CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

1

Lines of enquiry

CATHERINE PANTER-BRICK, ROBERT H. LAYTON AND PETER ROWLEY-CONWY

Areas of research

Analyses of the ecology, biology, and society of past and present-day hunter–gatherers are at the core of this interdisciplinary volume. A great deal of new research has been published in these three areas since *Man the Hunter* (Lee and DeVore 1968), but almost invariably in separate works rather than in a single volume. Consequently, hunter–gatherer studies have become increasingly specialised, the common forum provided by *Man the Hunter* and the lines of communication between academic disciplines having all but broken down.

The recent *Cambridge Encyclopedia of Hunters and Gatherers* (Lee and Daly 1999) presents the ethnographies of 53 groups world-wide and reviews the history and culture, the indigenous world-views, and the emergence of hunter–gatherers in wider public and political discourses. However, in contending that recent concerns have 'moved relatively far from evolutionary and ecological preoccupations' (p. 11), it includes little coverage of important issues in the field of biological anthropology and human ecology. Most other publications on hunter–gatherers either exclude biology and consider almost entirely present-day groups (Ingold *et al.* 1988, Burch and Ellana 1994), or conversely focus on evolutionary ecology (Bettinger, 1991, Kelly 1995), exclusively archaeological populations (Soffer and Gamble 1990), or a single group or region (Hill and Hurtado, 1996, Biesbrouck *et al.* 1999).

The present volume brings together several contributions in archaeology, social anthropology and biological anthropology. What issues are raised that command a continuing interest in these areas

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

of research? There is, first and foremost, recognition that the diversity of hunter–gatherer groups requires satisfactory analysis. Given this diversity, there are three major questions to address: Is 'hunter–gatherer' a meaningful category? How have hunter–gatherers been characterised by previous research? How do we approach hunter–gatherer variability? This chapter reviews the first two questions briefly, then considers the last by way of introducing the other chapters in this volume.

Is 'hunter–gatherer' a meaningful category?

Lee and Daly (1999: 3) define foraging (a term used synonymously with hunting and gathering) as 'subsistence based on hunting of wild animals, gathering of wild plant foods, and fishing, with no domestication of plants, and no domesticated animals except the dog'. This provides a 'minimal' definition, a starting-point on which to graft a more nuanced understanding of hunter–gatherers. It is important, however, to begin with a useful 'working definition'.

Hunters and gatherers rely upon a mode of subsistence characterised by the *absence of direct human control* over the reproduction of exploited species, and little or no control over other aspects of population ecology such as the behaviour and distribution of food resources. In essence, hunter–gatherers exercise no deliberate alteration of the *gene pool* of exploited resources, in contrast to people who rely in the main upon an agricultural or pastoralist subsistence base. There will always be problematic cases with such a working definition. Thus contemporary foragers often practise a mixed subsistence – for example, gardening in tropical South America, reindeer herding in northern Asia, trading in south and southeast Asia and parts of Africa (Lee and Daly, 1999: 3). There are also ambiguous practices – such as the fine line between 'wild' and 'cultivated' sago palms in Indonesia (Ellen 1988) or 'wild' and 'domestic' pigs in highland Papua New Guinea (Rosman and Rubel 1989), where the 'cultivation' or 'domestication' of resources does not (as expected) entail their genetic alteration. Such problematic cases do not however detract from the general utility of a 'working

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

definition' which focuses on the distinctive characteristics of hunter–gatherer subsistence activities.

The distinction between subsistence practices has empirical support, even though people who rely solely on hunting and gathering are fairly rare in the ethnographic record. Indeed most subsistence communities engage in a number of different economic activities – such as foraging, herding, or cultivation – but they do so in different proportions. One type of activity tends to predominate: there is not a continuous range of proportions, such that most societies do fall at one end or the other of a range of possibilities. As demonstrated by Hunn and Williams (1982), there is a hiatus between non-agricultural and agricultural subsistence practices. These authors plotted the percentage dependence on one particular activity such as hunting, gathering, fishing, herding, and agriculture for a sample of 200 societies drawn from the *Ethnographic Atlas* (Murdoch 1967). Some societies depend upon cultivated products for less than 5% of their diet; many others depend upon them for more than 45%. Remarkably few groups depend upon cultivation for between 5% and 45% of their subsistence. The data are limited in referring only to contemporary or recent societies, who have all been influenced by Euro-American colonialism, and they do not include archaeological populations. None the less, they indicate that the distinction between 'hunter–gatherers' and 'agriculturalists' has empirical utility at least in economic terms.

This 'working definition', which identifies hunting and gathering as subsistence activities entailing negligible control over the gene pool of food resources, has the virtue of simplicity. Yet it is useful, particularly in providing a distinction between hunter–gatherers and other populations.

