

Bowdoin College Museum of Art

December 12, 2019–May 31, 2020

Label Copy

Transcending the boundaries of art and science, Rufus Porter (1792–1884) employed his mind's eye and spatial imagination to design pictorial and mechanical systems in various media and on different scales. He painted portraits and landscapes, authored practical manuals, invented mechanical devices, founded *Scientific American*, and designed an airship to fly Gold Rush prospectors from New York to California in three days. Porter believed these advancements would create a better world.

This exhibition presents his many endeavors in the context of the Enlightenment, ot(p) -1 -2 1 (s w) 1 (o) 1 ((a) -1 s w) 1 (t

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carved mahogany case resembling a temple of learning. Scientific achievement was one avenue by which Americans kept apace internationally. Wealthy amateur scientists commissioned costly instruments, such as this air pump, in order to conduct their own experiments and gain the favorable notice of learned British and European societies. As founding president of the American Academy of Arts and Sciences, established in Boston in 1780, James Bowdoin II included Prince's "Account of an Air-Pump on a New Construction" in the academy's first published papers, *Memoirs of the American Academy of Arts and Sciences* in 1785.

VALENTINE GREEN, after JOSEPH WRIGHT
British, 1739–1813

A Philosopher Shewing an Experiment on the Air Pump, 1769
mezzotint

Yale Center for British Art, Paul Mellon Collection

Scientific experiments—with their thrill of discovery—were often conducted in parlors. The British artist Joseph Wright captured their theatricality in a large painting entitled *An Experiment on a Bird in the Air Pump*, 1768 (National Gallery, London). Its popularity resulted in this mezzotint by Valentine Green, printed for a wider distribution. In a dramatically lit scene, two girls react to the bird's possible fate as air was removed from the glass globe. Other types of experiments were conducted, including how a lack of oxygen affected the preservat1 (e) 16gen frf

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Gift of Mrs. P. S. J. Talbot
1869.1–2

Charles Balthazar Julien Fevret de Saint-Mémin emigrated from Paris after the outbreak of the French Revolution. Once in the United States, the aristocratic Saint-Mémin, who had previously practiced art as a gentlemanly pastime, turned his avocation into a profession. From 1793 until his return to France in 1814, he traveled through the country making profile portraits with the aid of a mechanical device called a physiognotrace. An adaptation of a simple pantograph, still used as a drafting tool or child's toy, it allowed artists to precisely trace a sitter's profile and easily make duplicates (see inset figure). Saint-

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JOHN BREWSTER JR.

American, 1766–1854

Moses Quinby, 1808–1810

oil on canvas

Gift of Mrs. Candace E. Quinby Maynard

1950.15

In Portland Porter may have crossed paths with John Brewster Jr., the accomplished itinerant portraitist.

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Maine Historical Society, bequest of M. Persis Mellen Bailey

CHARLES CODMAN
American, 1800

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Porter operated along many of the same geographical networks as Hovey, selling miniature portraits and developing commercial plans for his various inventions.

CHARLES BIRD KING

American, 1765–1862

Portrait of an Unknown Artist, ca. 1835–1860
oil on panel

Gift of Ross Levett
1974.47

In this portrait King shows a humble artist contemplating his next work. It could be an idealized self-portrait or a portrait of Nathaniel Bird, his grandfather, an artist who taught King to paint. He holds a *porte-crayon*

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which continues to thrive today. In these efforts, Porter helped democratize art and invention for Americans.

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Daguerreotypes of a woman and her three children holding a miniature portrait by Rufus Porter, ca. 1847
sixth-plate daguerreotypes, cased together

Private Collection

Porter's last known miniatures of identified sitters coincided with the advent of photography. Perhaps surprisingly, for all his artistic and technological know-how Porter exhibited no interest in pursuing this new medium. In the pendant portraits seen here, an unidentified mother and her three children hold a miniature of an unknown man (possibly the spouse and father) that is attributed to Rufus Porter.

