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978-0-521-35887-3 - Hunters, Pastoralists and Ranchers: Reindeer Economies and their Transformations

Tim Ingold

Excerpt

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## Prologue: On reindeer and men

Some years ago, I undertook a spell of anthropological fieldwork among the Skolt Lapps of northeastern Finland. These people were, so I imagined, reindeer pastoralists. Yet when I arrived in the field, the promised herds were nowhere to be seen. On inquiry into their whereabouts, I was assured that they did exist, scattered around in the forest and on the fells, and that before too long, a team of herdsman would be sent out to search for them. Well then, I asked, should I purchase a few animals myself? Certainly not, came the reply, for the chances of ever getting my hands on them again would be remote. They could, after all, take refuge in every nook and cranny of a range of wilderness extending over several thousand square miles. Considering that the sponsors of my research would hardly countenance such an unlikely investment, I acted on the advice of my informants, and never acquired a single reindeer. But I remained bewildered. What kind of economy was this, in which live animal property roamed wild over the terrain, quite beyond the ken of its possessors, and in which simple common sense appeared to dictate against owning any animals at all?

This book owes its origins to my attempt to resolve this enigma. For in posing the question why, if the herds are wild, do we not find a hunting economy, I was led directly to inquire into the affinities and contrasts between hunting and pastoralism in the far north. At the same time, I was made vividly aware of the necessity to distinguish between the system of ecological relations linking the human population with herds and pastures, and the system of social relations governing access to the land and to animals and the distribution of animal products. What I observed in Lapland was a combination of the property relations normally associated with pastoralism and the ecological relations which we associate with hunting (Ingold 1976:44). This was enough to dispel the tacit

Cambridge University Press

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Tim Ingold

Excerpt

[More information](#)

## 2 *Prologue*

assumptions that 'wild' animals which are technically hunted must belong to nobody, and that animals which do constitute a form of property are necessarily under the supervision of herdsmen. Evidently, the dynamics of reindeer exploitation could only be understood in terms of the articulation between conjoined social and ecological systems, each of which has a certain autonomy over the other.

I subsequently began to realize that the apparent eccentricity of reindeer management among the Skolt Lapps and their neighbours was not unique, but that it could be replicated in other societies practising what is commonly called a ranching economy. I realized, too, that the transition from pastoralism to ranching, which seemed to re-establish the ecological relations of hunting, was itself brought about as a result of increased involvement in the modern commercial market. I had, therefore, to deal with three modes of production, each specialized in the exploitation of the same animal under broadly similar environmental conditions, but each distinguished by a particular conjunction of social and ecological relations. These three modes – hunting, pastoralism and ranching – may be given preliminary definition in terms of three oppositions, one on the ecological level, and the other two on the social level.

The ecological opposition, stated most baldly, is between *predation* and *protection* as alternative forms of association between men and herds. The significance and implications of this opposition are developed in detail in chapter 1. For the present, I should only forestall possible misunderstanding by admitting that, of course, all forms of reindeer exploitation are predatory insofar as the animals are eventually consumed by humans. The real contrast to which I wish to draw attention is between an association in which a carnivorous predator exerts an appreciable limiting impact on the population of its herbivorous prey, and one in which the carnivore acts not only to minimize its depressive influence on prey numbers, but also to promote their increase by shielding the prey from attack by competing predators. I would ask the reader provisionally to accept the terms *predation* and *protection* as shorthand labels to denote this contrast. The pastoral association, then, is protective, whereas hunting and ranching are predatory.<sup>1</sup>

The first social opposition serves to differentiate the hunting economy from both pastoralism and ranching. It is between the

Cambridge University Press

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Tim Ingold

Excerpt

[More information](#)*Prologue*

3

contradictory rationalities of sharing and accumulation, predicated respectively on the principles of collective and divided access to the means of subsistence. In the hunting economy, animals belong to no one, and therefore everyone has a right to their meat. In pastoral and ranch economies, animals on the hoof constitute private property over which the owner has an exclusive right of disposal. Again, such an elementary formulation raises many problems. Is it not the case, for example, that a kill becomes the sole property of the hunter who brought it down? And contrariwise, is not the meat from slaughtered pastoral animals, such as in sacrifice, often widely and obligatorily shared? I shall come to these questions in due course, particularly in chapter 3. Until then, the reader must suspend his judgement. For what I am setting out here is no more than an exploratory scaffold on which to erect my subsequent propositions, and which may be discarded once these propositions are established.

