

Environmental Problems in Victorian Era in Hard Times

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Abstract

As a critical realist novelist who concerns about social problems, Dickens saw the environmental crisis under the vanity of the industrialization. In *Hard Times*, Coketown is the epitome of the capitalist industrial city in Britain at that time. From ecological perspective, this paper explores the impact of environmental problems on the social and natural environment of Victorian cities. Through the analysis of the social environment problem and the natural environment pollution in Coketown, it shows that Dickens was extremely painful towards the environmental pollution and the alienation of human nature caused by the wantonly expansion of industrial civilization. It also reveals Dickens' yearning for a healthy social ecology and his ecological thought of returning to nature.

Keywords

Charles Dickens; Hard Times; Environmental Problem; Victorian Era.

1. Introduction

Charles Dickens is one of the greatest English novelists in the 19th century. He is also a world-wide master of critical realism. The themes of Dickens' novels are mainly compassion and poverty, reflecting the social reality. People can always find their own shadow in his characters.(Jordan, 2001:39) His novels not only tell the story of Victorian times, but also give contemporary people with a lot of enlightenments.(Chen, 2004:138)

Hard Times is a novel by Charles Dickens published in 1854. It is an important work during his writing career because it presents a series of social scenes in the process of industrialization and urbanization in Britain in the mid-19th century.(Fu, 1989:20) Compared with more optimistic tone of his earlier works, Dickens' criticism in *Hard Times* is greatly strengthened. Most critics believe that this novel is a typical "industrial novel", "social novel" and "political novel", which mainly shows the problem of labor and capital conflicts between the bourgeoisie and the working class in the process of industrialization.(Xue, 1996:24) However, apart from this, there are broader social realities in *Hard Times*. In the novel, Dickens shows the serious environmental problems of the Victorian era, such as "monstrous serpents of smoke that trails themselves over Coketown" and "ill-smelling river that was dyed black". After industrialization and urbanization, there were many crises in Britain, such as natural environment problems, corruption in the political system, alienation of human nature and so on. Dickens keenly observed these problems and reflected them in his works, which reflected his deep concern for realistic problems.

2. Organization of the Text

Ecocriticism is the study of literature and environment from an interdisciplinary point of view where all sciences come together to analyze the environment and brainstorm possible solutions for the correction of the contemporary environmental situation. Its core is the concern and sense of responsibility for the ecology of the earth. As the world's environmental problems

become more and more prominent, ecocriticism is flourishing. Therefore, more and more scholars begins to pay attention to urban environment reflected in literary works.

The environment depicted in literary works is generally divided into natural environment and social environment. In literary works, the natural environment is depicted by writing scenes and objects, including natural scenery, topography, flowers, birds, fish and insects. It focuses on providing a spatial background for characters' activities. Besides, it is a manifestation of characters' thoughts and feelings and aesthetic interests. As for the social environment, it generally refers to the social background and living places of the novel's characters, including regional characteristics, living scenes, customs and habits. Apart from these, the social environment also includes the social situation and interpersonal relations in a specific historical period, as well as the complex network formed by ethnicity, era and social class.

Through discussing social environment and natural environment, this study analyzes environmental pollution of Coketown and reveals the direct reason and root cause. It intends to expand the study of *Hard Times* from the perspective of ecocriticism, so as to bring enlightenment to us who are also facing ecological crisis today.

2.1. Social Environment Problems in Hard Times

2.1.1. Deterioration of the Material Environment

City is a gathering area of people. So it must have certain material facilities, such as streets, buildings, public facilities. These basic facilities form the material environment of a city. (Lawrence, 2001:66) Coketown is small but complete. It has schools, churches, factories, banks, hospitals, prisons, government institutions, ghettos, posh part of town, and even a circus. However, the material environment of Coketown is still awful.