How have hunter–gatherers been characterised?

An impetus for recent research has been to explore the tremendous diversity of population groups known as hunter–gatherers, groups manifestly successful in an impressive range of habitats. Of course an appreciation of hunter–gatherers involves more than the exam-

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

ination of the features of a given subsistence economy across different environments. Lee and Daly (1999: 3) emphasised that 'subsistence is one part of a multi-faceted definition of hunter–gatherers: social organisation forms a second major area . . . , and cosmology and world-view a third'. For these authors, the common characteristics of (contemporary) foragers are thus their type of economy, social organisation, and ideology. They also mention a number of significant divergences, such as the degree of violence and warfare, the status of women, and the distinction between 'simple' versus 'complex' organisation and associated notion of immediate or delayed return (elaborated by Kelly 1995).

Many researchers have tried to identify hunter–gatherers in terms of a 'package' of characteristics (e.g. economic, ecological, socio-cultural and ideological traits). The nature of the 'glue' they thought might hold the package together is of great interest. Should one identify hunting and gathering as a cultural and technological 'stage' of human history or evolution, concerning oneself with categories and 'levels' of social organisation? Or should one follow a Marxist interpretation which identifies the 'mode of production' as primarily holding the socio-cultural package together? Is there such a thing as a hunter–gatherer 'ethos' and is it related to resource acquisition? Or should one focus attention on the variability within and between hunter–gatherer groups? Is this variability best understood within an ecological framework, one which examines behaviour in terms of adaptive strategies coping with environmental, technological or socio-demographic constraints? Or is there room for a more interpretative view of changes in the social or political organisation of different groups and sub-groups over time? Are there any ethnographic cases of 'pure' hunter–gatherers or are all influenced by contact with farmers, herders or traders? These are some of the many different ways in which hunter–gatherers have been characterised by previous research. In sum, what do we make of the category 'hunter–gatherers' and its diversity?

European scholars traditionally stressed the homogeneity of the category for reasons that were often overtly political. In the seventeenth century, hunter–gatherers were typecast by Hobbes (1651) as

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

the primeval state of humanity, living lives he famously described as 'solitary, poor, nasty, brutish, and short'. By contrast, his contemporary John Dryden (1670) depicted them as living in a state of grace from which the rest of humanity had fallen, coining the equally famous phrase 'the noble savage' to describe them. These perspectives used hunter–gatherers for opposing political purposes, but both depicted them as a unitary type, timeless and ahistorical. They are one representation of the 'glue' portraying hunter–gatherers as a distinct and separate human category.

An emphasis on distinct categories of human organisation continued into much more recent times, for example in the concept of the single 'hunter–gatherer mode of production' put forward by Marxist scholars (see discussion in Lee 1988). The concept of a mode of production posits necessary relations between property, labour and exchange, all of which are uniquely human constructs (Leacock and Lee 1982: 61). For Marx and Engels, the unique feature of human subsistence was the conscious character of its productive activities, instilled through the experience of living in society (Ingold *et al.* 1988: 270). The concept of a hunter–gatherer mode of production is however a political rather than an ecological one; while clearly more sophisticated than its predecessors, it still presents a single ahistorical category whose coherence is explained through a single theoretical framework. Echoes of the same notion appear in Sahlins's 'original affluent society' (Sahlins 1968 1974) and Woodburn's 'immediate return' systems (Woodburn 1982). Even if two hunter–gatherer modes of production are recognised (such as immediate return/egalitarian and delayed return/inegalitarian), the diversity of hunter–gatherer social formations is poorly represented by such categories.

More recent attempts to identify a complex or 'package' of traits characteristic of hunter–gatherers have been concerned with the 'evolution' of this way of life. These take a diachronic, rather than synchronic, view of a set of behaviours which cohere over a span of time. It is often said that 99% of the evolutionary history of humans has been spent in a hunter–gathering mode of subsistence. This approach seeks to establish what demarcated hunting and gathering from earlier means of food procurement, such as scavenging,

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

enabling 'foragers' to be successful over a very long period of human evolutionary history. It is also known that humans and chimpanzees share a high degree of genetic resemblance (98% to 99% of DNA and the products of coding genes are identical; King and Wilson 1975; Neel 1999, p. 3). Given that apes hunt small animals, and also spend much of the day gathering vegetable plants and fruit, what differentiates hunting and gathering in humans from that of apes? Few definitive answers have been forthcoming, but propositions about exchanges of food, division of labour and provisioning of children in hominids have been extensively debated (Hawkes *et al.* 1997). Another line of enquiry, which raises some fundamental questions discussed in this volume, concerns the comparison between anatomically modern hunter–gatherers in the archaeological record, other hominids such as the Neanderthals, and present-day populations studied ethnographically.

