

Palaeodemography and Late Iroquoian Ossuary Samples

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While Late Iroquoian ossuaries are considered to be reliable samples for palaeodemographic analysis, the ethnohistoric and archaeological records indicate that ossuaries were subject to many of the same biases as other types of burial. Our present limited knowledge of Late Iroquoian burial practices in general, and those of the Huron in particular, suggests that these varied through time and space and were not limited to interment in ossuaries.

Introduction

In the past, researchers have thought that ossuaries presented excellent samples for palaeodemography because of their large size and community orientation. "It is an article of faith among Ontario physical anthropologists that the Huron and Neutral burials of Ontario provide excellent sources of data for palaeodemographers." (Jackes, 1986:33).

Recent criticisms of the use of ossuary samples for palaeodemographic reconstructions have focussed upon methodological and sampling problems (Pfeiffer and King 1980; Jackes 1985; 1986). This paper questions the archaeological and community oriented nature of Late Iroquoian (A. D. 1450-1649) ossuary samples in southern Ontario. In some cases, sketchy ethnohistoric accounts of ossuary and non-ossuary burial practices among the seventeenth century Huron and Petun have been applied to all proto-Huron and Huron ossuary samples. The ethnohistoric record and recent archaeological evidence suggest that Huron burial patterns varied through time and in different geographical areas.

Palaeodemography

Palaeodemographic analysis is considered to be our only means of developing some understanding of the vital statistics of prehistoric populations (Hassan 1981:96). By determining the age and sex of individuals, questions concerning mortality, survivorship, age groupings, health status, palaeopathology, growth and development and population levels can be addressed. The con-

struction of mortality and survivorship curves and life tables allows for comparison to be made between different skeletal samples. Different demographic patterns can then be related to subsistence strategies, and various environmental and cultural influences. The age structure of the population influences its social organization, and results from the interplay of nutrition, pathology and external pressures (Jackes 1986:33). When adapting demographic methods to palaeodemographic studies, we make assumptions concerning the uniformity of biological processes over time and the relationship between the archaeological record and the living community from which it was derived.

Methodological problems include the difficulty of determining accurately the ages of interred individuals, particularly in ossuaries, which contain both complete and incomplete disarticulated skeletons that may be thoroughly and randomly mixed together (Katzenburg and White 1979:11). This forces the researcher to use different techniques of age determination for different skeletal elements, resulting in many potential sources of error (Ubelaker 1981; Pfeiffer 1984; Jackes 1985).

It has been suggested that the results of palaeodemographic analyses merely reflect random fluctuations and methodological errors (Bocquet-Appel and Masset 1982:329). However, nutritional stress and different mortality patterns through time and between different groups have been identified from the study of palaeodemographic data (Van Gerven and Armelagos 1983:358). This paper agrees with Buikstra and Mielke (1983) and Van Gerven and Armelagos (1983) in stating that general demographic patterns can be identified in suitable skeletal populations. But due to their situations in the archaeological record, the limitations of current techniques of age and sex determination, and the problems associated with the different assumptions that analysts make, palaeodemographic

results are at best approximations of past demographic patterns.

Ossuaries as palaeodemographic samples

Perhaps the most appropriate definition of "ossuary" for the northeast is Ubelaker's: "...secondary deposits that probably represent periodic redisposal of individuals, which took place after a culturally prescribed number of years" (1974:8).

Although this burial practice became more elaborate in the historic period in southern Ontario among the Huron, Petun and Neutral, it had developed in this region from the Early Iroquoian period (J. V. Wright 1966:22; Johnston 1979:91). Ossuaries appear to have increased in size as clan and tribal identity and unity increased in the sixteenth and seventeenth centuries. As the Huron expanded their trading network, the Feast of the Dead, involving ossuary burial, was expanded to promote solidarity with their allies (Trigger 1969:112), and for other economic and social reasons (Ramsden 1981:38). During the seventeenth century the Feast of the Dead was adopted by the Nipissing and other Algonkian groups, possibly as a means of promoting political and trade alliances among themselves (Nickerson 1960:81). Following the destruction of the Huron Confederacy in A. D. 1649, this practice waned among their northern neighbours, disappearing by the end of the seventeenth century (Ibid).

