

# PATTERNING IN BUTCHERY AS CULTURAL RESIDUE

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## Summary

*Past analytical foci of butchery patterns have been to validate arguments regarding the nutritive value of specific meat portions, or to elucidate the kill's origin from either hunting or scavenging activity. It is argued that there is additional, detailed behavioral information obtainable from these same bone resources. Processes of carcass disarticulation and distribution are also analyzable from a socio/cultural perspective. With ideas developed during the analysis of eastern U.S.A. historic faunal assemblages, a protohistoric Alaskan Inuit caribou hunting camp faunal assemblage is examined for culturally specific butchery patterns that could lead to the identification of the cultural affiliation of the camp's inhabitants.*

## Résumé

*La découpe bouchère en tant que témoin culturel.*

*Par le passé, les analyses des modèles de découpes bouchères ont servi à valider des arguments en relation avec la valeur nutritive de certaines portions de viande, ou à établir l'origine d'un abattage (chasse ou activité de charognage). D'autres informations détaillées sur le comportement peuvent être obtenues à partir de ces mêmes os. Les processus de désarticulation et partage de la carcasse peuvent aussi être analysés d'un point de vue socioculturel. À partir d'idées développées lors de l'analyse d'assemblages fauniques de l'est des États-Unis, la faune d'un camp protohistorique Inuit de chasse au caribou (Alaska) est étudiée en vue de mettre en évidence les modèles de découpe bouchère culturellement spécifiques qui pourraient conduire à l'identification de l'affiliation culturelle des habitants du campement.*

## Zusammenfassung

*Schlachtspuren als kulturelle Hinterlassenschaft.*

*Bisher sind Untersuchungen von Schlachtspuren durchgeführt worden, um die Bevorzugung bestimmter Fleischpartien zu belegen oder zu überprüfen, ob das jeweilige Tier erlegt oder bereits verendet verwertet worden ist. Es kann aber davon ausgegangen werden, daß an denselben Knochen weitere Informationen zum Verhalten des Menschen gewonnen werden können. Die Zerlegung eines Kadavers kann auch aus soziokultureller Sicht betrachtet werden. Unter Berücksichtigung dieses Gedankens wurden Knochen aus einem zweiphasigen Camp protohistorischer Karibusjäger (Inuit) auf Schlachtspuren hin untersucht. Diese könnten dazu beitragen, die kulturellen Verknüpfungen unter den Campbewohnern zu beleuchten.*

## Key Words

*Butchery, Culture, Arctic, Protohistoric Inuit, Origins.*

## Mots clés

*Découpe bouchère, Culture, Arctique, Inuit protohistoriques, Origines.*

## Schlüsselworte

*Schlachtung, Kultur, Arktis, Protohistorische Inuit, Ursprünge.*

Patterns of butchery are dictated not only by prey biology, but also by the technology available to the human "predator" and by his/her cultural affiliation. We know that culture dictates resource sharing practices, determining the source (position on a carcass), size, and distribution pattern of the portion(s). We can expect then, all other things being equal, that butchery marks may be predominantly on some parts of the carcass and not on others, and/or that certain elemental frequencies or spatial distributions would be discernable at a site resulting from specific cultural practices. Although the modifications of interest - cut marks, sawn or

chopped surfaces, fracture patterns, etc., were for the most part created unintentionally, they serve as a record of very intentional behavior, behavior that is in some part culturally determined and dictated.

That butchery is a culturally influenced event is not a new idea (cf. White, 1952, 1953, 1954, 1955). It has, however, not been pursued aggressively. Work on chopping and sawing modifications (to create particular cuts of meat) from historic faunal assemblages (eastern U.S.A.) has assisted in determining economic, temporal and sometimes ethnic delineations at a particular site or in a particular con-

