

# **STONE AGE ECONOMICS**

**BY  
MARSHALL  
SAHLINS**



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## **The Original Affluent Society**

If economics is the dismal science, the study of hunting and gathering economies must be its most advanced branch. Almost universally committed to the proposition that life was hard in the paleolithic, our textbooks compete to convey a sense of impending doom, leaving one to wonder not only how hunters managed to live, but whether, after all, this was living? The specter of starvation stalks the stalker through these pages. His technical incompetence is said to enjoin continuous work just to survive, affording him neither respite nor surplus, hence not even the “leisure” to “build culture.” Even so, for all his efforts, the hunter pulls the lowest grades in thermodynamics—less energy/capita/year than any other mode of production. And in treatises on economic development he is condemned to play the role of bad example: the so-called “subsistence economy.”

The traditional wisdom is always refractory. One is forced to oppose it polemically, to phrase the necessary revisions dialectically: in fact, this was, when you come to examine it, the original affluent society. Paradoxical, that phrasing leads to another useful and unexpected conclusion. By the common understanding, an affluent society is one in which all the people’s material wants are easily satisfied. To assert that the hunters are affluent is to deny then that the human condition is an ordained tragedy, with man the prisoner at hard labor of a perpetual disparity between his unlimited wants and his insufficient means.

For there are two possible courses to affluence. Wants may be

“easily satisfied” either by producing much or desiring little. The familiar conception, the Galbraithian way, makes assumptions peculiarly appropriate to market economies: that man’s wants are great, not to say infinite, whereas his means are limited, although improvable: thus, the gap between means and ends can be narrowed by industrial productivity, at least to the point that “urgent goods” become plentiful. But there is also a Zen road to affluence, departing from premises somewhat different from our own: that human material wants are finite and few, and technical means unchanging but on the whole adequate. Adopting the Zen strategy, a people can enjoy an unparalleled material plenty—with a low standard of living.

That, I think, describes the hunters. And it helps explain some of their more curious economic behavior: their “prodigality” for example—the inclination to consume at once all stocks on hand, as if they had it made. Free from market obsessions of scarcity, hunters’ economic propensities may be more consistently predicated on abundance than our own. Destutt de Tracy, “fish-blooded bourgeois doctrinaire” though he might have been, at least compelled Marx’s agreement on the observation that “in poor nations the people are comfortable,” whereas in rich nations “they are generally poor.”

This is not to deny that a preagricultural economy operates under serious constraints, but only to insist, on the evidence from modern hunters and gatherers, that a successful accommodation is usually made. After taking up the evidence, I shall return in the end to the real difficulties of hunting-gathering economy, none of which are correctly specified in current formulas of paleolithic poverty.

#### *Sources of the Misconception*

“Mere subsistence economy” “limited leisure save in exceptional circumstances,” “incessant quest for food,” “meagre and relatively unreliable” natural resources, “absence of an economic surplus,” “maximum energy from a maximum number of people”—so runs the fair average anthropological opinion of hunting and gathering.

The aboriginal Australians are a classic example of a people whose economic resources are of the scantiest. In many places their habitat is even more severe than that of the Bushmen, although this is perhaps not quite true in the northern portion. . . . A tabulation of the foodstuffs which the

aborigines of northwest central Queensland extract from the country they inhabit is instructive. . . . The variety in this list is impressive, but we must not be deceived into thinking that variety indicates plenty, for the available quantities of each element in it are so slight that only the most intense application makes survival possible (Herskovits, 1958, p 68–69).

Or again, in reference to South American hunters:

The nomadic hunters and gatherers barely met minimum subsistence needs and often fell far short of them. Their population of 1 person to 10 or 20 square miles reflects this. Constantly on the move in search of food, they clearly lacked the leisure hours for nonsubsistence activities of any significance, and they could transport little of what they might manufacture in spare moments. To them, adequacy of production meant physical survival, and they rarely had surplus of either products or time (Steward and Faron, 1959, p. 60; cf. Clark, 1953, p. 27 f; Haury, 1962, p. 113; Hoebel, 1958, p. 188; Redfield, 1953, p. 5; White, 1959).

But the traditional dismal view of the hunters' fix is also preanthropological and extra-anthropological, at once historical and referable to the larger economic context in which anthropology operates. It goes back to the time Adam Smith was writing, and probably to a time before anyone was writing.<sup>1</sup> Probably it was one of the first distinctly neolithic prejudices, an ideological appreciation of the hunter's capacity to exploit the earth's resources most congenial to the historic task of depriving him of the same. We must have inherited it with the seed of Jacob, which "spread abroad to the west, and to the east, and to the north," to the disadvantage of Esau who was the elder son and cunning hunter, but in a famous scene deprived of his birthright.

Current low opinions of the hunting-gathering economy need not be laid to neolithic ethnocentrism, however. Bourgeois ethnocentrism will do as well. The existing business economy, at every turn an ideological trap from which anthropological economics must escape, will promote the same dim conclusions about the hunting life.

Is it so paradoxical to contend that hunters have affluent economies, their absolute poverty notwithstanding? Modern capitalist societies, however richly endowed, dedicate themselves to the proposition of scarcity. Inadequacy of economic means is the first principle of the world's wealthiest peoples. The apparent material status of the economy seems to be no clue to its accomplishments; something has to be

1. At least to the time Lucretius was writing (Harris, 1968, pp. 26–27).

said for the mode of economic organization (cf. Polanyi, 1947, 1957, 1959; Dalton, 1961).

The market-industrial system institutes scarcity, in a manner completely unparalleled and to a degree nowhere else approximated. Where production and distribution are arranged through the behavior of prices, and all livelihoods depend on getting and spending, insufficiency of material means becomes the explicit, calculable starting point of all economic activity.<sup>2</sup> The entrepreneur is confronted with alternative investments of a finite capital, the worker (hopefully) with alternative choices of remunerative employ, and the consumer. . . . Consumption is a double tragedy: what begins in inadequacy will end in deprivation. Bringing together an international division of labor, the market makes available a dazzling array of products: all these Good Things within a man's reach—but never all within his grasp. Worse, in this game of consumer free choice, every acquisition is simultaneously a deprivation, for every purchase of something is a foregoing of something else, in general only marginally less desirable, and in some particulars more desirable, that could have been had instead. (The point is that if you buy one automobile, say a Plymouth, you cannot also have the Ford—and I judge from current television commercials that the deprivations entailed would be more than just material.)<sup>3</sup>

That sentence of "life at hard labor" was passed uniquely upon us. Scarcity is the judgment decreed by our economy—so also the axiom of our Economics: the application of scarce means against alternative ends to derive the most satisfaction possible under the circumstances. And it is precisely from this anxious vantage that we look back upon hunters. But if modern man, with all his technological advantages, still hasn't got the wherewithal, what chance has this naked savage with his puny bow and arrow? Having equipped the hunter with bourgeois impulses and paleolithic tools, we judge his situation hopeless in advance.<sup>4</sup>

2. On the historically particular requisites of such calculation, see Codere, 1968, [especially pp. 574-575.]

3. For the complementary institutionalization of "scarcity" in the conditions of capitalist production, see Gorz, 1967, pp. 37-38.

4. It deserves mention that contemporary European-Marxist theory is often in accord with bourgeois economics on the poverty of the primitive. Cf. Boukharine, 1967; Mandel, 1962, vol. 1; and the economic history manual used at Lumumba University

Yet scarcity is not an intrinsic property of technical means. It is a relation between means and ends. We should entertain the empirical possibility that hunters are in business for their health, a finite objective, and that bow and arrow are adequate to that end.<sup>5</sup>

But still other ideas, these endemic in anthropological theory and ethnographic practice, have conspired to preclude any such understanding.

‡ The anthropological disposition to exaggerate the economic inefficiency of hunters appears notably by way of invidious comparison with neolithic economies. Hunters, as Lowie put it blankly, "must work much harder in order to live than tillers and breeders" (1946, p. 13). On this point evolutionary anthropology in particular found it congenial, even necessary theoretically, to adopt the usual tone of reproach. Ethnologists and archaeologists had become neolithic revolutionaries, and in their enthusiasm for the Revolution spared nothing denouncing the Old (Stone Age) Regime. Including some very old scandal. It was not the first time philosophers would relegate the earliest stage of humanity rather to nature than to culture. ("A man who spends his whole life following animals just to kill them to eat, or moving from one berry patch to another, is really living just like an animal himself"[Braidwood, 1957, p. 122].) The hunters thus downgraded, anthropology was free to extol the Neolithic Great Leap Forward: a main technological advance that brought about a "general availability of leisure through release from purely food-getting pursuits" (Braidwood, 1952, p. 5; cf. Boas, 1940, p. 285).

In an influential essay on "Energy and the Evolution of Culture," Leslie White explained that the neolithic generated a "great advance in cultural development . . . as a consequence of the great increase in the amount of energy harnessed and controlled per capita per year by means of the agricultural and pastoral arts" (1949, p. 372). White further heightened the evolutionary contrast by specifying *human effort* as the principal energy source of paleolithic culture, as opposed to the *domesticated plant and animal resources* of neolithic culture.

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(listed in bibliography as "Anonymous, n.d.").

5. Elman Service for a very long time almost alone among ethnologists stood out against the traditional view of the penury of hunters. The present paper owes great inspiration to his remarks on the leisure of the Arunta (1963, p. 9), as well as to personal conversations with him.

