Faunal Remains as Markers of Ethnicity:
A Case Study from the St. Lawrence Estuary, Quebec, Canada

By: Christian Gates St-Pierre

This paper and accompanying slides are licensed with a Creative Commons: Attribution-Noncommercial license. Attribution: Christian Gates St. Pierre
Faunal Remains as Markers of Ethnicity: A Case Study from the St. Lawrence Estuary, Quebec, Canada

Paper presented at the Xth Conference of the International Council for Archaeozoology (ICAZ), Mexico City, August 24th, 2006

Christian Gates St-Pierre
PhD, Université de Montréal

---

Abstract: The strong relationship between food and ethnicity has been well demonstrated by cultural anthropology. Archaeologists, however, still experience much difficulty when they try to establish similar links between faunal remains and ethnicity. This paper presents a rare case study of this kind. More precisely, it will be shown that Iroquoian and Algonquian populations who lived in the St. Lawrence Estuary, about 500 to 1000 years ago, had developed different patterns of coastal resource exploitation in the same natural environment. Differences are clearly visible in the proportions of land mammals vs. sea mammals in the bone assemblages, as well as in the proportions of harbour seals (Phoca vitulina) vs. harp seals (Phoca groenlandica). Moreover, these patterns provide some information about seasonality and some clues as to how borders and resource exploitation were being negotiated between these two neighbor populations.

Introduction (SLIDE 1)

The French gastronome Jean Anthelme Brillat-Savarin (1755-1826) once said; “Tell me what you eat, and I’ll tell you who you are” (Brillat-Savarin 1826). For most people, this famous saying is perfectly obvious: what you eat depends largely on your socio-cultural origins. Cultural anthropologists have indicated the strong link between food habits and ethnicity, and the anthropology of food and eating has become an increasingly important field of research (Bailleul-Benguigui and Cousin 1996; Beardsworth and Keil 1997; Bryant et al. 1985; Caplan 1997; Counihan 1999; Fieldhouse 1995; Goodman et al. 2000; MacClancy 1993; Mennell et al. 1992; Messer 1984; Mintz and Du Bois 2002; Murcott 1988, 1996; Pottier 1999). However, the concept of ethnicity, as well as related concepts such as ethnic identity and ethnic groups, are still the subject of debate as to how they should be properly defined, and as a result there is no single, unanimously accepted definition, model or theory of ethnicity (Auger et al. 1987; Banks 1996; Baumann 2004; Chhrisomalis and Trigger 2004; Clermont 1999; Cohen 1978; Despres 1975; Emberling 1997; Frankel 2003; Graves-Brown et al. 1996; Hutchinson and Smith 1996; Jones 1997; McGuire 1982; Poutignat and Streiff-Fenart 1995; Roosens 1989; Shennan 1989; Stark 1998; Tonkin et al. 1989; Tremblay 1999a; Vos and Romanucci-Ross 1982). Moreover, archaeologists working with the concept of ethnicity face yet another problem of similar importance: how can we recognize ethnicity in the archaeological record?

This problem is especially acute for zooarchaeologists. Previous attempts to establish some link between faunal remains and ethnicity have been very few in number, and the results obtained were often quite limited (see Crabtree 1990: 177-181). As a consequence, many seem to believe that clear and undisputable ethnic markers cannot be found through studies of faunal remains.
However, it is my view that it is indeed possible in some very specific cases, like the one that is presented here.

The St. Lawrence Estuary

(SLIDE 2) The case study in question occurs along the coast of the St. Lawrence Estuary located in the Province of Quebec, in Eastern Canada. This estuary has a cold temperate climate, an extremely rich marine fauna, and is today a world-famous spot for whale watching. During the summer, sea mammals such as mink whales (*Balaenoptera acutorostrata*), fin whales (*Balaenoptera physalus*), humpback whales (*Megaptera novaeangliae*), blue whales (*Balaenoptera musculus*), sperm whales (*Physeter catodon*), killer whales (*Orcinus orca*), white whales or belugas (*Delphinapterus leucas*), harbour propoise (*Phocaena phocaena*), Atlantic pilot whales (*Globicephala melaena*) and Atlantic white-sided dolphins (*Lagenorhynchus acutus*) can be encountered, as well as three species of seals: harbour seal (*Phoca vitulina*), harp seal (*Phoca groenlandica*) and grey seal (*Halichoerus grypus*). This is also the habitat of numerous species of sea birds, fishes and shellfishes. On the land, the boreal forest is inhabited by a large variety of birds and land mammals such as black bears (*Ursus americanus*), moose (*Alces alces*), reindeer (*Rangifer tarandus*), beavers (*Castor canadensis*), muskrats (*Ondatra zibethicus*), porcupines (*Erethizon dorsatum*), red foxes (*Vulpes vulpes*), snowshoe hares (*Lepus americanus*), and Canada geese (*Branta canadensis*), among many others.