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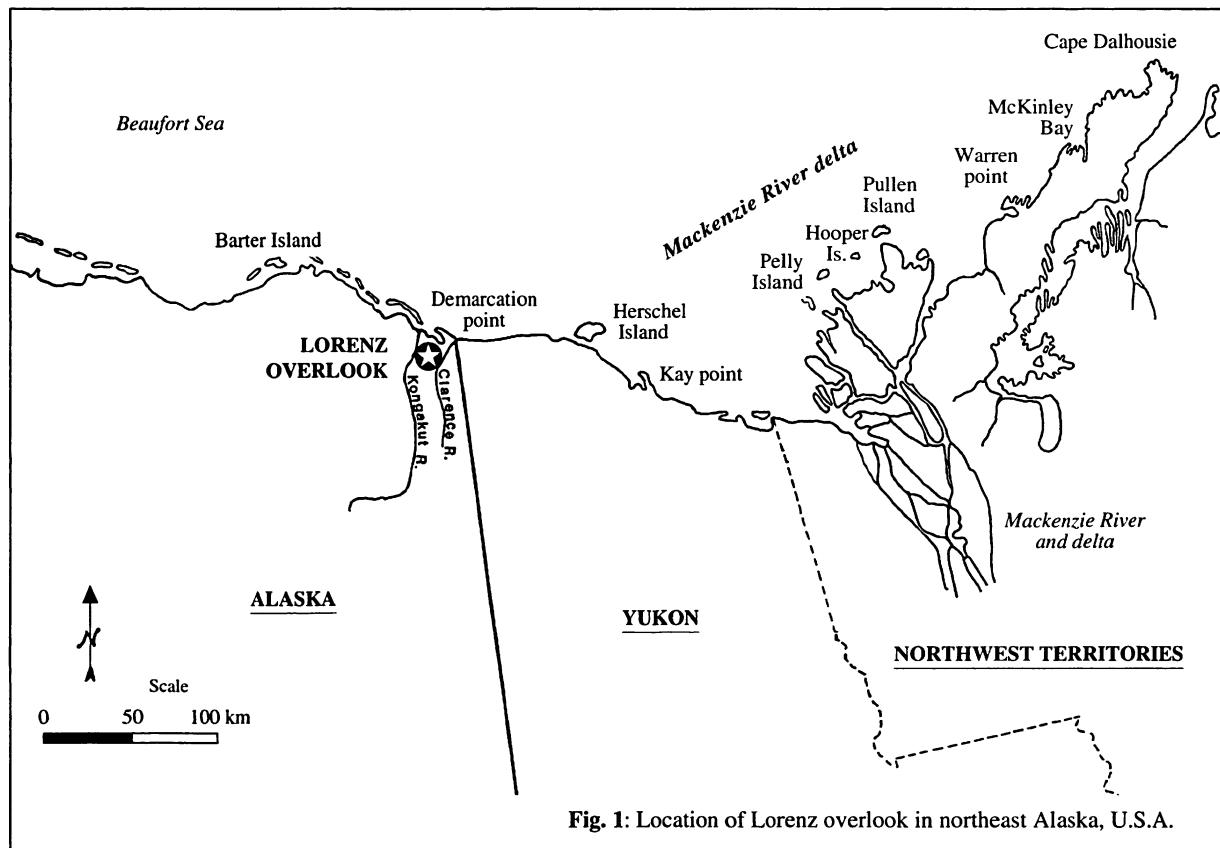


Fig. 1: Location of Lorenz overlook in northeast Alaska, U.S.A.

text (Kenyon, 1990, 1992a). With this interest in how various ethnic or economic groups identify themselves in a historical setting, I am now applying these ideas in proto- and prehistoric contexts. Present research partially focuses on the question of the origin of a hunter-gatherer group(s) who occupied the caribou hunting site of Lorenz Overlook at Demarcation Bay in northeast Alaska, USA (fig. 1).

Lorenz Overlook is a caribou hunting camp/village dating to just before the turn of the last century (1870's to the early 1900's; Wilson, 1987, 1991). It consists of a large area (350 m x 500 m) encompassing probably two occupations, an earlier one with few western trade goods and a later one with more trade goods.

Lorenz Overlook is interesting because it is in an area with limited ethnographic information about the Inuit who inhabited the area prior to contact. It lies in the overlapping territories of the Mackenzie Delta, the interior Brooks Mountain Range or northern Alaskan coast groups. The Inuit of the Mackenzie Delta were decimated to over 90% prior to any serious ethnographic reporting (Keenleyside, 1990). What is known, through scant ethnographies (eg, Petitot, 1876) and the work of archaeologists such as Morrison (1988), McGhee (1974), Arnold (1986, 1988), is that

the delta villages were extremely densely populated, an enigmatic situation for the Arctic, and appear to have had a multi-tiered society, not unlike the Northwest Coast groups. By the turn of the century much of their way of life had been destroyed through trading and disease. One objective in studying Lorenz Overlook is to determine, if possible, whether the occupants came from the Brook's Range or from the Delta region. If one could determine particular butchery and resource utilization patterns that match sites in either area, one could argue for a particular region of origin. Confounding this analysis is the possibility that the hypothesized later group may have been provisioning the whalers at nearby Herschel Island with caribou meat during the late fall to early spring months (Kenyon, 1992b, 1993). Understanding the subsistence strategy they engaged in and their butchery practices would be helpful in answering these two somewhat opposing foci/scenarios.

