

Naturalizing Technology in Late Nineteenth Century America: An Aesthetic of Excess Meaning in the Paintings of J. Alden Weir

Larry Lambert

Keywords: *rhetoric, technology, nature, aesthetic, American landscape painting, national identity.*

Paintings that displayed the intrusion of technological artifacts into nature embodied the collision of art and science in nineteenth century America. Images of factories, railroads, metal bridges, and other technological marvels placed within scenes of natural beauty publicized an extended moment when Americans viewed their nation as a disrupted utopia. J. Alden Weir painted a number of technological landscapes at the end of the nineteenth century that instantiated this intersection of science and nature at the heart of our national identity. The symbolic processes manifested in these paintings exemplify Hans-Georg Gadamer's notion that the aesthetic understanding of a work of art is a self-encounter that integrates our identity within the traditions or prejudices that pre-structure our responses to the work while also shattering those familiar responses through the work's inexhaustible meaning and temporal slippage. Aesthetic understanding involves an experience of art in which that work is, in Gadamer's words, "the absolute present for each particular present, and at the same time holds its word in readiness for every future." As a result of this excess meaning, art resists translation into concepts, one of the key elements of scientific understanding of the world. Weir's aesthetic instantiation of the American land resisted the scientific ordering of American life by transforming technology into the equivalent of nature while also keeping the contradictions between the two open, defining American life as uncertain and contingent rather than fixed and orderly.

Nature and technology have each served as centers of power that constitute American national identity, and America's artists incorporated these centers into works that defined the nation's dreams as well as its conflicts. Paintings that displayed the intrusion of technological artifacts into nature embodied the collision of art and science in nineteenth century America. This extended conversation between artistic representation and the scientific concept of mechanics marked the technological landscape paintings of J. Alden Weir as a key moment in the aesthetic discourse that at the same time naturalized technology while also resisting the scientific ordering of American life.

Weir created his paintings in the 1890s, a period when America both became the world's leading industrial nation and began seriously questioning the impact of machine industry on its national values. As American society attempted to deal with the promise and danger of the machine, so too did some of the creators of American culture try to incorporate the tensions between nature and the machine into their works. American authors, especially its utopian writers, presented mechanized America in many different ways (Martin 10-21, 202-32). American painters working in the realist medium showed railroads and industry as proving the triumph of American civilization, with the emphasis on accurate re-creation of that reality (Dorzema 15). Weir was one of the few American painters who represented the material artifacts of technology in an impressionist manner, attempting to problematize the relationship between machine technology and nature in an artistic medium. Weir painted a large number of paintings in different styles throughout a long career (Burke 15-20). His connection with American Impressionism, however, marked the high point of his artistic reputation, even as that reputation went through various ups and downs (Gerdtz, *American Impressionism* 71; Weinberg, Bolger, and Curry 25-27, 82-85; Domit 36-37). During this period, Weir painted a number of Impressionist landscapes that not only show technology and industry existing harmoniously with nature but progressively connect nature and technology more intimately: they present machine technology as a facet of nature, in effect, naturalizing technology. This naturalization, however, is incomplete because each painting centers on the elements of the technology that intrude upon nature rather than the gentle harmony that is the most common interpretation of Weir's technological landscapes.

Weir's paintings problematize the power of American technology and the prosperity it promises in ways that exemplify Hans-Georg Gadamer's perspective on aesthetic understanding as an encounter with our own world that points not toward a goal that would bring our attempts at understanding to an end but toward movement forward and backward in time and space. This movement marks the experience of art as one of resistance to the kind of fixed standards that both limit human interpretation of the work and devalue artistic experience according to scientific measures of utility.

