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Seeing in Stereo: Albert Bierstadt and the Stereographic Landscape

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Abstract: In September 1860, the _Cosmopolitan Art Journal_ noted, “Bierstadt . . . has gone into the White Mountain region to sketch, and to experiment photographically, along with his brother, a photographer of eminence.” This article examines Bierstadt’s White Mountain landscapes in conjunction with his stereographic experiments in the 1860s to explore how he used stereographic techniques to enhance both the process of looking at and experiencing his more intimate landscape paintings.
Seeing in Stereo: Albert Bierstadt and the Stereographic Landscape
by Kirsten M. Jensen

We call the attention of admirers of photographs to a series of views and studies taken in the White Mountains, published by Bierstadt Brothers of New Bedford, Mass. . . . The artistic taste of Mr. Albert Bierstadt, who selected the points of view, is apparent in them. No better photographs have been published in this country.

—The Crayon (January 1861)[1]

In 1860, Charles and Edward Bierstadt, brothers of the landscape painter Albert, published a small compilation of stereographic views complete with prismatic viewing lenses, titled Stereoscopic Views Among the Hills of New Hampshire.[2] As the passage above indicates, Albert was closely involved in their new commercial venture, and his collaboration with his brothers had been publicized earlier in the Cosmopolitan Art Journal which noted, “Bierstadt . . . has gone into the White Mountain region to sketch, and to experiment photographically, along with his brother, a photographer of eminence.”[3] Bierstadt’s sketching and painting activities in the White Mountains were documented by a stereograph his brothers took of him working en plein air (fig. 1). Over the course of his career, Albert Bierstadt worked closely with a number of other photographers including Carleton Watkins and Eadweard Muybridge who made a stereograph of Bierstadt working in Yosemite (fig. 2). These images not only mark the artist’s close collaboration with photographers and his interest in stereography, but also suggest that stereography was important to Bierstadt’s painting process.[4] Its importance to Bierstadt’s method is underscored by a stereograph from 1859 that depicts the artist at his easel in his New Bedford studio, surrounded by patrons who watch as he puts the finishing touches on the landscape, Thunderstorm in the Rocky Mountains (Museum of Fine Arts, Boston).[5] on the easel next to the canvas rests a stereocard presumably made during the Lander Expedition, which Bierstadt had joined briefly that summer (fig. 3).

Fig. 1, Bierstadt Brothers, Looking into Snow Arch, Tuckerman’s Ravine, N. H. (plate 2742), ca. 1860–62. Albumen silver print stereograph. Private collection. [larger image]
Of what significance is it that Albert Bierstadt “experimented photographically,” or that he was responsible for selecting the points of view for his brothers’ White Mountain stereographs at the same time he was sketching and painting similar subjects? It immediately suggests a number of compelling points about the role of photography in Bierstadt’s working method, composition, and technique. My purpose in this essay is to take a closer look at Albert Bierstadt’s White Mountain landscapes and his stereographic experimentation with his brothers during the 1860s with two questions in mind: How did Bierstadt use stereography to enhance the process of looking at and experiencing a painting? And, did stereography shape Bierstadt’s landscape aesthetic? There were several American landscape painters active at the time, such as Thomas Moran, William Keith, and Frederick Church, who used stereographs as part of their painting method to assist in the realistic depiction of details, and Bierstadt is also known to have used them similarly. However, I would like to propose that in his White Mountain landscape paintings, Bierstadt goes beyond the use of the stereograph as a mnemonic device and actually attempts to construct his paintings stereographically, thereby affecting the viewer’s visual and emotional experience of nature as represented in the painted landscape.

Bierstadt’s association with stereography is first mentioned in 1859, beginning with his involvement in the Lander Expedition to the Rocky Mountains, shortly after the artist returned from Düsseldorf, where he studied 1853–57. A notice published in *The Crayon* remarked: “Bierstadt has returned lately from the Rocky Mountains to New Bedford, and has brought with him much material in sketches, photographs, and stereoscopic views,” and a second account written by the artist from the field stated “we have taken many stereoscopic
views, but not so many of mountain scenery as I could wish.”[8] Thus begins Albert Bierstadt’s association with stereography and his use of that medium in the composition of his Western landscapes of the 1860s and 1870s—a time when the artist was beginning to establish his career in America.[9] However, few scholars have explored Bierstadt’s use of stereography. Elizabeth Lindquist-Cock was the first to do so, proposing both its significance to him as a mnemonic device and the ways in which the three-dimensional nature of stereographs may have suggested ways to convey depth in his Western panoramas such as the famous Rocky Mountains, Lander’s Peak (1863, Metropolitan Museum of Art).[10] Lindquist-Cock was also the first to document Bierstadt’s use of stereographs to complete foreground details in several Western landscapes painted upon his return from the Lander Expedition in 1859.[11] She also attempted to address whether Bierstadt himself took these photographs, or whether they were taken by his brothers—who may have been with him on the journey—or by another photographer. This latter issue remains unresolved; neither Bierstadt nor his brothers were official members of the expedition, so there are few records beyond the published reports of his activities while traveling with Lander’s party.[12]

Despite the compelling implications of the passages from Crayon and Cosmopolitan Art Journal, we still do not know the extent to which stereography influenced Bierstadt’s paintings of the White Mountains in New Hampshire. Articles written by scholars Catherine Campbell, William C. Lipke, and Philip N. Grime, have mentioned briefly stereography in relation to Bierstadt’s New Hampshire views, but their main purpose is to catalogue and revivify study of his non-western landscapes, not to explore the significance of stereography to Bierstadt’s aesthetic and working method.[13] However, a closer examination reveals that his sixty-odd White Mountain and New Hampshire landscapes represent a markedly different approach to nature than his more famous “grand manner” Western landscapes—even though they are largely contemporaneous.[14] Unlike his operatic Western panoramas, Bierstadt’s White Mountain landscapes, such as Mountain Brook, The White Mountains, New Hampshire (fig. 4) and The Mountain Brook (1863, Art Institute of Chicago), present a more intimate encounter with nature—an aesthetic that seems at odds with the grand narrative and sublime quality conveyed by his western landscapes.