The best material to show surface and essence of a city is street. In Coketown, the layout of streets and houses is too is too formal to lack in originality: "It contained several large streets all very like one another, and many small streets still more like one another," "All the public inscriptions in the town were painted alike, in severe characters of black and white. The jail might have been the infirmary, the infirmary might have been the jail, the town-hall might have been either, or both, or anything else, for anything that appeared to the contrary in the graces of their construction." (Dickens, 2005:9) The streets and houses of industrial cities are so similar in design, and people's lives are monotonous. Dickens uses a sarcastic tone to describe the material facilities of the Coketown, suggesting that people's artistic imagination is suppressed in the town.

At the beginning of the 19th century, the public facilities in industrial cities were extremely weak, and there were no parks or green spaces. Edgar Johnson said, "Dickens saw the rubbish on the streets, the crowds of people and the poor condition of the sewage system. He knew that such conditions would lead to disease, so he vowed to expose these phenomena." (1953:59) In addition, public health facilities are incomplete: "the tremendous rain occasioned infinite confusion, when the train stopped at its destination. Gutters and pipes had burst, drains had overflowed, and streets were under water." (Dickens, 2005:68) These imperfections in infrastructure mean that other critical public services cannot be sustained in the harsh environment. Dickens' criticism of the poor material environment of Coketown is also hidden in this description.

2.1.2. Deterioration of the Living Environment

In Coketown, the gap between the rich and the poor was extremely sharp. It was easy to know whether a person is rich upper class or poor working class through his living environment. Compared with the upper class such as Mr. Gradgrind and Mr. Bounderby, the dwellings of the working men and the poor were terrible.

The rootless circus performers moved from town to town throughout the year. When they came to perform in Coketown, they lived on a narrow road called Pod. At the end of Pod, there was a hotel named "Pegasus's Arms", which was a temporary home for these performers. "The hotel was a mean little public-house, with dim red lights in it. As haggard and as shabby, as if, for want of custom, it had itself taken to drinking, and had gone the way all drunkards go, and was very near the end of it." (Dickens, 2005:9) When Mr. Gradgrind and Mr. Bounderby entered into the room of "Pegasus's Arms" to find Sissy's father, they were surprised to find that "it was a mean, shabbily furnished room, with a bed in it." The only ornament in the room was "the white night-cap, which embellished with two peacock's feathers and a pigtail bolt upright." (Dickens, 2005:10)

In addition, there are many descriptions of the living conditions of the workers in *Hard Times*. For tourists, they saw brightly-lit factories from the railway as "fairy palaces". (Dickens, 2005:20) However, for the workers who were known as "The Hands", these factories were the worst areas in Coketown: "It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves for ever and ever, and never got uncoiled." (Dickens, 2005:7) "In the hardest working part of Coketown; in the innermost fortifications of that ugly citadel, where Nature was as strongly bricked out as killing airs and gases were bricked in; at the heart of the labyrinth of narrow courts upon courts, and close streets upon streets, which had come into existence piecemeal, every piece in a violent hurry for some one man's purpose, and the whole an unnatural family, shouldering, and trampling, and pressing one another to death" (Dickens, 2005:20) Workers not only had to deal with smoke that was already in the air, but also had to deal with the dust that came from the production process. Besides, they lived in the blocks which had the worst living environment. The rich still had a chance to breathe fresh air in the suburbs, the workers had to breathe the polluted air in the factories all their life.

Therefore, while industrialization has brought great wealth, it has also brought negative effect. Because of the limitation of understanding, the workers at the bottom of society did not enjoy the benefit brought by industrialization, but became the biggest victims of environmental pollution.