(SLIDE 3) Seals and white whales deserve particular attention here, because they have been intensively exploited by the Native American populations throughout prehistory. Bones from these marine mammals are usually quite numerous in the faunal assemblages of this area, and the earliest evidence of seal hunting in the St. Lawrence Estuary was dated to more than seven thousand years ago (Plourde 1999a). However, sea mammal hunting appears to have become more frequent and more intense after about 1000 AD, during the Late Woodland Period (Plourde 2001; Plourde and Gates St-Pierre 2003).

Iroquoians and Algonquians at the Time of Contact

(SLIDE 4) The cultural, or ethnic identity of these Late Woodland seal hunters has long been enigmatic for archaeologists (Chapdelaine 1984, 1993a, 1993b, 1995a, 1995b, 1998; Crépeau 1982; Fenton 1940; Martijn 1969, 1990; Plourde 1990, 1999b; Speck 1916; Tremblay 1999b; Wintemberg 1935, 1942, 1943; Wright 2004). (SLIDE 5) When the first European explorers navigated on the waters of the St. Lawrence Estuary, at the beginning of the XVIth century, the people they met in this area were tribes belonging to the Algonquian culture and linguistic group; the Innus (formerly known as the “Montagnais”) on the north coast, and the Malicet on the south coast. These Algonquian tribes were patrilocal and mobile hunter-gatherers dispersed in small groups over a vast territory, and most of them did not possess ceramic technology. On the other hand, we know from archaeological data and from historical sources that this area was also occasionally inhabited by a group from the Iroquoian culture and linguistic family, named the St. Lawrence Iroquoians. Like most of the Iroquoian tribes, the St. Lawrence Iroquoians were matriloclal, semi-sedentary people living in villages and largely dependant upon the products of agriculture for their subsistence; essentially corn, squash and beans. The women were also excellent makers of finely made and decorated pottery vessels. The St. Lawrence Iroquoians completely disappeared in less
than half-a-century after the arrival of the first Europeans, for reasons that remain uncertain and highly debated among archaeologists (see Chapdelaine 1995a, 2004; Engelbrecht 1995; Jamieson 1990; Kuhn 2004; Martijn 1969; Pendergast 1993; Tremblay 1996; Trigger 1976, 1985).

The Research Project

The presence of the St. Lawrence Iroquoians in the St. Lawrence Estuary led a team of archaeologists from the University of Montreal, including myself, to investigate this area during the 1990's (see Plourde 2003 for a synthesis of this research project). Parks Canada and the Centre d'interprétation Archeo-Topo, a local museum of archaeology, were also involved in this project. One of our main objectives was to better understand the presence of the St. Lawrence Iroquoians in this Algonquian territory before the arrival of Europeans. (SLIDE 6) During our 12 years of field work, more than 20 different sites were investigated. Most of these sites represent spring time hunting camps and are located along the coast, the interior being still largely uninvestigated at this time. (SLIDE 7) While some of the sites could only be evaluated with a limited number of test pits, many others were more extensively excavated in repeated field seasons with the help of Canadian, American and European students.

This research led to the discovery of new and increasing evidence suggesting that the area was indisputably visited by St. Lawrence Iroquoians. This is indicated by the large amount of ceramic vessels diagnostic of the St. Lawrence Iroquoian style. (SLIDE 8) Most of these ceramic products date from the middle (A.D. 1200-1350) (SLIDE 9) and late phases (A.D. 1350-1550) of the Late Woodland period. The results of a neutron activation analysis that we carried out using some of these ceramic containers indicate that most, if not all of them were made with non-local clays, suggesting that they could not have been imitations produced by the Algonquians (Plourde 2003). They were most probably made and transported by the St. Lawrence Iroquoians during their journeys into this area. (SLIDE 10) Other artifacts typical of the St. Lawrence Iroquoians' material culture include ceramic pipes, grinding tools used for the processing of cultivated products, or stone tools made with exotic materials obtained from the south, such as green chert from the Quebec City area. Conversely, the material culture of the Late Woodland Algonquians is mainly composed of stone tools made out of local lithic materials or from lithic materials obtained through exchange with groups located further north. Ceramics and grinding tools are rare, if not totally absent.