Fig. 4, Albert Bierstadt, American, Mountain Brook, The White Mountains, New Hampshire, 1863. Oil on board. Collection of the Nasher Museum of Art at Duke University, Durham. Photo by Peter Paul Geoffrion.

[larger image]
Thus we arrive at a significant paradox of Bierstadt’s production during this first and crucial decade of his career: Bierstadt was simultaneously creating “grand manner” paintings of Western landscapes and intimate Eastern scenes—and in doing so, he was essentially operating under two different aesthetics in regards to the landscape. At this point, we do not know why Bierstadt painted two kinds of landscapes using two different aesthetics. However, we can begin to construct an understanding of how he did so by examining his collaboration with his brothers in the creation and publication of Stereoscopic Views—a collaboration that, as far as we know, entailed a greater engagement with stereography than his Western experiences. By looking at the White Mountain stereographs Bierstadt “styled” for his brothers and then comparing those with his paintings of the region’s landscape, we can draw some conclusions about the alternative aesthetic experience they convey.

Before exploring Bierstadt’s collaboration with his brothers’ stereographic enterprise, however, it is important to understand what stereography offered to Bierstadt that regular photography of the period—largely daguerreotypes—did not. Since the invention of photography in 1839, artists had recognized the potential of the camera to assist in creating illusionistic and realistic effects, but the stereograph offered an even greater example of optical reality. A stereograph is a double photograph or set of printed images paired in such a way that when viewed through a stereoscopic device appears to be a three-dimensional or solid image. Compared with the daguerreotype, the stereograph enhanced visual reality—it produced an “appearance of reality which cheats the senses with its seeming truth,” causing the viewer to mistake the picture plane for the actual scene it represented. Oliver Wendell Holmes, awed by the invention, declared, “The mind feels its way into the very depths of the picture. The scraggy branches of a tree in the foreground run out at us as if they would scratch our eyes out. . . . Then there is such a frightful amount of detail, that we have the same sense of infinite complexity which Nature gives us. . . . A painter shows us masses; the stereoscopic figure spares us nothing—all must be there, every stick, straw, scratch, as faithfully as the dome of St. Peter’s or the summit of Mont Blanc, or the ever-moving stillness of Niagara.” Holmes was delighted to note that the seemingly one-dimensional space of a photograph would reveal itself as a “real” space, a space that made three-point perspective an experiential fact. The viewers of a stereographic image of a landscape scene actually felt as if they were entering the forest, as if the “scraggy branches” of the tree in its foreground had actually brushed their faces.

The stereograph therefore suggested a more intimate encounter with the landscape, one that was heightened by Holmes’s invention of the handheld stereoscope in 1859. The handheld stereoscope brought the image directly to the eye, creating the illusion that there was nothing in between the viewer and the scene; the viewed space became no longer a flat surface with two images pasted on it, but a three-dimensional space that was experienced. This experience offered a particularly reassuring sense of the landscape because it was founded in a belief in photographic truth. To critics as well as the public, the depiction of three-dimensional space in a photographic medium seemed to represent “the plain unvarnished truth: the actual is absolutely before us, and we know it. There [is] no possibility of either adding or subtracting. The sun is a rare truth-teller, which cannot lie to produce effect, nor lead astray.” The “truth” of stereographs influenced cultural critics of the 1860s, who praised the medium’s ability to raise society’s aesthetic appreciation by bringing the viewer into an intimate relationship with the natural landscape they depicted and by “providing a learning experience”
that was “comfortably domesticated.”[22] This was in keeping with their encouragement to their readers to experience nature fully—an experience that was considered “a crucial amenity for the moral man.”[23] In comparison with traditional painted landscapes, the stereograph had the capacity to transmit surface details without its own surface “interfering” with the subject and its intended message.

However, even if the “truthful” stereograph was thought to supersede the painted landscape aesthetically, stereographers relied heavily on traditional aesthetics associated with landscape painting, primarily the picturesque. By the 1870s, cultural critics such as Wilson Flagg and James Mullen encouraged landscape photographers to take their cues from painting: “Study the works of eminent painters closely in selecting your views, keep in mind and endeavor to carry out as nearly as possible, the rules of art in regard to composition, balance of line, breadth and contrast in your picture.”[24] Stereographers frequently employed tricks so that they could capture a picturesque scene that they could not have done otherwise with the camera. Mullen instructed his readers that “the foreground being one of the main points in a picture, and generally required to be bold and effective, can, if not naturally so, be made so in a great measure by a little labor in the way of rolling up an old log or stump in an effective position . . . where [it] will be of service in making a proper balance or contrast as may be needed.”[25] Some physically manipulated the landscape, cutting down trees or pruning bushes in their effort to transform nature to match a picturesque ideal. By bringing a “a painter’s eye” to the production of stereographic images—an eye steeped in the aesthetics of the sublime and the picturesque—stereographers greatly enhanced the impact of their images and their ability to convey an intimate experience—no matter how staged the scene in the stereograph actually was.

