

## **THE ANTHROPOLOGY OF FOOD, DIET & NUTRITION: A SELECTIVE OVERVIEW**

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### **Summary**

Describing and applying the approach known as cultural/human ecology, the chapter organizes a general discussion around a manageable number of articles and books that are regarded as indicative benchmarks in the development of an Anthropology of Food. With this expression it is meant not simply an ethnographic archive of arcane customs, but a systematic, comparative and analytical approach to worldwide foodways, in order to formulate coherent, predictive and testable generalizations and, overall, an Anthropology of food in the sense of “study of human beings focusing on: food culture, food production/processing and consumption”. To accomplish that it is deemed necessary, in the first place, to look at food-related patterns and customs, not merely as ideas, nor as ways of classifying resources in a people’s immediate world as potential food, but as components of more comprehensive, integrated systems of adjustment to specific environmental challenges.

### **1. Introduction**

Since its academic origins early in the twentieth century, anthropology has examined local food beliefs and practices, not only because they particularly indicate the broad range of cultural variation in which its practitioners were interested, but also because any reflection on their significance inevitably seemed to reinforce that sense of cultural indeterminacy – what as notable a figure as Robert Lowie called “capricious irrationality” (Lowie 1938:306; cf. Harris 1968:343ff.) — that was long a guiding principle of the field.

It was really only in the 1960s, with the emergence of cultural/human ecology (Harris 1968), that there was a notable (and productive) shift, on the part of a limited but committed group of scholars, away from a localized, largely mental view of food habits, to one that regarded them as integral elements of more comprehensive subsistence systems and, as such, began to explore the way that dietary behaviors not only reflected and embodied strategic interactions with a people's immediate environment but also, through that environment, with a larger social and economic context that would be defined and studied as a world system.

In taking that general approach here, the author purposefully does not intend this essay to be either exhaustive or encyclopedic, nor does he wish to repeat or just update such exemplary literature reviews as Mintz and DuBois (2002) or Messer (1984). The author's aim is, rather, to organize a general discussion around a manageable number of articles and books that he regards as indicative benchmarks in the development of an anthropology of food—by which it is meant, not simply an ethnographic archive of arcane customs, but a systematic, comparative and analytical approach to worldwide foodways, in order to formulate coherent, predictive and testable generalizations (cf. Harris and Ross 1987). To accomplish that, above all, it is necessary to look at food-related patterns and customs, not merely as ideas, as ways of classifying resources in a people's immediate world as potential food (cf. Bulmer 1967), but as components of more comprehensive, integrated systems of adjustment to specific environmental challenges.

## **2. The Beginnings of a New Perspective**

One of the most important works to take this approach was Lee and DeVore's *Man the Hunter* (1968), which focused on a global representation of pre-horticultural economies in a way that began to establish an objective, comparative sense of food procurement activities on which testable theories of human livelihoods as adaptive strategies could genuinely be based. Within that seminal volume, perhaps the most influential chapter was Lee's own essay on the !Kung San of the Kalahari of Botswana, which marked the beginning of a long-term, multi-disciplinary study that, among other things, would not only clarify the empirical relationship between hunting-gathering practices and resource availability, but correct (perhaps even over-correct) many misconceptions about the role of wild plant resources (in the !Kung case, the mongongo nut). In a broader sense, Lee's essay and work inspired by it over the years that followed would do much, both theoretically and methodologically, to encourage the emergence of a view of diet, not as a menu or a classificatory scheme, but as a process. As Lee himself succinctly observed, his general analytical method drew on "the tight articulation between the demographic, energetic, nutritional, and spatial subsystems of !Kung ecology to show how a change in one of the parameters triggers changes in the other parameters as well (Lee 1979: xxiii).

### **2.1 The Lessons of the New Guinea Maring**

That kind of systems approach paralleled the new analytical disposition of ecologically-minded archaeologists such as Flannery (1968), who were trying to understand the emergence of agriculture, as well as the work of cultural anthropologists such as Vayda and Rappaport, in their ground-breaking research project among the Maring of the

Central Highlands of Papua New Guinea. And, of course, it is necessary to mention one of the most under-appreciated publications of this innovative period: Leeds and Vayda's edited volume, *Man, Culture and Animals* (1965), a collection devoted to an examination of human-animal (domesticated and wild) interactions, that quietly inspired a small number of anthropological researchers over the next decade and a half (cf. Ross 1978, 1983). One of its most important papers, for example, was Harris's first discussion of the material basis of the sacred cow in India, in an essay that he would elaborate over the following decade or more (Harris 1977: 139-152), establishing an entirely new approach to food prohibitions and avoidances that ultimately would prove applicable in many different cultural settings, from lowland Amazonia to highland Scotland (Ross 1978a, 1978b, 1983).