This determination of the energy sources at once permitted a precise low estimate of hunters' thermodynamic potential—that developed by the human body: “average power resources” of one-twentieth horsepower per capita (1949, p. 369)—even as, by eliminating human effort from the cultural enterprise of the neolithic, it appeared that people had been liberated by some labor-saving device (domesticated plants and animals). But White's problematic is obviously misconceived. The principal mechanical energy available to both paleolithic and neolithic culture is that supplied by human beings, as transformed in both cases from plant and animal sources, so that, with negligible exceptions (the occasional direct use of nonhuman power), the amount of energy harnessed per *capita* per year is the same in paleolithic and neolithic economies—and fairly constant in human history until the advent of the industrial revolution.<sup>6</sup>

Another specifically anthropological source of paleolithic discontent develops in the field itself, from the context of European observation of existing hunters and gatherers, such as the native Australians, the Bushmen, the Ona or the Yahgan. This ethnographic context tends to distort our understanding of the hunting-gathering economy in two ways.

First, it provides singular opportunities for naïveté. The remote and exotic environments that have become the cultural theater of modern hunters have an effect on Europeans most unfavorable to the latter's assessment of the former's plight. Marginal as the Australian or Kalahari desert is to agriculture, or to everyday European experience, it is a source of wonder to the untutored observer “how anybody could live in a place like this.” The inference that the natives manage only to eke out a bare existence is apt to be reinforced by their marvelously varied diets (cf. Herskovits, 1958, quoted above). Ordinarily including

6. The evident fault of White's evolutionary law is the use of “per capita” measures. Neolithic societies in the main harness a *greater total amount of energy* than preagricultural communities, because of the greater number of energy-delivering humans sustained by domestication. This overall rise in the social product, however, is not necessarily effected by an increased productivity of labor—which in White's view also accompanied the neolithic revolution. Ethnological data now in hand, (see text *infra*) raise the possibility that simple agricultural regimes are not more efficient thermodynamically than hunting and gathering—that is, in energy yield per unit of human labor. In the same vein, some archaeology in recent years has tended to privilege stability of settlement over productivity of labor in explanation of the neolithic advance (cf. Braidwood and Wiley, 1962).



objects deemed repulsive and inedible by Europeans, the local cuisine lends itself to the supposition that the people are starving to death. Such a conclusion, of course, is more likely met in earlier than in later accounts, and in the journals of explorers or missionaries than in the monographs of anthropologists; but precisely because the explorers' reports are older and closer to the aboriginal condition, one reserves for them a certain respect.

Such respect obviously has to be accorded with discretion. Greater attention should be paid a man such as Sir George Grey (1841), whose expeditions in the 1830s included some of the poorer districts of western Australia, but whose unusually close attention to the local people obliged him to debunk his colleagues' communications on just this point of economic desperation. It is a mistake very commonly made, Grey wrote, to suppose that the native Australians "have small means of subsistence, or are at times greatly pressed for want of food." Many and "almost ludicrous" are the errors travellers have fallen into in this regard: "They lament in their journals that the unfortunate Aborigines should be reduced by famine to the miserable necessity of subsisting on certain sorts of food, which they have found near their huts; whereas, in many instances, the articles thus quoted by them are those which the natives most prize, and are really neither deficient in flavour nor nutritious qualities." To render palpable "the ignorance that has prevailed with regard to the habits and customs of this people when in their wild state," Grey provides one remarkable example, a citation from his fellow explorer, Captain Sturt, who, upon encountering a group of Aborigines engaged in gathering large quantities of mimoso gum, deduced that the " 'unfortunate creatures were reduced to the last extremity, and, being unable to procure any other nourishment, had been obliged to collect this mucilaginous.' " But, Sir George observes, the gum in question is a favorite article of food in the area, and when in season it affords the opportunity for large numbers of people to assemble and camp together, which otherwise they are unable to do. He concludes:

Generally speaking, the natives live well; in some districts there may be at particular seasons of the year a deficiency of food, but if such is the case, these tracts are, at those times, deserted. It is, however, utterly impossible for a traveller or even for a strange native to judge whether a district affords an abundance of food, or the contrary . . . But

in his own district a native is very differently situated; he knows exactly what it produces, the proper time at which the several articles are in season, and the readiest means of procuring them. According to these circumstances he regulates his visits to different portions of his hunting ground; and I can only say that I have always found the greatest abundance in their huts (Grey, 1841, vol. 2, pp. 259-262, emphasis mine; cf. Eyre, 1845, vol. 2, p. 244f).<sup>7</sup>

In making this happy assessment, Sir George took special care to exclude the *lumpen-proletariat* aboriginals living in and about European towns (cf. Eyre, 1845, vol. 2, pp. 250, 254-255). The exception is instructive. It evokes a second source of ethnographic misconceptions: the anthropology of hunters is largely an anachronistic study of ex-savages—an inquest into the corpse of one society, Grey once said, presided over by members of another.

The surviving food collectors, as a class, are displaced persons. They represent the paleolithic disenfranchised, occupying marginal haunts untypical of the mode of production: sanctuaries of an era, places so beyond the range of main centers of cultural advance as to be allowed some respite from the planetary march of cultural evolution, because they were characteristically poor beyond the interest and competence of more advanced economies. Leave aside the favorably situated food collectors, such as Northwest Coast Indians, about whose (comparative) well-being there is no dispute. [The remaining hunters, barred from the better parts of the earth, first by agriculture, later by industrial economies, enjoy ecological opportunities something less than the later-paleolithic average]<sup>8</sup> Moreover, the disruption accomplished in the past two centuries of European imperialism has been especially severe, to the extent that many of the ethnographic notices that constitute the anthropologist's stock in trade are adulterated culture goods. Even explorer and missionary accounts, apart from their ethnocentric misconstructions, may be speaking of afflicted economies (cf. Service, 1962). The hunters of eastern Canada of whom we read in the *Jesuit Relations* were committed to the fur trade in the

7. For a similar comment, referring to missionary misinterpretation of curing by blood consumption in eastern Australia, see Hodgkinson, 1845, p. 227.

8. Conditions of primitive hunting peoples must not be judged, as Carl Sauer notes, "from their modern survivors, now restricted to the most meagre regions of the earth, such as the interior of Australia, the American Great Basin, and the Arctic tundra and taiga. The areas of early occupation were abounding in food" (cited in Clark and Hawsell, 1964, p. 23).

early seventeenth century. The environments of others were selectively stripped by Europeans before reliable report could be made of indigenous production: the Eskimo we know no longer hunt whales, the Bushmen have been deprived of game, the Shoshoni's piñon has been timbered and his hunting grounds grazed out by cattle.<sup>9</sup> If such peoples are now described as poverty-stricken, their resources "meagre and unreliable," is this an indication of the aboriginal condition—or of the colonial duress?

[The enormous implications (and problems) for evolutionary interpretation raised by this global retreat have only recently begun to evoke notice (Lee and Devore, 1968). The point of present importance is this: rather than a fair test of hunters' productive capacities, their current circumstances pose something of a supreme test. All the more extraordinary, then, the following reports of their performance.]

### *"A Kind of Material Plenty"*

Considering the poverty in which hunters and gatherers live in theory, it comes as a surprise that Bushmen who live in the Kalahari enjoy "a kind of material plenty," at least in the realm of everyday useful things, apart from food and water:

As the /Kung come into more contact with Europeans—and this is already happening—they will feel sharply the lack of our things and will need and want more. It makes them feel inferior to be without clothes when they stand among strangers who are clothed. But in their own life and with their own artifacts *they were comparatively free from material pressures*. Except for food and water (important exceptions!) of which the Nyae Nyae /Kung have a sufficiency—but barely so, judging from the fact that all are thin though not emaciated—they all had what they needed or could make what they needed, for every man can and does make the things that men make and every woman the things that women make. . . . *They lived in a kind of material plenty* because they adapted the tools of their living to materials which lay in abundance around them and which were free for anyone to take (wood, reeds, bone for weapons and implements, fibers for cordage, grass for shelters), or to materials which were at least sufficient for the needs of the population. . . . The /Kung could always use more ostrich egg

9. Through the prison of acculturation one glimpses what hunting and gathering might have been like in a decent environment from Alexander Henry's account of his bountiful sojourn as a Chippewa in northern Michigan: see Quimby, 1962.

shells for beads to wear or trade with, but, as it is, enough are found for every woman to have a dozen or more shells for water containers—all she can carry—and a goodly number of bead ornaments. In their nomadic hunting-gathering life, travelling from one source of food to another through the seasons, always going back and forth between food and water, they carry their young children and their belongings. With plenty of most materials at hand to replace artifacts as required, the /Kung have not developed means of permanent storage and have not needed or wanted to encumber themselves with surpluses or duplicates. They do not even want to carry one of everything. They borrow what they do not own. With this ease, they have not hoarded, and the accumulation of objects has not become associated with status (Marshall, 1961, pp. 243–44, emphasis mine).

Analysis of hunter-gatherer production is usefully divided into two spheres, as Mrs. Marshall has done. Food and water are certainly “important exceptions,” best reserved for separate and extended treatment. For the rest, the nonsubsistence sector, what is here said of the Bushmen applies in general and in detail to hunters from the Kalahari to Labrador—or to Tierra del Fuego, where Gusinde reports of the Yahgan that their disinclination to own more than one copy of utensils frequently needed is “an indication of self-confidence.” “Our Fuegians,” he writes, “procure and make their implements with little effort” (1961, p. 213).<sup>10</sup>

In the nonsubsistence sphere, the people’s wants are generally easily satisfied. Such “material plenty” depends partly upon the ease of production, and that upon the simplicity of technology and democracy of property. Products are homespun: of stone, bone, wood, skin—materials such as “lay in abundance around them.” As a rule, neither extraction of the raw material nor its working up take strenuous effort. Access to natural resources is typically direct—“free for anyone to take”—even as possession of the necessary tools is general and knowledge of the required skills common. The division of labor is likewise simple, predominantly a division of labor by sex. Add in the liberal customs of sharing, for which hunters are properly famous,

10. Turnbull similarly notes of Congo Pygmies: “The materials for the making of shelter, clothing, and all other necessary items of material culture are all at hand at a moment’s notice.” And he has no reservations either about subsistence: “Throughout the year, without fail, there is an abundant supply of game and vegetable foods” (1965, p. 18).

and all the people can usually participate in the going prosperity, such as it is.

