

The Price of Progress:

The Omitted Environmental History of the Industrial Revolution in the United States

Logan Williamson

Dr. Fialka

Historiography

11 December 2023

## **Table of Contents**

<b>I. INTRODUCTION .....</b>	<b>3</b>
<b>II. EXPLOITATION OF NATURAL RESOURCES, ECONOMIC-CULTURAL COLONIALISM AND THE BISON.....</b>	<b>4</b>
<b>III. RISE OF POLLUTION, CHICAGO’S JUNGLE AND EPIDEMIC .....</b>	<b>8</b>
<b>IV. ENVIRONMENTAL CONSCIOUSNESS AND WOMEN’S PARTICIPATION .....</b>	<b>12</b>
<b>V. CONCLUSION .....</b>	<b>14</b>

Since time immemorial, the world was so immense, and human actions so small, that humanity ignored its impact on the environment. Now, we know that humans have a significant impact on our environment. Humanity understands that our environment plays a significant role in our lives and the development of our culture. The environment is a decisive factor in human actions, no longer just a passive backdrop. As Americans began to define and build their young nation in the nineteenth century, they continued a process they began as their colonial predecessors. Americans, predominately white Americans, settled in their “New World” and reshaped the landscape that Indigenous people previously shaped. This landscape, natural as well as colonial, had a significant impact on postcolonial America. This historiography will delve into the intricate relationship between nature and culture, and the interplay between material and discursive aspects in the United States during the 19th century; it will explore the complex relationship between material conditions, mentality and power, which shaped the physical conditions of the American landscape and the changing experiences of American life. As the context and experience of the 19th century changed dramatically as the United States underwent continental expansion, the transportation revolution, the national market economy, the industrial revolution, phenomenal population growth, urbanization, and unprecedented environmental issues such as exhaustion of natural resources and deterioration of the quality of life in America’s cities. The primary goal of this historiography paper is to show that it is impossible to understand our past while ignoring the environment. Additionally, this historiography paper will also address lesser-known facts, such as epidemics in urban centers due to industrial pollution and effluents, or how closely involved grassroots activism on issues such as poverty, gender, and political rights, pushed not only by middle-class, intellectual urbanites but also by women, were in early conversation movement.

## I. Introduction

The Second Industrial Revolution, the successor to its rudimentary predecessor, began in the mid-19th century, falling between 1870–1914. Within this timeframe, the human population exploded; in 1800, the global population reached 1 billion people, and by 1950 it more than doubled.<sup>1</sup> The population explosion of the 19th century is a complete reversal of the 13th-century Black Death, which killed as many as two hundred million people worldwide.<sup>2</sup> By the beginning of the 21st century, the number increased to six billion people.<sup>3</sup> Throughout human history, there has been a consistent pattern of technological advancement, albeit with varying longevity. While certain technologies have endured for extended periods, others have proved to be short-lived. This combination of innovation and obsolescence has driven the evolution of our technological landscape. Although the Industrial Revolution occurred approximately two hundred years ago, it is a period that left a profound impact on how people lived and the way businesses operated. Steam power changed the balance of power. Using coal as an energy source has changed how we look at industry, from energy production to manufacturing. At the time, people were not thinking about the potential effects of burning coal and other fossil fuels to power new equipment and machinery. They wanted to grow as far and as quickly as possible.

The widespread adoption of new manufacturing processes, the development of steam power, the growth of factory-based production, and the expansion of transportation networks

---

<sup>1</sup> John Robert, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Company, 2001), 23–24.

<sup>2</sup> John Kelly, *The Great Mortality: An Intimate History of the Black Death, the Most Devastating Plague of All Time* (New York: Harpercollins Publishers, 2005), 138–141.

<sup>3</sup> Daniel R Headrick, *Humans versus Nature: A Global Environmental History* (New York, Ny: Oxford University Press, 2020), p. 283; McNeill, John Robert, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Company, 2001), 23–24.

characterized the Industrial Revolution in the United States.<sup>4</sup> These advancements led to a surge in industrial output, urbanization, and population growth; however, they also brought about profound environmental changes as the demand for raw materials, energy, and labor intensified.<sup>5</sup> The Industrial Revolution in the United States marked a significant turning point in the nation's history in terms of economic and technological advancements and its impact on the environment. This period, which began in the late 18th century and continued into the 19th century, saw a rapid shift from agrarian and artisanal-based economies to industrialized, urban centers of production.<sup>6</sup> As a result, the environmental history of the Industrial Revolution in the United States is a complex and multifaceted topic that requires a thorough examination of various factors, including the exploitation of natural resources, the rise of pollution, and the emergence of environmental consciousness.

