norman, p. 36.

[66] Trombino, p. 568. It should be noted that I have not yet found anyone at the New York Academy of Sciences who has any knowledge of such records.

and his associates were able to date the lunar daguerreotype to March 26, 1840, by means of the position of the lunar maria. Given all these elements, it seems safe to accept Trombino's attribution of this found daguerreotype to Draper.[67]

Solar Spectrum

Draper's daguerreotypes of the solar spectrum are among the most lovely and compelling images he produced, as well as some of the most scientifically significant. As indicated by his 1837 publications, Draper had long been interested in the solar spectrum and the way it reacted to varying chemicals. As soon as he perfected the daguerreotype process, Draper resumed his experimentations with light, only now he was able to record his results visually. He also used the daguerreotype plate itself to conduct experiments. From exposing daguerreotype plates to iodide until they took on the colors of the silver iodide layers, Draper proved that these colors were related to the thickness of the silver iodide. Also, he proved that colors affected the sensitivity of the plate. From these experiments he was able to show that if a chemically treated surface does not absorb light, regardless of how much light is present, the light will not alter the chemical surface. This became known as the Grothuss-Draper Law.[68]

As with many emerging sciences, researchers were bound to put forth hypotheses that proved incorrect. Draper's experiments and theories were no exception, and, like his colleague Morse, he often found himself embroiled in controversies regarding the daguerreotype. Unlike Morse's debate with Gouraud, though, which had centered upon questions of reputation (artistic and general), Draper's debates with his scientific

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[67] Trombino, p. 569.

[68] Barger and White, p. 61.

colleagues were concerned with both reputation and actual theories about the technical aspects of the process. In the summer of 1842, the work of German physicist Ludwig Moser was published in English and immediately received attention from many leading men of science. Among other things, Moser postulated that the daguerreotype was an example of a larger rule in which light or physical contact mechanically alter substances so that, following such exposure, vapors condense differentially on a polished surface. Further experimentation showed that physical contact was not necessary, that all bodies possessed latent light, or were "self luminous," and even in a dark room a polished surface would eventually reveal, after exposure to appropriate vapors, a nearby object. The resultant images were labeled, among other things, "vapor images," "roric images" and "Moser-bild."[69] Draper instantly responded to these findings, claiming in a November 1842 letter to the *London and Edinburgh Philosophical Magazine* that *he* had discovered vapor images, referring the journal's readers and editors to his earlier published findings.[70] He appealed to Herschel for support, and forwarded another image to the British scientist via the journal's editor; this time a daguerreotype featuring a solar spectrum he had taken in Virginia that July (Fig. 32).

Before Herschel had the opportunity to answer publicly, Draper published a second article in the December issue of the *Philosophical Magazine*. Here, Draper put forward his complete theory about how photographs were created – daguerreotypes and non-daguerreotypes. He postulated that photographic matter was not affected by light, as was commonly believed, but by another substance altogether: a previously undiscovered

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[69] Ibid., p. 62.

[70] John W. Draper, "On certain Spectral Appearances, and the Discovery of Latent Light," *The London and Edinburgh Philosophical Magazine* 21 (November 1842): 348-350.

imponderable he labeled "tithonicity," after the story in Greek mythology of Tithonus and Aurora (at the time, imponderables were thought to be a class of weightless substances, such as different types of rays, like light, heat, and electricity).[71] Draper believed that, when exposed to a sensitive surface, compound radiant beams were separated. The chemical rays were absorbed by the surface, and the light rays were deflected. Photographic imagery, he thought, was created by the released chemical rays modified by the sensitive material on the photograph's surface. He compared the mythological Tithonus's fading strength to the loss of photographic effect, which is now called latent image fading. Draper proposed a re-naming of all terms photographic under his new discovery, putting forth "Tithonoscope, Tihonometer, Tithonography, Thithonic effect, Diatithonescence," all of which he deemed "musical in an English ear."[72]

Herschel responded to Draper privately in December of 1842, and publicly published a response in February of 1843. In the letter of December 5th, he completely supported Draper's prior claim in the matter of vapor images, and reassured Draper:

> Mr. Taylor [the editor of the Philosophical Magazine] is reprinting Moser's paper on the process of vision in an English translation . . . I have recommended him to preface the translation by a notice of your very distinctly prior claims to the discovery of his fundamental part. Thus, to English readers at least it will be rendered impossible to err in the matter of priority.

Indeed, Herschel was utterly dismissive of Moser's work, and remarked, "As regards Mr. Moser's writings on his parts and indeed on every part of photographic inquiry I must

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[71] Tithonus was married to Aurora, the goddess of the dawn. At Aurora's request, the Fates allowed for Tithonus to remain immortal but did not grant him eternal youth. As Tithonus became frail and elderly, Aurora took pity on him and changed him to a grasshopper. John W. Draper, "On a new Imponderable Substance, and on a Class of Chemical Rays analogous to the Rays of Dark Heat," *London and Edinburgh Philosophical Magazine* 21 (December 1842): 454-455.

[72] Ibid., p. 455.

confess that I have seldom seen anything feebler;" he was awed, however, by the spectrum daguerreotype Draper had sent. Herschel labeled the plate "very beautiful," and noted that he, too, had recently created daguerreotype plates of the solar spectrum – his first attempts at daguerreotyping anything – but admitted that his plates were "very imperfect and I certainly procured nothing in point of artistic effect anything approaching to the perfection of your results."[73] In his public remarks Herschel was a bit more reserved, particularly as he disagreed with the bulk of the assertions Draper had made utilizing the plate. While he continued to acknowledge "the beauty of the specimen itself as a joint work of nature and art," Herschel once again chided Draper for utilizing a non-achromatic lens, as he had with Draper's portrait of Dorothy Catherine. He felt the non-achromatic lens elongated the spectrum to such a degree that it became distorted.[74] He also disputed Draper's claim that a "different class of rays . . . under a brilliant sun" was necessary to produce the plate; Herschel accepted the disparity between their results, but believed it was "not from any difference in the quality of sunshine in Virginia and England, *but from difference in the law of photographic dispersion in the prisms used*."[75] As for Draper's concept of tithonicity, Herschel remained wary. As he did not have enough room at the end of his paper to address it properly, he wrote, "I must limit myself to throwing in a general caveat against the adoption of a *new name* (and that a most

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[73] Sir John Herschel to John W. Draper, December 5, 1842, John William Draper Family Papers, Manuscript Division, Library of Congress.

[74] Sir John F. W. Herschel, "On the Action of the Rays of the Solar Spectrum on the Daguerreotype Plate," *The London and Edinburgh Philosophical Magazine* 22 (February 1843): 120-123.

[75] Draper, "On Certain Spectral Appearances," p. 349, and Herschel, "On the Action of the Rays of the Solar Spectrum on the Daguerreotype Plate," p. 130.

fanciful one) for *an old idea*."[76] Despite disagreeing almost wholesale with Draper's scientific findings, Herschel made clear his respect for his American colleague's efforts, and believed that the two of them alone were working successfully with prismatic analysis.

The act of Draper sending a second plate to Herschel, his choice of *which* plate to send, and Herschel's response are fascinating indicators of how these daguerreotypes were regarded both aesthetically and scientifically. As with *Portrait of Dorothy Catherine Draper*, Draper clearly chose the plate he deemed most scientifically and technically sound to represent his work to a man he greatly admired. But also as with *Portrait of Dorothy Catherine Draper*, scientific and technical mastery here translates into an image that is clear, precise and readable. The plate Draper sent to Herschel was produced on July 27, 1842, and is part of a group of plates Draper made that July. He later explained these experiments, "Several of them were obtained, representing the action under various changes in the dimensions and figure of the aperture admitting the light; as, for example, when it was a circle, a triangle, a fissure."[77] The result utilizing the circular aperture was sent to Herschel, and that created with the triangular aperture is in the Photographic History Collection of the National Museum of American History, Smithsonian Institution (Fig. 33).[78] Unlike the daguerreotype of Dorothy Catherine, which could stand on its own as scientific proof and aesthetic object, Draper seemed to

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[76] Herschel, p. 131.

[77] John W. Draper, *A Treatise on the Forces which Produce the Organization of Plants* (New York: Harper and Brothers, 1844), p. 50.

[78] According to Steven Turner, Associate Curator, Division of Medicine and Science National Museum of American History, Smithsonian Institution, the Smithsonian plate is quite extraordinary, particularly in the unusual length of the spectrum, which measures about three inches. Conversation with Steven Turner, November 16, 2005.

believe these spectrum daguerreotypes, at least, needed explanation. Each plate bears an accompanying label; in the Smithsonian piece, it is simply a paper label placed over the horizontal plate itself, but secured on the edges by the plate's iron frame. The label, which is then fixed atop the plate until the frame is removed, marks the location of the various colors that indicate the different wavelengths along the spectrum, according to the Newtonian system, and contains a series of dashes where the colors change, each with an accompanying letter: "V" for violet, "I" for indigo, "B" for blue, and so on to "R" for red. Above these markings is the notation "Spectrum of a triangular aperture/1/4 inch on base and 3/8 on each side, Time 15'/Same conditions as other." The label on the image Draper sent to Herschel is necessarily more elaborate; the plate is displayed vertically, and is flanked on either side by paper labels. The label to the left of the image is an expanded version of that on the Smithsonian piece, as it bears the same series of dashes indicating where the colors along the spectrum change, only, rather than letters, here Draper spells out the colors fully: "Green," "Yellow," "Orange," and so on. The label on the right of the image offers the date, temperature and latitude where the piece was produced, and notes, "Time occupied in exposure 15 minutes." Rather astonishingly, Draper has also marked the plate itself, using letters to mark the rays' locations. He notes which ray corresponds to which letter in the label on the right of the image, "A. upper neg. ray," "B. white ray," "C. daguerreotype ray," and so forth.[79]

How was this intense augmentation of the plate received? Did it have a negative effect on the supposed truth-value of the photograph, particularly in its status here as a scientific proof, or would the image have been expected to stand on its own? While

[79] Darius has demonstrated that these letters do not correspond to those Joseph von Fraunhofer assigned to the Sun's absorption lines, p. 20.

Herschel is unstinting in his praise regarding the scientific *efforts* behind creating the daguerreotype Draper sent, he completely disagreed with Draper's resultant scientific findings. Indeed, Herschel's response focused primarily on the aesthetic qualities of the plate, calling the spectrum "a joint work of nature and art, . . . extremely remarkable and beautiful," and noting the plate's "perfection . . . of artistic effect."[80] Herschel, then, seemed to be announcing publicly the plate's worth and significance more as an aesthetic object than a strictly scientific one. He took care in his letter to Draper to explain, "I consider photography both as a science and an art," and made sure to return Draper's favor by forwarding five of his own results: "two cyanotype photographs and 3 iodine spectra."[81] Draper made no public or private reaction to this mixed bag of praise and criticism, but remained undaunted on the topic of tithonicity at least. In 1843 alone, he produced no less than six articles devoted to his new imponderable.[82]

Draper was possibly more sensitive to Herschel's criticism of the lack of scientific perfection in his plate, particularly regarding their long-standing disagreement over the necessity of an achromatic lens. He must have realized the need for greater precision in his spectrum daguerreotypes, but rather than employ an achromatic lens, in May of 1843 (two months after Herschel's article appeared) Draper obtained a diffraction grating. Physicists began using diffraction gratings commonly in the early 1820s; they cause the wavelengths or frequencies of a spectrum to break down evenly. Mechanic and

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[80] "On the Action of the Rays of the Solar Spectrum on the Daguerreotype Plate," p. 120, and Sir John Herschel to John W. Draper, December 5, 1842, John W. Draper Family Papers, Manuscript Division, Library of Congress.

[81] Sir John Herschel to John W. Draper, December 5, 1842, John W. Draper Family Papers, Manuscript Division, Library of Congress. It is unclear whether the cyanotype photographs illustrate spectra or a different subject, and all five of these photographs are presumed lost.

[82] Draper's theory of tithonicity did cause great controversy; see Barger and White, p. 66.

daguerreotypist Joseph Saxton of Philadelphia ruled the grating, which was made of glass and measured five-eighths of an inch by one-third of an inch. Draper improved upon it by silvering its surface with tin amalgam, thus increasing the brilliancy of the spectra produced.[83] With this tool Draper succeeded in producing the first photographs of the diffraction or interference spectrum.[84] Rather than publish this accomplishment in the scientific journals or send a result to Herschel, Draper published hand-colored engravings comparing the two spectra – one prismatic, and one interference – in the frontispiece of his 1844 text, *A Treatise on the Forces which Produce the Organization of Plants*, and discussed the differences there (Fig. 34). This is a curious choice, and, like the need to include identifying markings and paper labels on some of the plates themselves, highlights the medium's shortcomings as a scientific tool. The solar spectrum's distinguishing characteristic is, after all, its brilliant array of colors; these colors do not appear in the black and white medium of the daguerreotype, or in any other mid-nineteenth century photographic process.[85] The supposed truth-value of the photograph,

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[83] *A Treatise on the Forces which Produce the Organization of Plants*, pp. 53 and 56, see also George F. Barker, *Memoir of John William Draper* (New York: National Academy of Science, 1886), p. 367.

[84] *A Treatise on the Forces which Produce the Organization of Plants*, pp. 56 and frontispiece, and Barker, pp. 367-368. It is unknown when exactly Draper took the first of these, but it was likely in winter 1843 or spring 1844. Saxton, who worked for the United States Mint, was also an important early experimenter in the medium. His October 16, 1839 view of the Pennsylvania State Armory and the Philadelphia Central High School, both of which were located across the street from the Mint, is now in the Historical Society of Pennsylvania, and is one of the oldest extant American daguerreotypes. On Saxton, see Arthur H. Frazier, *Joseph Saxton and His Contributions to the Medal Ruling and Photographic Arts* (Washington, D. C.: Smithsonian Institution Press, 1975).

