

Understanding Cultural Ecology and Political Ecology

The impact of Spanish agricultural innovations on the culture of the indigenous people of the Central Andes region of South America (an area encompassing the mountainous portions of Peru, Bolivia, and Ecuador) presents an excellent case study in cultural ecology. The transformation of Andean culture began when Pizarro arrived in Peru from Spain in 1531 and set about vanquishing the politically, technologically, and culturally sophisticated Incas. The Spaniards brought with them not only domestic plants and animals (mainly by way of Nicaragua and Mexico) but also knowledge about how to fabricate the tools they needed and a strong sense of what was necessary for a “civilized” life.

By the 1590s a bundle of Spanish cultural traits had been integrated into the Central Andean rural culture complex, creating a hybridized rural culture. The hybridized culture—and cultural landscape—combined a much simplified version of Spanish material life with important (though altered) Incan practices of crop growing, herding, agricultural technology, and settlement patterns. That this hybrid culture complex remains identifiable today, even after four centuries and in the face of contemporary globalizing forces, is due to the peasants’ strong adherence to custom, geographic isolation, and poverty.

By 1620 the indigenous Andean people had lost 90 percent of their population and had been forced to make significant changes in their subsistence lifestyles (an illustration of demographic collapse as discussed on pages 144–148). The Inca empire, with its large population base, had once engaged in intensive agri-

culture practices, including building and maintaining irrigation systems, terracing fields, and furrowing hill-sides. With the severe drop in population and consequent loss of labor power, the survivors turned to pastoralism because herding requires less labor than intensive agriculture. Ultimately, it was the introduction of Old World domesticated animals that had the greatest impact on the Central Andes (Figure 4.A).

Cultural ecologists study the material practices (food production, shelter provision, levels of biological reproduction) as well as the nonmaterial practices (belief systems, traditions, social institutions) of cultural groups. Their aim is to understand how cultural processes affect groups’ adaptation to the environment. Whereas the traditional approach to the cultural landscape focuses on human impacts on the landscape or its form or history, cultural ecologists seek to explain how cultural processes affect adaptation to the environment. Cultural adaptation involves the complex strategies human groups employ to live successfully as part of a natural system. Cultural ecologists recognize that people are components of complex ecosystems and that the way they manage and consume resources is shaped by cultural beliefs, practices, values, and traditions, as well as by larger institutions and power relationships.

The cultural ecology approach incorporates three key points:

- Cultural groups and the environment are interconnected by systemic interrelationships. Cultural ecologists examine how people manage resources



Figure 4.A Andean woman weaving Though sheep are not indigenous to the Andes, they have been widely adopted in this region since the colonial period. Sheep are well adapted to high altitudes and provide wool and meat. Shown here is a woman weaving accompanied by another woman.

through a range of strategies to comprehend how the environment shapes culture, and vice versa.

- Cultural behavior is examined as a function of the cultural group's relationship to the environment through both material and nonmaterial cultural elements. Such examinations are conducted through intensive fieldwork.
- Most studies in cultural ecology investigate food production in rural and agricultural settings in the periphery in order to understand how change affects the relationship between cultural groups and the environment.¹

Cultural ecologists look at food production, demographic change and its impacts on ecosystems, and ecological sustainability. The scale of analysis is not on cultural areas or cultural regions, but on small groups' adaptive strategies to a particular place or setting.

In the Andean example above, cultural ecologists have been able to understand complex relationships between two cultural groups and their environment, showing how the groups' choices were shaped by both culture and environmental conditions. Some critics have argued, however, that cultural ecology leaves out other intervening influences of the relationship between culture and the environment: the impact of political and economic institutions and practices.

During the 1980s cultural ecologists began moving away from a strict focus on a particular group's interactions with the environment, instead placing that relationship within a wider context. The result is political ecology, the merging of political economy with cultural ecology. Political ecology stresses that human-environment relations can be adequately understood only by reference to the relationship of patterns of resource use to political and economic forces. Just as with the study of agriculture, industrialization, urbanization, and comparable geographical phenomena, this perspective requires an examination of the impact of the state and the market on the ways in which particular groups utilize their resource base.

Political ecology incorporates the same human-environment components analyzed by cultural ecologists. However, because political ecologists frame cultural ecology within the context of political and economic relationships, they go beyond what cultural ecologists seek to understand.

A case study of the banana industry on St. Vincent and the Grenadines, an island nation in the Caribbean, illustrates the difference (Figure 4.B).² Beginning in the 1980s, agriculturalists in the main island of St. Vincent shifted to banana production for export at the same

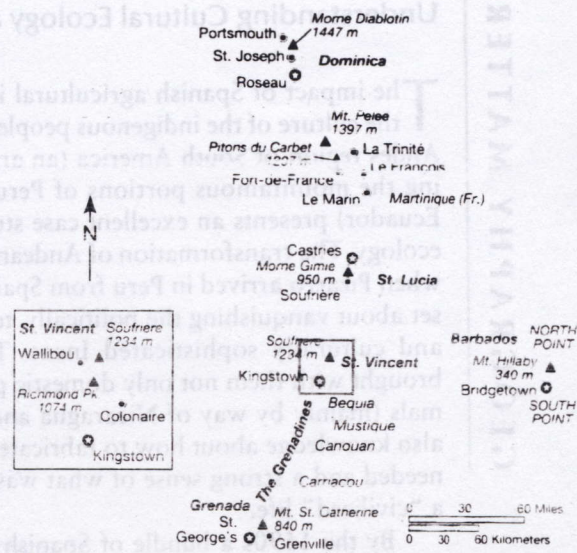


Figure 4.B St. Vincent and the Grenadines These island and island groupings are part of the chain of the Lesser Antilles in the Caribbean Sea. The total population is about 115,000, occupying about 390 square kilometers (150 square miles).

time that local food production began to decline. Without recognizing the impacts of politics and the wider economy, it would be impossible to understand why these two processes have been occurring simultaneously. Disincentives and incentives have both played a role. Disincentives to maintain local food production include marketing constraints, crop theft, competition from inexpensive food exports, and inadequate government assistance. Incentives to produce for export include state subsidies to export-oriented agriculture and access to credit for banana producers, as well as a strong British market for Caribbean bananas. As a result, local food production, although faced with the same environmental conditions as banana production, does not enjoy the same political and economic benefits. Because production for export is potentially more lucrative and an economically safer option, and to some extent because of changing dietary practices, local food production is a less attractive option for agriculturalists.

As the St. Vincent case illustrates, the political ecology approach provides a framework for understanding how the processes of the world economy affect local cultures and practices. It also indicates how state policies and practices and economic demand in the global economy shape local decision making. Furthermore, local cultural practices (especially dietary) are being abandoned as people develop a taste for low-cost and convenient imported agricultural commodities such as flour and rice. Unfortunately, however, production for export also opens up the local economy to the fluctuations of the wider global economy. Recent changes in European Union policy on banana imports, for example, are having negative effects on banana production in St. Vincent.

¹K. Butzer, "Cultural Ecology," in G. L. Gaile and C. J. Wilmot (eds.), *Geography in America*. Columbus, OH: Merrill Publishing Co., 1989, p. 192.

²Adapted from L. Grossman, "The Political Ecology of Bananas: Contract Farming, Peasants, and Agrarian Change in Eastern Caribbean." Chapel Hill, NC: University of North Carolina Press, 1998.