The second social opposition is between production for subsistence and production for the market. This distinction, too, though commonly encountered in the literature, is fraught with ambiguities. The majority of pastoralists produce a certain amount of goods for sale on the market, without thereby becoming ranchers; so that just where to draw the line between pastoralism and ranching is not at all clear. Very often, the two are confused under that vague notion of 'market-oriented pastoralism'. But the contrast I have in mind is between two spirals of accumulation, one distinctively pastoral and based on the natural reproduction of herds, the other distinctively capitalist and based on the exchange of products, through the medium of money, for factors of production including labour and animals. Of course, both forms of accumulation may co-exist within the same society. Nevertheless, I argue that it is necessary to keep them analytically distinct, and to avoid the temptation to reduce pastoralism to a kind of primitive capitalism. This argument is developed in chapter 4, as a preliminary to a discussion of the economics of ranching.

Combining our three oppositions, we may construct a triangle as shown in figure 1. Hunting, in the terms of this figure, is defined by the conjunction of predatory man–animal relations with subsistence production based on the principles of common access to the means of production and the sharing of produce. Pastoralism is defined by the conjunction of protective man–animal relations with the principle of divided access to animal means of production.

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Excerpt

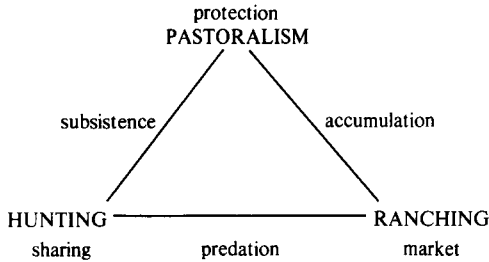
[More information](#)4 *Prologue*

Fig. 1. The hunting–pastoralism–ranching triangle.

Accumulation here involves the appropriation of the natural increase, whilst the production of raw materials, which entails the elimination of animals from reproduction, is limited to the satisfaction of immediate domestic needs. Finally, ranching is defined by the predatory exploitation of animals which nevertheless constitute objects of property, for sale in a money market. Production for exchange, far from placing a drain on reserves of wealth, is in this case integral to the circuit by which it is accumulated.

One factor is missing from this tripartite scheme, and that is land. I am assuming that for both hunters and pastoralists, land constitutes a common resource. Whether this holds universally is a moot point, but at least for the peoples of the arctic and sub-arctic the assumption appears uncontroversial. It is true that systems of territorial compartmentalization are supposed to exist among certain hunting groups of the boreal forest, though I shall be contesting the validity of this supposition, but there is no suggestion that these are anywhere relevant for the exploitation of migratory big game such as the wild reindeer. However, I shall argue that ranching does introduce a formal principle of divided access to pastures, a division which rests upon the accustomed ranges of the herds. It is possible, therefore, to distinguish hunting, pastoralism and ranching by the criteria of whether access in the first place to animals, and in the second place to land, is held in common or divided between individual units of production (see table 1). In these respects hunting and ranching are precise opposites, whilst pastoralism contains elements of both.

With these distinctions in mind, we can proceed to a simple statement of the problem which, in this book, I have set out to solve. Stretching right across the arctic regions of continental

Cambridge University Press

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Tim Ingold

Excerpt

[More information](#)*Prologue*

5

TABLE 1. *The distribution of access to animals and land*

	Access to animals	Access to land
Hunting	common	common
Pastoralism	divided	common
Ranching	divided	divided