The significance of the painter’s eye to stereography was highlighted in the *Crayon* and *Cosmopolitan Journal* articles that mentioned the connection between Albert Bierstadt and his brothers’ stereographs. Bierstadt had already acquired a reputation as a serious painter. He had shared a studio with Worthington Whittredge and enjoyed the support of Emmanuel Leutze in Düsseldorf, and had traveled throughout Europe with other well-known American painters. [26] By 1860, he established a studio in New York at the Tenth Street Studio, and a number of his European and New England landscapes had been exhibited at the National Academy of Design.[27] along with his rival and contemporary, Frederic Church, he was already being hailed by critics as the inheritor of the Hudson River School tradition.[28] Thus, by virtue of Bierstadt’s involvement in his brothers’ stereographic enterprise, the public could assume that when looking at one of their stereographs they would have a “true” sense of nature, one that had been filtered through—and composed by—Albert Bierstadt’s “painter’s eye.”

We can see the effect of Bierstadt’s painter’s eye in many of the Bierstadt Brothers stereographs; they have a signature compositional style and a number of characteristic qualities that become immediately recognizable once one is familiar with their work, and we can assume that Bierstadt was directly responsible for developing that signature style. Significantly, these same compositional strategies are also found in Bierstadt’s painted landscapes of the White Mountains. For the views published in Bierstadt Brothers’ *Stereoscopic Views of the Hills of New Hampshire* of 1862, it is readily apparent that Bierstadt followed the standard picturesque landscape-painting aesthetic as practiced by other artists associated with the Hudson River School. He carefully selected each scene so that natural elements, such as
rocks, logs, and sharp branches were placed in the immediate foreground, thereby dramatically increasing the sense of depth and recession into the scene depicted, as in the view of Thompson’s Cascades (First) Glen (fig. 5). This was a standard technique incorporated by painters to assist in transforming the flat surface of the canvas into a seemingly three-dimensional space, and it was one of the techniques of landscape painting that stereographers replicated in their scenic views—sometimes artificially—to accentuate the spatial illusion space. Lindquist-Cock has described the resulting effect as “having a floor,” that is, that in stereographs “the foreground seems so close underfoot that it seems possible to enter the scene.”[29] The eye tends to make its maximum differentiations close-up, and thus stereographic images achieve their strongest effects of three-dimensionality in the near distance, or foreground.

Fig. 5, Bierstadt Brothers, Thompson’s Cascades (First) Glen, N.H. (plate 1037), ca. 1860–62. Albumen silver print stereograph. Private collection. [larger image]

This kind of foreground accentuation can be seen in Thompson’s Cascades. The viewer’s vantage point is immediate, as if we were standing on the rocks situated slightly lower than those in the lower foreground, looking toward the falls. What would appear in a regular photograph to be merely a flat group of rocks in the foreground becomes in the stereograph a structure with sharply-defined edges that distinguishes its space from that occupied by the mirror-like pool beyond in the middle ground of the image. Such accentuation of the foreground necessarily suggests a middle space, a peculiarity of stereography that is unachievable in the “flat” space of a regular photograph, and which, in a painting, can only be implied. One hallmark of an Albert Bierstadt-styled stereograph is the use of diagonal elements that cut across (and through) the picture plane, creating a visual differentiation with the image’s vertical elements—additional trees and rocks—that both frame the view and direct its viewer back into the distance. The diagonal element serves to delineate the middle ground, and also functions as a pointer to the seemingly receding picture plane. In Thompson’s Cascades, this effect is achieved by the conveniently diagonal composition of the falls themselves, and the reflection of the falls and the rocks in the pool, but it is also evident in other images from the compilation such as Rapids & Cascades, Franconia Mtns, N.H. and View of the Pool, Franconia Mountains, N.H (fig. 6). In View of the Pool, a successive series of diagonal elements, both rocks and logs, guide the viewer further and further back into the “space” of the scene.
Several other recognizable characteristics become immediately apparent in stereo views of the White Mountains presumed to have been styled by Albert Bierstadt. Bierstadt used contrasting light and shade to distinguish the separate “spaces” of the image: the darkness of the foreground space, with its sharply articulated clumps of weeds and tree stumps that thrust themselves into the viewer’s space, gradually recedes to a lighter middle space and then to a slightly lighter space in the middle of the “back” of the image, which is occasionally accentuated by a parting of the trees to reveal the sky in the distance. The use of moving water that culminates in a mirror-like pool in most of the Bierstadt Brothers’ stereo views also adds to this spatial effect. For example, in Crystal Cascade (?) (Thompson’s Cascades), Glen, N.H., the rippling water begins in the deep distance as a small stream and gathers momentum as it moves towards the middle ground, cascading over the rocks in a series of small rests, before culminating in the foreground into a satiny-smooth pool in whose surface we find the mirror image of the rocks, trees, and sky (fig. 7).

In the same manner that he applied painting aesthetics to the composition of Bierstadt Brothers stereographs, Bierstadt applied aspects of stereographic vision to his own landscape paintings of the White Mountains. The effect of Bierstadt’s close involvement with his brothers’ stereography is apparent in the composition of his paintings of White Mountain landscapes, such as Mountain Brook, The White Mountains, New Hampshire (fig. 4) and The Mountain Brook. These two paintings, while not identical, are remarkably similar to each other in subject and in their correspondence with stereographs published in Stereoscopic Views.
historians have identified the similarities between the diagonal logs situated in the middle ground of the stereograph Near the Cascades below the Flume, Franconia Mts, NH (fig. 8) and the logs in another painting called Franconia Scene (fig. 9);[30] at least one of the logs is also evident in Mountain Brook, The White Mountains, New Hampshire. These paintings, like many of Bierstadt’s works, are composite views, but Bierstadt also painted identifiable scenes in the White Mountains, such as Glen Ellis Falls (fig. 10), Moat Mountain Intervale (ca. 1860–62, Currier Museum of Art), and Mount Chocorua (ca. 1860–62, location unknown), which also exhibit aspects of a stereographic view.