But, of course, "such as it is": this "prosperity" depends as well upon an objectively low standard of living. It is critical that the customary quota of consumables (as well as the number of consumers) be culturally set at a modest point. A few people are pleased to consider a few easily-made things their good fortune: some meagre pieces of clothing and rather fugitive housing in most climates;<sup>11</sup> plus a few ornaments, spare flints and sundry other items such as the "pieces of quartz, which native doctors have extracted from their patients" (Grey, 1841, vol. 2, p. 266); and, finally, the skin bags in which the faithful wife carries all this, "the wealth of the Australian savage" (p. 266).

For most hunters, such affluence without abundance in the nonsubsistence sphere need not be long debated. A more interesting question is why they are content with so few possessions—for it is with them a policy, a "matter of principle" as Gusinde says (1961, p. 2), and not a misfortune.

Want not, lack not. But are hunters so undemanding of material goods because they are themselves enslaved by a food quest "demanding maximum energy from a maximum number of people," so that no time or effort remains for the provision of other comforts? Some ethnographers testify to the contrary that the food quest is so successful that half the time the people seem not to know what to do with themselves. On the other hand, *movement* is a condition of this success, more movement in some cases than others, but always enough to rapidly depreciate the satisfactions of property. Of the hunter it is truly said that his wealth is a burden. In his condition of life, goods can become "grievously oppressive," as Gusinde observes, and the more so the longer they are carried around. Certain food collectors do have canoes and a few have dog sleds, but most must carry themselves all the comforts they possess, and so only possess what they can comfortably carry themselves. Or perhaps only what the women can carry: the men are often left free to react to the sudden opportunity of the chase or the sudden necessity of defense. As Owen Lattimore

11. Certain food collectors not lately known for their architectural achievements seem to have built more substantial dwellings before being put on the run by Europeans. See Smythe, 1871, vol. 1, pp. 125-128.

wrote in a not too different context, "the pure nomad is the poor nomad." Mobility and property are in contradiction.

That wealth quickly becomes more of an encumbrance than a good thing is apparent even to the outsider. Laurens van der Post was caught in the contradiction as he prepared to make farewells to his wild Bushmen friends:

This matter of presents gave us many an anxious moment. We were humiliated by the realization of how little there was we could give to the Bushmen. Almost everything seemed likely to make life more difficult for them by adding to the litter and weight of their daily round. They themselves had practically no possessions: a loin strap, a skin blanket and a leather satchel. There was nothing that they could not assemble in one minute, wrap up in their blankets and carry on their shoulders for a journey of a thousand miles. They had no sense of possession (1958, p. 276).

A necessity so obvious to the casual visitor must be second nature to the people concerned. This modesty of material requirements is institutionalized: it becomes a positive cultural fact, expressed in a variety of economic arrangements. Lloyd Warner reports of the Murngin, for example, that portability is a decisive value in the local scheme of things. Small goods are in general better than big goods. In the final analysis "the relative ease of transportation of the article" will prevail, so far as determining its disposition, over its relative scarcity or labor cost. For the "ultimate value," Warner writes, "is freedom of movement." And to this "desire to be free from the burdens and responsibilities of objects which would interfere with the society's itinerant existence," Warner attributes the Murngin's "undeveloped sense of property," and their "lack of interest in developing their technological equipment" (1964, pp. 136-137).

Here then is another economic "peculiarity"—I will not say it is general, and perhaps it is explained as well by faulty toilet training as by a trained disinterest in material accumulation: some hunters, at least, display a notable tendency to be sloppy about their possessions. They have the kind of nonchalance that would be appropriate to a people who have mastered the problems of production, even as it is maddening to a European:

They do not know how to take care of their belongings. No one dreams of putting them in order, folding them, drying or cleaning them, hanging

them up, or putting them in a neat pile. If they are looking for some particular thing, they rummage carelessly through the hodgepodge of trifles in the little baskets. Larger objects that are piled up in a heap in the hut are dragged hither and yon with no regard for the damage that might be done them. The European observer has the impression that these [Yahgan] Indians place no value whatever on their utensils and that they have completely forgotten the effort it took to make them.<sup>12</sup> Actually, no one clings to his few goods and chattels which, as it is, are often and easily lost, but just as easily replaced. . . . The Indian does not even exercise care when he could conveniently do so. A European is likely to shake his head at the boundless indifference of these people who drag brand-new objects, precious clothing, fresh provisions, and valuable items through thick mud, or abandon them to their swift destruction by children and dogs. . . . Expensive things that are given them are treasured for a few hours, out of curiosity; after that they thoughtlessly let everything deteriorate in the mud and wet. The less they own, the more comfortable they can travel, and what is ruined they occasionally replace. Hence, they are completely indifferent to any material possessions (Gusinde, 1961, pp. 86–87).

The hunter, one is tempted to say, is “uneconomic man.” At least as concerns nonsubsistence goods, he is the reverse of that standard caricature immortalized in any *General Principles of Economics*, page one [His wants are scarce and his means (in relation) plentiful.] Consequently he is “comparatively free of material pressures,” has “no sense of possession,” shows “an undeveloped sense of property,” is “completely indifferent to any material pressures,” manifests a “lack of interest” in developing his technological equipment.

[In this relation of hunters to worldly goods there is a neat and important point. From the internal perspective of the economy, it seems wrong to say that wants are “restricted,” desires “restrained,” or even that the notion of wealth is “limited.” Such phrasings imply in advance an Economic Man and a struggle of the hunter against his own worse nature, which is finally then subdued by a cultural vow of poverty. The words imply the renunciation of an acquisitiveness that in reality was never developed, a suppression of desires that were never broached. Economic Man is a bourgeois construction—as Marcel Mauss said, “not behind us, but before, like the moral man.” It is not that hunters and gatherers have curbed their materialistic “im-

12. But recall Gusinde’s comment: “Our Fuegians procure and make their implements with little effort” (1961, p. 213).

pulses"; they simply never made an institution of them. "Moreover, if it is a great blessing to be free from a great evil, our [Montagnais] Savages are happy; for the two tyrants who provide hell and torture for many of our Europeans, do not reign in their great forests,—I mean ambition and avarice . . . as they are contented with a mere living, not one of them gives himself to the Devil to acquire wealth" (LeJeune, 1897, p. 231).

We are inclined to think of hunters and gatherers as *poor* because they don't have anything; perhaps better to think of them for that reason as *free*. "Their extremely limited material possessions relieve them of all cares with regard to daily necessities and permit them to enjoy life" (Gusinde, 1961, p. 1).

### *Subsistence*

When Herskovits was writing his *Economic Anthropology* (1958), it was common anthropological practice to take the Bushmen or the native Australians as "a classic illustration of a people whose economic resources are of the scantiest," so precariously situated that "only the most intense application makes survival possible." Today the "classic" understanding can be fairly reversed—on evidence largely from these two groups. A good case can be made that hunters and gatherers work less than we do; and, rather than a continuous travail, the food quest is intermittent, leisure abundant, and there is a greater amount of sleep in the daytime per capita per year than in any other condition of society.

Some of the substantiating evidence for Australia appears in early sources, but we are fortunate especially to have now the quantitative materials collected by the 1948 American-Australian Scientific Expedition to Arnhem Land. Published in 1960, these startling data must provoke some review of the Australian reportage going back for over a century, and perhaps revision of an even longer period of anthropological thought. The key research was a temporal study of hunting and gathering by McCarthy and McArthur (1960), coupled to McArthur's analysis of the nutritional outcome.

Figures 1.1 and 1.2 summarize the principal production studies. These were short-run observations taken during nonceremonial peri-



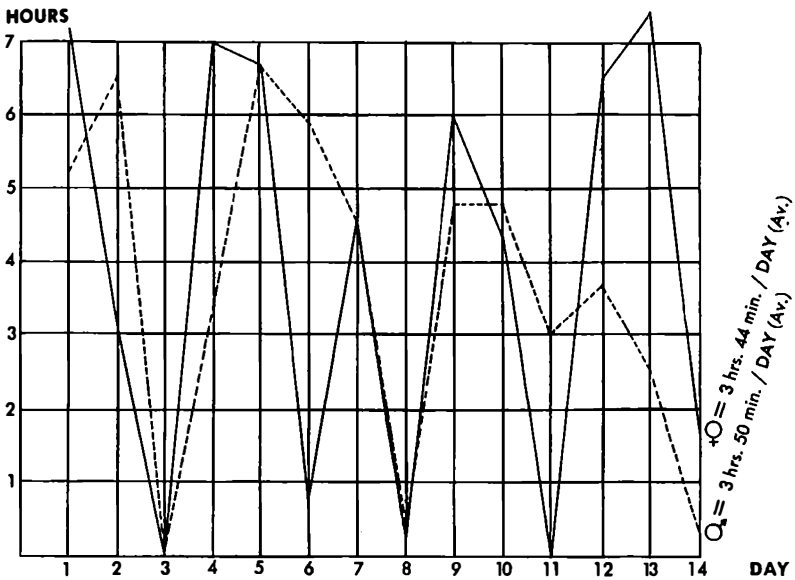


Figure 1.1. Hours per Day in Food-Connected Activities: Fish Creek Group (McCarthy and McArthur, 1960)

ods. The record for Fish Creek (14 days) is longer as well as more detailed than that for Hemple Bay (seven days). Only adults' work has been reported, so far as I can tell. The diagrams incorporate information on hunting, plant collecting, preparing foods and repairing weapons, as tabulated by the ethnographers. The people in both camps were free-ranging native Australians, living outside mission or other settlements during the period of study, although such was not necessarily their permanent or even their ordinary circumstance.<sup>13</sup>