Eurasia and North America is a remarkably homogeneous belt of barren tundra, bordered to the south by a rather broader belt of subarctic taiga, or coniferous forest. Together, these two circum-boreal climatic and vegetational zones make up the total range of distribution of the species *Rangifer tarandus*, known in Europe as the reindeer, and in North America as the caribou.<sup>2</sup> For recent human populations of the arctic and subarctic, this species has everywhere constituted a subsistence resource of major if not paramount importance. On a longer time-scale, human dependence on reindeer has a history dating back as far as the Middle Pleistocene (Burch 1972:339). Arguably, no single species has been of greater significance for the human habitation of Europe and Siberia, and thence of North America. My problem then, is this: why did an economy founded on the hunting of wild reindeer give way, in certain regions and during certain historical epochs, to one founded on the exploitation of pastoral herds of the same species? What were the causes of this social and ecological transformation, and how was it brought about? And finally, how can we account for the contemporary emergence of ranching as a form of reindeer management among previously pastoral peoples?

The problem is hardly a new one. During the first two decades of this century it lay at the forefront of anthropological debate, for it was viewed by many as a test case in the controversy, current at that time, between the proponents of diffusionism and evolutionism. Whilst the former sought the origins of what they called 'reindeer breeding' at some particular point in space and time, arguing that it must have arisen by imitation of the breeding of horses and cattle, the latter regarded it as just one stage, or 'cultural layer', in a series of such layers which follow one another in some inexorable order of progression (Laufer 1917:114, Hatt 1919:115). As so often in controversies of this kind, the advocates of each position were arguing about quite different phenomena, which were confused under the same concept. In my second chapter,

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Tim Ingold

Excerpt

[More information](#)6 *Prologue*

which is concerned particularly with the prehistory of 'domestication' in its various forms, I shall set out to unravel some of this confusion. But I should like now to indicate briefly how I see the processes of evolution and diffusion to be interrelated, since it is of some importance for an appreciation of the theoretical approach which I intend to adopt.

First, let me make a clear distinction between organic and social evolution. We may readily accept the Darwinian theory that organisms evolve through a process of adaptation under natural selection. It is commonplace, moreover, to posit an analogy between organic and cultural adaptation, likening the genetic phenomena of mutation and drift to the cultural phenomena of invention and diffusion (Carneiro 1968, Rappaport 1971:246). This analogy is valid only insofar as it is possible to specify the criteria, and mechanisms, by which cultural attributes are selected. Since the transmission of culture proceeds quite independently of biological reproduction, natural selection does not provide such a mechanism (Burnham 1973:94–5). Rather, if we conceive of culture as a repertoire of technological, organizational and ideological models, the acceptance or rejection of alternative models will depend on their perceived efficacy for members of a human population in either explaining or acting upon the real world, in accordance with a set of premises that are socially given. In other words, the rationality of cultural adaptation is embodied in the system of social relations through which men reproduce their material existence.

It follows that 'selective pressure' can only be defined in terms of the conjunction of social and ecological systems within which men are simultaneously involved as bearers of culturally transmitted attributes. Hence, too, the evolution of society cannot be regarded as a process of adaptation. This conclusion radically refutes the cultural materialist argument, according to which 'sociocultural systems' are brought forth under the deterministic influence of 'techno-environmental' pressures (Harris 1968:4). As a principle of positive determination, the Darwinian analogue is invalid, for environmental pressures act only on what has already been created; they cannot therefore be held responsible for the appearance of social forms. To put it another way, the environment sets outer limits on, but does not itself specify, the manner and intensity of its exploitation (Friedman 1974). Thus,

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Tim Ingold

Excerpt

[More information](#)*Prologue*

7

for example, the arctic and subarctic tundra–taiga environment may be exploited through either hunting or pastoral relations of production. To say that one or another system is ‘adapted’ is no more than to affirm the possibility of its functioning (Godelier 1972:xxxiv).

When, therefore, I speak of social evolution, I refer to the succession of qualitative transformations in the social relations of production, each of which generates a corresponding transformation in the ecological conditions of reproduction. In these terms, hunting, pastoralism and ranching represent three distinct phases in a particular evolutionary sequence, whose dynamic it is my purpose to explain. Within each phase, the social system determines human objectives, and the ecosystem determines the physical or organic conditions within which these objectives are to be realized. Together, they define a set of problems, which men attempt to solve by cultural means. It is on this level of cultural adaptation that invention and diffusion may play a part. Every innovation, whether of local origin or introduced from outside, represents just one of a range of possible solutions to a given problem. But my basic point is this: social evolution does not consist in the cumulative record of cultural innovations, but involves a series of transformations in the very conditions to which they emerge as functional responses.