## II. Exploitation of Natural Resources, Economic-Cultural Colonialism and the Bison

One of the critical aspects of the environmental history of the Industrial Revolution in the United States is the exploitation of natural resources. Mark Fiege uses the Transcontinental Railroad as an epitome of an interconnected, linear industrial apparatus, stating, “To lay tracks and run trains, the two lines incorporated enormous quantities of resources, some of them from extreme distances. Laborers extracted iron from the Earth, purified it in blast furnaces, and, in

---

<sup>4</sup> Emma Griffin, *A People's History of the Industrial Revolution*. (New Haven: Yale University Press, 2013), 12; Francois Jarrige, *CONTAMINATION of the EARTH: A History of Pollutions in the Industrial Age*. (S.L.: Mit Press, 2021), 24–25.

<sup>5</sup> McNeill, John Robert, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Company, 2001), 27–30, 37–39.

<sup>6</sup> Charles R Morris and J E Morris, *The Dawn of Innovation: The First American Industrial Revolution* (New York: Publicaffairs, 2014), 54–55.

foundries, mills, and machine shops, turned it into rails, spikes, and locomotives such as the *Jupiter* and the *No. 119*.”<sup>7</sup> The increasing demand for raw materials, such as coal, iron ore, timber, and water, fueled the expansion of industries and infrastructure. The extraction of these resources often leads to environmental degradation, deforestation, soil erosion, and the disruption of ecosystems. The mining of coal, in particular, played a pivotal role in powering industrial machinery and fueling steam engines. However, coal extraction resulted in the destruction of landscapes, contamination of water sources, and releasing harmful pollutants into the air.<sup>8</sup> Similarly, logging forests for timber and clearing land for agricultural purposes contributed to the loss of biodiversity and the alteration of natural habitats.<sup>9</sup>

The bison, with a population estimated to be in the tens of millions, was once a symbol of abundance and played a central role in the lives of the Indigenous peoples of the Great Plains.<sup>10</sup> Indigenous people used every part of the animal for food, clothing, tools, and shelter, and their way of life was intricately connected with the bison.<sup>11</sup> However, the arrival of European settlers and the rapid westward expansion of the United States brought about significant changes in the relationship between humans and bison. In the mid-1800s, the construction of railroads, the proliferation of firearms, and the increasing demand for bison hides and meat by eastern markets led to a rapid and systematic decimation of the bison population.<sup>12</sup> Commercial hunting companies and individuals embarked on large-scale slaughters to profit from the bison's

---

<sup>7</sup> Mark Fiege, *The Republic of Nature: An Environmental History of the United States* (Seattle, Wash.: University Of Washington Press, 2013), 231.

<sup>8</sup> Daniel R Headrick, *Humans versus Nature: A Global Environmental History* (New York, Ny: Oxford University Press, 2020), 222–225.

<sup>9</sup> Headrick, *Humans versus Nature*, 234–36;

<sup>10</sup> Andrew C Isenberg, *The Destruction of the Bison* (New York: Cambridge University Press, 2000), 22, 25.

<sup>11</sup> Daniel R Headrick, *Humans versus Nature: A Global Environmental History* (New York, Ny: Oxford University Press, 2020), 237.