Ubelaker (1981:186) has stated that "the greatest potential for demographic reconstructions in the northeast rests with the analysis of ossuaries". On the basis of ethnohistoric descriptions of ossuary burials among the seventeenth century Huron and Petun, it has been assumed by some researchers that ossuaries are representative of the living populations from which they are derived (Anderson 1964; Ubelaker 1974; Katzenburg and White 1979; Pfeiffer 1986). Ethnohistoric estimates of eight to twelve year periods between ossuary burials are accepted almost without question (Katzenburg and White 1979:26; Ubelaker 1981:189; Pfeiffer 1986:24), although, admittedly, modern scholars have little evidence on which to base alternative estimates. It is assumed that most of the people who died within this period were reburied in the ossuary (Ubelaker 1981:187; Pfeiffer and King 1983:23). Although the exemption from ossuary burial of infants, warriors and suicides is *recognized*, these losses, with the exception of infants, are con-

sidered to have been minimal (Ubelaker 1981:187). It is also assumed that an ossuary received only the deceased of the previous eight to twelve years, and that the individuals in the ossuary were biologically and socially related (Jackes 1986:33). If these assumptions were correct, ossuary samples would provide a good approximation of a Mendelian population. However, the ethnohistoric and recent archaeological evidence of the widespread use of non-ossuary burial practices among Huron groups indicates that some of these assumptions must be **re-evaluated**.

Ethnohistoric accounts of ossuary and non-ossuary burial

Ethnohistoric accounts of the Feast of the Dead and ossuary burial among the Huron and Petun of the seventeenth century provide a limited amount of data for palaeodemographers. We do not know, for example, precisely what social units were actively involved in these ceremonies. Ethnohistoric evidence indicates that the social extent of participation was variable, and could be decided on arbitrarily for political reasons. The factors which determined the time interval between ceremonies are also not described clearly. Although there are few references to specific non-ossuary burial practices, there is a small but significant amount of information on those individuals who were excluded from ossuary burial.

When an individual died of natural causes the usual practice was to place the corpse in the nearby village cemetery in a raised "bark tomb" or in the ground under a "small cabin" (JR 10:269; Champlain 1929:160:161) (Figure 1). Exceptions to this practice often included infants and those who had died violently or unnaturally. Those who had died in battle or through drowning, for example, were buried in a "ditch" in the cemetery with little ceremony (JR 10:39; 39:32). Warriors or others who had died while away from their own "country" were burned and their bones were carried back to their village for burial (JR 11:33). Special ceremonies were often held for infants who had died one or two months after birth. Brébeuf (JR 10:273) described how infants were placed in the ground "on the road", so that if a woman passed over them, the children could re-enter a womb and be reborn.

Burial in the village cemetery was only temporary. After a period ranging between eight and twelve years, the remains would be disinterred for



FIGURE 1
A Huron village primary cemetery as illustrated in the works of Samuel de Champlain Vol. 3 (Biggar 1929:162).

the Feast of the Dead and ossuary burial (JR 10:143; Champlain 1929:161; Sagard 1939:211). Those who had died in battle or through drowning or suicide, were believed to have evil souls and were therefore not buried in the ossuary (JR 10:146:182; 39:32). The remains of young and old individuals were also not removed for ossuary burials because it was believed that they were not strong enough to make the journey to the land of the souls (JR 10:143).

The ethnohistoric descriptions of the Feast of the Dead suggest that the ceremony was largely the affair of one or another of the five "tribes" that made up the Huron Confederacy. Champlain (1929:161) described how all the men of the country would gather in a general council to decide where the ceremony was to take place. Brébeuf (JR 10:279) stated that usually there was "a single feast in each nation". However, on the basis of the large number and variations in size of contact period ossuaries in Huronia, it has been

suggested that groups involved in ossuary burial varied from individual villages to groups of related villages (Trigger 1969:107; Heidenreich 1971:149).