Clearly, we must dispense with such theoretical monstrosities as ‘techno-ecological’ and ‘sociocultural’ systems. Technology is a corpus of knowledge, expressed in manufacture and use, and as such it serves, alongside organizational and ideological aspects of culture, to mediate relations both between men in society and between men and the natural environment. Otherwise stated, the properties of a cultural system, including its technological component, are not autonomous, but are derived from a combination of underlying social and ecological conditions. In the classic Marxian sense, culture is therefore superstructural, whilst the social and ecological dimensions of the infrastructure correspond to the ‘social relations’ and ‘material forces’ of production respectively (Marx 1970:20–1, Cook 1973:40). Cultural adaptation through invention and diffusion is thus the superstructural correlate of evolutionary transformations in the productive infrastructure, both introducing the conditions for, and in turn being conditioned by, such transformations. However, the actual *dynamic* of social evolution lies not in the domain of culture, but in the

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Tim Ingold

Excerpt

[More information](#)8 *Prologue*

reciprocal interplay between social and ecological systems, the former *dominant* in that it specifies the way in which the environment is to be used, the latter *determinant* in the negative sense of imposing the limits of viability. In figure 2, I have attempted to diagram, in a very schematic way, these linkages between ecological, social and cultural systems.

It may be seen from this diagram that my approach differs from that of cultural ecology in inverting the relative positions of technology and social structure, and from that of orthodox Marxism in placing technology with ideology in the cultural superstructure. Let me briefly elucidate these differences. Cultural ecology, in the method outlined by Steward, begins with an analysis of 'the interrelationship of exploitative or productive technology and environment'; and then proceeds to analyse 'the behaviour patterns involved in the exploitation of a particular environment by means of a particular technology' (Steward 1955:40–1). This is legitimate as far as it goes; but there is no provision in this procedure for the comprehension of social relations of production unless, as Steward seems to imply, they are constituted on the basis of 'behaviour patterns'. Now it is quite evident that forms of co-operation, along with skills and equipment, form a part of the means whereby a population adapts

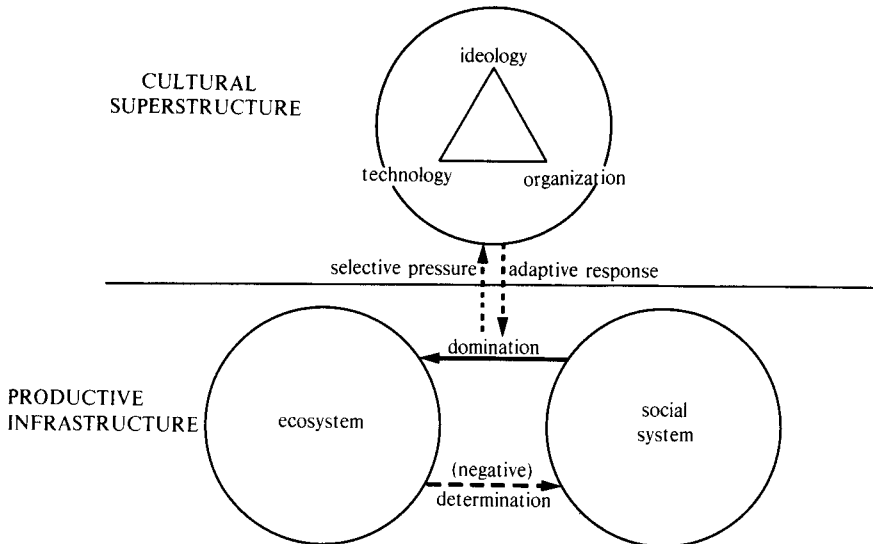


Fig. 2. A schematic representation of the linkages between ecological, social and cultural systems.