[85] Of course, nineteenth-century photographers tried hard to create color photography. The best example is the Reverend Levi L. Hill, a daguerreotypist in Westkill, New York, who in the late 1840s-early 1850s claimed to have created color daguerreotypes. This announcement created quite a controversy among the photographic community, particularly as to whether or not Hill was a con-artist; Morse himself traveled to Westkill and became convinced that the "hillotypes," as the results of Hill's process came to be known, were genuine color photographs. See Beaumont Newhall, *The Daguerreotype in America* (New York: New York Graphic Society, 1961), pp. 97-104. What exactly Hill may have achieved remains unclear; the

in this case, becomes somewhat paradoxical: it can capture an inherently ephemeral subject, the beautifully divided solar spectrum, but it cannot illustrate that subject's most defining quality, color, forcing Draper to rely on engravings to disseminate his ideas. But if one is creating a colored engraving after a black and white daguerreotype, how can one be sure if the colors (which, it is important to recall, represent wavelengths) are correct? Indeed, of the thirteen extant daguerreotypes of solar spectra by Draper in the Draper Collection at the National Museum of American History, Smithsonian Institution, it is almost impossible to discern which are interference spectra, and which are prismatic spectra.[86] Without the identifying markings of color or Draper's notations, one cannot tell where one wavelength ends and another begins.[87] Perhaps this is why Draper's accomplishment of daguerreotyping the interference spectrum seemed to excite little or no discernable interest in the press, and not much from the scientific community either.

Indeed, the lack of reaction to Draper's work in the solar spectrum is perplexing. In addition to making the first photograph of the diffraction spectrum, Draper identified lines in the infrared section of the spectrum, lines that could not be observed with the naked eye, but only photographically. He also recorded ultraviolet lines that could not be seen with the naked eye. Though Edmond Becquerel discovered these lines simultaneously, he was unable to record them. The lack of knowledge regarding

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National Museum of American History, Smithsonian Institution, owns a larger number of hillotypes and plans to conduct research to determine the works' exact chemical make-up, hopefully solving the matter.

[86] The only way to accurately assess the difference is to measure the Fraunhofer lines, an intensive and time-consuming process. Conversation with Steven Turner, November 16, 2005.

[87] As Batchen has observed in regards to Léon Foucault's daguerreotypes of the solar spectrum, the famous detail and clarity of the medium is reduced, in these images, to "an abstract graph, a picture of nothing – of nothing, that is, but its own capacity to represent." "Light and Dark: The Daguerreotype and Art History," p. 770.

Draper's work within the scientific community is signified by the frequency with which others attempted to gain credit for his discoveries. Foucault and Fizeau, for example, conducting experiments similar to Draper's a few years later in 1844, also found the ultraviolet lines. Believing they had been the first, the pair delivered a sealed envelope to the Académie des Sciences documenting their work (Becquerel soon informed them that Draper had already recorded these lines).[88] Similarly, a M. Eisenhoher published results similar to Draper's regarding the diffraction spectrum in 1856, having been unaware of Draper's work. In this instance, Draper was quick to rectify the mistake. [89]

Microscopy & Human Physiology

As with his other work with scientific subjects, Draper's experimentation with microscopic imagery was almost immediate. He reported his early success in the same July 1840 article in which he outlined his work with artificial light, lunar photography, and duplication of daguerreotypes. Draper wrote, "I arranged a gas microscope with a lime pea, and also with charcoal points; and procured an impression of part of a fly's wing without any difficulty."[90] As with his daguerreotypes of the moon, he presented these plates to the New York Lyceum of Natural History, which noted the event in its semi-annual report, "[In the September 1840 meeting] Dr. Draper exhibited a number of

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[88] Darius, p. 20. On Foucault and Fizeau's work with photographing the solar spectrum, see *The Dawn of Photography: French Daguerreotypes, 1839-1855*, catalogue number 154.

[89] Draper, *Scientific Memoirs*, p. 97.

[90] "Remarks on the Daguerreotype," p. 51.

daguerreotype views, showing the advantage of taking magnified impressions of various parts of insects, blood, and other minute objects by the daguerreotype."[91]

Many early practitioners were interested in microscopic photography, and it was widely practiced from the onset of the medium. As noted in Chapter Two, Morse reported having seen such a plate during his March 1839 visit to Daguerre's studio:

> One of Mr. D.'s plates is an impression of a spider. The spider was not bigger than the head of a large pin, but the image, magnified by the solar microscope to the size of the palm of the hand, having been impressed on the plate, and examined through a lens, was further magnified, and showed a minuteness of organization hitherto not seen to exist.[92]

Talbot also created photographic images via the solar microscope, for example *Slice of Horse Chestnut, Seen through the Solar Microscope* (May 23, 1840, Salt print from a photogenic drawing negative, Hans P. Kraus, Jr., Inc.), and exhibited three microscopic images in his first exhibition in January of 1839, but did not pursue the process once he had ascertained its successful feasibility.[93] French scientist Alfred Donné was interested in both how the microscope could reveal the way daguerreotype images were formed and in producing daguerreotype images of microscopic views. With his colleague Léon Foucault (the same who made images of the solar spectrum), in 1845 he produced the first textbook featuring engravings taken from daguerreotype micrographs, which was meant for medical students.[94]

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[91] "Lyceum of Natural History Proceedings," *The American Repertory of Arts, Sciences and Manufactures* 3 (July 1841): 413.

[92] Samuel F. B. Morse to Sidney E. Morse, March 9, 1839, re-printed in the "The Dagguerreotipe," *New-York Observer*, April 20, 1839, p. 62.

[93] See *The Photographic Art of William Henry Fox Talbot*, p. 86.

[94] Alfred Donné and Léon Foucault, *Cours de Microscopie Complementaire de Études Médicales* (Paris: J.-B. Balliére, 1845).

Draper's textbook featuring woodcuts after daguerreotype micrographs and collodion prints, *Human Physiology, Statistical and Dynamical, or a Treatise on the Conditions and Course of the Life of Man*, was published in 1856. Draper recounted that he used photographic representations of microscopic objects to aid his lectures at the University, recalling "there are many such objects, costing much time and trouble in their preparation, to preserve. A photograph is their best substitute."[95] As he already had many serviceable daguerreotype plates on hand while writing *Human Physiology*, he simply used those he needed to illustrate his new text. A selection of these was later exhibited at the 1876 Centennial Exposition in Philadelphia, "as illustrations of the early history of the art."[96]

Human Physiology was not simply illustrated with woodcuts after daguerreotypes and collodion prints; it was also illustrated with engravings made after photographs of engravings. As the half-tone process that made mass reproduction of photographs possible was not in common use until the late nineteenth century, this curious layering of representations was not only accepted by the public, it was celebrated. A reviewer in *Harper's Magazine* declared that *Human Physiology* represented "the first time the attempt has been made, on an extensive scale, to illustrate a book on exact science by the aid of Photography."[97] The anonymous author acknowledged that the illustrations were

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[95] Draper, *Scientific Memoirs*, p. 338.

[96] Ibid., p. 340. I have not been able to ascertain how many of Draper's daguerreotype micrographs were exhibited at the Exposition, as they are not listed in the guides I have checked, but at least seven are in the Draper Collection of the Department of Photographic History, National Museum of American History, Smithsonian Institution.

[97] "On the Application of Photography to Printing," *Harper's New Monthly Magazine* 13 (September 1856): 433. Whether this reviewer was unaware of Donné and Foucault's work, or did not consider it to be on "an extensive scale," is unknown.

engravings after photographs, and that "human agency and human skill have a little too much to do with the result," but contended, "nonetheless the reader will find that the advantages at once accruing are very great – indeed far greater than he probably would have had any anticipation of." The article goes on to reproduce many of the illustrations from Draper's text, and both delights and marvels at their strangeness via a series of characters that misidentify their subject matter. For example, his vapid young female character, "Miss Hiawatha Trout," labels a view of microscopic human skin taken as "a specimen of Brussels lace, magnified by the electric telegraph" (another wonderful example of the linking of the photograph and the telegraph in this time period, and of Draper and Morse). The author is able to identify the true subject of the image, for both his character and his reader:

> Wrong entirely, Miss, it is a piece of your own skin; or, perhaps, more correctly, a piece of skin like yours. The delicate transparency which those around you so greatly admire, and which all those mysterious bottles and powders in your boudoir are for the sake of renovating and preserving, we now perceive to be due to its net-like texture; it is also coarse and shreddy [sic].[98]

The condescending tone of the article's author notwithstanding, such a journalistic device is effective in relaying the unease and curiosity these engravings after photographs inspired. And it is clear that such a reaction is due to the images' origins in photography, while a drawing after the microscopic view might not have caused the same: "It is, of course, admitted on all hands, that no matter how excellent drawings may be, they can never approach in reliability to photographic delineations."[99] While the same sentiment, particularly in regard to photomicrography, had been declared from photography's

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[98] Ibid., p. 435.

[99] Ibid., p. 433.

nascent days by the likes of Talbot and Morse, such a reaction more than fifteen years after the medium's introduction is indicative of how little photographs of microscopic images were used to illustrate texts, and therefore highlights the innovation of Draper's book.

Human Physiology did not only utilize microscopic photographs for instilling a sense of truth-value in its imagery. It also used daguerreotypes of dissections to augment discussions of anatomy. A plate featuring the carefully displayed entrails of a chicken, still attached to the bird's intact head (Fig. 35), was utilized to create a print illustrating the precisely labeled fowl's digestive tract (Fig. 36). The reviewer in *Harper's* discussed the positive benefits of this practice, noting "[it enables] the dissector to obtain reliable and durable representations of objects that very soon spoil, and even become disgusting. There is no more difficulty in thus perpetuating a well-made and complicated dissection, than there is in taking the portrait of a living face."[100] The reviewer's matter-of-fact, practical approach to the plate belies the disquieting effect the clearly delineated, dismembered fowl has upon its viewer; an effect that is also completely erased in the resultant, dry, textual reproduction.

The article goes on to extol Draper's use of prints of photographs of original, large, medical engravings, stating that the originals would be too expensive for most students, and too large and complex to accurately copy manually on a reduced scale. "But this photography accomplishes without any kind of difficulty, enabling us to present to the student, at a cheap rate, these great master-pieces of science and art."[101] Here,

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[100] Ibid., p. 439. There are three plates featuring this dissected chicken in the Draper Collection, Department of Photographic History, National Museum of American History, Smithsonian Institution.

[101] Ibid., p. 438.

Draper is using photography strictly as a reproductive tool, copying and reducing prints, then having the resultant daguerreotypes re-engraved, and reproduced in his text. Such images are taken from a wide variety of originals, and constitute a group of plates that, when encountered out of context, are – like the photograph of the dissected chicken - startling in their peculiarity. One such daguerreotype plate, taken from a page of a different scientific text, features an engraving of a dissected insect partially framed by text in reverse (Fig. 37). The image of the beetle appears on page fifty-eight in *Human Physiology,* as figure eight, identified as "Digestive tract of a carnivorous beetle" (Fig. 38). Stranger still is the plate of an engraving showing a laboratory in which an experiment of sorts is being conducted on a small dog, trapped underneath a glass chamber, which is connected via a complicated series of tubes to a variety of other glass vessels (Fig. 39). The contemporary viewer regards the daguerreotype with a certain alarm: what is happening to the poor animal? Draper's text reproduces a more benign-appearing image, the engraving after his daguerreotype, rendered with simplicity and robbed of its immediacy, labeled "Experiments on respiration" (Fig. 40). Similarly, the bizarre plates of engravings featuring detailed anatomical images of disembodied eyes, opened hearts and cross-sections of a human brain become sensible, knowable, and scientific when re-engraved and placed beside the explanation in Draper's text (Figs. 41 and 42).

Not all reviewers were as impressed with Draper's use of photography in *Human Physiology* as was *Harper's Magazine*. As with the deficiencies of Draper's daguerreotypes of the diffraction spectrum, at least one reviewer felt some of the photographs were superfluous: "As for the photographs from nature, they are curious

rather than excellent. A spirited drawing would give a much better and truer idea of bone and ossifying cartilage than figures 109 and 112." The same reviewer complained about some of the photographs after prints: "The photographs *from engravings* are of great excellence, only they are liable to the objection that they are, in many cases, too small."[102]

The Truth-Value of the Photograph

This uncanny quality of many of Draper's scientific daguerreotypes is partially due to their subject matter, but it can also be attributed to their medium, the silvered daguerreotype plate itself. Would the plate featuring the dissected chicken, for example, be less startling if it were rendered in the softer tones of Talbot's calotype method, rather than in the gleaming precision of the reflective daguerreotype, which captures every detail of the bird's open beak, its staring and sightless black eye? And what of the daguerreotypes featuring the solar spectrum? How different might these appear if not featured on the silvered, reflective surface of the daguerreotype? The brilliancy of the daguerreotype seems particularly suited to these images of pure light, as the process is able to capture the multiple, intricate Fraunhofer lines of each spectrum with a clarity that would surely be lost in the muted and subtle shades of the calotype. Indeed, the daguerreotype plate not only ensnares and reveals light itself, but it also reflects that light back towards its viewer, making an already overt statement about the nature of the photograph – that light is the creating agent of the plate – doubly apparent.

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[102] O. W. H., "Draper's Physiology – A Review," *The Boston Medical and Surgical Journal* 55 (October 23, 1856): 245. It is probable that O. W. H. was Oliver Wendell Holmes, with whom Draper was acquainted. Draper sent Holmes a copy of the text, and Holmes had ordered a copy as well. See Oliver Wendell Holmes to John W. Draper, September 12, 1856, John W. Draper Family Papers, Manuscript Division, Library of Congress.