The groups of related villages involved may have at times consisted of most or all of a tribal group. For example, the Ossossané ossuary was to have originally included the dead from the thirteen or fourteen villages of the Attignawantan (JR 10:279:291). Based on ethnohistoric and archaeological evidence, it is probable that the groups involved in ossuary burial varied from a single village to an entire tribe. Political, socio-economic and geographical factors no doubt determined the size of the group involved. In the case of the Ossossané ossuary, five villages of the Attignawantan held their own Feast of the Dead because of a trade dispute *they* were having with the other Attignawantan communities (JR 10:279).

For palaeodemographic analysis, we must attempt to determine which groups were involved in a particular reburial event and, more importantly, who was allowed to be reburied in a particular ossuary. The ethnohistoric accounts clearly indicate that neighbouring "tribes" and "foreign nations" were invited to Feasts of the Dead (Champlain 1929:162; Sagard 1939:211; JR 10:279). A council was held to decide where the feast was to take place "to satisfy the whole country and the foreign nations that may be invited to it" (JR 10:281). The French, for example, were invited to the Feast of the Dead at Ossossané in A. D. 1636 (JR 10:303). Thus it seems likely that groups both within the Huron Confederacy and allies outside of it were invited to the ceremony. It is very difficult, however, to distinguish between groups which were invited to witness the ceremony, and those which were allowed to rebury their dead in the ossuary. In part this is because the terms "tribe" and "nation" seem to have referred both to the various Huron tribes and to non-Huron groups. We also cannot assume that the French could distinguish among all the different Huron tribes and foreign allies.

Ethnohistoric accounts of the matter of who could be reburied in Huron ossuaries conflict to some degree. When a feast and ossuary burial was to be held, other "neighbouring tribes" were notified, "so that those who had chosen that town to be the burial place of their relatives may come" (Sagard 1939:211). Some groups outside of the Confederacy were excluded from ossuary burial

by some of the Huron tribes. Brébeuf (JR 10:146) described the belief that in the land of the souls:

...each nation had its own village and if the soul of an Algonkian were bold enough to present itself at the village of the Bear Nation's souls, it would not be well received.

However, the Attignawantans' offer to bury two Frenchmen in the Ossossané ossuary (JR 10:305) indicates that some allies were allowed and even encouraged to rebury their dead in the ossuary. When the French refused the offer, the Jesuits (JR 10:311) stated that:

...our action prevented the Huron from boasting to strange tribes that they were relations to the French, and they were afraid they would say that the friendship was only in appearance, since we had not let the bones of our Frenchmen mingle with theirs.

The Feast of the Dead had very clear political, ideological and symbolic functions. By having the bones of their loved ones united in death, different groups became united in friendship (Champlain 1929:162). The eagerness of the Attignawantan to secure their alliance with the French through ossuary burial supports the hypothesis that other trading alliances were strengthened in a similar fashion. While the reburial in the same ossuary of related Huron groups may not have affected their demographic profile, the addition of individuals from non-Huron, non-agricultural groups could have resulted in ossuaries in the historic period which contained diverse and biologically unrelated populations. We need to know what proportion of an ossuary was made up of "outsiders", and also to what extent the demographic characteristics were different from those of the Huron.

Until the mid-1970s there was little archaeological data about non-ossuary burial practices among Late Iroquoian groups. Recent *large* scale and long term excavation projects directed toward the total excavation of village sites have increased our understanding of this practice.

