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## Book Reviews

**Sing C. Chew. *World Ecological Degradation: Accumulation, Urbanization, and Deforestation 3000 B.C. – A.D. 2000*.  
New York: AltaMira Press, 2001.**

Reviewed by Tereza Coni Aguiar

This book analyses the relationship Culture-Nature during a long period in history, from the Bronze Age (3000 B.C.) until A.D. 2000, making a retrospective of the environmental crisis in an extensive geographical area. The book draws important analogies among the phenomena of ecological degradation observed in ancient and modern civilizations, making it easier to spot similarities and differences between periods in history and also to think about the consequences of this issue today and in the future.

Sing Chew, Professor of Sociology at Humboldt State University, makes a broad study of the relationship of civilization, its productive processes, and nature. For him, the relationship Culture-Nature throughout history has always been characterized by great ecological degradation. His main point is that environmental issues are not new in our planet. Chew innovates in adding an environmental perspective to the debate about the rise and fall of civilizations, and he even makes predictions about the future of the planet. For him, the history of civilizations is the history of ecological degradation.

*World Ecological Degradation*, published in 2001, is the first of three books. The second, *The Recurring Dark Ages*, was published in 2006, and the third, *Ecological Futures* in 2008. The object of this review is the first book of the trilogy, with 217 pages (33 of bibliography) and nine chapters.

In the first chapter, “Ecological Degradation over World History,” Chew presents the main concepts, propositions and processes that define the relationship Culture-Nature through history: accumulation of capital, urbanization and population growth. The author asserts that deforestation has been a consequence of the economy of civilizations for at least 5,000 years. The other seven chapters are chronologically organized and discuss different civilizations, their economic activities, political and social rules, and ecological degradation. The book ends with the different concepts and approaches to environmental conservation, from ancient times until the year 2000.

Chew presents his theory in a standardized manner, examining each civilization in terms of economic structure, social organization, population distribution and hinterland status. Next he discusses the way each society interacts with nature and the changes of its natural habitat, detailing the impacts of its social and economic processes. He sees a bridge

between the level of necessity of natural resources and the demands of economic activities in each civilization.

Chew reviews the types of environmental impacts that characterized each civilization, from the Bronze Age until the year 2000, offering the reader a grand historic perspective and highlighting the environmental singularities of each region as a consequence of how its natural resources have been exploited. He shows that deforestation, soil runoff, salinization, air and water pollution, loss of biodiversity, climate change and other environmental problems are in no way new, but were present in Mesopotamia, Harappa, Ancient Greece and the Roman Empire.

For the author, ecological degradation is a consequence of the way civilizations interact with the natural environment and of how different economic activities are organized. The intensive use of natural resources and excessive consumption typical of many civilizations can lead to what he calls ecological stress. Throughout history we can observe limit situations, when several elements of nature were damaged in an interrelated way, affecting the environment as a whole. An environmental disaster of such magnitude can interfere with the reproductive capacity of a civilization and can lead to its decline and fall.

Chew believes that there is a close relation between environmental damage and resource accumulation, urbanization and population growth. These three are deeply rooted in the history of civilizations and are associated with great environmental loss through deforestation and landscape transformation.

By making intensive use of natural resources, urbanization leads to changes in the surrounding areas and also in distant areas. Urban spaces have been constantly used with total disregard to their natural characteristics. This reckless use caused serious problems of landscape transformation such as floods, landslides and even disease outbreaks. In many civilizations, urbanization has also been associated with deforestation, hydrological destabilization, and air and water pollution.

Population growth combined with urbanization required the intensive use of natural resources to respond to the need for food, goods and tools. To satisfy this demand, deforestation began, and the search for ore (gold, silver, iron, bronze, among others) was intensified. Forests were chopped down to give place to agriculture and the exploitation of natural resources. The ever growing urban centers needed wood to produce energy and to respond to the internal demand for resources. These cities had also a great need of wood to construct their buildings, palaces and temples, and also for the construction of vessels that were the carriers of the intense trading activities between urban centers in Mesopotamia, Harappa, Ancient Greece and the Roman Empire. Forests were also wiped out in the fight for territories during military campaigns, wars and conflicts.