RUFUS PORTER and STEPHEN TWOMBLY PORTER
American, 1792–1884 and American, 1816–1850

Francis Howe House Mural (second-floor hall), dated 1838
distemper paint on plaster

Courtesy of Julie Lindberg

Porter's best documented panoramic murals decorated Massachusetts houses. Although some still survive in their original interiors, this mural, along with the rest of its cycle, was removed before the Francis Howe house in West Dedham (now Westwood) was demolished in 1965. Featuring a large cupolaed building—probably an academy—it decorated the second-floor hall, extending the mountainous landscape of the two-story stair wall (seen in digital reproductions on the adjacent touchscreen). Porter's perspectives—fore-, middle- and backgrounds—were more finely developed than those of many of his followers. His arching elm trees and “wild shrubbery” were among the many details he later described in his *Scientific American*

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beginning of the period in his life when he turned his attention away from making art and towards mechanical improvements and inventions.

RUFUS PORTER

American, 1792–1884

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RUFUS PORTER, designer; UNIDENTIFIED ENGRAVER
American, 1792–1884

Scientific American, January 1, 1846

Courtesy of the American Antiquarian Society, Worcester, Mass.

RUFUS PORTER, designer; CHARLES P. HUESTIS, engraver
American, 1792–1884; American, dates not recorded

New York Mechanic, May 8, 1841

Courtesy of the American Antiquarian Society, Worcester, Mass.

RUFUS PORTER, designer; BOOKHOUT & SIMONS, engraver
American, 1792–1884; American, working dates not recorded

American Mechanic, April 2, 1842

Courtesy of the American Antiquarian Society, Worcester, Mass.

RUFUS PORTER, designer; MAURICE CHARLES, engraver

RUFUS PORTER

American, 1792–1884

Travelling Balloon, or Flying Machine from *Mechanics' Magazine, and Journal of the Mechanics' Institute*, November 8, 1834

Image courtesy of the American Antiquarian Society, Worcester, Mass.

Porter first proposed a “travelling balloon” in an 1834 letter to the editors of *Mechanics' Magazine*, published in New York. He included this illustration of the apparatus in his letter. Porter explained that the balloon would be 500 feet long and 50 feet in diameter and that a suspended cabin or “stage” would accommodate passengers. “Motion,” he added, “is communicated to ... spiral fans, from a steam engine of ten horse power, having a boiler of a light portable kind, and situated on the after part of the stage.” Initially Porter believed an operable passenger aircraft was decades away. He wrote, “such is my plan for flying ... I shall indulge the hope that some enterprising person will within another seventy years build and put in successful operation a manageable balloon.”

RUFUS PORTER

American, 1792–1884

Aerial Navigation: The Practicability of Traveling Pleasantly and Safely from New-York to California in Three Days, Fully Demonstrated (back cover), 1849

On loan from the Collections of the Minnesota Historical Society, Manuscript Collection, William Markoe & Family Papers

Fifteen years after first proposing his “travelling balloon,” Porter believed that aerial locomotion was imminent. He published *Aerial Navigation*, his magnum opus on the subject in 1849, with the objective of

ANDREW DONNELLY
American, working 1840s

Mr. Golightly, Bound to California, ca. 1849
lithograph

Prints and Photographs Division, Library of Congress, Washington, D. C.

Humorists had long lampooned the foibles of balloonists and aerial engineers, and by the 1840s satirical prints featuring the fictional character Charles Golightly were popular in England and the United States. Caricaturists typically depicted Mr. Golightly as a confidence man straddling a steam-powered rocket. In 1849, the same year Porter proposed to fly prospectors from New York to gold territory in three days, the print publisher Andrew Donnelly released a lithograph showing Golightly on a rocket “bound to California.” Satirical text captures the era’s hyperbole—Golightly flies “through the Firmament like a streak of greased lightning on a Telegraphic wire.”

NATHANIEL CURRIER
American, 1813–1888

The Way They Go to California, 1849
lithograph

Prints and Photographs Division, Library of Congress, Washington, D. C.