13. Fish Creek was an inland camp in western Arnhem Land consisting of six adult males and three adult females. Hemple Bay was a coastal occupation on Groote Eylandt; there were four adult males, four adult females, and five juveniles and infants in the camp. Fish Creek was investigated at the end of the dry season, when the supply of vegetable foods was low; kangaroo hunting was rewarding, although the animals became increasingly wary under steady stalking. At Hemple Bay, vegetable foods were plentiful; the fishing was variable but on the whole good by comparison with other

(continued on p. 17)

HOURS

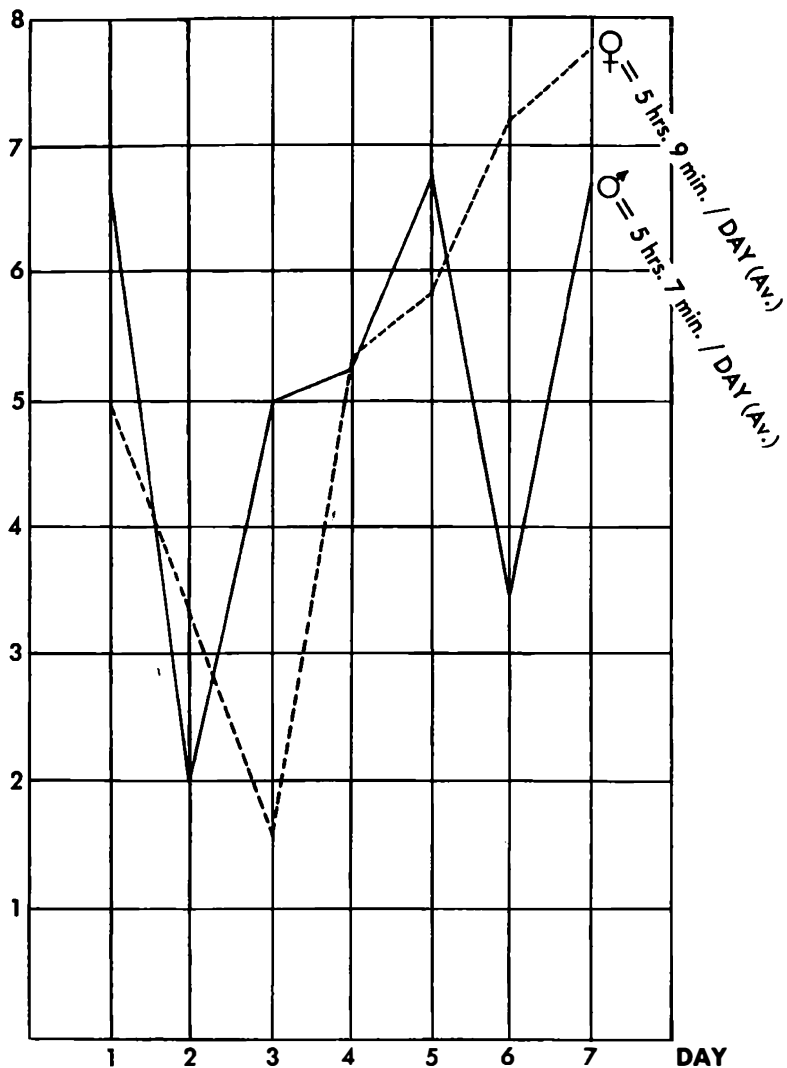


Figure 1.2. Hours per Day in Food-Connected Activities: Hemple Bay Group (McCarthy and McArthur, 1960)

One must have serious reservations about drawing general or historical inferences from the Arnhem Land data alone. Not only was the context less than pristine and the time of study too brief, but certain elements of the modern situation may have raised productivity above aboriginal levels: metal tools, for example, or the reduction of local pressure on food resources by depopulation. And our uncertainty seems rather doubled than neutralized by other current circumstances that, conversely, would lower economic efficiency: these semi-independent hunters, for instance, are probably not as skilled as their ancestors. For the moment, let us consider the Arnhem Land conclusions as experimental, potentially credible in the measure they are supported by other ethnographic or historic accounts.

The most obvious, immediate conclusion is that the people do not work hard. The average length of time per person per day put into the appropriation and preparation of food was four or five hours. Moreover, they do not work continuously. The subsistence quest was highly intermittent. It would stop for the time being when the people had procured enough for the time being, which left them plenty of time to spare. Clearly in subsistence as in other sectors of production, we have to do with an economy of specific, limited objectives. By hunting and gathering these objectives are apt to be irregularly accomplished, so the work pattern becomes correspondingly erratic.

In the event, a third characteristic of hunting and gathering unimagined by the received wisdom: rather than straining to the limits of available labor and disposable resources, these Australians seem to *underuse* their objective economic possibilities.

The quantity of food gathered in one day by any of these groups could in every instance have been increased. Although the search for food was, for the women, a job that went on day after day without relief [but see our Figures 1.1 and 1.2], they rested quite frequently, and did not spend all the hours of daylight searching for and preparing food. The nature of the men's

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coastal camps visited by the expedition. The resource base at Hemple Bay was richer than at Fish Creek. The greater time put into food-getting at Hemple Bay may reflect, then, the support of five children. On the other hand, the Fish Creek group did maintain a virtually full-time specialist, and part of the difference in hours worked may represent a normal coastal-inland variation. In inland hunting, good things often come in large packages; hence, one day's work may yield two day's sustenance. A fishing-gathering regime perhaps produces smaller if steadier returns, enjoining somewhat longer and more regular efforts.

food-gathering was more sporadic, and if they had a good catch one day they frequently rested the next. . . . Perhaps unconsciously they weigh the benefit of greater supplies of food against the effort involved in collecting it, perhaps they judge what they consider to be enough, and when that is collected they stop (McArthur, 1960, p. 92).

It follows, fourthly, that the economy was not physically demanding. The investigators' daily journal indicates that the people pace themselves; only once is a hunter described as "utterly exhausted" (McCarthy and McArthur, 1960, pp. 150f). Neither did the Arnhem Landers themselves consider the task of subsistence onerous. "They certainly did not approach it as an unpleasant job to be got over as soon as possible, nor as a necessary evil to be postponed as long as possible" (McArthur, 1960, p. 92).<sup>14</sup> In this connection, and also in relation to their underuse of economic resources, it is noteworthy that the Arnhem Land hunters seem not to have been content with a "bare existence." Like other Australians (cf. Worsley, 1961, p. 173), they become dissatisfied with an unvarying diet; some of their time appears to have gone into the provision of diversity over and above mere sufficiency (McCarthy and McArthur, 1960, p. 192).

In any case, the dietary intake of the Arnhem Land hunters was adequate—according to the standards of the National Research Council of America. Mean daily consumption per capita at Hemple Bay was 2,160 calories (only a four-day period of observation), and at Fish Creek 2,130 calories (11 days). Table 1.1 indicates the main daily consumption of various nutrients, calculated by McArthur in percentages of the NRCA recommended dietary allowances.

*Table 1.1. Mean daily consumption as percentage of recommended allowances (from McArthur, 1960)*

|            | <i>Calories</i> | <i>Protein</i> | <i>Iron</i> | <i>Calcium</i> | <i>Ascorbic Acid</i> |
|------------|-----------------|----------------|-------------|----------------|----------------------|
| Hemple Bay | 116             | 444            | 80          | 128            | 394                  |
| Fish Creek | 104             | 544            | 33          | 355            | 47                   |

14. At least some Australians, the Yir-Yiront, make no linguistic differentiation between work and play (Sharp, 1958, p. 6).

Finally, what does the Arnhem Land study say about the famous question of leisure? It seems that hunting and gathering can afford extraordinary relief from economic cares. The Fish Creek group maintained a virtually full-time craftsman, a man 35 or 40 years old, whose true specialty however seems to have been loafing:

He did not go out hunting at all with the men, but one day he netted fish most vigorously. He occasionally went into the bush to get wild bees' nests.

*Wilira* was an expert craftsman who repaired the spears and spear-throwers, made smoking-pipes and drone-tubes, and hafted a stone axe (on request) in a skillful manner; apart from these occupations he spent most of his time talking, eating and sleeping (McCarthy and McArthur, 1960, p. 148).

*Wilira* was not altogether exceptional. Much of the time spared by the Arnhem Land hunters was literally spare time, consumed in rest and sleep (see Tables 1.2 and 1.3). The main alternative to work, changing off with it in a complementary way, was sleep:

Apart from the time (mostly between definitive activities and during cooking periods) spent in general social intercourse, chatting, gossiping and so on, some hours of the daylight were also spent resting and sleeping. On the average, if the men were in camp, they usually slept after lunch from an

Table 1.2. Daytime rest and sleep,  
Fish Creek group  
(data from McCarthy and McArthur, 1960)

| Day | ♂ Average                               | ♀ Average |
|-----|---|-----------|
| 1   | 2'15"                                   | 2'45"     |
| 2   | 1'30"                                   | 1'0"      |
| 3   | Most of the day                         |           |
| 4   | Intermittent                            |           |
| 5   | Intermittent and most of late afternoon |           |
| 6   | Most of the day                         |           |
| 7   | Several hours                           |           |
| 8   | 2'0"                                    | 2'0"      |
| 9   | 50"                                     | 50"       |
| 10  | Afternoon                               |           |
| 11  | Afternoon                               |           |
| 12  | Intermittent, afternoon                 |           |
| 13  | —                                       | —         |
| 14  | 3'15"                                   | 3'15"     |

Table 1.3. Daytime rest and sleep, Hemple Bay group  
(data from McCarthy and McArthur, 1960)

| Day | ♂ Average       | ♀ Average    |
|-----|-----------------|--------------|
| 1   | —               | 45"          |
| 2   | Most of the day | 2'45"        |
| 3   | 1'0"            | —            |
| 4   | Intermittent    | Intermittent |
| 5   | —               | 1'30"        |
| 6   | Intermittent    | Intermittent |
| 7   | Intermittent    | Intermittent |

hour to an hour and a half, or sometimes even more. Also after returning from fishing or hunting they usually had a sleep, either immediately they arrived or whilst game was being cooked. At Hemple Bay the men slept if they returned early in the day but not if they reached camp after 4.00 p.m. When in camp all day they slept at odd times and always after lunch. The women, when out collecting in the forest, appeared to rest more frequently than the men. If in camp all day, they also slept at odd times, sometimes for long periods (McCarthy and McArthur, 1960, p. 193).