<sup>12</sup> William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), 216.

demise.<sup>13</sup> Bison were also targeted by military campaigns as a means to subjugate and starve Indigenous nations, ultimately forcing them onto reservations and relinquishing their traditional lands.<sup>14</sup>

One of the most notable figures associated with the destruction of the bison on the Great Plains is William F. Cody, better known as Buffalo Bill. Cody was a renowned buffalo hunter and a showman who capitalized on the popular fascination with the bison and the Wild West. His theatrical performances, such as Buffalo Bill's Wild West show, perpetuated the myth of the Wild West and contributed to romanticizing the destruction of the bison, creating a distorted perception of the relationship between humans and the natural environment.<sup>15</sup> Another critical figure in the destruction of the bison on the Great Plains is General Philip Sheridan, a Union Army officer who played a significant role in the Indian Wars of the late 19th century.<sup>16</sup> Sheridan famously advocated for the extermination of the bison to deprive the Native American nations of their primary food source, stating, "Let them kill, skin, and sell until the buffalo is exterminated."<sup>17</sup> His aggressive military campaigns and policies directly contributed to the near extinction of the bison and the devastation of Indigenous communities who relied on them for basic sustenance.

The impact of the destruction of the bison on the Great Plains was multifaceted and far-reaching, influencing both the ecosystem and the livelihoods of Indigenous peoples. The loss of the bison had profound ecological consequences, as it disrupted the natural balance of the plains

---

<sup>13</sup> Cronon, *Nature's Metropolis*, 218, 222.

<sup>14</sup> Daniel R. Headrick, *Humans versus Nature: A Global Environmental History* (New York, NY: Oxford University Press, 2020), 241–242.

<sup>15</sup> Andrew C. Isenberg, *The Destruction of the Bison* (New York: Cambridge University Press, 2000), 173–174.

<sup>16</sup> Andrew John Woolford, Jeff Benvenuto, and Alexander Laban Hinton, *Colonial Genocide in Indigenous North America* (Durham: Duke University Press, 2014), 297.

<sup>17</sup> Andrew C. Isenberg, *The Destruction of the Bison* (New York: Cambridge University Press, 2000), 127–128; Andrew John Woolford, Jeff Benvenuto, and Alexander Laban Hinton, *Colonial Genocide in Indigenous North America* (Durham: Duke University Press, 2014), 297.

and led to the degradation of the grasslands. The absence of large herds of grazing bison affected the vegetation, soil composition, and the abundance of other wildlife, significantly altering the entire ecosystem. For Indigenous peoples, the decline of the bison had devastating consequences, as it undermined their traditional way of life and forced them to adapt to a rapidly changing environment.<sup>18</sup> The bison's disappearance meant the loss of a primary food source, disruption of cultural practices, and the erosion of fundamental aspects of Indigenous identity.<sup>19</sup> The destruction of the bison became a symbol of the broader assault on Native American sovereignty and autonomy, as it was part of the U.S. government's policy of coercive assimilation and dispossession.

The destruction of the bison on the Great Plains elicits a range of perspectives, reflecting the complex interactions between human societies and the natural world. From an environmental perspective, the decimation of the bison serves as a stark reminder of the detrimental impact of human exploitation on wildlife and ecosystems. Andrew Isenberg, a historian in environmental, Native American, and the history of the North American West and its borderlands, attributes the rise of industry in the Industrial Revolution as the “monumental primary cause” of the near extinction of the bison.<sup>20</sup> It highlights the interconnectedness of all living beings and the ethical imperative to protect biodiversity and ecological integrity. From a historical and Indigenous standpoint, the destruction of the bison represents a dark chapter in the ongoing legacy of

---

<sup>18</sup> Andrew John Woolford, Jeff Benvenuto, and Alexander Laban Hinton, *Colonial Genocide in Indigenous North America* (Durham: Duke University Press, 2014), pp. 76–78. The decimation of the bison had significant adverse health and economic impacts on the Indigenous people who relied on them. Killing the bison had the desired dual outcomes of clearing the land of “Indians” and wild cattle that would have blocked or been a considerable problem for planned railways. The near extermination of the bison was not a random malignant side effect of colonization; it deliberately carried out an insidious part of a broader plan of genocide of the Plains Indians by American settlers.

<sup>19</sup> *Ibid.*, pp. 294–296, 301–302.

<sup>20</sup> Andrew C Isenberg, *The Destruction of the Bison* (New York: Cambridge University Press, 2000), p. 196.



colonialism, imperialism, and the subjugation of Indigenous peoples.<sup>21</sup> It underscores the systemic injustices and violence perpetrated against Native American nations and the enduring resilience of Indigenous communities in the face of adversity.