These works taken together would lead, in a comparatively short time, to increased understanding of both the substantive and strategic nature of dietary patterns, methods of food procurement and of the satisfaction of basic nutritional needs, in regard to different modes of production (hunting-gathering, simple horticulture, complex agriculture and industrial food systems). But, what made this perspective possible, above all, was a focus on diet less as the manifestation of a set of ideas that people happened to possess than as the outcome of a process of behavioral adjustment to the challenges and opportunities presented by their particular resource base. With that theoretical (and methodological) shift, it became possible to transcend earlier facile views, either about the capriciousness of dietary customs and beliefs or about their place in any demonstrable comparative framework.

One earlier assumption, for example, had been that simpler, pre-horticultural societies necessarily had a poorer or more insecure diet than sedentary horticulturalists, let alone than all the members of industrial economies. If Lee's work with the San helped initiate a long-overdue period of reappraisal of such assumptions, research among the Maring certainly provided a substantive basis for questioning them—to the extent that Clarke (1977), a member of the latter project, would use it to draw important lessons about the sustainability—what he called the “structure of permanence”—of such (paleotechnic) systems for complex industrial (neotechnic) systems. The Maring research, which grew out of Vayda, Leeds and Smith (1961) “The Place of Pigs in Melanesian Subsistence,” (Ellen 1982:182) would result, preeminently, in Rappaport's *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People* (1968), a work that not only exemplified the new cultural systems approach to subsistence and diet-related behavior, but which developed a rather formidable model of an economy in which ritual defined the movement of that system that unified the adaptive features of hunting, intensive agriculture, pig husbandry, warfare and quality protein intake (for an intriguing effort to apply this model to the ritual cycle of guinea pig consumption in the Andes, see Bolton 1979). From this, Clarke would in turn develop his argument about the sustainability of such systems. But, in the end, it was likely that Rappaport's model overstated the homeostatic quality of the Maring ritual cycle (Ellen 1982:182-183) and that the nutritional condition of the Maring was not as secure as he had concluded. Thus, Buchbinder (1973), another member of the project, underscored not only that the intake of animal protein among the Maring was marginal but that it was not uniform across all sub-groups. So, as she noted:

one is left with the impression that among the Simbai Maring clans whose territory borders on the forest, game provides an average of about three grams of protein per person per day; for those clans without access to large tracts of forest, the amount of protein per person per day is indeed negligible.

It is evident...that the Maring are primarily vegetarians and, at best, animal food forms only an extremely small portion of their diet, Not only is the overall intake of protein low, but it appears to vary from place to place so that the Maring populations in the southeastern portion of the territory on the forest edge have diets richer in both animal and vegetable protein than do the groups in the northwest (1973:133-34).

In general, then, Buchbinder's conclusion that "it seems likely that the Maring population is not, and probably never was, in a state of equilibrium with its environment," did not support the view that the Maring economy—especially in terms of food production—was as ritually optimized as Rappaport had proposed.

### **3. The Contradictions of Agriculture**

This perhaps better conforms to our increasing understanding that the appearance of agriculture-based economies was previously regarded in too simplistic and fanciful a way. There is considerable evidence now that the emergence of horticulture was probably not a revolutionary event but a long-term process (Flannery 1968, 1969) that did not generally represent the clear, unmitigated advance that had once been thought. Thus, examining the transition to agriculture around the world, Cohen and Armelagos (1984), found that it was actually accompanied by a distinctive number of adverse effects, including a decline in nutritional quality and exposure to new diseases. As Cohen has observed, "Taken as a whole," the evidence suggests

an overall decline in the quality—and probably in the length—of human life among farmers as compared with earlier hunter-gatherer groups. Farmers seem fairly commonly to have suffered more infection and more chronic malnutrition than their forebears living on wild resources, and they seem to have suffered as many or more episodes of growth-disrupting stresses and to have had reduced life expectancy." (Cohen 1987: 275)

While agriculture may have eventually increased productivity, research from New Guinea, Amazonia and elsewhere suggests that mortality and longevity often remained problematical; and that what gains in life-span were eventually made were often compromised by a rise in warfare (cf. Ross 1978), a source of mortality that hunter-gatherers had usually never experienced.