2.2. Natural Environment Problems in *Hard Times*

2.2.1. Air Pollution

In *Hard Times*, the town's name, Coketown had profound meaning and implication. Coal was the main fuel used by people after the Age of Steam. At that time, heating equipment, cooking facilities, production machinery and so on needed to burn a large amount of coal to obtain energy in Britain. Burning coal would produce a great deal of smoke and toxic gases, which became the main source of air pollution. Due to the limitation of technology and ideology, the problem of air pollution did not attract enough attention in the early stage of industrial revolution. By the time people realized how serious it was, the city and the sky were already polluted. (Cheryll, 1996:52) As the air became increasingly dusty, a thick haze formed over the city. The sunshine of industrial cities was much less than that of towns far away from the pollution, so the growth of all kinds of life was affected. (Zhou, 2016:56) What's more unavoidable was respiratory diseases. The toxic substances in the exhaust produced a great stimulus to human health, and people paid a terrible price for it. According to statistics, in 18th century, there were 25 cases of poison fog in London. By the first 40 years of 19th century, there were no fewer than 18 cases of the great London fog. Each time would result in a significant increase in morbidity and mortality of respiratory diseases such as bronchitis... There was no doubt that air pollution had become the main cause in the great London fog. (Liu, 2006:57) Coketown was no exception. The air pollution was particularly serious, so "the monstrous serpents of smoke trail themselves over Coketown all year round" (Dickens, 2005:22). Dickens described air pollution in Coketown as following: "Seen from a distance in such weather,

Coketown lay shrouded in a haze of its own, which appeared impervious to the sun's rays." "A blur of soot and smoke, now confusedly tending this way, now that way, now aspiring to the vault of Heaven, now murkily creeping along the earth, as the wind rose and fell, or changed its quarter: a dense formless jumble, with sheets of cross light in it, that showed nothing but masses of darkness." (Dickens, 2005:35)

In *Hard Times*, the author does not focus on the description of the natural environment. Most of the environmental descriptions are scattered in each chapter of the novel, especially at the beginning of each chapter: "It was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but as matters stood, it was a town of unnatural red and black like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves for ever and ever, and never got uncoiled." (Dickens, 2005:7)

Dickens likens smoke and steam engine to monstrous serpent and melancholy mad elephant, people struggles to survive in the harsh environment. The sky is always gray in Coketown, and those who live there rarely see daylight because the area is constantly shrouded in smog. Only when the steam engine stops and rain comes will the moon be seen. "Dirty", "disordered" and "grey" are the most intuitive impression of Coketown's natural environment. All these reflect Dickens' great disgust of the environmental pollution problem in the Coketown.

2.2.2. River Pollution

Although the industrial revolution flourished, its potential threats began to appear. Air pollution was dangerous to people's health, and river pollution was another major scourge of the Victorian urban environment. Industrial effluents and domestic sewage are responsible for river pollution. In the novel, Mr. Bounderby's cotton mill in Coketown was built along the river, which was also the preferred location for all the factories. Industrial wastewater was poured into rivers without treatment, thus causing river pollution. Dickens described the polluted river in Coketown repeatedly: "It had a black canal in it, and a river that ran purple with ill-smelling dye". (Dickens, 2005:44) "It had a black river full of waste from the factories beside it." (Dickens, 2005:8)

Cheap transportation costs, the convenience of using water and draining out waste water make factories increasingly rely on rivers. All these made the river overburdened. Textiles, dyeing, papermaking factory continuously discharged wastewater containing toxic substances and terrible colors into the river. This was far beyond self-purification capacity of river. Finally, the beautiful bird habitat turned into "open sewer". Dickens described the Coketown's rivers as following: "Down upon the river that was black and thick with dye, some Coketown boys who were at large—a rare sight there—rowed a crazy boat, which made a spumous track upon the water as it jogged along, while every dip of an oar stirred up vile smells." (Dickens, 2005:36) In this description of the river in Coketown, Dickens did not directly describe the color and smell of the polluted river, but reflected the pollution through indirect description, which could stimulate the imagination of readers.