### III. Rise of Pollution, Chicago's Jungle and Epidemic

The Industrial Revolution, unsurprising given the demonstrable effects of fossil fuels, brought about a significant increase in pollution, as factories, mills, and other industrial facilities released a wide range of waste products into the environment. Air pollution, in the form of smoke, soot, and industrial emissions, became a common feature of urban landscapes, leading to respiratory problems, acid rain, and the deterioration of buildings and monuments, while the discharge of industrial waste into rivers and other waterways resulted in water pollution. In addition, the expansion of agriculture and the increased use of chemical fertilizers and pesticides led to environmental degradation and soil pollution. The environmental impact of the Second Industrial Revolution was substantial, and it had far-reaching effects on human health and the natural world.

One of the critical drivers of pollution during the Industrial Revolution was the widespread use of coal as a source of energy for steam engines, factories, and domestic heating. The burning of coal released large amounts of sulfur dioxide, particulate matter, and other harmful pollutants into the atmosphere.<sup>22</sup> The mining and transportation of coal also contributed to environmental degradation, leading to deforestation, soil erosion, and water pollution.<sup>23</sup> The

---

<sup>21</sup> Richard Slotkin, *The Fatal Environment: The Myth of the Frontier in the Age of Industrialization, 1800-1890* (Norman: University Of Oklahoma Press, 1998), 45–46.

<sup>22</sup> Francois Jarrige, *CONTAMINATION of the EARTH: A History of Pollutions in the Industrial Age*. (S.L.: Mit Press, 2021), pp. 57–59, 64; McNeill, John Robert, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Company, 2001), 57.

<sup>23</sup> McNeill, John Robert, *Something New under the Sun: An Environmental History of the Twentieth-Century World* (New York: W.W. Norton & Company, 2001), 36.

rapid expansion of industrial activities and urbanization during this period also resulted in the contamination of waterways with industrial waste, sewage, and other pollutants. Rivers and streams, once a vital source of clean water and transportation, became heavily polluted and unfit for human use. Discharging untreated industrial effluents and human waste into water bodies had detrimental effects on aquatic ecosystems and public health.

To understand the interaction between a dynamic natural environment and the human societies that inhabited it, Chicago is central to and emblematic of a cultural answer to all existential questioning that humanity's meaning can be found in bending nature to the will of humankind such that we no longer recognize its constructs as nature's work. The rise of Chicago from a fur trading post to a major metropolis capable of putting on a World's Fair of great beauty, attracting visitors from around the world, is the result of provisional advantages of waterways and human potential to restructure its environment.<sup>24</sup> The rise of Chicago as an industrial city traces back to the 19th century when the city experienced a massive influx of immigrants and rapid urbanization. In the early 1800s, Chicago was a small trading post at the mouth of the Chicago River.<sup>25</sup> However, it quickly developed into a transportation hub due to its strategic location on the Great Lakes and its access to waterways and railways.<sup>26</sup> Thus, said strategic location facilitated the movement of goods and people, laying the groundwork for Chicago's industrial expansion. While Chicago's industrialization brought tremendous economic growth and prosperity to the city, it also had drawbacks. The rapid urbanization and industrial expansion led to overcrowding, poor living conditions, and social inequalities. The working-class neighborhoods were often plagued by poverty, pollution, and inadequate infrastructure,

---

<sup>24</sup> William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), 26–27, 31–32, 341–346.

<sup>25</sup> Cronon, *Nature's Metropolis*, 12, 26–27.

<sup>26</sup> Cronon, *Nature's Metropolis*, 63, 67–69, 74, 110–112, 139, 254.

exacerbating the hardship faced by the city's most vulnerable populations.<sup>27</sup> The industrialization and urbanization of the city led to significant environmental degradation, including air and water pollution, deforestation, and loss of biodiversity. These environmental challenges have had far-reaching consequences, affecting public health, natural ecosystems, and the quality of life for residents of Chicago.