If one would not want to assume that hunting-gathering subsistence was as difficult as had once been imagined, nor that, on the other hand, such groups were the "original affluent society," as Sahlins has tried to portray them (Sahlins 1972:1-39), then we would still need to acknowledge that most known human populations—certainly most pre-industrial and probably all foraging groups (cf. Stini 1988)—have faced some kind of seasonal ebb and flow in food availability that requires extra effort (or, at least, some compensatory strategy) at times to ensure adequate nourishment. Such seasonality may

be chiefly environmental in origin, largely economic or both, depending on circumstances; while coping strategies may include changes in household composition, often through temporary out-migration of some members, perhaps to participate in wage labor, or strategic changes in dietary composition and intra-household food distribution (Messer 1997. For an excellent review of household responses to seasonality, see Messer 1983; for a discussion of the role of seasonality and sharing, as an adaptation to it, specifically among foraging groups, see Speth 1990).

In contemporary Africa, as Huss-Ashmore and Goodman (1988) report, this often involves a varying degree of effort in different subsistence activities, with the result that, between labor input (i.e., energy demand) and productivity, there may be a notable fluctuation in body weight—though this may be compensated for by the acquisition of commercial foods through linkages with the market economy (normally through male wage labor) (Huss-Ashmore and Goodman 1988:38ff.). Murrieta, Dufour and Siqueira (1999) describe a somewhat similar situation of seasonal variability among peasant households on Marajo Island at the mouth of the Amazon, where a combination of environmental factors and local market conditions comes into play. While this may chiefly reflect the constraints that colonial history has imposed on access to resources, Wilmsen (1978) has observed a marked seasonal variability in weight, associated with varying reproductive capacity, among hunter-gatherers such as the Kalahari San, which suggests that some such variation has probably been a distinctive feature of human populations, especially foraging groups, for a very long time (cf. Howell 2010; Harris and Ross 1987: 23ff). But, more, Lee's co-researcher, Howell, would eventually conclude that the !Kung were, in fact, chronically malnourished (Howell 1986). This, in turn, led Speth (1990) to speculate that nutritional stress among foraging groups is either mitigated by food sharing or is actually exacerbated by (gender) inequities in food distribution—particularly in terms of the availability of nutrients such as animal fat for fertile women, in situations where depressing fertility may actually have strategic advantages (Harris and Ross 1987:21ff.).

### **3.1. The Seeming Paradox of the Northwest Coast**

Despite this, and with the exception of a few researchers, there has been a general tendency in anthropology to downplay the role of seasonality, resource variability and periodic scarcity in shaping patterns of dietary behavior. If one wanted to assess the import of this particular failing, a compelling example would be the peoples of the Northwest Coast of North America, a region that has been of great theoretical importance since the days of Boas, not least because it was so highly developed culturally in the absence of agriculture and seemed to thrive on an apparent abundance of wild salmon. It was that abundance that was, for a long time, regarded as underlying one of the region's most notable customs—the *potlatch*—a ceremony that seemed to exalt extravagance, as goods were given away or even destroyed (Harris 1974:24ff). In the 1960s, however, some writers began to consider that it might not necessarily be a reflection of absolute abundance.

Suttles (in *Man the Hunter*), building on the tentative explorations of Vayda (1961) and Piddocke (1965), suggested that the traditional view of the Northwest coast was extremely simplistic and that a full-scale reassessment of food resources was needed

and that, in the process, the *potlatch* would have to be reconsidered. He proposed that, far from being an ecologically uniform region with constant and abundant food resources, the Northwest Coast was actually a region of significant local diversity and seasonal variation. In that respect, the variation in cultural forms found there could not, as some writers had previously asserted, simply be regarded as a manifestation of different cultural values within a homogeneous environment (Suttles 1960). On the contrary, because Suttles maintained that “The occurrence and abundance of...plants and animals varied greatly from place to place depending on such general factors as precipitation, altitude, and salinity of water and on many other more particular factors as well, “ he supported and elaborated the Vayda-Piddock idea that the *potlatch*, which itself varied in form, frequency and intensity across the region, could perhaps be considered as a resource-distributing mechanism, “as an adaptation to a fluctuating environment rather than the ‘absurdly wasteful’ epiphenomenon it had sometimes been labeled.” (Suttles 1968:67)

Piddocke in particular was interested in reconstructing the *potlatch* as it had been prior to the arrival of the Europeans, before the introduction of the fur trade and new infectious diseases (most significantly, smallpox) (Gibson 1992). With these, preexisting ecological, economic, demographic and cultural interrelationships were dramatically altered. Above all, from the late 18<sup>th</sup> century onward, trade introduced new sources of wealth into the Northwest Coast, enabling many individuals to hold potlatches, to compete for prestige and status with traditional chiefs, as ranked positions were vacated by rising death rates. But, at the same time, under these new conditions, potlatches became “increasingly competitive and destructive,” and, one might add, no longer the mechanisms of resource redistribution they had been before the arrival of the Europeans, with the advent of waged labor and access to imported foods.