It has long been recognized that infants were under-represented in some ossuary burials. Brébeuf's (JR 10:273) description of the burial of infants within villages has been substantiated by archaeological work. A practice not mentioned by the ethnohistoric sources was the burial of infants within houses (Kapches 1976). This type of infant burial has been found in small numbers on many proto-Huron and Huron sites in southern Ontario

such as Ball (Knight and Melbye 1983), Benson (Ramsden and Saunders 1987), Copeland (Kapches 1976), Mackenzie (Saunders 1986) and Warminster (Kapches 1976). However, the number of in-house infant burials seems to represent a negligible proportion of the probable deaths in this age category for villages of this size. Archaeologists still seem to be missing large numbers of infant remains that never made it either to ossuaries or to in-house burials.

The variability in the age, placement, position and contents of infant burials probably reflects the different motives behind the practice (Ramsden and Saunders 1987:8). The exclusion of large numbers of infants from some ossuary samples suggests that alternative burial practices did exist that have not *yet* been identified archaeologically. The exclusion of an unknown number of infants from some ossuaries has serious consequences for palaeodemographic analysis (Jackes 1986:38).

An alternative treatment of the dead relating to all age groups was cremation. The amount of cremated material found in ossuaries varies greatly. Some contain no cremated material, while others, such as Uxbridge, contain a significant amount. Of thirty-two cremated individuals identified at Uxbridge (out of a possible total of fifty), six were immature (Pfeiffer 1986:24). It appears that no criteria of sex or age determined who was cremated (Ibid). While some of the cremated adult males may have been warriors (JR 11:133), the motives for cremating females and males of other age groups remain undetermined.

Although the evidence for adult non-ossuary burial among the Huron has increased dramatically in the last twenty years, the practice was first identified in Huronia by G. E. Laidlaw and A. E. Hunter. Laidlaw (1899; 1901; 1903; 1912) and Hunter (1901) noted that patches of single graves were common in central and eastern Huronia, but were absent in the west. The large number of individual burials in Medonte Township led Hunter (1901:71) to suggest that single burial was more common among the Attigeeonongnahacs than it was among the other Huron tribes. On the basis of a preliminary analysis of the *survey* notes of Hunter and Laidlaw, Heidenreich (1971:151) suggested that ossuary burial may not have been practised by all Huron tribes. Analysis of the notes of Boyle, Hunter, Laidlaw and Wintemberg might identify different Huron burial patterns.

Although the diversity of adult burial patterns among the Neutral is well known (M. J. Wright

1981; Noble 1985:140), the evidence of adult non-ossuary burial among the Huron seems to be slight. This may be the result of the scarcity of large scale and long term excavations of complete Huron villages and their surrounding areas. At present very few Huron village sites have been completely, or nearly completely, excavated. As would be expected, our only substantial reported samples of adult non-ossuary burials come from three such sites: Keffer, Draper and Ball.

At the late prehistoric Keffer site, twenty-eight individuals (adults, subadults and infants) were recovered from twenty-six burial pits (Spence 1986:43). Although most of these burials were within the village itself, three adult burials were recovered from the excavation of eight burial pits in a portion of the nearby village cemetery. On this basis it is suggested that as many as 25% of the adults buried in the village cemetery were excluded from ossuary burial (Spence 1986:41). At the roughly contemporary Draper site and the historic period Ball site, fewer primary adult burials were found within the village (Williamson 1978; Knight and Melbye 1983). Although at Draper this may be due to the lack of excavation of some open areas, the data from these three sites strongly suggest that Huron burial practices varied through time and space (Spence 1986). The different numbers of individual burials in different parts of Huronia also suggest that burial practices varied from tribe to tribe, and that not all Huron groups practised ossuary burial to the same degree.

Do ossuaries contain most of the populations of the communities that they were derived from?