This essay examines Weir's technological landscapes, *The Red Bridge* and three paintings of the factory town of Willimantic, Connecticut, in order to show how they incorporate the tensions between nature and technology into an aesthetic instantiation of American progress that resisted the scientific ordering of American life by transforming technology into the equivalent of nature while also keeping the contradictions between the two open. I will first examine the context of the period, focusing on the social influences that promoted scientific modes of activity in life and art as well as the artistic movements and life experiences that led to

Weir's landscapes. I will then discuss Gadamer's perspective on aesthetic understanding and use that perspective to make sense of Weir's naturalization of technology in connection with the contextual, symbolic processes that his paintings represent. Finally, I will draw some conclusions about how the aesthetic understanding of Weir's technological landscapes resists the scientific reduction of human life into orderly activity.

Society, Science, Art and the Life of Alden Weir

The late nineteenth century was a period of great change and disruption in many areas of American life. Historian Robert H. Wiebe describes the feelings of most Americans during this period as "dislocation and bewilderment" (12). Science and technology influenced American life directly through the machine's impact on the economy, and contributed greatly to these feelings. New technological processes in industries opened up job opportunities while simultaneously throwing people out of work. A seemingly incongruous series of economic crises occurred in the midst of growth and prosperity, with economic panics, railroad strikes, and riots standing in marked contrast to increases in real wages and larger numbers of men working in middle class positions (Ostrander 207-09; Hays 22-35). To add to the confusion felt by many Americans, the success of the "robber barons" and the influx of new, unskilled immigrants suggested that the traditions and values characteristic of American national culture had broken down (Zinn 246-53; Wiebe 14, 50-55).

The strong emphasis on agrarian values in the public discourse of this period, with "fecundity, growth, increase, and blissful labor on earth" portrayed in the popular press as the essence of the good life for Americans became a nightmare in the "realist" literature of the time, with farm land dying and families slipping inexorably into drudgery and starvation (Smith 124; Martin 116-32). The old certainties of the agrarian economy disappeared in the new industrial apparatus based on scientific principles. Scientific rationalization of life became a guiding force for Americans under the influence of Frederick Taylor, who sought to eliminate the contingencies of human life by using science to create order and certainty. His reordering of life rested on his desire that "every single subject, large and small, becomes the question for scientific investigation, for reduction to law (Taylor 211). While scientific rationalization of society changed American life dramatically during this period, Alan Trachtenberg claims that the "deepest changes in these decades of swift and thorough industrialization and urbanization lay at the level of culture" (7).

The realism of the period's cultural productions show these cultural changes, but the reduction of life's uncertainties to fixed scientific laws can be seen most clearly in some of the most prominent American art of the late nineteenth century. Many writers have characterized the art of this period as having little value, denigrating it as derivative of foreign influences or as simply the creation of new commodities for sale in the capitalist market (Kammen 172-73; Larkin 236-37). Others such as Lewis Mumford, however, suggested that the art of this period was more complex than that, and he especially praised the scientific realism of Thomas Eakins (180-202). Eakins' art shows the increasing influence of scientific rationalization in the culture, with even painting falling under the sway of science. He not only painted scenes of everyday life with the technique of an anatomical specialist, but he portrayed scientific medicine as the height of human activity. Reinforcing the view that scientific method provided the best mode for ordering human life, Eakins painted numerous medical images that won wide praise as well as

criticism. In his paintings, scientific procedures gained value while human life became objectified. Elizabeth Johns claims that Eakins' paintings glorify "not healing but empirical investigation" (71). The influence of science on American life permeated not only economic activity but art as well.

Resistance to the scientific realism exemplified by Eakins, however, came from the growing influence of Impressionism on American painters. Impressionism came to America slowly, with shows of French Impressionist paintings receiving generally negative publicity in the 1880s until the massive Durand-Ruel show in New York in 1886 (Huth 235-42; Domit 19-20). The American perception of French Impressionism changed from distaste to praise rather rapidly, with many sales and showings in the 1890s, and wide public acclaim during the 1893 Columbian Exposition in Chicago (Huth 242-50; Domit 21-22). French Impressionism thus became only the most recent of the European modes of painting that gained acceptance among American collectors who were reluctant to buy paintings by American artists.