In considering what 'package' of behaviours made the evolutionary strategy of foragers so successful, it is essential to examine what continuities persisted over past and present populations, and how long or short-term changes in given practices can be explained. Because of the diversity of habitats and modes of exploitation, these issues can only be addressed by adopting a very fine-grained analysis of the 'ecology' of hunter–gatherer populations, namely of the usage people made of their environments and the impact that environments – often unpropitious and therefore eliciting appropriate responses – had on human behaviour and biology. In this scheme, it is the *range of behaviours* and the *flexibility* of human groups, not uniformity, which deserves emphasis. We see this range of behaviours as arising both through responses to different environments and through the trajectory of different cultural traditions.

Diversity of approaches: hunter–gatherer variability

The field of hunter–gatherer research is obviously vibrant enough to have generated and accommodated many different approaches and a diversity of theoretical interests. The chapters in this volume

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

present a number of these approaches, summarising relevant issues and current knowledge with respect to a particular field of interest. Some of the main issues debated in this volume have been raised above, but it is instructive to outline here the concerns and theoretical interests of particular chapters.

Consider first of all the issue of hunter–gatherer variability. Is diversity in usage of habitat and technology, in diet, physical attributes and reproductive histories, in range of languages and social organisation, a matter of local responses to environmental constraints, of increasing 'sophistication' through time, or of differential contact with 'outsiders'? Several contributors address the issues of evolution, history, and change among present and past hunter–gatherers, seeking to portray the flexibility of hunter–gatherer groups. Winterhalder shows that many aspects of the society and economy of contemporary hunter–gatherers are usefully considered from the perspective of behavioural ecology. Practices such as food storage and associated hierarchies are likely to occur in environments where storage is a major adaptive strategy for survival. The optimal foraging models detailed in this chapter are designed to explore how flexible are such traits or lifestyle attributes and how quickly they might respond to change. Rowley-Conwy addresses the same issue of flexibility in social organisation, while adding a time dimension, revisiting the common assumption that 'simple' egalitarian (or immediate return) hunter–gatherers form a baseline from which 'complex' groups later developed. If the variability documented by Winterhalder among contemporary hunter–gatherer groups is at least partly a response to environmental conditions, the same variability should be visible in the past.

Torrence shows that many aspects of technology vary according to the resources they are designed to procure. If resources are varied and continuously available, a generalised technology capable of a variety of functions is preferred. On the other hand, if resources are concentrated and only temporarily available, technology is specialised, dedicated to maximising returns in a short time. Kuhn and Stiner consider this technological flexibility through time rather than across space, comparing modern and pre-modern humans. They conclude that modern humans in Europe and southwest Asia

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

display the same flexibility that is documented by Torrence among contemporary groups, probably as far back as the Early Upper Palaeolithic some 30 000 years ago. The Neanderthals do not: their technology is relatively sophisticated, but remains relatively static in the face of environmental changes.

As Kuhn and Stiner add a time dimension to the contemporary variability discussed by Torrence, so Rowley-Conwy extends the principles outlined by Winterhalder to past hunter–gatherer societies. The flexibility seen in present-day groups is also a characteristic of the archaeological record of modern humans, even though this record is flawed, coarse-grained and open to various interpretations.

Two other chapters have less recourse to the imperfect archaeological database, but also argue that present flexibility is likely to extend into the past. McConvell considers language 'shift' among hunter–gatherers, using mostly present-day linguistic distributions to reconstruct movements and changes in the past. There are indications of rapid linguistic changes at certain times and places, and some supporting evidence from the archaeological record of at least Australia. Pennington shows that there has been substantial variability in the reproductive histories of contemporary groups for whom demographic histories have been properly documented. Rapid population increase may be possible when new areas are colonised, but elsewhere her life-table models show that population seems to have remained stable or static for long periods. Pennington also re-evaluates some of the hypotheses advanced to explain the reduced fertility of hunter–gatherer populations, highlighting sexually transmitted diseases as an important variable affecting demography.

As further emphasised by Jenike and Froment, hunter–gatherer populations are not a 'biological entity' with recognisable health or morphological profiles in contrast to the characteristics of farmers and industrialist populations. Yet too often we have adopted a uniform view – or normative model – of hunter–gatherer diets, levels of physical activity, exposures to infection, body morphologies and genetic differentiation. Both authors argue in favour of a more informed understanding of the sources of variation in hunter–gatherer subsistence ecology. Their data lead to consideration of

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

quite flexible adaptive responses to ecological constraints, and of their application to archaeological populations.