Ethnohistoric and archaeological evidence indicates that adults, subadults and infants were often excluded from ossuary burial. The use of ossuary and non-ossuary burial in historic Neutral village sites indicates that a large and unknown proportion of the people of these communities may not have been buried in ossuaries (Noble 1985:140). Figure 2 shows a non-ossuary interment of an adult at the Macpherson site. Although the combination of ossuary and non-ossuary burial was more common among the Neutral (M. J. Wright 1981:121), it was present among some proto-Huron and Huron groups, among whom the composition of ossuaries changed through time. As the Huron trade network expanded in the sixteenth and seventeenth centuries, the access to os

suary burial for outside groups may also have increased, given the political and ideological nature of the ceremony. The Feast of the Dead may have become more of a political statement on a larger scale, developing from a symbol of clan and group unity to a symbol of tribal and confederacy unit. In the late historic period changes in ossuary burial accelerated as disease, large scale warfare and French efforts at converting the Huron led to further alteration of the composition of ossuaries. Larger and larger proportions of the community may have been excluded from ossuary burial.

Interpretations of the causes and processes involved in non-ossuary burial are largely speculative because of the nature of the archaeological and skeletal evidence. We are still far from understanding how common non-ossuary burial practices were for any particular Huron group at any given time because very few Late Iroquoian sites have been completely excavated. Burial between houses, on the periphery of villages, just outside the palisade or in cemeteries nearby are less likely to be found, because these areas are rarely tested or completely excavated (Warrick and Christie 1986:26). This may be due to lack of time, money, or of interest in investigating areas of sites which yield little in the way of settlement data.

Another complication is the current political problem associated with the excavation of native burials, which has resulted in a lack of burial investigations other than salvage projects. The absence of data on non-ossuary burials for some Iroquoian groups may be a result of the research strategies employed by archaeologists, rather than an indication of the actual burial customs of these cultures. Unless field techniques are adapted to recover this information and researchers are motivated to pursue these questions, any assumptions concerning the burial practices of these cultures must remain tenuous.

What social units are represented by ossuary burials?

Ethnohistoric and archaeological evidence indicates that the social units involved in ossuary burial varied greatly. Several factors contributed to this variation. Change through time has already been mentioned. With the development of confederacies and increased tribal identity in the late sixteenth and seventeenth century, the scale and political nature of ossuary burial appears to have increased. Other political and economic factors

may also have affected ossuary composition, such as the trade dispute among the Attignawantan in A. D. 1636.

Among the Huron, the importance and strength of relationships to outside groups may have varied through time and from group to group. While the Attignawantan did not allow their Algonkian allies to be buried in their ossuaries, other groups, such as the Ahrendarrhonon, may not have been as exclusive (Trigger 1969:108). It is possible that captives, who were frequently adopted into Huron families, were also buried in their ossuaries. This would have important implications for studies of biological affinity, and would weaken the assumption that ossuary populations represent isolated breeding populations (Molto 1983:83).

Can we assume that there was a fixed eight to twelve-year interval between ossuary burials?

Indirect ethnohistoric evidence suggests that ossuary burial was associated with village move-

ment (JR 10:145; 10:275). If this is true, then the ethnohistoric estimates of ten to thirty year periods between village movements may also be applied to ossuary burials (JR 15:153; 16:229; Champlain 1929:124; Sagard 1939:92). On the basis of the number of known historic ossuaries in Huronia Trigger (1969:108) has suggested that ossuary burial occurred each time a large village changed location. Recent studies of trade bead sequences suggest that large villages, such as the Ball site, were occupied for as long as thirty years (Fitzgerald 1986:4). In other cases ossuaries may have been used by entire tribes. The time interval between mass reburial events could have varied considerably, depending on the size of the tribe, the number of villages it contained and the nature of their local resources. We cannot accept ethnohistoric observations and estimates without reservation or independent examination. Even if the eight to twelve year interval is accepted for the historic period, the continuous evolution of the functions of ossuary burial prevents them from being projected into the past.

Do ossuary burials represent stable and relatively isolated communities?

The heterogeneous nature of some ossuary samples may have been due to population movements and the nucleation of small villages to form larger settlements, such as occurred with the Draper site community (Finlayson 1985:439). It is probable that the new occupants of the village reinforced their alliance through common burial (Molto 1983:83). The composition of the ossuary from this site could be very different from that of the original individual villages.

