

Hunting Down the Hunter-Gatherers

There can have been few conferences as influential as was "Man the Hunter," held in Chicago in 1966 and, in 1968, published as a major book under the editorship of Richard Lee and Irv DeVore.¹ There can have been even fewer books with titles so starkly at odds with their impact, for one of the lasting impacts of this volume was to make Woman the Gatherer one of the axiomatic elements of both anthropology in general and models of human evolution in particular. But among the other lasting mantras of the volume are that hunter-gathering was a stable way of life; that 99% of humans have lived by hunting and gathering; that hunting and gathering was the basis for the original affluent society; and that hunter-gatherers represented a style of life that was at odds with any number of ways of characterizing agricultural and urban life: egalitarian, nonmaterialistic, ecologically sound, small-scale, simple, peaceful.

The last 30 years have shown this model of a major way of human life to be remarkably resilient. Although many important empirical developments have demonstrated that the world of hunter-gatherers is often at variance with this model, both anthropological textbooks and the public at large have taken this essentially Rousseau-esque perspective on hunter-gathering to heart. However, 30 years is a long time, even in anthropology, for any approach to resist changes of fashion and fortune. It is clear that hunter-gather studies are now in for a period of revision. One conference held in 1998 on the specific question of the role of meat in human evolution exposed a distinctly carnivorous odor.² In May 1999, another was held at the University of Durham (UK), this time to look more broadly at how views on hunting and gathering as a part of humanity have changed. Organized by Catherine Panter-Brick, Peter Rowly

Conwy, and Robert Layton, this conference took an explicitly interdisciplinary approach, one much in the spirit of the original "Man the Hunter" meeting, bringing together biological and social anthropologists as well as archeologists.

Four themes can be said to characterize the papers in Lee and DeVore's resulting volume:¹ adaptation, equilibrium, normative patterns of behavior, and simplicity of life-style. Adaptation is central because anthropologists were able to show that the behavior of hunting and gathering made sense in the environments in which hunter-gatherers remained. Archeologists picked up this theme, mapping adaptive patterns over the millennia that turned existing views on the origins of agriculture upside down. Equilibrium

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arose from this: hunter-gatherers lived in harmony with their environment and, if they did not actually husband resources for the future, impinged on them little. Again, archeologists used this to suggest forcibly that this was a way of life that had persisted unchanged over vast periods, perhaps as long as two million years. History became lost in the new version of the Garden of Eden. If adaptive perspectives led to stasis among hunter-gatherers, then the two combined to present a monolithic version of hunter-gatherers. As a category they existed in contrast to agriculturalists, and one where a number of key traits could always be

found: egalitarianism, division of labor, affluence. Only minor variation was noted, all explicable in relation to environmental variation in such matters as the proportion of meat and fish in the diet. This was the normative and invariant way of life of the hunter-gatherer. And finally, underlying all these was the notion of a small-scale and simple way of life, the embodiment of the "small is beautiful" ideas of the 1960s.

The Durham conference set out to see if these notions had survived the test of time or, more precisely, the test of more data, especially archeological, and changes in theoretical perspective. The papers presented showed to a large extent, that even if hunter-gatherers were unchanging, hunter-gatherer studies were not.

Perhaps the key concept reiterated by virtually all the speakers, was variability in the hunter-gatherer way of life. In their introduction, the organizers stressed that there was every reason to expect such variability, and that the challenge was to explain it. Such explanations should be sought in ecology, social behavior, and biology, although the underlying theme of such explanations remained, at heart, the same as that of the original conference: adaptation to the environment.

The archeologists were perhaps the most explicit in seeking and emphasizing such variability. Steve Kuhn (University of Arizona) looked at the evidence for variability among hunter-gatherers in the Pleistocene, focusing on the European record. It is perhaps in archeology that perspectives have changed the most, largely as a result of changing models for human evolution in general. The abandonment of a long-term continuous record of hunting and gathering over two million years in favor of an abrupt change in the last hundred thousand years has made archeologists look more closely

at the actual record of subsistence activities. Kuhn showed that the Upper Paleolithic record exhibited considerable variation, not just between Middle and Upper Paleolithic, but also between the early and later part of the period. In particular, he considered how the pattern of variation fit expectations of environmental variation. Perhaps the key insight to emerge was that while patterns of variation in technology and subsistence occurred in the same dimensions among both later Upper Paleolithic hunter-gatherers and those observed ethnographically, the same could not be said of the Middle Paleolithic hominids. Peter Rowley-Conwy (University of Durham) took this further. He set up a number of widely held propositions about hunter-gatherers, focusing primarily on the idea that their record exhibits progressive change from simple to complex, from extensive to intensive, from foraging to production. He argued, again with reference to the European record, that such unidirectional change did not occur. Early hunter-gatherers could be complex, and could revert to a more simple way of life when circumstances demanded it. They also could change rapidly, and in ways that did not lead in the direction of agriculture. In Rowley-Conwy's terms, variability in hunter-gathering was pronounced, but bore no relationship to any notions of directional or progressive change.