#### **4. The General Impact of the World Economy**

Less dramatically, often much less visibly, most of the societies that anthropologists have studied have been affected, indirectly or directly, by the European agents of the world economy. Not least, their subsistence activities were profoundly altered by new conditions of production determined by external forces. This transformation began to be explored by scholars such as Wolf (1959, 1972) in regard to Latin America many years ago, but an appreciation of the pervasive impact on indigenous subsistence regimes around the world was both complex and nuanced and not readily explored. This would change, like much else, in the 1970s and 1980s, with work such as Alexander and Alexander (1978) and Ross (1978, 1985) on, respectively, the subject of Java, the Amazon Valley and Ireland.

In the case of Java, Alexander and Alexander (1978), for example, have described the nature of agrarian change that took place in Java after the Dutch introduced the plantation system for sugar cultivation. Geertz (1963) had previously suggested that indigenous rice *sawah* cultivation and sugar production for export had eventually developed a mutualistic relationship, with the latter leading to an increase in rice productivity. Beyond conveying a sense that colonial rule generally had been beneficial, this view was probably much too idealistic and it would eventually come in for significant criticism (cf. White et al, 2007). According to White, Geertz had argued that

Irrigated rice terraces...can respond to labour intensification almost indefinitely without loss of soil fertility, but with only stable or declining per capita output, and this allowed a symbiotic rotation of the main export and subsistence crops (sugarcane and paddy) from the early nineteenth century until Indonesian independence and beyond (White et al, 2007:1193)

But, the Alexanders would question Geertz's view of such a symbiosis, maintaining that the priority given to sugar as a cash crop severely constrained rice cultivation, causing it to stagnate (Alexander and Alexander 1978).

That impact –and its legacy—despite whatever civilizing rationale the dominant European powers employed to justify their exploitation of indigenous lands and labor, was far more typical of the general colonial mode of production than any actual, sustained improvement in subsistence food output which, for the most part, tended to contract or languish under colonial constraints.

#### **4.1. The Case of Kenya**

In this respect, Kenya was typical. It was part of a wide swath of the Sub-Saharan region that Amin has aptly called “Africa of the labor reserves” (1976:327; cf. Harris 1959), where Europeans in the late nineteenth-early twentieth centuries created a complex constellation of labor-generating enclaves in which indigenous communities were largely confined to highly circumscribed areas that were wholly inadequate to meet their subsistence needs and were compelled to enter a new market economy, largely through male labor migration, while women had to maintain household subsistence in their absence at a lower, less secure level of productivity.

Originally known as the East African Protectorate, Kenya was administered primarily in the commercial interests of a small European settler community that secured for itself the most productive lands of the temperate highlands, where they established plantations of tea and coffee that persist there today (Mkangi 1983:39-41). At the same time, in order to ensure that white settlers had a sufficient supply of cheap labor, Africans were denied the right to cultivate cash crops (Lando and Bujra 2009:5) and were forced instead to subordinate their household economy to the labor demands of the European commercial sector.

In the years after World War II, and even after independence, Kenya became a major center for foreign capital investment at the further expense of the African rural poor. As a result, by the 1970s, multinational corporations not only dominated most of the country's manufacturing but played a pre-eminent role in agriculture as well, with profoundly detrimental consequences for domestic food production. Coffee and tea remained the country's main cash crops, to the extent that Kenya today is the world's leading exporter of black tea, earning it \$1.45 billion in 2012. But, such priorities have meant that landlessness or land scarcity continues to be the predominant structural problem in Kenya's rural economy and one of the chief reasons that, despite its enormous agricultural potential, Kenya is considered “a low-income, food-deficit country” (USDA Foreign Agricultural Service 2013). While, nationally, this can be

attributed to lack of land made available for subsistence cultivation, it is compounded by the fact that so many people are living in absolute poverty (Hunt 1984), unable to buy what food enters the national marketplace. In that regard, it is in the towns and cities, where supplies and prices are especially erratic, that the nutritional situation is most severe.

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### **Biographical Sketch**

**Eric Ross** is a US-trained cultural anthropologist who has recently returned to the States after 27 years abroad, in the UK and The Netherlands, where he was chair of the MA program in development studies at the Institute of Social Studies in The Hague. At the moment he teaches at The George Washington University. His most recent book was *The Malthus Factor: Poverty, Politics and Population in Capitalist Development*. Beside being a leading anthropologist on food and nutrition, he actively researches, and campaigns for, social justice.