Also movements of some proto-Huron groups into northern Simcoe Country and the upper Trent Valley appear to have taken place (Ramsden 1977:286; Trigger 1985:57). Several villages in the upper Trent drainage, such as Benson, Coulter and Kirche, may have incorporated people from other villages and areas into their community (Nesmith 1981:190; Damkjar 1982:145). Large numbers of St. Lawrence Iroquois refugees were also possibly incorporated into Huron communities in south-central Ontario at the end of the sixteenth century (Trigger 1985:148). Our interpretation and identification of the heterogeneous nature of many Middle and Late Iroquoian villages is still a recent development in Iroquoian archaeology. The archaeological evidence available

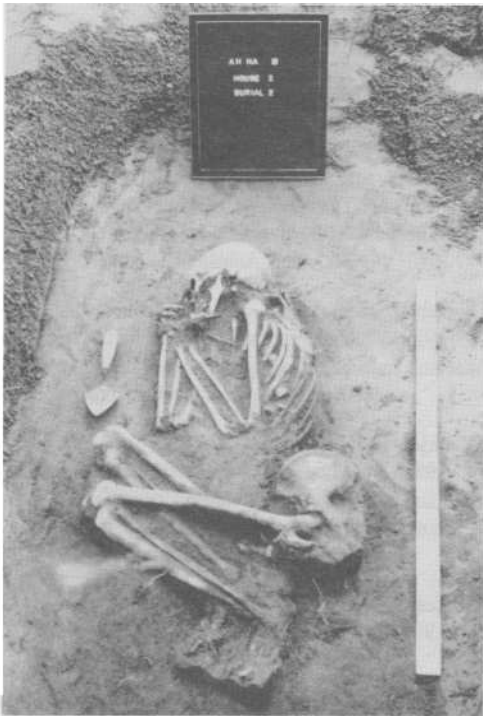


FIGURE 2

An adult in-house burial from the Macpherson site. Courtesy of Dr. S. Saunders.

at present suggests that Late Iroquoian communities were not completely sedentary, nor did they form isolated and stable breeding populations.

Conclusions

An analysis of the ethnohistoric and archaeological evidence relating to Huron burial practices has shown that many of the assumptions that are held by palaeodemographers concerning these burial samples may be unwarranted. If ossuary burials were associated with village movement the period between ossuary burials for any one community would have varied depending upon the size of the group and the nature of their surrounding hinterland. The social units directly involved in ossuary burial varied through time and could be decided upon arbitrarily for political or any of a number of other reasons. The populations which made up these ossuaries were not necessarily fully sedentary, isolated communities. Groups did sometimes move over long distances, refugees and political prisoners were incorporated into village communities, and smaller villages joined to form larger "towns". The assumption that all Huron groups placed most of their dead in ossuaries is based on negative evidence and a biased archaeological sample. Despite these limitations, the evidence that we do have of Huron non-ossuary burial practices, derived from archaeology and ethnohistory, suggests that a significant proportion of the population of communities may have been excluded from ossuary burial. However, alternate burial practices did seem to vary both geographically and temporally within Huronia.

Before palaeodemographic reconstructions can be made of any particular ossuary sample we must convince ourselves that there are no other burial features associated with the site or ossuary in question. This may involve extensive survey and testing within the village and in the site's surrounding hinterland. This can be helped by archival research, such as the re-examination of old archaeological or survey reports which may mention related burial features that are now gone. The importance of this type of research has recently been shown by Poulton (1987:23) through the analysis of the burial features associated with the Mackenzie site. The political problems which are currently associated with native burial features must also be dealt with to encourage non-salvage research of Iroquoian burial practices.

We cannot ignore the large samples of human remains provided by ossuaries. But if we make unfounded assumptions concerning the nature of these samples, the interpretations and conclusions that we arrive at will be highly questionable.