Preservation and Methodology

(SLIDE 11) Bone preservation is generally excellent, despite the fact that the soil is highly acidic in the boreal forest. The good preservation of the bones was due to the nearly ubiquitous presence of shells, either dispersed or concentrated into small shell middens, and to the frequent burying of bones in deep levels of dry sand. On the other hand, bones are also highly fragmented, which led to a low rate of identification. (SLIDE 12) Moreover, the skeletons of harp and harbour seals are very similar, and only a very limited number of morphological traits, such as those identified by Amorosi (1992), allows a distinction to be made. Most of the bones were analysed by myself, using the reference collections of the Osthéothèque de Montréal located at University of Montreal. The results of these analyses revealed the existence of a recurrent pattern which is quite informative in
terms of links between subsistence and ethnicity, as we will now see.

**The Results**

*(SLIDE 13)* The pattern observed is three-fold. First, it is quite clear that faunal assemblages recovered from St. Lawrence Iroquoian sites have a much larger proportion of sea mammal remains, especially seals, while those recovered on presumably Algonquian sites were largely composed of land mammals, such as beaver, reindeer, moose, snowshoe hare, etc. (for similar results, see Rioux and Tremblay 1998).

Second, birds and fishes are usually more numerous among the faunal assemblages of the Algonquian sites, where the total number of species identified is also slightly larger. This indicative overall of a more diversified exploitation strategy, and it appears that Iroquoians and Algonquians clearly exploited the faunal resources of the same environment in two very different ways.

Third, and this is where it is really getting interesting, Iroquoians and Algonquians of the estuary did not capture the same species of seals. *(SLIDE 14)* Iroquoians were hunting harp seal above all, while the Algonquian hunters were looking almost exclusively for harbour seal. The difference stands rather clear, to the point that these two species could be considered as valid ethnic markers. In other words, the seal bones could become as usefull as ceramic styles to recognize the ethnic identity of the inhabitants of the sites discovered in this region.

**Seasonality and Settlement Patterns**

This pattern can be explained in good part by factors of seasonality. *(SLIDE 15-A)* Harbour seal stays in the St. Lawrence Estuary all year long, while harp seal is a migratory species. At the end of September, Harp seals start coming down from the Arctic along the Labrador Coast, and they reach the waters and pack ice of the St. Lawrence Estuary in mid-January. In mid-April they begin their return to the Arctic, where they will arrive in June (Banfield 1974; Bowen 1991; Lavigueur et al. 1993).

Consequently, if the St. Lawrence Iroquoians came into this area to capture Harp seals, they had to do so between mid-Winter and mid-Spring. This is a period of the year when the food reserves were probably at their lowest, but also a period of the year when land mammals are especially thin. It is well known that fat is a very important type of food for Native American populations (Binford 1978; Leechman 1951; Logan 1998; St-Germain 1997; Vehik 1977). With their thick layer of fat, which protects them from the cold, harp seals happen to represent a perfect solution. Moreover, at this time of the year harp seals gather in large patches on pack ice to calve, mate and molt, and where they can be easily caught and killed with a simple club, as many ethnohistoric documents testify (see Plourde 1999b: 22). Today, harp seals gathering in the gulf and estuary are counted by the millions, and there is no indication that they were significantly less numerous in the recent past. It seems reasonable to believe that the St. Lawrence Iroquoians came down to the St. Lawrence Estuary to take advantage of the abundance of a rich source of food, including meat, fat, and organs, but also a source of materials such as water-proof skins, bones, sinews, etc.
Regarding the Innus, various historical documents indicate that they were on the coast only during the summer, where they came to hunt harbour seals and for salmon fishing. In winter time they were retreating to their camps in the interior. It is only during the XVIIIth century that the Innus settled more permanently on the coast, where the Europeans had established their first trading posts, and following a dramatic drop in moose population (see Castonguay 1989, 2003; Charest 2003; Dufour 1996). This is consistent with the zooarchaeological data, which suggests that the Algonquians were on the coast during the summer. Seasonality is indicated by the remains of harbour seals, birds, fishes, and of a large variety of land mammals in Algonquian faunal assemblages, including species such as black bears and woodchucks which are dormant and harder to catch during the winter.