Chew calls attention to the most serious environmental issue that civilizations experienced in the past and still experience now: deforestation. This has always been considered a huge problem in civilizations worldwide. For Chew, the intensive use of wood is immediately related to ecological degradation and is to be considered a proxy in understanding the relationship Culture-Nature at any specific time and place.

In the journey through the intricate relationship Culture-Nature, it is interesting to see how contemporary environmental issues and conservationist preoccupations are historically manifested. For example, in Greece when water and air pollution started to be felt more clearly, the concern about conserving natural resources started. Climate change felt in Mesopotamia, Harappa and the Roman Empire, and pollution caused by heavy metals, lead poisoning, animal extinction (rhinoceros, crocodile, among other species) were problems faced by the Roman Empire. Government regulation to protect forests, water basins and woodlands were an initiative of the Roman Empire. Researches shows that conservationist concerns appear in periods where ecological degradation is more intensive.

Besides his sociological perspective, Chew also reflects on the phenomena of ecological degradation from the viewpoint of human geography. He analyzes the size of the phenomenon in different points in time as well as the connections between different elements of nature and society, examining its causes and specificities in each moment in history. In this sense, his broad approach is closer to the idea of Society-Nature than to the idea of Culture-Nature, as he defines it. In his geographical perspective, Chew sees the environment as a reflection of the action of society upon nature, in which humanity is a determining factor due to its overwhelming impact potential when compared to other animals. (Galvão, 2009). Geographically speaking “one must think of the environment in a social perspective that actually includes economic and political interactions of society in the process of historical construction” (Galvão, 2009).

In considering Chew’s theoretical and methodological contribution, it is important to say that most research on environmental issues focuses on the economy’s impacts on nature, while very few studies try to understand how the changed environment affects the economy and how it can prevent societies from growing and even lead to their fall. In this way, the contribution of Chew is fundamental.

Regrettably, many research studies still approach the elements of nature and society in a fragmented and dissociated way, forgetting that Man does not live in isolation; he interacts continuously with all elements of nature (Aguiar, 2012). In this way, ecological degradation cannot be analyzed only in a Nature-Society dualist perspective. There are a great number of interactions between all elements involved that must be identified and analyzed (Aguiar, 2012). But in analyzing the process of ecological degradation in many civilizations, Chew presents a few examples of the consequences of this degradation to society.

The book gives enlightening information on the connection Nature-Society and brings important methodological contributions; and some concepts and principles can also be used in the definition of guidelines to protect the environment. It is specially recommended to university students and environment researchers in different areas of knowledge.

In the end, Chew surprises the reader by examining civilizations that had a balanced and harmonious relationship with nature, as opposed to those marked by environmental damage caused by economic forces. Chew constructs reflections that could make us think about the future, and changes in how we relate to nature today.

We live in a period of constant change, both local and global, which leads to great uncertainty. The way contemporary society relates to the environment is already considered one of the factors that contribute extensively to environmental problems and disasters. If we compare this present trend with the careers of past civilizations studied by Chew, it seems that we are once more reaching a limit in the support capacity of the environment.

Many environmental movements in the second half of the twentieth century and the beginning of the twenty-first century stand out for their radical protests that aim to raise awareness of the global environmental issues. Many international conventions aim to protect natural resources such as forests, humid areas, and biodiversity. In the 1980s, scientific evidence on human carbon emission started to cause public concern, leading to the Climate Change Conference of 1990. Environmental issues, though not new, are more complex today and represent a huge challenge to governments, to society, and to the economy of all countries.

In the context of uncertainty and globalization in the world in which we live, reflections brought by Chew, instead of discouraging more effective initiatives to change mentalities, should invigorate the debate about environmental protection, and inspire us to try to find new ways to balance the relationship Society-Nature.

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