Introduction to Cultural Ecology

By Sutton & Anderson


Sutton’s and Anderson’s text book entitled 'Introduction to cultural ecology' is organized into ten chapters. Chapter one deals with a very introduction of the concept anthropology, ecology, cultures and humans using some scientific inquiry. The second chapter provides the general conceptual frameworks and terms used in Ecology, Human Biological Ecology is explained in chapter three becoming to be considered as background to understanding and distinguishing cultural adaptations. Chapter four talk about cultural ecology in which knowledge is observed to be adaptive to cultural elements. Beside to this, chapter five deals with hunting and gathering with consideration of these terms as foraging. Generally, hunter-gatherers do not make intensive effort at environmental manipulation. The origin of food production is depicted in chapter six in dealing with the significant impact of agriculture on both the natural and cultural environment. In chapter seven, the issue of horticulture is dealt by giving a sort of emphasis to their utilization of wild resources. Chapter eight on the other hand, refers to pastoralism indicating the other aspects of agriculture for domestication of animals.

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The authors’ Introduction to cultural Ecology is the most suitable text book for advanced undergraduate and beginning graduate courses that deal with the impact of humans on the environment in traditional societies. The text book is very interesting to the readers since it presents the basic principles of cultural anthropology, environmental studies and human biological adaptations to the environment. In this regard, it provides a detailed discussion of the history of cultural ecology and theoretical basis behind this ecology (Ibid).

The main parts of the work show the description of the broad economic strategies that revealed by traditional cultures, hunting /gathering, horticulture, pastoralism and agriculture. Though Sutton and Anderson talk about the intersections of humans and the environment in traditional societies, great emphasis is given to the nature of contemporary ecological issues, how people worldwide adapt to these issues and what the western world can learn from other culture experiences. Consequently, the book is very significant for the courses in anthropology, environmental studies.

The main objective of Sutton and Anderson is to share their empirical studies of the anthropological side of ecological matters. Their intention is not cover all the ecological problems of the world like modern matters of pollution, climate change and environmental degradation. The authors’ aim is particularly to explore how traditional cultures operate and adapt to their environments, how they function, and what the western world can learn from them (Ibid: Xii).

In line with the conceptions of the authors, cultural ecology is based on the interaction of culture, man and environment. To the understanding of this relationship, the present paper discusses the origin and development of cultural ecology (Ibid: 20).

Ecology is not an anthropological sub-discipline, nor is it even a standardized approach in anthropology though it refers to “the study of the interaction between living things and their environment” (Ibid: 2).

Ecology may be defined as the science dealing with the study of entire assemblages of living organisms and their physical settings, which to gather constitute integrated systems (Ibid: 31). More simply, ecology is the study of the structure and dynamics of nature, mankind being a part of nature (Ibid: 31). Both of these definitions stem from concepts developed from Biology and the Biological nature of the world. The dualism which separates the study of “natural environment” from the study of “human environment” had effectively worked in the past to isolate the natural sciences from the social sciences. The holistic concept of ecosystem a type of general system capable of including the activities of man-has recently gained wide acceptance. The ecosystem conceptually unites the Biology, organization and behavior of man with other animals, plants and inorganic concepts within a single frame work in which the interaction of the components may be studied (Ibid: 36). This is particularly appealing to anthropology since it allows for the study of the mutually dependent interactions of organic (biotic), inorganic material (abiotic) and socio cultural components (Ibid: 32-35).
Within the discipline of anthropology, the concept of cultural ecology arose from a long series of thoughts and publications concerning environmental problems such as the tragedy of the commons, agricultural involution, agricultural intensification and deforestation (Ibid: 298-301) as it should be the concern of every one. Early in the ecological study of culture, two intellectual camps formed. The environmental determinists (Ibid: 13) claimed culture resulted from “a mechanical action of natural forces upon a purely receptive humanity” (Ibid: 13).

The environmental possibilities (Ibid: 19) felt culture act selectively, if not capriciously, upon their environments, exploiting some possibilities while ignoring others (Ibid: 14). The author thought the use of a combined theory is very significant. He, then, felt that non human environmental factors determined cultural development, but also stated that the environment provided options for cultures (Ibid: 14).

Perhaps the most influential figure in the development of cultural ecology was Julian Steward (Ibid: 20 -21). Steward recognized in here that the principal difficulty in using the cultural factor in ecological studies was the lack of clear objectives found in the Biological use of ecology. Accordingly, Steward proposed the use of an explanatory or causal method with cultural ecology and an operational tool rather than as an end in itself.

To do this, two different objectives were suggested: 1) An understanding of the organic function and genetic variations of man as a purely biological species and 2) a determination of how culture is affected by its adaptation to environment (Ibid: 20).