The desire for the supposed veracity photography appears to offer due to its causal relationship to its subject is one thread that unites Draper's varied scientific photography. Interestingly, though, photography's supposed truth-value is only accepted whole-heartedly in terms of Draper's lunar daguerreotypes – as discussed, some of his micrographs and spectrum daguerreotypes appear to have not been received terribly well due to the fact that they were just that, photographs. Is this due to the utter strangeness of their imagery? Were they so odd looking to a mid-nineteenth-century audience that other text must account for what they showed? Or was it, in fact, due to the medium's very real inadequacies? In all of his scientific photography, Draper is attempting to illustrate what cannot be seen with the naked eye – the details of the lunar surface, the inner mechanisms of human, animal and vegetable bodies, the very wavelengths of a beam of light – but the image is not always enough, and often must be augmented with captions, labels, and identifying markers.

Draper's work in photography fully explored many of the possible uses offered by the new medium. In many ways, Draper's struggle for proper recognition of his scientific work mirrors Morse's struggle for recognition of his artistic and technological endeavors, though Draper's effort for recognition seems to end there. Unlike Morse, Draper was interested in the solely scientific, in knowledge for its own sake; his work in photography was not tied to a larger goal of "greatness" or of elevating his nation's cultural or international status. As will be discussed further in the following chapter, however, it is clear that Morse influenced Draper's shift from being interested in photography purely as a scientist to a broader interest in image making. The two men's collaborative effort, and

the cross-currents of art and science in this period as embodied by their work together, as well as the fracturing of those disciplines, are the subject of the following chapter.

Chapter Five: Art and Science and Technology

One of the overriding aims of this dissertation is to explore the intersections of art with science and technology in second quarter nineteenth-century America, as embodied in Morse's work with the daguerreotype, with particular emphasis on his partnership and collaborative work with Draper. The previous four chapters established where Morse and Draper's practices converge in this regard, focusing on Morse's long involvement with the technological, and Draper's burgeoning interest in scientific image-making. Chapter Five focuses on the images the two made together, analyzing a still life featuring fine art prints and articles of science, and a single image by Draper, *Composition*, that, I believe, was made possible through his association with Morse (Fig. 43). These two daguerreotypes demonstrate the fluidity between what are now thought of as distinct disciplines; the specific actions of Morse and Draper, however, can also be read as indicative of the fracturing of these disciplines into more specialized discursive spaces.

The sciences in America underwent enormous change during the first half of the nineteenth century. The beginning of the century saw the predominance of the eighteenth-century "arts and sciences" model of the field, embodied by institutions such as Benjamin Franklin's American Philosophical Society, founded in 1743, or the American Academy of Arts and Sciences, founded in 1780. Both organizations espoused the study and promotion of a broad range of topics, including "natural philosophy, moral science, history, politics . . . investigations in botany; in medicine, in mineralogy and mining; in mathematics; in chemistry; in mechanics; in arts, trades, and manufactures; in

geography and topography; in agriculture."[1] These societies tended to define "the arts" not as the fine arts *per se*, but rather as the useful, mechanical arts or humanities. The connectedness of the fine arts to the sciences in the early Republic is evident in an institution such as Charles Willson Peale's Museum, which by 1786 exhibited his own oil paintings as well as an array of natural history displays. By the 1830s, however, the "arts and sciences" model that made institutions such as Peale's possible was slowly dissolving in favor of specialized fields within both the sciences and the humanities. A wealth of discoveries within the various disciplines necessitated narrower interests and a rising degree of professionalization within each field.[2] As historian Russel B. Nye has noted:

> [In America] there was so much to do and so much to know in every field of science that the old-fashioned scientist who took all knowledge as his province, or the 'natural philosopher' who studied 'nature,' could no longer grasp it all. . . . The new scientist narrowed his interests, limited his objectives, concentrated on smaller segments of knowledge; better to specialize in one field and share information with others, he believed, than to attempt mastery of several at once.[3]

As described in Chapter One, Morse's early work with an array of technologies and sciences while engaged in a career as a fine artist exemplified the "arts and sciences" model of intellectual activity. Draper, on the other hand, partially typified the newer

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[1] American Philosophical Society, *Proceedings* (1843), quoted in Ralph S. Bates, *Scientific Societies in the United States* (Cambridge: Massachusetts Institute of Technology Press, 1945), p. 6. A very similar listing of topics relating to the American Academy of Arts and Sciences is found on page 11.

[2] See David Cahan, "Institutions and Communities," in David Cahan, ed., *From Natural Philosophy to the Sciences: Writing the History of Nineteenth-Century Science* (Chicago: University of Chicago Press, 2003), p. 296, Bates, pp. 28-84, and Nathan Reingold, "Definitions and Speculations: The Professionalization of Science in America in the Nineteenth Century," *The Pursuit of Knowledge in The Early American Republic*, eds. Alexandra Oleson and Sanborn C. Brown (Baltimore: The Johns Hopkins University Press, 1976), pp. 33-69.

[3] Russell B. Nye, *Society and Culture in America, 1830-60* (New York: Harper & Row, 1974), p. 246.

model of scientist who specializes in a particular subgenre, in his case chemistry.[4] As will be demonstrated, however, by the late 1850s, even Draper's scientific attentions were too scattered for the altering field, and he eventually turned his focus to the humanities.

Despite the vanishing of the Peale archetype of "renaissance man," one fully proficient in the fine arts and the sciences, American artists in the mid-nineteenth century drew upon science more heavily than ever. Such interactions are exemplified by the use of geology in landscape painting by artists such as Thomas Cole, Frederic Church, Asher Durand and George Catlin, and also in Martin Heade's related paintings of orchids and humming birds, which art historian Katherine Manthorne has linked to period investigations of Darwinian theory.[5] This trend in artistic production is probably due to science becoming increasingly popularized and accessible in this period, particularly through journals such as Benjamin Silliman's *Journal of American Science*.[6] The trend is also evident in the other direction, with scientific illustrators such as Alexander Wilson and John James Audubon's utilizing techniques of production and dissemination borrowed from the fine arts.[7]

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[4] While the vast majority of Draper's work was within chemistry, including his major contributions to the sciences, he was also trained as a medical doctor and, as noted in Chapter Four, published on physiology, and also taught physics and geology.

[5] Katherine Emma Manthorne, *Tropical Renaissance, North American Artists Exploring Latin America, 1839-1879* (Washington, D.C.: Smithsonian Institution Press, 1989), pp. 125-131.

[6] An illuminating discussion regarding the popularization of science in mid-nineteenth century America is found in David Paul Hochfelder, "Taming the Lightning: American Telegraphy as a Revolutionary Technology, 1832-1860," Ph.D. dissertation, Case Western University, 1999, pp. 31-40.

[7] See Laura Rigal, "Empire of Birds: Alexander Wilson's American Ornithology," *Art and Science in America, Issues of Representation*, ed. Amy R. W. Meyers (San Marino, CA: Huntington Library, 1998), pp. 60-96, and Linda Dugan Partridge, "By the Book: Audubon and the Tradition of Ornithological Illustration," *Art and Science in America*, pp. 97-130.

Adding to this cultural mix of exchange between the fine arts and the sciences is the related issue of technology.[8] Historian Brooke Hindle has drawn parallels among several nineteenth-century American artists who also embraced technology, including Peale, Rufus Porter, Robert Fulton and Morse.[9] Hindle credits this type of activity to "visual or spatial thinking," as opposed to "verbal, logical, cause-effect thought," and notes, "art, even more than technology or science, depends overwhelmingly on spatial thought. This is the factor that connects the three fields."[10] Hindle also discusses this phenomena as largely American, linked to the unbridled enthusiasm in the United States for emerging technologies, and the country's unique ability to create a new system or institution without destroying those which previously existed.[11] Hindle is correct in pointing out the connection between the artist and the technologist in the nineteenth century, and is also surely correct in theorizing about the type of thinking necessary for such interdisciplinary activity. It is not part of Hindle's project, however, to consider the very real ramifications this type of cross-over activity held for each of the artist/inventors he treats; ramifications that were remarkably different for each man, depending on when in the nineteenth century they lived, and depending on the degree to which they were invested in their artistic career. While Morse and Peale may have processed information in a

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[8] While once considered hierarchical and separate, more recent accounts of the relationship between science and technology argue for their historical and necessary exchange. For a good outline of the historiography of the histories of science and technology, see Thomas P. Hughes, "The seamless web: technology, science, et cetera, et cetera," in Brian Elliott, ed., *Technology and Social Process* (Edinburgh: Edinburgh University Press, 1989), pp. 9-19.

[9] See Brooke Hindle, *Emulation and Invention* (New York: New York University Press, 1981), and Brooke Hindle, *From Art to Technology and Science* (Worcester, MA: The American Antiquarian Society, 1986).

[10] Hindle, *From Art to Technology and Science,* p. 26.

[11] Hindle, *Emulation and Invention*, p. 139.

similar way in order to work with both the arts and sciences and technology, the reception of their respective careers was quite different.

The arrival of the daguerreotype offered a technology, science and visual product that embraced both artists looking to expand their production, as briefly discussed in Chapter Two, and technologists and scientists who, through their work with daguerreotyping, became image-makers.[12] It is in the light of this cultural background that the collaboration of Morse and Draper and their resultant images must be considered.

Rembrandt Perfected: "Still-Life" of Morse and Draper

In the now much-discussed March 9 letter of Samuel F. B. Morse to his brother Sidney is the splendid phrase, "The [daguerreotype's] interior views are Rembrandt perfected."[13] As mentioned, this pairing by Morse of an esteemed Old Master painter and engraver with the new technology in early correspondence foretold his enthusiastic support of photography in relation to the arts upon his return to the United States. This association of photography with the arts, particularly with Old Master painting, is also evident in *Still-Life*, a quarter-plate daguerreotype probably created by Morse and Draper in the early spring of 1840 (Fig. 3).[14] Featuring four prints after works of fine art tacked or nailed to an embroidered-linen covered surface, a statuette of Venus, a roll of sheet music, a chemistry textbook and an array of scientific instruments displayed on a shelf in

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[12] Other mechanically-minded men who experimented with the daguerreotype include Henry Fitz Jr., who was one of the first American makers of the telescope, and Joseph Saxton, and inventor and mechanic.

[13] "The Dagguerreotipe," *New-York Observer*, April 20, 1839, p. 62.

[14] X-Ray Fluorescence Spectrum Analysis performed by Jia-sun Tsang, Senior Paintings Curator, Smithsonian Center for Materials Research and Education, on August 20, 2005, revealed no discernable gold in the image's composition. This suggests that *Still-Life* is not gilded. Gilding was a process by which the plate was treated with a gold chloride solution and heated. It was introduced in 1840 by Frenchman Hippolyte Fizeau, and was probably used in the United States by the end of that year or by early 1841.

front of the images, the daguerreotype clearly represents an overly pedantic display of what photography is: a product of science and a form of visual representation, one, significantly, that has a direct interaction with the fine arts.

Still-Life came into the collection of National Museum of American History, Smithsonian Institution, from the estate of Dorothy Draper of Yonkers, New York in 1972. It is part of the large collection of Draper material acquired from that estate, which includes the Draper plates discussed in Chapter Four.[15] The image includes a chemistry textbook labeled "Hare's Chem," carefully written backwards so the viewer can read it (as a mirror image, the plate shows the reverse of its subject). Dr. Robert Hare was Draper's chemistry professor at the University of Pennsylvania.[16] The straightforward acknowledgement of Hare, combined with the piece's uncomplicated provenance, assures us of Draper's involvement in its production. Evidence for the role of Morse in the daguerreotype's creation, however, is a bit more tenuous.[17] I am basing my joint attribution primarily upon the complicated formal arrangement of the elements within the plate, and its compositional and ideological similarity to Morse's important 1832-33 painting the *Gallery of the Louvre*, as will be discussed in detail below.

Plate marks upon the image also help link the daguerreotype to Morse. Running along its top edge, the plate bears the "Corduan, Perkins & Co." mark, which was the

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[15] For an account of the acquisition and information on other items in the Draper collection, see Deborah Jean Warner, "The Draper Family Material, National Museum of American History," *History of Photography* 24 (Spring 2000): 16-23.

[16] This important link was first noted by Howard R. McManus, "Daguerreian Treasures at the Smithsonian Institution," *The Daguerreain Annual* (1996): 257.

[17] I disagree with McManus's assertion that the print in the lower right corner of the daguerreotype is a drawing signed by Morse. See Ibid., p. 257. Like McManus, I have examined the reversed signature carefully under a microscope. While I have not yet been able to make out the signature, I am confident it is not Morse's.

same type of plate used by Morse in his February 1840 plate of City Hall.[18] Intriguingly, the plate also bears a mark, running along the bottom edge, that reads, in a different font from the Courdan, Perkins & Co. mark, "Daguerreotype Francois Gouraud." While an immediate reaction might be that Gouraud was the maker of this plate (after all, he created many daguerreotype images while in the United States as demonstration pieces, and brought pieces with him from France), additional evidence suggests this is not the case. Makers of daguerreotype images simply did not stamp their daguerreotype plates; rather, the plate-makers did. As noted in Chapter Two, Gouraud was the official representative in the United States of Giroux and Company, Daguerre's official manufacturer and seller of daguerreotype equipment. His principal purpose for being in the United States was to market the daguerreotype to the American public and to sell Giroux and Company plates, manuals, and other equipment. By early January of 1840, Gouraud must have decided it was time to expand his business. As advertised:

> Mr. G[ouraud] is now ready to receive any order concerning the daguerreotype apparatus. To satisfy every taste, he will afford, imported (from Paris) as well as *genuine apparatus constructed in this country* under his immediate instructions by some of the most able intelligent artists in New York. The same it will be for all the other numerous articles of the Daguerreotype. . . . Every article examined and *warranted* perfect, will bear the Signature and seal of Mr. Gouraud.[19]

This advertisement, which seems to have run for one day only, strongly suggests *Still-Life* was created on a Courdan, Perkins & Co. plate, manufactured in New York, and then sold to Draper and Morse by Gouraud, bearing his "signature and seal."