Water pollution was another consequence of industrialization, as untreated waste from factories and urban areas contaminated rivers, streams, and groundwater. Discharging toxic chemicals, heavy metals, and organic pollutants had detrimental effects on aquatic ecosystems and wildlife.<sup>28</sup> American cities grew in size and density during the first third of the nineteenth century. This growth accelerated with the advent of the Industrial Revolution and a large influx of immigration in the 1840s and 1850s. However, such proliferation caused problems with the city's infrastructure, primarily stemming from drinking water. Lake Michigan served as the primary source of drinking water for the city. However, it also served as the dumping ground for sewage from homes, businesses, factories and the Union Stockyard. The accumulation of effluent was dumped first into the Chicago River, which flowed directly into the lake. The sewage and pollutants in the water made Chicago residents susceptible to disease, especially cholera and typhoid fever.<sup>29</sup> In his 1906 novel, *The Jungle*, Upton Sinclair described it as, "Here and there the grease and filth have caked solid, and the creek looks like bed of lava; chickens walk about on it... and many times an unwary stranger has started to stroll across and vanished temporarily."<sup>30</sup>

---

<sup>27</sup> Cronon, *Nature's Metropolis*, 368.

<sup>28</sup> Francois Jarrige, *CONTAMINATION of the EARTH: A History of Pollutions in the Industrial Age*. (S.L.: Mit Press, 2021), 18–19.

<sup>29</sup> Edward G Stets et al., "Century-Scale Perspective on Water Quality in Selected River Basins of the Conterminous United States," *Scientific Investigations Report*, 2012, i–108, <https://doi.org/10.3133/sir20125225>, 3–4.

<sup>30</sup> Upton Sinclair, *The Jungle* (S.L.: Ten Speed, 1905), 112.

The impact of pollution during the Industrial Revolution was not limited to the environment alone. It also had profound implications for public health. The release of toxic pollutants into the air and water resulted in widespread respiratory diseases, waterborne illnesses, and other health problems among the population. Additionally, living and working conditions in industrial cities were often deplorable, with overcrowded housing, poor sanitation, and inadequate access to clean water contributing to the spread of infectious diseases. To understand the unsanitary nature of late 19th-century urban life, *How the Other Half Lives*, a book by a Danish-American journalist and social reformer Jacob Riis, published in 1890, provides the earliest account of deplorable conditions for predominately impoverished, immigrant and working-class people in New York City. Riis used his skills as a journalist and his own experiences to document the harsh realities faced by the working-class people. Through vivid descriptions and photographs, he exposed the overcrowded tenements, unsanitary living conditions, and extreme poverty that characterized the lives of many New Yorkers. Riis meticulously documents cholera outbreaks in the tenements and the indifference of authorities to take preventative action:

“[...] in one cholera epidemic that scarcely touched the clean wards, the tenants died at the rate of one hundred and ninety-five to the thousand of population; which forced the general mortality of the city up from 1 in 41.83 in 1815, to 1 in 27.33 in 1855, a year of unusual freedom from epidemic disease, [...] The tenement-house population had swelled to half a million souls by that time, and on the East Side, in what is still the most densely populated district in all the world, China not excluded, it was packed at the rate of 290,000 to the square mile, a state of affairs wholly unexampled. The utmost cupidity of other lands and other days had never contrived to herd much more than half that number within the same space. The greatest crowding of Old London was at the rate of 175,816. Swine roamed the streets and gutters as their principal scavengers. The death of a child in a tenement was registered at the Bureau of Vital Statistics as ‘plainly due to suffocation in the foul air of an unventilated apartment,’ and the Senators, who had come down from Albany to find out what was the matter with New York, reported that ‘there

are annually cut off from the population by disease and death enough human beings to people a city, and enough human labor to sustain it.”<sup>31</sup>

## IV. Environmental Consciousness and Women’s Participation

Amid the environmental challenges posed by the Industrial Revolution, a growing awareness emerged of the need to address environmental issues and promote conservation efforts. Early conservationists and environmental advocates, such as George Perkins Marsh and John Muir, raised concerns about the impact of industrial development on the natural world and called for the preservation of wilderness areas and the responsible use of natural resources.<sup>32</sup> The establishment of organizations like the Sierra Club and the Audubon Society contributed to the rise of environmental consciousness in the United States.<sup>33</sup> These efforts laid the groundwork for developing environmental policy regulations and creating protected areas and national parks. The conservation movement in the United States has deep historical roots, dating back to the 19th century when concerns about wildlife depletion, deforestation, and land degradation began to gain national attention. Key figures such as John Muir, Theodore Roosevelt, and Gifford Pinchot played instrumental roles in shaping the early conservation movement and establishing policies to protect natural resources. However, the contributions of women in the conservation movement often went unnoticed or underappreciated during this time.

