or liable to generate arguments. However, the tools Binford develops to provide the initial interface variability, the modified and inverse modified bone, marrow, and grease indices, are based on the way the or Binford estimates the animals. In fact assumption now becomes: "Many of the animal species present in the assemblages are still evident, and the processes of exploitation and use operative in the past are still operative today" (p. 12). In other words, the bones, butchery behaviour is rational, and pre-historic peoples exploiting those species would have butchered them in a similar manner.

In interpreting the gathered data, Binford implicitly assumes that it is possible to separate cultural and rational variability. He believes that once the rational variability has been factored out, all residual variability will be cultural. In fact, the present-day situation among the Nunavut and many other modern tribal groups has provided some support for this assumption: for the last 25 years the Nunavut subsistence base has remained relatively stable while the culture has altered radically due to acculturation. This allowed Binford to study, in isolation, the rational subsistence behaviour of the Nunavut.

The evidence for cultural variability which Binford discovered (the treatment of the brisket in spring (p. 220) and the treatment of sheep's heads at fall kill sites (p. 413)) was in fact residual. However, this is not necessarily because cultural variability is attributable to these factors and models developed, and their relationships to the archaeological record can all be questioned. Nevertheless, Nunavut Ethnoarchaeology remains an important part of the history of the book. This is a serious problem and one which needs more attention in the literature. What is the validity of an approach which studies a situation where the processes affecting the behaviour of the people were operating in the past? It is unfortunate that Binford was unable to complete his archaeological study of late 1980s occupations of the area, as these pre-execution sites would have thrown light on the suitability of his models for solving the subsistence and behavioural patterns of the present population's ancestors.

Little attempt is made to relate the middle-range research developed among the Nunavut to the interpretation of prehistoric archaeology. Binford explains: "I have not yet attempted to provide guides to analysts for the use of the models generated. Such procedures would greatly aid the investigator seeking to identify an unknown faunal assemblage. These procedures can certainly be developed" (p. 473). Given the constraints of excavation ("One needs to have samples of equal comprehensiveness from differentiated areas of a site before attempting to interpret the total assemblage" (p. 328)), and the amount of juggling Binford has to do when employing his indices for historic Nunavut sites, such optimism seems unwarranted. An attempt to utilise the indices is presented only in the last chapter of Bones (1981) also reviewed in this issue.

As outlined above there are problems with the use of middle-range research in Nunavut Ethnoarchaeology: the applicability of the uniformitarian principle, the indices and models developed, and their relationships to the archaeological record can all be questioned. Nevertheless, Nunavut Ethnoarchaeology remains an important part of the history of the book.
On the contrary, we cannot ignore them just because we are to pursue something akin to Binford's prescriptions are fairly meaningless associations of monuments of later prehistory (chapters 3-5). The resulting "control collections" are not ideal. Rarely was the footstep, footprint, and other depositional, retrieval and analytical effects on the data unspecified, though in part this is the price to be paid for large samples of comparative material. In any case, Binford seems not to use the control collections to identify carnivore activity per se, but rather to eliminate patterns in bones which need not be referred to as hominid behaviour. The reliability and uniformitarian applicability of Binford's pattern recognition work on these control collections is hard to assess, but he is surely right in his claim that animal jaws are predisposed to the progressive disarticulation and progressive destruction of bones (working from the outside inwards), while hominid tools offer the possibility of a more direct approach to the desired end. It seems inherently likely that this basic "contrast of animals as bone destroyers and meat 'tearers', with men as bone breakers and meat cutters" (p. 179) should leave distinctive traces.

Binford was able to observe the Nunamiat under more controlled conditions (chapter 4). Their skinning, butchering and filleting of carcasses leaves cut marks on bones which could hardly be mistaken for the results of gnawing by animals, but more interestingly is the contrast between the marks derived from carnivorous agents and those from filleting. Unfortunately Binford admits that he did not fully appreciate the importance of narrow extraction from carcasses already scavenged and abandoned by carnivores. This attractive story fits with the importance of hammerstones in early levels at Olduvai (p. 281), but narrow-cracking was probably the weakest part of Binford's middle-range research. Binford's middle-range research has not been ruled out. Binford's detailed account of the social and economic contexts of different skinning, butchering, filleting and narrow-cracking techniques, however, is fascinating and suggests fruitful avenues for further research.

The climax of the book (chapter 6) is Binford's new look at Olduvai Gorge and at Isan's idea that animal bones found on living floors are evidence for food-sharing at the home bases of early hominids. In fact there is little information yet as to how many of these bones bear the tell-tale cut marks of stone tools, and Binford argues powerfully, from Mary Leakey's own descriptions, that most of the Olduvai 'living floors' are of low resolution (they were deposited under variable conditions) and/or integrity (their contents derived from a variety of agents). In other words, the association of tools and bones probably means little, and home bases and food-sharing are just modern myths.

In view of his own cautionary remarks, Binford might have been expected to close on this negative note. Instead he valiantly reconstructs the anatomical composition of the Olduvai faunal assemblages and contrasts them with models, derived from his control collections, for destruction and transport by carnivores. Only part of the variability in the Olduvai assemblages can immediately be explained in terms of these models and it can be eliminated. Binford argues that some of the remaining variability can be referred to hominid behaviour -- specifically to marrow extraction from carcasses.