The next papers follow a more 'humanist' approach towards issues of agency among hunter–gatherers. Conkey explores the socially constructed meaning of hunter–gatherer art forms. This is clearly not a subject that can be directly addressed by means of environmental context, even though it does have a temporal dimension that some other chapters are unable to address, since art survives from the remote hunter–gatherer past in a variety of places. This testifies once again to the flexibility of hunter–gatherers in the past as well as the present, even if we may never be able to comprehend the socially constructed meanings that underlie the art. As mentioned by Torrence in her chapter, even technology has a socially constructed dimension, less closely linked to the procurement of resources. Layton, for his part, handles an emotive issue, namely the history of hunter–gatherer interaction with farmers, herders and the Nation State. He shows how some of the Western 'myths' concerning hunter–gatherers and their environment have influenced state policy. He also discusses political issues such as land rights, which sometimes involve contemporary dramas like court cases and demonstrations, as well as the affirmation of hunter–gatherer identities by the (sometimes deliberate) adoption of material symbols in direct opposition to those of colonial or national regimes. The future of hunter–gatherers in contact with other groups is also highlighted as an important issue by Froment, who forecasts that a collapse in their ways of life could lead, paradoxically, to significant improvements in terms of health.

This volume aims to provide undergraduate and postgraduate students with a set of accessible and balanced reviews of topics which excite the current interest of a large number of researchers working with hunter–gatherers. In tackling ecological, biological and cultural issues from prehistory to the present-day, it provides an overview of this important way of life. We now have a large body of evidence documenting fine-grained behavioural variability in hunter–gatherers. Current research has moved on to formulate a number of principles, testable hypotheses, even competing theoretical approaches, to evaluate against the ethnographic and archae-

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521776724 - Hunter-Gatherers: An Interdisciplinary Perspective
Edited by Catherine Panter-Brick, Robert H. Layton and Peter Rowley-Conwy
Excerpt
More information

ological data. The myths about 'pristine' hunter–gatherer groups being separate from the rest of humanity and not sharing its concerns have long been exploded. This was illustrated by an anecdote reported in *The Economist* (19 October 1996: 145): while deep in the Kalahari, an elderly hunter putting poison on his arrows turned to a Westerner visiting the campsite and asked whether he believed O.J. Simpson (then on trial for murder in the USA) was guilty.

References

Bettinger, R.L. (1991). *Hunter–Gatherers: Archaeological and Evolutionary Theory*. New York: Plenum.

Biesbrouck, K., Elders, S. and Rossel, G. (1999). *Central African Hunter–Gatherers in a Multidisciplinary Perspective: Challenging Elusiveness*. Leiden: Research School CNWS Publications.

Burch, and Ellana, (1994). *Key Issues in Hunter–Gatherer Research*. Oxford: Berg.

Ellen, R. (1988). Foraging, starch extraction and the sedentary life style in the lowland rainforest of central Seram. In *Hunters and Gatherers: History, Evolution and Social change*, vol. 1, ed. T. Ingold, D. Riches and J. Woodburn, pp. 117–134. Oxford: Berg.

Hawkes, K., O'Connell, J.F. and Rogers, L. (1997). The behavioural ecology of modern hunter–gatherers, and human evolution. *Trends in Ecology and Evolution* **12**: 1–42.

Hill, K. and Hurtado, A.M. (1999). *Ache Life History: The Ecology and Demography of a Foraging People*. New York: Aldine de Gruyter.

Hunn, E.S. and Williams, N.M. (1982). Introduction. In *Resource Managers: North American and Australian Hunter-Gatherers*, ed. N.M. Williams and E.S. Hunn, pp. 1–16. Canberra: Australian Institute of Aboriginal Studies.

Ingold, T., Riches, D. and Woodburn, J. (eds.) (1988). *Hunters and Gatherers: History, Evolution and Social Change*, vol. 1 and 2. Oxford: Berg.

Kelly, R.L. (1995). *The Foraging Spectrum: Diversity in Hunter–Gatherer Lifeways*. Washington DC: Smithsonian Institution Press.

King, M.-C. and Wilson, A.C. (1975). Evolution at two levels in humans and chimpanzees. *Science* 188 (no. 4184): 107–188.

Lee, R.B. (1988). Reflections on primitive communalism. In *Hunters and Gatherers: History, Evolution and Social Change*, ed. T. Ingold, D. Riches and J. Woodburn, pp. 252–268. Oxford: Berg.

Lee, R.B. and Daly, R. (1999). Foragers and others. In *The Cambridge Encyclopedia of Hunters and Gatherers* ed. Lee, R. B. and Daly, R., pp. 1–19. Cambridge: Cambridge University Press.

© Cambridge University Press www.cambridge.org