The failure of Arnhem Landers to "build culture" is not strictly from want of time. It is from idle hands.

So much for the plight of hunters and gatherers in Arnhem Land. As for the Bushmen, economically likened to Australian hunters by Herskovits, two excellent recent reports by Richard Lee show their condition to be indeed the same (Lee, 1968; 1969). Lee's research merits a special hearing not only because it concerns Bushmen, but specifically the Dobe section of /Kung Bushmen, adjacent to the Nyae Nyae about whose subsistence—in a context otherwise of "material plenty"—Mrs. Marshall expressed important reservations. The Dobe occupy an area of Botswana where /Kung Bushmen have been living for at least a hundred years, but have only just begun to suffer dislocation pressures. (Metal, however, has been available to the Dobe since

1880–90). An intensive study was made of the subsistence production of a dry season camp with a population (41 people) near the mean of such settlements. The observations extended over four weeks during July and August 1964, a period of transition from more to less favorable seasons of the year, hence fairly representative, it seems, of average subsistence difficulties.

Despite a low annual rainfall (6 to 10 inches), Lee found in the Dobe area a “surprising abundance of vegetation.” Food resources were “both varied and abundant,” particularly the energy-rich mangetti nut—“so abundant that millions of the nuts rotted on the ground each year for want of picking” (all references in Lee, 1969, p. 59).<sup>15</sup> His reports on time spent in food-getting are remarkably close to the Arnhem Land observations. Table 1.4 summarizes Lee’s data.

The Bushman figures imply that one man’s labor in hunting and gathering will support four or five people. Taken at face value, Bushman food collecting is more efficient than French farming in the period up to World War II, when more than 20 percent of the population were engaged in feeding the rest. Confessedly, the comparison is misleading, but not as misleading as it is astonishing. In the total population of free-ranging Bushmen contacted by Lee, 61.3 percent (152 of 248) were effective food producers; the remainder were too young or too old to contribute importantly. In the particular camp under scrutiny, 65 percent were “effectives.” Thus the ratio of food producers to the general population is actually 3 : 5 or 2 : 3. *But*, these 65 percent of the people “worked 36 percent of the time, and 35 percent of the people did not work at all”! (Lee, 1969, p. 67).

For each adult worker, this comes to about two and one-half days labor per week. (“In other words, each productive individual supported herself or himself and dependents and still had 3-1/2 to 5-1/2 days available for other activities.”) A “day’s work” was about six hours; hence the Dobe work week is approximately 15 hours, or an average of 2 hours 9 minutes per day. Even lower than the Arnhem Land norms, this figure however excludes cooking and the preparation of implements. All things considered, Bushmen subsistence labors are probably very close to those of native Australians.

15. This appreciation of local resources is all the more remarkable considering that Lee’s ethnographic work was done in the second and third years of “one of the most severe droughts in South Africa’s history” (1968, p. 39; 1969, p. 73 n.).

Table 1.4. Summary of Dobe Bushmen work diary (from Lee, 1969)

| Week                  | Mean Group Size* | Man-Days of Consumption† | Man-Days of Work | Days of Work/Week/Adult | Index of Subsistence Effort‡ |
|-----------------------|------------------|--------------------------|------------------|-------------------------|------------------------------|
| 1<br>(July 6-12)      | 25.6<br>(23-29)  | 179                      | 37               | 2.3                     | .21                          |
| 2<br>(July 13-19)     | 28.3<br>(23-37)  | 198                      | 22               | 1.2                     | .11                          |
| 3<br>(July 20-26)     | 34.3<br>(29-40)  | 240                      | 42               | 1.9                     | .18                          |
| 4<br>(July 27-Aug. 2) | 35.6<br>(32-40)  | 249                      | 77               | 3.2                     | .31                          |
| 4-week totals         | 30.9             | 866                      | 178              | 2.2                     | .21                          |
| Adjusted totals§      | 31.8             | 668                      | 156              | 2.5                     | .23                          |

\*Group size shown in average and range. There is considerable short-term population fluctuation in Bushmen camps.

†Includes both children and adults, to give a combined total of days of provisioning required/week.

‡This index was constructed by Lee to illustrate the relation between consumption and the work required to produce it:  $S = W/C$ , where  $W$  = number of man-days of work, and  $C$  = man days of consumption. Inverted, the formula would tell how many people could be supported by a day's work in subsistence.

§Week 2 was excluded from the final calculations because the investigator contributed some food to the camp on two days.



Also like the Australians, the time Bushmen do not work in subsistence they pass in leisure or leisurely activity. One detects again that characteristic paleolithic rhythm of a day or two on, a day or two off—the latter passed desultorily in camp. Although food collecting is the primary productive activity, Lee writes, “the majority of the people’s time (four to five days per week) is spent in other pursuits, such as resting in camp or visiting other camps” (1969, p. 74):

A woman gathers on one day enough food to feed her family for three days, and spends the rest of her time resting in camp, doing embroidery, visiting other camps, or entertaining visitors from other camps. For each day at home, kitchen routines, such as cooking, nut cracking, collecting firewood, and fetching water, occupy one to three hours of her time. This rhythm of steady work and steady leisure is maintained throughout the year. The hunters tend to work more frequently than the women, but their schedule is uneven. It is not unusual for a man to hunt avidly for a week and then do no hunting at all for two or three weeks. Since hunting is an unpredictable business and subject to magical control, hunters sometimes experience a run of bad luck and stop hunting for a month or longer. During these periods, visiting, entertaining, and especially dancing are the primary activities of men (1968, p. 37).

The daily per-capita subsistence yield for the Dobe Bushmen was 2,140 calories. However, taking into account body weight, normal activities, and the age-sex composition of the Dobe population, Lee estimates the people require only 1,975 calories per capita. Some of the surplus food probably went to the dogs, who ate what the people left over. “The conclusion can be drawn that the Bushmen do not lead a substandard existence on the edge of starvation as has been commonly supposed” (1969, p. 73).

Taken in isolation, the Arnhem Land and Bushmen reports mount a disconcerting if not decisive attack on the entrenched theoretical position. Artificial in construction, the former study in particular is reasonably considered equivocal. But the testimony of the Arnhem Land expedition is echoed at many points by observations made elsewhere in Australia, as well as elsewhere in the hunting-gathering world. Much of the Australian evidence goes back to the nineteenth century, some of it to quite acute observers careful to make exception of the aboriginal come into relation with Europeans, for “his food supply is restricted, and . . . he is in many cases warned off from the

waterholes which are the centers of his best hunting grounds" (Spencer and Gillen, 1899, p. 50).

The case is altogether clear for the well-watered areas of southeastern Australia. There the Aborigines were favored with a supply of fish so abundant and easily procured that one squatter on the Victorian scene of the 1840s had to wonder "how that sage people managed to pass their time before my party came and taught them to smoke" (Curr, 1965, p. 109). Smoking at least solved the economic problem—nothing to do: "That accomplishment fairly acquired . . . matters went on flowingly, their leisure hours being divided between putting the pipe to its legitimate purpose and begging my tobacco." Somewhat more seriously, the old squatter did attempt an estimate of the amount of time spent in hunting and gathering by the people of the then Port Phillip's District. The women were away from the camp on gathering expeditions about six hours a day, "half of that time being loitered away in the shade or by the fire"; the men left for the hunt shortly after the women quit camp and returned around the same time (p. 118). Curr found the food thus acquired of "indifferent quality" although "readily procured," the six hours a day "abundantly sufficing" for that purpose; indeed the country "could have supported twice the number of Blacks we found in it" (p. 120). Very similar comments were made by another old-timer, Clement Hodgkinson, writing of an analogous environment in northeastern New South Wales. A few minutes fishing would provide enough to feed "the whole tribe" (Hodgkinson, 1845, p. 223; cf. Hiatt, 1965, pp. 103-104). "Indeed, throughout all the country along the eastern coast, the blacks have never suffered so much from scarcity of food as many commiserating writers have supposed" (Hodgkinson, 1845, p. 227).