During the late 1880s, a number of American painters, such as Childe Hassam, Theodore Robinson, and John Twachtman, turned to Impressionism (Domit 21; Gerdts, *American Impressionism* 9-14). Others followed in the 1890s, including Alden Weir. The American art establishment, however, took longer to accept Impressionism from American artists than from foreign ones. The Society of American Artists, considered more liberal than the National Academy of Design, had been supportive of American Impressionism in the late 1880s and early 1890s but, under the guidance of "archacademic" Kenyon Cox, turned hostile to Impressionism later in the 1890s. After gaining prominence in the Society's exhibitions of the mid-1890s, the American Impressionists in the Society became dissatisfied and withdrew, forming the association that the press labeled "The Ten American Painters" in 1898; they were not all Impressionists, but the prominence of Weir, Hassam, Twachtman, and other Impressionists caused them to be labeled as such (Gerdts, "Ten" 10). During the 1890s French Impressionism gained wide acceptance in America, and at the same time the most prominent painters in America were attracted to the freedom and new perceptual qualities allowed by the new style (Larkin 304; Gerdts, "Ten" 9).

As one of these prominent painters, Julian Alden Weir (1852-1919) had the advantage of an artistic genealogy that was second to none in the nineteenth century, being the son and brother of prominent American academic painters. His father, Robert W. Weir, was drawing master at West Point and provided the early training, while his older half-brother, John Ferguson Weir, gave Alden considerable support (Young 1-17; Gerdts, *American Impressionism* 71). He spent 1873-1877 in Paris, where he was influenced by painters who did not adhere strictly to any one school, and this quality would be seen later in Weir's own mature paintings. When he returned from Europe in 1877, he immediately became a leader among the young, American artists who were also returning from their European training around the same time. He taught painting in New York City, began to develop a positive reputation as a painter, and started to sell an impressive number of paintings. Weir's daughter, Dorothy Weir Young, says that he "was deeply immersed in his search for a new means of expressing what he wanted to say" during the early 1890s (173). That new style incorporated Impressionism into his personal style, which William H. Gerdts labels "a modified Impressionist manner" (*American Impressionism* 74). His new use of this style was not well received at first. But as the 1890s progressed, Weir's work, along with

the work on other American Impressionists, gained renown and sales, and during this time, he was considered an extremist among American Impressionist painters (Young 177-79, 188, 194; Gerdtts, *American Impressionism* 30-31; Pilgrim 74). Duncan Phillips, after Weir's death, called him "an artist absolutely individual and independent of any school ... yet surely, he evolved and created for himself a technique which is his alone in the history of art" (190). Weir's artistic mobility echoes the uncertainty and transformations that were going on in American society during the late nineteenth century.

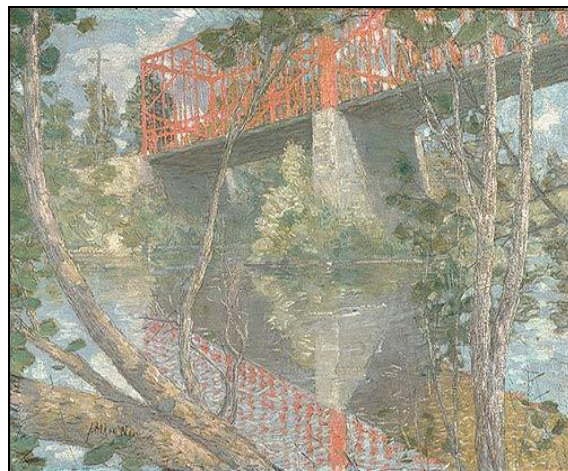
Gadamer's Aesthetic Understanding and Weir's Technological Landscapes