Although the vast majority of the faunal assemblage consists of caribou bones (est. 60-70,000 pieces), there is an interesting associated bird and other mammal subassemblage, representing approximately 12% of the entire assemblage. To get at "cultural" patterns of butchery, several lines of inquiry need to be followed:

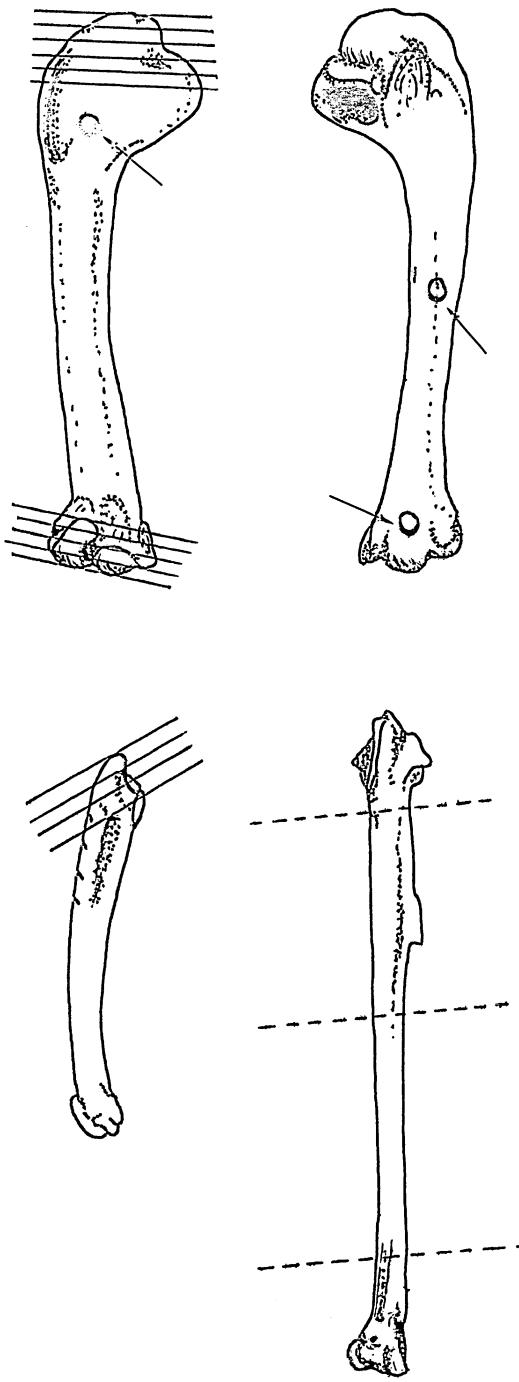


Fig. 2: Bird bone (ptarmigan) butchery and carnivore gnawing patterns.

(1) to detail the various types of butchery marks present in the assemblage

(2) to detail the repetition of these marks within and between species/element parameters

(3) to compare the Lorenz Overlook butchery patterns to Brooks Range and Delta area sites.

This paper is based on a preliminary sampling of the two subassemblages to see if the ideas are actually possible or profitable.

The bird sample consists primarily of ptarmigan (90%), 5% is a variety of ducks, and 5% a mix of other birds. The bones are predominantly complete showing several interesting taphonomic characteristics, probably the result of carnivore activity. For example, there is a regular series of perforations on the dorsal and ventral surfaces of approximately 1/3 to 1/2 of the humerus articular ends (fig. 2). The breakage pattern seen in the tibiotarsus may or may not be of human origin (fig. 2). A few bones have cut marks - less than 1%, and they are located around or on articulations, consistent with carcass disarticulation. A few chopping marks have been found, too few to determine a particular pattern. These butchery patterns apply equally to duck and ptarmigan.

The non-caribou mammal assemblage consists primarily of seal, with individual representations of dog/wolf, bear, moose, mountain sheep, fox, arctic ground squirrel and other small rodents. The seal remains are the most numerous (MNI of 8 in the present sample); although all ages are represented, the majority are juveniles. Figure 3 is again a diagrammatic of the most common butchered limb patterns. The butchery appears to have been done with knives and cleaver-like instruments. Cut marks are found around some joint areas and some bones show the characteristic V-shaped notches from chopping. There are similarities in the approach to skeletons across species, such as on seal and dog/wolf innomates. One arctic ground squirrel femur has a cut mark on the femoral neck. This is consistent with the use of arctic ground squirrel for food by Inuit from the Mackenzie Delta region.

In comparing the Lorenz Overlook species diversity to other caribou hunting camps along the arctic coast in Alaska and the Northern Yukon, it appears very similar to two sites: Trail River (dated to the mid 15-1600's) (Nagy, 1990) and the Engigstciak site (protohistoric) (MacNeish, 1956a, b; Nagy, 1990). These assemblages are nearly identical to Lorenz Overlook except for the size of the caribou assemblage. The difference in size may be explained by a