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References cited

- Anderson, J. E.
1961 The People of Fairtry. National Museum of Canada, Bulletin 193. Contributions to Anthropology 1961-1962, Part 1.
- Angel, J. L.
1969 The Basis of Paleodemography. *American Journal of Anthropology* 30:427-438.
- Bocquet-Appel, J. P., and C. Masset
1982 Farewell to Paleodemography. *Journal of Human Evolution* 11:321-333.
- Buikstra, J. E., and J. H. Mielke
1985 Demography, Diet and Health. In: *The Analysis of Prehistoric Diets*, Gilbert and J. H. Mielke (ed.) 360-422. Academic Press, Orlando.
- Champlain, Samuel de
1929 *The Works of Samuel de Champlain*. Henry Biggar (ed.), Publications of the Champlain Society, Toronto.
- Damkjar, E. R.
1982 The Coulter Site and Late Iroquoian Migrations to the Upper Trent Valley. Unpublished M. A. thesis, Simon Fraser University.
- Fitzgerald, W. R.
1986 Is the Warminster Site Champlain's Cahiagué? *Ontario Archaeology* 45:3-8.
- Finlayson, W. D.
1985 The 1975 and 1978 Rescue Excavation at the Draper Site: Introduction

- and Settlement Patterns. National Museum of Man, Mercury Series. *Archaeological Survey of Canada* Paper No. 130.
- Hassan, F. A.
1981 *Demographic Archaeology*. New York, Academic Press.
- Heidenreich, C. E.
1971 *Huron: A History and Geography of the Huron Indians 1600-1650*. McClelland and Stewart Ltd., Toronto.
- Hickerson, Harold
1960 The Feast of the Dead among the Seventeenth Century Algonkians of the Upper Great Lakes. *American Anthropologist* 62:81-107.
- Hunter, A. F.
1901 Notes on Sites of Huron Villages in the Township of Medonte. Appendix to the Report of the Minister of Education, Ontario. *Annual Archaeological Report* 1901:56-100.
- Jackes, Mary
1985 Pubic Symphysis Age Distributions. *American Journal of Physical Anthropology* 68(3):281-300.
1986 The Mortality of Ontario Archaeological Populations. *Canadian Review of Physical Anthropology* 5(2):33-48.
- Johnston, R. B.
1979 Notes on Ossuary Burial among the Ontario Iroquois. *Canadian Journal of Archaeology* 3:91-103.
- JR
1896- *The Jesuit Relations and Allied 1901 Documents*. R. G. Thwaites (ed.), 73 Volumes. Burrows, Cleveland.
- Kapches, Mima
1976 The Interment of Infants of the Ontario Iroquois. *Ontario Archaeology* 27:29-39.
- Katzenburg, M. A., and R. White
1979 A Paleodemographic Analysis of the Os Coxae from Ossossané Ossuary. *Canadian Review of Physical Anthropology* 1:10-28.
- Knight, D., and J. Melbye
1983 Burial Patterns at the Ball Site. *Ontario Archaeology* 40:37-48.
- Laidlaw, G. E.
1899 North Victoria County. Appendix to the Report of the Minister of Education, Ontario. *Annual Archaeological Report* 1899:41-50.
1901 Notes on North Victoria County Village Sites. Appendix to the Report of the Minister of Education, Ontario. *Annual Archaeological Report* 1901:100-108.
1903 Victoria County. Appendix to the Report of the Minister of Education, Ontario. *Annual Archaeological Report* 1903:101-102.
1912 List of Village Sites in Victoria County. Appendix to the Report of the Minister of Education, Ontario. *Annual Archaeological Report* 1912:62-69.
- Melbye, Jerry
1983 The People of the Ball Site. *Ontario Archaeology* 40:37-48.
- Molto, J. E.
1983 Biological Relationships of Southern Ontario Woodland Peoples: the Evidence of Discontinuous Cranial Morphology. National Museum of Man, Mercury Series, *Archaeological Survey of Canada* Paper #11'
- Nasmith, C. L.
1981 The Kirche Site: A Late Prehistoric Huron Village in the Upper Trent Valley. Unpublished M. A. thesis, McMaster University.
- Noble, W. C.
1985 Tsouharissen's Chiefdom: An Early Historic 17th Century Neutral Iroquoian Ranked Society. *Canadian Journal of Archaeology* 9(2):131-146.
- Pfeiffer, Susan
1980 Spatial Distribution of Human Skeletal Material Within an Iroquoian Ossuary. *Canadian Journal of Archaeology* 4:169-172.
1983 Demographic Parameters of the Uxbridge Ossuary Population. *Ontario Archaeology* 40:9-14.