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[18] See, for example, *The [New York] Evening Post*, February 18, 1840, p. 2. A complete list of period articles that discuss Morse's view of City Hall is listed in Chapter Two, p. 106, fns. 105-106. The Courdan, Perkins & Co. mark was only used from 1839-1840; see Floyd Rinhart and Marion Rinhart, *The American Daguerreotype* (Athens: University of Georgia Press, 1981), p. 423.

[19] *The [New York] Evening Post*, January 31, 1840; quoted in Rinhart and Rinhart, p. 34.

Of course, Gouraud being the seller of the plate does not preclude his also being the maker of the image, but the daguerreotype's direct reference to Draper through the book marked "Hare's Chem" implies Draper's immediate involvement. There is nothing in the related primary source material to suggest that Draper ever took lessons from Gouraud, or would otherwise have worked with Gouraud to create a plate. The only link between Gouraud and Draper seems to be their probable shared involvement in the early photographic community of New York. While Morse's "Memorandum of the Daguerreotype" notebook mentions that he used a lens focus "according to Professor Draper's successful experiment" on January 18, the same date that Morse wrote a long entry detailing a lesson with Gouraud, it is important to note that Morse's notation concerning Draper is carefully boxed off from the previous entry concerning Gouraud. Indeed, Morse ended that entry with the finalizing, "This is all the instruction from Gouraud," and later wrote that he had mastered the daguerreotype process through his own experimentation, "in conjunction with . . . Professor Draper and Dr. Chilton, the distinguished chemist. . . All the instruction professed to be imparted by M. Gouraud, I have felt it necessary to forget."[20] Morse's clear distinction between the types of instruction he received from each man further suggests that Draper did not work with Gouraud.

Morse's letter of November 1839 to Alfred Vail that described a daguerreotyped still-life composition was quoted in Chapter Two, indicating that this was a photographic genre Morse had previously pursued. Finally, in February of 1840 Morse wrote of his attempts to photograph prints arranged upon a cloth. In his notebook, Morse wrote,

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[20] "Memoranda of the Daguerreotype," Samuel F. B. Morse Papers, Library of Congress (hereafter cited as Morse Papers) and Samuel F. B. Morse to the Editor, *New York Evening Star*, February 24, 1840, p. 2.

"Arranged objects on the roof in the open air, just without the window. bright sun. . . . A little wind agitates the drapery and prints after 5 minutes a gust of wind deranged all the prints. No result."[21] *Still-Life* dates from a later, luckier day, after he and Draper had joined forces. Once they constructed their shed with a glass roof, Morse would not have needed to arrange the prints "in the open air," where they might be agitated by "a little wind," any longer.

Gallery of the Louvre and Still-Life: From High-Brow to Low-Brow

Morse's commitment to the edification of the American public through his founding of the National Academy of Design, his series of lectures on the Fine Arts, and his paintings such as *The House of Representatives* and the *Gallery of the Louvre* has been thoroughly treated by scholars as well as outlined in the previous chapters of this dissertation.[22] The formal similarity of *Still-Life* to the *Gallery of the Louvre*, in addition to Morse's published statements regarding the daguerreotype, suggests that while he was actively involved in photography, Morse regarded the medium as a potential pedagogical tool with which he could continue his life-long mission to educate the public and uplift American standards of taste.

The *Gallery of the Louvre* was one of Morse's greatest efforts in this struggle. This six by nine foot canvas features the Salon Carré of the Louvre Museum, hung ceiling to floor not with the contemporary French paintings that were actually displayed there in the early 1830s (dominated by Theodore Gericault's *Raft of the Medusa*), but

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[21] "Memoranda of the Daguerreotype," Morse Papers.

[22] The most compelling discussion of Morse's dedication to cultural nationalism is found in *Samuel F. B. Morse, Educator and Champion of the Arts in America* (New York: National Academy of Design, 1982), *Samuel F. B. Morse*, essays by Paul J. Staiti and Gary A. Reynolds (New York: New York University, 1982), and Paul J. Staiti, *Samuel F. B. Morse* (New York: Cambridge University Press, 1989).

with Old Masters culled from other parts of the museum.[23] As Paul J. Staiti has remarked, "In exhibiting the *Louvre* Morse would be doing in miniature what an American art museum, had such a thing existed, ought to do."[24] That is, the *Gallery of the Louvre* showed Americans what good art was, and provided examples of how to approach it. A knowledge of good art would lead to good taste, particularly in the education of the general public. Morse makes similar claims about the daguerreotype: when he initially encountered the process, he marveled to his friend Washington Allston, "Art is to be wonderfully enriched by this discovery . . . Artists will learn how to paint, and amateurs, or rather connoisseurs, how to criticise [sic] . . .and therefore how to estimate the value of true art."[25] Morse continued this line of thinking in his April 24, 1840 speech to the National Academy of Design, when he mused on the relationship between the daguerreotype and public taste, and proclaimed, "It is clear that in so far as individuals are interested in observing [the daguerreotype's] wonderful production, their taste must be improved."[26] This assertion, that photography will help artists learn how to paint and the public learn how to look, is in direct accordance with Morse's long-cherished desire to encourage American taste and knowledge that manifested itself in his founding of the National Academy of Design, and culminated in the *Gallery of the Louvre*. "I believe in

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[23] On Morse's choice of which paintings to represent, see David Tatham, "Samuel F. B. Morse's Gallery of the Louvre: the Figures in the Foreground," *American Art Journal* 13 (Autumn 1981): 38-48. See also Hugh R. Crean, "Samuel F. B. Morse's Gallery of the Louvre: Tribute to a Master and a Diary of Friendship, *American Art Journal* 16 (Winter 1984): 76-81.

[24] Staiti, *Samuel F. B. Morse*, p. 195.

[25] Samuel F. B. Morse to Washington Allston, probably spring 1839, quoted in Samuel Ireaneus Prime, p. 405.

[26] "Annual Supper of the National Academy of Design," *New-York Commercial Advertiser*, April 27, 1840, p. 2

the possibility," wrote Morse in 1833, around the time he painted *Gallery of the Louvre*, "by the diffusion of the highest moral and intellectual cultivation through every class, of raising the lower classes in refinement."[27] Both painting and the daguerreotype, if utilized and viewed correctly (including "historic" portraits or daguerreotyped portraits of "distinguished" persons), had the potential to assist in this refinement.

Just as the *Gallery of the Louvre* features an array of copies of Old Master paintings within the canvas, *Still-Life* exhibits four prints after paintings within the daguerreotype plate. Photographing works of art was not uncommon among early practitioners. Both Daguerre and Frenchman Hippolyte Bayard (who created a direct-positive photographic method that failed to win the same governmental support as the daguerreotype) produced works that featured assemblages of sculptural pieces. The only extant Gouraud plate, also from 1840, also features a group of sculpture (Fig. 44), though apparently he did include paintings in his plates, and other early French plates by makers such as François-Alphonse Fortier (Fig. 45) and Baron Armand Pierre Séguier (Fig. 46) are typically also groupings of sculpture with a painting or print included.[28] William Henry Fox Talbot, the Englishman who introduced a paper photographic method, produced images of single sculptures, most famously his *Bust of Patrocles*, and multiple images of various prints. As Talbot makes clear in his 1844 publication *The Pencil of Nature*, arguably the first photographically illustrated book, sculpture was a highly

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[27] *Samuel F. B. Morse*, *His Letters and Journals* Vol. 2, ed. Edward Lind Morse (Boston: Houghton-Mifflin Company, 1914), p. 26 (hereafter cited as *Letters* Vols. 1 or 2).

[28] Period reviews of Gouraud's plates mention the inclusion of paintings: "Busts, statues, and pictures are copies to the very life," "The Daguerreotype," *Knickerbocker* 14 (December 1839): 561; and "The most beautiful of [Gouraud's] views are several large pictures of statuary, paintings, drapery, etc., arranged purposely to be taken," *Providence Journal*, May 23, 1840, p. 2.

desirable photographic subject as its whiteness offered a natural range of tonal contrasts that translated well into the new medium.[29] The same argument could easily be applied to the photographing of graphic works on paper, whose typically black and white tonalities also made for striking photographic subjects. As Talbot points out, the photograph also offered the possibility of preservation and duplication, in any desired scale, of the original print or drawing.[30] Indeed, the use of photography towards these aspects of the fine arts was immediately discernable and applied accordingly.[31] The vast majority of photographs of two-dimensional images from this period, however, are in essence simple reproductions, or groups consisting primarily of sculpture with the occasional print added, such as *Still Life* by François-Alphonse Fortier (Fig. 45). The existing contemporary literature on early photographic still lifes reflects the prevalence of sculptural casts as subject matter in these images; the majority of articles and essays published on the early still life photography deal with just that, sculptural casts.[32]

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[29] "Statues, busts, and other specimens of sculpture, are generally well represented by the Photographic Art; and also very rapidly, in consequence of their whiteness," William Henry Fox Talbot, *Pencil of Nature* (London: Longman, Brown, Green and Longmans, 1844), n.p.

[30] Ibid.

[31] For a history of the early use of photographing fine art see, Wolfgang M. Freitag, "Early Uses of Photography in the History of Art," *Art Journal* 39 (Winter 1979-80): 117-123, and Trevor Fawcett, "Graphic versus Photographic in the Nineteenth-Century Reproduction," *Art History* 9 (June 1986): 185-212.

[32] For example, Eugenia Parry Janis, "Fabled Bodies: Some Observations on the Photography of Sculpture," in Jeffrey Fraenkel, ed., *The Kiss of Apollo: Photography and Sculpture 1845 to the Present* (San Francisco: Fraenkel Gallery, 1991): pp. 9-23; Julia Ballerini, "Recasting Ancestry: Statuettes as Imaged by Three Inventors of Photography," in Anne W. Lowenthal, ed., *The Object as Subject: Studies in the Interpretation of Still-Life* (Princeton, NJ: Princeton University press, 1996), pp. 41-58; Joel Snyder, "Nineteenth-Century Photography of Sculpture and the Rhetoric of Substitution," in Geraldine A. Johnson, ed., *Sculpture and Photography: Envisioning the Third Dimension* (New York: Cambridge University Press, 1998), pp. 21-34; Susan L. Taylor, "Fox Talbot as an Artist: The 'Patroclus' Series," *Bulletin of the University of Michigan Museums of Art and Archaeology* 8 (1986-88): 38-55. It should also be noted that the majority of these essays focus on European subject matter.

Geoffrey Batchen, however, astutely observes that images such as Fortier's that do include both two- and three-dimensional works appear to be a celebration of the act of copying itself. Batchen notes: "These pictures are about collecting and display . . . They enact the political sensibility of the upper middle class, but also of the museum, that class's newly activated temple of artistic consumption."[33] Morse surely observed some of these French still lifes, either at Daguerre's studio in Paris or those exhibited or produced by Gouraud, and attempted his own still lifes as soon as his photographic apparatus was complete. Indeed, there are similar formal elements between some of these French plates and Morse's, as is discussed further below.[34] While Morse may have borrowed compositionally from the Frenchmen, however, *Still-Life* is not a daguerreotype concerned with collecting or copying. Rather, as will be shown, the plate demonstrates Morse's hopes for the medium itself. Importantly, *Still-Life* appears to be the earliest known photograph that features an assemblage of *prints* as its primary subject, with sculpture being relegated to a secondary position. Given its highly unusual nature, and Morse's insistence on the pedagogical potential of photography, it is worth examining in detail which images he chose to include in the daguerreotype.

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[33] Geoffrey Batchen, "Light and Dark: The Daguerreotype and Art History," *Art Bulletin* 86 (December 2004): p. 767.

[34] Bates Lowry and Isabel Lowry posit that the Morse-Draper daguerreotype was in direct reaction to Morse's viewing Daguerre's still lifes at the March 1839 meeting. While Morse was surely inspired by Daguerre's pieces, as discussed below, the iconography of the plate reveals a much deeper meaning than simply "symbolizing a collaboration between art and science." Bates Lowry and Isabel Lowry, *The Silver Canvas: Daguerreotype Masterpieces from the J. Paul Getty Museum* (Los Angeles: The J. Paul Getty Museum, 1998), pp. 141-142. Similarly, Batchen also reads *Still-Life* as a collaboration of art and science, and additionally suggests the work "speaks to a new kind of visual culture in which everything is soon going to be transformed into a seamless, multi-directional flow of reproductions." I offer an alternative reading below. See Geoffrey Batchen, "Electricity Made Visible," in *New Media, Old Media, A History and Theory Reader*, eds. Wendy Hui Kyong Chun and Thomas Keenan (New York: Routledge, 2006), p. 36.

Two of the prints within *Still-Life* are after Old Master paintings, and, tellingly, both of these works were in the collection of the Louvre Museum during Morse's time. The upper right hand corner of the daguerreotype features a print after *Portrait of a Young Man*, which is in the Louvre's collection and has been variously attributed to Raphael, Parmigianino, Correggio, or Giulio Perino (Fig. 47).[35] The central, lower portion of the plate contains a print of a detail from Leonardo's *Madonna of the Rocks*, also in the Louvre Museum; this print illustrates the face and shoulders of that painting's attendant angel (Fig. 48).[36]

The other prints in the daguerreotype, occupying the left and right sides of the plate, are not after Old Masters, but after contemporary paintings instead. The print on the left exhibits a detail from François-Pascal-Simon Gérard's 1801 painting *Ossian evoking ghosts on the edge of the Lora* (Fig. 49). Rather than illustrate a single scene, the painting encompasses the sweep of Ossianic poetry, and the face shown is that of Fingal, Ossian's father and a main hero in Ossian's cycle of poetry.[37] Finally, the print in the

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[35] The Louvre Museum attributes the work to Francesco Parmigianino. Sydney J. Freedberg, however, asserts that the work is by Giulio Perino, and that the sitter is Parmigianino. See Sydney J. Freedburg, *Painting in Italy, 1500-1600* (New Haven: Yale University Press, 1993), p. 692, n. 62. I have not been able to discover with certainty to whom the painting was attributed in 1839, but it was probably Parmigianino, as the Louvre Museum's website states that it was attributed to Raphael until the seventeenth century.