But the people who occupied these more fertile sections of Australia, notably in the southeast, have not been incorporated in today's stereotype of an Aborigine. They were wiped out early.<sup>16</sup> The European's relation to such "Blackfellows" was one of conflict over the continent's riches; little time or inclination was spared from the

16.As were the Tasmanians, of whom Bonwick wrote: "The Aborigines were never in want of food; though Mrs. Somerville has ventured to say of them in her 'Physical Geography' that they were 'truly miserable in a country where the means of existence were so scanty.' Dr. Jeannot, once Protector, writes: 'They must have been superabundantly supplied, and have required little exertion or industry to support themselves.'" (Bonwick, 1870, p. 14).

process of destruction for the luxury of contemplation. In the event, ethnographic consciousness would only inherit the slim pickings: mainly interior groups, mainly desert people, mainly the Arunta. Not that the Arunta are all that bad off—ordinarily, “his life is by no means a miserable or a very hard one” (Spencer and Gillen, 1899, p. 7).<sup>17</sup> But the Central tribes should not be considered, in point of numbers or ecological adaptation, typical of native Australians (cf. Meggitt, 1964). The following tableau of the indigenous economy provided by John Edward Eyre, who had traversed the south coast and penetrated the Flinders range as well as sojourned in the richer Murray district, has the right to be acknowledged at least as representative:

Throughout the greater portion of New Holland, where there do not happen to be European settlers, and invariably when fresh water can be permanently procured upon the surface, the native experiences no difficulty whatever in procuring food in abundance all the year round. It is true that the character of his diet varies with the changing seasons, and the formation of the country he inhabits; but it rarely happens that any season of the year, or any description of country does not yield him both animal and vegetable food. . . . Of these [chief] articles [of food], many are not only procurable in abundance, but in such vast quantities at the proper seasons, as to afford for a considerable length of time an ample means of subsistence to many hundreds of natives congregated at one place. . . . On many parts of the coast, and in the larger inland rivers, fish are obtained of a very fine description, and in great abundance. At Lake Victoria . . . I have seen six hundred natives encamped together, all of whom were living at the time upon fish procured from the lake, with the addition, perhaps, of the leaves of the mesembryanthemum. When I went amongst them I never perceived any scarcity in their camps. . . . At Moorunde, when the Murray annually inundates the flats, fresh-water cray-fish make their way to the surface of the ground . . . in such vast numbers that I have seen four hundred natives live upon them for weeks together, whilst the numbers spoiled or thrown away would have sustained four hundred more. . . . An unlimited supply of fish is also procurable at the Murray about the beginning of December. . . . The number [of fish] procured . . . in a few hours is incredible. . . . Another very favourite article of food, and equally abundant at a particular season of the year, in the eastern portion of the continent, is a species of

17. This by way of contrast to other tribes deeper in the Central Australian Desert, and specifically under “ordinary circumstances,” not the times of long-continued drought when “he has to suffer privation” (Spencer and Gillen, 1899, p. 7).

moth which the natives procure from the cavities and hollows of the mountains in certain localities. . . . The tops, leaves, and stalks of a kind of cress, gathered at the proper season of the year . . . furnish a favourite, and inexhaustible supply of food for an unlimited number of natives. . . . There are many other articles of food among the natives, equally abundant and valuable as those I have enumerated (Eyre, 1845, vol. 2, pp. 250-254).

Both Eyre and Sir George Grey, whose sanguine view of the indigenous economy we have already noted ("I have always found the greatest abundance in their huts") left specific assessments, in hours per day, of the Australians' subsistence labors. (This in Grey's case would include inhabitants of quite undesirable parts of western Australia.) The testimony of these gentlemen and explorers accords very closely with the Arnhem Land averages obtained by McCarthy and McArthur. "In all ordinary seasons," wrote Grey, (that is, when the people are not confined to their huts by bad weather) "they can obtain, *in two or three hours* a sufficient supply of food for the day, but their usual custom is to roam indolently from spot to spot, lazily collecting it as they wander along" (1841, vol. 2, p. 263; emphasis mine). Similarly, Eyre states: "In almost every part of the continent which I have visited, where the presence of Europeans, or their stock, has not limited, or destroyed their original means of subsistence, I have found that the natives could usually, *in three or four hours*, procure as much food as would last for the day, and that without fatigue or labour" (1845, pp. 254-255; emphasis mine).

The same discontinuity of subsistence of labor reported by McArthur and McCarthy, the pattern of alternating search and sleep, is repeated, furthermore, in early and late observations from all over the continent (Eyre, 1845, vol. 2, pp. 253-254; Bulmer, in Smyth, 1878, vol. 1, p. 142; Mathew, 1910, p. 84; Spencer and Gillen, 1899, p. 32; Hiatt, 1965, pp. 103-104). Basedow took it as the general custom of the Aboriginal: "When his affairs are working harmoniously, game secured, and water available, the aboriginal makes his life as easy as possible; and he might to the outsider even appear lazy" (1925, p. 116).<sup>18</sup>

Meanwhile, back in Africa the Hadza have been long enjoying a

18. Basedow goes on to excuse the people's idleness on the grounds of overeating, then to excuse the overeating on the grounds of the periods of hunger natives suffer, which he further explains by the droughts Australia is heir to, the effects of which have been exacerbated by the white man's exploitation of the country.

comparable ease, with a burden of subsistence occupations no more strenuous in hours per day than the Bushmen or the Australian Aboriginals (Woodburn, 1968). Living in an area of "exceptional abundance" of animals and regular supplies of vegetables (the vicinity of Lake Eyasi), Hadza men seem much more concerned with games of chance than with chances of game. During the long dry season especially, they pass the greater part of days on end in gambling, perhaps only to lose the metal-tipped arrows they need for big game hunting at other times. In any case, many men are "quite unprepared or unable to hunt big game even when they possess the necessary arrows." Only a small minority, Woodburn writes, are active hunters of large animals, and if women are generally more assiduous at their vegetable collecting, still it is at a leisurely pace and without prolonged labor (cf. p. 51; Woodburn, 1966). Despite this nonchalance, and an only limited economic cooperation, Hadza "nonetheless obtain sufficient food without undue effort." Woodburn offers this "very rough approximation" of subsistence-labor requirements: "Over the year as a whole probably an average of less than two hours a day is spent obtaining food" (Woodburn, 1968, p. 54).

Interesting that the Hadza, tutored by life and not by anthropology, reject the neolithic revolution in order to *keep* their leisure. Although surrounded by cultivators, they have until recently refused to take up agriculture themselves, "mainly on the grounds that this would involve too much hard work."<sup>19</sup> In this they are like the Bushmen, who respond to the neolithic question with another: "Why should we plant, when there are so many mongomongo nuts in the world?" (Lee, 1968, p. 33). Woodburn moreover did form the impression, although as yet unsubstantiated, that Hadza actually expend less energy, and probably less time, in obtaining subsistence than do neighboring cultivators of East Africa (1968, p. 54).<sup>20</sup> To change continents but not contents, the fitful economic

19. This phrase appears in a paper by Woodburn distributed to the Wenner-Gren symposium on "Man the Hunter," although it is only elliptically repeated in the published account (1968, p. 55). I hope I do not commit an indiscretion or an inaccuracy citing it here.

20. "Agriculture is in fact the first example of servile labor in the history of man. According to biblical tradition, the first criminal, Cain, is a farmer" (Lafargue, 1911[1883], p. 11 n.).

It is notable too that the agricultural neighbours of both Bushmen and Hadza are quick to resort to the more dependable hunting-gathering life come drought and threat

commitment of the South American hunter, too, could seem to the European outsider an incurable "natural disposition":

. . . the Yamana are not capable of continuous, daily hard labor, much to the chagrin of European farmers and employers for whom they often work. Their work is more a matter of fits and starts, and in these occasional efforts they can develop considerable energy for a certain time. After that, however, they show a desire for an incalculably long rest period during which they lie about doing nothing, without showing great fatigue. . . . It is obvious that repeated irregularities of this kind make the European employer despair, but the Indian cannot help it. It is his natural disposition (Gusinde, 1961, p. 27).<sup>21</sup>

The hunter's attitude towards farming introduces us, lastly, to a few particulars of the way they relate to the food quest. Once again we venture here into the internal realm of the economy, a realm sometimes subjective and always difficult to understand; where, moreover, hunters seem deliberately inclined to overtax our comprehension by customs so odd as to invite the extreme interpretation that either these people are fools or they really have nothing to worry about. The former would be a true logical deduction from the hunter's nonchalance, on the premise that his economic condition is truly exigent. On the other hand, if a livelihood is usually easily procured, if one can usually expect to succeed, then the people's seeming imprudence can no longer appear as such. Speaking to unique developments of the market economy, to its institutionalization of scarcity, Karl Polanyi said that our "animal dependence upon food has been bared and the naked fear of starvation permitted to run loose. Our humiliating enslavement to the material, which all human culture is designed to mitigate, was deliberately made more rigorous" (1947, p. 115). But

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of famine (Woodburn, 1958, p. 54; Lee, 1968, pp. 39-40).

21. This common distaste for prolonged labor manifested by recently primitive peoples under European employ, a distaste not restricted to ex-hunters, might have alerted anthropology to the fact that the traditional economy had known only modest objectives, so within reach as to allow an extraordinary disengagement, considerable "relief from the mere problem of getting a living."

The hunting economy may also be commonly underrated for its presumed inability to support specialist production. Cf. Sharp, 1934-35, p. 37; Radcliffe-Brown, 1948, p. 43; Spencer, 1959, pp. 155, 196, 251; Lothrop, 1928, p. 71; Steward, 1938, p. 44. If there is not specialization, at any rate it is clearly for lack of a "market," not for lack of time.

our problems are not theirs, the hunters and gatherers. Rather, a pristine affluence colors their economic arrangements, a trust in the abundance of nature's resources rather than despair at the inadequacy of human means. My point is that otherwise curious heathen devices become understandable by the people's confidence, a confidence which is the reasonable human attribute of a generally successful economy.<sup>22</sup>

Consider the hunter's chronic movements from camp to camp. This nomadism, often taken by us as a sign of a certain harassment, is undertaken by them with a certain abandon. The Aboriginals of Victoria, Smyth recounts, are as a rule "lazy travellers. *They have no motive to induce them to hasten their movements.* It is generally late in the morning before they start on their journey, and there are many interruptions by the way" (1878, vol. 1, p. 125; emphasis mine). The good *Pere Biard* in his *Relation* of 1616, after a glowing description of the foods available in their season to the Micmac ("Never had Solomon his mansion better regulated and provided with food ") goes on in the same tone:

In order to thoroughly enjoy this, their lot, our foresters start off to their different places with as much pleasure as if they were going on a stroll or an excursion; they do this easily through the skillful use and great convenience of canoes . . . so rapidly sculled that, without any effort, in good weather you can make thirty or forty leagues a day; nevertheless we scarcely see these Savages posting along at this rate, for their days are all nothing but pastime. They are never in a hurry. Quite different from us, who can never do anything without hurry and worry . . . (Biard, 1897, pp. 84-85).