Hans-Georg Gadamer grounds his hermeneutic approach to aesthetic understanding in the "prejudices" that pre-structure our responses to art works and all other symbolic activity. These prejudices consist of our conceptualizations of the traditions and interests that serve as the foundation for the meanings constituted by our experiences and interpretations of everyday life. Gadamer claims that "the prejudices of the individual, far more than his judgments, constitute the historical reality of his being" (*Truth and Method* 245). The roles that these prejudices or traditions play in our attempts to make sense of the world take on added importance in the interactions that we have with works of art. According to Gadamer, "the encounter with art belongs within the process of integration that is involved in all human life that stands within traditions." In addition, this aesthetic encounter is "open in a limitless way to ever new integrations" (*Philosophical Hermeneutics* 96). These limitless, new integrations provide the grounding for a mode of aesthetic consciousness that constitutes our identity in the interplay between the prejudices that constrain a work's meaning and the inexhaustible meaning that a work discloses to all persons at all times. Gadamer claims that "the work of art is the absolute present for each particular present, and at the same time holds its word in readiness for every future" (*Philosophical Hermeneutics* 104). The understanding that the work of art constitutes in us also moves us toward an understanding of a world. Aesthetic understanding moves from the artwork to the world through this "play of forces" that is "the to-and-fro movement which is not tied to any goal which would bring it to an end" (*Truth and Method* 93). So the aesthetic understanding of the world that is present and incomplete in the work of art anticipates the meaning of that world based on the operation of our prejudices and also resists that anticipated meaning in the artwork's readiness for every present and every future. Unlike the scientific understanding of the world that works towards predictability and order, aesthetic understanding of the world tends towards temporal slippage and countless surprises in human meaning. As a result of this "excess of meaning," art resists "translation into concepts," one of the key elements of scientific understanding (*Philosophical Hermeneutics* 102). Aesthetic understanding of the work of art and the work of the world allows us to constitute our identity and make sense of the world in ways that keep human activity on the edge of change into something new rather than fixed into an order imposed by scientific methods.

Weir's technological landscapes rely on this aesthetic interplay of prejudice and inexhaustible meaning to constitute an America that promotes the contradictions between nature and technology as a way of defining the national identity as both grounded in traditional values and open to changing those values. As a painter, he unusual among American Impressionists in that his renown in today is derived in large part from his paintings bringing the results of scientific progress, technological artifacts, into direct contact with nature. While other American Impressionist painters often depicted urban areas, industrial and technological scenes were not

usually considered appropriate subjects for high culture in America in the 1890s (Pilgrim 74). William H. Gerds, in evaluating Weir, claims that “a number of the most important pictures the artist painted ... reflect an interest in juxtaposing industrial structures with rural scenery” that is “rare in American Impressionist painting” (*Masterworks* 72).

Weir painted three views of the factory town of Willimantic, Connecticut in the 1890s and these pictures are especially important examples of both Weir's aestheticization of the intersection of nature and technology. [Willimantic Thread Factory](#) (1893) shows a frontal view of the factory. The main building totally dominates the scene and is seen from a distance, with an empty field in the foreground. The reviewer of the Society of American Artists' show in 1894 was delighted with the painting: “The work is as refreshing in treatment as it is novel in subject, and surely much may be expected of a man who can see the sort of beauty that is peculiar to such a place, and paint it” (“The Exhibition” 187). [U.S. Thread Company Mills, Willimantic, Connecticut](#) (1893-97) moves the main factory building to the foreground and balances the boxy shape of that structure with a stone bridge whose shape features graceful curves. The strong vertical lines of tree, smokestack, and centered electrical pole add tension to the otherwise graceful composition of the massive architectural shapes on which the picture focuses. [The Factory Village](#) (1897) presents the town as a combination of industry and nature, with a huge tree seeming to dominate the scene while the factory buildings and smokestack balance this domination with their proliferation. It is interesting that the symbol of the newest technology of the period, an electrical pole, shares the center of the scene with a church that is behind it. *The International Studio* claimed that this painting showed that Weir “evinces a frank, searching vision which far transcends the befogged scrutiny of the faddist” (“American Studio Talk” xvi). Weir showed each of these paintings at the major exhibitions he participated in, with the first two shown with the Society of American Artists. [The Factory Village](#) gained recognition at the first show of the Ten American Painters and remained a popular part of major international exhibitions in the early twentieth century as well as the 1913 Armory Show.