Cambridge University Press

978-0-521-35887-3 - Hunters, Pastoralists and Ranchers: Reindeer Economies and their Transformations

Tim Ingold

Excerpt

[More information](#)*Prologue*

9

to its environment. However, the objectives of this adaptation, as I have shown, can only be defined in terms of the rationality of the social system in which that population is involved. It is thus fundamentally mistaken to compound the *social* relations of production with the *technical* organization of work under the general rubric of 'social organization' (Harris 1968:231–3). Rather, as Friedman puts it, we should say that 'a number of necessary technical activities are organized socially' (1975:168). To give a simple example: hunting and ranching both involve similar technologies in similar environments, and do indeed call forth similar patterns of work organization. Yet their respective social relations of production are diametrically opposed, and cannot therefore be deduced from the interaction between environment and technology.

My difference with orthodox Marxism centres on the interpretation of the notion of 'productive forces'. These are frequently taken to consist of no more than an inventory of the tools and techniques available to a population (Terray 1972:98; see Balibar 1970:233–5). But behind every tool or technique there lies a conscious model, or blueprint, which the practitioner carries in his imagination, and which he can communicate symbolically (Marx 1930:170). No rigid boundary can therefore be drawn between technology and ideology. If any distinction can be made, it is between models *of* and models *for*, between representations of reality and instructions for action; yet it is characteristic of the human symbolic process that these kinds of models are inter-transposable (Geertz 1966:7–8). Hence the 'forces', insofar as they constitute one component of the material conditions of existence, must consist not of tools, nor of their connections with men, but of the physical relations that men establish with the natural environment through the mediation of their ideas and techniques. On the infrastructural level of the mode of production, the social is thus dialectically opposed not to the technological but to the ecological. As a corollary it should be stated that the social relations of production, too, are both technologically and ideologically mediated.

As will be apparent from the heady generalizations of these last pages, this study – apart from being an effort to solve a particular problem in human social evolution – does have some grand theoretical pretensions. Whether or not it lives up to them, I must leave the reader to judge. But before turning to more

Cambridge University Press

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Tim Ingold

Excerpt

[More information](#)10 *Prologue*

empirical matters, let me state quite clearly what these pretensions are. Firstly, I aim to rethink the entire problem of the nature and causes of animal domestication, by distinguishing the social relation of taming from the ecological relation of herding, both of which have been confused, by diffusionists and evolutionists respectively, with the technical phenomenon of breeding. Secondly, I intend to replace vague, 'odd-job' or 'ideal typical' characterizations of hunting, pastoralism and ranching with more precise, theoretically rigorous concepts, which might allow us to make significant cross-cultural or cross-regional generalizations regarding the similarities and contrasts between specialized animal-based economies. And thirdly, in broadest terms, I wish to demonstrate the possibility of achieving a workable synthesis between the economic and ecological approaches in anthropology, which neither reduces the economy to ecological relations of production nor, as in so much economic anthropology, ignores production altogether in favour of an exclusive focus on forms of exchange and distribution (Polanyi 1957, Vayda 1967; see Cook 1973).

As the object of inquiry for such a wide-ranging investigation, the reindeer is especially appropriate. Perhaps no single species has been exploited by man in such a diversity of ways, without undergoing any significant change of form, or being removed from its natural zone of distribution. Apart from constituting the prey of hunters and the living wealth of pastoralists and ranchers, reindeer have been driven like dogs, ridden like horses, milked like cattle and tamed as decoys for the hunting of their wild counterparts. This diversity affords ideal opportunities for the comparison of different modes of animal exploitation, since it is possible largely to disregard morphological differences in the exploited species, whilst holding constant the gross physical and climatic constraints of habitat. In no other case, for example, can we compare hunting and pastoral economies based on precisely the *same* animal in precisely the *same* environment. This fact, alone, immediately calls into question many of the orthodox assumptions concerning the roles of environmental pressure and artificial selection in the origins of domestic and pastoral herds.

In a study of this scope I have necessarily cast my ethnographic net wide. Unfortunately, our knowledge of the reindeer-exploiting peoples of the circumboreal zone is somewhat patchy: many of the societies involved are no longer open to fieldwork and have,