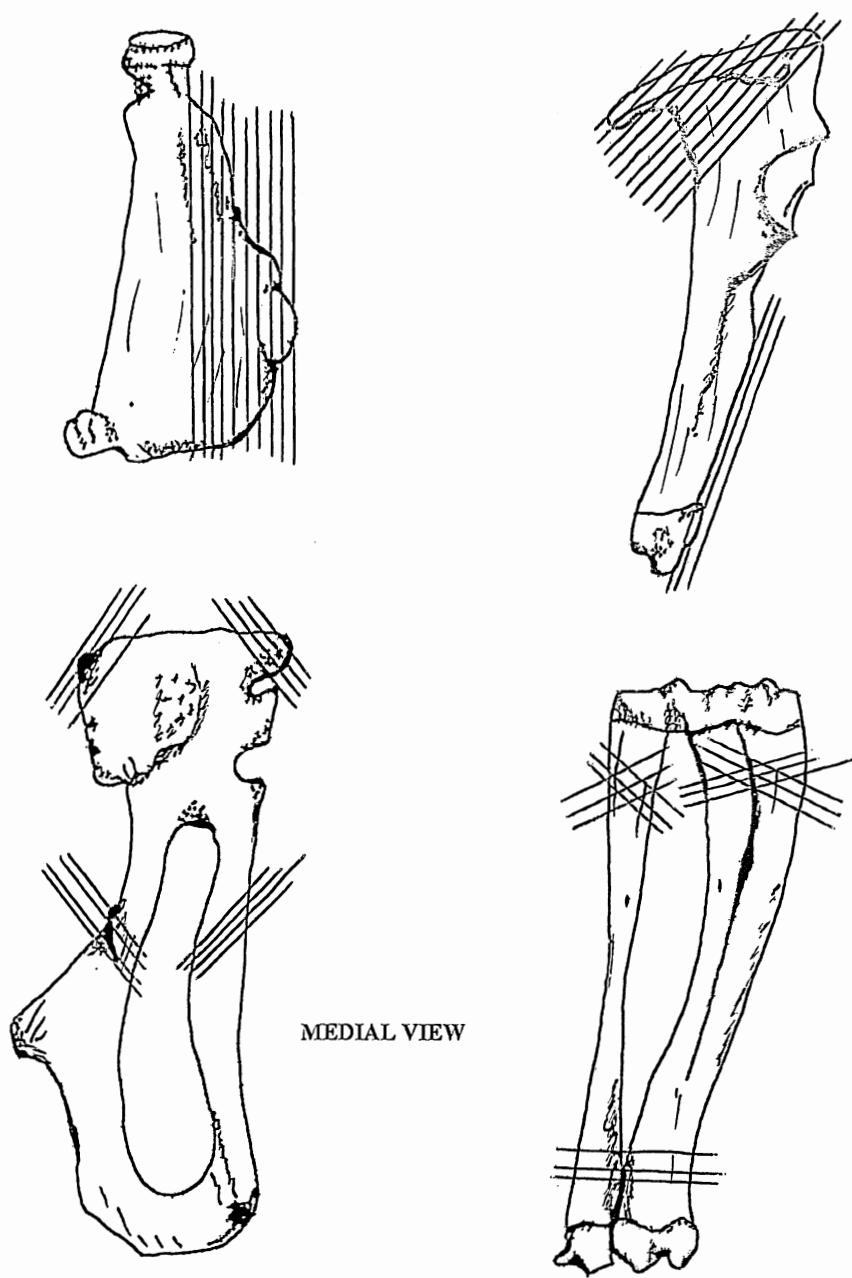


Fig. 3: Seal butchery patterns.

difference in season of occupation and the predation of different herds, having different population sizes and herd structures. Otherwise the similarities are striking, tempting one to say that Lorenz Overlook was occupied by people who belonged to the Northern Yukon/Mackenzie Delta groups. Comparisons to westward lying sites need to be done before this can be concluded.

The further research objective is not only to compare in greater detail non-caribou butchery patterns, but more importantly, define and compare the caribou exploitation system of the Lorenz Overlook residents. The differences of season of occupation, quantity of material, and date of occupation are pointing toward a different exploitation rationale overlaying a traditional exploitation pattern. It is possible/probable that this will be explained by the group's incorporation into the provisioning sphere of the nearby American whalers.

## Conclusion

The preeminent problem in trying to compare butchery patterns between sites in order to establish cultural

similarities or differences is that the kind of data necessary for comparative analysis is generally not being reported, particularly in reports of small sites. These should in fact form the backbone of the large data bases necessary for getting at cultural information. Butchery data must be reported in element and species specific form, noting location, type and frequency of occurrence. In taking the assemblages from one region and comparing the butchery patterns both spatially and temporally, it may indeed be possible to discern cultural and perhaps even larger technological changes. Understanding how a cultural group disarticulates and uses a carcass over time may help to delineate its particular world view - or at least its view of its faunal resources.

## Acknowledgements

I would like to thank Dr. Curt Wilson, U.S. Fish and Wildlife, for allowing me to work on the Lorenz Overlook materials and for the sporadic yet informative discussions we have about the meaning of it all. To the home front: the patience is always appreciated.

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