[The Red Bridge](#) (1895)

is undoubtedly Weir's most famous painting. It portrays a very modern image of a red iron bridge shown at the top and reflected at the bottom of a beautiful nature scene. The strong red of the bridge is dramatically contrasted with the delicate greens and blues of the nature scene. Even though Weir was still a member of the Society, he exhibited this painting at the National Academy of Design in its 1896 show, exemplifying the problems he and other Impressionists

were having with the conservative turn of the Society. Weir's daughter claims that it “received scant notice when exhibited at the Academy” (Young 187). A reviewer for the *New York Times* referred to it as a “stiff iron bridge” that was “possibly not [one of] the most beautiful memories one might recall,” and it was not mentioned at all in *The Critic*’s review of the show (“The Spring Academy” 5; “71st Exhibition” 242-43). However, Gerds quotes two reviewers who praised the painting highly and claims that it gained popularity immediately upon its first showing (*Masterworks* 72). Weir showed this painting at numerous exhibitions in the early twentieth century, including the massive show of the Ten at the Pennsylvania Academy of the Fine Arts in 1908.

Virtually every account of Weir's technological landscapes written by art historians refers to them at some point as "harmonious" or "gentle" in their combination of nature and industrial forms. This view corresponds with Leo Marx's analysis of how painters incorporated technology into the American landscape in the nineteenth century: it was placed carefully into the scene as a “proper part of the landscape” without showing any tension between the technological artifact and the natural surroundings (Marx 220-22). All four of Weir's paintings match this description of the subject in that the image is undisturbed by any of the class or material conflicts that were so common to the industrial relations of the late nineteenth century. On first glance, technology and nature seem to fit together peacefully. But the images do not maintain their supposed harmony.

These are pretty pictures to be sure; there are trees, expanses of land or water, sky and clouds. [*Willimantic Thread Factory*](#) creates a kind of harmony through its balance of empty field in the foreground and factory-dominated town in the middle distance. The aesthetic that governs even this seeming harmony, however, fails to maintain it and reverses the dominance of the factory over nature by submerging the man-made artifacts in the immobile natural surroundings. The dearth of activity available for an industrial artifact immediately problematizes the power of science and technology by privileging the processes of nature over the frenzied movement of the factory. The world of the factory praised and feared by Americans, remains incomplete and open to meanings uncontrolled by scientific management or technological processes. For example, the surprise at encountering an immobile factory sinking into the green swath of land could prefigure a new interpretation of the factory’s power, or lack of such, within a New England countryside littered with the detritus of past factories.

Weir’s other technological landscapes, however, cannot maintain even a pretense of harmony because in each case technology and the resistance of nature make powerful aesthetic intrusions into the supposedly gentle scenes. In [*U.S Thread Company Mills*](#) and [*The Factory Village*](#), this intrusion is most evident in the central vertical lines of the electrical poles. These poles are not the main verticals in either painting but in each case they dominate the central point at which the eye meets the canvas and are superimposed upon a border between nature and a man-made structure important to the values inhering in the painting's subject matter. The electrical pole in [*U.S. Thread Company Mills*](#) is treading on the point where the stone bridge meets the trees, disrupting the connection between old New England and nature which is balanced against the prominent factory building. In [*The Factory Village*](#), the electrical pole intrudes on the play between nature and the church that was such an important part of the Puritan traditions guarded by the American concept of New England. In each painting, however, the

domination of science in the form of electrical technology cannot be sustained. In [*U.S Thread Company Mills*](#), the tree in the foreground provides an even stronger vertical line than the electrical pole, opening a potential space for nature to subsume technology, reversing the order of things promoted by the march of scientific progress. [*The Factory Village*](#) provides an even larger space for resistance to the new scientific order built by industrial technology. The arms of the tree that dominates the scene reach out to take control of every human-made construction: smokestack, electrical poles, buildings. The temporal slippage is immense as the traditions of monstrous nature from New England's Puritan past interact with an array of futures that range from technological power to anti-technological destruction of the factory in the hands of an angry tree.