Nathaniel Currier, who established the lithography company Currier & Ives, also satirized Mr. Golightly in 1849. His lithograph *The Way They Go to California* teased the delusional hysteria of Gold Rush fever. Pickaxe-carrying forty-niners scramble desperately to board a vessel bound for California. The unlucky who just miss the ship vow to swim “anyhow,” and Mr. Golightly blasts off with a promise to arrive “in advance of the telegraph.” Porter’s aerial steamer appears in the upper left among these circus ships. It carries impatient miners, some already swinging their pickaxes. Currier rendered Porter’s cigar-shaped gasbag as a speech balloon: “Each passenger must provide a boy to hold his hair on.”

RUFUS PORTER
American, 1792–1884

Letter to William Markoe, [Washington, D. C.], August 5, 1851

Markoe Family Collection

Despite the ridicule Porter received from satirists, he persevered and continued to promote his enterprise. Of the approximately 700 investors in Porter’s Aerial Navigation Company, William Markoe emerged as Porter’s most dependable patron and closest confidante. A native of Philadelphia, Markoe had attended one of Porter’s demonstration flights of a model aerial steamer in New York in 1849. That year Markoe was ordained as an Episcopal minister and moved to the Midwest. For the next several years Porter and Markoe corresponded about many different subjects, including aerial navigation, religion, and slavery. Almost a year after Congress passed the Fugitive Slave Act in 1850, Porter defiantly stated in this letter to Markoe that he would *not* use “the aeroport to capture runaway slaves and return them to Georgia.”

RUFUS PORTER
American, 1792–1884

Aerial Navigation Stock Certificate, issued to William Markoe, 1852

On loan from the Collections of the Minnesota Historical Society, Manuscript Collection, William Markoe & Family Papers

In 1850 Porter moved his base of operations to Washington, D.C. and redoubled his efforts. He attempted to raise capital by publishing informational pamphlets, requesting a \$5,000 appropriation from Congress and issuing open stock in his Aerial Navigation Company. This stock certificate belonged to William Markoe, his loyal patron. Porter had offered shares in earlier enterprises, including a wind-powered gristmill in 1818 and an improved rotary plow in 1842.

RUFUS PORTER

American, 1792–1884

Letter to William Markoe, [Washington, D. C.], August 23, 1853

On loan from the Collections of the Minnesota Historical Society, Manuscript Collection, William Markoe & Family Papers

Correspondence between the two men reveals Markoe’s astonishing patience with Porter, who mismanaged money and misled investors about the aeroport’s progress. On August 23, 1853, apparently addressing Markoe’s concerns about the Aerial Navigation Company, Porter wrote: “Oh! William Markoe,—All my successive, combinations of misfortunes, disappointments and adversities, even with the addition of distressing sickness in my family, have not yet moistened my eyes as did your last letter. Now, I am firmly determined that I will never employ a dollar of this money from you, until I can command enough to give me *assurance* of being able to complete the work, without suspension: but will hold it to be returned to you, if the work fails of completion.” Markoe later conceded that his investment was lost, ruefully telling a friend that he no longer trusted Porter. “Again and again he wrote me that everything was *almost* ready,” Markoe explained, “but invariably it would follow that some ‘adverse circumstance’ had knocked the whole concern on the head until the next season.”

RUFUS PORTER

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Ives produced the lithograph *The Progress of the Century* for the Centennial Exposition. The print extols the virtues of technology, in particular the machines—the railroad, the steamboat, the telegraph, and the steam-powered printing press—that connect Americans across vast distances.

Porter is conspicuously absent from this tribute to nineteenth-century invention. Unlike his celebrated peers, he was unable to scale up his ideas and models to the factory and marketplace. Porter was never a bitter or ungrateful man, however, and he maintained his equanimity and vigor into old age. On May 18, 1876, just before the centennial and a few weeks after he turned eighty-four, he wrote to his son that he had “walked seven miles, besides working six hours in the shop.” Porter’s legacy lies in his connectedness. He was plugged into the most modern ideas of his era, and his spirit is hitched to our own. Today’s engineers and artists—especially those working across disciplines—can find inspiration in Porter’s vision. His imaginative and forward-looking innovations linked art and technology in a way that remains relevant even in the twenty-first century.