- 1984 Comparison of Adult Age Estimation Techniques, Using an Ossuary Sample. *Canadian Review of Physical Anthropology* 4:13-17.
- 1986 Morbidity and Mortality in the Uxbridge Ossuary. *Canadian Review of Physical Anthropology* 5(2):23-31.
- Pfeiffer, Susan and P. Lynn
- 1980 The Impact of Adult Age Determination Techniques on Paleodemography. *Canadian Review of Physical Anthropology* 3(1):82. Abstract of paper given at the 8th Annual Meeting of the Canadian Association for Physical Anthropology.
- Pfeiffer, Susan, and P. King
- 1983 Cortical Bone Formation and Diet Among Protohistoric Iroquoians. *American Journal of Physical Anthropology* 60(1):23-28.
- Poulton, D. R.
- 1987 Letters to the Editor. *Arch Notes* 87(1):23-24.
- Ramsden, P.G.
- 1977 A Refinement of Some Aspects of Huron Ceramic Analysis. National Museum of Man, Mercury Series, *Archaeological Survey of Canada* Paper #103.
- 1981 Rich Man, Poor Man, Dead Man, Thief: The Dispersal of Wealth in 17th Century Huron Society. *Ontario Archaeology* 35:35-40.
- Ramsden, P.G. and S. R. Saunders
- 1987 An In-House Infant Burial at the Benson Site. Unpublished manuscript, McMaster University.
- Sagard, Gabriel
- 1939 *Sagard's Long Journey to the Country of the Hurons*. G. M. Wrong (ed.). The Champlain Society, Toronto.
- Saunders, S. R.
- 1986 The Mackenzie Site Human Skeletal Material. *Ontario Archaeology* 45:9-26.
- Spence, Mike
- 1986 The Excavation of the Keifer Site Burials. *Report to the Museum of Indian Anthropology*, London.
- Trigger, B. G.
- 1969 *The Huron Farmers of the North*. Holt, Rinehart and Winston, New York.
- 1985 *Natives and Newcomers: Canada's Heroic Age Reconsidered*. McGill-Queen's University Press, Montreal.
- Van Gerven, D. P., and G. J. Armelagos
- 1983 Farewell to Paleodemography? Rumours of its Death have been greatly exaggerated. *Journal of Human Evolution* 12:353-360.
- Ubelaker, D. H.
- 1974 Reconstruction of Demographic Profiles from Ossuary Skeletal Samples. *Smithsonian Contributions to Anthropology*, No. 18. Washington.
- 1981 Approaches to Demographic Problems in the Northeast. In: *Foundations of Northeast Archaeology*. D. Snow (ed.): 175-194. Academic Press, New York.
- Warrick, Gary and J. Christie
- 1986 Analysis of Human Remains from the Lougheed Site. *Arch Notes* 86-4:22-26.
- Williamson, R. F.
- 1978 Preliminary Report on Human Interment Patterns of the Draper Site. *Canadian Journal of Archaeology* 2:117-127.
- Wright, J. V.
- 1966 The Ontario Iroquois Tradition. *National Museum of Canada, Bulletin* No. 210. Ottawa.
- Wright, M. J.
- 1981 The Walker Site. National Museum of Man, Mercury Series, *Archaeological Survey of Canada* Paper No. 103.