[36] I am grateful to Guy Jordan for his assistance in identifying this print.

[37] Ossian supposedly was a third-century Scottish bard whose epic poems were rediscovered and published in the late eighteenth century, first appearing in 1760. The poetry proved to be quite popular in both Europe and America through the late eighteenth and nineteenth centuries. The poems also made for good Neoclassical and Romantic painting subject matter; other artists who executed Ossianic topics include American painter John Trumbull (*Lamberg and Gelchossa*, 1792, Toledo Museum of Art) and Jean-Auguste Dominique Ingres (*The Dream of Ossian*, 1866, Musée Ingres). Thomas Jefferson read the poems, and it has been posited that James Fenimore Cooper embraced Ossianic language and traits for his Native American characters. An educated man like Morse, who of course was also friends with Cooper, was surely aware of the poems' existence and of the paintings they inspired. See Henry Okun, "Ossian in Painting," *Journal of the Warburg and Courtauld Institutes* 30 (1967): 237-356, and Frederic I. Carpenter, "The Vogue of Ossian in America: A Study in Taste," *American Literature* 2 (January 1831): 405-417, and Georg Fridén, *James Fenimore Cooper and Ossian* (Cambridge: Harvard University Press, 1949).

lower right section of the plate remains unidentified. It is surely, however, not a print after an Old Master painting. The female figure's short curls, headband, and draped shoulder are similar to neo-classical works dating from the late eighteenth or early nineteenth century, such as *Portrait of Pelagia Sapiha* by Elisabeth Vigée-Lebrun (1794, Royal Castle, Warsaw), and the print probably dates from this period.

This mixing of Old Master and contemporary images signals a departure from the imagery Morse chose for the *Gallery of the Louvre*, which only featured Old Master works. In both the *Gallery of the Louvre* and *Still-Life*, Morse acts as the controlling agent, carefully selecting and arranging the works he deemed it most important for the viewer to encounter.[38] The inclusion of reproductions of contemporary works in *Still-Life*, however, is entirely appropriate for the new, contemporary medium of photography. Morse's use of them within the daguerreotype suggests an expansion of his long-held ideals regarding the importance of studying Old Masters for the creation of a comparable, or surpassing, American art. Paul Staiti has deftly explained Morse's use of copies of Old Masters in the *Gallery* in relation to Morse's tirade against the "disease of collecting old pictures" found in his 1827 *Academies of Arts, A Discourse*.[39] Staiti observes that the *Gallery* would not have been taken as a validation of European superiority to American art given the miscellaneous re-contextualization of the paintings, which assigned the paintings a new, "republican" meaning. Staiti goes on to assert, "[Morse] further disempowered the old masters by miniaturizing the pictures; they are important but

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[38] Staiti, *Samuel F. B. Morse*, pp. 193-196.

[39] Samuel F. B. Morse, *Academies of Arts, A Discourse* (New York: G. and C. Carvill, 1827), pp. 43-56.

nonetheless modularized building blocks subordinate to Morse's own masterpiece."[40] Through this method, Morse was able to educate Americans on the importance of worthy art while not overly aggrandizing the European tradition.

While Morse may be engaged in similar ideas regarding the prints after Old Masters in *Still-Life*, what of the contemporary works? He was apparently horrified at the presence of the newer French pictures at the Louvre when painting the *Gallery*.[41] Their inclusion signals that, despite its formal similarity to the *Gallery of the Louvre*, *Still-Life* was not meant to be a moral lesson to the American public about the grand tradition of European history painting – a history which American artists were supposed to study in order to surpass – but rather *Still-Life* offers a promise regarding the medium of photography, that the daguerreotype has the potential to provide a revolution in art through its relationship to the sciences and technology. By showing the clarity with which the daguerreotype is able to capture the details of the diverse elements within the plate, Morse is supporting his argument that the daguerreotype will be a great aid to artists:

> Think how perspective, aerial as well as linear, is illustrated and established by [the daguerreotype's] results, and, as a consequence, proportion also. How the problems of optics are confirmed and sealed for the first time by Nature's own stamp! See, also, what lessons of light and shade in all their fascinating varieties, are fixed and brought under the contemplation and closest scrutiny of the artist! Fixed I say; no longer subject to the capricious change of hour, or weather, or season.[42]

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[40] Staiti, *Samuel F. B. Morse*, p. 195.

[41] Ibid., pp. 189-190.

[42] *New-York Commercial Advertiser*, April 27, 1840, p. 2.

The precision of photography would also serve as a lesson to the public. Their taste would be improved, Morse contended, by studying portions of nature, which would enable viewers to learn the value of a good painting. He mused that an observer, educated by the lessons of the daguerreotype's accuracy, would exclaim, "I used to think [artists] exaggerated in their light or shade, but here I see that their effects correspond with those of nature's drawing."[43]

Of course, the presence of the prints after Old Masters from the Louvre within *Still-Life* does suggest a maintained link with his previous ideals. As well it should, for Morse had not abandoned his earlier beliefs entirely; he was simply utilizing slightly different methods to achieve slightly different goals. Morse still desired worldwide recognition of his nation's greatness, and he still desired personal renown. And, though he had not painted in two years, he was still desirous of an American art that met and exceeded its European predecessors. As discussed in Chapter Two, however, in recent years Morse had embraced technology over fine art as the means to these ends. As with *Gallery*, in *Still-Life* the Old Masters are still sublimated to Morse's compositional whims, they are still re-contextualized to provide a new meaning. In the *Gallery*, the Old Masters are situated in a highly educational environment – the visitors to the Salon Carré are scrutinizing and copying the paintings; Morse himself is instructing a female student in the center of the composition. In *Still-Life*, rather than placing the Old Masters in the context of learning, they are paired with prints after contemporary works and scientific instruments: symbols of modernity and progression, suitable for a new, modern medium

[43] Ibid.

that was to provide the kind of education to both artists and the public that the *Gallery*, in its critical and financial failure, could not.

The Influence of Trompe l'oeil

Of course, it is also possible that Morse chose the four particular prints purely for formal reasons. It is surely no accident that all feature faces or busts and not more complicated scenes, and that two of the four countenances gaze directly at the viewer. The formal arrangement of all the elements within *Still-Life*, particularly the playful gazes represented in the prints and the interaction between the unidentified print of the young woman and the statuette of Venus, share distinct similarities with painted deceptions, or the form of still life known as trompe l'oeil. Trompe l'oeil translates into "trick the eye" or "fool the eye;" such pieces have been executed since the Classical era. As a form of painting, it ranked as a sort of sub-still life, and therefore was derided even more strenuously than its parent genre. Sir Joshua Reynolds informed his readers that deception was "carrying [painting] back to its infant state."[44] While *Still-Life* is not a proper deception in the most literal definition of the term – it is not something painted attempting to "trick" the viewer into believing it is real – the daguerreotype contains specific elements that suggest a kinship with painted deceptions.[45] Such an association is highly surprising in work by Morse, who did not execute a single still-life painting, let alone a trompe l'oeil, over the course of his entire artistic career. However his embracing

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[44] Sir Joshua Reynolds, "Notes on [Du Fresnoy's] The Art of Painting," quoted in Wendy Ann Bellion, "Likeness and Deception in Early American Art," Ph.D. dissertation, Northwestern University, 2001, p. 123.

[45] A useful discussion regarding the photograph's, and in particular the daguerreotype's, relation to illusion is offered in Stephen C. Pinson, "Trompe l'oeil: Photography's Illusion Reconsidered," *Nineteenth-Century Art Worldwide* (Spring 2002), http://19thc-artworldwide.org/spring_02/articles/pins_print.html. Pinson's discussion primarily focuses on contemporary critical reactions to French daguerreotypy.

of an artistic genre he would have once deemed beneath him is in accordance with his inclusion of prints after contemporary works in *Still-Life* and his current focus on technology over fine art. In essence, these are all indications of Morse's growing acceptance of Jacksonian democratic principles. Rather than cling to the Federalist ideals of his upbringing, which guided his artistic career and decreed that the educated upper classes had a duty to instruct the lower classes, Morse was now broadening his ideology to include more progressive, popular methods of attaining his goals of personal acclaim and acclaim for his nation: invention over painting, the inclusion of contemporary works as opposed to exclusively Old Masters, and low-brow still life over high-brow history painting.

The four faces in *Still-Life* are formally reminiscent of paintings that act as both portrait and trompe l'oeils, for example Charles Willson Peale's *Staircase Group: Raphaelle Peale and Titian Ramsay Peale* (1795, Philadelphia Museum of Art), and Louis-Léopold Boilly's *A Collection of Drawings (with Boilly and Elleviou)*, (c. 1800, Private Collection, France). [46] The sitter in *Portrait of a Young Man* print and the unidentified young woman both peep out at the viewer alertly, almost flirtatiously. Fingal's upwards, sweeping gaze from the far left of the plate takes in Leonardo's bashful angel, as well as the scientific instruments, chemistry textbook and assorted vases placed upon the shelf at the lower edge of the plate. The angel, for his part, gazes at the same assortment of objects in a contemplative manner. One of the most charming elements of the work is also its most deliberate deception: the statuette of Venus, running along the

[46] For an in-depth discussion of how *Staircase Group* functions as both a portrait and a trompe l'oeil, see Bellion, pp. 30-82.

right hand side of the image, is holding a drape in her outstretched hand, and with it, gently brushes the printed female subject's cheek.

There are additional formal similarities to trompe l'oeil paintings of the era. Specifically, the arrangement of the four rectangular shaped works on paper strongly resemble the *quodlibet* (Latin for "what you please"), or "letter-rack" form of trompe l'oeil that had been popular since the late fifteenth century. These paintings featured an arrangement of objects, typically letters, bills, but also occasionally images, tacked or taped to a wall.[47] In America, such works were executed by a number of well-known artists, most notably by various members of the Peale family. In general, Morse would have been familiar with these types of paintings, simply by virtue of his education, his keen interest in the art of his native land, and his status as the president of the National Academy of Design. There is also an intriguing link between Morse and the Philadelphian cartographer and trompe l'oeil painter Samuel Lewis. Lewis worked with Morse's father, Jedidiah Morse, as a cartographer for the later editions of Jedidiah's *American Geography*.[48] Morse was surely aware of this, and also must have known of Lewis's painting career, as Lewis was fairly well known when he died in 1822.[49] A comparison between *Still-Life* and Samuel Lewis's most well-known extant trompe l'oeil

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[47] Sybille Ebert-Schiffer, ed., *Deceptions and Illusions: Five Centuries of Trompe l'Oeil Painting*, Washington, D.C.: National Gallery of Art, 2002, 181. According to this catalogue, the earliest known painted deception of an engraving is Sebastian Stoskopff (1597-1657), *An Engraving of Galatea, Attached to a Board*, 1644-1657.

[48] Ralph H. Brown, "the American Geographies of Jedidiah Morse," *Annals of the Association of American Geographers* 31 (September 1941): 187-188.

[49] On Lewis's reputation at the time of his death, see Bellion, p. 295.

work, *A Deception (Originals and Imitations)* (Fig. 50), is representative of how Morse's daguerreotype relates to this genre.[50]

Each image contains diagonal, rectangular shapes of paper suspended on the picture plane, cunningly layered and overlapping to demonstrate pictorial depth. In *A Deception*, as with all other letter-rack paintings, this layering serves to trick the viewer into believing the painted space is part of their reality; it also showcases the skill of the individual artist. The overlay of the prints in *Still-Life* highlights the pictorial depth of the daguerreotype, only here Morse is showing the actual depth of the space photographed. The arrangement and condition of the prints, and almost more importantly, of the variously shaped glass containers that line the shelf in front of the prints, demonstrates not Morse's skill as an artist (though the layout does accomplish just that to a degree) as much as it stresses *photography's* capabilities as a medium. Through his composition, Morse is revealing the daguerreotype's ability to capture every detail of every complex element displayed, regardless of the pictorial depth (though *Still-Life* contains an admittedly shallow depth). We note that the medium can capture the transparency of glass, as another object or corner of an image is visible through the carefully placed bottles; we see the shadow of a more solid urn or vase, or of a print, or even the shadows within the embroidered linen cloth that serves as a backdrop for the whole arrangement, and which was surely chosen for its textured pattern, precisely to give the entire work an additional layer of depth.[51] We marvel at the daguerreotype's

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[50] A second Lewis trompe l'oeil has recently surfaced and is in the collection of Berry-Hill Galleries, Inc., in New York City. I am grateful to Berry-Hill Director of Research and Exhibitions Bruce Weber for showing me this piece and for sharing information on Lewis.

[51] As mentioned, the shallow space of this daguerreotype is quite similar to that found in several French daguerreotypes of the period. In particular, the use of the textured cloth in the Morse-Draper plate is very

capacity the way we might have marveled at Lewis's adroitness to create the same types of shadows and depth, particularly the way he skillfully rendered the torn, curled edges of some of the more well-handled pieces of ephemera in his painting. These same tattered and folded edges are found in *Still-Life*, most notably along the borders of the print of Fingal, and true to its nature, the daguerreotype copies them faithfully.

Trompe l'oeil paintings typically feature a "cartellino," a little note-card or piece of paper that bears the artist's signature or other identifying message.[52] In *A Deception*, Lewis provides his identification in the form of a small, handwritten card suspended near the center of the canvas that reads, "Mr. Saml. Lewis Presents."[53] Morse does not offer any direct clue to his own involvement with *Still-Life*, but he and Draper make a nod to the cartellino tradition through the deliberate labeling of "Hare's Chem" – as mentioned, a direct reference to Draper – on the spine of the book that occupies the central lower position of the plate.