During the early stages of the American environmental conservation movement, women played a significant, yet often disregarded role. Despite their contributions, their efforts have

---

<sup>31</sup> Jacob A Riis, *How the Other Half Lives*. (S.L.: Smk Books, 1890), <https://www.gutenberg.org/files/45502/45502-h/45502-h.htm>, 10–11.

<sup>32</sup> C. Merchant, “George Bird Grinnell’s Audubon Society: Bridging the Gender Divide in Conservation,” *Environmental History* 15, no. 1 (January 1, 2010): 3–30, <https://doi.org/10.1093/envhis/emq015>, 6; A. Rome, “‘Political Hermaphrodites’: Gender and Environmental Reform in Progressive America,” *Environmental History* 11, no. 3 (July 1, 2006): 440–63, <https://doi.org/10.1093/envhis/11.3.440>, 442, 446–447.

<sup>33</sup> Merchant, “George Bird Grinnell’s Audubon Society,” 4, 10–21.

been overlooked in the historical records. While their contributions were not consistently recognized or given equal visibility, women actively participated in various aspects of environmental conservation from a grassroots movement during this period. Renowned ecofeminist philosopher and historian of science, Carolyn Merchant, writes, “Like men, they joined outdoor hiking and mountaineering clubs and appreciated wild nature through botany, birding, and animal study. And like men they also became hunters and fishers as well as conservationists.”<sup>34</sup> One notable, influential woman, Mabel Osgood Wright, focused on bird conservation and education, especially for children. She wrote extensively about birds and their conservation, emphasizing the importance of preserving their habitats.<sup>35</sup> Women also played a crucial role in the establishment of national parks. Furthermore, women’s organizations, such as the General Federation of Women’s Clubs and the Daughters of the American Revolution, actively promoted environmental conservation efforts.<sup>36</sup> Environmental historian, Adam Rome, emphasizes, “Indeed, women in the Progressive era devoted more energy to environmental issues than any other public concern, with the possible exceptions of temperance and children’s welfare.”<sup>37</sup> They organized tree-planting campaigns, advocated for clean water and air, and supported the establishment of national parks. However, the contributions of women in the conservation movement have also faced challenges and barriers. The “effeminacy-masculinity” schism, lack of formal recognition, and institutional biases marginalized women’s voices and

---

<sup>34</sup> C. Merchant, “George Bird Grinnell’s Audubon Society: Bridging the Gender Divide in Conservation,” *Environmental History* 15, no. 1 (January 1, 2010): 3–30, <https://doi.org/10.1093/envhis/emq015>, 5.

<sup>35</sup> Carolyn Merchant, “Women of the Progressive Conservation Movement: 1900-1916,” *Environmental Review: ER* 8, no. 1 (1984): 57, <https://doi.org/10.2307/3984521>, 70–71.

<sup>36</sup> C. Merchant, “George Bird Grinnell’s Audubon Society: Bridging the Gender Divide in Conservation,” *Environmental History* 15, no. 1 (January 1, 2010): 3–30, <https://doi.org/10.1093/envhis/emq015>, 5; Carolyn Merchant, “Women of the Progressive Conservation Movement: 1900-1916,” *Environmental Review: ER* 8, no. 1 (1984): 57, <https://doi.org/10.2307/3984521>, 57.

<sup>37</sup> A. Rome, “‘Political Hermaphrodites’: Gender and Environmental Reform in Progressive America,” *Environmental History* 11, no. 3 (July 1, 2006): 440–63, <https://doi.org/10.1093/envhis/11.3.440>, 443.

limited their opportunities for leadership and influence within the conversation movement.<sup>38</sup>

Male figures historically dominated the conservation movement, and women had to overcome significant obstacles to attain visibility and authority within the field. It was not until the later part of the 20th century that women's voices and contributions received acknowledgment.