For anthropology, the second of these objectives was seen to have the most emphasis to Steward defined cultural ecology as a methodological tool for ascertaining how the adaptation of a culture to its environment may entail certain changes, or, in a larger sense, to determine whether similar adjustments occur in similar environments (Ibid:20-21).

Sutton and Anderson felt that the relationship of man as the organism, to the environment had to be considered separately from the relationship of culture to the environment. The Biological adaptation of man is seen as constituting a separate segment of ecological research.

The key concept for anthropology, then, is the interrelation between culture and environment. This idea is best studied through the use of three fundamental procedures of cultural ecology: 1) Techno-environmental relationships (Ibid: 22; 94), 2. exploitation strategies (Ibid: 142), and 3) the effects of technological exploitation procedures on other aspects of culture (Ibid: 181-185; 252-255).

The purpose of cultural ecology is to explain the origins of particular cultural patterns which characterize particular cultural areas instead of deriving general principles applicable to any cultural-environmental situation (Ibid: 90). Emphasis is placed on the study of the particulars of local environments rather than on unique cultures histories (Ibid: 91) However, the authors’ method ultimately leads to the identification of related types of exploitative and demographic patterns which seem to shape kinship organization (Ibid: 218-219).

At the present time, the field of cultural ecology can be divided into several different approaches, each approach tending to center on one or more aspects of the relationship of culture to environment. In this regard, Anderson and Sutton have devised classifications schemes for some of the approaches toward cultural ecology. For the purpose of this review, certain of the categories as defined by Sutton and Anderson, and deemed particularly significant by these authors, will be examined in light of their past achievements and future potentials.

The first of the approaches to be examined is that of demography and population structure. The central question of this approach is how socio-cultural and other ecological variables relate to the numbers and distributions of human populations (Ibid: 135). Factors such as fertility, mortality, disease, nutrition, migration and social organization are all pertinent variables that must be examined.

Furthermore, recently much attention is given to the concept of carrying capacity (Ibid: 44). Carrying capacity deals with the optimal number of people that a particular resource area can support (Ibid: 61). While still in its developmental stages, several people are using this concept to further their demographic knowledge in relation to archeological circumstances.

The use of subsistence patterns in relation to cultural ecology probably embodies the largest percentage of the cultural ecology literature. Hunter and pastoral nomadic societies have been the focus of anthro-pological studies for many years. Central to these studies is analysis of the energetics involved in the food procurement processes. Whether the analyses show maximal subsistence from minimal energy expenditure or an energy consuming struggle for sustenance total energetic processes remain unclear. Analysis of human energy relations in these types of societies is hypothetically simplistic; one reason being that they are seen to exist independent of other societies (Ibid: 46). It should be noted, however, that they do not.

The subsistence oriented cultural ecological studies take an essentially deterministic position that: 1) Adaptation is seen as the major process in culture change, and therefore, studies have an evolutionary tone (Ibid: 8-9; 54-60) 2) Analysis is limited to the relationship between environmental and subsistence concerns.3) Both culture and environment are divided into relevant and irrelevant parts, and 4) The goal is to uncover modeless of linear causation by describing relationships which obtain between relevant variables (Ibid: 135).
An additional aspect of the subsistence pattern studies is the use of cultural ecology in studies of land use and the development of agriculture. When dealing with agricultural development a greater number of variables must be taken into account. Such things as the human ecology of the area, the demographic and population distribution figures, the level of technology and the social organization are especially important. Through the use of human ecology and cultural variables, certain progress has been achieved in this area (Ibid: 184).

The problem of cultural variables center around the effect of features of the habitat upon the organization of groups, stratification, leadership and other social institution (Ibid: 96). Ecological studies are often based on the belief that socio-cultural institutions of populations...laws, warfare, political organization, economic organization are adaptive processes of these populations to the surrounding environment (Ibid: 54-60).

In conclusion, the concept of man against nature is looked upon by many as a powerful influence. Man is seen locked in a constant battle for conquest over nature. Man is placed above and separate from nature in which nature being placed at the disposal of man to be used as man’s rationality and purposes dictate. Growing from these ideas is the “nature-nurture” question and the idea of progress defined as technological advancement.

In this aspect, authors deal with the interaction of man, culture and environment. Hence, the book attempted to link of anthropology to ecology though the authors’ original ideas talks about cultural ecology. The greatest factor responsible for the delay of instituting this approach is the required reuniting of culture and biology. To accomplish this union, the anthropologists must stop trying to explain culture only in terms of culture and begin to use the interaction of environmental, behavioral and cultural factors.

As result, the authors attempted to impress on the readers that“...no culture has a monopoly on environmental care or on environmental carelessness” (Ibid: Xiii). This considers the idea that the combination of the best workable approaches according to their physical settings will save the human species itself. In general, this leads human being to the best ways of not only learning how to manage the earth but also how to motivate other people to manage the earth better. The authors spend some time discussing and critiquing evolutionary ecology since it is very widely used and misunderstood.