Fig. 8, Bierstadt Brothers, Near the Cascades below the Flume, Franconia Mts, NH. (plate 230), ca. 1860–62. Albumen silver print stereograph. Robert N. Dennis Collection, New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [larger image]

Fig. 9, Albert Bierstadt, Franconia Scene, nd. Oil on canvas. Private collection. Catherine H. Campbell, “Albert Bierstadt and the White Mountains,” Archives of American Art Journal 21, no. 3 (1981): 18, fig. 7. [larger image]
I would like to suggest that Bierstadt actually constructed these paintings *stereographically* by incorporating the same techniques he used to style his brothers’ published views. Just as they did in the stereographs, the logs denote the middle ground in *Mountain Brook*: from the logs, the space recedes into a brighter, less clearly defined deep space in the rear of the image, and conversely, flows out from them into a wider, more sharply defined and detailed foreground. In the stereograph, *Near the Cascades below the Flume*, a man fishing in the middle ground assists our eye in adjusting in such a way to “see” the depth and scale of the scene, and in *Mountain Brook*, a deer helps delineate the size of the foreground and depth of the image. Vertical stands of trees, clumps of rocks that repeat and recede into the distance, and a flowing body of water from the rear to the front of the picture plane, accentuate the sense of three-dimensional depth. The photographically-exact foreground contrasts with the misty background, replicating the experience of the stereograph.

Atmospheric aspects of *Mountain Brook, The White Mountains, New Hampshire* reveal that Bierstadt was knowledgeable enough of the particular limitations of photography to emulate them in his paintings. In order to expose correctly for a sharp foreground, it is necessary to underexpose the background. Bierstadt replicates this effect in his painting by having a sharply defined foreground contrast with a misty background. The viewer can just discern the details of the falls from which the stream in the middle and foreground originates, reinforcing the sense of depth and interior space that one would have in a stereograph. Bierstadt reinforces the sense of a stereographic image by cropping the edges of the painting—branches, foliage, and rocks—as if the painting were a photographic snapshot of the scene, rather than a carefully composed painting. In painting fragments of the landscape, rather than broad general views, Bierstadt encouraged a closer examination of the subject and maximized the unusual qualities of photographic detail. These fragmented spaces also enabled Bierstadt greater control in his composition of the foreground—and, the more dominant the foreground, the more extreme the sensation of stereographic depth in the painting.

Bierstadt also employed his stereographic vision in sweeping panoramic landscapes of the White Mountain region, such as *Moat Mountain, Intervale* (fig. 11) and *Echo Lake, Franconia Mountains* (1861, Smith College Museum of Art), two popular tourist sites near North Conway,
New Hampshire. In the former, broad fields populated with sharply vertical trees gradually lead up to Hart’s Ledge in the middle ground, separating the deep space between the viewpoint and the misty peak of the Moat Mountain range beyond. This natural plane-like structure of the landscape is enhanced further by the fact that Moat Mountain had become a more dramatic and visible landmark as the result of a fire in 1854. The actual landscape components of Intervale, seen from the popular viewpoint of Sunset Bank, created a view that replicated the planes of a stereographic format, and the juxtaposition of Hart’s Ledge against Moat Mountain, with its newly revealed rocky face, made the scene a popular one for stereographers (fig. 12).

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Fig. 11, Albert Bierstadt, *Moat Mountain, Intervale*, ca. 1860–62. Oil on paper mounted on canvas. Currier Museum of Art, Manchester, NH. [larger image]

Fig. 12, John P. Soule, *Meadows and Ledges from Sunset Bank, North Conway* (plate 75), ca. 1860. *White Mountain Scenery*. Albumen silver print stereograph. New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [larger image]

For *Moat Mountain, Intervale*, Bierstadt similarly took advantage of the landscape’s natural planar qualities in a way that seems to heighten a sense of reality, creating in the picture an enhanced stereographic sense of depth. The foreground of the painting is delineated by the bright hillock with its patches of sand and detailed flowers and grasses; in the middle ground, the placement of the elms and split-rail fences among the mown fields is highlighted by the dramatic lighting that falls across the distant edge of the field and the exposed rock of Hart’s Ledge. Both the foreground and the middle ground are set apart from the receding planes of Moat Mountain in the distance, which, with the exception of its rocky face lit by atmospheric effects, is less clearly articulated than the lower two-thirds of the picture plane. The stillness in the foreground fields and lakeshore contrasts sharply with the cloudy and threatening sky.
above the distant mountains. Another compelling aspect of Bierstadt’s *Moat Mountain, Intervale* is that it rearranges the picturesque-sublime juxtaposition of many of Thomas Cole’s paintings, such as *The Oxbow*, in which the juxtaposition is composed laterally across the canvas; Bierstadt reorganizes it to right angles to the picture plane. [34]

At first glance, *Moat Mountain, Intervale* is like many of the White Mountain landscapes painted by other artists in the 1850s and 1860s. It is painted in the picturesque and romantic traditions, with a firm foundation in Thomas Cole and the European tradition, as outlined by Barbara Novak. [35] But there is more at play in the composition than meets the eye—the composition is a masterpiece of application of stereographic vision to picturesque landscape painting. [36]