Another still-life painting that might have provided Morse with some inspiration is Charles Bird King's *The Vanity of the Artist's Dream* (Fig. 51). King and Morse were well acquainted, as they had been students together at the Royal Academy in London in the early 1800s. Additionally, King was nominated to the National Academy of Design in 1827, while Morse was President, though he never exhibited there. Finally, Morse's

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similar to that employed by many French makers, including those by Baron Armand-Pierre Séguier (Fig. 45) and Fortier (Fig. 44). As Sylvie Aubenas has noted in the *Dawn of Photography: French Daguerreotypes, 1839-1855 (*New York: The Metropolitan Museum of Art, 2003), CD-ROM: "The care taken to demonstrate the reproductive fidelity of the process was common to all the inventors." Morse and Draper, therefore, were not alone in creating a composition to show photography's capabilities, but as explained above, they were doing so, particularly Morse, for different ends.

[52] *Deceptions and Illusions, Five Centuies of Trompe l'Oeil Painting*, p. 21.

[53] William H. Gerdts cited this card, among other elements, as his reason for re-attributing *A Deception* to Lewis over its long-assumed maker Raphaelle Peale. See William H. Gerdts, "A Deception Unmasked; An Artist Uncovered," *American Art Journal* 18 (1986): 5-23.

Utica cousin Thomas R. Walker (the husband of Sarah Breese Walker, Morse's cousin who suffered having her picture taken on the University rooftop; Walker is also the man with whom Morse was so taken in 1841 that he planned to take his daguerreotype) owned *The Vanity of the Artist's Dream*. Morse was a frequent visitor to the Walker household during this time period, and probably saw the painting there. The painting depicts sundry items from an artist's studio piled high within an illusionistically rendered frame/cupboard door: assorted books, a palette, rolls of sheet music, the broken head of a cast of Apollo, a half-eaten hunk of bread, and a painting featuring a figure of Plenty, discarding the contents of her cornucopia. According to King scholar Andrew Cosentino, the painting represents the struggle between the fine arts and society, and specifically the rejection of the arts by society. It also has elements of an "attributes" painting of the eighteenth century, which contains symbols of the fine arts.[54] Morse and Draper's daguerreotype shares these "attributes" characteristics with the inclusion of the roll of sheet music and the statuette of Venus; however *Still-Life* offers a more hopeful future for the fine arts than *Vanity* does, one in which the arts harmoniously co-exist with the sciences and technology.

Despite Morse not having created a trompe l'oeil painting in the strictest sense during his career as a fine artist, both the *House of Representatives* and the *Gallery of the Louvre* contain aspects of illusionism: the coffered ceilings and carefully engineered light in the *House of Representatives* and the multiple, copied paintings in the *Gallery of the*

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[54] Andrew J. Cosentino, *The Paintings of Charles Bird King* (Washington, D. C.: Smithsonian Institution, 1977), p. 80.

Louvre can be read as attempts to deceive the viewer.[55] These illusionistic effects were achieved via mechanical means, the camera obscura. As discussed in Chapter One, both of these works also share qualities with the popular, painted panoramas of the time. Even more than still life, the panorama was regarded as a form of popular entertainment as opposed to a form of fine art, and this was largely due to its illusionistic and mechanical qualities. While the mechanical was an aspect of still life painting in general and trompe l'oeil painting specifically was often derided by critics of fine art, Morse placed value on what he termed "mechanical imitation." He insisted that it was essential for the creation of higher, more imaginative works of art, and, of course, had long used the mechanical in his own work when it suited his purposes.[56] At the time of his experimentation with the daguerreotype, Morse was highly invested in the mechanical in a different manner: the more literally mechanical telegraph. While the *House of Representatives* and the *Gallery of the Louvre* toy with what art historian Nicolai Cikovsky terms "democratic illusionism," the telegraph, like the daguerreotype, was truly a democratic device.[57] Both inventions were heralded as great wonders of a new, progressive, technological age, aiding communication (visual and written) at a price affordable to almost anyone, and, with the locomotive, were responsible for the "annihilation of space and time."[58]

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[55] Art historian Nicolai Cikovsky Jr. offers this interpretation, "Democratic Illusionism," *America: The New World in 19th-Century Painting*, ed. Stephen Koja (New York: Prestel, 1999), p. 39.

[56] On illusionism's relation to the mechanical, see Nicolai Cikovsky, Jr., "'Sordid Mechanics' and 'Monkey-Talents,' The Illusionistic Tradition," in *William M. Harnett*, eds. Doreen Bolger, Marc Simpson and John Wilmerding (Fort Worth: Amon Carter Museum, 1992), pp. 19-29. On Morse's views on mechanical imitation, see Samuel F. B. Morse, *Lectures on the Affinity of Painting with the Other Fine Arts*, ed. Nicolai Cikovsky, Jr. (Columbia: University of Missouri Press, 1983).

[57] Cikovsky, "Democratic Illusionism," p. 39.

[58] See Alan Trachtenberg, "Photography: The Emergence of a Keyword," essay in *Photography in Nineteenth Century America*, ed. Martha Sandwiess (New York: Harry Abrams, Inc., 1991), pp. 19-20.

The important link, then, between what are arguably two of Morse's most significant paintings, *The House of Representatives* and the *Gallery of the Louvre*, the daguerreotype, and the telegraph, is that they are all forms of communicative representation through transcription of a subject via mechanical means. The camera obscura transcribed the scene in front of Morse so he could trace it for use in his larger composition, the photographic camera's optics and chemicals caused the subjects of his daguerreotypes to adhere to the plate, and electricity is used in the electro-magnetic telegraph to physically transcribe the mark of the letter or number in Morse code onto the device's receiving tape.[59] The types of communication are visual and written or coded, but they are both communication nonetheless. Morse's shift in focus from the fine arts to the technological did not, in fact, represent an enormous change in his thinking. It was just that: a shift. There had long existed in Morse two tendencies, one progressive and bent on aiding his fellow citizens, the other elitist and disdainful of those citizen's choices and habits.[60] Morse's re-focus on invention necessitated a privileging of his more progressive leanings; for example, in 1855 Morse wrote that the telegraph fulfilled his "favorite dream . . . that universal humanity is to be bound in a true social fraternity by instantaneous intercommunication of thought."[61] At the same time, however, Morse

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[59] Morse's telegraph went through several stages. The earliest device, made from discarded canvas stretchers, consisted of an electromagnet placed across the centermost bar, that, when electrified, attracted an iron armature which caused a pencil to move across a roll of paper. Alfred Vail significantly altered and simplified this device over the next several years. For a complete explanation and diagrams, see Paul Israel, *From Machine Shop to Industrial Laboratory, Telegraphy and the Changing Context of American Invention, 1830-1920* (Baltimore: The Johns Hopkins University Press, 1992), pp. 24-38.

[60] Staiti discusses these two sides of Morse in relation to his artistic career, see *Samuel F. B. Morse*, pp. 233-241.

[61] *New York Herald*, September 3, 1855, quoted in Kenneth Silverman, *Lightning Man: The Accursed Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 2003), p. 340.

was completely uninterested in communicating with certain types of peoples: he was shocked and dismayed, upon returning from a trip to Washington in 1849, to find an entire shantytown of Irish railroad workers squatting on his property at Locust Grove. He ordered them all out, and when hiring domestic help he remained true to his lifelong xenophobia, noting, "I do not wish Irish."[62]

The inclusion of contemporary images and the use of a popular genre, still life, within *Still-Life* (as opposed to the higher-class genre of history painting upon which Morse focused much of earlier energies) indicate that this daguerreotype can be read as Morse's way of reconciling his elitist beliefs with his more populist and progressive ones; the daguerreotype in general, and *Still-Life* in particular, appears to represent a happy marriage of both of these tendencies within Morse.

Morse's daguerreotype practice, then, helps us understand the artist and inventor more thoroughly. Scholars often treat his shift from the fine arts to technology as drastic and extreme (for example Edward Lind Morse, an early biographer who compiled his papers, splits his text into two separate volumes according to career); when Morse's involvement with the daguerreotype is seriously analyzed within the trajectory of Morse's life and production, however, his change in career can also be read part of a continuum in his thinking and quest for cultural nationalism. Morse had always been interested in education and communication, and had long been open to furthering his goals with the aid of mechanical means. *Still-Life* demonstrates Morse's possible vision for the daguerreotype in its early days; it represented a possible way to reconcile his long-held beliefs and desires to educate and uplift, particularly in the realm of fine arts, but

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[62] Ibid., p. 336.

now he could do it with the mechanical and technological means that were the focus of his energies, and the proven direction of American progress.

As for the plate itself, it is unclear who may have seen it other than Morse and Draper. There are no extant exhibition reviews mentioning a still life by either man, and the only reference in private correspondence of either man that refers to such a daguerreotype is Morse's letter to Vail from the fall of 1839.[63] Given that the plate dates from the early spring of 1840, it is possible that it represents a private musing on the part of both Morse and Draper as to photography's potentials and possibilities, particularly as they were either on the verge of opening, or had just opened, their portraiture studio together. Morse's side of the coin has been explained, but what of John William Draper, the co-producer of *Still-Life*? According to his own later testimony, at this point Draper's role would have been to "take the picture," that is, to treat the plate with the correct degree of chemicals, assess the proper lens and determine the appropriate focus.[64] The funnel, glass graduated beaker, and other instruments of chemistry that line the low shelf in front of the images surely came from Draper's University laboratory, but it is difficult to tell what, if any, creative role he may have had in the arrangement of the composition. The work must have held some significance for him, as it wound up in his, and eventually his family's, possession, and the inclusion of the autobiographic reference in the "Hare's Chem" textbook indicates that he wanted his involvement in the plate's production to be known. As described in Chapter Four, Draper was typically concerned with receiving due credit for his accomplishments; perhaps the addition of the text-book and the

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[63] Samuel F. B. Morse to Alfred Vail, November 4, 1839, Vail Telegraph Papers, Smithsonian Institution Archives.

[64] Draper later noted, "[Morse] supplied the aesthetic part, posed the sitters and all that, while I took the pictures," Draper quoted in "Dr. John Draper Dead."

scientific instruments were, besides being references to the marriage of science and art in photography, Draper's way of assuring that his participation in the creation of this image was duly noted. But while we may never know if Draper's involvement in the creation of *Still-Life* went beyond providing the scientific props and knowledge necessary to create the plate, at some point afterwards he became interested enough in image-making for its own sake to produce a still life daguerreotype without Morse's involvement.

The Scientist as Artist: John William Draper's **Composition**

On a strictly formal level, *Composition* (Fig. 43) is quite similar to *Still-Life*, and Draper appears to be borrowing compositional qualities from the plate he created with Morse. The plate is dominated by a centrally-placed, framed drawing or lithograph of a bust-length figure of Christ carrying the cross. Above and to the right of this large image are at least four additional prints or drawings – like the images in *Still-Life*, these are hung or placed in varying angles to one another. The print to the direct right of the central framed image is also a Biblical figure, showing either Christ or possibly John the Baptist. The left side of the plate shows a plaid drape held in place with a floral tie, and, as in *Still-Life*, *Composition* includes one piece of sculpture: in the lower left corner rests the head of a blindfolded figure placed in profile. The plate has the same provenance as the piece created with Morse; it is in the collection of the National Museum of American History, Smithsonian Institution, and is from the estate of Draper's descendent Dorothy Draper. Rather than hint at his involvement, as he did in *Still-Life* with the cartellino element of the chemistry text, Draper has added a paper label in his handwriting that reads, "Composition/Dag/JW Draper." The plate is encased in a tin frame and appears to date later than *Still-Life*. Of all the daguerreotypes the Smithsonian Center for Materials

Research and Education analyzed by X-ray florescence spectrometry, *Composition* was the only plate to contain a discernable level of gold, indicating that it is gilded. The XRF analysis conducted at the National Museum of American History further revealed the incredibly even surface of the plate.[65] Early plates from 1839-40, particularly American plates (though it should be noted there are no plate marks on *Composition*), frequently show pitting and spots in the silver coating, as the technology for polishing the plates to create an even surface had not been developed.[66] These physical characteristics firmly place the daguerreotype to a later date than the other early images in the National Museum of American History; however the plate ostensibly could date anywhere from 1841 to the mid-1850s, as Draper was actively making daguerreotypes throughout that time period. Given its formal similarity to *Still-Life*, though, *Composition* probably dates from the earlier 1840s, when his partnership with Morse and the daguerreotypes they created together were still fresh in his mind. As to the possibility of Morse's involvement with *Composition*, Draper surely would not have signed the work with his name alone if it had been jointly produced, particularly given the importance he placed on due recognition for accomplishments.

While Draper's composition might formally be related to the plate he and Morse produced, its ideological makeup is quite different. As with *Still-Life*, the images within *Composition* may have been chosen simply for their dramatic appearance or their strong black and white tones, which represent well in a daguerreotype. An educated man such

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[65] Unlike the earlier plates discussed, there was almost no change in the concentration of various metals that make up the plate (silver, copper, zinc, lead and gold) in the three different areas of the plate that were analyzed, indicating an even application of the materials and a smooth surface.