22. At the same time that the bourgeois ideology of scarcity was let loose, with the inevitable effect of downgrading an earlier culture, it searched and found in nature the ideal model to follow if man (or at least the workingman) was ever to better his unhappy lot: the ant, the industrious ant. In this the ideology may have been as mistaken as in its view of hunters. The following appeared in the *Ann Arbor News*, January 27, 1971, under the head, "Two Scientists Claim Ants a little Lazy": Palm Springs, Calif. (AP)—"Ants aren't all they are reported [reputed?] to be," say Drs. George and Jeanette Wheeler.

The husband-wife researchers have devoted years to studying the creatures, heroes of fables on industriousness.

"Whenever we view an anthill we get the impression of a tremendous amount of activity, but that is merely because there are so many ants and they all look alike," the Wheelers concluded.

"The individual ants spend a great deal of time just loafing. And, worse than that, the worker ants, who are all females, spend a lot of time primping."

Certainly, hunters quit camp because food resources have given out in the vicinity. But to see in this nomadism merely a flight from starvation only perceives the half of it; one ignores the possibility that the people's expectations of greener pastures elsewhere are not usually disappointed. Consequently their wanderings, rather than anxious, take on all the qualities of a picnic outing on the Thames.

A more serious issue is presented by the frequent and exasperated observation of a certain "lack of foresight" among hunters and gatherers. Oriented forever in the present, without "the slightest thought of, or care for, what the morrow may bring" (Spencer and Gillen, 1899, p. 53), the hunter seems unwilling to husband supplies, incapable of a planned response to the doom surely awaiting him. He adopts instead a studied unconcern, which expresses itself in two complementary economic inclinations.

The first, prodigality: the propensity to eat right through all the food in the camp, even during objectively difficult times, "as if," LeJeune said of the Montagnais, "the game they were to hunt was shut up in a stable." Basedow wrote of native Australians, their motto "might be interpreted in words to the effect that while there is plenty for today never care about tomorrow. On this account an Aboriginal is inclined to make one feast of his supplies, in preference to a modest meal now and another by and by" (1925, p. 116). LeJeune even saw his Montagnais carry such extravagance to the edge of disaster:

In the famine through which we passed, if my host took two, three, or four Beavers, immediately, whether it was day or night, they had a feast for all neighboring Savages. And if those people had captured something, they had one also at the same time; so that, on emerging from one feast, you went to another, and sometimes even to a third and a fourth. I told them that they did not manage well, and that it would be better to reserve these feasts for future days, and in doing this they would not be so pressed with hunger. They laughed at me. "Tomorrow" (they said) "we shall make another feast with what we shall capture." Yes, but more often they capture only cold and wind (LeJeune, 1887, pp. 281-283).

Sympathetic writers have tried to rationalize the apparent impracticality. Perhaps the people have been carried beyond reason by hunger: they are apt to gorge themselves on a kill because they have gone so long without meat—and for all they know they are likely to soon do so again. Or perhaps in making one feast of his supplies a man is



responding to binding social obligations, to important imperatives of sharing. LeJeune's experience would confirm either view, but it also suggests a third. Or rather, the Montagnais have their own explanation. They are not worried by what the morrow may bring because as far as they are concerned it will bring more of the same: "another feast." Whatever the value of other interpretations, such self-confidence must be brought to bear on the supposed prodigality of hunters. More, it must have some objective basis, for if hunters and gatherers really favored gluttony over economic good sense, they would never have lived to become the prophets of this new religion.

A second and complementary inclination is merely prodigality's negative side: the failure to put by food surpluses, to develop food storage. For many hunters and gatherers, it appears, food storage cannot be proved technically impossible, nor is it certain that the people are unaware of the possibility (cf. Woodburn, 1968, p. 53). One must investigate instead what in the situation precludes the attempt. Gusinde asked this question, and for the Yahgan found the answer in the selfsame justifiable optimism. Storage would be "superfluous,"

because throughout the entire year and with almost limitless generosity the sea puts all kinds of animals at the disposal of the man who hunts and the woman who gathers. Storm or accident will deprive a family of these things for no more than a few days. Generally no one need reckon with the danger of hunger, and everyone almost anywhere finds an abundance of what he needs. Why then should anyone worry about food for the future! . . . Basically our Fuegians know that they need not fear for the future, hence they do not pile up supplies. Year in and year out they can look forward to the next day, free of care. . . . (Gusinde, 1961, pp. 336, 339).

Gusinde's explanation is probably good as far as it goes, but probably incomplete. A more complex and subtle economic calculus seems in play—realized however by a social arithmetic exceedingly simple. The advantages of food storage should be considered against the diminishing returns to collection within the compass of a confined locale. An uncontrollable tendency to lower the local carrying capacity is for hunters *au fond des choses*: a basic condition of their production and main cause of their movement. The potential drawback of storage is exactly that it engages the contradiction between wealth and mobility. It would anchor the camp to an area soon depleted of

natural food supplies. Thus immobilized by their accumulated stocks, the people may suffer by comparison with a little hunting and gathering elsewhere, where nature has, so to speak, done considerable storage of her own—of foods possibly more desirable in diversity as well as amount than men can put by. But this fine calculation—in any event probably symbolically impossible (cf. Codere, 1968)—would be worked out in a much simpler binary opposition, set in social terms such as “love” and “hate.” For as Richard Lee observes (1969, p. 75), the technically neutral activity of food accumulation or storage is morally something else again, “hoarding.” The efficient hunter who would accumulate supplies succeeds at the cost of his own esteem, or else he gives them away at the cost of his (superfluous) effort. As it works out, an attempt to stock up food may only reduce the overall output of a hunting band, for the have-nots will content themselves with staying in camp and living off the wherewithal amassed by the more prudent. Food storage, then, may be technically feasible, yet economically undesirable, and socially unachievable.

If food storage remains limited among hunters, their economic confidence, born of the ordinary times when all the people's wants are easily satisfied, becomes a permanent condition, carrying them laughing through periods that would try even a Jesuit's soul and worry him so that—as the Indians warn—he could become sick:

I saw them, in their hardships and in their labors, suffer with cheerfulness. . . . I found myself, with them, threatened with great suffering; they said to me, “We shall be sometimes two days, sometimes three, without eating, for lack of food; take courage, *Chihiné*, let thy soul be strong to endure suffering and hardship; keep thyself from being sad, otherwise thou wilt be sick; see how we do not cease to laugh, although we have little to eat” (LeJeune, 1897, p. 283; cf. Needham, 1954, p. 230).

### *Rethinking Hunters and Gatherers*

Constantly under pressure of want, and yet, by travelling, easily able to supply their wants, their lives lack neither excitement or pleasure (Smyth, 1878, vol. 1, p. 123).

Clearly, the hunting-gathering economy has to be reevaluated, both as to its true accomplishments and its true limitations. The procedural fault of the received wisdom was to read from the material circum-

stances to the economic structure, deducing the absolute difficulty of such a life from its absolute poverty. But always the cultural design improvises dialectics on its relationship to nature. Without escaping the ecological constraints, culture would negate them, so that at once the system shows the impress of natural conditions and the originality of a social response—in their poverty, abundance.

What are the real handicaps of the hunting-gathering *praxis*? Not “low productivity of labor,” if existing examples mean anything. But the economy is seriously afflicted by the *imminence of diminishing returns*. Beginning in subsistence and spreading from there to every sector, an initial success seems only to develop the probability that further efforts will yield smaller benefits. This describes the typical curve of food-getting within a particular locale. A modest number of people usually sooner than later reduce the food resources within convenient range of camp. Thereafter, they may stay on only by absorbing an increase in real costs or a decline in real returns: rise in costs if the people choose to search farther and farther afield, decline in returns if they are satisfied to live on the shorter supplies or inferior foods in easier reach. The solution, of course, is to go somewhere else. Thus the first and decisive contingency of hunting-gathering: it requires movement to maintain production on advantageous terms.

But this movement, more or less frequent in different circumstances, more or less distant, merely transposes to other spheres of production the same diminishing returns of which it is born. The manufacture of tools, clothing, utensils, or ornaments, however easily done, becomes senseless when these begin to be more of a burden than a comfort. Utility falls quickly at the margin of portability. The construction of substantial houses likewise becomes absurd if they must soon be abandoned. Hence the hunter’s very ascetic conceptions of material welfare: an interest only in minimal equipment, if that; a valuation of smaller things over bigger; a disinterest in acquiring two or more of most goods; and the like. Ecological pressure assumes a rare form of concreteness when it has to be shouldered. If the gross product is trimmed down in comparison with other economies, it is not the hunter’s productivity that is at fault, but his mobility.