In [*The Red Bridge*](#) the intrusion and resistance is even more evident than in the other works. In this painting it is not a vertical line that breaks apart the harmony between nature and technology but the bridge itself in its separation from its mirror-self in the water below. The color of the bridge is the strongest contrast in the painting. The red color marks the bridge as a symbol of technology that is not comfortable with itself. At the same time, the bridge can represent the technological domination over nature while the reflection of the bridge's color in the water below implies that the technology represented can "flow" with nature or alternately, be submerged into nature and eventually disappear. The geometrical starkness of the straight lines of the bridge and its supporting column, along with the ubiquitous electrical pole in the picture's upper left corner, problematize the naturalization of industrial technology that the painting attempts to establish in the overall balance of bridge and foreground trees. The graceful curves of those trees, however, can be interpreted as overwhelming even the scientific power of the vertical and horizontal patterns of the bridge and its massive support pylon.

Conclusion

The technological landscapes created by Weir reflect the ambiguities of American life in the late nineteenth century in an extremely effective way. The naturalization of industrial technology was especially important to New England in this period. Throughout the eighteenth and nineteenth centuries, the Puritan goal that was prominently publicized in sermon and tract was that America was the place where paradise would be re-created. The American land was a key ingredient in the ability to perform that re-creation and had to be transformed from a howling wilderness into a productive garden (Jehlen 43-75). The rural values so important to Americans, however, were being subsumed by the power of scientifically-guided technological progress. In this climate, it is not surprising that, even as rural, nature-oriented values were promulgated, more scientific values began to displace the old ones. Political theorist Ernest J. Yanarella indicates that, in the late nineteenth century, "[a]s religious conviction in the imminent transformation of New England into a New Earth waned, apocalyptic hope in a new millennial age was gradually transformed into the realm of technology by latter-day Puritan writers" (17). Middle class America was wary of science but saw technology as the salvation of not only America but of all mankind. Weir's technological landscapes opened Americans to the possibility that a national identity that privileged New England tradition could base its desires on a diverse multiplicity of values, whether rooted in technology or in older values.

Weir's technological landscapes reduce the absolute harmony of nature and technology

by transforming technology into the equivalent of nature while also promoting ambiguities that reduce the domination of nature by technology. The incredible tree of *The Factory Village*, the immobilization of the factory in *Willimantic Thread Factory*, the dominant vertical line of the small tree in *U.S. Thread Company Mills*, all create images that allow Gadamer's aesthetic perspective based on the interaction of prejudices with the inexhaustible meaning of a work of art to gain full play in ambiguating the power of technology to direct American life. In *The Red Bridge*, the harmony of nature and technology is dissipated in much the same way, with the detailed structure of the man-made bridge providing a kind of scientific accuracy of description that still cannot keep that bridge from being subsumed by the trees that block it or submerged into the river that contains its mirror-self. Weir's landscapes of nature and industrial life in America present scenes of technology combined with natural beauty but these scenes resist the easy harmony between nature and technology that has usually been attributed to them. His Impressionist landscapes of technology and nature of the 1890s were the major experimental paintings he created during his long artistic career. In this experimentation, he shows both the desires and tensions that many Americans were feeling as their society was being transformed by machine technology and scientific processes. J. Alden Weir's technological landscapes create meaning through a fruitful tension produced by internal contemplation of external artifacts, instantiating Hans-Georg Gadamer's perspective on aesthetic understanding as a self-encounter that integrates our identity within the prejudices that pre-structure our responses to the work while also shattering those familiar responses through the artistic work's inexhaustible meaning and temporal slippage. Weir's paintings defy the easy harmony attributed to them in the same way that nineteenth-century American science denied harmony to its populace.