[66] On the uneven surface of early American plates, see Rinhart and Rinhart, p. 162. Draper actually suggested the eventually accepted method for polishing plates; see Ibid., pp. 163-164.

as Draper, whose sister Dorothy Catherine gave painting and drawing lessons to help pay for her brother's medical education, probably would have owned at least some artistic prints and casts. The charged nature of the chosen images, however, suggests Draper put some thought into their meaning and arrangement. The viewer cannot escape the large, framed image of Christ in the center of the plate. Based on the thickness of the rendered lines and the evident cross-hatching, the image is either a drawing or a lithograph.[67] It is a copy of a portion of a painting by Raphael, *The Fall on the Road to Calvary* (1517, Museo del Prado, Madrid). Like Morse, Draper was the son of a minister, though Morse's father was Calvinist and Draper's Methodist. Religion was an important part of Draper's life, so much so that in 1874 he published a book titled, *History of the Conflict Between Religion and Science*. While he produced the daguerreotype at a much earlier date, the fact that he wrote on the topic at all is indicative of the value the subject held for him. The text repeats a great deal of the information published in his 1862 book *History of the Intellectual Development of Europe*, and in essence outlines the history of just what the title promises, beginning with ancient Egypt and progressing to period debates about evolution. According to Draper biographer Donald Fleming, while science was clearly, for the chemist, the winner of this long conflict, Draper was also able to suggest a happy middle ground: "His target was the wrong kind of theology. . . . The right kind did not even need to be new-founded if the Protestants were thoroughly Protestant."[68] Draper, like Morse, primarily was suspicious of Catholicism, but he appears to have been able to reconcile his Protestant, Methodist religious beliefs with his scientific knowledge.

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[67] Conversation with Helena Wright, Curator of Graphic Arts, National Museum of American History, Smithsonian Institution, January 13, 2006.

[68] Donald Fleming, *John William Draper and the Religion of Science* (Philadelphia: University of Pennsylvania Press, 1950), pp. 129-130.

Perhaps this daguerreotype, with its two religious figures so prominently placed, is an early manifestation of Draper's feelings on the topic of religion and science, feelings that would evolve into the 1874 book. But what exactly does the image say about religion and science? Is it a proclamation of the triumph of science over religion, as the Christ figure is "trapped" within the chemical emulsions of the daguerreotype plate (though it was trapped by the artist's pencil or lithographer's ink first)? Or does the central placement of the Biblical figures suggest a happy place for religion and science's conjoining?

Added to this mix is the intriguing cast of a blindfolded head on the left hand side of the plate. This sculpture probably represents the figure of Justice, as there are no other classical figures that appear with a blindfold. The figure is placed in profile, and one can discern the open eyes underneath the fold. As with *Still-Life*, this positioning sets up an exchange of looks – or what would be a look, if the cast's eyes were not covered – between the sculpted Justice and the drawn or printed Christ. Is Draper implying that we can be sightless when it comes to matters religious, possibly prevented from seeing and knowing properly? There is a strong difference between being blindfolded and being blind; a blindfold can be removed, suggesting again the possibility of a compromise. The blindfolded figure could also allude to the nature of photography, how it is able to capture and record things not visible to the naked eye, such as the infrared region of the solar spectrum that Draper was able to capture.

As with the still life by Morse and Draper together, the formal arrangement of *Composition* bears a resemblance to some French daguerreotypes of the period, particularly those that combine two-and three-dimensional elements such as *Still Life* by

Fortier (Fig. 44). Draper probably saw similar works exhibited by Gouraud. The preponderance and arrangement of two-dimensional imagery within the plate, however, suggests that Draper's participation with Morse in creating *Still-Life* had a high degree of influence on his creation of *Composition*. The plate signals the influence of Morse on Draper, and, like the compositional progression between Draper's *Portrait of an Unidentified Man* and *Portrait of Dorothy Catherine*, is indicative of a broadening of Draper's sphere of interest.

Conclusion: "I Never Was a Painter"

Just as the late nineteenth century little remembered Morse's career as an artist due to his work and fame with the telegraph, Draper's scientific work faded into obscurity for decades. As Morse turned from fine arts to technology, Draper turned from the practical sciences to the humanities. By the late 1850s, Draper's biographer records the chemist could no longer keep up with the "mushrooming literature" in the sciences – for he not only taught chemistry, but also physiology, physics, and geology.[69] He ceased publishing and working in the exact sciences, and began publishing texts either related to the historical ramifications of the sciences, or focusing on historical or political subjects. These include *History of the Intellectual Development of Europe* (1862), *Thoughts on the Future Civil Policy of America* (1865), *History of the American Civil War* (1870), and of course, *History of the Conflict Between Religion and Science* (1874). As Fleming has observed, Draper apparently was not aware that his work was taking what would be perceived as a divergent course, and "where such men had once been praised for breadth,

[69] Fleming, p. 57.

the nineteenth century now cut a vertical cross-section and observed that they had spread themselves thin."[70]

Morse, however, soon became aware that he could not straddle the widening divide between the humanities or fine arts and the sciences and technology. The majority of Morse scholars treat his gradual withdrawal from the artistic community (which, I believe, should include his involvement with the daguerreotype) as a natural by-product of his shift in focus to telegraphy. This is particularly true of his biographers Edward Lind Morse and Carleton Mabee. Historians of technology, on the other hand, tend to explain Morse's focus on science as an effort to gain respect within the ranks of professional scientists, not because of his past as an artist *per se*, but more due to his status as an amateur or a technologist.[71] While both of these readings of Morse's activity are in some part accurate, I contend that Morse at times almost forcibly rejected his former career as an image-maker because of his awareness of American culture's inability to accept him as both artist and scientist.

The knowledge that he could not be fully accepted as an artist and the type of scientist and inventor he desired seemed to become apparent over several years. In 1837, after Morse had constructed his telegraphic prototype and commenced actively improving it, he penned a note to the *New York Journal of Commerce* proclaiming himself as the telegraph's inventor: "The gentleman alluded to by the Editor of the New York Observer [the *Journal of Commerce* seems to have re-printed an *Observer* article], as the inventor of the Electro-Magnetic Telegraph, is Professor Samuel F. B. Morse, the President of the

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[70] Fleming, p. 56.

[71] For example, see Hochfelder, pp. 37-52, and Iwan R. Morus, "Telegraphy and the Technology of Display: The Electricians and Samuel F. B. Morse," *History of Technology* 13 (1991): 33-35.

National Academy of Design."[72] At this point, as well as during his subsequent involvement with the daguerreotype, Morse was comfortable calling himself an inventor *and* president of the Nation's leading art academy. By 1843, however, while Morse was in Washington waiting to hear if Congress would approve funds to finance an experimental Baltimore-Washington telegraph line, some fellow Academicians showed displeasure with their president's dual roles. Fellow artist Asher Durand complained to a friend:

> [Morse] has been all winter at Washington . . . trying hard to push his 'dunder & blixen' Telegraph thru Congres . . . I am afraid however that Uncle Sam will be found lightning proof in this case & that his unlucky Godson will return as he went with the exception of having exhausted the $700 salary from the N.A.D., with small benefit to the Fine Arts.[73]

Whether or not Morse was aware of the Academy's unhappiness with him is unknown; he was becoming well aware, however, of his lack of scientific knowledge and the repercussions this might have on his status as a serious inventor. After he was awarded $30,000 by Congress to realize his Baltimore-Washington line, he made what biographer Kenneth Silverman has termed "a bid for scientific respectability": he published an article in his former professor Benjamin Silliman's journal, *Silliman's American Journal of Science*, "experiments made with one hundred pairs of Grove's battery, passing through one hundred sixty miles of insulated wire."[74] He asked Draper to provide an addendum

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[72] Samuel F. B. Morse to the Editor of the *Journal of Commerce*, April 27, 1837, Morse Papers.

[73] Asher B. Durand to Theodore Allen, February 23, 1843, Asher B. Durand Papers, New York Public Library.

[74] Silverman, p. 223, and Samuel F. B. Morse, "Experiments made with one hundred pairs of Grove's battery, passing through one hundred sixty miles of insulated wire," *Silliman's American Journal of Science* 45 (October 1843): 390-394.

of mathematical analysis to his article, proving that Morse's 160-mile experiment would also work over greater distances.

After this "public relations exercise," as historian of technology Iwan R. Morus has called Morse's article, and the complete success of the Baltimore-Washington telegraph in 1844, members of the artistic community again questioned Morse's commitment to the fine arts.[75] The following year at least one journal called for his resignation as president of the National Academy of Design:

> Mr. Morse has probably been doing more to confer renown upon himself, and benefit upon his nation, by his scientific labors the past five years, than he ever did before; but when he seeks for reputation in any other field of employment than that of art, he should resign his post. . . . No true artist ever abandoned his profession.[76]

Morse must have felt the pressure of this public accusation, for he did not accept the Academy's re-nomination of his Presidency that year.

In 1846, however, an anonymous notice appeared in the *National Intelligencer*, suggesting that Morse be awarded the commission to complete recently deceased Henry Inman's unfinished panels in the Capitol Rotunda.[77] Who began the call on Morse's behalf is unknown (possibly the artist/inventor himself?), but eventually enough momentum gathered that Morse had a slew of supporters, including Durand and several of his former colleagues from the National Academy. Though he initially proclaimed indifference, Morse allowed himself a glimmer of hope, and confessed to his brother Sidney that if awarded the commission, it would be an act of divine Providence:

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[75] Morus, p. 35.

[76] "The Art Union Pictures," *The Broadway Journal* 1 (January 18, 1845): 37.

[77] *National Intelligencer*, February 19, 1846, p. 3.

> It has always seemed a mystery to me how I should have been led on to the acquirement of the knowledge I possess of painting, with so much sacrifice of time and money, and through so many anxieties and perplexities, and then suddenly be stopped as if a wall were built across my path, so that I could pursue my profession no longer. . . . And now, if not greatly deceived, I have a glimpse of [God's] wonderful, truly wonderful mercy toward me.[78]

Morse should have known better. The Congress that awarded him $30,000 for his inventive efforts and employed him as superintendent of the Baltimore-Washington telegraph line was not about to bestow the painting of their rotunda to the same man, particularly one who had not painted a picture in nine years; the commission went to Ohio artist William H. Powell.

The most telling incident regarding the growing divide within American culture between the arts and the sciences, in terms of Morse's career, was the series of lawsuits regarding Morse's telegraph patents. The cycle of lawsuits is too lengthy and complicated to detail in full, but the legal actions concerning the telegraph lasted for six years, between 1848-1854, and eventually numbered fifteen.[79] Attackers included former business partners and associates Henry O'Rielly and Francis O. J. Smith, and, in questioning his rights to the invention, what came under attack were Morse's abilities as a scientist. His scientific knowledge was, quite frankly, not incredibly strong in the traditional sense of a pure scientist working in a laboratory, and Morse knew it. The most damning testimony came from Joseph Henry, possibly the nation's best-known scientist in the mid-nineteenth century. Henry was called to give a deposition in the first of these lawsuits, Morse versus O'Rielly, in September of 1849. In his deposition, Henry stated:

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[78] Samuel F. B. Morse to Sidney E. Morse, March 28, 1846, quoted in *Letters* Vol. 2, p. 267.

[79] For a full account of the various lawsuits, see Carleton Mabee, *The American Leonardo, A Life of Samuel F. B. Morse* (New York: Alfred A. Knopf, 1943), pp. 307-317, Silverman, pp. 307-324, and Hochfelder, pp. 167-263.

> I am not aware that Mr. Morse ever made a single original discovery in electricity, magnetism, or electro-magnetism, applicable to the invention of the telegraph. I have always considered his merit to consist in combining and applying the discoveries of others in the invention of a particular instrument and process for telegraphic purposes. . . . [When I met Morse in 1837, he had] very little knowledge of the general principles of electricity, magnetism, or electro-magnetism. He made no claims . . . to any scientific discovery.[80]

Of course, Henry felt he had been treated unfairly by Morse: his important work on electro-magnetism had been left out of Morse partner Alfred Vail's book on the telegraph. Also, Henry prioritized what he termed "abstract" science, what is now called basic or pure science, and made a conscientious distinction between theoretical science and the mechanical work of technologists or inventors. Henry believed in the importance of applying science to invention, but protested the belittling of theorists and their academic accomplishments in comparison to the adulation of inventors and machines.[81] While the Supreme Court eventually granted Morse almost complete control of the electro-magnetic telegraph patents (save the claim that Morse had exclusive use to electro-magnetism for recording, which the Court felt was too broad), throughout the litigation Morse had been keenly aware and defensive of his lack of formal scientific training due to statements like Henry's.

Significantly, it is only after Henry's deposition that Morse makes his most forceful statements rejecting his artistic past. In October 1849, he ignored a plea from artist and Academician Charles Ingham for financial help with the Academy's rent and

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[80] "Deposition of Joseph Henry in the Case of Morse versus O'Reilly, taken in Boston, September, 1849," *Extracts from the Proceedings of the Board of Regents of the Smithsonian Institution, In Relation to the Electro-Magnetic Telegraph* (Washington, D.C.: Smithsonian Institution, 1858), pp. 35-36.

[81] *A Scientist in American Life, Essays and Lectures of Joseph Henry*, eds. Arthur P. Molella, Nathan Reingold, Marc Rothernberg, Joan F. Stiener and Kathleen Waldenfels (Washington, D.C.: Smithsonian Institution Press, 1980), p. 5.

other payments.[82] The following month, he wrote of his break with his former profession to his old friend James Fenimore Cooper. Cooper had apparently wanted to discuss the possibility of Morse purchasing a painting. Morse provided the following, fairly astonishing reply:

> My dear sir, the very name of pictures produces a sadness of heart I cannot describe. Painting has been a smiling mistress to many, but she has been a cruel jilt to me. I did not abandon her, she abandoned me. I have taken scarcely any interest in painting for many years. Will you believe it when last in Paris in 1845, I did not go into the Louvre, nor did I visit a single picture gallery. . . . Except for some family portraits, valuable to me for their likenesses only, I could wish that every painting I ever painted was destroyed. I have no wish to be remembered as a painter, for I never was a painter.[83]

Of course, this sort of hyperbole is typical of Morse's dramatic nature. But coming so close on the heels of Henry's denigration of his scientific abilities (which so affected Morse that he began a years-long battle with Henry, in which the two published tracts defending themselves against real or perceived accusations of the other[84]), Morse's complete denial of his artistic past cannot be separated from his desire to be accepted as a serious scientist and inventor. The lack of acceptance by American culture for Morse to be both is a direct result of the professionalization of both the arts and the sciences in America during the first quarter of the nineteenth century. It is worth recalling, for

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[82] Charles Ingham to Samuel F. B. Morse, October 13, 1849, Morse Papers.