In fact, *Moat Mountain, Intervale* appears to be two distinct paintings: foreground and distant background separated by the middle ground that, among other things, is lit by dramatic chiaroscuro effects. Distinct spatial clues are embedded in the composition of the image to emphasize the painting’s middle ground, enabling the viewer to see the landscape stereographically. There are actually four planes in Bierstadt’s composition, two horizontal and two vertical. The broad swath of the foreground sweeps horizontally into the middle of the image where it meets perpendicularly to the vertical plane of Hart’s Ledge, which gradually rises and culminates in a rounded, rocky promontory that stretches only through two thirds of the picture plane. Behind it rises a third, distinct plane in which the distant Moat Mountain range majestically resides. Bierstadt caps the composition with the second horizontal plane, in which he reveals a sky with dramatic atmospheric effects. The light in the middle ground falls from the clouds above onto the meadow beneath Moat Mountain and pushes the two vertical planes between the sky and the foreground further into deep space. Bierstadt has almost entirely replicated the view as would be seen in a stereograph—even more so, he has replicated its three-dimensional effects. If a viewer of a more traditional landscape remains very much a *viewer* standing outside the picture frame and is always aware that he or she is looking at a painting, the viewers of Bierstadt’s *Moat Mountain, Intervale* enters the painting and experiences it in three dimensions as they would experience a landscape captured on a stereograph.

I propose that by composing his White Mountain paintings stereographically, Bierstadt was attempting to create a visual experience of a painted landscape that replicated the personal experience of the handheld stereograph. In general, he reinforced this association by making his White Mountain paintings smaller and more intimate works in comparison with his western landscapes. *Franconia Scene* is 44 x 30 inches; *Moat Mountain, Intervale* is 19 1/8 x 26 1/8 inches; and *Mountain Brook, The White Mountains, New Hampshire* is 18 1/2 x 15 1/4 inches; the largest White Mountain scene, *Emerald Pool* (fig. 13), at 76 x 119 1/2 inches is the closest of his White Mountain scenes in drama, composition, and size to his Western panoramas, such as *The Rocky Mountains, Landers Peak* (1863, The Metropolitan Museum of Art). [37] Although *Emerald Pool* is approximately the same size as *Rocky Mountains, Landers Peak*, it remains an intimate landscape in the same way that *Moat Mountain, Intervale* does, and its larger size may be due to his increased exposure to, and interest in, painting the panoramic Western landscape at the time. Most of Bierstadt’s White Mountain scenes were completed during the early 1860s, while he and his brothers were active in the region; by the following decade, he had moved on to new, predominantly Western subjects. The relative differences in size and effect in his Western and White Mountain landscapes suggests that in his attempt to replicate the reality
and intimacy provided by the stereograph Bierstadt wanted to reinforce a relationship between his paintings and stereoscopic vision.

Fig. 13, Albert Bierstadt, *Emerald Pool*, 1870. Oil on canvas. Chrysler Museum of Art, Norfolk, VA.

Why the need to create a close affinity between the stereograph and landscape painting? The most frequently cited reason in relation to Bierstadt’s White Mountain views has been tourism and the anticipated market for popularized views. Tourism certainly was a factor in the creation of Bierstadt Brothers’ *Stereoscopic Views*. By 1852, when Bierstadt made his first visit to the region, the area, with its marriage of the sublime and the beautiful in the landscape, was becoming an extremely popular tourist destination. The heavily wooded valleys with their network of fast rivers and streams flowing from snowy mountain peaks were frequently painted sites; the narrow openings between mountains at Crawford Notch and at Franconia Notch served as gateways into the sublime, apparently impassable region beyond, a kind of “dramatic introduction” to the “rich valleys” and “unusual secrets of nature” to be seen there. Early visitors to the White Mountains included the painters Cole and Durand, who had been making forays into New Hampshire since the mid-1820s. By 1852, an artistic community had developed in North Conway and nearby Intervale, featuring artists-in-residence such as John William Casilear, Kensett, Durand, and Benjamin Champney; Champney went so far as to claim the region was becoming as “as famous as the Barbizon and the Forest of Fontainebleau.”[38] Adding to the visual celebration of the White Mountain region, endless literary figures such as Henry David Thoreau, Ralph Waldo Emerson, and Nathaniel Hawthorne celebrated the scenery in prose.[39] In a way that was not much different than the Hudson River School, many of these artists and writers, leading exponents in the developing romantic attitude toward nature, helped popularize the area and a particular way of experiencing it—as a work of art. By the 1850s, the White Mountains were referred to as “scenery,” “popularized by legend and poetry, visualized by painter and photographer.”[40]

Guidebooks such as *The White Hills: Their Legend, Landscape and Poetry* (1858), by Bierstadt’s friend, the Unitarian minister Thomas Starr King, were often supplemented by quotes from Emerson, Lord Byron, Thoreau, and Henry Wadsworth Longfellow. They not only pointed out all the important sites for tourists to visit, but also instructed the visitor in the act of looking at them. King instructed his readers where to stand and how to look: “What a great difference is made in the effect of a landscape by a slight change of position on the road. A spyglass is good for nothing, as a help to the sight, unless you get the exact focus. It is quite remarkable how
this law of focus point holds in studying the mountain region. Sometimes the beauty of the scenes depends on the hour when you visit them, sometimes on the nicely calculated distance. . . . Some hills need rain, or a thick air, to tone down the raggedness of their foreground, and reveal the beauty of their lines."[41] Aided by guides like The White Hills, the tourist was expected not to wander aimlessly through the White Mountain wilderness, but rather “to single out for contemplation the most picturesque qualities of the landscape.”[42] As the White Mountains became better known throughout the country by virtue of “visual” guidebooks such as King’s, demand for actual representations of them increased. The stereograph became the popular mode for recording and distributing these selected picturesque scenes to those who wanted to remember their trip to the region, and to those who could only imagine making the journey.