Almost the same thing can be said of the demographic constraints of hunting-gathering. The same policy of *débarassment* is in play on

the level of people, describable in similar terms and ascribable to similar causes. The terms are, cold-bloodedly: diminishing returns at the margin of portability, minimum necessary equipment, elimination of duplicates, and so forth—that is to say, infanticide, senilicide, sexual continence for the duration of the nursing period, etc., practices for which many food-collecting peoples are well known. The presumption that such devices are due to an inability to support more people is probably true—if “support” is understood in the sense of carrying them rather than feeding them. The people eliminated, as hunters sometimes sadly tell, are precisely those who cannot effectively transport themselves, who would hinder the movement of family and camp. Hunters may be obliged to handle people and goods in parallel ways, the draconic population policy an expression of the same ecology as the ascetic economy. More, these tactics of demographic restraint again form part of a larger policy for counteracting diminishing returns in subsistence. A local group becomes vulnerable to diminishing returns—so to a greater velocity of movement, or else to fission—in proportion to its size (other things equal). Insofar as the people would keep the advantage in local production, and maintain a certain physical and social stability, their Malthusian practices are just cruelly consistent. Modern hunters and gatherers, working their notably inferior environments, pass most of the year in very small groups widely spaced out. But rather than the sign of underproduction, the wages of poverty, this demographic pattern is better understood as the cost of living well.

Hunting and gathering has all the strengths of its weaknesses. Periodic movement and restraint in wealth and population are at once imperatives of the economic practice and creative adaptations, the kinds of necessities of which virtues are made. Precisely in such a framework, affluence becomes possible. Mobility and moderation put hunters' ends within range of their technical means. An undeveloped mode of production is thus rendered highly effective. The hunter's life is not as difficult as it looks from the outside. In some ways the economy reflects dire ecology, but it is also a complete inversion.

Reports on hunters and gatherers of the ethnological present—specifically on those in marginal environments—suggest a mean of three to five hours per adult worker per day in food production. Hunters keep banker's hours, notably less than modern industrial

workers (unionized), who would surely settle for a 21–35 hour week. An interesting comparison is also posed by recent studies of labor costs among agriculturalists of neolithic type. For example, the average adult Hanunoo, man or woman, spends 1,200 hours per year in swidden cultivation (Conklin, 1957, p. 151); which is to say, a mean of three hours twenty minutes per day. Yet this figure does not include food gathering, animal raising, cooking and other direct subsistence efforts of these Philippine tribesmen. Comparable data are beginning to appear in reports on other primitive agriculturalists from many parts of the world. The conclusion is put conservatively when put negatively: hunters and gatherers need not work longer getting food than do primitive cultivators. Extrapolating from ethnography to prehistory, one may say as much for the neolithic as John Stuart Mill said of all labor-saving devices, that never was one invented that saved anyone a minute's labor. The neolithic saw no particular improvement over the paleolithic in the amount of time required per capita for the production of subsistence; probably, with the advent of agriculture, people had to work harder.

There is nothing either to the convention that hunters and gatherers can enjoy little leisure from tasks of sheer survival. By this, the evolutionary inadequacies of the paleolithic are customarily explained, while for the provision of leisure the neolithic is roundly congratulated. But the traditional formulas might be truer if reversed: the amount of work (per capita) increases with the evolution of culture, and the amount of leisure decreases. Hunters' subsistence labors are characteristically intermittent, a day on and a day off, and modern hunters at least tend to employ their time off in such activities as daytime sleep. In the tropical habitats occupied by many of these existing hunters, plant collecting is more reliable than hunting itself. Therefore, the women, who do the collecting, work rather more regularly than the men, and provide the greater part of the food supply. Man's work is often done. On the other hand, it is likely to be highly erratic, unpredictably required; if men lack leisure, it is then in the Enlightenment sense rather than the literal. When Condorcet attributed the hunter's unprogressive condition to want of "the leisure in which he can indulge in thought and enrich his understanding with new combinations of ideas," he also recognized that the economy was a "necessary cycle of extreme activity and total idleness." Apparently what the

hunter needed was the *assured* leisure of an aristocratic *philosophe*.

Hunters and gatherers maintain a sanguine view of their economic state despite the hardships they sometimes know. It may be that they sometimes know hardships because of the sanguine views they maintain of their economic state. Perhaps their confidence only encourages prodigality to the extent the camp falls casualty to the first untoward circumstance. In alleging this is an affluent economy, therefore, I do not deny that certain hunters have moments of difficulty. Some do find it "almost inconceivable" for a man to die of hunger, or even to fail to satisfy his hunger for more than a day or two (Woodburn, 1968, p. 52). But others, especially certain very peripheral hunters spread out in small groups across an environment of extremes, are exposed periodically to the kind of inclemency that interdicts travel or access to game. They suffer—although perhaps only fractionally, the shortage affecting particular immobilized families rather than the society as a whole (cf. Gusinde, 1961, pp. 306-307).

Still, granting this vulnerability, and allowing the most poorly situated modern hunters into comparison, it would be difficult to prove that privation is distinctly characteristic of the hunter-gatherers. Food shortage is not the indicative property of this mode of production as opposed to others; it does not mark off hunters and gatherers as a class or a general evolutionary stage. Lowie asks:

But what of the herders on a simple plane whose maintenance is periodically jeopardized by plagues—who, like some Lapp bands of the nineteenth century were obliged to fall back on fishing? What of the primitive peasants who clear and till without compensation of the soil, exhaust one plot and pass on to the next, and are threatened with famine at every drought? Are they any more in control of misfortune caused by natural conditions than the hunter-gatherer? (1938, p. 286)

Above all, what about the world today? One-third to one-half of humanity are said to go to bed hungry every night. In the Old Stone Age the fraction must have been much smaller. *This* is the era of hunger unprecedented. Now, in the time of the greatest technical power, is starvation an institution. Reverse another venerable formula: the amount of hunger increases relatively and absolutely with the evolution of culture.

This paradox is my whole point. Hunters and gatherers have by

force of circumstances an objectively low standard of living. But taken as their *objective*, and given their adequate means of production, all the people's material wants usually can be easily satisfied. The evolution of economy has known, then, two contradictory movements: enriching but at the same time impoverishing, appropriating in relation to nature but expropriating in relation to man. The progressive aspect is, of course, technological. It has been celebrated in many ways: as an increase in the amount of need-serving goods and services, an increase in the amount of energy harnessed to the service of culture, an increase in productivity, an increase in division of labor, and increased freedom from environmental control. Taken in a certain sense, the last is especially useful for understanding the earliest stages of technical advance. Agriculture not only raised society above the distribution of natural food resources, it allowed neolithic communities to maintain high degrees of social order where the requirements of human existence were absent from the natural order. Enough food could be harvested in some seasons to sustain the people while no food would grow at all; the consequent stability of social life was critical for its material enlargement. Culture went on then from triumph to triumph, in a kind of progressive contravention of the biological law of the minimum, until it proved it could support human life in outer space—where even gravity and oxygen were naturally lacking.

Other men were dying of hunger in the market places of Asia. It has been an evolution of structures as well as technologies, and in that respect like the mythical road where for every step the traveller advances his destination recedes by two. The structures have been political as well as economic, of power as well as property. They developed first within societies, increasingly now between societies. No doubt these structures have been functional, necessary organizations of the technical development, but within the communities they have thus helped to enrich they would discriminate in the distribution of wealth and differentiate in the style of life. The world's most primitive people have few possessions, *but they are not poor*. Poverty is not a certain small amount of goods, nor is it just a relation between means and ends; above all it is a relation between people. Poverty is a social status. As such it is the invention of civilization. It has grown with civilization, at once as an invidious distinction between classes and more importantly as a tributary relation—that can render agrarian

peasants more susceptible to natural catastrophes than any winter camp of Alaskan Eskimo.

All the preceding discussion takes the liberty of reading modern hunters historically, as an evolutionary base line. This liberty should not be lightly granted. Are marginal hunters such as the Bushmen of the Kalahari any more representative of the paleolithic condition than the Indians of California or the Northwest Coast? Perhaps not. Perhaps also Bushmen of the Kalahari are not even representative of marginal hunters. The great majority of surviving hunter-gatherers lead a life curiously decapitated and extremely lazy by comparison with the other few. The other few are very different. The Murngin, for example: "The first impression that any stranger must receive in a fully functioning group in Eastern Arnhem Land is of industry. . .

And he must be impressed with the fact that with the exception of very young children . . . there is no idleness" (Thomson, 1949a, pp. 33-34). There is nothing to indicate that the problems of livelihood are more difficult for these people than for other hunters (cf. Thomson, 1949b). The incentives of their unusual industry lie elsewhere: in "an elaborate and exacting ceremonial life," specifically in an elaborate ceremonial exchange cycle that bestows prestige on craftsmanship and trade (Thomson, 1949a, pp. 26, 28, 34 f, 87 *passim*). Most other hunters have no such concerns. Their existence is comparatively colorless, fixed singularly on eating with gusto and digesting at leisure. The cultural orientation is not Dionysian or Apollonian, but "gastric," as Julian Steward said of the Shoshoni. Then again it may be Dionysian, that is, Bacchanalian: "Eating among the Savages is like drinking among the drunkards of Europe. Those dry and ever-thirsty souls would willingly end their lives in a tub of malmsey, and the Savages in a pot full of meat; those over there talk only of drinking, and these here only of eating" (LeJeune, 1897, p. 249).

It is as if the superstructures of these societies had been eroded, leaving only the bare subsistence rock, and since production itself is readily accomplished, the people have plenty of time to perch there and talk about it. I must raise the possibility that the ethnography of hunters and gatherers is largely a record of incomplete cultures. Fragile cycles of ritual and exchange may have disappeared without trace, lost in the earliest stages of colonialism, when the intergroup relations



they mediated were attacked and confounded. If so, the “original” affluent society will have to be rethought again for its originality, and the evolutionary schemes once more revised. Still this much history can always be rescued from existing hunters: the “economic problem” is easily solvable by paleolithic techniques. But then, it was not until culture neared the height of its material achievements that it erected a shrine to the Unattainable: *Infinite Needs*.