[83] Samuel F. B. Morse to James Fenimore Cooper, November 20, 1849, Morse Papers.

[84] Morse attacked Henry's deposition with the publication, *The Electro-Magnetic Telegraph, A Defense Against the Injurious Deductions Drawn from the Deposition of Professor Joseph Henry (in the several telegraph suits) with a Critical Review and Examination of Professor Henry's Alleged Discoveries Bearing Upon the Electro-Magnetic Telegraph* (New York: Pudney, 1855), in which he claimed Henry had little to do with the technology behind the telegraph. Henry responded by submitting his case to the Regents of the Smithsonian Institution, requesting they examine the accusations and present their findings. The committee found all of Morse's allegations against Henry false, and labeled the publication as character aspersion against Henry. See *Extracts from the Proceedings of the Board of Regents of the Smithsonian Institution, In Relation to the Electro-Magnetic Telegraph.*

example, that earlier artist-scientists such as Peale did not encounter this kind of resistance, and indeed were celebrated for their diversity.

This cultural shift in American society affected Morse's work with the daguerreotype. At the time of his photographic activity, Morse was not fully aware that he would not be accepted as both artist and scientist. He had only given up painting a few years prior to focus on the telegraph, and was thrilled that, with the daguerreotype, he might be able to both produce a visual product and engage with a new, communication-based technology. Morse was soon aware, however, that he would not realize his life-long goals of national service and personal renown through photography. While it is true that the daguerreotype was celebrated because of its technological aspects – as discussed, like the telegraph, its progressive abilities to annihilate time and space were much renowned – it had two strikes against it. First, it was not an American invention. American culture put great stock in its technological abilities, and while it eventually claimed the daguerreotype as its own, it became clear to Morse that his star (and America's) would rise much more quickly if he were to pour all his energies into the telegraph, a device whose father-figure in 1839-42 was still up for grabs. Second, the daguerreotype was an image-based technology, and too closely related to the fine arts to cause the same type of cultural impact as the telegraph. As described above, Morse was fascinated with the daguerreotype's potential to cause a revolution in art, and, having fought for years to interest the American public in fine art, he was acutely aware of his nation's overall disinterest in the subject. Indeed, the daguerreotype soon became

regarded as something "men enter into [it] because they can get nothing else to do," while the telegraph was known as "*the* feature of the age."[85]

Intriguingly, the only person who ever said outright that Morse's lack of abilities as a scientist were due to his training as an artist was his partner in photography, John W. Draper. In the early 1870s, while defending his status as the first to take a photographic portrait, Draper asserted, "Professor Morse never made any pretension to a knowledge of chemistry or optics. His life had been spent in the study of art, not in the severe discipline of science."[86] By this time Morse's reputation as inventor of the telegraph and his status as an American icon were secure, however, and it is doubtful that Draper's assertions were well heeded. Indeed, the publication of the 1872 memorial ceremonies for Morse makes explicit that the artist and inventor was primarily remembered and lauded as a man of science. In this ceremony, telegraph messages poured in from around the country and the world and were read aloud, and over and over again Morse's scientific abilities were praised. The Great Union Western Telegraph Company in Chicago, for example, declared, "Franklin in drawing electricity from the clouds only demonstrated a scientific fact. *Our* saint of science drawing electricity from the earth sent it around the world."[87]

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[85] Editor's note, "The Art of Photography," *Photographic Art Journal* 1 (January 1851): 1; Unidentified newspaper clipping, September 9, 1846, Morse papers.

[86] John W. Draper to the Editor, *Scribner's Monthly* 6 (May 1873): 124.

[87] *Memorial of Samuel Finley Breese Morse* (Washington, D.C.: Government Printing Office, 1875), p. 93.

A few speakers, however, did note Morse's involvement with the fine arts, and a few of these were able to grasp the connection between his work in art and his work in invention. S. S. Cox, for example, noted in his speech:

> [Morse] was not strictly a man of science, but a man of art. He went from the field of practice into the field of speculation, and accomplished there more by his gleaning than did the whole tremendous array of reapers had found there. He was a man accustomed to deal peculiarly with results; for the tools and materials of the artist are all of them the results of applied intelligence and the products of human manufacture.[88]

The Honorable N. P. Banks, in the ceremony's closing remarks, not only credited Morse's artistic training with his ability to create the telegraph, but also summarized the similarities between the photograph and the telegraph:

> The cultivation of the imagination, which naturally resulted from [Morse's] studies in art, imparted a clearer insight into the nature of things than another course of life might have given. It revealed to him affinities, and led him to conclusions not obvious to other minds. . . .Stupendous changes have been accomplished in a great degree by the remarkable discoveries and inventions of the present century, most of which have been of American origin. The steamship and the railway . . . afford limitless facilities for international communication. The photograph, the discovery of Daguerre, familiarizes all nations with the portraiture, customs, traditions, and the prominent incidents in each day's history of the world. . . .And the telegraph affords the whole human race the means of instantaneous communication. . . . The mysterious connection between art and invention, as manifested by Fulton, Daguerre, and Morse, deserves at our hands a recognition that shall adequately express our appreciation of their great importance to modern civilization.

Banks, mindful of the fact that this was Morse's day, concluded by declaring, "Of these agencies the telegraph is first in importance and power."[89] Significantly, he made no mention of Morse's work with the daguerreotype. One of the only direct references to

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[88] Ibid., p. 102.

[89] Ibid., pp. 129-136.

Morse's photographic activity was made in a town meeting in Rochester, New York (notes from these individual meetings, which were to take place on the same day as the national ceremony, were later gathered and published in the one Memorial volume). Here, a Dr. Robinson stated, "Whether as artist and originator of the National Academy of Design, or as the first in this country to use the invention of Daguerre, [Morse] was diligent in the single purpose to be useful to mankind."[90]

As the assembled speeches and materials in the Memorial publication make clear, Morse's reputation as the "Father of American Photography" was already fading at the end of the nineteenth century. Indeed, as with his limited involvement with the artistic community after 1849, Morse had remained only marginally active in the photographic community in his later years. In 1851 and 1853 he served as a judge for his former photography student Edward Anthony's competition for the "Anthony Prize." This competition began as an award for "the most important improvement in photographic art," and soon evolved into a competition for "the artist who should, within a given time, produce the four best sun pictures."[91] These competitions, though, appear to constitute the majority of Morse's involvement with photography after he stopped taking daguerreotypes in 1841. Of course, Morse was an active photographic subject as well, and is pictured with his daguerreotype camera, as discussed in Chapter Two, and also with an early telegraphic device (Fig. 52). Whether Morse was actively using photography to promote his own self-image, or whether the photographers were

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[90] Ibid., p. 289.

[91] "Mr. E. Anthony," *The Bulletin of the American Art-Union* (June, 1851): 48, and "Premium Offered," *The Scientific American* 6 (May 17, 1851): 277; "The 'Anthony Prize' Presentation," *The [New York] Evening Post*, December 22, 1853, p. 2

attempting to capitalize on Morse's fame by adding his countenance to their roster of celebrity images, is unclear; it was probably a combination of both. Regardless, these and other photographs of Morse were probably widely circulated. Morse did become involved in the controversy surrounding whether or not the Reverend Levi L. Hill had produced color daguerreotypes in 1850-51, and, as detailed in Chapter Two, for the most part he answered related queries regarding his work if they were presented to him.[92] One exception is the well-known letter of his possible former student Mathew Brady. Brady wrote to Morse in 1855, asking him to comment on the relationship between the daguerreotype and the fine arts. Though Morse noted on the letter that he informed Brady he would answer his queries when he returned from Washington, this reply, if ever given, does not survive.[93] But the mere fact of Brady making such an inquiry of Morse is indicative of American daguerreotypists' ardent desire for a progenitor and role model to which they could turn. More importantly, though, it highlights the very real importance of Morse's contributions to the early history of photography in the United States, and the understanding of that significance within the mid-nineteenth century photographic community in America.

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[92] Morse's interaction with Hill is detailed in Beaumont Newhall, *The Daguerreotype in America* (New York: New York Graphic Society, 1961), pp. 97-106.

[93] Mathew B. Brady to Samuel F. B. Morse, February 15, 1855, Morse Papers. Morse's note across the top of the letter is dated February 21.

Appendix

Extant Daguerreotypes by S.F.B.M.

Portrait of Reverend Rueben Nelson, Metropolitan Museum of Art, New York
Portrait of a Man, Private Collection
Portrait of a Man, Private Collection

Extant Daguerreotypes by S.F.B.M. and John William Draper

Still-Life, National Museum of American History, Smithsonian Institution, Washington, D.C.

Extant Daguerreotypes Possibly by S.F.B.M.

Portrait of a Young Man, International Center of Photography, New York
Portrait of John William Draper, National Museum of American History, Smithsonian Institution, Washington, D.C.

Known Daguerreotypes Taken by S.F.B.M., Unlocated

(have primary source documentation of their existence)

Views:

View of Unitarian Church of the Messiah on Broadway, by September 28, 1839

- *New York Journal of Commerce*, September 28, 1839

View of the Back of City Hall, January 14, 1840

- Entry in Morse's notebook, "Memoranda of the Daguerreotype," Morse Papers

View of City Hall, Courdan, Perkins & Co. plate, by February 18, 1840

- Multiple newspaper notices, the first being *The [New York] Evening Post*, February 18, 1839, p. 2

Still-Lifes:

Still-life subject with Bust, Books and Rug, November 1839

- Letter of S.F.B.M to Alfred Vail, November 4, 1839, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D.C.

Portraits:

Group of Portraits of Susan Walker Morse, his daughter, alone and with friends, possibly Fall 1839-Winter 1840

- Letter of S.F.B.M to Marcus Aurelius Root, February 10, 1855, re-printed in "Who Made the First Daguerreotype in this Country?," *The Photographic and Fine Art Journal* 8 (September 1855): 280

Portrait of Samuel Irenaeus Prime, 1839-40
- *Memorial of Samuel Finley Breese Morse* (Washington, D.C.: Government Printing Office, 1875), p. 11

Portrait of Susan Walker Morse, his daughter
- *New-York Observer*, April 18, 1840, p. 63

Portrait of Sarah Breese Walker, possibly with friends and/or husband, Thomas R. Walker, on roof of New York University building, Summer 1840
- *Personal Reminiscences of the Late Mrs. Sarah Breese Walker* (compiled by James Eglinton Montgomery, privately printed, 1884), p. 50

Portrait of Samuel Breese, by August 10, 1840
- Letter of Samuel Breese to S[amuel] Sidney Breese and Helena Breese, August 10, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester, Rochester, New York

Group portrait of 1810 thirty-year reunion class at Yale, August 1840
- *New-York Observer*, August 29, 1840, p. 138

Family group of three persons, February 1841
- *The [New York] Evening Post*, February 13, 1841, p. 2

Portrait of Jacob Gebhard, of Schoharie Court House, Sconondoa, New York
- Harry Wehle, *Samuel F. B. Morse, American Painter* (New York: Metropolitan Museum of Art, 1932), p. 48, listed under "Addenda"

Known Daguerreotypes Taken by S.F.B.M. and J.W.D., Unlocated

Portrait of Theodore Frelinghuysen, Summer 1840
- Recalled by John William Draper and quoted in his own obituary, "Dr. John Draper Dead," *New York World*, January 5, 1882, p. 5

Daguerreotypes Possibly Taken or Attempted by S.F.B.M., Unlocated
(have primary source documentation of S.F.B.M.'s attempts or desires to photograph these subjects)

View of Brooklyn from Rooftop of University Building, February 7, 1840

- Entry in Morse's notebook, "Memoranda of the Daguerreotype," Morse Papers

View of Speedwell Iron Works, Morristown, New Jersey (attempted), May 1840

- Letter of George Vail to Alfred Vail, May 8, 1840, Vail Telegraph Papers, Smithsonian Institution Archives, Smithsonian Institution, Washington, D.C.

Portrait of Fanny Brown and Portrait of Thomas R. Walker of Utica, New York (desired), Fall 1840

- Samuel Breese to Catherine Breese, October 6, 1840, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester, Rochester, New York

View of Niagara Falls (desired), July 1841

- Letter of Sidney R. Roby to Sidney Breese, July 17, 1841, Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester, Rochester, New York

Portrait of Sarah Breese Walker, possibly with friends and/or husband, Thomas R. Walker, in Utica, New York (attempted), Summer 1841

- *Personal Reminiscences of the Late Mrs. Sarah Breese Walker*, p. 50

Related Extant Material

Daguerreotype mat stamped "SFBM," Private Collection

Morse Camera, National Museum of American History, Smithsonian Institution, Washington, D.C.

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Breese-Stevens-Roby Papers, 1705-1923, Rare Books, Special Collections & Preservation, Rush Rhees Library, University of Rochester

Draper Family Collection, 1835-1908, Archives Collection, National Museum of American History, Smithsonian Institution

Draper Family Collection, 1844-1985, University Archives, New York University

Francis O. J. Smith Papers, 1818-1876, Maine Historical Society

John William Draper Family Papers, 1777-1951, Manuscript Division, Library of Congress

Morse Family Papers, Beinecke Rare Book and Manuscript Library, Yale University

Samuel F. B. Morse Manuscripts, New-York Historical Society

Samuel F. B. Morse Papers, Manuscript Division, Library of Congress

Vail Telegraph Collection, Smithsonian Institution Archives, Smithsonian Institution