Among the archeologists, Robin Torrence (Sidney Museum) discussed how archeologists had been able to show that macro-level patterns of technological variation through time and over space could be explained in terms of ecological principles, particularly those associated with the relationship between resource and time availability. She also argued that the link between archeology and anthropology has provided the means for seeing how large-scale patterns of variation could be generated by the social processes underlying economic behavior and its technological correlates.

In an elegant paper, Bruce Winterhalder (University of North Carolina), showed how the variability of hunter-gatherer was understandable in more theoretical terms drawn from behavioral ecology. At the heart of the variability in this major way of life lay the costs and benefits of finding and allo-

cating resources that made hunting-gathering a useful concept in many contexts. There is, for example, the idea that when costs and benefits are appropriate, hunter-gatherer strategies can emerge in complex, postindustrial societies or in marginal agricultural ones. However, while recognizing the unique nature of hunter-gatherer ways of life, Winterhalder stressed that its underlying microeconomics were no different from those of any other society, and that attempts to see the Pleistocene inhabited by people with a different rationality were misplaced.

Variability was also the theme of the biologists. Jenicke reviewed the data on hunter-gatherer diet and nutrition. This has become established in both anthropology and more broadly as the "stone age diet," characterized by ample energy, high protein intake, low fat and high fiber consumption. A systematic review of the literature on this topic, Jenicke showed, does not sup-

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port this view. Ethnographically observed hunter-gatherers are relatively few and far between compared to what there must have been in the past, and yet their nutritional intake varied enormously. For example, the Anbarra survived on a nutritional intake that was effectively half that of the Ache, and the Hiwi experienced seasonal changes in energy intake of up to 50%. The implications are all too clear: while some hunter-gatherers may have thrived in particular environments, many did not, but suffered seasonal and long-term starvation, and had to strive hard for survival.

This dietary variation was given a demographic edge by Renee Pennington (University of Utah). She showed that hunter-gatherers, far from living a life of ease, suffered enormously from high levels of mortality and low levels

of fertility. Long-term demographic stability was less a product of self-regulation than the constraints of survivorship in often hazardous circumstances. In particular, her data showed that hunter-gatherer demographic stability was as much a function of high levels of female sterility as of socio-cultural regulatory practices. This perspective was brought into sharp focus by Alain Fromont. He looked at the evidence for morphological variation in hunter-gatherers and showed that it mapped well onto patterns of genetic variation. This could be interpreted as evidence of strong environmental selection, and hence that hunter-gatherers at least in the past were under considerable pressure. To this he added a strong ethnographic element, arguing that most hunter-gatherers, when asked about the future, were happy to trade the simplicity of their traditional way of life for greater certainty that their children would survive.

If the archeologists were keen to show that there was no directional change in hunter-gatherer behavior, and the biologists that there was considerable variation relating to survival, then one conclusion that could be drawn was that hunting and gathering was a far more dynamic mode of subsistence than it was presented as being at the original "Man the Hunter" Conference. In his talk, Robert Layton used the debate over the extent to which the Kalahari hunter-gatherers were aboriginal hunter-gatherers or the product of recent historical circumstances, to consider the issue of whether or not it is meaningful or useful to look at hunter-gatherers as a category representing a phase in human prehistory and evolution. Again, he argued that there was too much evidence of fluidity in the way people moved in and out of a hunter-gatherer life to ever allow confidence in identifying an "original" way of life. Rather, he suggested that we should view hunter-gatherers as part of a spectrum of ways of responding to circumstances.

This idea of internally as well as externally driven dynamism among hunter-gatherers was given further support by McGonvill. He addressed the problem of language change among the Australian aborigines. Although much of historical linguistics

has focused on the extent to which hunter-gatherer languages have been replaced by those of agriculturalists, he suggested that the widespread distribution of the Pama Numan language group in Australia could be understood in terms of a wholly hunter-gatherer process of dispersal and displacement.

As a whole, these papers showed that after 30 years, hunter-gatherer studies continue to be a major center of debate in anthropology and archeology. The emerging data and models demonstrated that hunter-gatherers both in the past and present, cannot be seen as an invariable group, but as a highly variable one. However, in ways that would be less common in other branches of anthropology, the participants were all keen to stress

that such variation was not simply a random mass of human behavior and cultural choice, but is broadly understandable in terms of ecology and environment. In this sense the conference reinforced many of the strongly ecological and adaptive themes of the original conference. However, there still remained a tension between the adaptive and the historical perspectives. Adaptation implies stability and equilibrium, and yet variation over time is suggestive of a lack of stability. While this theme has been pursued in terms of short-term change, and has been addressed by some archeologists in light of the apparent complexity of many prehistoric hunter-gatherers, there remains, nonetheless, a central paradox. How does one account both for the persistence of hunting and

gathering as a way of life and its striking inability to resist the spread of agriculturalists? As with so many branches of evolutionary biology, the central problem remains of how to square the circle of historical pattern and ecological process. Perhaps another 30 years will provide the answer.

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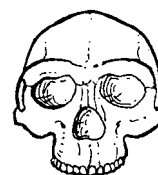
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Robert Foley
University of Cambridge
Cambridge, U.K.
E-mail: raf10@cus.cam.ac.uk
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