The forty-eight scenes presented in Bierstadt Brothers’ Stereoscopic Views actually unfold as if they were the visual complement to a White Mountains guidebook like King’s The White Hills—which may come as no surprise given his friendship with Albert. The guide begins with a brief statement that reads, in part: “Travellers among the Mountains of New Hampshire have doubtless felt a desire to secure a faithful representation of the beautiful scenery which abounds there. The stereograph presents to the eye all the objects in solid relief, as perfectly as if the landscape itself were spread out before it.”[43] The pages of the volume then proceed to reveal landmarks of the White Mountain scenery, beginning with views near Plymouth, New Hampshire, and then illustrating views along the way to the Flume, the Pool, and the Cascades in Franconia, before moving on to popular views elsewhere in the region, such as Glen Ellis Falls.[44] Each site is identified with a caption and explored from a number of vantage points in order to give “a faithful representation” of the view to a tourist who may have experienced it personally, or to provide a visual connection to scenes a viewer of a stereographic image of the White Mountain sites may only have read about. A scene such as Bierstadt Brothers’ Suspended Boulder, Flume, Franconia Mountains (fig. 14), was a natural phenomenon that words could describe, but which stereography transformed into “solid relief.”

![Fig. 14, Bierstadt Brothers, Suspended Boulder, Flume, Franconia Mountains (plate 322), ca. 1860–62. Albumen silver print stereograph. New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York.](larger image)

There is, however, another equally significant element of Bierstadt’s collaboration with his brothers that should be considered in relation to his White Mountain landscapes and the aesthetic they convey. Bierstadt’s compositional strategies in the stylization of Bierstadt Brothers’ stereographs and his application of stereographic techniques to painted landscapes suggest a very real interest in creating a heightened sense of reality that invokes a personal
experience of the landscape. This experience, even when it is presented in a sweeping panoramic view, like Moat Mountain, Intervale, as opposed to the interior wooded space of Mountain Brook, remains intimate, and is very different from the kind of experience one would have in viewing his grand, panoramic Western landscapes. Albert Bierstadt recognized more than the new medium’s illusionistic potential. In stereography’s simulation of an intimate experience with nature and the supposed moral and aesthetic benefits of that experience, Bierstadt found a way to construct his paintings that enabled him to convey a more personal encounter with nature.

In the composition of his White Mountain landscapes, Bierstadt took that stereographic sense of intimacy with nature one step further. Authors of manuals for stereographers suggested that stereographic compositions should include a “little hut, a stranded vessel, a grave, a monument, or some other object allied to humanity” to add “something of human interest” that would give a scene a sympathetic character and further encourage the identification of the viewer with the moral qualities of the scene depicted.[45] In many stereographs of the White Mountains from the 1860s we can see how photographers strove to add a human element to the land—tourists enjoying a known, natural site, or the evidence that they had been there, such as boats and docks constructed for their enjoyment (figs. 15, 16). Yet, whether painted or presented in stereographs, Bierstadt’s views of nature are decidedly lacking in anecdote, and, with the exception of a few views, they are largely stripped of a human presence. When Bierstadt did include a human presence, as in the stereographs Glen Ellis Falls, White Mountains (fig. 17), Sylvia’s Rest, and Down the Flume, the people in the scene look away from the viewer, toward their surroundings and in contemplation of nature, directing the viewer toward the natural beauty of the scene. This differs markedly from most stereographs showing people in a White Mountain landscape, which present them looking back into the camera as in a snapshot; in these images, the landscape effectively becomes a backdrop for their portraits, rather than the subject of the image. Tip Top House on the Summit of Mt. Washington (fig. 18), which is more aligned with these kinds of popular snapshot portraits, is an atypical composition for Bierstadt Brothers. In comparison to The Basin or Glen Ellis Falls, Tip Top House on the Summit of Mt. Washington looks like the highly staged affair that it is. Anonymous tourists pose in front of the stone structure not to assist the viewer by guiding their visual experience of the landscape, but rather to make a connection between the viewer and the typical tourist experience—the kind of experience that purchasers of Bierstadt Brothers’ stereoviews may have been trying to replicate.

Fig. 15, E. & H.T. Anthony, The Basin, ca. 1863–75. Albumen silver print stereograph. White Mountain Views, Franconia Range. Private collection. [larger image]
Bierstadt’s painted views of the region are similarly depopulated. The fences that actually lined the meadows of Intervale, as seen in Soule’s photograph of the site (fig. 12) are missing from Bierstadt’s painted version of the scene, *Moat Mountain, Intervale.* [46] His decision to excise human presence from most of his White Mountain scenes differentiates his canvases from other painted landscapes of the region, in which elements of human presence are included to convey the understanding that what we are looking at is nature tamed and under the care of man. In Bierstadt’s New Hampshire landscapes, nature alone is *the* subject. The intimate visual experience he suggests through the incorporation of stereographic compositional techniques encourages the viewer to *be the individual experiencing the landscape.* Ensconced in the woody glens of *Franconia Scene* or *Mountain Brook,* “the viewer has no knowledge of the rail system,
luxury-enabling hotels, or the very commercial tourist industry just minutes from [the]
wilderness microcosm” that Bierstadt has created. [47]