## V. Conclusion

The environmental history of the Industrial Revolution in the United States is a complex narrative that encompasses the exploitation of natural resources, the rise of pollution, and the emergence of environmental consciousness. The profound changes brought about by industrialization had far-reaching implications for the environment, shaping landscapes, ecosystems, and human interactions with the natural world. As the United States continues to grapple with contemporary environmental challenges, the lessons learned from the environmental history of the Industrial Revolution remain relevant in shaping sustainable and responsible approaches to economic and industrial development. Looking ahead, the environmental history of the Industrial Revolution in the United States continues to inform contemporary environmental debates and policy decisions. Even now, as the world grapples with the challenges of climate change, resource depletion, and environmental degradation, the lessons learned from the Industrial Revolution and its environmental legacy can provide valuable insights for addressing current environmental issues. It is important to recognize the female voices of the voiceless who pushed for policymakers, businesses, and individuals to prioritize conservation and environmentally responsible practices that mitigate the impacts of industrial

---

<sup>38</sup> A. Rome, "‘Political Hermaphrodites’: Gender and Environmental Reform in Progressive America," *Environmental History* 11, no. 3 (July 1, 2006): 440–63, <https://doi.org/10.1093/envhis/11.3.440>, 442–443, 446, 449–450.

activities on the natural world. By recognizing the interconnectedness of human activities and the environment, we can work towards creating a more harmonious relationship with the natural world that supports human well-being while preserving the ecosystems that sustain life on Earth.



## Bibliography

- Andrew John Woolford, Jeff Benvenuto, and Alexander Laban Hinton. *Colonial Genocide in Indigenous North America*. Durham: Duke University Press, 2014.
- Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York: W.W. Norton, 1991.
- Fiege, Mark. *The Republic of Nature: An Environmental History of the United States*. Seattle, Wash.: University Of Washington Press, 2013.
- Francois Jarrige. *CONTAMINATION of the EARTH: A History of Pollutions in the Industrial Age*. S.L.: Mit Press, 2021.
- Griffin, Emma. *A People's History of the Industrial Revolution*. New Haven: Yale University Press, 2013.
- Headrick, Daniel R. *Humans versus Nature: A Global Environmental History*. New York, Ny: Oxford University Press, 2020.
- Isenberg, Andrew C. *The Destruction of the Bison*. New York: Cambridge University Press, 2000.
- Kelly, John. *The Great Mortality : An Intimate History of the Black Death, the Most Devastating Plague of All Time*. New York: Harpercollins Publishers, 2005.
- McNeill, John Robert. *Something New under the Sun: An Environmental History of the Twentieth-Century World*. New York: W.W. Norton & Company, 2001.
- Merchant, C. "George Bird Grinnell's Audubon Society: Bridging the Gender Divide in Conservation." *Environmental History* 15, no. 1 (January 1, 2010): 3–30.  
<https://doi.org/10.1093/envhis/emq015>.
- Merchant, Carolyn. "Women of the Progressive Conservation Movement: 1900-1916." *Environmental Review: ER* 8, no. 1 (1984): 57. <https://doi.org/10.2307/3984521>.
- Morris, Charles R, and J E Morris. *The Dawn of Innovation: The First American Industrial Revolution*. New York: Publicaffairs, 2014.
- Riis, Jacob A. *How the Other Half Lives*. S.L.: Smk Books, 1890.  
<https://www.gutenberg.org/files/45502/45502-h/45502-h.htm>.
- Rome, A. "'Political Hermaphrodites': Gender and Environmental Reform in Progressive America." *Environmental History* 11, no. 3 (July 1, 2006): 440–63.  
<https://doi.org/10.1093/envhis/11.3.440>.

Sinclair, Upton. *The Jungle*. S.L.: Ten Speed, 1905.

Slotkin, Richard. *The Fatal Environment: The Myth of the Frontier in the Age of Industrialization, 1800-1890*. Norman: University Of Oklahoma Press, 1998.

Stets, Edward G, Valerie J Kelly, Whitney P Broussard, Thor E Smith, and Charles G Crawford.

“Century-Scale Perspective on Water Quality in Selected River Basins of the Conterminous United States.” *Scientific Investigations Report*, 2012, i–108.

<https://doi.org/10.3133/sir20125225>.