In summary, the St. Lawrence Iroquoians were actually present in the estuary at a time of the year when the Innus were not there. This is not to say that the Iroquoians were hunting harp seals in secrecy; the Innus were certainly aware of their presence on the coast while they were gathered at their interior winter camps. In historic times, the various Native American tribes of the region were always in contact with one another, and this was also certainly the case in late prehistoric times. Thus, there seems to have been a peaceful and mutual agreement between these two culturally distinct ethnic groups to share the faunal resources found in one of the group’s territories.

**Conclusion**

The results of the zooarchaeological analyses allow us to say that it is possible to use faunal remains as ethnic markers in archaeology, but perhaps only in some very specific cases such as the one presented here. This case study is also very informative in terms of seasonality, settlement patterns, the sharing of resources and the negotiation of frontiers in prehistory. Finally, it must be said that the patterns of sea mammal exploitation needs to be more thoroughly examined and defined. It would be especially informative to find and study a larger number of sites occupied by the Algonquians, both on the coast and in the interior. It is to be hoped that this will happen with future research in this area.

**Acknowledgements**

I would like to thank Marie-Eve Brodeur, Claire Saint-Germain, and Renee B. Walker for their constructive comments on a preliminary version of this paper. Thanks are also due to the Département d'anthropologie de l'Université de Montréal, the Ostéothèque de Montréal, the Centre Archéo-Topo at Grandes-Bergeronnes, and Parks Canada for their collaboration, support or financing.

**Note**

1: Presently at Ethnoscop inc, 88 Rue de Vaudreuil, local 3, Boucherville, Québec, Canada, J4B 5G4. E-mail: cgates70@yahoo.fr

**References Cited**

Amorosi, Thomas
Atlantic/Eastern Arctic Bio-Cultural Workshop, January 22nd to 26th.

Auger, Réginal, Margaret F. Glass, Scott MacEachern and Peter H. McCartney (eds) 1987 Ethnicity and Culture: Proceedings of the Eighteenth Annual Conference of the Archaeological Association of the University of Calgary. Calgary: Department of Archaeology, University of Calgary.


Fenton, William N.  

Fieldhouse, Paul  

Frankel, David  

Goodman, Alan H., Darna L. Dufour and Gretel H. Pelto (eds)  

Graves-Brown, Paul, Sian Jones and Clive Gamble (eds)  

Hutchinson, John and Anthony D. Smith (ed.)  

Jamieson, J. Bruce  

Jones, Sian  

Kuhn, Robert D.  

Lavigueur, Lucie, Mike O. Hammill and Serge Asselin  

Leechman, Douglas  

Logan, Brad  

MacClancy, Jeremy  

Martijn, Charles A.  


McGuire, Randall H.  
Mennell, Stephen, Anne Murcott and Anneke H. van Otterloo

Messer, Ellen

Mintz, Sidney W. and Christine M. Du Bois

Murcott, Anne

Pendergast, James F.

Plourde, Michel
2001 “A Late Woodland Winter Seal Hunting Ground at the Mouth of the Saguenay River (Quebec)”. Northeast Anthropology; No 62: 55-70.

Plourde, Michel and Christian Gates St-Pierre

Pottier, Johan

Poutignat, Philippe and Jocelyne Streiff-Fenart

Rioux, Stéphane and Roland Tremblay

Roosens, Eugene E.

Shennan, Stephen J.

Speck, Frank G.
Stark, Miriam (ed.)

St-Germain, Claire

Tonkin, Elizabeth, Maryon McDonald and Malcolm Chapman (eds)

Tremblay, Roland
1999a “Culture et Ethnicité en archéologie: les aléas de l’identité conjuguée au passé”. Recherches amérindiennes au Québec; vol. 29, No 1: 3-8.

Trigger, Bruce G.

Vehik, Susan C.

de Vos, George and Lola Romanucci-Ross (eds)

Wintemberg, William J.

Wright, James V.