In history, the Thames, crowned as a "Royal River", has become London's public sinkhole. River Irwell and River Irk, which run through Manchester, has become black and smelly. (Thorsheim, 2006:77) The rivers are clogged with mud and waste, making it a stagnant pool. People are easy to get sick if they drink the water from polluted river. Among these diseases, cholera is the most harmful. In the first half of the 19th century, there were four widespread outbreaks of cholera in Britain that killed more than 40,000 people. Unfortunately, no one realized that this was the result of water pollution.(White, 1967: 20)

2.2.3. Noise Pollution

Among all the environmental pollution, the harm of noise pollution is the most difficult to be perceived by people. It was not until 2000 that the world's first map about noise was produced

in Birmingham.(Armstrong, 1993:76) During the industrial revolution, the huge machine kept turning with a low-pitched rumbling noise all the time. In *Hard Times*, Dickens also described the noise pollution caused by machines. He said: "vast piles of building full of windows where there was a rattling and a trembling all day long, and where the piston of the steam-engine worked monotonously up and down, like the head of an elephant in a state of melancholy madness." (Dickens,2005: 7)

In *Hard Times*, Dickens' repeated descriptions of the rumbling noise caused by machines revealed his concern for industrialization and urbanization: "The measured motion of their shadows on the walls, was the substitute Coketown had to show for the shadows of rustling woods; while, for the summer hum of insects, it could offer, all the year round, from the dawn of Monday to the night of Saturday, the whirr of shafts and wheels. Drowsily they whirred all through this sunny day, making the passenger more sleepy and more hot as he passed the humming walls of the mills." (Dickens, 2005:35)

The natural environment of the whole Coketown has been destroyed by the process of industrialization and urbanization, showing scenes of no natural vitality under the replacement of industrialization. The harsh noise replaced the beautiful sound of the natural original rhythm. In Coketown, the whirring sound of shafts and wheels was like the jingling of gold coins slipping from one's fingers, so it is the finest music for the capitalist. However, for the workers who had been there for more than ten hours, the noise was torture. Long term exposure to noise could cause hearing loss, dizziness, nausea and vomiting, and even neurasthenia. (Hutchings, 2007:80) In the growing industrial revolution, people at the bottom of society become the biggest victims of the ecological crisis.

3. Conclusion

In *Hard Times*, Dickens has created a abnormal space where all the distinctive features of a 19th-century British industrial city come together. The Coketown in Dickens' works is like a dark bastion, completely isolated from the nature. In the town, choking plume of smoke, ill-smelling river and loud noise are taking a toll on the residents. At the same time, social environment is also becoming worse. The town is laid out in regular patterns, which seems reasonable, but it is extremely depressing. The people of Coketown have a code of life that no one could violate. Rigid institutions and rules make people's life extremely painful. The unbalance of natural ecology and the deterioration of social environment lead to the variation of citizens.(Yi, 2010:15)

As the first industrialized country, Britain inevitably became the first country to suffer pollution seriously. Dickens' description of the natural environment of Coketown was the embodiment of the destruction of nature in the period of industrial transformation. In the novel, monstrous serpent of smoke trails over the town all day long. Besides, the river that goes through the town is stinking and stagnant. It shows that polluted air and rivers are a significant feature of industrial cities. It can be said that Coketown was the big city in miniature during UK's industrial transformation period. Coketown was also a microcosm of every developing country in the world during the process of economic development. While creating great wealth, industrial cities also brought the "by-products" of development. Smog, waste water, noise, monotonous life and worse living environment brought by industrial civilization are inevitable. Dickens keenly discovered a series of environment problems in the process of industrialization transformation. Then he exposed and criticized them in *Hard Times*.

As a novel reflecting the problem of industrialization, *Hard Times* has profound realistic significance even in the 21st century. In the novel, the excessive development and blind expansion of industry have led to the ecological deterioration of Coketown and hard life of people. At present, China is in the process of modernization and urbanization. Reflecting on

problems in Britain during the industrial period can help us learn more about the industrial civilization of Britain in Victorian Era and deepen our understanding about modernization, which is meaningful to urban construction in China.

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