Stereographs provide the illusion of a physical experience of the landscape, an illusion that
conveys a semblance of the viewers’ complete immersion in what their eye beholds. But, given
the nature of the handheld stereoscope, this experience of the landscape is seen through
blinders. By screening out the increasing effects of modernization, stereographs mediate
“romantic ideals and harsh realities” and became a “condolent source of relief” for a society
conflicted over its increasing industrialization and consequent destruction of the landscape, or
still wrestling with the ravages of the Civil War. It would be convenient to place Bierstadt’s
White Mountain scenes in similar context; that is, to suggest that the artist’s purpose was to
bridge the national divide by promulgating a nationalism rooted in the Eastern landscape, as
described by Angela Miller. [48] Certainly, in painting scenes of the White Mountains—the
landscape that Thomas Cole declared as “truly and peculiarly American”—Bierstadt was
following Cole’s prescription that the American artist should paint his own native scenery, and
he was also adding to a visual nationalism of the 1850s and 1860s.

I think Bierstadt was after something more aesthetically significant, however, and something
rather less nationalizing, and we can see this in his use of stereoscopic vision in his painted
landscapes. Bierstadt’s White Mountain paintings reveal a landscape that is domesticated and
tamed only in the sense that it is no longer threatening—it is wild, but it is not wilderness. This,
in addition to his use of snapshot-like cropping of the view, creates a markedly different
picture of the region—of nature—than as represented in landscapes painted by other artists at
the time. The intimacy of the stereoscopic view allowed Bierstadt to strip all elements of
human progress and of national tensions from his landscape in the same manner as they
would be eliminated from stereographic views. What remains is a purely romantic and
utopian vision of nature; it is the landscape encountered as personal experience—one in which
Bierstadt transmits a vision of the “infinite complexity which nature gives us” directly to the
eye of the beholder.

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Notes

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[2] The compilation and its prismatic lens was copyrighted and “entered according to Act of Congress” in 1860, and was first offered for public sale in 1862. The volume was reissued with commentary by Edward Bierstadt in 1875 as Gems of American Scenery—White Mountains: Consisting of Stereoscopic Views with Descriptive Text. Bierstadt Brothers was incorporated in 1860. Charles and Edward had been employed in the family’s woodworking shop until 1859, when they began to experiment with the newly popular photographic process of stereography. See Catherine Campbell, “Albert Bierstadt and the White Mountains,” Archives of American Art Journal 21, no. 3 (1981): 19–23.
[3] Cosmopolitan Art Journal, September 1860, 126. The brother was presumably Charles who continued to work as a photographer after the dissolution of Bierstadt Brothers in 1867.
[5] The patrons are, from right to left: Edward Merrill, a merchant and sea captain; C. B. H. Fessenden, the Collector at the New Bedford Customs House; John Hopkins, an owner of a music store in the same building as Bierstadt’s studio; and Elisha C. Leonard, a carpet merchant and Justice of the Peace. In 1858, Fessenden owned at least two paintings by Bierstadt, Bay of Salerno and Blue Grotto, Isle of Capri (Walters Art Museum). Hopkins owned at least three, including On the Weser, Afternoon; The Ruins of Paestum (Minneapolis Institute of Arts), and Fishing by Torchlight, Lake Lucerne. See “Catalogue of the New Bedford Art Exhibition,” reproduced in Nancy K. Anderson and Linda S. Ferber, Albert Bierstadt: Art & Enterprise (New York: Hudson Hills Press, 1990), 304–5.
Lindquist-Cock mentions Bierstadt’s use of specific stereographs, now at the Kansas State Historical Society, in the completion of Shoshone Village (New-York Historical Society), On Sweetwater River Near Devil’s Gate (National Academy of Design), and Wolf River Ford (Detroit Institute of Arts). Lindquist-Cock Influence of Photography, 77. Fifty additional western stereographs of western scenes were published in Bierstadt Brothers’ first catalogue in 1860, along with over two hundred White Mountain views.

Hendricks suggests that Bierstadt did take these stereographs. See Hendricks, Albert Bierstadt, 68. It is more than possible that Bierstadt did take the photographs as he had prior experience with camera equipment due to a partnership he formed in 1851 with a New Bedford daguerreotypist, Peter Fales. His experimentation with photography dates to earlier than 1859, and it is likely that he had the necessary skills to operate photographic equipment. Hendricks, Albert Bierstadt, 17.


Gordon Hendricks listed twenty-eight paintings for which strong evidence suggested that they had been painted in 1859, during the Lander Expedition, or following Bierstadt’s return. Hendricks, First Three Western Journeys, 354–55. Catherine Campbell, the first scholar to attempt an in-depth catalogue of Bierstadt’s White Mountain paintings and to establish conclusive dates for a number of them, suggests that a number of these works were painted in 1859 and as early as 1858. Campbell documents Indian Summer in New Hampshire (last listed at Kennedy Galleries, NY) with a date of 1858 based on Bierstadt’s inscription, and Mount Washington from Shelburne, N.H. (whereabouts currently unknown) as either having a date of 1858 or 1859, based on its exhibition at the National Academy of Design in 1859. She also lists twelve other landscapes that she suggests were painted in 1858. Campbell, “Albert Bierstadt and the White Mountains,” 19–20.