Works Cited

- "A Dazzling Picture Show." *New York Times* 11 March 1894: 11.
- Burke, Doreen Bolger. *J. Alden Weir: American Impressionist*. Newark: U of Delaware P, 1983.
- Domit, Moussa M. *American Impressionist Painting*. Washington: National Gallery of Art, 1973.
- Dorzema, Marianne. *American Realism and the Industrial Age*. Cleveland: Cleveland Museum of Art, 1980.
- "Exhibition of the Society of American Artists." *The Critic* 26 (30 March 1895): 250-51.
- Gadamer, Hans-Georg. *Philosophical Hermeneutics*. Trans. David E. Linge. Berkeley, CA: U of California P, 1976.
- . *Truth and Method*. Trans. Garrett Barden and John Cumming. 1975. New York: Crossroad, 1982.
- Gerds, William H. *American Impressionism*. Seattle: Henry Art Gallery, 1980.
- . *Masterworks of American Impressionism*. Einsiedeln, Switzerland: Thyssen-Bornemisza

- Foundation/Eidolon, 1990.
- Gerds, William H., et al. *Ten American Painters*. New York: Spanierman Gallery, 1990.
- Hays, Samuel P. *The Response to Industrialism, 1885-1914*. Chicago: U of Chicago P, 1957.
- Huth, Hans. "Impressionism Comes to America." *Gazette des Beaux-Arts* 6th ser. 29 (April 1946): 225-52.
- Jehlen, Myra. *American Incarnation: The Individual, the Nation, and the Continent*. Cambridge: Harvard UP, 1986.
- Johns, Elizabeth. *Thomas Eakins: The Heroism of Modern Life*. Princeton: Princeton UP, 1983
- Kamman, Michael. *Mystic Chords of Memory: The Transformation of Tradition in American Culture*. New York: Knopf, 1991.
- Larkin, Oliver W. *Art and Life in America*. Rev. ed. New York: Holt, Rinehart, & Winston, 1960.
- Martin, Jay. *Harvests of Change: American Literature, 1865-1914*. Englewood Cliffs, NJ: Prentice-Hall, 1967.
- Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. New York: Oxford UP, 1964.
- Mumford, Lewis. *The Brown Decades: A Study of the Arts in America, 1865-1895*. 2nd ed. New York: Dover, 1955.
- Ostrander, Gilman M. *American Civilization in the First Machine Age, 1890-1940*. New York: Harper & Row, 1970.
- Phillips, Duncan. "J. Alden Weir." *Art Bulletin* 2 (June 1920): 189-212.
- Pilgrim, Dianne H. *American Impressionist and Realist Drawings and Paintings from the collection of Mr. & Mrs. Raymond J. Horowitz*. New York: Metropolitan Museum of Art, 1973.
- "71st Exhibition of the National Academy of Design." *The Critic* 28 (4 April 1896): 242-43.
- Smith, Henry Nash. *Virgin Land: The American West as Symbol and Myth*. Cambridge: Harvard UP, 1950.
- Taylor, Frederick. *Scientific Management*. New York: Harper & Brothers, 1947.
- "The Exhibition of the Society of American Artists." *The Critic* 24 (17 March 1894): 187.

"The Spring Academy." *New York Times* 27 March 1896: 5.

Trachtenberg, Alan. *The Incorporation of America: Culture and Society in the Gilded Age*. New York: Hill & Wang, 1982.

Weinberg, H. Barbara, Doreen Bolger, and David Park Curry. *American Impressionism and Realism: The Painting of Modern Life, 1885-1915*. New York: Metropolitan Museum of Art, 1994.

Wiebe, Robert H. *The Search for Order, 1877-1920*. New York: Hill & Wang, 1967.

Yanarella, Ernest J., and Lee Sigelman, eds. *Political Mythology and Popular Fiction*. New York: Greenwood Press, 1988.

Young, Dorothy Weir. *The Life and Letters of J. Alden Weir*. Ed. Lawrence W. Chisolm. New Haven: Yale UP, 1960.

Zinn, Howard. *A People's History of the United States*. New York: Harper & Row, 1980.