This paper is part of an investigation into Bierstadt and photography exploring how the artist employed various optical techniques, including his 1853 Dissolving Views enterprise, to convey different experiences of the American landscape. It could be argued that Bierstadt’s eastern and western landscapes represent two different aesthetics in regard to nature and the landscape in mid-19th century, as outlined in Angela Miller, The Empire of the Eye: Landscape Representations and American Cultural Politics (Ithaca: Cornell University Press, 1993).


Ibid, 21.


Prior to Holmes’s invention, the stereocard was viewed through a stereoscope that rested on a flat surface and looked like a piece of furniture and was known as a pedestal stereoscope.


Ibid.


Ibid.

Ibid.


Other artists were of course looking at stereographs too, but if we we compare Bierstadt’s *Moat Mountain* with John F. Kensett’s *The White Mountains—From North Conway* (1851) and Asher B. Durand’s *Franconia Notch* (1837) we can see just how differently Bierstadt is composing his landscape. All three landscapes are picturesque representations of nature, of nature as a bucolic and pastoral Eden. Technically, Durand and Kensett employ a standard triangulation of the composition, framing the scene with vertical elements in the close foreground, and smaller trees in the middle to denote a gradual recession into space, and then sweeping back into the picture plane with mountain ranges that cut across the top third of it. Both pictures are lit from a general light source that pulls the picture into a unified composition. There is an illusion of spatial depth, but Bierstadt strives for more—and uses optical tricks to achieve a sense of three-dimensional space that is experienced in the same way one would experience the landscape through a stereoscope.

In comparison, *Rocky Mountains, Landers Peak* (1863) is 73 1/2 x 120 3/4 inches, *Looking Down Yosemite Valley, California* (1865) is 64 x 96 1/4 inches, and *Storm in the Rocky Mountains* (1866) is 83 x 142 1/4 inches.

Benjamin Champney, *Sixty Years Memories of Art and Artists* (Boston, 1899), 160, quoted in Lipke and Grime, “Albert Bierstadt and the White Mountains,” 25. See also Southall, “White Mountain Stereographs,” 97. Interestingly, few scholars make the connection between Bierstadt’s early visits to the region and the art colony there with regard to his development as an artist.


Ibid.


For example, there are fourteen views relating to the Flume, and showing the site from as many angles as possible: Foot of Cascades below the Flume; Cascade below the Flume; On the way to the Flume; Near the Flume; Entrance to the Flume; The Flume; Cascade above the Flume; Cave and Cascade; View from above the Flume; Approaching the Flume from Above; Suspended Boulder from above the Flume; View from the Flume; Rocks below the Flume; and Down Stream below the Flume.


The notable exception being the painting *Haying, Conway Meadows* (1864, Private collection).

Siegel, “I never had so difficult a picture to paint.”

Angela Miller discusses the political significance of landscapes such as Frederic Church’s *New England Scenery*. See Miller, *Empire of the Eye*, 167–207.
Illustrations

Fig. 1, Bierstadt Brothers, *Looking into Snow Arch, Tuckerman’s Ravine, N. H.* (plate 2742), ca. 1860–62. Albumen silver print stereograph. Private collection. [return to text]

Fig. 2, Eadweard Muybridge, *Albert Bierstadt’s Studio* (no. 1586), 1872. Albumen silver print stereograph. *The Indians of California* Series (Bradley & Rulofson, 1872). University of California Berkeley, Bancroft Library. [return to text]
Fig. 3, Bierstadt Brothers, untitled stereograph, 1859. Collection of William L. Schaeffer. [return to text]

Fig. 4, Albert Bierstadt, American, *Mountain Brook, The White Mountains, New Hampshire*, 1863. Oil on board. Collection of the Nasher Museum of Art at Duke University, Durham. Photo by Peter Paul Geoffrion. [return to text]
Fig. 5, Bierstadt Brothers, *Thompson's Cascades (First) Glen, N.H.* (plate 1037), ca. 1860–62. Albumen silver print stereograph. Private collection. [return to text]

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Fig. 7, Bierstadt Brothers, *Crystal Cascade [?] (Thompson’s Cascades), Glen, N.H.* (plate 1031), ca. 1860–62. Albumen silver print stereograph. Robert N. Dennis Collection, New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [return to text]

Fig. 8, Bierstadt Brothers, *Near the Cascades below the Flume, Franconia Mts, NH.* (plate 230), ca. 1860–62. Albumen silver print stereograph. Robert N. Dennis Collection, New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [return to text]
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Fig. 12, John P. Soule, *Meadows and Ledges from Sunset Bank, North Conway* (plate 75), ca. 1860. *White Mountain Scenery*. Albumen silver print stereograph. New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [return to text]

Fig. 13, Albert Bierstadt, *Emerald Pool*, 1870. Oil on canvas. Chrysler Museum of Art, Norfolk, VA. [return to text]
Fig. 14, Bierstadt Brothers, *Suspended Boulder, Flume, Franconia Mountains* (plate 322), ca. 1860–62. Albumen silver print stereograph. New York Public Library, Photography Collection, Miriam and Ira D Wallach Division of Art, Prints and Photographs, New York. [return to text]

Fig. 16, Bierstadt Brothers, *Echo Lake, Franconia Notch, N.H.* (plate 1044), ca. 1860–62. Albumen silver print stereograph. Private collection. [return to text]

Fig. 17, Bierstadt Brothers, *Glen Ellis Falls, White Mountains, N.H.* (plate 1019) ca. 1860–62. Albumen silver print. Private collection. [return to text]
Fig. 18, Bierstadt Brothers, *Tip Top House, Mt. Washington, N.H.* ca. 1860–62. Albumen silver print stereograph. Private collection. [return to text]